

## PROPOSALS TO AMEND THE CODE

Edited by Nicholas J. Turland &amp; John H. Wiersema

**Synopsis of Proposals on Nomenclature – Shenzhen 2017: A review of the proposals concerning the *International Code of Nomenclature for algae, fungi, and plants* submitted to the XIX International Botanical Congress**Nicholas J. Turland (Rapporteur général)<sup>1</sup> & John H. Wiersema (Vice-rapporteur)<sup>2</sup><sup>1</sup> *Botanischer Garten und Botanisches Museum Berlin, Freie Universität Berlin, Königin-Luise-Str. 6–8, 14195 Berlin, Germany*<sup>2</sup> *United States Department of Agriculture/Agricultural Research Service, National Germplasm Resources Laboratory, Bldg. 003, Beltsville Agricultural Research Center (BARC-West), Beltsville, Maryland 20705-2350, U.S.A.*Author for correspondence: *Nicholas J. Turland, n.turland@bgbm.org*DOI <https://doi.org/10.12705/661.36>

## ■ NOTICE

Each personal member of the International Association for Plant Taxonomy (IAPT) is entitled to participate in the Preliminary Guiding Vote (so-called “Mail Vote”) on nomenclature proposals submitted to the XIX International Botanical Congress, as stated in Division III.4(a) of the *International Code of Nomenclature for algae, fungi, and plants* (hereafter “Code”; McNeill & al. in *Regnum Veg.* 154. 2012 [main text]; Wiersema & al. in *Regnum Veg.* 157. 2015 [App. II–VIII]). Authors of proposals to amend the *Code* and members of the seven Permanent Nomenclature Committees (described in Div.III.2) are also entitled to vote, but no institutional votes (Div.III.4(b)(2)) are allowed. IAPT is sending a PDF voting form (ballot) by e-mail to those IAPT members who have e-mail addresses on file, the authors for correspondence of proposals to amend the *Code*, and the secretaries of the Permanent Nomenclature Committees. A printed ballot is being sent to IAPT members who have no e-mail address on file. If you are entitled to vote but receive no ballot, you may request a PDF or printed ballot from the IAPT Office or download the PDF from the IAPT website after login as a member (<http://www.iapt-taxon.org/pages/login>). The PDF version should be filled out, saved, and returned by e-mail to the IAPT Office at [office@iapt-taxon.org](mailto:office@iapt-taxon.org). Alternatively the printed version may be filled out and sent by airmail or fax to the IAPT Office, Institute of Botany, Slovak Academy of Sciences, Dubravská cesta 9, SK-845-23 Bratislava, Slovakia; Fax: +421 2 59426 150. Ballots must be received no later than 31 May 2017, so that they may be included in the tabulation to be made available to members of the Nomenclature Section of the Congress.

The sessions of the Nomenclature Section, which will take definitive action on proposals, will be held in Lecture Hall 502, 5th Floor, Peking University HSBC Business School, University Town, Nanshan District, Shenzhen 518055, Guangdong, China, from Monday, 17 July 2017 (beginning at 08:30 hours) to Friday, 21 July 2017 (see <http://www.ibc2017.cn/nomenclature/>).

Each person registered for at least one full day of the Congress is entitled to register as a member of the Nomenclature Section. Registration for the Congress should be done in advance (see <http://www.ibc2017.cn/center/>); the confirmation received will be the evidence of eligibility for registration for the Nomenclature Section, which will start during a welcome reception on Sunday, 16 July, at 17:00–20:00 hours in the basement of the Peking University HSBC Business School at the same address; Nomenclature Section registration will continue on Monday, 17 July beginning at 07:30 hours at Lecture Hall 502 of the Peking University HSBC Business School.

Each member of the Nomenclature Section is entitled to one personal vote in the sessions. Personal votes can neither be transferred nor accumulated; one person never receives more than one personal vote. A member of the Nomenclature Section may be the official delegate of one or more institutions, thereby carrying institutional votes, but no one person is allowed to carry more than 15 votes (including his or her personal vote).

The list of institutional votes at the Shenzhen Congress has been published (Funk & Turland in *Taxon* 65: 1449–1454. 2016). Institutions entitled to vote will receive formal notification by letter from the Rapporteur-général and Vice-rapporteur in the first half of 2017. This letter will be sent by e-mail and regular mail from the IAPT to the correspondents listed for the institutions in *Index Herbariorum*. Institutions should therefore check that their information given in *Index Herbariorum* is current and send any corrections to Dr. Barbara M. Thiers (see <http://sweetgum.nybg.org/science/ih/>). At the Nomenclature Section in Shenzhen, institutional voting cards will be issued on presentation of written notification from the institution designating the delegate who is mandated to carry its vote(s). For this purpose, the completed and signed form at the bottom of the notification letter will suffice.

## ■ INTRODUCTION

This Synopsis repeats the exact wording of the proposals, along with reference to the published justification. The numbered sequence of proposals extends from 001 to 397. The comments by the Rapporteurs were drafted during a working meeting in Berlin from 5–9 December 2016. The Rapporteurs have endeavoured to outline the foreseeable consequences of each of the proposals, irrespective of their personal opinions on desirability. The comments are the result of a consensus between the Rapporteur and the Vice-rapporteur, and both have equal responsibility for them.

As noted on the voting form, there are four voting options: “yes”, “no”, “ed.c.”, and “sp.c.”; all proposals accepted by the Congress will be reviewed by the Editorial Committee prior to the production of the next edition of the *Code*, and any necessary editorial changes will be made; consequently, a “yes” vote only implies approval in principle of the proposal, not necessarily of its exact wording. Unless otherwise noted, an “ed.c.” vote instructs the Editorial Committee to consider inclusion in the *Code* of material in the proposal but does not necessarily require it to do so. A “sp.c.” vote refers the proposal to a Special

Committee to review the matter, either during the Nomenclature Section in Shenzhen or, more likely, prior to the next Congress in 2023; it implies the desire to establish such a Committee. In order to make the result of the ballot as meaningful as possible, instructions have been added in several cases as to how special expressions of opinion, such as certain “ed.c.” votes, will be interpreted.

All proposals that relate to particular groups of organisms were referred to the relevant Permanent Nomenclature Committees (*Code*, Div. III.2) in order that the Committees may give their opinions prior to the Nomenclature Section. These opinions are recorded under the proposals involved, with votes cited in the format (#yes:#no:#abstain). A Committee is considered to support a proposal when more than 50% of the votes cast are “yes” votes. The Nomenclature Committee for Algae has also published its opinions in its most recent report (Prud’homme van Reine in *Taxon* 66: 197–198. 2017), as has the General Committee (Wilson in *Taxon* 66: 189–190. 2017).

Four Special Committees and one Special Subcommittee established at the Melbourne Congress in 2011 have published reports: the Special Committee on Registration of Algal and Plant Names (including fossils) (Barkworth & al. in *Taxon* 65: 656–658 [proposals], 670–672 [report]. 2016); the Special Committee on By-laws for the Nomenclature Section (Knapp & al. in *Taxon* 65: 661–664 [proposals], 665–669 [report]. 2016); the Special Subcommittee on Governance of the Code with Respect to Fungi (May & al. in *Taxon* 65: 918–920 [proposals]; May in *Taxon* 65: 921–925 [report]. 2016); the Special Committee on Publications Using a Largely Mechanical Method of Selection of Types (Art. 10.5(b)) (especially under the *American Code*) (McNeill & al. in *Taxon* 65: 1441–1442 [proposals], 1443–1448 [report]. 2016); and the Special Committee on Institutional Votes (Funk & Turland in *Taxon* 65: 1449–1454. 2016). A fifth Special Committee was established in Melbourne (Wilson in *Taxon* 61: 879. 2012), the Special Committee on Harmonization of Nomenclature of *Cyanophyta/Cyanobacteria* (established in association with relevant appointees from the International Committee on Systematics of Prokaryotes), but unfortunately this Committee was unable to discuss its mandate “To consider ways to harmonize the nomenclature of these ambireginal organisms and avoid multiple names for the same organism” (A. Oren, pers. comm., September 2015), although there is still time to do so.

The proposals are arranged in the sequence of the provisions of the *Code* that they affect, general proposals being listed first. Within each of the provisions, the proposals have been lettered sequentially in the order in which the Rapporteurs believe they might usefully be discussed by the Section. Needless to say, the Section, or its President, is completely free to adopt another sequence for its deliberations.

The numbering of Examples, Notes, and paragraphs of Articles or Recommendations proposed as new follow the numbering given in the published proposals in *Taxon*, i.e. items that would precede the present first item in the *Code* were given the number 0, those placed at the end received a running-on number, and those to be intercalated received *bis* or *ter* numbers. In the proposals to the Shenzhen Congress this has provided a unique numbering system. This system is not of course intended to bind the future Editorial Committee in any way.

## ■ ACKNOWLEDGEMENTS

We thank the International Association for Plant Taxonomy for financial support for the Rapporteurs’ meeting of 5–9 December 2016. We also thank Thomas Borsch, Director of the Botanischer Garten und Botanisches Museum Berlin, Freie Universität Berlin,

for hospitality and facilities provided during the Rapporteurs’ meeting. Werner Greuter, John McNeill, Vincent Demoulin, and Paul van Rijkcevsorsel provided helpful comments. Patrick Herendeen (Secretary of the Nomenclature Committee on Fossils), Tom May (Secretary of the Nomenclature Committee for Fungi), Willem Prud’homme van Reine (Secretary of the Nomenclature Committee for Algae), and Karen Wilson (Secretary of the General Committee) are thanked for eliciting opinions on relevant proposals from their respective Committees. Mats Wedin, President of the International Association for Lichenology (IAL), is thanked for eliciting opinions from the IAL Council on three proposals concerning lichen names. Paul van Rijkcevsorsel’s “Overview of editions of the *Code*” (<http://www.iapt-taxon.org/historic/index.htm>) greatly facilitated tracing the history of provisions of the *Code*. Gary Kinard (United States Department of Agriculture) is also thanked for proofreading a draft of the Synopsis.

## ■ PROPOSALS TO AMEND THE CODE

### General Proposals

*Prop. A–I (346–354 – Hawksworth in Taxon 65: 915)* Instruct the Editorial Committee to make the following changes in terminology throughout the *Code*, in accordance with the recommendations of the International Committee on Bionomenclature.

*Prop. A (346 – Hawksworth in Taxon 65: 915)* Replace “effectively published” by “published”.

*Prop. B (347 – Hawksworth in Taxon 65: 915)* Replace “validly published” by “established”.

*Prop. C (348 – Hawksworth in Taxon 65: 915)* Replace “legitimate” by “compliant”.

*Prop. D (349 – Hawksworth in Taxon 65: 915)* Replace “illegitimate” by “non-compliant”.

*Prop. E (350 – Hawksworth in Taxon 65: 915)* Replace “deposited” by “registered”.

*Prop. F (351 – Hawksworth in Taxon 65: 915)* Replace “correct” by “accepted”.

*Prop. G (352 – Hawksworth in Taxon 65: 915)* Replace “listed” by “protected”.

*Prop. H (353 – Hawksworth in Taxon 65: 915)* Replace “nomenclatural type” by “name-bearing type”.

*Prop. I (354 – Hawksworth in Taxon 65: 915)* Replace “name and type” by “nominal taxon”.

*Prop. J (010 – van Rijkcevsorsel in Taxon 63: 206)* Replace “based on a generic name” by “formed from a generic name (see Art. 16.1, 18.1, and 19.1)” (*mutatis mutandis*) in Art. 7.1, 10.6, 10.7, 18.3, 19.6, and 52.3.

*Prop. K (156 – van Rijkcevsorsel in Taxon 65: 403)* In Art. 9.3, 9.5, and throughout the *Code*, reserve “designate as type” for cases where it concerns a nomenclatural type, and use “assign as type” when it concerns a paratype or syntype.

*Prop. L (175 – van Rijkcevsorsel in Taxon 65: 405)* Instruct the Editorial Committee to bring the citation of autonyms throughout the *Code* in accordance with Art. 22.1 and 26.1.

**Rapporteurs’ comments** – *Prop. A–I* follow recommendations made by the International Committee on Bionomenclature (see David & al. in *ZooKeys* 192: 67–72. 2012) to harmonize terminology across the separate Codes of nomenclature. Of 18 terms recommended by that Committee (see Table 1 in David & al., l.c.: 69), nine are already used in the *Melbourne Code* and the other nine are proposed here. The proposer hopes that, if the *International Code of Nomenclature for algae, fungi, and plants* adopts some of the terms, then the *International Code of*

*Zoological Nomenclature* (ed. 4, International Commission on Zoological Nomenclature, 1999; see <http://www.nhm.ac.uk/hosted-sites/iczn/code/>) will do likewise. Those who consider the benefits of harmonized terminology to outweigh any confusion that might result from adopting some or all of these terms will presumably favour the proposals.

*Prop. J* seeks to make clear the distinction between a new name based on a basionym or replaced synonym (Art. 6.10 and 6.11) and a suprageneric name based on a generic name. In the latter case, the suprageneric name is rather *formed from* the stem of the generic name, which is not the basionym or replaced synonym. This distinction is illustrated in Art. 6 Ex. 11. The Editorial Committee had actually considered making this distinction when editing the *Melbourne Code*, but in the absence of Congress approval felt uneasy that it might be exceeding its mandate. A “yes” vote would provide that mandate.

*Prop. K* would adopt in the *Code* the verb “assign” (instead of “designate”) for syntypes and paratypes. The rationale is to make a distinction between these types and the types that determine the application of names, i.e. holotypes, lectotypes, neotypes, and epitypes. The proposer suggests this “would help readability”, but the Rapporteurs question whether it might be unnecessarily complicating, especially when one considers conserved types, which are neither designated nor assigned.

*Prop. L*, if accepted and implemented in the way the proposer envisages, would have far-reaching consequences for current practice in citing autonyms. The proposer interprets Art. 22.1 and 26.1 as ruling that autonyms are not followed by an author citation, whereas these Articles actually state that the final *epithet* is not followed by an author citation, thus otherwise citing an author for the autonym (the name) is presumably permitted. *Prop. L* would either entirely strip the *Code* of author citations for autonyms, or “change the *Code* so as to provide for this [the current] way of citing autonyms”. The Rapporteurs argue that the citation of autonyms throughout the *Code* is not in conflict with Art. 22.1 and 26.1 and so the proposal is redundant.

#### Preamble

*Prop. A* (230 – *Nakada in Taxon 65: 642*) Amend phrase in the second parentheses of Preamble 8 as follows (new text in bold, deleted text in strikethrough):

“but excluding *Microsporidita*-**apicomplexans, ciliophorans (ciliates), foraminiferans, microsporidians, and radiolarians [in traditional sense, including acantharians, phaeodarians, and polycystineans]**”

*Rapporteurs’ comments* – *Prop. A*, together with Art. 13 *Prop. A*, Art. 45 *Prop. B*, and Art. 54 *Prop. F*, seek to rule that the nomenclature of certain specified organisms, even when they are treated as algae, is not governed by the *International Code of Nomenclature for algae, fungi, and plants* but by the *International Code of Zoological Nomenclature* (in the same manner as for the *Microsporidita*, even when they are treated as fungi). The Nomenclature Committee for Algae does not support these four proposals (votes 2 : 10 : 1).

#### Article 4

*Prop. A* (123 – *Nakada in Taxon 65: 192*) Add a new Article after Art. 4.2:

“4.2bis. The principal and secondary ranks are collectively known as stem ranks. A satellite rank is a rank denoted by a stem rank term with a single prefix (satellite prefix; e.g. “sub-”) indicating relative position of the rank.”

*Prop. B* (124 – *Nakada in Taxon 65: 192*) Amend Art. 4.3 as follows (new text in bold):

“4.3. Further **secondary** ranks may also be intercalated or added, provided that confusion or error is not thereby introduced. **However, no stem rank may be intercalated between another stem rank and its satellite ranks.**”

*Prop. C* (125 – *Nakada in Taxon 65: 192*) Add a new Article after Art. 4.3:

“4.3bis. Further satellite prefixes in addition to “sub-” may also be used, provided that confusion or error is not thereby introduced.”

*Prop. D* (126 – *Nakada in Taxon 65: 192*) Add a new Note after Art. 4.3bis:

“*Note Ibis*. A satellite prefix may not be added to rank-denoting terms of satellite ranks. Such usage (e.g. supersuborder) potentially introduces confusion and error.”

*Rapporteurs’ comments* – *Prop. A–D*, together with Rec. 4A *Prop. A* and *B* and Art. 37 *Prop. D*, form a suite of proposals aimed at avoiding confusion in rank-denoting terms. Two new categories of ranks are introduced: “stem” ranks, i.e. principal or secondary ranks, and “satellite” ranks, i.e. those ranks denoted by a prefix (e.g. “sub-” [see Art. 4.2] and “super-”, but presumably any other prefix) added to a stem rank. Secondary ranks are extended beyond their current definition in Art. 4.1 to include any ranks intercalated or added under Art. 4.3. Provisions for the relative positions of these ranks and for dealing with misplaced ranks are provided in Art. 4, Rec. 4A, and Art. 37. The proposed system seems reasonable and the Rapporteurs do not foresee any obvious problems, although the complexity introduced at the Vienna Congress into the regulation of ranks is made more complex still. Some may consider that the current risk of introducing confusion or error (Art. 4.3) justifies the additional regulation.

#### Recommendation 4A (new)

*Prop. A* (127 – *Nakada in Taxon 65: 192*) Add a new Recommendation 4A:

“4A.1. When a satellite prefix other than “sub-” is used, its order relative to associated stem ranks should be consistent with common usage, and be consistent throughout a single publication.”

*Prop. B* (128 – *Nakada in Taxon 65: 192*) Add a new Example after new Rec. 4A.1:

“*Ex. 1*. The following satellite prefixes (in descending sequence relative to associated stem ranks) are commonly used: super-, [stem rank], sub-.”

*Rapporteurs’ comments* – *Prop. A* and *B* are discussed under Art. 4 *Prop. A–D*.

#### Article 5

*Prop. A* (023 – *Vázquez in Taxon 63: 1142*) Insert a new Art. 5.2:

“5.2. Isolated individuals with aberrant characteristics not caused by an invading foreign organism, and with limited or no sexual and asexual reproduction, which have been formerly designated as *lusus naturae*, monstrosities, or teratological taxa; or have been misidentified but named as genera, species, subspecies, varieties or formae, are to be named under the infraspecific rank *lusus naturae* (*lus*).”

*Prop. B* (024 – *Vázquez in Taxon 63: 1142*) Add two new Examples after new Art. 5.2:

“*Ex. 1*. The correct name of *Himantoglossum hircinum* monstr. *johannae* Degen (in Magyar Bot. Lapok 11: 308. 1913) is *H. hircinum lus. johannae* Degen.”

“*Ex. 2*. The lectotype of the name *Rhus hirta* (L.) Sudw. (in Bull. Torrey Bot. Club 19: 81. 1892) is a monstrosity. The infraspecific taxon that includes the type is named *R. hirta lus. hirta*, and not *R. hirta f. hirta* (Reveal in Taxon 40: 491. 1991). On the other hand, while the

lectotype of the name *Cissus verticillata* (L.) Nicolson & C.E. Jarvis was considered a “monstrosity”, this was caused by the smut *Mycosyrinx cissi* (Poirot) G. Beck, so the infraspecific taxon that includes the type is named *C. verticillata* f. *verticillata* (Nicolson & Jarvis in Taxon 33: 726–727. 1984).”

**Rapporteurs’ comments** – Prop. A and B seek to reintroduce, and provide formal nomenclatural status to, a concept that was deleted from the Leningrad Code (Stafleu & al. in Regnum Veg. 97. 1978) nearly 40 years ago, the cases now being handled effectively through conservation or rejection. No consideration of the implications of this reinstatement to other provisions of the Code are provided.

#### Article 6

Prop. A (301 – Greuter in Taxon 65: 898) Add a sentence at the end of Art. 6.1 (new text in bold):

“6.1. Effective publication is publication in accordance with Art. 29–31. **For the purposes of this Code, save specified exceptions, only material that is effectively published is taken into account.**”

Prop. B (152 – van Rijckevorsel in Taxon 65: 403) In Art. 6.3 and 12.1, add 14.9 to the “but see Art. 14.15”.

Prop. C (153 – van Rijckevorsel in Taxon 65: 403) Rephrase Art. 6 Note 2, so that it reads:

“Note 2. Any one name, with one particular spelling (but see Art. 61) and one particular type, can be validly published only once. Any later attempt to re-publish a name (with the same spelling and the same type), an “isonym”, has no nomenclatural status. The name is always to be cited from its place of valid publication; isonyms are disregarded (but see Art. 14.15).”

Prop. D (154 – van Rijckevorsel in Taxon 65: 403) Add an Example to Art. 6 Note 2:

“Ex. 2bis. When published, *Dalbergia brownei* (Jacq.) Schinz (1898) was nomenclaturally superfluous because Schinz cited the legitimate *Hedysarum ecastaphyllum* L. (1759) as a synonym; as it has a basionym (*Amerimnon brownei* Jacq.), it is nevertheless legitimate (Art. 52.3). The later attempt at correction “*Amerimnon Brownii* Jacq. [...] = *D. Brownei* Urb.” (1905) is an isonym that has no nomenclatural status.”

Prop. E (289 – Sennikov & Calonje in Taxon 65: 894) Convert Art. 6 Note 2 into a separate paragraph and amend its text as follows (new text in bold, deleted text in strikethrough), and add a new Example:

“Art. 6.3bis. The same name based on the same type, published independently at different times perhaps by different authors, **or re-used for the same taxon without exclusion of the type of its name (Art. 48.1)**, is termed an isonym. Only the earliest of these “isonyms” has nomenclatural status (**can be treated as a nomenclatural novelty**). The name is always to be cited from its original place of valid publication, and later isonyms may be disregarded (but see Art. 14.15).”

“Ex. 2bis. *Euphorbia villosa* Waldst. & Kit. ex Willd. (1799) was validly published by Willdenow with a reference to the then unpublished work of Waldstein & Kitaibel, *Descriptiones et icones plantarum rariorum Hungariae*. A later description of the same species by Waldstein & Kitaibel does not constitute valid publication of a homonym.”

Prop. F (149 – Sennikov & Somlyay in Taxon 65: 196) Amend Ex. 2 under Art. 6 Note 2 as follows (deleted text in strikethrough, new text in bold):

“Ex. 2. In publishing “*Canarium pimela* Leenh. nom. nov.”, Leenhouts (in *Blumea* 9: 406. 1959) re-used the illegitimate *C. pimela*

K. D. Koenig (1805), **attributing crediting** it to himself and basing it on the same type. He thereby created a later isonym without nomenclatural status.”

Prop. G (001 – van Rijckevorsel in Taxon 63: 205) Rephrase the second sentence of Art. 6.4 so that it reads:

“[6.4. ...] A name that according to this Code was illegitimate when published cannot become legitimate later except by the conservation or sanctioning of (a) the name itself (Art. 14.1 and 15.1), (b) the generic name on which it is based (in the case of the name of a family or a subdivision of a family, see also Art. 18.3 and 19.6), or (c) the corresponding family name (in the case of a name of a subdivision of a family, Art. 19.6).”

Prop. H (235 – Wiersema & al. in Taxon 65: 644) Amend Art. 6.4, last sentence, as follows (new text in bold):

“6.4. [...] A name that according to this Code was illegitimate when published cannot become legitimate later unless Art. 18.3 or 19.6 so provide or unless it, **or, if a superfluous name (Art. 52), its basionym**, is conserved or sanctioned.”

The Editorial Committee may wish to add the following Example after Art. 52.3:

“Ex. 18bis. *Wormia suffruticosa* Griff. ex Hook. f. & Thomson (1872), nom. cons., was nomenclaturally superfluous when published because of the inclusion of *W. subsessilis* Miq. (1861), nom. rej. With conservation, the previously illegitimate *W. suffruticosa* became available to serve as basionym of *Dillenia suffruticosa* (Griff. ex Hook. f. & Thomson) Martelli (1886), a superfluous name when published in that it also included *W. subsessilis* but with a basionym now legitimate.”

Prop. I (091 – Niederle in Taxon 64: 1066) Change Art. 6.9 as follows (new text in bold):

“6.9. The name of a new taxon (e.g. genus novum, gen. nov., species nova, sp. nov.) is a name validly published in its own right, i.e. one not based on a previously validly published name; **a name validly published as a new combination, a name at new rank, or a replacement name in accordance with Art. 41 is not the name of a new taxon.**”

If this proposal is accepted, the definition in the Glossary will also need to be amended editorially.

Prop. J (303 – Greuter in Taxon 65: 898) Add a phrase in Art. 6.10 (new text in bold):

“6.10. A new combination (combinatio nova, comb. nov.) or name at new rank (status novus, stat. nov.) is a new name based on a legitimate, previously published name, which is its basionym. The basionym **does not itself have a basionym**; it provides the final epithet, name, or stem of the new combination or name at new rank. (see also Art. 41.2).”

Prop. K (304 – Greuter in Taxon 65: 898) Add a phrase in Art. 6.11 (new text in bold):

“6.11. A replacement name (avowed substitute, nomen novum, nom. nov.) is a new name based on a legitimate or illegitimate, previously published name, which is its replaced synonym. The replaced synonym **does not itself have a basionym**; when legitimate, it does not provide the final epithet, name, or stem of the replacement name (see also Art. 58.1).”

Prop. L (242 – Nakada in Taxon 65: 646) Add a new Note after Art. 6.10:

“Note 2bis. A descriptive name used at a rank different from that at which it was first validly published is not a name at new rank because descriptive names may be used unchanged at different ranks (see Art. 16.1(b)).”

*Prop. M (155 – van Rijkevorschel in Taxon 65: 403)* Delete Art. 6 Ex. 13 and the second clause of Art. 6 Note 4.

*Prop. N (297 – Greuter in Taxon 65: 897)* Reword Art. 6.11 (new text in bold, deleted text in strikethrough):

“6.11. A replacement name (~~avowed substitute~~, nomen novum, nom. nov.) is a new name **published as an avowed substitute for** ~~based on~~ a legitimate or illegitimate, previously published name, which is its replaced synonym. The replaced synonym, when legitimate, does not provide the final epithet, name, or stem of the replacement name (see also Art. 58.1).”

The following example is provided for possible use by the Editorial Committee:

“[Ex. n.] Gussone (1844) described plants from the Eolie Islands near Sicily as *Helichrysum litoreum* Guss., citing in synonymy *Gnaphalium angustifolium* Lam. (1788). At the end of the protologue, Gussone wrote: “nomen [*G. angustifolium* Lam.] mutavi confusionis vitendi gratia” [I changed the name to avoid confusion]. He thereby declared that *H. litoreum* is a replacement name based on the type of *G. angustifolium* (from Posillipo near Naples), not on the material described and cited by himself.”

*Prop. O (298 – Greuter in Taxon 65: 897)* Add a new paragraph after Art. 6.11:

“6.11bis. A name not avowedly proposed as substitute for an earlier name is nevertheless a replacement name (a) if it is validated solely by reference to that earlier name or (b) under the provisions of Art. 7.5.”

*Prop. P (300 – Greuter in Taxon 65: 897)* Add another new paragraph after Art. 6.11:

“6.11ter. A name not avowedly proposed as substitute for an earlier name may be treated either as a replacement name or as the name of a new taxon if in the protologue both a potential replaced synonym is cited and, independently, all requirements for valid publication of the name of a new taxon are met. Decision on the status of such a name is to be based on preponderant usage and is to be effected by means of apposite type designation (Art. 9 and 10).”

The following example might be suitable:

“[Ex. n.] When describing *Astragalus penduliflorus* Lam. (1779) using material from the French Alps, Lamarck also cited in synonymy *Phaca alpina* L. (1753) [non *Astragalus alpinus* L. 1753], described from Siberia. It is questionable whether Linnaeus’s and Lamarck’s plant belong to the same species. Greuter (in Candollea 23: 265. 1969) designated different types for the two names, so that, in conformity with preponderant usage, *A. penduliflorus* is treated as the name of a new, European species.”

*Prop. Q (302 – Greuter in Taxon 65: 898)* Add another new paragraph after Art. 6.11:

“6.11quater. A factually incorrect statement of a name’s status as defined in Art. 6.9–6.11 does not preclude its valid publication as a name with a different status; it is treated as a correctable error (see also Art. 41.4 and 41.8).”

**Rapporteurs’ comments** – *Prop. A* would add a clause to Art. 6.1, specifying that only material that was effectively published could be taken into account for the purposes of the *Code*. This seems quite a bold statement, but in fact it mostly reflects current practice. As the proposer explains, the requirement of effective publication is explicitly mentioned in some provisions, but not in others. Placing a general provision in Art. 6.1 would render these explicit provisions superfluous, so they could be editorially deleted, simplifying the *Code*. The “specified exceptions” mentioned in the proposed addition are (to the proposer’s knowledge) Art. 9.3(a) and 9.22 (unpublished illustrations

servicing as types) and Rec. 9A.3 (manuscript notes and annotations on herbarium sheets to guide lectotypification), and it would be desirable to include references to them. The proposer requests that, if the proposal is approved, the Editorial Committee be asked to insert the words “published or unpublished” ahead of “illustration”, in Art. 8.1, so as to avoid any possible doubt as to whether unpublished illustrations may serve as types. However, the Rapporteurs are concerned that placing the new provision in Art. 6, thus making it apply throughout the *Code*, could prevent specimens, which are not “material that is effectively published”, being taken into account and thus serving as types. This concern could be removed by replacing “material” with “text and illustrations”, but there remains the worry that other unwanted consequences might exist. Alternatively, the proposed addition could be placed as a new rule following Art. 32.1, explicitly limiting it to Art. 32–45 (valid publication), and deleting “save specified exceptions”, which are not relevant to valid publication. It could be worded: “32.1bis. For the purposes of Art. 32–45 only material [or: text and illustrations] that is [are] effectively published is [are] taken into account.” All the other explicit mentions of the requirement of effective publication (except that in Art. 7.9) could then be editorially deleted. Those supporting the proposal as originally worded should vote “yes”; those preferring the alternative option (which the Rapporteurs have discussed with the proposer and which he accepted) may so indicate by voting “ed.c.”

*Prop. B* would insert into both Art. 6.3 and 12.1 a reference to Art. 14.9, appropriate because that Article, like Art. 14.15, may permit a name that is not validly published (conserved from a later publication) to have status under the *Code*. See Art. 14 Prop. D.

*Prop. C* seeks a more accurate wording for Art. 6 Note 2 and would slightly change the definition of isonym. Currently the earliest and later usages of a name are isonyms; only the earliest isonym has nomenclatural status and “later isonyms may be disregarded”. By the proposed new definition, only the later usages would be isonyms; they would have no nomenclatural status (as now) and would be disregarded. If Prop. C were accepted, it would be necessary to modify also Art. 14 Note 1, in which the earliest and later usages of a name are regarded as validly published and as isonyms.

*Prop. D* offers an Example for the reworded Note 2. It can be referred to the Editorial Committee.

*Prop. E* is connected with Art. 53 Prop. A and B on distinguishing between homonyms and isonyms. It converts Art. 6 Note 2 to an Article and broadens the definition of an isonym, in that some later usages of a name, without exclusion of its type, would represent isonyms, whereas the current Note 2 requires the later usage to be “based on the same type”. But, as the proposers point out, how do we determine this when a name has not been typified? At first glance, this new wording appears to be the converse of Art. 48.1, where exclusion of the type creates a homonym: if the type is not excluded, should we infer that it has been included in an isonym? Not in all cases, as key to the added wording is the phrase “re-used for the same taxon”, which implies that there must be some basis for concluding that both usages of a name involve the same taxon. Similar logic appears at the end of Art. 41.4 to connect a name to an apparent basionym “applying to the same taxon”. Those who consider that this change will make determination of an isonym easier, thereby avoiding the unnecessary indexing of questionable cases, will vote accordingly. The proposed new wording references Art. 48.1, which relies on Art. 48.2 for the definition of “exclusion of the type”, but the latter provision applies only for the purpose of Art. 48.1, so the Editorial Committee may need to tighten this linkage if this proposal is accepted.

*Prop. F* would replace “attributing” with “crediting” in Art. 6 Ex. 2 because the proposers prefer to reserve the term “attribution” for the authorship that is treated as correct under the rules for a name. Rec. 23A Prop. A and Art. 46 Prop. M include parallel changes.

*Prop. G* forms a set together with Art. 18 Prop. A and B and Art. 19 Prop. B and C concerning the illegitimacy of the name of a family or subdivision of a family. The proposed rewording of Art. 6.4 appears clearer and more precise, eliminating redundancy.

*Prop. H* would amend Art. 6.4 to allow a name that was nomenclaturally superfluous when published, and for that reason illegitimate, to later become legitimate if its replaced synonym is conserved or sanctioned and therefore becomes its basionym; note here Art. 52.3 (“A name that was nomenclaturally superfluous when published is not illegitimate on account of its superfluity if it has a basionym”). On this principle, names have been conserved to overcome illegitimacy on the assumption that new combinations based on them would likewise become legitimate, but Art. 6.4 in its current wording appears to forbid this, hence the proposed amendment.

*Prop. I* together with Art. 41 Prop. A, E, F, P, V, and Z appear to seek to prevent a name validly published as a new combination, name at new rank, or replacement name from instead being validly published as the name of a new taxon, although it is unclear if this is indeed the intent and, if so, how the proposed wording would achieve this. The issue of flexible or correctable status of new names is addressed in Art. 6 Prop. P and Q.

*Prop. J* and *K* are parallel and should be considered together. They aim at a better definition of “basionym” and “replaced synonym” in Art. 6.10 and 6.11, respectively, by specifying that the basionym or the replaced synonym does not itself have a basionym.

*Prop. L* would add a Note after Art. 6.10, which defines a name at new rank, to clarify that descriptive names, which may be used unchanged at different ranks, are not thereby names at new ranks. Art. 16 Prop. B inserts into Art. 16.1(b) a reference to the new Note. If Prop. L is accepted, the Glossary entry for descriptive name might be expanded by the Editorial Committee.

*Prop. M* asserts that any nomenclatural novelty that is a combination is by definition a new combination, and therefore the second clause of Note 4 and Ex. 13 are wrong. However, Art. 6.7 defines a combination as a name consisting of the name of a genus combined with one or two epithets, i.e. the rank-denoting term is not part of the name (cf. Art. 53.4, 21 Note 1, and 24 Note 2). Therefore, when a previously published combination is published at a rank new for that combination but previously used for a different homotypic (Art. 7.3) combination, it could be said that the resulting combination is neither a new combination nor a name at new rank. The phrase “comb. in stat. nov.” (combination in new rank) was coined so that such nomenclatural novelties could be indicated accurately, although it is very rarely used. Accepting the proposal would not actually change the rules. Those who find the second clause of Note 4 and Ex. 13 more confusing than helpful will vote accordingly.

*Prop. N* seeks a more precise definition of replacement name in Art. 6.11, not merely citing “avowed substitute” as an alternative term, but clarifying that a replacement name is published as an avowed substitute for an older name. This meaning was inherent in Art. 7.3 of the *Vienna Code* (“A new name published as an avowed substitute (replacement name, nomen novum) for an older name”; McNeill & al. in *Regnum Veg.* 146. 2006), but was lost when that Article, now Art. 7.4, was amended at the Melbourne Congress.

*Prop. O* adds a new rule to Art. 6.11 to permit a name to be a replacement name under specified circumstances (which accord with

current practice), even if it was not published as an avowed substitute for an older name.

*Prop. P* provides a mechanism for determining the status of a name that meets the requirements for valid publication either as a replacement name or as the name of a new taxon. Some flexibility is permitted, so that preponderant usage can be followed.

*Prop. Q* would explicitly allow a factually incorrect statement about the status of a name (Art. 6.9–6.11) to be treated as a correctable error. Such a statement would not prevent the name from having a different status.

## Article 7

*Prop. A* (008 – *van Rijckevorsel in Taxon* 63: 206) In Art. 7.1 delete “ultimately”.

*Prop. B* (291 – *Sennikov & Calonje in Taxon* 65: 895) Add a new Note after Art. 7.1:

“*Note 1.* As long as a name is not typified or its type is missing, its application may be determined by established interpretation of other elements of the protologue.”

*Prop. C* (299 – *Greuter in Taxon* 65: 897) Reword Art. 7.5 (new text in bold, deleted text in strikethrough):

“7.5. A name that is illegitimate under Art. 52 is **either a replacement name**, typified **either automatically** by the type of the name **(the replaced synonym)** that ought to have been adopted, **or of which the epithet ought to have been adopted**, under the rules **(Art. 7.4 automatic typification)**, or **it is the name of a new taxon, when by a different type was designated or definitely indicated by the author of the illegitimate name. However, if no type was designated or definitely indicated and the type of the earlier name was included in the protologue, e.g. by inclusion (see Art. 52.2) of the type of the name causing illegitimacy** in a subordinate taxon that did not include the evidently intended type of the illegitimate name; ~~typification is not automatic~~. Automatic typification does not apply to names sanctioned under Art. 15.”

*Prop. D* (191 – *Sennikov in Taxon* 65: 407) Revise Art. 7.7 to read (new text in bold), with cross reference to new Art. 9.3bis added if Prop. 190 [Art. 9 Prop. L] is adopted:

“7.7. A name of a new taxon validly published, **not by the reproduction of (see Art. 9.3bis)**, but solely by reference to a previously and effectively published description or diagnosis (Art. 38.1(a)) is to be typified by an element selected from the entire context of the validating description or diagnosis, unless the validating author has definitely designated a different type, but not by an element explicitly excluded by the validating author (see also Art. 7.8).”

*Prop. E* (098 – *Sennikov in Taxon* 64: 1336) Add a new Example under Art. 7.10:

“*Ex. 13bis.* Pfeiffer (Nomencl. Bot. 1: [Praefatio, p. 2]. 1873) explained that he cited species names when he intended to indicate type species for names of genera and sections. This explanation stands as clear indication of the type status for every type designation in this book, even though this indication was not provided for each type designation separately.”

*Prop. F* (096 – *Sennikov in Taxon* 64: 1336) Add a new paragraph to Art. 7 (and editorially in Note 2 replace “Art. 7.9 and 7.10” with “Art. 7.9–7.11”):

“7.11. For purposes of priority (Art. 9.19 and 10.5), designation of a type (lectotype, neotype) may be achieved by referring to the typified name, a later usage or isonym of that name, a new combination, name at new rank, or replacement name based upon that name, or an invalidly published designation that was supposed to be that name,

as long as the designated type conforms with the provisions of Art. 9.11–9.13 and 10.2 when the actual protologue is considered.”

*Prop. G (097 – Sennikov in Taxon 64: 1336)* Add two new Examples under [the new] Art. 7.11 (conditional text in square brackets):

“*Ex. 14.* Pfeiffer (Nomencl. Bot. 2: 1200. 1874) indicated *Sorbus domestica* L. as the generic type (lectotype) of “*Sorbus* Medik.” referring directly to the revised treatment of *Sorbus* L. in Medikus (Gesch. Bot.: 86. 1793). Since the type of *Sorbus* was not explicitly excluded by Medikus, this lectotypification was effective [and had to be followed until a proposal to conserve the name *Sorbus* L. with a different type was ratified by the XIX International Botanical Congress in Shenzhen in 2017].”

“*Ex. 15.* *Allium savranicum* (Nyman) Oxner was lectotypified by Krytzka & al. (in Ukrayins’k. Bot. Zhurn. 57: 695. 2000) in the mistaken belief that this name was validly published as the name of new species by Besser (Enum. Pl.: 55. 1822). However, the first validly published name for this taxon was *A. globosum* var. *savranicum* Nyman (Consp. Fl. Eur. 4: 741. 1882), in the protologue of which Nyman indirectly referred to Besser’s description of the taxon that appeared without a validly published name in a note under *A. caucasicum* M. Bieb. (Schultes & Schultes, Syst. Veg. 7: 1054. 1830). The typification of Krytzka & al. accords with the provisions of Art. 9.11 and 9.12 and is therefore effective when Nyman’s protologue is considered.”

*Prop. H (064 – Hawksworth in Taxon 64: 859)* Insert a new provision in Art. 7, preceding Note 2:

“7.11. For purposes of priority (Art. 9.19, 9.20, and 10.5), designation of a type, on or after 1 January 2019, of the name of an organism treated as fungal under this *Code* (Pre. 8), is achieved only if an identifier (see Art. 42.2) issued by a recognized repository (see Art. 42.3) is cited.”

*Prop. I (065 – Hawksworth in Taxon 64: 859)* Insert a new paragraph in Art. 7 to follow Note 2:

“7.12. For an identifier required by Art. 7.11, the minimum elements of information that must be accessioned for type designations are the name being typified, the author designating the type, and those required by Art. 9.21, 9.22, and 9.23.”

*Prop. J (066 – Hawksworth in Taxon 64: 859)* Insert a new Note 3 in Art. 7 to follow the proposed new Art. 7.12:

“*Note 3.* Issuance of an identifier by a recognized repository presumes subsequent fulfilment of the requirements for effective type designation (Art. 7.7–7.11) but does not in itself constitute a type designation.”

**Rapporteurs’ comments – Prop. A** removes a redundancy that persisted after Art. 16 was amended in the *Melbourne Code*. Under Art. 16.1(a), all automatically typified suprageneric names are directly based on (i.e. formed from) generic names.

*Prop. B* would add a Note to Art. 7.1 that seems to negate that Article, implying that the application of names (at the rank of family or below) may be determined other than by means of types.

*Prop. C* seeks a clearer wording of Art. 7.5, which became more complex when it was amended at the Vienna Congress. If the proposal is accepted, perhaps the clause “e.g. by inclusion (Art. 52.2) of the type of the name causing illegitimacy in a subordinate taxon that did not include the intended type of the illegitimate name” could be cut out of Art. 7.5 and reformulated as a Note by the Editorial Committee.

*Prop. D* is related to Art. 9 Prop. L, and emphasizes that Art. 7.7 applies only to names that are validly published *solely by reference* to a previously published description or diagnosis. In fact, this could be a useful addition to Art. 7.7 regardless of the fate of Art. 9 Prop. L.

*Prop. E* provides an Example that would draw attention to the importance of Pfeiffer’s *Nomenclator botanicus* (1871–1875) as an early (the earliest?) work in which types of names of genera and sections are designated.

*Prop. F* places after Art. 7.10 a new rule on how reference may be made to a name being lecto- or neotypified. Interestingly, the *Code* does not explicitly rule that when a name is so typified it must be referred to somehow, although it is hard to imagine how it could be typified otherwise. The proposed methods of referring to the typified name appear to be precise, because they depend on the same type, except for “an invalidly published designation that was supposed to be that name”, which depends on supposition and could therefore be ambiguous. Those who support the proposal but would want it amended to address the Rapporteurs’ concerns can so indicate by voting “ed.c.”

*Prop. G* provides two Examples to illustrate the new rule of Prop. F and can be referred to the Editorial Committee if that proposal is accepted.

*Prop. H–J* are part of a series of proposals (063–085) “to clarify and enhance the naming of fungi”. These proposals will only affect fungal type designations (other than holotype designations already covered under Art. 42.2), have already been implemented by recognized repositories on a voluntary basis, and seem to have widespread support among mycologists. The Nomenclature Committee for Fungi supports Prop. H–J (votes 12 : 5 : 1).

#### Recommendation 7A

*Prop. A (194 – Gnanasekaran & al. in Taxon 65: 409)* Add a new paragraph to Rec. 7A:

“7A.2. Type specimens should be deposited in any one of the herbaria or collections or institutions listed in *Index herbariorum* or in the *World directory of collections of culture of microorganisms*.”

**Rapporteurs’ comments – Prop. A** would recommend on where type specimens should be deposited, which is a matter of opinion but perhaps not unreasonable. Those who consider the advice useful will vote accordingly. If the proposal is accepted, it could be editorially incorporated into the existing Rec. 7A.1.

#### Article 8

*Prop. A (364 – Wiersema in Taxon 65: 1186)* Add a new footnote to Art. 8.2 and modify the current Art. 8.3 footnote 2 as follows (new text in bold, deleted text in strikethrough):

“8.2. For the purpose of typification a specimen is a gathering<sup>1bis</sup>, or part of a gathering, of a single species or infraspecific taxon ~~made at one time~~, disregarding admixtures (see Art. 9.14). [...]”

“<sup>1bis</sup> **Here and elsewhere in this Code, the term “gathering” is used for a collection presumed to be of a single taxon made by the same collector(s) at the same time from a single locality. The possibility of a mixed gathering must always be considered by an author designating a type, and corresponding caution used.**”

[footnote to Art. 8.3] “<sup>2</sup> Here and elsewhere in this *Code*, the word duplicate is given its usual meaning in curatorial practice. A duplicate is part of a single gathering of a single species or infraspecific taxon ~~made by the same collector(s) at one time. The possibility of a mixed gathering must always be considered by an author choosing a lectotype, and corresponding caution used.~~”

And accordingly amend the definition of gathering in the Glossary.

*Prop. B (249 – Sennikov in Taxon 65: 647)* Add a new paragraph with new Examples under Art. 8.2 as follows:

“8.2bis. For the purpose of Art. 8.2, a gathering (as to included elements) is defined by the original author (for holotypes, syntypes or other original material) or by the typifying author (for lectotypes, neotypes or epitypes).”

“*Ex. Ibis.* Ormerod (in *Taiwania* 51: 157. 2006) designated the right-hand plant of *Hamer 178* in AMES as the holotype of *Goodyera polyphylla* Ormerod, whereas he considered the other plant on the same sheet as belonging to the similar *G. brachyceras* (A. Rich. & Galeotti) Garay & G. A. Romero.”

“*Ex. Iter.* Deng & al. (in *Nordic J. Bot.* 32: 594–597. 2014) designated *Wang & Deng 2358* as the holotype and cited *Wang & Deng 2359* as a paratype of the species name *Spiradiclis coriaceifolia* R. J. Wang. Both specimens were collected in the same place and at the same time; they belong to the same distylous taxon in the opinion of the original authors but represent different f lower morphs. Art. 8.2 notwithstanding, the two specimens are not part of the same gathering because of the effect of Art. 8.2bis.”

“*Ex. Iquater.* Ghazanfar (in *Nasir & Ali, Fl. West Pakistan* 113: 4. 1977) designated *Herb. Linn. No. 1123.1 (LINN)* as the “type” (correctable to lectotype) of *Myriophyllum spicatum* L. (1753). Aiken & McNeill (in *Bot. J. Linn. Soc.* 80: 218. 1980) determined that only the sterile right-hand plants on that sheet belong to *M. spicatum* and designated *Herb. Burser VII(1): 79 (UPS)* as the lectotype. Ericsson (in *Nordic J. Bot.* 27: 139. 2009) recognised priority of Ghazanfar’s choice and restricted the type designation to the right-hand plants, which however are an admixture to the type specimen because the original diagnosis was based solely on inflorescence characters.”

“*Ex. Iquinquies.* Kirkbride (Biosyst. Monogr. Gen. Cucumis: 104. 1993) designated a sheet of *Mueller s.n. (K)* with a single label as the “neotype” of *Cucumis juncundus* F. Muell. (1859). The elements on this sheet are taxonomically different and comprise original material of both *C. juncundus* and *C. picrocarpus* F. Muell. (1859). Kirkbride’s usage of the term neotype is correctable to lectotype under Art. 9.9, and this type designation is to be restricted to the original material of *C. juncundus* (now K000634446) with exclusion of the element belonging to *C. picrocarpus* as admixture under Art. 9.14. A further lectotypification by Telford & al. (in *PhytoKeys* 5: 23–24. 2011) on the same element, which was proposed because Kirkbride’s type indication was viewed to be referable to more than one gathering, was unnecessary.”

*Prop. C (100 – Sennikov in Taxon 64: 1338)* Add a new Note after Art. 8.2 with a new Example:

“*Note 1.* Field numbers, collection numbers, accession numbers, or barcode numbers alone do not necessarily denote different gatherings.”

“*Ex. Ibis.* *Pancheria humboldtiana* Guillaumin (in *Mém. Mus. Natl. Hist. Nat., B, Bot.* 15: 47. 1964) was validly published with the only gathering cited as “Mt Humboldt : sommet S., 1 500-1 600 m, 23/IX/1951 (*Baumann* 15.515, 15.518).” These are field numbers of two specimens given by the collector (at P, barcodes P00143076 and P05518244, respectively). Since the taxon, locality, collection date, and collector of the two specimens are the same, they constitute parts of a single gathering in spite of their separate numbering.”

*Prop. D (295 – Sennikov & Calonje in Taxon 65: 895)* Add a new Example after new Art. 8 Note 1 [Art. 8 Prop. C]:

“*Ex. Iter.* *Solidago ×snarskisii* Gudžinskas & Žalneravičius (in *Phytotaxa* 253: 148. 2016) was validly published with a single gathering at BILAS indicated as type, whose parts have been numbered separately in the field, mounted on separate sheets and designated as follows: 76801 (generative shoot) and 76802 (vegetative shoot), holotype on two cross-labelled sheets; 76803 and 76804, isotypes.”

*Prop. E (196 – Niederle in Taxon 65: 409)* Add a new Note after Art. 8.2:

“*Note 1.* Herbarium specimens prepared from cultivated stock derived from a wild gathering are not parts of that wild gathering.”

*Prop. F (197 – Niederle in Taxon 65: 409)* Amend Art. 8 Ex. 1 as follows (new text in bold, deleted text in strikethrough):

“*Ex. 1.* “*Echinocereus sanpedroensis*” (Raudonat & Rischer in *Echinocereenfreund* 8(4): 91–92. 1995) was based on a “holotype” consisting of a complete plant with roots, a detached branch, an entire f lower, a f lower cut in halves, and two fruits that, according to the label, were taken from the same cultivated individual at different times and preserved, in alcohol, in a single jar. This material belongs to more than one gathering **made by the same collector(s) at the same place from one cultivated individual**, and ~~cannot~~**can therefore** be accepted as a type. Raudonat & Rischer’s name is ~~not~~ validly published under Art. 40.2.”

*Prop. G (248 – Sennikov in Taxon 65: 647)* Amend Ex. 1 under Art. 8.2 as follows (new text in bold):

“*Ex. 1.* “*Echinocereus sanpedroensis*” (Raudonat & Rischer in *Echinocereenfreund* 8(4): 91–92. 1995) was based on a “holotype” consisting of a complete plant with roots, a detached branch, an entire f lower, a f lower cut in halves, and two fruits that, according to the label, were taken from the same cultivated individual at different times and preserved, in alcohol, in a single jar. **Since** this material **was collected at more than one time**, it belongs to more than one gathering and cannot be accepted as a type. Raudonat & Rischer’s name is not validly published under Art. 40.2.”

*Prop. H (247 – Deng in Taxon 65: 647)* Add a new Example following Art. 8.2:

“*Ex. Ibis.* The holotype of *Asparagus kansuensis* F. T. Wang & Tang ex S. C. Chen (1978), *Hao 416* (PE00034519), is part of a gathering of a single species made at one time. It consists of a staminate branch and a pistillate branch, i.e. parts of two organisms (the species is dioecious), mounted on a single herbarium sheet.”

*Prop. I (365 – Gautier & al. in Taxon 65: 1187)* Amend Art. 8.3 as follows (new text in bold):

“8.3. A specimen may be mounted as more than one preparation, as long as the parts are clearly labelled as being part of that same specimen, **or bear a single original label in common**. Multiple preparations from a single gathering that are not clearly labelled as being part of a single specimen are duplicates<sup>2</sup>, irrespective of whether the source was one organism or more than one (but see Art. 8.5).”

*Prop. J (307 – Husain & al. in Taxon 65: 899)* Delete the footnote to Art. 8.3.

*Prop. K (305 – Husain & al. in Taxon 65: 899)* Add a new paragraph after Art. 8.3:

“8.3bis. A duplicate is part of a single gathering of a single species or infraspecific taxon made by the same collector(s) bearing same collection number and details.”

*Prop. L (250 – Sennikov in Taxon 65: 648)* If Prop. 249 [Art. 8 Prop. B] is accepted, revise Footnote 2 under Art. 8.3 as follows (new text in bold, deleted text in strikethrough):

“<sup>2</sup> Here and elsewhere in this *Code*, ~~the word duplicate is given its usual meaning in curatorial practice.~~ A duplicate is part of a single gathering of a single species or infraspecific taxon made by the same collector(s) at one time, **unless the content of the gathering has been restricted by the original or a typifying author**. The possibility of a mixed gathering must always be considered by an author choosing a lectotype, and corresponding caution used.”

*Prop. M (294 – Sennikov & Calonje in Taxon 65: 895)* Add a new Example after Art. 8.3:

“*Ex. 5bis.* The neotype of *Ceratozamia fuscoviridis* W. Bull, originally labelled “Hort. Bot. Glasnevin, 1881” (K), consists of a single leaf mounted on three herbarium sheets and a cone preserved in liquid, which have been cross-labelled as parts of the same specimen (sheets 1–3 and a jar) by herbarium curators shortly before the type designation made by Calonje & Sennikov (in *Taxon* 66: 161. 2017).”

*Prop. N (251 – Sennikov in Taxon 65: 648)* Replace Footnote 1 under Art. 8.1 with a new paragraph (new text in bold) and add two new Examples:

“*8.3bis.* **For the purpose of typification an illustration is a work of art or a photograph, e.g. a picture of a herbarium specimen or a scanning electron micrograph, depicting a feature or features of an organism. It may consist of a single figure, or of a group of figures that are assembled together and presumably derived from a single source (notwithstanding admixtures).**”

“*Ex. 5bis.* The illustration of *Gladiolus fistulosus* Jacq. (Pl. Hort. Schoenbr. 1: t. 16. 1797) shows two plants, of which one (incomplete plant) is more typical of the taxon and the other (complete plant with three separate fragments) may be a hybrid. These two figures were apparently derived from different sources (plants); Goldblatt & al. (in *Bothalia* 43: 134. 2013) designated a single element, the left-hand plant on the illustration, as the lectotype of this name.”

“*Ex. 5ter.* The lectotype of *Chaetanthera pinnatifida* Humb. & Bonpl. (Pl. Aequinoct. 2(17): 170, t. 136. 1817), designated by Vuilleumier (in *Contr. Gray Herb.* 199: 140. 1969), is the illustration published in the protologue, which consists of drawings of a complete plant with an analysis of eight details that were presumably derived from the same plant.”

*Prop. O (308 – Hawksworth & al. in Taxon 65: 900)* Insert a new paragraph after Art. 8.5 as follows:

“8.6. In fungi, when DNA sequence data corresponding to a new taxon have been detected, but no physical specimen has been found to serve as the type of the name of the new taxon (Art. 8.1–8.4), the type may be composed of DNA sequence data deposited in a public repository.”

**Rapporteurs’ comments – Prop. A** would provide a clearer and more direct definition of “gathering” and “duplicate” by employing separate footnotes, one under Art. 8.2 for gathering and one under Art. 8.3 for duplicate. Prop. A is quite independent of the issue of collection numbers corresponding (or not) to gatherings, addressed in other proposals.

*Prop. B* seeks to redefine “gathering” so that its extent (i.e. what elements are included) can be restricted by either the publishing author or a typifying author. The rationale of the proposal is to permit authors to exclude taxonomically deviating material from a gathering, so that such specimens are not duplicates. While this might in some cases be convenient, rendering “gathering” such a plastic concept could in other cases complicate typification.

*Prop. C* would add a Note and an Example to Art. 8 to clarify that field, collection, accession, or barcode numbers alone do not necessarily denote different gatherings. Compare this with the conflicting Prop. K and the complementary Glossary Prop. C.

*Prop. D* offers an additional Example to illustrate the new Note of Prop. C. It could be referred to the Editorial Committee.

*Prop. E* and *F* are connected to Art. 40 Prop. A and are discussed there.

*Prop. G* adds an explanation in Ex. 1 as to why the designation “*Echinocereus sanpedroensis*” is not validly published. This can be referred to the Editorial Committee.

*Prop. H* offers a useful Example for Art. 8.2. In this case, parts of two organisms, i.e. staminate and pistillate branches of the same dioecious species, constitute a specimen as defined by that Article. The proposal can be referred to the Editorial Committee.

*Prop. I* seeks to avoid unduly restricted typifications, in which a particular sheet of a multi-sheet specimen is designated as the type, in the mistaken belief that the sheets are duplicates. As an example, the proposers cite the herbaria at Geneva (G), where “specimen folders” are single specimens comprising multiple sheets, as permitted by Art. 8.3. The problem arises when the sheets are “not clearly labelled as being part of a single specimen”, again in Art. 8.3, which presumably requires each sheet to be labelled. The proposed amendment, i.e. that a single label may apply to all the sheets, would fix the problem.

*Prop. J* and *K*, together with Rec. 9A Prop. A, would convert the footnote of Art. 8.3 to a new Article in Art. 8 and a new Recommendation in Rec. 9A. It would rule that duplicates of a single gathering bear the same collection number. Compare this with the conflicting Prop. C and Glossary Prop. C.

*Prop. L* is contingent on acceptance of Prop. B and concerns the definition of “duplicate”, which would be that given in Art. 8.3 footnote 2 unless an author had restricted the content of the gathering (see Prop. B).

*Prop. M* offers an additional Example to illustrate Art. 8.3. It could be referred to the Editorial Committee.

*Prop. N* would modify the definition of “illustration” in Art. 8.1 footnote 1 (which was new in the *Melbourne Code*) and promote it to a rule. The revised definition would be for the purposes of typification and the additional sentence would further explain what an illustration may consist of. Those who consider this useful will vote accordingly.

*Prop. O*, together with Rec. 8C Prop. A and Art. 9 Prop. A, would allow DNA sequence data to serve as the type of a fungal name when no physical specimen has been found to serve as the type. This is an issue that arises from sequencing environmental samples, where a sequence can indicate the existence of an apparently new taxon, but the organism itself cannot be found in the sample. The *Code* currently provides no means to name that taxon, because a type must be indicated (Art. 40.1) and that type can only be a specimen (Art. 40.4) or else an effectively published illustration “if there are technical difficulties of preservation or if it is impossible to preserve a specimen that would show the features attributed to the taxon by the author of the name” (Art. 40.5). Illustration is defined as “a work of art or a photograph depicting a feature or features of an organism” (Art. 8.1 footnote 1). One could argue that a DNA sequence is analogous to an illustration, in that it depicts the features of an organism, but it might be harder to claim it as a work of art (although, what is art?). The point is that, in principle, it would not be a great change in the *Code* to allow DNA sequences as types. However, the Rapporteurs are concerned about a practical issue: the lack of control as to the type sequence being an informative sequence. Many taxa could have the same sequence. The Recommendations of Rec. 8C Prop. A should certainly help in this respect, but they are only Recommendations and can, and no doubt will by some, be ignored. The Nomenclature Committee for Fungi does not support Prop. O, Rec. 8C Prop. A, and Art. 9 Prop. A (votes 2:7:1), with 8 voting for a Special Committee to examine the matter.

#### Recommendation 8C (new)

*Prop. A (309 – Hawksworth & al. in Taxon 65: 900)* Add a new Recommendation 8C:

“8C.1. When the type is composed only of DNA sequence data (Art. 8.6), the new taxon should be described with reference to a

published phylogenetic analysis; both the phylogenetic tree and the DNA sequence alignment that was used to create the phylogenetic tree should be deposited in a publicly accessible repository.”

“8C.2. A new taxon typified only by DNA sequence data should be represented by multiple sequences obtained in independent studies, of which one is designated as the holotype.”

“8C.3. DNA sequence data used for typification should be drawn from the molecular regions that are appropriate for delimiting species, based on prevailing best practices as determined by the relevant taxonomic communities.”

**Rapporteurs’ comments** – *Prop. A* is contingent on acceptance of Art. 8 *Prop. O*. See comments under that proposal.

### Article 9

*Prop. A (310 – Hawksworth & al. in Taxon 65: 900)* Amend Art. 9.1 as follows:

“9.1. A holotype of a name of a species or infraspecific taxon is the one specimen, **or sequence (Art. 8.6)**, or illustration (but see Art. 40.4) used by the author, or designated by the author as the nomenclatural type. As long as the holotype is extant, it fixes the application of the name concerned (but see Art. 9.15).”

*Prop. B (018 – Prado & Moran in Taxon 63: 448)* Amend Art. 9.1 to read (deletions in strikethrough, insertions in bold):

“9.1. A holotype of a name of a species or infraspecific taxon is the one specimen or illustration (but see Art. 40.4) **either (a) indicated used by the author, or designated by the author(s) as the nomenclatural type or (b) used by the author(s) when no type was indicated.** As long as the holotype is extant, it fixes the application of the name concerned (but see Art. 9.15).”

And accordingly amend the definition of holotype in the Glossary.

*Prop. C (043 – Matos & al. in Taxon 64: 649)* Add to Art. 9 Note 1 (new text in bold):

“*Note 1.* Any designation made by the original author, if definitely expressed at the time of the original publication of the name of the taxon, is final (but see Art. 9.11 and 9.15). If the author used only one element (**i.e. specimen or illustration**), it must be accepted as the holotype. If a name of a new taxon is validly published solely by reference to a previously published description or diagnosis, the same considerations apply to material used by the author of that description or diagnosis (see Art. 7.7; but see Art. 7.8).”

*Prop. D (293 – Sennikov & Calonje in Taxon 65: 895)* Amend Art. 9 Note 1 as follows (new text in bold, deleted text in strikethrough):

“*Note 1.* Any designation made by the original **or typifying** author, if definitely expressed at the time of the original publication of the name of the taxon **or upon a later type designation**, is final (but see Art. 9.11, and 9.15, **9.19, 9.20**). If the **original** author used only one element, it must be accepted as the holotype. If a name of a new taxon is validly published solely by reference to a previously published description or diagnosis, the same considerations apply to material used by the author of that description or diagnosis (see Art. 7.7; but see Art. 7.8).”

*Prop. E (029 – Liao & al. in Taxon 63: 1145)* Add an explanatory Note to Art. 9.1:

“*Note Ibis.* If a designation of holotype made in the protologue of the name of a taxon is later found to contain errors (e.g. in locality, date, collector, collecting number, herbarium code, specimen barcode or accession number), these errors are to be corrected provided that the intent of the original author(s) is not changed.”

In Art. 9 of the *Melbourne Code*, Ex. 2 should be moved to follow the new Note proposed here.

*Prop. F (019 – Prado & Moran in Taxon 63: 448)* Amend Art. 9.2 to read (deletions in strikethrough, insertions in bold):

“9.2. A lectotype is a **one** specimen or illustration designated from the original material as the nomenclatural type **if**, in conformity with Art. 9.11 and 9.12, **if the name had no holotype was indicated** at the time of publication, or if the holotype is **missing lost or destroyed**, or if a type is found to belong to more than one taxon (see also Art. 9.14). For sanctioned names, a lectotype may be selected from among elements associated with either or both the protologue and the sanctioning treatment (Art. 9.10).”

And accordingly amend the definition of lectotype in the Glossary.

*Prop. G (036 – Sennikov in Taxon 64: 182)* Add a new Example under Art. 9.2:

“*Ex. 2 bis. Adansonia grandidieri* Baill. (in Grandidier, Hist. Phys. Madagascar 34: t. 79B bis, fig. 2 & t. 79E, fig. 1. 1893) was validly published when accompanied solely by two illustrations with analysis (see Art. 38.8). Baum (in Ann. Missouri Bot. Gard. 82: 447. 1995) designated one of the sheets of *Grevé 275* (f lowering specimen at P [barcode P00037169]), presumably the very specimen from which most or all of the components of t. 79E, fig. 1 were drawn, as the lectotype of this name.”

*Prop. H (366 – McNeill & al. in Taxon 65: 1188)* Amend the first part of Art. 9.3 to read (new text in bold, deleted text in strikethrough):

“9.3. For the purposes of this *Code*, original material comprises the following elements: (a) those specimens and illustrations (both unpublished and published ~~either prior to or together with~~ **publication of the protologue**) upon which it can be shown that the description or diagnosis validating the name was based; (b) **any illustrations published as part of the protologue**; [and otherwise unaltered except for re-lettering the existing clauses as (c) and (d)].”

*Prop. I (367 – McNeill & al. in Taxon 65: 1189)* Amend Art. 9.3(a) to read (new text in bold, deleted text in strikethrough):

“9.3. For the purposes of this *Code*, original material comprises the following elements: (a) those specimens and illustrations (both unpublished and published either prior to or together with the protologue) ~~upon which it can be shown that the author associated with the taxon, and that were available to the author prior to, or at the time of, preparation of the description or diagnosis validating the name was based; [...]~~”

*Prop. J (035 – Sennikov in Taxon 64: 182)* Amend Art. 9.3 as follows (new text in bold, deleted text in strikethrough):

“9.3. For the purposes of this *Code*, original material comprises the following elements: (a) those specimens and illustrations (both unpublished and published either prior to or together with the protologue) upon which it can be shown that the description ~~or~~, diagnosis, **or other material** validating the name (**Art. 38.1(a)**) was based; (b) the holotype and those specimens which, even if not seen by the author of the description or diagnosis validating the name, were indicated as types (syntypes or paratypes) of the name at its valid publication; and (c) the isotypes or isosyntypes of the name irrespective of whether such specimens were seen by either the author of the validating description or diagnosis or the author of the name (but see Art. 7.7, 7.8, and 9.10).”

*Prop. K (044 – Clementi & Peruzzi in Taxon 64: 649)* Amend Art. 9.3 as follows: after clause (a), insert a new clause to read:

“(a bis) those illustrations of the newly described taxon explicitly referred to or included by the author(s) in the protologue;”

*Prop. L (190 – Sennikov in Taxon 65: 406)* Add a new paragraph after Art. 9.3 with three new Examples:

“*9.3bis.* If the description or diagnosis validating the name was reproduced, literally or with modifications, from a previously published work of the same or another author, elements upon which either of the two descriptive statements was based can be considered as original material.”

“*Ex. 2bis.* *Sorbus aucuparia* L. (Sp. Pl.: 477. 1753) was published with the validating diagnosis copied almost literally from the account of *Sorbus* species 1 in Haller (Enum. Meth. Stirp. Helv. 1: 350. 1742), with a reference to the source. Although Haller’s original plant was believed to be taxonomically different from the material used by Linnaeus, Sennikov (in Taxon 65: 364. 2016) designated Herb. Linnaeus No. 644.1 as the lectotype of the name.”

“*Ex. 2ter.* *Portulaca officinarum* Crantz (Inst. Rei Herb. 2: 428. 1766) was published with the validating diagnosis copied literally from the protologue of *P. oleracea* L. (Sp. Pl.: 445. 1753), although without mention of that name. Because of this diagnosis Uotila & al. (in Willdenowia 42: 26. 2012) treated *P. officinarum* as based on the type of *P. oleracea*.”

“*Ex. 2quater.* *Erigeron acris* L. (Sp. Pl.: 863. 1753) was validly published with a diagnosis reproduced verbatim from Linnaeus, *Hortus cliffortianus* (1738). Although the material that was the original basis for this diagnosis is preserved in the collection of Clifford at BM, the lectotype of this name was designated by Huber (in Veröff. Geobot. Inst. E.T.H. Stiftung Rübel Zürich 114: 44. 1993) from the collection of Linnaeus at LINN.”

*Prop. M (356 – Hawksworth in Taxon 65: 916)* Insert a new paragraph after Art. 9.3 as follows:

“*9.3bis.* On or after 1 January 2019, an illustration may not be designated as the lectotype of the name of a fungus unless it shows, in the opinion of the typifying author(s), features diagnostic of the taxon.”

*Prop. N (357 – Hawksworth in Taxon 65: 916)* Insert a further new paragraph after Art. 9.3 as follows:

“*9.3ter.* On or after 1 January 2019, illustrations may not be designated as either neotypes or epitypes of the names of fungi.”

*Prop. O (370 – McNeill in Taxon 65: 1189)* Add a Note following Art. 9.4:

“*Note 4bis.* The term isotype is also used for the type of the conserved name of a species, as, under Art. 14.8, such a type, like a holotype, may only be changed by the procedure of conservation.”

*Prop. P (198 – Singh in Taxon 65: 410)* Add a new Example after Art. 9 Ex. 3:

“*Ex. 3bis.* In the protologue of *Solanum purpureilineatum* Sabnis & Bhatt. (1972), two specimens in the same herbarium, collected by the same collector at one place and time were designated as the “holotype”. Because both specimens belong to the same gathering, the name is validly published (see Art. 40.2) and the specimens are in fact syntypes.”

*Prop. Q (199 – Husain & al. in Taxon 65: 411)* Insert a new Article after Art. 9.5:

“*9.5bis.* A lectoparatype is any syntype after designation of a lectotype that is neither the lectotype nor an isolectotype (Rec. 9C).”

*Prop. R (200 – Husain & al. in Taxon 65: 411)* Add the following Example under the Article of Prop. 199 [Art. 9 Prop. Q]:

“*Ex. n.* *Aegilops triuncialis* f. *hirsuta* H. Lindb. was lectotypified by Väre (in Phytotaxa 47: 6. 2012) on a specimen from Morocco, *Lindberg 3680* (H-1182940) with three isolectotypes (H-1182941, H-1182942, MPU-009626). The remaining syntype from Spain, *Lindberg 821* (H-1182920), was cited as a lectoparatype.”

*Prop. S (201 – Husain & al. in Taxon 65: 411)* Add the following Note under the Article of Prop. 199 [Art. 9 Prop. Q]:

“*Note n.* The term lectoparatype is used only on or after designation of a lectotype.”

*Prop. T (290 – Sennikov & Calonje in Taxon 65: 895)* Amend Art. 9.7 as follows (new text in bold) and add a new Example:

“*9.7.* A neotype is a specimen or illustration selected to serve as nomenclature type if no original material is extant **or has been in existence**, or as long as it is missing (see also Art. 9.16).”

“*Ex. 6bis.* *Vriesea fenestralis* Linden & André (in Ill. Hort. 22: 124. 1875) was stated to have been described solely on the basis of living plants (“Ad viv. desc.”) introduced from Brazil in 1872 and cultivated in the garden of Jean Jules Linden. In the absence of any original material, Plate CCXV accompanying the protologue was designated as the “lectotype” (correctable to neotype) of the name by Loyola de Moura & al. (in J. Torrey Bot. Soc. 140: 330. 2013).”

*Prop. U (063 – Hawksworth in Taxon 64: 858)* Amend Art. 9.8 as follows:

“*9.8.* An epitype is a specimen or illustration selected to serve as an interpretative type when the holotype, lectotype, or previously designated neotype, or all original material associated with a validly published name, **is demonstrably ambiguous and cannot, in the opinion of the author making the typification**, be critically identified for purposes of the precise application of the name to a taxon. Designation of an epitype is not effected unless the holotype, lectotype or neotype that the epitype supports is explicitly cited (see Art. 9.20).”

*Prop. V (241 – Wiersema & al. in Taxon 65: 645)* Add a new Note under Art. 9.8 on epitypes:

“*Note 5bis.* Designation of an epitype to support a specimen or illustration that is the type of a name conserved in App. III or IV is not provided for by this Article.”

*Prop. W (032 – Jørgensen in Taxon 63: 1384)* Substitute Art. 9 Ex. 9 with a new Example:

“*Ex. 9.* The lectotype of *Salicornia europaea* L. (Herb. Linn. No. 10.1 (LINN), designated by Jafri & Rateeb in Jafri & El-Gadi, Fl. Libya 58: 57. 1978) does not show the relevant characters by which it could be identified for the precise application of this name in a difficult, critical group of taxa, which are best characterized molecularly. Therefore Kadereit & al. (in Taxon 61: 1234. 2012) designated [as the epitype] a molecularly tested specimen from the type locality (Sweden, Gotland, *Piirainen 4222*, MJG) to support the type from which they assumed no molecules could be extracted.”

*Prop. X (192 – Sennikov in Taxon 65: 407)* Revise Ex. 10 under Art. 9.9 as follows (new text in bold):

“*Ex. 10.* Borssum Waalkes (in Blumea 14: 198. 1966) cited Herb. Linnaeus No. 866.7 (LINN) as the holotype of *Sida retusa* L. 1763. However, illustrations in Plukenet (Phytographia: t. 9, fig. 2. 1691) and Rumphius (Herb. Amboin. 6: t. 19. 1750) were cited by Linnaeus in the protologue **and evidently used by him in preparation of the validating description**. Therefore the original material of *S. retusa* comprises three elements (Art. 9.3), and Borssum Waalkes’s use of holotype is an error to be corrected to lectotype.”

*Prop. Y (020 – Prado & Moran in Taxon 63: 448)* Amend Art. 9.11 to read (deletions in strikethrough, insertions in bold):

“*9.11.* If ~~no holotype was indicated by the author of a name of a species or infraspecific taxon~~ **had no holotype at the time of publication**, or when the holotype or previously designated lectotype has been lost or destroyed, or when the material designated as type is found to belong to more than one taxon, a lectotype or, if permissible (Art. 9.7), a neotype as a substitute for it may be designated.”

*Prop. Z (253 – Sennikov in Taxon 65: 649)* Amend Art. 9.11 as follows (new text in bold):

“9.11. If no holotype was indicated by the author of a name of a species or infraspecific taxon, or when the holotype or previously designated lectotype has been lost or destroyed, or when the material designated as type is found to belong to more than one taxon (**but see Art. 9.14 for admixtures**), a lectotype or, if permissible (Art. 9.7), a neotype as a substitute for it may be designated.”

*Prop. AA (246 – Deng in Taxon 65: 647)* Reword Art. 9.12 as follows:

“9.12. In lectotype designation, the following precedence applies: a cited isotype or a syntype must be chosen if such exists; otherwise an uncited isotype or an isosyntype (duplicate of a syntype) must be chosen if such exists; otherwise a paratype must be chosen if such exists; otherwise the lectotype must be chosen from among the uncited specimens and cited and uncited illustrations that comprise the remaining original material, if such exist.”

*Prop. BB (312 – Ferrer-Gallego & Crespo in Taxon 65: 901)* Amend Art. 9.12 as follows (new text in bold, deleted text in strikethrough):

“9.12. In lectotype designation, an isotype must be chosen if such exists, or otherwise a syntype **or isosyntype** if such exists. If no isotype, syntype or isosyntype (~~duplicate of syntype~~) is extant, the lectotype must be chosen from among the paratypes if such exist. If no cited specimens exist, the lectotype must be chosen from among the uncited specimens and cited and uncited illustrations that comprise the remaining original material, if such exist.”

*Prop. CC (260 – Pročkův & Pročkův in Taxon 65: 651)* Amend Art. 9.14 as follows (new text in bold):

“9.14. When a type (herbarium sheet or equivalent preparation) contains parts belonging to more than one taxon (see Art. 9.11), the name must remain attached to the part (specimen as defined in Art. 8.2) that corresponds most nearly with the original description or diagnosis. **This is achieved by designation of a lectotype when a holotype is taxonomically heterogeneous; or by a subsequent designation of lectotype or neotype, respectively, when a lectotype or neotype is superseded under Art. 9.19(c).**”

*Prop. DD (252 – Sennikov in Taxon 65: 648)* Amend Art. 9.14 as follows (new text in bold, deleted text in strikethrough) and add three new Examples:

“9.14. When a type (herbarium sheet or equivalent preparation) contains parts belonging to more than one taxon (see Art. 9.11), ~~the name must remain attached to the part (specimen as defined in Art. 8.2) that corresponds most nearly with the original description or diagnosis~~ **an admixture (usually a minor ingredient) may be excluded without a separate nomenclatural act if it can be demonstrated that the validating description or diagnosis does not apply to the admixed elements; otherwise a type should be narrowed to a single element by way of a subsequent lectotypification or neotypification in conformity with Art. 9.11.**”

“*Ex. 11bis.* On the slide with the holotype of the name *Navicula latelongitudinalis* R. M. Patrick (in Proc. Acad. Nat. Sci. Philadelphia 111: 98. 1959) there are individuals of another diatom species that can be distinguished “only by smaller valves and slightly different shape of the conopeum”. Potapova (in Proc. Acad. Nat. Sci. Philadelphia 162: 8. 2013) disregarded those individuals as admixture because it “is obvious from the valve dimensions” given in the protologue that Patrick did not consider them to belong to his new taxon.”

“*Ex. 11ter.* The name *Tetrapterys alternifolia* Cuatrec. (in Webbia 13: 435. 1958) of *Malpighiaceae* was published with *Dugand &*

*Jaramillo 2850* (US) as the designated holotype, the parts of which were considered taxonomically identical by Cuatrecasas. Anderson (in Contr. Univ. Michigan Herb. 25: 91. 2007) discovered that this type was mixed and the sterile stem with alternate leaves, to which the epithet refers, does not belong to *Malpighiaceae*; in order to maintain the application of the name, Anderson designated the flowering stem as the lectotype.”

“*Ex. 11quater.* Snogerup (in Davis & al., Fl. Turkey 9: 20. 1985) designated Herb. Linnaeus 449.27 (LINN) as the lectotype of *Juncus bulbosus* L. (1753). Two plant fragments on that sheet, one sterile and the other in fruit, both agree with the original description stating “foliis linearibus canaliculatis, capsulis obtusis” and thus belong to the original material of the name. Pročkův (in Taxon 51: 551. 2002) made a restricting choice and designated the fragment in fruit because the sterile plant appeared to belong to a species of *Carex*.”

*Prop. EE (254 – Sennikov in Taxon 65: 649)* If Prop. 252 [Art. 9 Prop. DD] is accepted, amend the revised Art. 9.14 as follows (new text in bold):

“9.14. When a type (herbarium sheet or equivalent preparation, **or illustration**) contains parts belonging to more than one taxon, the admixture (usually a minor ingredient) may be excluded without a separate nomenclatural act if it can be demonstrated that the validating description or diagnosis was not based upon the admixed elements; otherwise the type should be narrowed to a single element by way of a subsequent lectotypification or neotypification in conformity with Art. 9.11.”

*Prop. FF (257 – Sennikov in Taxon 65: 649)* Delete Ex. 11 under Art. 9.14.

*Prop. GG (045 – Ferrer-Gallego & al. in Taxon 64: 650)* Add a new provision after Art. 9.16 (or in any other place the Editorial Committee may find suitable), paralleling provisions in Art. 9.11 and 9.12 for other kinds of type:

“9.n. When a previously designated neotype has been lost or destroyed, a substitute for it may be designated from among the isoneotypes, if such exist. If none exists, another suitable element may be designated as neotype.”

*Prop. HH (259 – Pročkův & Pročkův in Taxon 65: 650)* Add a new Article after Art. 9.15 and include a reference to it at the end of Art. 9.12:

“9.15bis. When the previously designated lectotype has been lost or destroyed, the replacement lectotype must be designated from among the isolectotypes (Rec. 9C.1), if such exist, or otherwise according to Art. 9.12.”

“9.12. [...]. **See also Art. 9.15bis.**”

*Prop. II (261 – Pročkův & Pročkův in Taxon 65: 652)* Amend Art. 9.17 as follows and add a reference to Art. 9.20 (new text in bold, deleted text in strikethrough):

“9.17. A designation of a lectotype, ~~or~~ neotype, **or epitype** that later is found to refer to a single gathering but to more than one specimen must nevertheless be accepted (subject to Art. 9.19), but may be further narrowed to a single one of these specimens by way of a subsequent lectotypification, ~~or~~ neotypification, **or epitypification.**”

“9.20. The author who first designates (Art. 7.9 and 7.10) an epitype must be followed; a different epitype may be designated only if the original epitype is lost or destroyed (**see also Art. 9.17.**) [...].”

*Prop. JJ (255 – Sennikov in Taxon 65: 649)* Amend Art. 9.17 as follows (new text in bold):

“9.17. A designation of a lectotype or neotype that later is found to refer to a single gathering but to more than one specimen must nevertheless be accepted (subject to Art. 9.19), but may be further

narrowed to a single one of these specimens by way of a subsequent lectotypification or neotypification (**for taxonomically mixed type designations, see Art. 9.14**).”

*Prop. KK (296 – Sennikov & Calonje in Taxon 65: 895)* Amend Art. 9.19 to read (new text in bold, deleted text in strikethrough):

“9.19. The author who first designates (Art. 7.9 and 7.10) a lectotype or a neotype in conformity with Art. 9.11–9.13 must be followed, but that choice is superseded if (a) the holotype or, in the case of a neotype, any of the original material is rediscovered; the choice may also be superseded if one can show that (b) **in the case of a lectotype designated from uncited specimens or cited or uncited illustrations, or in the case of a neotype, it is in serious conflict with the protologue and another element is available that is not in conflict with the protologue validating description or diagnosis, or other material validating the name (Art. 38.1(a))**, or that (c) it is contrary to Art. 9.14.”

*Prop. LL (086 – Bhattacharjee, A. & al. in Taxon 64: 862)* Amend Art. 9.19 to read (insertions in bold, deletions in strikethrough):

“9.19. The author who first designates (Art. 7.9 and 7.10) a lectotype or a neotype in conformity with Art. 9.11–13 must be followed, but that choice is superseded if (a) the holotype or, in the case of a neotype, any of the original material is rediscovered; the choice may also be superseded if one can show that (b) it is in serious conflict with the protologue and another element is available that is not in conflict with the protologue, (c) **the choice of lectotype is demonstrably ambiguous and cannot be critically identified for purposes of the precise application of the name to a taxon and another element of original material is available that is unambiguous and agrees with current usage of the name**, or that (cd) it is contrary to Art. 9.14.”

*Prop. MM (313 – Wisnev in Taxon 65: 901)* Add a new clause at the end of Art. 9.19 (new text in bold):

“9.19. The author who first designates (Art. 7.9 and 7.10) a lectotype or a neotype in conformity with Art. 9.11–9.13 must be followed, but that choice is superseded if (a) the holotype or, in the case of a neotype, any of the original material is rediscovered; the choice may also be superseded if one can show that (b) it is in serious conflict with the protologue and another element is available that is not in conflict with the protologue, or that (c) it is contrary to Art. 9.14, **or that (d) in the case of a neotype it differs taxonomically from the taxon described in the protologue (taking into account all available evidence to determine such taxon)**.”

*Prop. NN (368 – McNeill & al. in Taxon 65: 1189)* Restructure and amend Art. 9.19 to read (new text in bold, text moved to new position in italic, deleted text and moved text in original position in strikethrough):

“9.19. The author who first designates (Art. 7.9 and 7.10) a lectotype or a neotype in conformity with Art. 9.11–9.13 must be followed, but that choice is superseded if (a) the holotype or, in the case of a neotype, any of the original material is rediscovered; the choice may also be superseded if ~~one it can be shown that (b) it is contrary to Art. 9.14 or (c) it is in serious conflict with the protologue and another, in which case an element is available that is not in conflict with the protologue is to be chosen; a lectotype may only be superseded by a non-conflicting element of the original material, if such exists; otherwise it may be superseded by a neotype, or that (c) it is contrary to Art. 9.14.~~”

and add to the parentheses at the end Art. 9.7: “and 9.19(c)”

and add at the end of Art. 9.13: “and 9.19(c)”.

*Prop. OO (369 – McNeill & al. in Taxon 65: 1189)* Add a Note following Art. 9.19 to read:

“*Note 6bis.* Only a choice of uncited material as lectotype may be superseded under Art. 9.19(b); cited specimens and illustrations are part of the protologue and cannot therefore be in serious conflict with it.”

*Prop. PP (203 – Prado & Hirai in Taxon 65: 412)* Add two new Examples after Art. 9.19:

“*Ex. 13bis.* (b) Fischer (in Feddes Repert. 108: 115. 1997) designated Herb. Linnaeus No. 26.58 (LINN) as lectotype of *Veronica agrestis* L. (1753). However, Martínez-Ortega & al. (in Taxon 51: 763. 2002) established that the designated lectotype was in serious conflict with Linnaeus’s diagnosis and that three sheets of original material not conflicting with the protologue were available in the Celsius herbarium. One of them was designated as the new lectotype of *V. agrestis*, superseding the choice of Fischer.”

“*Ex. 13ter.* (c) Navarro & Rosúa (in Candollea 45: 584. 1990) designated a sheet at G-DC as lectotype of *Teucrium gnaphalodes* L’Hér. (1788), but this preparation contains more than one gathering and a heterogeneous mixture of more than one species, not all of which matched L’Héritier’s diagnosis. Ferrer-Gallego & al. (in Candollea 67: 38. 2012) superseded the previous lectotype in choosing one of the specimens on the same preparation that corresponds most nearly with the original diagnosis.”

*Prop. QQ (046 – Prado & al. in Taxon 64: 651)* Insert a new Note after Art. 9.19:

“*Note n.* Designation of a lectotype or a neotype is also effected, and must be followed, if the typifying author(s) used terms correctable to lectotype or neotype under Art. 9.9, such as “type” or “holotype” or “isotype” and, when the type is a specimen or unpublished illustration, cited the herbarium or institution in which it is conserved. This inadvertent lectotypification or neotypification is possible only before 1 January 2001 (see Art. 7.10, 9.22, and 9.23).”

*Prop. RR (047 – Prado & al. in Taxon 64: 651)* Add a new Example [after the new Note of Art. 9 Prop. QQ]:

“*Ex. n.* Christensen (in Kongel. Danske Vidensk. Selsk. Skr., Naturvidensk. Math. Afd., ser. 8, 6: 112. 1920) cited for *Dryopteris hirsutosetosa* Hieron.: “Type from Ecuador: Baños-Pintuc, *Stübel nr. 903* (B)”. Later, a duplicate of this specimen was found at BM by Moran & al. (in Amer. Fern J. 104: 161. 2014). These two specimens are syntypes, not holotype and isotype, because in the protologue Hieronymus (in Hedwigia 46: 343–344, pl. 6. 1907) cited only the locality and collecting number, but did not specify a herbarium. By citing the specimen at B as “type”, Christensen (l.c.) effectively lectotypified the name. In accordance with Art. 9.9, Moran & al. (l.c.) corrected the term “type” to “lectotype” and attributed the lectotypification to Christensen (l.c.)”

*Prop. SS (202 – Bandyopadhyay & Bhattacharjee, A. in Taxon 65: 411)* Add a new Example after Art. 9.19, after the new Note (if accepted) of Prop. 046 [Art. 9 Prop. QQ]:

“*Ex. n.* Although Herb. Linn. 749.2 (LINN) is not original material for *Ocimum gratissimum* L. (1753), the absence of any original material means that Cramer’s citation of it as “type” (in Dassanayake & Fosberg, Revised Handb. Fl. Ceylon 3: 112. 1981) is to be accepted as designation (Art. 7.10) of a neotype, pre-dating the explicit neotypification by Paton (in Kew Bull. 47: 411. 1992).”

*Prop. TT (204 – Proćków & Proćków in Taxon 65: 412)* Amend the first sentence of Art. 9.20 (new text in bold):

“9.20. The author who first designates (Art. 7.9 and 7.10) an epitype must be followed; a different epitype may be designated only if the original epitype is lost or destroyed **but that choice is superseded if the original epitype is rediscovered.**”

*Prop. UU (205 – Pročków & Pročków in Taxon 65: 413)* Amend Art. 9.20 as follows (new text in bold):

“9.20. The author who first designates (Art. 7.9 and 7.10) an epitype must be followed; a different epitype may be designated only if the original epitype is lost or destroyed, **in which case the replacement epitype must be designated from among the isoeptypes, if such exist.** A lectotype or neotype supported by an epitype may be superseded in accordance with Art. 9.19, or in the case of a neotype with Art. 9.18. If it can be shown that an epitype and the type it supports differ taxonomically and that neither Art. 9.18 nor 9.19 applies, the name may be proposed for conservation with a conserved type (Art. 14.9; see also Art. 57).”

*Prop. VV (067 – Hawksworth in Taxon 64: 859)* Amend Art. 9.23 as follows:

“9.23. On or after 1 January 2001, lectotypification, or neotypification, **or epitypification** of a name of a species or infraspecific taxon, is not effected unless indicated by use of the term “lectotypus”, or “neotypus”, or **“epitypus”**, its abbreviation, or its equivalent in a modern language (see also Art. 7.10 and 9.9).”

*Prop. WW (193 – Singh in Taxon 65: 408)* Add one of the following paragraphs as a new Example under Art. 9.23:

“*Ex. n.* Bentham (Labiata. Gen. Spec.: 744. 1835) described *Leucas longifolia* Benth. based on material collected by Jacquemont from near “Pounah” and mentioning specimen(s) from Paris, but without designating a type. The original material comprises three specimens of *Jacquemont 343*, two at P and one at K, hence a lectotype may be designated under Art. 9.11. When V. Singh (in J. Econ. Taxon. Bot., Addit. Ser., 20: 110. 2001) wrote “*Holotype*: India, Poona, *Jacquemont 343* (P)”, this citation of “holotype” cannot be corrected to a (first-step, see Art. 9.17) designation of lectotype under Art. 9.9 because the phrase “designated here” or an equivalent (Art. 7.10) was not used. R. K. Singh (in *Telopea* 18: 410. 2015) designated the lectotype with the statement “Lectotype (here designated): India, Maharashtra state, Poonah [Pune], without date, *V. Jacquemont 343* (P351887!)”; isolectotypes: K929516! and P351886!”

“*Ex. n.* Hooker (Fl. Brit. India 5: 159. 1886) described *Litsea membranifolia* Hook. f. based on material from “Upper Assam; Mishmi Hills, and woods at Yen”, mentioning specimen(s) collected by Griffith and distributed by Kew (“*Kew Distrib.* 4310”), but without designating a type. Three relevant specimens collected by Griffith are extant, two at K and one at GH, hence a lectotype may be designated under Art. 9.11. When Ngernsaengsaruy & al. (in *Thai Forest Bull.*, Bot. 39: 72. 2011) wrote “Type: India, East Bengal, *Griffith 4310* (holotype K!)”, this citation of “holotype” cannot be corrected to a (first-step, see Art. 9.17) designation of lectotype under Art. 9.9 because the phrase “designated here” or an equivalent (Art. 7.10) was not used. Singh & al. (in *Bangladesh J. Pl. Taxon.* 22: 78. 2015) later designated the lectotype with the statement “Type: India. Arunachal Pradesh, Dibang Valley, Mishmi Hills, s.d., *W. Griffith s.n.* [*Kew Distrib.* 4310] (lectotype K-000357530!, here designated; isolectotypes K-000793176!, GH-00415039!)”

**Rapporteurs’ comments – Prop. A** is contingent on acceptance of Art. 8 Prop. O. See comments under that proposal.

*Prop. B, F and Y*, which can be considered independently, form a set seeking to clarify that a holotype can come into existence in two ways: as “the one specimen or illustration *used* by the author, or *designated* by the author as the nomenclatural type”. Prop. B makes this distinction clearer, using the word “indicated” in place of “designated” (Art. 40 permits a holotype to be indicated).

*Prop. C* is a useful clarification that “element” in Art. 9 Note 1 means specimen or illustration.

*Prop. D* seeks to extend Art. 9 Note 1 to cover not only holotype designations but those of lectotypes, neotypes, and epitypes (and presumably also types of names of genera and subdivisions of genera). That such designations are final is already clear in Art. 9.19, 9.20, and 10.5 (“must be followed”), and repeating this in a Note at the beginning of Art. 9, before any of the other kinds of types have been mentioned, might be more confusing than clarifying.

*Prop. E* concerns Ex. 2, which implies that obvious errors in the indication of a holotype are to be corrected, thereby possibly avoiding the need to republish a name or propose it for conservation. This Example was added to the *Melbourne Code* by the Editorial Committee, but it does not illustrate an actual provision of the *Code*. In order to provide a basis for the Example, the proposed Note needs to be an Article. It should be specified that omissions of required information (e.g. under Art. 40.6 and 40.7) are not correctable. Those in agreement with an Article so modified should vote “ed.c.”

*Prop. F* adjusts Art. 9.2 so that it no longer implies that a holotype was *indicated* by the author (when instead it might have been *used*). The rewording also replaces “missing” with “lost or destroyed”, which is consistent with Art. 9.11. See the related Prop. B and Y.

*Prop. G* provides a useful Example for Art. 9.2 of a case where the original material is not so obvious. It can be referred to the Editorial Committee.

*Prop. H* addresses an important issue. It has been traditionally assumed that any illustration included in the protologue is part of the original material for the name concerned. However, when the current definition of original material (Art. 9.3) entered the *Tokyo Code* (Art. 9.7 footnote 1; Greuter & al. in *Regnum Veg.* 131. 1994), it became possible to argue, contrary to tradition, that such illustrations are not necessarily original material, i.e. when they are not “illustrations [...] upon which it can be shown that the description or diagnosis validating the name was based”. The proposed amendment to Art. 9.3 would make it explicit that illustrations included in the protologue are original material.

*Prop. I* would eliminate a difficulty in determining an element (specimen or illustration) to be original material under Art. 9.3(a), i.e. of having to show that it was a basis for the validating description or diagnosis. Instead, the author of the name must have associated the element with the taxon, and the element must have been available to the author not later than the preparation of the validating description or diagnosis. This is more logical, and in accordance with traditional typification practice. It also has the effect of allowing cited illustrations to be original material (i.e. illustrations referred to, but not actually included, in the protologue). Under the current Art. 9.3, these are not original material unless it can be shown that the validating description or diagnosis was based on them. Prop. H and Prop. I are mutually independent but complement each other. If Prop. I is accepted, the Editorial Committee should provide at least one apposite Example.

*Prop. J* adds wording to Art. 9.3 to permit an illustration with analysis, which under Art. 38.7 and 38.8. replaces the need for a description or diagnosis for valid publication, to provide a basis for original material. The proposed wording would by no means make this clear unless “other material” were replaced with “illustration with analysis” and the reference to Art. 38.1(a) were deleted. Those who agree should vote “ed.c.”

*Prop. K* would permit illustrations that are part of the protologue, or referred to in the protologue, to be original material. See comments under Prop. H and I, which would achieve the same result.

*Prop. L*, together with Art. 7 Prop. D, seeks to allow a validating description or diagnosis reproduced from a previously published

work to be treated as belonging also to the validating author, so that specimens or illustrations on which either the original or the re-used description or diagnosis was based would be original material, thus allowing, e.g., some Linnaean names, where the validating description or diagnosis was taken from an earlier author, to have original material derived from the description or diagnosis either as originally published or as published by Linnaeus. The proposed new rule is based on the assumption that, under Art. 9.3(a), only those elements upon which the *original* (not the re-used) description or diagnosis was based can be original material – an assumption that has generally not been followed in typifying Linnaean names. If the assumption is correct, many previously designated lectotypes could be overturned should they not, in fact, be original material. Prop. L would remove any doubt that they were original material and would thereby protect their status as lectotypes, although some neotypes would be threatened if original material existed when previously none had been considered to exist. For an alternative and simpler solution to the perceived problem, see Prop. I. Note that Prop. L does not require the elements upon which the re-used description or diagnosis was based to have been available to the author validating the name, whereas Prop. I does.

*Prop. M* would place a restriction on designating an illustration as the lectotype of a fungal name, starting in 2019. Under the new provision, in order to determine whether or not lectotypification had been achieved, it would be necessary to discern the author's opinion that the type illustration showed the features diagnostic of the taxon. Perhaps the wording could be amended to something like “[...] unless the typifying author(s) include a statement that it shows features diagnostic of the taxon”. Also, the proposed new rule seems misplaced after Art. 9.3 and would fit better after Art. 9.12. Those supporting the proposal and favouring an amendment as suggested may so indicate by voting “ed.c.” The Nomenclature Committee for Fungi supports Prop. M (votes 10:5:3), although one member questioned the meaning of “diagnostic” in this context. The proposer also invites the Nomenclature Section to consider if Prop. M and N should be applied to all organisms treated under the *Code*.

*Prop. N* would put an end to designating illustrations as either neotypes or epitypes of fungal names, starting in 2019. A purpose of the proposal is to ensure that types have the potential for microscopic/microchemical examination or DNA extraction. The new rule seems misplaced after Art. 9.3 and would fit better after Art. 9.8. The Nomenclature Committee for Fungi does not support Prop. N (votes 8:5:5).

*Prop. O* adds a Note to point out that a duplicate specimen of a conserved type can logically be equated with an isotype. “Isotypus” has been used in this sense in the Appendices (mainly in App. IV) since the *Tokyo Code* of 1994.

*Prop. P* offers an Example to illustrate Art. 9.5, although it rather better illustrates Art. 40 Note 1. It may be referred to the Editorial Committee.

*Prop. Q–S* seek to add the term “lectoparatype” to the *Code* (in a slightly different sense to paralectotype in the *International Code of Zoological Nomenclature*: Art. 73.2.2). After a designation of a lectotype, syntypes that are neither the lectotype nor isoelectotypes would be lectoparatypes. The proposal apparently addresses “a strong demand to provide any term to address such syntypes”. Presumably syntypes would not cease to be syntypes upon becoming lectoparatypes, because the proposers make it clear that a lectoparatype would be eligible as the replacement lectotype should the previously designated lectotype be lost or destroyed; hence it would be possible to apply Art. 9.12. It is not specified whether isosyntypes become

lectoparatypes, “isoelectoparatypes”, or neither after a lectotype is designated.

*Prop. T* seems to be based on a strict understanding of “no original material is extant” in Art. 9.7 to mean that original material once existed but does not still exist. Taken literally, this could preclude a neotype being designated for a name that has never had any original material. If the proposal were accepted, the Editorial Committee might simply replace “is extant” with “exists” in Art. 9.7, and likewise in Art. 9.13 (and Art. 9.12).

*Prop. U* is part of a series of proposals (063–085) “to clarify and enhance the naming of fungi”, but has implications for names of all organisms. Simply the opinion of the epitypifying author that a type cannot be critically identified would replace the need to demonstrate its ambiguity, however nebulous in interpretation that current requirement might be, perhaps lowering the standard for undertaking such an epitypification. Considering the permanent nature of epitypification on the interpretation of a name (Art. 9.20), the effect of this proposed change needs to be carefully considered.

*Prop. V* would make it explicit that Art. 9.8 does not permit (even though it does not expressly forbid) an epitype to be designated for a name that is already conserved. Such a designation could be disruptive if it changed the intended application of the conserved name. Of course, nothing prevents a name already with an epitype from being conserved.

*Prop. W* seeks to replace Ex. 9 with an Example that better illustrates good practice. It can be referred to the Editorial Committee. The proposer also wants “the relevant ruling bodies to consider if this should not be entered as a Voted Example”. If this were the case, it would not be clear what aspects of nomenclatural practice the Voted Example was intended to govern: that a lectotype may be demonstrably ambiguous without molecular testing, that an epitype in that case is to be molecularly tested, or that an epitype is to be from the type locality, or any combination of these. As a regular Example, however, it would illustrate these principles.

*Prop. X* amends the wording of Ex. 10 so that, under the current Art. 9.3, the illustrations cited in the protologue of *Sida retusa* L. can be considered as original material for the name (because they were evidently used by Linnaeus in the preparation of the validating description). If either Prop. I or K is accepted, Prop. X will be redundant.

*Prop. Y* adjusts Art. 9.11 so that it no longer implies that a holotype was *indicated* by the author (when instead it might have been *used*). See the related Prop. B and F.

*Prop. Z* is connected with Prop. DD and would insert in Art. 9.11 an apposite reference, concerning admixtures, to the revised Art. 9.14 of Prop. DD.

*Prop. AA* would change the precedence of elements required by Art. 9.12 when designating a lectotype. Cited (in the protologue) isotypes and syntypes would have precedence over uncited isotypes and isosyntypes. The rationale of the proposal is to prefer as the lectotype a specimen that was actually seen by the author of the name, and being cited in the protologue is usually a good indication that a specimen was seen. Because the proposed change would be retroactive, some lectotypifications would be overturned, but just how many is unclear; the proposer believes they would be few.

*Prop. BB* would make it explicit in Art. 9.12 that syntypes and isosyntypes have equal precedence when selecting a lectotype, something that is implicit in the current wording but has been considered ambiguous. A proposal at the Melbourne Congress to give syntypes explicit precedence over isosyntypes (Art. 9 Prop. Z [021], Niederle

in Taxon 58: 660. 2009) received 79% “no” votes in the mail vote and was therefore rejected (McNeill & al. in Taxon 60: 1512. 2011), suggesting that equal precedence has generally been assumed. The proposed deletion of the parenthetical definition of isosyntype is contingent on the acceptance of Rec. 9C Prop. A.

*Prop. CC* concerns Art. 9.14, when a type contains parts belonging to more than one taxon. This rule currently requires that “the name must remain attached to the part (specimen as defined in Art. 8.2) that corresponds most nearly with the original description or diagnosis”, but does not specify how this is to be achieved. Prop. CC proposes such a procedure.

*Prop. DD* also concerns Art. 9.14, and would provide a different, more detailed procedure to that of Prop. CC. An admixture may be disregarded provided that the validating description or diagnosis does not apply to it. Otherwise, the type “should” (better “may”) be narrowed to a single “element” by a subsequent lecto- or neotypification, presumably in the way that best serves nomenclatural stability (which is not mentioned, but is implicit in Ex. 11ter and 11quater).

*Prop. EE* is contingent on acceptance of Prop. DD. It would allow Art. 9.14 to apply also to taxonomically heterogeneous type illustrations.

*Prop. FF* proposes deletion of Ex. 11 under Art. 9.14 because the type in question is said to have been re-examined and found not to be taxonomically mixed. The proposal should be referred to the Editorial Committee, which will verify the facts and act accordingly.

*Prop. GG* seeks to provide explicit rules on what may be done when a previously designated neotype has been lost or destroyed. A lost neotype is not a hypothetical situation: the proposers report that the neotype of *Psilocybe atrobrunnea* (Lasch : Fr.) Gillet, deposited at LE, is lost. The current rules do not forbid designation of a replacement neotype, but Art. 9.19 could be taken to mean that the first choice must nevertheless be followed. The proposed new rule specifies that a substitute type may be chosen from the duplicates of the lost or destroyed type, if such exist. Although this could in rare cases be restrictive (e.g. when the previous neotype had been a poor choice), it is more likely to be stabilizing, preventing change in the application of the name; and anyway the wording is “may be chosen”, not “must”. Parallel proposals have been made for the replacement of a lost or destroyed lectotype (Prop. HH) and epitype (Prop. UU).

*Prop. HH* seeks to provide rules on what may be done when a previously designated lectotype has been lost or destroyed. This is already partly covered by Art. 9.11, after which the new rule would be much better placed. The proposal stipulates how the replacement lectotype is to be chosen, but overlooks the possibility of no original material remaining, in which case (Art. 9.11) a neotype could be designated. If the proposal is accepted, these details would be addressed by the Editorial Committee. Other considerations are similar to those of Prop. GG above. A parallel proposal has been made for the replacement of a lost or destroyed epitype (Prop. UU).

*Prop. II* would add the concept of “two-step epitypification” to the Code. Currently two-step lecto- and neotypifications are provided for under Art. 9.17. The amendment addresses a hypothetical situation, but the proposers consider it inevitable that in the future a designation of an epitype will be found to refer to a single gathering but to more than one specimen.

*Prop. JJ* is editorial and would insert in Art. 9.17 a reference to Art. 9.14. It could be referred to the Editorial Committee.

*Prop. KK* would change the way in which a lectotype or neotype could be superseded under Art. 9.19(b), i.e. when it was in serious conflict with the protologue. The proposer points out that Art.

9.19(b) cannot apply to lectotypes that are specimens cited in the protologue, because being part of the protologue they cannot conflict with it, hence the first part of the proposed amendment excluding cited specimens (although not cited illustrations). The second part of the amendment would narrow the rule from “serious conflict with the protologue” to “serious conflict with the validating description or diagnosis”, thereby excluding conflicts such as a lectotype or neotype having a different geographical provenance to that given for the taxon in the protologue. Conflict with illustrations, comments, or discussion included in the protologue would also be excluded. These changes to Art. 9.19 would be retroactive, and could be destabilizing if they reinstated lectotypes or neotypes that had been superseded. Another change to the current situation would be that a lectotype that is an illustration cited in the protologue could be superseded if it was in serious conflict with the validating description or diagnosis.

*Prop. LL* seems to provide a means for an unknown number of existing lectotypes, even if they are supported by epitypes, to be superseded on the grounds that they are demonstrably ambiguous. This would not serve nomenclatural stability.

*Prop. MM* would allow a neotype to be superseded if it differed taxonomically from the taxon described in the protologue, and “all available evidence” could be used to determine that taxon. Presumably anything goes, and the proposer mentions “post-protologue evidence (such as correspondence, records, or other publications)”. The new provision is aimed at instances where the protologue is ambiguous, a neotype has been designated, and evidence has later come to light showing the choice of neotype to be taxonomically incorrect. Names are hopefully neotypified to support their traditional usage, either as accepted names or synonyms, or ambiguous names may be neotypified to sink them into harmless synonymy. In such cases, changing the application of the name by superseding the neotype with taxonomically different material would likely be destabilizing.

*Prop. NN* seeks improvement of Art. 9.19, clarifying that both lectotypes and neotypes can be superseded under clause (b), as well as allowing more latitude when superseding a lectotype. Under the proposed amendment, if no non-conflicting element of original material is available, the lectotype may be superseded by a neotype. Under the current Art. 9.19, the only available options in such a case are accepting the conflicting lectotype (and its consequences) or proposing the name for conservation with a conserved type.

*Prop. OO* adds a Note to point out that a lectotype (either specimen or illustration), if it was cited in the protologue, cannot conflict with the protologue and cannot therefore be superseded under Art. 9.19(b).

*Prop. PP* offers two Examples for Art. 9.19 clauses (b) and (c), which are not currently illustrated. They can be referred to the Editorial Committee.

*Prop. QQ* would add a Note to Art. 9 to point out that designation of a lectotype or neotype is not necessarily achieved deliberately by the typifying author. The Note would be better placed after Art. 7.10, where it could also apply to epitypes, and some aspects of the wording would need to be changed: use of the term “type” is not correctable under Art. 9.9 (it is not a term defined in Art. 9.1, 9.2, or 9.4–9.8), and specification of the herbarium or institution in which the type is conserved applies only on or after 1 January 1990. Those who wish the Editorial Committee to formulate a suitable Note on inadvertent lecto-, neo-, and epitypification under Art. 7.10 should vote “ed.c.”

*Prop. RR* provides an Example for the Note of Prop. QQ. Regardless of the fate of that proposal, the Example could be simplified, by removing the references to Moran & al., and placed in Art. 7, ahead

of Ex. 12, as a case where citing “type ...” achieved designation of a lectotype, in contrast to the negative case in Ex. 12. It should be referred to the Editorial Committee.

*Prop. SS* offers an Example of “inadvertent neotypification” to complement *Prop. QQ* and *RR*. It can be referred to the Editorial Committee.

*Prop. TT* concerns a hypothetical situation in which a new epitype is designated to replace a presumed lost or destroyed epitype, which is then rediscovered. In this case, the replacement epitype is to be superseded by the original epitype. One could argue that such a rule is redundant, as Art. 9.20 already requires that “The author who first designates [...] an epitype must be followed”, and that we should not add provisions to the *Code* to deal with hypothetical cases.

*Prop. UU* seeks to provide rules on what may be done when a previously designated epitype has been lost or destroyed. Unlike the neotype situation of *Prop. GG*, no example of a lost or destroyed epitype is given, and it seems that the proposal is providing a parallel rule to deal with a situation that is assumed will one day happen. The proposal will likely be favoured by those who appreciate consistency and are not reluctant to rule on (at present) hypothetical cases. Parallel proposals have also been made for the replacement of a lost or destroyed lectotype (*Prop. HH*) or neotype (*Prop. GG*).

*Prop. VV* adds the need to explicitly declare that an “epitypus” has been designated. Making this requirement retroactive to 1 January 2001 does not seem problematic, as identifying a type as an epitype would have been common practice since the ability to designate epitypes first entered the 1994 *Tokyo Code*.

*Prop. WW* can be referred to the Editorial Committee.

#### Recommendation 9A

*Prop. A* (306 – *Husain & al. in Taxon 65: 899*) Add a new paragraph after Rec. 9A.2:

“9A.2bis. The possibility of a mixed gathering must always be considered by an author choosing a lectotype, and corresponding caution used.”

*Prop. B* (206 – *Husain & al. in Taxon 65: 413*) Proposal to add a new paragraph to Recommendation 9A:

“9A.5. Any annotation on a herbarium specimen, especially a type, should include the name of the person providing the annotation and the date.”

*Prop. C* (258 – *Sennikov in Taxon 65: 650*) Add a new Recommendation to Rec. 9A with a new Example:

“9A.5. When a specimen (as defined in Art. 8.2) consists of several individuals or parts of individuals and is preserved in a single preparation, lectotypification should not be narrowed to an element of that preparation unless there are taxonomic or historical grounds to do so.”

“*Ex. I*. Price (in *Candollea 57: 50*. 2002) designated the left-hand specimen in the upper row on the sheet of *Swartz s.n.* (G) as the lectotype of *Weissia calycina* Hedw. because in Hedwig’s herbarium multiple individuals or groups of individuals “may have been attached to sheets at different times”.”

**Rapporteurs’ comments** – *Prop. A* is discussed under Art. 8 *Prop. J* and *K*.

*Prop. B* recommends that annotations of specimens include the name of the person providing the annotation and the date, in order to increase the usefulness of the annotation. The authors consider “annotation” to include “latest identifications, taxonomic updates or categorisation of types”. The Recommendation is evidently intended primarily for type specimens, but is worded to apply to all specimens,

thereby extending beyond nomenclature into general curatorial practice, which the *Code* does not govern.

*Prop. C* recommends against senselessly narrowing the choice of a lectotype to a particular part of a specimen unless, e.g., the specimen is taxonomically mixed or is suspected to comprise more than one gathering. While the advice seems to be reasonable, the proposed Example could be interpreted as either following or going against the Recommendation, and if it is following, it could set a precedent for narrowed lectotypifications in any instance where parts “may” have been attached to the specimen at different times. If the proposal is accepted, the Editorial Committee could provide a replacement Example, in which a lectotype choice was narrowed on taxonomic grounds.

#### Recommendation 9B

*Prop. A* (314 – *Wisnev in Taxon 65: 902*) Add a new paragraph to Rec. 9B:

“9B.2. Authors should refrain from designating a neotype if all available evidence cannot determine with reasonable certainty which taxon is described in the protologue.”

*Prop. B* (101 – *Bandyopadhyay & Bhattacharjee, A. in Taxon 64: 1338*) Add a new paragraph to Rec. 9B:

“9B.2. Authors designating an epitype should state why the holotype, lectotype, neotype, or all original material is ambiguous such that epitypification is necessary.”

**Rapporteurs’ comments** – *Prop. A* urges against designation of a neotype when the taxon described in the protologue cannot be determined using “all available evidence”. Such evidence is not limited to the protologue, since the proposer mentions “post-protologue evidence (such as correspondence, records, or other publications)”.

*Prop. B* would recommend that authors designating an epitype explain why the supported type is ambiguous. This seems quite good and harmless advice, especially when one could argue that the phrase “demonstrably ambiguous” in Art. 9.8 merely requires such demonstration to be possible, not necessarily enacted.

#### Recommendation 9C

*Prop. A* (311 – *Ferrer-Gallego & Crespo in Taxon 65: 901*) Upgrade Rec. 9C.1 to an Article in Art. 9, to be placed where the Editorial Committee finds suitable, and reword it as follows (new text in bold, deleted text in strikethrough):

“9n. Duplicate specimens of a **syntype**, lectotype, neotype, and epitype ~~should be referred to as~~ **are isosyntypes**, isolectotypes, isoneotypes, and isoepitypes, respectively.”

**Rapporteurs’ comments** – *Prop. A* would convert the Recommendation defining isolectotype, isoneotype, and isoepitype to a rule and would add isosyntype. Currently only isosyntype is used elsewhere in the *Code* (discounting the Appendices), in Art. 9.3 and 9.12, with its definition only in the latter. Any or all of the first three terms could become used in Art. 9 if certain other proposals are accepted (Art. 9 *Prop. Q* and *HH* [isolectotype], *GG* [isoneotype], and *UU* [isoepitype]). In this case, it might look rather odd for terms used in Art. 9 to be recommended in Rec. 9C. Some, however, may feel that a rule is not needed to define what are arguably self-defining terms. An alternative approach could be to place the paragraph of *Prop. A* as a footnote to “isosyntype” in Art. 9.3 (“1 Duplicate of a syntype; similarly, duplicates of a lectotype, neotype, and epitype are isolectotypes, isoneotypes, and isoepitypes, respectively.”). Those who prefer this option may so indicate by voting “ed.c.”

**Recommendation 9D**

*Prop. A (013 – Bandyopadhyay & al. in Taxon 63: 207)* Insert a new Rec. 9D.2:

“9D.2. In the absence of a number permanently identifying a lectotype, neotype, or epitype specimen, an author designating the type should, if possible, annotate the specimen or publish its photograph with a scale.”

**Rapporteurs' comments** – *Prop. A* seeks to provide an alternative to citing “any available number permanently and unambiguously identifying the lectotype, neotype, or epitype specimen” (Rec. 9D.1), when such a number is unavailable. Rec. 40A Prop. F is parallel.

**Article 10**

*Prop. A (009 – van Rijckevorsel in Taxon 63: 206)* In Art. 10 Ex. 1 delete “ultimate” in “ultimate type”.

*Prop. B (371 – McNeill in Taxon 65: 1190)* Delete Art. 10.5(a).

*Prop. C (391 – Special Committee on Largely Mechanical Type Selection in Taxon 65: 1441)* Add text to Art. 10.5 following clause (b):

“A type selection made under a largely mechanical method is superseded by any later choice of a different type not made under that method, unless, in the interval, the supersedable choice has been affirmed in a publication that did not use a mechanical method of selection.”

*Prop. D (392 – Special Committee on Largely Mechanical Type Selection in Taxon 65: 1441)* Add a Note following Art. 10.5:

“*Note 2bis.* The effective date of a typification (cf. Art. 22.2, 48.2 and 52.2(b)) subject to supersession under Art. 10.5(b) remains that of the original selection, unless the type has been superseded.”

*Prop. E (393 – Special Committee on Largely Mechanical Type Selection in Taxon 65: 1441)* Add a new Article defining “a largely mechanical method of [type] selection” following Art. 10.5:

“*10.5bis.* For the purposes of Art. 10.5(b), “a largely mechanical method of selection” is defined as one in which the type is selected following a set of objective criteria such as those set out in “Canon 15” of the so-called “Philadelphia Code” (Arthur & al. in Bull. Torrey Bot. Club 31: 255–257. 1904) or in “Canon 15” of the *American Code of Botanical Nomenclature* (Arthur & al. in Bull. Torrey Bot. Club 34: 172–174. 1907).”

*Prop. F (394 – Special Committee on Largely Mechanical Type Selection in Taxon 65: 1441)* Add a new Article establishing the criteria for a publication adopting “a largely mechanical method of [type] selection” following Art. 10.5bis:

“*10.5ter.* The following criteria determine whether a particular publication, appearing prior to 1 January 1935, has adopted a largely mechanical method of type selection:

(a) any statement to that effect, including that the *American Code* or the “Philadelphia Code” was being followed or that types were determined in a particular mechanical way (e.g. the first species in order); or

(b) adoption of any provision of the “Philadelphia Code” or the *American Code* that was contrary to the provisions of the *International Rules of Botanical Nomenclature* in force at that time, e.g. the inclusion of one or more tautonyms as species names.

Additionally for publications appearing prior to 1 January 1921:

(c) if an author of the publication was a signatory of the “Philadelphia Code”<sup>1</sup> (and was therefore also a signatory of the *American Code*);

(d) if an author of the publication stated publicly (e.g. in another publication) that in the typification of generic names the “Philadelphia Code” or the *American Code* was followed;

(e) if an author of the publication was an employee or a recognized associate of the New York Botanical Garden; or

(f) if an author of the publication was an employee of the United States government.

[Footnote:]

<sup>1</sup> A list of the 23 signatories of the “Philadelphia Code” was published in *Taxon* 65: 1448. 2016, as well as in Bull. Torrey Bot. Club 31: 250. 1904.”

*Prop. G (396 – Special Committee on Largely Mechanical Type Selection in Taxon 65: 1441)* Add Examples following Art. 10.5ter:

“*Ex. 7bis. (a)* Underwood (in Mem. Torrey Bot. Club 6: 247–283. 1899) wrote (p. 251): “For each genus established the first named species will be regarded as type”. Therefore his designation (p. 276) of *Caenopteris furcata* Bergius as type of *Caenopteris* Bergius (in Acta Acad. Sci. Imp. Petrop. 1782(2): 249. 1786) is supersedable; this has been effected by Copeland (Gen. Filicum: 166. 1947), who designated *C. rutifolia* Bergius as type.

*Ex. 7ter. (a)* Murrill (in J. Mycol. 9: 87. 1903), referring to generic types, wrote: “The principles by which I have been chiefly guided are also quite well known having been stated and explained by Underwood” [see *Ex. 7bis*]. Consequently Murrill (l.c.: 95, 98) listed the first-named species treated by Quélet (Enchir. Fung.: 175. 1886), *Coriolus lutescens* (Pers.) Quélet, as type of *Coriolus* Quélet (l.c.), and later (in Bull. Torrey Bot. Club 32: 640. 1906) listed *Polyporus zonatus* Nees as type because it was “the first species accompanied by a correct citation of a figure”. Both lectotypifications are considered to be mechanical and were superseded by the choice of *Polyporus versicolor* (L.) Fr. by Donk (Revis. Niederl. Homobasidiomyc.: 180. 1933).

*Ex. 7quater. (b)* Britton & Wilson (Bot. Porto Rico 6: 262. 1925) designated *C. lagenaria* L. as type of *Cucurbita* L. (Sp. Pl.: 1010. 1753). As Britton & Wilson included many tautonyms in their publication (e.g. “*Abrus Abrus* (L.) W. Wight”, “*Acisanthera Acisanthera* (L.) Britton”, and “*Ananas Ananas* (L.) Voss”), they were evidently following the *American Code*, and their type selections followed a mechanical method. Their selection of *C. lagenaria* (currently treated as *Lagenaria siceraria* (Molina) Standl.) has been superseded by the selection of *C. pepo* L. by Green (in Sprague, Nom. Prop. Brit. Bot.: 190. 1929).

*Ex. 7quinquies. (d)* In considering the typification of *Achyranthes* L. in a preliminary to his account of *Amaranthaceae* in the *North American Flora*, Paul C. Standley (in J. Wash. Acad. Sci. 5: 72. 1915) selected *A. repens* L. as type stating that “there seems, moreover, no doubt as to the type of the genus *Achyranthes* under the *American Code* of nomenclature”, noting that, as a result, “the name *Achyranthes* must be used in a sense other than that in which it has generally been employed in recent years”. As a result of this publication of acceptance of the *American Code*, not only is Standley’s selection of *A. repens* superseded by that of *A. aspera* L. by Hitchcock (in Sprague, Nom. Prop. Brit. Bot.: 135. 1929), but types cited in his other publications (e.g. in Britton, N. Amer. Fl. 21: 1–254. 1916–1918) are supersedable under Art. 10.5. Thus his statement (p. 134. 1917) that *A. repens* was the type of *Achyranthes* does not constitute priorable affirmation of his earlier selection; similarly his publication of type designations previously made by Britton & Brown, such as *Chenopodium rubrum* L. (p. 9. 1916) and *Amaranthus caudatus* L. (p. 102, 1917), does not constitute priorable affirmation of their selection; the typification of *Chenopodium* L. has been superseded by the selection of *C. album* L. by Hitchcock (l.c.: 137) and that of *Amaranthus* L. was first affirmed by Green (in Sprague, Nom. Prop. Brit. Bot.: 988. 1929).”

In addition, the Editorial Committee should indicate that the current Art. 10 Ex. 6 is an Example of Art. 10ter(a).

**Rapporteurs' comments** – *Prop. A* is editorial. Under Art. 10.1 the specimen that is the type of *Anacyclus valentinus* L. is the type, not the “ultimate type”, of *Anacyclus* L.

*Prop. B* demonstrates that clause (a) of Art. 10.5 is redundant and may be deleted.

*Prop. C–G*, together with Rec. 10A *Prop. A*, comprise a carefully considered set of proposals developed by the Special Committee on Publications Using a Largely Mechanical Method of Selection of Types (Art. 10.5(b)) (especially under the *American Code*). For detailed background of the proposals, including the list of signatories mentioned in the footnote of *Prop. F*, see the Special Committee's report (McNeill & al. in *Taxon* 65: 1443–1448. 2016). The proposals provide a practical solution to a long-standing problem. The Committee decided that it would be impractical to produce a sufficiently exhaustive list of works in which type choices had been based on a largely mechanical method of selection, because no index of typifications exists. Instead it was decided to establish a set of criteria that could be used to determine whether or not a publication had adopted such a method. *Prop. C* establishes and *Prop. D* clarifies that a type selected under a largely mechanical method, when followed by a later, non-mechanical choice, is either superseded by a different choice or affirmed by the same choice; and if it is affirmed, the typification dates from the original choice (thus serving stability). *Prop. E* defines “a largely mechanical method of selection”. *Prop. F* establishes the criteria for a publication adopting such a method and sets the ending date (1 January 1935). *Prop. G* offers four Examples (additional to the current Ex. 6). Rec. 10A *Prop. A* provides a Recommendation on how to cite a mechanical type selection that was later affirmed.

#### Recommendation 10A

*Prop. A* (395 – *Special Committee on Largely Mechanical Type Selection in Taxon 65: 1441*) Add a new Recommendation 10A.2:

“10A.2. In citing a type selection made under a largely mechanical method that has since been affirmed by an author not following such a method, both the place of original selection and that of effective affirmation should be cited, e.g. “*Quercus* L. ... Type: *Q. robur* L. designated by Britton & Brown (Ill. Fl. N. U.S., ed. 2, 1: 616 1913); affirmed by Green (in Sprague, Nom. Prop. Brit. Bot.: 189. 1929)”

**Rapporteurs' comments** – *Prop. A* is discussed under Art. 10 *Prop. C–G*.

#### Article 11

*Prop. A* (033 – *Mazumdar in Taxon 63: 1385*) Add a new Note with an Example after Art. 11.4:

“*Note n*. If applying Art. 11.4 would result in a later homonym or a name not validly published (e.g. a tautonym), the final epithet of the next earliest legitimate name in the same rank is to be used instead.”

“*Ex. n*. Transfer of *Polypodium tenerum* Roxb. (1844) to *Cyclosorus* Link (1833) would result in a later homonym due to existence of *Cyclosorus tener* (Fée) Christenh. (2009), based on *Goniopteris tenera* Fée (1866). In this case, the correct name is a heterotypic synonym, *Cyclosorus ciliatus* (Wall. ex Benth.) Panigrahi (1993), based on the next earliest legitimate name of the taxon in the same rank, *Aspidium ciliatum* Wall. ex Benth. (1861).”

*Prop. B* (315 – *Head & al. in Taxon 65: 903*) Amend Art. 11.8 as follows (new text in bold):

“11.8. Names of organisms (diatoms excepted) based on a non-fossil type are treated as having priority over names of the same rank based on a fossil type **where these names are treated as synonyms for a non-fossil taxon.**”

*Prop. C* (319 – *Head & al. in Taxon 65: 903*) Amend Art. 11 Ex. 29 as follows (new text in bold, deleted text in strikethrough):

“*Ex. 29*. The name ~~*Tuberculodinium* D. Wall (1967)~~ ***Tuberculodinium vancampoe* (Rossignol, 1962) D. Wall (1967)** may be retained for a fossil-genus fossil-species of cysts even though cysts of the same kind are known to be part of the life cycle of the non-fossil genus *Pyrophacus* F. Stein (1883) species ***Pyrophacus steinii* (Schiller, 1935) D. Wall & B. Dale (1971).**”

*Prop. D* (316 – *Head & al. in Taxon 65: 903*) Amend Art. 11.8 Ex. 31 as follows (new text in bold, deleted text in strikethrough):

“*Ex. 31*. If *Platycarya* Siebold & Zucc. (1843), a non-fossil genus, and *Petrophiloides* Bowerb. (1840), a fossil-genus, are **united treated as heterotypic synonyms for a non-fossil genus**, the name *Platycarya* is correct ~~for the combined genus~~, **although even though** it is antedated by *Petrophiloides*.”

*Prop. E* (317 – *Head & al. in Taxon 65: 903*) Amend Art. 11.8 Ex. 34 as follows (new text in bold, deleted text in strikethrough):

“*Ex. 34*. Boalch and Guy-Ohlson (in *Taxon* 41: 529–531. 1992) **united synonymized** the two non-diatom algal genera *Pachysphaera* Ostenf. (1899) and *Tasmanites* E. J. Newton (1875) (*Prasinophyta*). *Pachysphaera* is based on a non-fossil type and *Tasmanites* on a fossil type. Under the *Code* in effect in 1992, *Tasmanites* had priority and was therefore adopted. Under the current Art. 11.8, which excepts only diatoms and not algae in general, *Pachysphaera* is **the correct name for the combined a non-fossil genus that includes both of these heterotypic synonyms.**”

*Prop. F* (318 – *Head & al. in Taxon 65: 903*) Add a new Example under Art. 11.8 as follows:

“*Ex. 34bis*. Reid (in *Nova Hedwigia* 29: 429–462. 1977) indicated that his new fossil-species *Votadinium calvum* was the resting cyst of the non-fossil dinoflagellate *Peridinium oblongum* (Auriv., 1898) Cleve (1900). Contrary to the opinion of Lentin & Williams (in *Contr. Ser. Amer. Assoc. Stratigr. Palynologists* 28: viii + 1–856. 1993), *V. calvum* can be used as the correct name for the cyst fossil-species because it has a fossil type and therefore does not compete for priority with *P. oblongum*.”

**Rapporteurs' comments** – *Prop. A* is a useful clarification of how to determine the correct name for a taxon below the rank of genus when clause (b) of Art. 11.4 applies. Because the proposed Note spells out what the Article does not cover, it would be best if it were incorporated into Art. 11.4, with the addition that, if there is no final epithet of a legitimate name available, a replacement name may be published. Those who agree with these amendments should vote “ed.c.” If the proposal is accepted, the new Example will be referred to the Editorial Committee.

*Prop. B–F* form a set of proposals aimed at clarifying Art. 11.8 with respect to priority among names of fossil-taxa and non-fossil taxa. The proposers note that “a key feature of dual nomenclature is that the non-fossil taxon and its equivalent fossil-taxon are conceptually different. Their respective names can be united or combined by life cycle studies, but this equivalency does not automatically mean that they are synonyms.” *Prop. B* would make it explicit that Art. 11.8 applies only when names based on a fossil type and a non-fossil type are treated as synonyms and are applied to a non-fossil taxon. *Prop. C* and *D* amend Ex. 31 and 34 avoiding use of the words “united” and “combined”, which might be confused with “equivalency” in dual nomenclature. *Prop. E* adds a new Example for Art. 11.8, although it might better illustrate Art. 11.7. *Prop. F* amends Ex. 29, which illustrates Art. 11.7, so that it concerns priority among species (rather than generic) names, the proposers noting that dual nomenclature

in dinoflagellates derives from equivalency at the species level, and cannot usually be applied between genera. The Nomenclature Committee on Fossils unanimously supports Prop. B–F (votes 13:0:0).

### Article 13

*Prop. A (231 – Nakada in Taxon 65: 642)* Add a new paragraph to the end of Art. 13.1(e):

“Names of apicomplexans, ciliophorans (ciliates), foraminifera, and radiolarians are governed by the *International Code of Zoological Nomenclature* (see Pre. 8).”

*Prop. B (038 – Sennikov in Taxon 64: 392)* Proposal to discard the nomenclatural value of reprints and translations of publications first printed before the relevant nomenclatural starting-point date by adding a new Art. 13.5 with a new Note and a new Example:

“13.5. For nomenclatural purposes, all reprints and translations, published after the relevant nomenclatural starting-point date, of original works first published before that date are regarded as having been published only on the original date, with none of the names included therein being validly published.”

“Note 2. Exempt from the provisions of Art. 13.5 is one part of Linnaeus’s *Amoenitates academicae* (vol. 3, 1756).”

“Ex. 4bis. “*Helminthotheca*” was not validly published in Steinhilber’s translation of Vaillant’s work (in Königl. Akad. Wiss. Paris Anat. Abh. 5: 731. 1754) that was originally published before 1753 (Vaillant in Hist. Acad. Roy. Sci. Mém. Math. Phys. (Amsterdam, 8°) 1721: 267. 1725). The generic name *Helminthotheca* is to be correctly attributed to Zinn (1757), who was the first to fulfil conditions of its valid publication after the starting-point date.”

**Rapporteurs’ comments** – *Prop. A* is connected to Preamble Prop. A. See comments under that proposal.

*Prop. B* represents a renewed attempt to create a provision that was withdrawn in Melbourne (Art. 13 Prop. C) after failing to gain support in the mail vote. The then Rapporteurs’ comments still largely apply: “Prop. C would result in names appearing in certain publications being no longer validly published. These would include the generic names in the 1758 publication of Linnaeus’s *Opera varia* that have been generally accepted (four being conserved) and the names of Vaillant in *Compositae* evaluated by Greuter & al. (in Taxon 54: 149–174. 2005; see also the other references in the supporting text of Sennikov [in Taxon 59: 308. 2010]), thus making redundant the consequent authorship changes and conservation proposals – and the subsequent proposals to suppress the Vaillant reprint, or it and all associated ones, under Art. 32.9 (Brummitt in Taxon 57: 663. 2008; Greuter in Taxon 57: 1015–1016. 2008). On the other hand, any such publications that have not yet been assessed could no longer cause similar nomenclatural change. The proposer provides a careful assessment of the nomenclatural affects of the proposal of which he is aware, but the possibility of others cannot be ruled out. [...] The alternative to Prop. C would be individual proposals, such as those referred to above, to include particular reprinted works in the list of ‘Opera oppressa’ [now ‘Suppressed Works’] in App. VI. Given the very small number of titles quoted in the proposal, this might be a simpler and safer option.”

### Article 14

*Prop. A (102 – Barkworth & al. in Taxon 64: 1339)* Amend Art. 14.1 as follows (new text in bold, deleted text in strikethrough); Appendices to be numbered accordingly by the Editorial Committee:

“14.1. In order to avoid disadvantageous nomenclatural changes entailed by the strict application of the rules, and especially of the principle of priority in starting from the dates given in Art. 13, this

*Code* provides, in App. II–IV, lists of names of families, genera, and species of taxa at ranks to which priority applies (Art. 11) that are conserved (nomina conservanda) (see Rec. 50E.1). Conserved names are legitimate even though initially they may have been illegitimate. The name of a subdivision of a genus or of an infraspecific taxon may be conserved with a conserved type and listed in App. III and IV, respectively, when it is the basionym of a name of a genus or species that could not continue to be used in its current sense without conservation.”

*Prop. B (103 – Barkworth & al. in Taxon 64: 1339)* Amend Art. 14.4 as follows (new text in bold, deleted text in strikethrough):

“14.4. A conserved name of a family or genus at a rank from family to genus, inclusive, is conserved against all other names in the same rank based on the same type (homotypic, i.e. nomenclatural, synonyms, which are to be rejected) whether or not these are cited in the corresponding list as rejected names, and against those names based on different types (heterotypic, i.e. taxonomic, synonyms) that are listed as rejected. A conserved name of a species below the rank of genus is conserved against all names listed as rejected, and against all combinations based on the rejected names.”

*Prop. C (234 – Wiersema & al. in Taxon 65: 643)* Amend the last sentence of Art. 14.1 as follows (new text in bold):

“14.1. [...] The name of a subdivision of a genus or of an infraspecific taxon may be conserved with a conserved type and listed in App. III and IV, respectively, when it is the basionym or replaced synonym of a name of a genus or species that could not continue to be used in its current sense without conservation.”

*Prop. D (157 – van Rijckevorsel in Taxon 65: 403)* In Art. 14.9 rephrase the third sentence, so that it reads:

“In the latter case the name as conserved is treated as validly published in the later publication, whether or not the name as conserved was accompanied by a description or diagnosis of the taxon named; the original name and the name as conserved are treated as homonyms (see Art. 14.10).”

*Prop. E (158 – van Rijckevorsel in Taxon 65: 403)* Add a Note to Art. 14.10:

“Note 2bis. Any combination with a rejected earlier homonym is also unavailable for use unless such a combination is accepted as a correct name in the taxon that bears the corresponding conserved or sanctioned name (see Art. 55.3).”

*Prop. F (207 – Machado & dos Santos in Taxon 65: 414)* Amend Art. 14.12 as follows and add a footnote (new text in bold):

“14.12. The lists of conserved names will remain permanently open for additions and changes. Any proposal of an additional name must be accompanied by a detailed statement of the cases both for and against conservation. Such proposals must be submitted by publication in the journal *Taxon*<sup>1</sup> to the General Committee (see Div. III), which will refer them for examination to the committees for the various taxonomic groups (see also Art. 34.1 and 56.2).”

[footnote] <sup>1</sup> *Taxon* is the journal of the International Association for Plant Taxonomy (IAPT).

*Prop. G (208 – Machado & dos Santos in Taxon 65: 414)* Amend Art. 14.13 as follows (new text in bold):

“14.13. In the interest of nomenclatural stability, for organisms treated as fungi (including lichenicolous fungi, but excluding lichen-forming fungi and those fungi traditionally associated with them taxonomically, e.g. *Mycocaliciaceae*), lists of names may be submitted by publication in the journal *Taxon* to the General Committee, which will refer them to the Nomenclature Committee for Fungi (see Div. III) for examination by subcommittees established by that

Committee in consultation with the General Committee and appropriate international bodies. [...].”

*Prop. H (068 – Hawksworth in Taxon 64: 859)* Amend Art. 14.13 as follows:

“14.13. In the interests of nomenclatural stability, for organisms treated as fungi (including lichenicolous fungi, but excluding lichen-forming fungi and those fungi traditionally associated with them taxonomically, e.g. *Mycocaliciaceae*), lists of names may be submitted to the General Committee, which will refer them to the Nomenclature Committee for Fungi (see Div. III) for examination by subcommittees established by that Committee in consultation with the General Committee and appropriate international bodies. **Protected** ~~Accepted~~ names on these lists, which become Appendices of the *Code* once reviewed and approved by the Nomenclature Committee for Fungi and the General Committee, are to be listed with their types together with those competing synonyms (including sanctioned names) against which they are treated as conserved (see also Art. 56.3).”

*Prop. I (072 – Hawksworth in Taxon 64: 860)* Amend Art. 14.13 as follows:

“14.13. In the interests of nomenclatural stability, for organisms treated as fungi (including lichenicolous fungi, but excluding lichen-forming fungi and those fungi traditionally associated with them taxonomically, e.g. *Mycocaliciaceae*), lists of names may be submitted to the General Committee, which will refer them to the Nomenclature Committee for Fungi (see Div. III) for examination by subcommittees established by that Committee in consultation with the General Committee and appropriate international bodies. ~~Accepted~~ Names on these lists, which become Appendices of the *Code* once reviewed and approved by the Nomenclature Committee for Fungi and the General Committee, are to be listed with their types ~~together with those and~~ **are treated as conserved against any competing listed or unlisted synonyms or homonyms** (including sanctioned names) ~~against which they are treated as conserved, although conservation under Art. 14 overrides this protection. Further, the lists of protected names remain open for revision through the procedures described above~~ (see also Art. 56.3).”

*Prop. J (075 – Hawksworth in Taxon 64: 860)* Amend the first sentence of Art. 14.13 as follows:

“14.13. In the interests of nomenclatural stability, for organisms treated as fungi (~~including lichenicolous fungi, but excluding lichen-forming fungi and those fungi traditionally associated with them taxonomically, e.g. *Mycocaliciaceae*~~), lists of names may be submitted to the General Committee, which will refer them to the Nomenclature Committee for Fungi (see Div. III) for examination by subcommittees established by that Committee in consultation with the General Committee and appropriate international bodies.”

*Prop. K (073 – Hawksworth in Taxon 64: 860)* Amend Art. 14.16 as follows:

“14.16. When a proposal for the conservation **or protection** of a name has been approved by the General Committee after study by the Committee for the taxonomic group concerned, retention of that name is authorized subject to the decision of a later International Botanical Congress (see also Art. 14.13, 34.2, and 56.4).”

*Prop. L (372 – McNeill in Taxon 65: 1190)* Insert the words “as approved” in the third line of Art. 14.16 so that it reads (new text in bold):

“14.16. When a proposal for the conservation of a name has been approved by the General Committee after study by the Committee for the taxonomic group concerned, retention of that name **as approved**

is authorized subject to the decision of a later International Botanical Congress (see also Art. 34.2 and 56.4).”

*Prop. M (236 – Wiersema & al. in Taxon 65: 644)* Amend Art. 14.16 as follows (new text in bold) and add a new Note:

“14.16. When a proposal for the conservation of a name has been approved by the General Committee after study by the Committee for the taxonomic group concerned, retention of that name is authorized subject to the decision of a later International Botanical Congress (see also Art. 34.2 and 56.4). **Before 1 January 1954, conservation takes effect on the date of decision taken or authorized by the relevant International Botanical Congress. On or after that date, it takes effect on the date of effective publication (Art. 29–31) of the General Committee’s approval.**”

“*Note 4.* The effective dates for International Botanical Congress (IBC) decisions on conservation of names made before 1954 are as follows:

(a) Conservation of names in the 1906 Vienna Rules became effective on 17 Jun 1905 at the II IBC in Vienna (see Verh. Int. Bot. Kongr. Wien 1905: 135–137. 1906).

(b) Conservation of names in the 1912 Brussels Rules became effective on 18 May 1910 at the III IBC in Brussels (see Actes Congr. Int. Bot. Bruxelles 1910: 67–83. 1912).

(c) Conservation of names in the 1952 Stockholm Code include:  
(i) Those of the Special Committee for Phanerogamae and Pteridophyta, which became effective on 1 Jun 1940 under authority of the VI IBC of Amsterdam 1935 (see Bull. Misc. Inform. Kew 1940(3): 81–134).

(ii) Those of the Special Committee for Fungi, which became effective on 20 Jul 1950 at the VII IBC in Stockholm (see Regnum Veg. 1: 549–550. 1953).

After 1954, the date of the General Committee decision on a particular conservation proposal can be determined by consulting the proposals database at <http://botany.si.edu/references/codes/props/index.cfm>.”

**Rapporteurs’ comments** – *Prop. A* and *B* would permit conservation of names at all ranks to which priority applies, i.e. subdivisions of families and, not only in the current limited way (Art. 14.1 last sentence), subdivisions of genera and infraspecific taxa. Of course this would almost certainly greatly increase the work of the Permanent Nomenclature Committees and inflate the Appendices of the *Code*. The proposers themselves admit that the proposal addressed a problem that turned out not to exist, although they do not rule out the possible existence of similar problems.

*Prop. C* would amend the last sentence of Art. 14.1 so that the name of an infraspecific taxon or a subdivision of a genus could be conserved when it is the replaced synonym (not basionym, as currently allowed) of a species or generic name that is to be protected. A real case already exists in App. IV: *Cenomyce stellaris* Opiz, which is a replacement name based on *Lichen rangiferinus* var. *alpestris* L. The proposers note that the original intent was to conserve the type of both names, but the *Code* does not currently allow for this, so that the type of the varietal name would be different, with disruptive consequences. *Prop. C* would permit both names to be homotypic.

*Prop. D* seeks a reformulation of the last sentence of Art. 14.9, making it explicit that a name conserved from a later place of publication is treated as validly published there even if that later place of publication does not fulfil the requirements for valid publication. Art. 6 *Prop. B* would insert apposite references in Art. 6.3 and 12.1.

*Prop. E* would add a Note to Art. 14.10 that appears to contradict itself: a combination under a generic name that is a rejected earlier

homonym is claimed to be “unavailable for use” unless one accepts the same combination under the corresponding conserved or sanctioned later homonym. The combination is not therefore unavailable for use.

*Prop. F* and *G*, together with Art. 34 *Prop. B*, Art. 38 *Prop. E*, Art. 53 *Prop. D*, and Art. 56 *Prop. B* and *E*, seek to make publication in the journal *Taxon* the method by which proposals to conserve or reject names (Art. 14.12, 14.13, 56.2, and 56.3), suppress works (Art. 34.1), and requests for binding decisions (Art. 38.4 and 53.5) are submitted to the General Committee. The General Committee does not support these seven proposals (votes 3:21:1), but it almost unanimously supports the principle of including in the *Code* a statement that nomenclatural publications must be published in a journal or journals as determined by the General Committee (votes 24:0:1). See also Division III *Prop. B* and *C* (paragraph 1.4).

*Prop. H–K* are part of a larger series of proposals (063–085) “to clarify and enhance the naming of fungi”, affect only fungal names, and have strong support among mycologists. *Prop. H* and *K* (and Rec. 14A *Prop. A*) propose a standard and less ambiguous label for the lists created under Art. 14.13. Note that although “treated as conserved” against listed synonyms, listed names under the current provisions of Art. 14.13 are not themselves conserved; thus, without some adjustment to this provision, they currently lack protection against earlier unlisted homotypic synonyms (Art. 14.4), against type or spelling changes (Art. 14.8), against earlier homonyms (Art. 14.10), and against future deletion from the list (Art. 14.14). *Prop. I* addresses all of these issues just discussed, and could be implemented independently of the above *Prop. H* and *K* and Rec. 14A *Prop. A*. *Prop. J*, together with Art. 56 *Prop. D* and Art. 57 *Prop. B*, form part of a subset of the larger series of fungal proposals to remove the exception for lichen-forming fungi from three provisions adopted at the Melbourne Congress but no longer supported by most mycologists. The Nomenclature Committee for Fungi supports *Prop. H* and *K* (votes 12:2:4), *Prop. I* (votes 14:3:1), and *Prop. J* (votes 12:5:1), but notes that both lichenologists on the Committee oppose *Prop. J*. The Council of the International Association for Lichenology supports *Prop. J* (votes 9:0:2).

*Prop. L* adjusts Art. 14.16 to clarify that it is not just the name that should be retained but the application of the name that is the intent of the conservation proposal.

*Prop. M* concerns the fact that nomenclatural rules are retroactive unless expressly limited (Principle VI), whereas actions taken under those rules (e.g. typification, conservation, and rejection) are not. For this reason, the precise date upon which a name becomes conserved or rejected is significant (as discussed by the proposers), but the *Code* currently provides no method to determine that date. *Prop. M* together with Art. 56 *Prop. G* would provide this method.

#### Recommendation 14A

*Prop. A* (074 – *Hawksworth in Taxon* 64: 860) Amend Rec. 14A.1 as follows:

“14A.1. When a proposal for the conservation **or protection** of a name has been referred to the appropriate Committee for study, authors should follow existing usage of names as far as possible pending the General Committee’s recommendation on the proposal (see also Rec. 34A and 56A).”

**Rapporteurs’ comments** – *Prop. A* is part of a larger series of proposals (063–085) “to clarify and enhance the naming of fungi” and should be considered together with Art. 14 *Prop. H* and *K*, upon which comments have already been made. The Nomenclature Committee for Fungi supports *Prop. A* (votes 12:2:4).

#### Article 15

*Prop. A* (358 – *Hawksworth in Taxon* 65: 916) Insert a new paragraph to follow Art. 15.6:

“15.7. Names in specified ranks included in publications listed as protected works (opera utique protecta, App. VII) are to be treated as if conserved against earlier homonyms and competing synonyms. Proposals for the addition of publications to App. VII must be submitted to the General Committee (see Div. III), which will refer them for examination to the committees for the various taxonomic groups (see Rec. 34A; see also Art. 14.12 and 5.2).”

**Rapporteurs’ comments** – *Prop. A* would establish a mechanism for protecting works, in effect the opposite of the current Art. 34, which allows the suppressed works listed in App. VI. The concept may seem good, but in practice how would it function? Are all names in specified ranks in a work treated as if conserved, or only the accepted names? If the same name is treated differently in two protected works, creating a conflict, which work has precedence? Such issues would need to be addressed before such a provision could enter the *Code*. The Nomenclature Committee for Fungi does not support *Prop. A* (votes 6:9:3).

#### Article 16

*Prop. A* (159 – *van Rijckevorsel in Taxon* 65: 403) In Art. 16.1 replace “the name of an included genus” by “a generic name”.

*Prop. B* (243 – *Nakada in Taxon* 65: 646) Amend the end of Art. 16.1 as follows (new text in bold):

“[...] or (b) descriptive names, not so formed, which may be used unchanged at different ranks (see also Art. 6 Note 2bis [Art. 6 Prop. L]).”

*Prop. C* (049 – *da Silva & Menezes in Taxon* 64: 652) Amend Art. 16.3 as follows (deleted text in strikethrough):

“16.3. Automatically typified names end as follows: the name of a division or phylum ends in *-phyta*, unless it is referable to the **algae** or fungi in which case it ends in ~~*-phycota*~~ or ~~*-mycota*~~, respectively; the name of a subdivision or subphylum ends in *-phytina*, unless it is referable to the **algae** or fungi in which case it ends in ~~*-phycotina*~~ or ~~*-mycotina*~~, respectively; the name of a class in the algae ends in *-phyceae*, and of a subclass in *-phycidae*; the name of a class in the fungi ends in *-mycetes*, and of a subclass in *-mycetidae*; the name of a class in the plants ends in *-opsida*, and of a subclass in *-idae* (but not *-viridae*). Automatically typified names not in accordance with these terminations or those in Art. 17.1 are to be corrected, without change of the author citation or date of publication (see Art. 32.2). However, if such names are published with a non-Latin termination they are not validly published.”

**Rapporteurs’ comments** – *Prop. A* removes a redundant word (“included”) in Art. 16.1(a), which rules that automatically typified names above the rank of family are formed in the same way as family names, referring to Art. 18.1, which rules that a family name is formed from a name of an included genus. Hence there is no need to specify “included” in both Articles.

*Prop. B* is linked to Art. 6 *Prop. L*. See comments under that proposal.

*Prop. C* seeks to remove *-phycota* and *-phycotina* from Art. 16.3 so that, for the algae, the name of a division or phylum ends in *-phyta* and the name of a subdivision or subphylum ends in *-phytina*. This essentially returns the rule to its wording in the *Vienna Code*, where it was a “back-door rule” that functioned by enforcing Rec. 16A.1 and 16A.2. The introduction of *-phycota* and *-phycotina* into the *Melbourne Code* was perhaps influenced by the then *Rapporteurs’* comments on the relevant proposal (Rec. 16A *Prop. A* [166] by Paul

Silva in Taxon 59: 1294. 2010) and the fact that the Nomenclature Committee for Algae was not asked for its opinion. That Committee supports the present Prop. C (votes 11:1:1).

#### Article 18

*Prop. A (002 – van Rijkevorsel in Taxon 63: 205)* Restore Art. 18.3 to its pre-Melbourne phrasing, so that it reads:

“18.3. A name of a family based on an illegitimate generic name is illegitimate unless conserved.”

*Prop. B (003 – van Rijkevorsel in Taxon 63: 205)* Add an explanatory Note to Art. 18.3 (before Art. 18 Ex. 7):

“*Note n.* When an illegitimate generic name is conserved, it thereby becomes legitimate (Art. 14.1). From that moment onwards, Art. 18.3 no longer applies to it: the name of a family based on a conserved (or sanctioned) generic name is legitimate (see also Art. 52.3).”

To be placed before Art. 18 Ex. 7 which illustrates the point nicely.

**Rapporteurs’ comments** – *Prop. A* and *B* concern illegitimacy of the name of a family under Art. 18.3 and belong to a set that includes Art. 6 Prop. G and Art. 19 Prop. B and C. If accepted, the Note of Prop. B would need to be editorially adjusted (Art. 18.3 applies to a name of a family, not to a genus, and if a name of a family were a later homonym it would remain illegitimate).

#### Recommendation 18A (new)

*Prop. A (160 – van Rijkevorsel in Taxon 65: 404)* Add a new Recommendation to Art. 18:

“*Rec. 18A.1.* In forming a new family name, preferably a generic name should be selected that is well-known, and is accepted as correct by the author.”

**Rapporteurs’ comments** – *Prop. A* would add good advice in a new Recommendation after Art. 18.

#### Article 19

*Prop. A (262 – Wiersema & Greuter in Taxon 65: 652)* Proposal to add the following Note to Art. 19.4 of the *Melbourne Code*:

“*Note 2bis.* A name of a subdivision of a family that includes the type of the adopted, legitimate name of the family to which it is assigned, but is not formed from the generic name equivalent to that type, is incorrect but may nevertheless be validly published and may become correct in a different context.”

The following Example could be added to Art. 19:

“*Ex. 4bis.* The name *Lippiae* Endl. (Gen. Pl.: 633. 1838), designating a tribe of *Verbenaceae* J. St.-Hil. that includes both *Lippia* L. and *Verbena* L., the name from which the accepted name of the family is formed, was nevertheless validly published by Endlicher. Although originally incorrect, it may become correct if used for a tribe of *Verbenaceae* that includes *Lippia* but excludes *Verbena*.”

*Prop. B (004 – van Rijkevorsel in Taxon 63: 205)* Rephrase Art. 19.6 so that it reads:

“19.6. A name of a subdivision of a family based on an illegitimate generic name is illegitimate unless the corresponding family name is conserved.”

*Prop. C (005 – van Rijkevorsel in Taxon 63: 205)* Add an explanatory Note to Art. 19.6 (before Art. 19 Ex. 8):

“*Note n.* When an illegitimate generic name is conserved, it thereby becomes legitimate (Art. 14.1). From that moment onwards, Art. 19.6 no longer applies to it: a name of a subdivision of a family based on a conserved (or sanctioned) generic name is legitimate (see also Art. 52.3).”

To be placed before Art. 19 Ex. 8 which illustrates the point nicely.

**Rapporteurs’ comments** – *Prop. A* concerns suprageneric “autonyms” and would make it clear that a name of a (new) subdivision of a family that was contrary to Art. 19.4 may nevertheless be validly published. The provided Example illustrates the point well. Rules parallel to Art. 19.4 exist for autonyms at ranks below genus, i.e. Art. 22.1 and 26.1, and names contrary to those rules are not validly published according to Art. 22.2 and 26.2; however, the latter rules have no parallel in Art. 19.

*Prop. B* and *C* concern illegitimacy of the name of a subdivision of a family under Art. 19.6 and belong to a set that includes Art. 6 Prop. G and Art. 18 Prop. A and B. If accepted, the Note of Prop. C would need a slight editorial adjustment (Art. 19.6 applies to a name of a subdivision of a family, not to a genus).

#### Article 20

*Prop. A (320 – Linda in Arcadia & Lücking in Taxon 65: 903)* Amend Art. 20.2 as follows (new text in bold):

“20.2. The name of a genus may not coincide with a Latin technical term in use in morphology at the time of publication unless it was published before 1 January 1912 **or after 31 December 2011** and was accompanied by a species name published in accordance with the binary system of Linnaeus.”

*Prop. B (090 – Committee on Fossils in Taxon 64: 863)* Amend Art. 20.3 as follows (new text in bold):

“20.3. The name of a genus may not consist of two words, unless these words are joined by a hyphen (**but see Art. 60.9 for names of fossil-genera**).”

*Prop. C (161 – van Rijkevorsel in Taxon 65: 404)* In Art. 20 Ex. 9, add a reference:

“(see Sprague in Bull. Misc. Inform. Kew 7: 318–319, 331–334. 1939)”

**Rapporteurs’ comments** – *Prop. A* explains at considerable length why Art. 20.2 should never have been part of the *Code*. The proposers consider the rule both unnecessary and subject to a broad range of interpretations. Deleting it outright is impractical, as this would validate designations that have long been considered not validly published. Instead, a retroactive ending date is proposed in line with that of the requirement for a Latin description or diagnosis (Art. 39.1), i.e. 31 December 2011. This would also permit two recently published generic names in lichen fungi, *Caeruleum* Knudsen & Arcadia (2012) and *Carbonicola* Bendiksby & Timdal (2013), to be validly published. The proposers are unaware of any similar cases in botanical or mycological nomenclature since what is now Art. 20.2 first came into effect in the Montreal *Code* (Lanjouw & al. in Regnum Veg. 23. 1961: Art. 20).

*Prop. B* is discussed under Art. 60 Prop. F–H. See comments under those proposals.

*Prop. C* adds a reference to support the statement made in Art. 20 Ex. 9. It can be referred to the Editorial Committee.

#### Article 21

*Prop. A (104 – Sennikov in Taxon 64: 1339)* Amend Art. 21.2 as follows (new text in bold, deleted text in strikethrough):

“21.2. The epithet is either of the same form as a generic name, or a noun in the genitive plural, or a ~~plural~~ **an adjective (or participle used as such) in the nominative plural** agreeing in gender with the generic name, but not a noun in the genitive singular. It is written with an initial capital letter (see Art. 32.2 and 60.2).”

*Prop. B (163 – van Rijckevorsel in Taxon 65: 404)* Add an Example to Art. 21.2:

“*Ex. Obis.* In “*Vaccinium* sect. *Vitis idaea*” (Koch, Syn. Fl. Germ. Helv.: 474. 1837), the intended epithet consisted of two separate words unconnected by a hyphen, and this is therefore not a validly published name (Art. 20.3; “*Vitis idaea*” is a pre-Linnaean, binary generic name). The name is correctly attributed to Gray (1846) as *Vaccinium* sect. *Vitis-idaea* (hyphenated when published).”

If this is accepted, delete [this designation] from Art. 60 Ex. 26.

*Prop. C (162 – van Rijckevorsel in Taxon 65: 404)* Split Art. 21 Ex. 1: an Example to follow Art. 21.2 and an Example to follow Art. 21.3:

“*Ex. 0.* *Euphorbia* sect. *Tithymalus*, *Ricinocarpos* sect. *Anomodiscus*; *Pleione* subg. *Scopulorum*; *Arenaria* ser. *Anomalae*, *Euphorbia* subsect. *Tenellae*, *Sapium* subsect. *Patentinervia*.”

“*Ex. 1.* *Costus* subg. *Metacostus* and *Valeriana* sect. *Valerianopsis* are permitted, but not “*Carex* sect. *Eucarex*”.”

*Prop. D (164 – van Rijckevorsel in Taxon 65: 404)* Rephrase Art. 21.4, so that it reads:

“21.4. A name with a binary combination instead of a subdivisional epithet, but otherwise in accordance with this *Code*, is regarded as validly published in the form prescribed by Art. 21.1 (without change of author citation or date).”

**Rapporteurs’ comments** – *Prop. A*, together with Rec. 21B Prop. A and B and Art. 32 *Prop. B*, stem from concern that inflected forms of subdivisional epithets appearing in protologues may be considered as not validly published or may be incorrectly “corrected” under Art. 32.2, e.g. *Senecio* sect. *Synotii* Benth., the epithet of which appeared in the protologue in a Latin sentence that required it to have an accusative plural inflection (*Synotios*). The Rapporteurs foresee no harm in changing “plural adjective” in Art. 21.2 to the more informative “adjective in the nominative plural”, but are uncertain of the need to state that an adjective includes a “participle used as such” (it would if adjectives were understood to exclude participles). The proposer also provides a parallel rule for specific (and infraspecific) names (see Art. 23 *Prop. A* and I).

*Prop. B* and *C* concern Examples and could be referred to the Editorial Committee.

*Prop. D*, together with Art. 24 *Prop. C*, are editorial, offering parallel, clearer wording of Art. 21.4 (for subdivisional epithets) and 24.4 (for infraspecific epithets). Both proposals could be referred to the Editorial Committee.

### Recommendation 21B

*Prop. A (105 – Sennikov in Taxon 64: 1339)* Amend Rec. 21B.2 as follows (new text in bold, deleted text in strikethrough):

“21B.2. The epithet in the name of a subgenus or section is preferably a noun; that in the name of a subsection or lower-ranked subdivision of a genus is preferably a plural ~~an~~ adjective **(or participle used as such) in the plural.**”

*Prop. B (106 – Sennikov in Taxon 64: 1339)* Amend Rec. 21B.3 as follows (new text in bold, deleted text in strikethrough):

“21B.3. Authors, when proposing new epithets for names of subdivisions of genera, should avoid those in the form of a noun when other co-ordinate subdivisions of the same genus have them in the form of a plural ~~an~~ adjective **(or participle used as such) in the plural**, and vice-versa. They should also avoid, when proposing an epithet for a name of a subdivision of a genus, one already used for a subdivision of a closely related genus, or one that is identical with the name of such a genus.”

**Rapporteurs’ comments** – *Prop. A* and *B* are discussed under Art. 21 *Prop. A*.

### Article 23

*Prop. A (107 – Sennikov in Taxon 64: 1340)* Amend Art. 23.1 as follows (new text in bold):

“23.1. The name of a species is a binary combination consisting of the name of the genus followed by a single specific epithet in the form of an adjective **(or participle used as such) in the nominative**, a noun **(or word treated as such)** in the genitive, or a word in apposition, or several words, but not a phrase name of one or more descriptive nouns and associated adjectives in the ablative (see Art. 23.6(a)), nor any of certain other irregularly formed designations (see Art. 23.6(b–d)). If an epithet consists of two or more words, these are to be united or hyphenated. An epithet not so joined when originally published is not to be rejected but, when used, is to be united or hyphenated, as specified in Art. 60.9.”

*Prop. B (165 – van Rijckevorsel in Taxon 65: 404)* Rephrase Art. 23.1, so that it starts (addition in bold):

“23.1. The name of a species is a binary combination consisting of the name of the genus followed by a single specific epithet. **The epithet is written with an initial lower-case letter and has the form [...].**”

*Prop. C (166 – van Rijckevorsel in Taxon 65: 404)* Add an Example to Art. 23.1:

“*Ex. 0.* Upon publication, the epithet in “*Æsculus Pavia*” was written with an initial capital letter to indicate a pre-Linnaean generic name. Similarly, in *Gundelia* “*Tournefortii*” to indicate that it was derived from a personal name and in *Zea* “*Mays*” to indicate a vernacular name. These names are correctly cited as *Aesculus pavia* L. (1753), *Gundelia tournefortii* L. (1753), and *Zea mays* L. (1753).”

*Prop. D (386 – Wiersema & Gandhi in Taxon 65: 1196)* Amend Art. 23.5 and its Ex. 5 as follows (new text in bold, deleted text in strikethrough):

“23.5. The specific epithet, when adjectival in form and not used as a noun, agrees ~~grammatically~~ with **the gender of** the generic name; when **it the epithet** is a noun in apposition or a genitive noun, it retains its own gender and termination irrespective of the gender of the generic name. Epithets not conforming to this rule are to be corrected (see Art. 32.2) **to the proper form of the termination (Latin or transcribed Greek) of the original author(s)**. In particular, the usage of the word element *-cola* as an adjective is a correctable error.”

“*Ex. 5.* Names with adjectival epithets: **(Latin)** *Helleborus niger* L., *Brassica nigra* (L.) W. D. J. Koch, *Verbascum nigrum* L.; *Rumex cantabricus* Rech. f., *Daboecia cantabrica* (Huds.) K. Koch (*Vaccinium cantabricum* Huds.); *Vinca major* L., *Tropaeolum majus* L.; *Bromus mollis* L., *Geranium molle* L.; *Peridermium balsameum* Peck, derived from the epithet of *Abies balsamea* (L.) Mill. treated as an adjective; **(transcribed Greek)** *Brachypodium distachyon* (L.) P. Beauv. (*Bromus distachyos* L.); *Oxycoccus macrocarpos* (Aiton) Pursh (*Vaccinium macrocarpon* Aiton).”

*Prop. E (387 – Wiersema & Gandhi in Taxon 65: 1196)* Add a new Example after Art. 23 Ex. 5 to illustrate acceptable corrections to both Latin and transcribed Greek terminations of adjectival epithets:

“*Ex. 5bis.* Correctable errors in adjectival epithets: (Latin) *Zanthoxylum trifoliatum* L. (1753) upon transfer to *Acanthopanax* (Decne. & Planch.) Miq. (m., see Art. 62.2(a)) is correctly *A. trifoliatum* (L.) Voss. (1894) ‘*trifoliatum*’; *Mimosa latisiliqua* L. (1753) upon transfer to *Lysiloma* Benth. (n.) is correctly *L. latisiliquum* (L.) Benth. (1875) ‘*latisiliqua*’; *Corydalis chaerophylla* DC. (1824) upon transfer to *Capnoides* Mill. (f., see Art. 62.4) is correctly *C. chaerophylla* (DC.) Kuntze (1891) ‘*chaerophyllum*’; (transcribed Greek) *Andropogon distachyos* L. (1753), nom. cons. ‘*distachyon*’; *Bromus distachyos* L.

(1756) upon transfer to *Brachypodium* P. Beauv. (n.) is correctly *B. distachyon* (L.) P. Beauv. (1812) ‘*distachyum*’ or to *Trachynia* Link (f.) is correctly *T. distachyos* (L.) Link (1827) ‘*distachya*’; *Vaccinium macrocarpon* Aiton (1789) upon transfer to *Oxycoccus* Hill (m.) is correctly *O. macrocarpos* (Aiton) Pursh (1813) ‘*macrocarpus*’ or to *Schollera* Roth (f.) is correctly *S. macrocarpos* (Aiton) Steud. (1821) ‘*macrocarpa*.’”

[Errors found in this Example as first published have been corrected here.]

*Prop. F* (214 – *Niederle in Taxon* 65: 415) Change Art. 23.5 by inserting the word *demonstrably* and removing the last sentence as follows (new text in bold, deleted text in strikethrough):

“23.5. The specific epithet, when adjectival in form and not **demonstrably** used as a noun, agrees grammatically with the generic name; when it is a noun in apposition or a genitive noun, it retains its own gender and termination irrespective of the gender of the generic name. Epithets not conforming to this rule are to be corrected (see Art. 32.2). ~~In particular, the usage of the word element *-cola* as an adjective is a correctable error.~~”

*Prop. G* (215 – *Niederle in Taxon* 65: 415) Add the following Note after Art. 23.5:

“*Note n.* In particular, the usage of the word elements *-cola*, *-gena* in the meaning *born in*, *-fuga* in the meaning *fleeing* as an adjective is a correctable error, and the word elements *-fer*, *-fera*, *-ferum*, *-ger*, *-gera*, *-gerum* are adjectival.”

*Prop. H* (216 – *Niederle in Taxon* 65: 415) Extend Ex. 5, 6 and 8 after Art. 23.5 as follows (new text in bold, deleted text in strikethrough):

“*Ex. 5.* Names with adjectival epithets: *Helleborus niger* L., *Brasica nigra* (L.) W. D. J. Koch, *Verbascum nigrum* L.; *Rumex cantabricus* Rech. f., *Daboecia cantabrica* (Huds.) K. Koch (*Vaccinium cantabricum* Huds.); *Vinca major* L., *Tropaeolum majus* L.; *Bromus mollis* L., *Geranium molle* L.; ***Erigeron florifer* Hook., *Townsendia florifera* (Hook.) A. Gray**; *Peridermium balsameum* Peck, derived from the epithet of *Abies balsamea* (L.) Mill. treated as an adjective.”

“*Ex. 6.* Names with a noun for an epithet: *Convolvulus cantabrica* L., *Gentiana pneumonanthe* L., *Lythrum salicaria* L., *Schinus molle* L., all with epithets featuring pre-Linnaean generic names. *Gloeosporium balsameae* Davis, derived from the epithet of *Abies balsamea* (L.) Mill., treated as a **genitive singular** noun. ***Macaranga calcicola* Airy Shaw; *Macaranga calcifuga* (Whitmore) R. I. Milne; *Gentiana nubigena* Edgew.**”

“*Ex. 8.* ***Townsendia “florifer”* is a correctable error for *Townsendia florifera* (Hook.) A. Gray because “*florifer*” was not demonstrably used as a noun in its basionym *Erigeron florifer* Hook.**; When Blanchard proposed *Rubus “amnicolus”*, it was **is** a correctable error for *R. amnicola* Blanch. (1906); ***Mesembryanthemum “nubigenum”* is a correctable error for *Mesembryanthemum nubigena* Schltr.**”

*Prop. I* (108 – *Sennikov in Taxon* 64: 1340) Amend Art. 23.6(a) as follows (new text in bold):

“(a) Descriptive designations consisting of a generic name followed by a phrase name (Linnaean “nomen specificum legitimum”) of one or more descriptive nouns and associated adjectives (**or participles used as such**) in the ablative.”

*Prop. J* (383 – *McNeill & Greuter in Taxon* 65: 1194) Amend Art. 23.6(a) to read as follows (new text in bold, deleted text in strikethrough) and add an Example:

“23.6. The following designations are not to be regarded as species names:

(a) ~~Descriptive designations~~ **Designations** consisting of a generic name followed by a phrase name (Linnaean “nomen specificum legitimum”) **commonly** of one or more ~~descriptive~~ nouns and associated adjectives in the ablative, **but also including any single-word phrase-names in works in which phrase-names of two or more words predominate.**”

“*Ex. 14bis.* In Miller, *The gardeners dictionary ... abridged*, ed. 4. (1754), phrase-names of two or more words largely predominate over those that consist of a single word and are thereby similar to Linnaean nomina trivialia but are not distinguished typographically or in any other way from other phrase-names. Therefore, designations in that work such as “*Alkekengi officinarum*”, “*Leucanthemum vulgare*”, “*Oenanthe aquatica*”, and “*Sanguisorba minor*” are not validly published names.”

*Prop. K* (384 – *McNeill & Greuter in Taxon* 65: 1194) If Prop. (383) [Art. 23 Prop. J] is accepted, amend Art. 23.1 as follows (new text in bold, deleted text in strikethrough):

“23.1. The name of a species is a binary combination consisting of the name of the genus followed by a single specific epithet in the form of an adjective, a noun in the genitive, or a word in apposition, or several words, ~~but not a phrase name of one or more descriptive nouns and associated adjectives in the ablative (see Art. 23.6(a)), nor any of certain other irregularly formed designations (see also Art. 23.6(b–d)).~~ If an epithet consists of two or more words, these are to be united or hyphenated. An epithet not so joined when originally published is not to be rejected but, when used, is to be united or hyphenated, as specified in Art. 60.9.”

**Rapporteurs’ comments** – *Prop. A* is parallel to Art. 21 Prop. A, but instead applies to specific and (through Art. 24.2) infraspecific epithets, requiring such epithets, when adjectival, to be in the nominative case. Whereas the Rapporteurs could think of no adjectival subdivisional epithets that are not nominative, we did think of *Wollemia nobilis* (see Art. 60 Ex. 19), where the epithet could be a genitive adjective. In this case, the nominative form is also *nobilis*, so it would accord with the revised Art. 23.1.

*Prop. B* would make it a rule that a specific (and through Art. 24.2 infraspecific) epithet be written with an initial lower-case letter (currently only a Recommendation: Rec. 60F). A reference to Art. 60.2, as in Art. 20.1 and 21.2, would need to be inserted to make it clear that this is a matter of typography. Otherwise, it could be interpreted that an epithet published with an upper-case initial letter did not have a form complying with the provisions of Art. 16–27, thereby making the name not validly published under Art. 32.1(c).

*Prop. C* provides an Example to illustrate Art. 23.1 as modified by Prop. B.

*Prop. D* and *E*, together with Art. 32 Prop. A, address the matter of specific or infraspecific epithets with improper transcribed Greek terminations, which, unlike improper Latin terminations, are not regulated under Art. 23.5 and 32.2. Prop. D and Art. 32 Prop. A should be considered together, whereas Prop. E is an Example that could in any case be referred to the Editorial Committee.

*Prop. F–H* are analogous to a proposal (Art. 23 Prop. A [140]) by the same author (*Niederle in Taxon* 59: 984. 2010) submitted to the Melbourne Congress of 2011 and rejected there (Flann & al. in *PhytoKeys* 41: 97–98. 2014). Those who feel that the reformulated proposals, which should be considered together, make Art. 23.5 easier to apply will vote accordingly.

*Prop. I* merely clarifies that “adjectives” in Art. 23.6(a) include participles used as such. The proposed change could be useful if adjectives were understood to exclude participles.

*Prop. J* provides a mechanism in Art. 23.6(a), with an Example, to distinguish between validly published species names and “accidental binomials”, i.e. a generic name followed by a one-word phrase name. When suppression of works (Art. 34) became possible in the *Tokyo Code* of 1994, some works, such as Miller’s *The gardeners dictionary ... abridged*, ed. 4 (1754) – for species names, were omitted. *Prop. J* will obviate the need to suppress such works.

*Prop. K* is contingent on acceptance of *Prop. J*. It would eliminate redundant wording from Art. 23.1 that is better placed in Art. 23.6.

### Recommendation 23A

*Prop. A* (150 – *Sennikov & Somlyay in Taxon 65: 196*) Amend Rec. 23A.3(i) as follows (deleted text in strikethrough, new text in bold):

“(i) Not adopt epithets from unpublished names found in correspondence, travellers’ notes, herbarium labels, or similar sources, ~~attributing~~ **crediting** them to their authors, unless these authors have approved publication (see Rec. 50G).”

**Rapporteurs’ comments** – *Prop. A* would replace “attributing” with “crediting” in Rec. 23A.3(i) because the proposers prefer to reserve the term “attribution” for the authorship that is treated as correct under the rules for a name. Art. 6 *Prop. F* and Art. 46 *Prop. M* include parallel changes.

### Article 24

*Prop. A* (388 – *Wiersema & Gandhi in Taxon 65: 1196*) Add to the cross-reference in Art. 24.2 to provide similar guidance for infraspecific epithets (new text in bold):

“24.2. Infraspecific epithets are formed like specific epithets and, when adjectival in form and not used as nouns, they agree grammatically with the generic name (see Art. 23.5 and 32.2).”

*Prop. B* (321 – *Greuter & al. in Taxon 65: 905*) Reword Art. 24.3 (new text in bold, deleted text in strikethrough), and add two Examples:

“24.3. Infraspecific names with final epithets such as *genuinus*, *originalis*, *originarius*, *typicus*, *verus*, and *veridicus*, **or with the prefix eu-**, when purporting to indicate the taxon containing the type of the name of the next higher-ranked taxon, are not validly published unless they are ~~autonyms~~ (Art. 26) **have the same final epithet as the name of the corresponding higher-ranked taxon** (see Art. 26.2 and Rec. 26A.1 & 3).”

“*Ex. 2bis*. “*Hieracium piliferum* var. *genuinum*” (Rouy, Fl. France 9: 270. 1905) was based on “*H. armerioides* var. *genuinum*” of Arvet-Touvet (*Hieracium* Alp. Franc.: 37. 1888), an invalid designation under Art. 26.2. As circumscribed by Rouy, the taxon does not include the type of *H. piliferum*, but it does include the type of the name of the next higher-ranked taxon, *H. piliferum* subsp. *armerioides* (Arv.-Touv.) Rouy. Therefore, “*H. piliferum* var. *genuinum*” is not a validly published name of a new variety.”

“*Ex. 2ter*. “*Narcissus bulbocodium* var. *eu-praecox*” and “*N. bulbocodium* var. *eu-albidus*” were not validly published by Emberger & Maire (in Jahandiez & Maire, Cat. Pl. Maroc: 961. 1941) as they were placed, respectively, in *N. bulbocodium* subsp. *praecox* Gattef. & Maire (in Bull. Soc. Hist. Nat. Afrique N. 28: 540. 1937) and *N. bulbocodium* subsp. *albidus* (Emb. & Maire) Maire (in Jahandiez & Maire, Cat. Pl. Maroc: 138. 1931) and their epithet purports inclusion of the type of the higher-ranked name in the subordinate variety.”

*Prop. C* (167 – *van Rijckevorsel in Taxon 65: 404*) Rephrase Art. 24.4, so that it reads:

“24.4. A name with a binary combination instead of an infraspecific epithet, but otherwise in accordance with this *Code*, is regarded

as validly published in the form prescribed by Art. 24.1 (without change of author citation or date).”

**Rapporteurs’ comments** – *Prop. A* inserts into Art. 24.2 a relevant and useful reference to Art. 23.5.

*Prop. B* seeks to fix a problem in Art. 24.3 left over from the *Edinburgh Code* (Lanjouw & al. in *Regnum Veg.* 46. 1966), under which all infraspecific names could have autonyms. Names with the same final epithet as the name of the next higher-ranked infraspecific taxon are widely used, and this use is explicitly recommended (Rec. 26A), but they are apparently forbidden by Art. 24.3, because they have “final epithets [...] purporting to indicate the taxon containing the type of the name of the next higher-ranked taxon”. The proposed amendment would allow them to be validly published. Note that the listed epithets (*genuinus*, etc.) are examples and the rule is not restricted to them. The prefix “*eu-*” is appropriately added to this list. If *Prop. B* is accepted, the proposed two new Examples will be considered by the Editorial Committee.

*Prop. C*, together with Art. 21 *Prop. D*, are editorial, offering parallel, clearer wording of Art. 24.4 (for infraspecific epithets) and 21.4 (for subdivisional epithets). Both proposals could be referred to the Editorial Committee.

### Article 28

*Prop. A* (168 – *van Rijckevorsel in Taxon 65: 404*) Bring Art. 28 Note 4 into accord with the *ICNCP*, so that it reads:

“*Note 4*. An epithet in a name published in conformity with this *Code* may be retained in a name for that taxon under the rules of the *ICNCP* when it is considered appropriate to treat the taxon concerned under that *Code*.”

*Prop. B* (169 – *van Rijckevorsel in Taxon 65: 404*) Add an extra Example to Art. 28 Note 4:

“*Ex. Ibis*. If *Cedrus atlantica* ‘*Aurea*’ is judged to be part of *Cedrus libani*, it may be renamed *Cedrus libani* ‘*Atlantica Aurea*.’”

**Rapporteurs’ comments** – *Prop. A* seeks to bring Note 4 in line with the *International Code of Nomenclature for Cultivated Plants* (ed. 9, Brickell & al. in *Scripta Hort.* 18. 2016).

*Prop. B* offers a further Example for Note 4 and can be referred to the Editorial Committee.

### Article 29

*Prop. A* (263 – *Deng in Taxon 65: 653*) Amend Art. 29.1 as follows (new text in bold):

“29.1. Publication is effective, under this *Code*, by distribution of printed matter (through sale, exchange, or gift) to the general public or at least to scientific institutions with generally accessible libraries. Publication is also effected by distribution on or after 1 January 2012 of electronic material in Portable Document Format (PDF; see also Art. 29.3 and Rec. 29A.1) in an online publication with an International Standard Serial Number (ISSN) or an International Standard Book Number (ISBN). **Publication on or after 1 January 2019 is not effective unless the publication has an ISSN or an ISBN.**”

**Rapporteurs’ comments** – *Prop. A* would introduce a new requirement for effective publication of printed matter starting on 1 January 2019, namely the publication having an ISSN or ISBN. This has already been a requirement for effective publication of electronic material since the e-publication starting date of 1 January 2012. The rationale for *Prop. A* is that publications without an ISSN or ISBN are likely to be ephemeral or “grey” publications, often with small print runs and limited distribution, and therefore difficult to find. Material in such publications may or may not be intended for effective

publication (this can be difficult to determine) and may be formally re-published later. Registration may help address these issues for fungal names, and likewise for algal and plant names if the current registration proposals (Art. 42 Prop. B–D and Div. III Prop. A) are accepted. In that case, it might be overkill to require an ISSN or ISBN for effective publication of printed matter. On the other hand, if an ISSN or ISBN is required for electronic material, why should printed matter be treated differently?

#### Recommendation 29A

*Prop. A (264 – Turland & Knapp in Taxon 65: 653)* Delete clause (c) of Rec. 29A.2:

“29A.2. Authors of electronic material should give preference to publications that are archived and curated, satisfying the following criteria as far as is practical (see also Rec. 29A.1):

(a) The material should be placed in multiple trusted online digital repositories, e.g. an ISO-certified repository.

(b) Digital repositories should be in more than one area of the world and preferably on different continents.

~~(c) Deposition of printed copies in libraries in more than one area of the world and preferably on different continents is also advisable (but see Rec. 30A.2).”~~

*Rapporteurs’ comments – Prop. A* seeks deletion of an unrealistic Recommendation. The *Code* should recommend realistically, and it is questionable whether libraries generally would curate what are essentially reprints. Authors would still be free to deposit printed copies if they wished.

#### Article 30

*Prop. A (041 – Sennikov in Taxon 64: 393)* Add a new Article and a new Example after Art. 30.1:

“30.1*bis*. Distribution of printed matter does not constitute effective publication if there is direct evidence within the work that it was not intended for effective publication.”

*Ex. 1bis*. A summary of the dissertation by Krassovskaya, “The genus *Rubus* L. (*Rosaceae*) in East Europe and the Caucasus”, defended in 2002, was printed as a booklet lacking an ISBN but with a statement of the name of the publisher and the printer. Article 30.8 notwithstanding, names of new taxa and new combinations included in that work, although accepted by the author and accompanied with Latin descriptions and type statements, or with full and direct references to basionyms, were not effectively published because the title page of that work bears a statement “printed as manuscript”.”

*Prop. B (322 – Kirschner & Thines in Taxon 65: 906)* Add a new sentence to Art. 30.2 (new text in bold):

“30.2. An electronic publication is not effectively published if there is evidence within or associated with the publication that it is merely a preliminary version that was or is to be replaced by a version the publisher considers final, in which only that final version is effectively published. **On or after 1 January 2019, among different versions of an electronic publication, only the version bearing the final pagination and full bibliographic information is effectively published and not any previous version later replaced.**”

*Prop. C (323 – Kirschner & Thines in Taxon 65: 907)* Add a new sentence to Art. 30.2 (new text in bold) and delete Art. 30 Ex. 6, 7, and 8:

“30.2. [...] **Among different versions of an electronic publication, only the version bearing the final pagination and full bibliographic information is effectively published and not any previous version later replaced.**”

*Prop. D (265 – Turland & Knapp in Taxon 65: 653)* Amend Art. 30.2 as follows (new text in bold, deleted text in strikethrough):

“30.2. An electronic publication is not effectively published if there is evidence within or associated with the publication that its **content** is merely a preliminary ~~version that~~ **and** was, or is to be, replaced by a ~~version~~ **content** that the publisher considers final, in which case only **the version with that final version content** is effectively published.”

*Prop. E (266 – Turland & Knapp in Taxon 65: 654)* Add a new Note after Art. 30.2:

“*Note n*. An electronic publication may be a final version even if details, e.g. volume, issue, or page numbers, are to be added or changed, provided that those details are not part of the content (see Art. 30.2*bis*).”

*Prop. F (325 – Kirschner & Thines in Taxon 65: 907)* Delete Art. 30 Ex. 4.

*Prop. G (267 – Turland & Knapp in Taxon 65: 654)* Move Art. 30 Note 1 and Ex. 5 to Art. 29.

*Prop. H (324 – Kirschner & Thines in Taxon 65: 907)* Amend Art. 30 Note 2 as follows (deleted text in strikethrough):

“*Note 2*. Content in external sources accessed via a hyperlink or URL (Uniform Resource Locator) embedded in text is not part of the publication; ~~nor is associated information that does not form part of the text itself, such as page numbers (if preliminary or lacking) or watermarks. Content is that which stands alone as the version that the publisher considers final (see Art. 30.2).~~”

*Prop. I (268 – Turland & Knapp in Taxon 65: 654)* Convert Art. 30 Note 2 to an Article, as follows (new text in bold, deleted text in strikethrough):

“*Note 2 30.2bis*. Content ~~in of an electronic publication includes that which is visible on the page, e.g. text, tables, illustrations, etc., but it excludes volume, issue, and page numbers; it also excludes external sources accessed via a hyperlink or URL (Uniform Resource Locator) embedded in text is not part of the publication; nor is associated information that does not form part of the text itself, such as page numbers (if preliminary or lacking) or watermarks. Content is that which stands alone as the version that the publisher considers final (see Art. 30.2).~~”

*Prop. J (040 – Sennikov in Taxon 64: 393)* Add a new Note to Art. 30 after Note 2:

“*Note 2bis*. Electronic supplements and appendices issued separately in Portable Document Format (PDF) and linked to an online publication that complies with provisions of Art. 29.1 are treated as part of that publication.”

*Prop. K (217 – Niederle in Taxon 65: 416)* Add a new Art. 30.8*bis*, as follows:

“30.8*bis*. Publication on or after 1 January 2018 is not effective unless the publication contains a statement that all protologues contained in it may be reproduced, stored and disseminated by all means without limitation and free of charge.”

*Prop. L (039 – Sennikov in Taxon 64: 393)* Proposal to eliminate the nomenclatural impact of recent posthumous publications of pre-Linnaean authors by adding a new Art. 30.9:

“30.9. First publication on or after 1 January 1900 of works written before 1 May 1753 does not constitute effective publication.”

*Rapporteurs’ comments – Prop. A* would eliminate from being considered effectively published some publications that would be considered so under provisions in place since the 2006 *Vienna Code*. The impact of this change on existing nomenclature is unclear, as is how to determine whether something is evidence that the work “was

not intended for effective publication". The statement "printed as manuscript" (which may be a translation from Russian) is given as such evidence in the accompanying Example, although this may not be obvious to all *Code* users.

*Prop. B* would extend Art. 30.2 to require an electronic publication not only to be the final version, as is currently required, but on or after 1 January 2019 also to bear final pagination and full bibliographic information. This would render, e.g., journal articles issued online in advance of completion of an issue ("fast-track", "issue in progress", "online first", "prepub", etc.) as not effectively published if they included preliminary pagination, even if they were otherwise final versions. Cases in which it is currently difficult to determine whether the publication is preliminary or final would become easier to resolve if this proposal is accepted. However, it is hardly realistic to expect publishers of journals to publish *only* articles with final pagination, so we could expect to see an increase in online articles that were, for a while, not effectively published (as we currently see non-final versions explicitly designated as such, e.g. accepted manuscripts not yet copy-edited). There exists an important issue concerning the date of publication. Publishers are usually conscientious in citing the date of online publication in articles. If this proposal is accepted, we will have to hope they will cite the date on which the version with final pagination is published when a preliminarily paginated but otherwise final version had already been (ineffectively) published, otherwise it will be extremely difficult to determine the date of effective publication. *Prop. H* (see comments below) would be contingent on *Prop. B* or *C* being accepted.

*Prop. C* is a variant of *Prop. B* without the 1 January 2019 starting date. The rule would therefore be retroactive to 1 January 2012, the starting date for effective electronic publication. This would shift the date of effective publication in many cases, which could have destabilizing consequences for priority. Determining the precise date of effective publication could also be very difficult, as discussed under *Prop. B*.

*Prop. D* seeks to more clearly establish that it is the *content* of an electronic publication that must not be preliminary in order for the publication to be effective: content being defined in *Prop. I*.

*Prop. E* would add a Note to clarify that page numbers are not part of the content of a publication and are therefore irrelevant in deciding whether a publication is a preliminary or final version.

*Prop. F* proposes deletion of Ex. 4 and could be referred to the Editorial Committee.

*Prop. G* is editorial, as Note 1 and Ex. 5 belong in Art. 29, not in Art. 30. Moreover, as the proposers explain, Ex. 5 does not illustrate Note 1. The proposal can be referred to the Editorial Committee, which should consider replacing or repositioning Ex. 5.

*Prop. H* would be contingent on *Prop. B* or *C* being accepted, in which case page numbers would have importance in indicating a final version and presumably would be considered part of that publication.

*Prop. I* would convert Note 2 to an Article in order to define what the "content" of an electronic publication is and what it is not. Material external to the publication accessed via a hyperlink, which could include electronic supplements (see *Prop. J*), would not be part of the content. If the proposal is accepted, the Editorial Committee should place the new Article, followed by Ex. 6–8, before Art. 30.3, for which an Example would be welcome.

*Prop. J* seeks to clarify that electronic supplementary material may be treated as part of the online publication to which it is linked. However, the first clause of Note 2 suggests that such supplementary material is not part of the publication (and *Prop. I* would make this more

explicit). The new Note of *Prop. J*, as currently worded, suggests one could link a PDF file – not necessarily published at the same time – to effectively published electronic material and thereby create a supplement or appendix that was part of that publication. If the words "issued separately" were changed to "issued separately and simultaneously", this issue might be resolved; moreover the Note should really be an Article to avoid conflict with the current Note 2. Those favouring these amendments to *Prop. J* may so indicate by voting "ed.c."

*Prop. K* would impose severe limitations on effective publication from 2018 onward. It is clearly unrealistic to expect publishers to comply with the proposed new rule.

*Prop. L* seeks to preclude the possibility of names appearing in facsimile editions of pre-Linnaean works from being taken up. Whether or not this possibility poses a future threat to nomenclatural stability remains to be seen, so one might question whether we need a solution now to stave off a hypothetical future problem.

### Recommendation 30A

*Prop. A* (269 – Turland & Knapp in *Taxon* 65: 654) Add to Rec. 30A.1 (new text in bold):

"30A.1. Preliminary and final versions of the same electronic publication should be clearly indicated as such when they are first issued. **The phrase "Version of Record" should only be used to indicate a final version in which the content will not change.**"

*Prop. B* (270 – Turland & Knapp in *Taxon* 65: 654) Add a new paragraph after Rec. 30A.1:

"30A.1bis. To facilitate citation, final versions of electronic publications should contain final pagination."

*Prop. C* (219 – Williams & al. in *Taxon* 65: 416) Add a new Recommendation to Art. 30A:

"30A.1bis. Authors and editors are strongly recommended to include page numbers on the actual pages of publications, such that if electronic publications are printed, these page numbers are visible."

*Prop. D* (170 – van Rijckevorsel in *Taxon* 65: 405) In Rec. 30A.3 replace "taxonomic articles" by "taxonomic papers". Also, in Art. 46.9 delete "or article" (from "publication or article").

*Prop. E* (218 – Niederle in *Taxon* 65: 416) Add a new Rec. 30A.4bis, as follows:

"30A.4bis. If the copyright holder of a publication dated before 1 January 2018 refuses free reproduction, storage or dissemination of protologues contained in it, this should be considered sufficient grounds for including the publication among the opera utique oppressa (Art. 34)."

*Prop. F* (011 – Bhattacharjee, B. & al. in *Taxon* 63: 206) Insert a new Rec. 30A.5:

"30A.5. Authors publishing nomenclatural novelties should give preference to electronic publications with open or free access to readers."

**Rapporteurs' comments** – *Prop. A* would encourage use of the phrase "Version of Record", commonly used by publishers to indicate the final version of an electronic publication. This should also discourage its misuse in a preliminary version.

*Prop. B* recommends final versions of journal articles issued online in advance of completion of an issue ("fast-track", "issue in progress", "online first", "prepub", etc.) to be "citation ready", i.e. to contain final pagination, which greatly facilitates citation and avoids uncertainty about preliminary versus final versions. The proposers also suggest that the Editorial Committee "seek examples of good practice in citation for inclusion as Examples in the *Code*".

*Prop. C* urges the inclusion of page numbers on the actual pages of publications, in order to facilitate citation. The proposers

have encountered some unpaginated electronic publications and separately propose how to cite page numbers in them (Rec. 41A Prop. B).

*Prop. D* would make the *Code* consistent in its predominant use of the word “paper” instead of “article” in the sense of a paper or article in a journal. It can be referred to the Editorial Committee.

*Prop. E* is quite obviously unworkable. Copyright holders should not be required to waive their rights, and the implied threat of suppression of publications under Art. 34 is absurd.

*Prop. F* would recommend that, if authors publish electronically, they should give preference to open or free access, although as worded it could imply (apparently not the proposers’ intent) that electronic publication is also preferred. It is debatable whether the *Code* should recommend on such matters, when authors may have other factors to consider, such as the cost of open-access publishing or journal impact factor.

### Recommendation 31B

*Prop. A* (271 – Turland & Knapp in *Taxon* 65: 654) Reword Rec. 31B.1 as follows:

“31B.1. The date of effective publication should be clearly indicated as precisely as possible within a publication as part of the content. When a publication is issued in parts, this date should be indicated in each part.”

*Prop. B* (221 – Deng in *Taxon* 65: 417) Amend Rec. 31B.1 as follows (new text in bold):

“31B.1. **Publishers or editors or** authors should indicate precisely the dates of publication of their works. In a work appearing in parts the last-published sheet of the volume should indicate the precise dates on which the different fascicles or parts of the volume were published as well as the number of pages and plates in each.”

*Prop. C* (014 – Bhattacharjee, A. & al. in *Taxon* 63: 207) Amend Rec. 31B.1 (change appears in bold):

“31B.1. Authors **or editors** should indicate precisely the dates of publication of their works. In a work appearing in parts the last-published sheet of the volume should indicate the precise dates on which the different fascicles or parts of the volume were published as well as the number of pages and plates in each.”

*Prop. D* (326 – Kirschner & Thines in *Taxon* 65: 907) Add a new Recommendation after Rec. 30A.1 [sic]:

“30A.1bis [sic]. Publishers should provide the date of publication on each individual article.”

*Prop. E* (222 – Deng in *Taxon* 65: 417) Add a new paragraph after Rec. 31B.1:

“31B.2. In electronic material, the precise dates (year, month, and day) of effective publication should be included.”

**Rapporteurs’ comments** – *Prop. A* seeks to modernize Rec. 31B.1, which is still in part worded with print publication in mind. The proposed new formulation covers both print and electronic publication and avoids mentioning who should indicate the date of effective publication. The proposers stress the importance of the date being indicated in the *content* of the publication.

*Prop. B* and *C* would urge publishers and editors (*Prop. B*), or just editors (*Prop. C*), in addition to authors, to indicate precisely the dates of publication of their works. This assumes that editors and publishers actually read and follow the *Code*. If *Prop. A* is accepted, both *Prop. B* and *C* would be redundant; otherwise if *Prop. B* is accepted, *Prop. C* would be redundant.

*Prop. D* concerns date of publication and was therefore misplaced in Rec. 30A. Instead it belongs in Rec. 31B. The proposal

will be more or less redundant if *Prop. A* is accepted; otherwise, an accepted *Prop. D* could be editorially incorporated into Rec. 31B.1.

*Prop. E* is a useful Recommendation. If accepted, it could stand alone or be editorially incorporated into Rec. 31B.1, whether or not *Prop. A, B, or C* is also accepted.

### Article 32

*Prop. A* (385 – Wiersema & Gandhi in *Taxon* 65: 1196) Amend Art. 32.2 as follows (new text in bold, deleted text in strikethrough):

“32.2. Names or epithets **above the rank of species** published with an improper Latin termination but otherwise in accordance with this *Code* are regarded as validly published; they are to be changed to accord with Art. 16–19, **and 21, 23, and 24**, without change of the author citation or date. **Specific or infraspecific epithets published with an improper Latin or transcribed Greek termination but otherwise in accordance with this *Code* are regarded as validly published; they are to be changed to accord with Art. 23 and 24, without change of the author citation or date** (see also Art. 60.12).”

*Prop. B* (109 – Sennikov in *Taxon* 64: 1340) Add a new Note after Art. 32.2 with a new Example:

“*Note 2.* Improper terminations of otherwise correctly formed names or epithets may result from the use of an inflectional form other than that required by Art. 32.2.”

“*Ex. Ibis.* Bentham (in Bentham & Hooker, Gen. Pl. 2: 448. 1873) discussed characters of certain species of *Senecio* which, in his opinion, constituted a separate section (“in speciebus ... sectionem subdistinctam (*Synotios* constituentibus”). The sectional epithet was expressed in this sentence by an adjective in the accusative plural because of being used as a direct object, which requires the use of accusative in Latin. Under Art. 21.2 this epithet must be in the nominative plural, and the name was validly published as *Senecio* sect. *Synotii* Benth.”

**Rapporteurs’ comments** – *Prop. A* is discussed under Art. 23 Prop. D and E.

*Prop. B* provides a Note and an Example to clarify that a name or epithet may be correctable under Art. 32.2, because it has a termination not in accordance with the *Code*, even though it is grammatically correct in its context. This is clear from the text supporting the proposal, but not so clear in the Note itself, which would need editorial attention. If the Proposal is accepted, the Example would be referred to the Editorial Committee.

### Article 34

*Prop. A* (359 – Hawksworth in *Taxon* 65: 917) Insert a new phrase in the first sentence of Art. 34.1 as follows (new text in bold):

“34.1. Names in specified ranks included in publications listed as suppressed works (*opera utique oppressa*; App. VI) are not validly published **and any other nomenclatural acts associated with those names are ineffective.**”

*Prop. B* (209 – Machado & dos Santos in *Taxon* 65: 414) Amend Art. 34.1 as follows (new text in bold):

“34.1. Names in specified ranks included in publications listed as suppressed works (*opera utique oppressa*; App. VI) are not validly published. Proposals for the addition of publications to App. VI must be submitted **by publication in the journal *Taxon*** to the General Committee (see Div. III), which will refer them for examination to the committees for the various taxonomic groups (see Rec. 34A; see also Art. 14.12 and 56.2).”

*Prop. C* (238 – Wiersema & al. in *Taxon* 65: 645) Amend Art. 34.2 as follows (new text in bold, deleted text in strikethrough):

“34.2. When a proposal for the suppression of a publication has been approved by the General Committee after study by the committees for the taxonomic groups concerned, suppression of that publication, **is authorized** subject to the decision of a later International Botanical Congress (see also Art. 14.16 and 56.4), **takes retroactive effect.**”

**Rapporteurs’ comments** – *Prop. A* would extend the impact of suppressing a work, so that not only would names therein be not validly published, but all other nomenclatural acts therein would be ineffective. “Nomenclatural acts” are not currently mentioned in the *Code*, although *Prop. A* and five other proposals would add the term, and Art. 42 *Prop. B* on registration provides us with a definition (which the Editorial Committee would surely add to the Glossary), viz. “type designations (Art. 7.9 and 7.10), or choices of name (Art. 11.5 and 53.6), orthography (Art. 61.3), or gender (Art. 62.3)”. Most of the suppressed works currently listed in App. VI date from the period before types were designated, so in these cases the proposed amendment would have no consequences. However, one recent addition to App. VI (Motyka, Porosty (*Lichenes*). Rodzina *Lecanoraceae*. 1995–1996) contains numerous lectotypifications (of previously validly published names), some of which agree with current usage of the names, whereas others do not. Laboriously dealing with the disruptive cases by conserving the types could be avoided by extending the impact of Art. 34 to include nomenclatural acts. There would be no obstacle to redoing the “good” lectotypifications, and this would also apply to any future works added to App. VI. The nullifying of nomenclatural acts would of course become a factor in considering future proposals to suppress works.

*Prop. B* is discussed under Art. 14 *Prop. F* and G.

*Prop. C* would rule that suppression of a publication under Art. 34 would take retroactive effect, because actions taken under the rules of nomenclature are not automatically retroactive (as discussed under Art. 14 *Prop. M*, Art. 38 *Prop. D*, and Art. 53 *Prop. C*). Hence names in specified ranks in such a work, upon its suppression (when the proposal is approved by the General Committee), would become as if they had never been validly published. While this may have been generally assumed, it was nowhere stated in Art. 34.

### Article 36

*Prop. A* (373 – McNeill in *Taxon* 65: 1190) Split Art. 36.1 into two and reword it to read (new text in bold, deleted text in strikethrough):

“36.1. A name is not validly published ~~(a)~~ when it is not accepted by the author in the original publication, **for example;** ~~(b)~~ **(a)** when it is merely proposed in anticipation of the future acceptance of the taxon concerned, or of a particular circumscription, position, or rank of the taxon (so-called provisional name); ~~(c)~~ **or (b)** when it is merely cited as a synonym; ~~or (d)~~ **by the mere mention of the subordinate taxa included in the taxon concerned. Art. 36.1(a) does** **These provisions do** not apply to names published with a question mark or other indication of taxonomic doubt, yet accepted by their author.”

“36.1**is**. A name is not validly published **by the mere mention of the subordinate taxa included in the taxon concerned.**”

*Prop. B* (133 – Sennikov & Somlyay in *Taxon* 65: 193) Amend Art. 36.1 as follows (new text in bold):

“36.1. A name is not validly published *(a)* when it is not accepted by the author **of the name (see Art. 46)** in the original publication **(Art. 46.6)**; *(b)* when it is merely proposed in anticipation of the future acceptance of the taxon concerned, or of a particular circumscription, position, or rank of the taxon (so-called provisional name); *(c)* when it is merely cited as a synonym; or *(d)* by the mere mention of the subordinate taxa included in the taxon concerned. Art. 36.1(a) does

not apply to names published with a question mark or other indication of taxonomic doubt, yet accepted by their author.”

*Prop. C* (171 – van Rijckevorsel in *Taxon* 65: 405) In Art. 36.1(a) replace “in the original publication” by “in the publication itself”.

*Prop. D* (327 – Mosyakin & McNeill in *Taxon* 65: 908) Amend Art. 36.2 with Ex. 11 as follows (new text in bold):

“36.2. When, on or after 1 January 1953, two or more different names based on the same type are proposed simultaneously for the same taxon by the same author **and accepted as alternatives by that author in the same publication** (so-called alternative names), none of them is validly published. This rule does not apply in those cases where the same combination is simultaneously used at different ranks, either for infraspecific taxa within a species or for subdivisions of a genus within a genus (see Rec. 22A.1–2 and 26A.1–3), nor to names provided for in Art. 59.1.”

*Ex. 11.* The species of *Brosimum* Sw. described by Ducke (in Arch. Jard. Bot. Rio de Janeiro 3: 23–29. 1922) were published with alternative names under *Piratinera* Aubl. added in a footnote (pp. 23–24), **in which Ducke indicated acceptability of these names under the competing (alternative) American Code.** The publication of both sets of names, being effected before 1 January 1953, is valid.”

*Prop. E* (050 – Sennikov & al. in *Taxon* 64: 654) Add a new paragraph with new Examples to Art. 36:

“36.3. Publication of a name in a dictionary, or a standalone index, or a review that solely purported to report nomenclature or taxonomic systems of previously published works does not constitute acceptance of the name by any author.”

*Ex. n1.* The *Index Kewensis* originally provided a list of names and their synonyms of all species and genera of phanerogams accepted in Kew. In its main volumes and first three supplements, certain species names were printed in Roman type to indicate their acceptance by the compilers, whereas synonyms were printed in Italic type. From its supplement 4 onwards the recording policy was revised and the use of Italic type was discontinued; in the absence of an explicit statement about acceptance of names by the compilers, no nomenclatural novelty may be treated as validly published in supplements 4–21 of this *Index* and in its annual supplements under the title *Kew Index*.”

*Ex. n2.* “*Micralsopsis*” was not validly published by Buck (in Mem. New York Bot. Gard. 45: 525. 1987) because it was proposed as a provisional name (“gen. nov. prov.”). Although this name was included, with a full and direct reference to the presumed protologue, as “considered for all events and purposes to be legitimate” in the list of *Names in Current Use for Extant Plant Genera* (Greuter & al. in Regnum Veg. 129: 698. 1993), it was not validly published in that list because the listed names were not accepted by the compilers but only “declared to be available for use by those who need them.”

*Ex. n3.* Reuter in *Index generalis Actorum 1–60 Societatis pro Fauna et Flora Fennica* (in Acta Soc. Fauna Fl. Fenn. 61: 164. 1939) registered *Hieracium “dodrantale* 12, 4: 23”, which was reportedly described as a new species on the given page in *Acta Societatis pro Fauna et Flora Fennica*. By doing so he directly referred to the validly published name *Pilosella dodrantis* Norrl. (in Acta Soc. Fauna Fl. Fenn. 12(4): 23. 1895). Reuter’s citation does not constitute valid publication of “*Hieracium dodrante*” because he recorded this name as if it were accepted by Norrlin but not necessarily in Reuter’s register.”

*Ex. n4.* The family designation “*Athanasiaee*” was not validly published by Martinov (Tekhno-Bot. Slovar. 56. 1820) when he wrote (translated from Russian) that “*Athanasiae* ... is the name of 16th family of 15th classis in the system of Augier”, thus providing an indirect

reference to the description of “Athanasies” in Augier (Essai Nouv. Classif. Vég.: 178. 1801). Martinov’s indication of acceptance of this taxon by Augier does not constitute explicit acceptance of the name of this taxon by Martinov.”

“*Ex. n5.* Huber (in Bot. Centralbl. 101: 108. 1906) in his review of Braun’s article *Neue Formen und Standorte für die Bündner Flora* (in Jahresber. Naturf. Ges. Graubündens 47: 123–132. 1905) referred to the original entry of “*Hieracium squalidum* ssp. *Prinzii* Käser” by citing “*Hieracium Prinzii* Käser”. In doing so, Huber had not accepted and thus had not validly published the combination *H. prinzii*.”

“*Ex. n6.* Tzvelev (in Bot. Zhurn. (Moscow & Leningrad) 80(6): 122. 1995) validly published the new generic name *Plastobrassica* (O. E. Schulz) Tzvel. in his critical review of *Atlas Florae Europaeae*, vol. 10. When doing so, Tzvelev explicitly accepted the new name and rejected the earlier position of this taxon.”

“*Ex. n7.* The unsigned text by Borbás & Fekete (in Oesterr. Bot. Z. 39: 223. 1889) was supposed to be a bibliographic review of Fekete’s article (in Erdészeti Lapok 1889: 105–106. 1889) but went far beyond the purpose by proposing the species name *Sorbus perincisa* for an unnamed infraspecific variant of *S. torminalis* (L.) Crantz described in Fekete (l.c.) with a brief original description of the taxon and precise indication of its provenance. The name *S. perincisa* Borbás & Fekete does not fall under Art. 36.3 and is validly published in this work.”

**Rapporteurs’ comments** – *Prop. A* seeks a clearer formulation of Art. 36.1, converting clause (a) into the fundamental criterion of the rule and using clauses (b) and (c) as examples, separating the then incongruous clause (d) as its own paragraph. The proposer suggests that clause (d) might be treated as a Note, but prefers to retain it as an Article; wisely so, because if it were not a Article, under very exceptional circumstances a name could indeed be validly published by mere mention of subordinate taxa.

*Prop. B* aims to increase the accuracy of Art. 36.1(a) by specifying that the “author” means the author of the name, who is not necessarily the author of the publication. This would be consistent with Art. 36 Ex. 3. However, the wording is less than ideal, because a name not validly published is not a name in the sense of the *Code* (Art. 6.3 and 12.1). The first reference to Art. 46 is also of questionable utility; the *Code* uses “author” abundantly without referring to Art. 46.

*Prop. C* also concerns Art. 36.1(a), suggesting that “original publication” might imply the place of valid publication, whereas the clause in question concerns designations, not validly published names. One could question whether “publication itself” unambiguously means the publication in which it appears, but this could be editorially tightened if the proposal were accepted.

*Prop. D* addresses an issue concerning alternative names. If, for example, two or more alternative names are published as described under Art. 36.2, and only one of them is accepted, *none* of them is validly published (Art. 36.2 applies to names proposed simultaneously but not necessarily accepted simultaneously). The proposed addition to Art. 36.2 would prevent the rule applying to this case, allowing the accepted name to be validly published, whereas the non-accepted name(s) would fail to satisfy Art. 36.1(a). If the proposal is accepted, Glossary Prop. A (to amend the Glossary entry for “alternative names”) should be referred to the Editorial Committee, which should also find an apposite Example for the amended Art. 36.2 (the proposed addition to Ex. 11 seems rather beside the point, since that Example concerns names published before 1953 and therefore Art. 36.2 does not apply).

*Prop. E* seeks to rule that names published in dictionaries, stand-alone indexes, or certain kinds of reviews are not accepted by any

author and are therefore not validly published. The intention seems to be to avoid accepting names such as those published by Martinov in his *Tekhno-Botaničeskij Slovar* of 1820 (see, e.g., *Aizoaceae* and 11 other family names in App. IIB). The authors claim that they are not introducing a new provision but “are merely stating in a direct manner what is implied by the present Art. 33.1 and 36.1” and that nomenclatural disturbance would be minimal because these publications have only recently been interpreted as sources of validly published names. Even with inclusion of the seven proposed Examples, it cannot be certain that there would be no unwanted consequences, where currently accepted names from publications that could be interpreted by some as dictionaries, indexes, and reviews could become not validly published.

### Article 37

*Prop. A (129 – Nakada in Taxon 65: 192)* Add a new Note after Art. 37.2:

“*Note 0.* The use of a termination inappropriate for a particular group (e.g. use of *-phyta* for an algal division; see Art. 16.3) is acceptable as an indication of the corresponding rank, but such termination is to be corrected (see Art. 16.3, 32.2).”

*Prop. B (130 – Nakada in Taxon 65: 192)* Add a new Note after new Note 0 of Art. 37 [Prop. A]:

“*Note Obis.* Art. 37.2\* applies to both automatically typified names and descriptive names.”

[\* This was given in error as Art. “37.3” in the proposal (Nakada, pers. comm.).]

*Prop. C (355 – Hawksworth in Taxon 65: 916)* Insert a new Note after Art. 37.3 and a cross-reference at the end of Art. 4 Note 4 (new text in bold):

“[Art. 37] *Note 0.* Indications of special forms (see Art. 4 Note 4) that meet the requirements for valid publication may serve as basionyms or replaced synonyms of names in ranks recognized by this *Code*. Names of special forms do not compete with names at the rank of form (Art. 4.1).”

“[Art. 4] *Note 4.* In classifying parasites, especially fungi, authors who do not give specific, subspecific, or varietal value to taxa characterized from a physiological standpoint but scarcely or not at all from a morphological standpoint may distinguish within the species special forms (*formae speciales*) characterized by their adaptation to different hosts, but the nomenclature of special forms is not governed by the provisions of this *Code* (**but see Art. 37 Note 0**).”

*Prop. D (131 – Nakada in Taxon 65: 192)* Amend Art. 37.7 as follows (new text in bold):

“37.7. Only those names published with the rank-denoting terms that must be removed so as to achieve a proper sequence are to be regarded as not validly published. In cases where terms are switched, e.g. family-order, and a proper sequence can be achieved by removing either or both of the rank-denoting terms, names at neither rank are validly published unless one is a secondary **or satellite** rank (Art. 4.1, **4.2bis**) and one is a principal rank (Art. 3.1), e.g. family-genus-tribe, **phylum-subphylum-division**, in which case only names published at the secondary **or satellite** rank are not validly published.”

*Prop. E (132 – Nakada in Taxon 65: 192)* Amend Art. 37.8 as follows (new text in bold):

“37.8. Situations where the same **or equivalent** rank-denoting term is used at more than one non-successive position in the taxonomic sequence represent informal usage of rank-denoting terms. Names published with such rank-denoting terms are treated as unranked (see Art. 37.1 and 37.3; **see also Art. 16 Note 1, Art. 37.7**).”

**Rapporteurs' comments** – *Prop. A* would make it explicit that use of a taxonomically inappropriate termination (e.g. *-phyta* for a division or phylum of algae or fungi instead of *-phycota* or *-mycota*, respectively; see Art. 16.3) would nevertheless indicate the rank under Art. 37.2.

*Prop. B* would add a Note claiming that Art. 37.2 applies to descriptive names as well as to automatically typified names. Thus one of the terminations specified in Art. 16.3, 17.1, 18.1, 19.1, and 19.3 could indicate the rank of a descriptive name. However, Art. 16.3 and 17.1 explicitly apply only to automatically typified names, and Art. 18.1, 19.1, and 19.3 apply to names at the rank of family or subdivision of a family, whereas descriptive names apply to taxa above the rank of family (Art. 16.1(b)).

*Prop. C* would add a Note apparently treating special forms as unranked names, which could be validly published before 1953 and in that case could serve as basionyms or replaced synonyms. This seems to conflict with Art. 4 Note 4, which states that the nomenclature of special forms is not governed by the *Code*. The Nomenclature Committee for Fungi does not support *Prop. C* (votes 7 : 5 : 6).

*Prop. D* belongs to a suite of proposals discussed under Art. 4 Prop. A–D.

*Prop. E* makes a small amendment to Art. 37.8, pointing out that “the same rank-denoting term” would not cover division and phylum because these are different terms that do not denote the same rank (as might be inferred from Art. 3.1), but “are treated as referring to one and the same rank” (Art. 16 Note 1, which otherwise covers this situation).

### Article 38

*Prop. A* (172 – *van Rijckevorsel in Taxon 65: 405*) Delete Art. 38.1(b).

*Prop. B* (374 – *McNeill in Taxon 65: 1190*) Add a Note following Art. 38.2 to clarify the status of a description relative to a diagnosis:

“Note 2. Whereas a diagnosis must comprise one or more descriptive statements (Art. 38.2 and 38.3), a validating description (Art. 38.1) need not be diagnostic.”

*Prop. C* (110 – *Kambale & Yadav in Taxon 64: 1340*) Add new Example after Article 38.3:

“*Ex. 6bis*. In the protologue of *Ceropegia odorata* Nimmo ex J. Graham (Cat. Pl. Bombay: 118. 1839) Graham provided a very meagre statement: “Flowers yellow, fragrant; so unusual in this genus.” This does not describe purely aesthetic features because Graham precisely mentioned two character states of the flowers: their colour (yellow) and the presence of an odour (fragrant); it is also a diagnosis according to Art. 38.2 because in Graham’s opinion these character states distinguish *C. odorata* from other (although not all other) species of *Ceropegia*. The requirement of Art. 38.1(a) for a description or diagnosis is therefore satisfied.”

*Prop. D* (239 – *Wiersema & al. in Taxon 65: 645*) Amend Art. 38.4 as follows (new text in bold):

“38.4. When it is doubtful whether a descriptive statement satisfies the requirement of Art. 38.1(a) for a “description or diagnosis”, a request for a decision may be submitted to the General Committee (see Div. III), which will refer it for examination to the Committee for the appropriate taxonomic group. A recommendation, whether or not to treat the name concerned as validly published, may then be put forward to an International Botanical Congress and, if ratified, will become a binding decision **with retroactive effect**. These binding decisions are listed in App. VII.”

*Prop. E* (210 – *Machado & dos Santos in Taxon 65: 414*) Amend Art. 38.4 as follows (new text in bold):

“38.4. When it is doubtful whether a descriptive statement satisfies the requirement of Art. 38.1(a) for a “description or diagnosis”, a request for a decision may be submitted **by publication in the journal Taxon** to the General Committee (see Div. III), which will refer it for examination to the Committee for the appropriate taxonomic group. [...]”

*Prop. F* (329 – *Deng in Taxon 65: 909*) Amend Art. 38.5 as follows (new text in bold):

“38.5. The names of a **new genus or subdivision of a genus** and a species may be validly published simultaneously by provision of a single description (descriptio generico-specifica **or descriptio infragenerico-specifica**) or diagnosis, even though this may have been intended as only generic **or infrageneric** or specific, if all of the following conditions are satisfied: (a) the **genus or subdivision of a genus** is at that time monotypic (see Art. 38.6); (b) no other names (at any rank) have previously been validly published based on the same type; and (c) the names of the **genus or subdivision of a genus** and species otherwise fulfill the requirements for valid publication. Reference to an earlier description or diagnosis is not acceptable in place of a descriptio generico-specifica **or descriptio infragenerico-specifica**.”

*Prop. G* (330 – *Deng in Taxon 65: 909*) If the above proposal [Art. 38 Prop. F] is accepted, amend Art. 38.6 as follows (new text in bold):

“38.6. For the purpose of Art. 38.5, a monotypic **genus or subdivision of a genus** is one for which a single binomial is validly published even though the author may indicate that other species are attributable to the **genus or subdivision of a genus**.”

Some new Examples are provided below:

“*Ex. 7bis*. *Hedyotis merguensis* Hook. f. is a new species assigned to the monotypic *Hedyotis* sect. *Involucrella* Benth. & Hook. f. (1873). Both names are validly published with a combined sectional and specific description.”

“*Ex. 7ter*. The names *Elatostema* ser. *Tetracephala* W. T. Wang & al. (2012) and *E. tetracephalum* W. T. Wang & al., the latter designating the single new species of the new series, are both validly published although an English diagnosis was provided only under the series name.”

*Prop. H* (223 – *Wang in Taxon 65: 417*) Revise Art. 38.5 as follows (new text in bold):

“38.5. The names of a **genus (including subdivisions, the same below)** and a species may be validly published simultaneously by provision of a single description (descriptio generico-specifica) or diagnosis, even though this may have been intended as only generic or specific, if all of the following conditions are satisfied: (a) the **genus** is at that time monotypic (see Art. 38.6); (b) no other names (at any rank) have previously been validly published based on the same type; and (c) the names of the **genus and species** otherwise fulfil the requirements for valid publication. Reference to an earlier description or diagnosis is not acceptable in place of a descriptio generico-specifica.”

*Prop. I* (225 – *Wang in Taxon 65: 418*) Add a new Example under Art. 38.5:

“*Ex. 7bis*. The species “*Hedyotis merguensis* Hook. f.” was published simultaneously with the monotypic *Hedyotis* sect. *Involucrella* Benth. & Hook. f. (Gen. Pl. 2: 57. 1873) and both names were validly published by provision of a single description for the section.”

*Prop. J* (224 – *Wang in Taxon 65: 417*) Revise Art. 38.6 as follows (new text in bold):

“38.6. For the purpose of Art. 38.5, a monotypic **genus (including subdivisions, the same below)** is one for which a single binomial is validly published even though the author may indicate that other species are attributable to the **genus**.”

*Prop. K (037 – Sennikov in Taxon 64: 182)* Add a new Example under Art. 38.9:

“*Ex. 14 bis. Chenopodium caudatum* Jacq. (Icon. Pl. Rar. 2(2): t. 344. Feb–Mar 1789) was validly published when accompanied solely by a plate illustrating a complete plant broken into halves, with a separate figure of a single flower showing details aiding identification. Publication of this illustration predates the corresponding description (Jacquin, *Collectanea* 2: 325. Apr 1789) and diagnosis (Jacquin, *Icon. Pl. Rar.* 2: 12. 1795) of the species. Although the main illustration (representing a plant of *Amaranthus viridis* L.) is taxonomically different from the analysis (belonging to an unidentified species of *Chenopodium*), the name is nevertheless validly published.”

**Rapporteurs’ comments – Prop. A** claims that the final clause of Art. 38, “(b) comply with the relevant provisions of Art. 32–45”, is redundant because all provisions in Art. 32–45 (Chapter V. Valid publication of names) stipulate “in order to be validly published” or “is not validly published unless...”. In the *Vienna Code*, this clause was at the end of Art. 32.1, thus applying to all names, but, when Chapter V was editorially overhauled in the *Melbourne Code*, the clause was moved to Art. 38.1, which concerns only names of new taxa. The Rapporteurs could not trace a reason for this change in position. The proposer may well be correct that the clause is anyway superfluous, but if deleting it would bring unwanted consequences, the Editorial Committee might consider moving it back to Art. 32.1.

*Prop. B*, while it does not provide a definition of what qualifies as a description (for the purpose of valid publication of a name), helps by highlighting that a description does not have to be diagnostic. Hence a validating description cannot be rejected on account of its not being diagnostic.

*Prop. C* offers an additional Example for Art. 38.3, illustrating that a validating description or diagnosis may be quite minimal, and demonstrating that “fragrant” is not necessarily a “purely aesthetic feature” banned under Art. 38.3. The Example could be referred to the Editorial Committee, but including it in the *Code* might encourage acceptance of similarly minimal descriptive statements in, e.g., older horticultural literature, where names have been briefly mentioned in advance of formal scientific description.

*Prop. D* would rule that a binding decision under Art. 38.4, on whether or not to treat a name as validly published, would take retroactive effect upon ratification by an International Botanical Congress, because actions taken under the rules of nomenclature are not automatically retroactive (as discussed under Art. 14 Prop. M, Art. 34 Prop. C, and Art. 53 Prop. C).

*Prop. E* is discussed under Art. 14 Prop. F and G.

*Prop. F* and *G* seek to extend, quite logically, Art. 38.5 so that the name of a subdivision of a genus and a species may be validly published simultaneously with a single description. It is unknown how many names would become validly published if Prop. F and G were accepted, although *Hedyotis merguensis* Hook. f. is mentioned by the proposer. This name would displace *H. coronaria* (Kurz) Craib as the type of *H.* sect. *Involucrella* Benth. & Hook. f., designated as such when the section was raised to generic rank, as *Involucrella* (Benth. & Hook. f.) Neupane & N. Wikstr. (in *Taxon* 64: 316. 2015).

*Prop. H–J* have very incomplete wording, although from the accompanying discussion it is evident that they have the same intent as Prop. F and G, which are to be preferred. The Example offered in Prop. I is also in Prop. G.

*Prop. K* provides a more complicated Example than the current one under Art. 38.9. The interpretation is not flawed, and if considered useful it may be referred to the Editorial Committee.

### Recommendation 38B

*Prop. A (078 – Hawksworth in Taxon 64: 861)* Insert a new paragraph before Rec. 38B.1:

“38B.1. When a description is provided for valid publication of the name of a new taxon, a separate diagnosis should also be presented.”

*Prop. B (079 – Hawksworth in Taxon 64: 861)* Revise the current Rec. 38B.1 and renumber as follows:

“38B.2. **Where no separate diagnosis is provided**, the description of any new taxon should mention the points in which **distinguish** the taxon **differs from its allies others.**”

**Rapporteurs’ comments – Prop. A and B**, although part of the series of proposals (063–085) “to clarify and enhance the naming of fungi”, and especially important to mycologists, would extend to all groups covered by the *Code* and seems a useful practice to encourage. The rewording proposed in Prop. B would be especially desirable if Prop. A were adopted.

### Article 40

*Prop. A (195 – Niederle in Taxon 65: 409)* Replace Art. 40.2 with the following:

“40.2. For the name of a new species or infraspecific taxon, indication of the type as required by Art. 40.1 can be achieved by reference to:

(a) the holotype (see also Art. 40.7);

(b) syntypes belonging to one gathering made by the same collector(s) at the same place on the same day (see also Art. 40.7); or

(c) syntypes belonging to gatherings made by the same collector(s) at the same place from one cultivated individual, or from one cultivated stock that was derived from a single wild gathering, the latter made by the same collector(s) at the same place on the same day (see also Art. 40.7).

Syntypes in (b) and (c) can be referred to simply by indication of the entire gathering, or a part thereof, even if it consists of two or more specimens as defined in Art. 8. Referring to the syntypes described in (c) as the original wild gathering is a correctable error.”

*Prop. B (256 – Sennikov in Taxon 65: 649)* Amend Art. 40.2 as follows (new text in bold), and add a new Note after Art. 40.2 Note 1:

“40.2. For the name of a new species or infraspecific taxon, indication of the type as required by Art. 40.1 can be achieved by reference to an entire gathering, or a part thereof, even if it consists of two or more specimens as defined in Art. 8 (see also Art. 40.7) **or is found to be taxonomically mixed.**”

“*Note Ibis.* When the type specimen is found to be taxonomically mixed, its parts are syntypes unless the admixture can be excluded under Art. 9.14.”

*Prop. C (292 – Sennikov & Calonje in Taxon 65: 895)* Amend the second sentence of Art. 40.3 to read (new text in bold, deleted text in strikethrough):

“40.3. [...] **Similarly For the purpose of Art. 40**, for the name of a new species or infraspecific taxon, mention of a single specimen or gathering (Art. 40.2) or illustration (when permitted by Art. 40.4 or 40.5), even if that element is not explicitly designated as type, is acceptable as indication of the type (but see Art. 40.6).”

*Prop. D (099 – Sennikov in Taxon 64: 1338)* Delete Art. 40 Ex. 3 and Art. 46 Ex. 20 and 21.

*Prop. E (021 – Li & Guan in Taxon 63: 693)* Amend Art. 40 Note 2 to read as follows (changed text in italics):

“*Note 2.* Mere citation of a locality does not constitute mention of a single specimen or gathering. Concrete reference to some detail relating to the actual type *is required, such as the collector’s name,*

collecting number, date, herbarium, or unique herbarium barcode or accession number.”

*Prop. F (022 – Li & Guan in Taxon 63: 693)* Add the following Example after Art. 40 Note 2:

“*Ex. 3 bis.* When Kuang & Lu published *Lycium cylindricum* (in Fl. Reipubl. Popularis Sin. 67(1): 158. 1978), they cited ‘新疆: 无号 (模式标本, Typus! 存新疆生物土壤沙漠研究所标本室)’, i.e. “Xinjiang: s.n. (Typus! XJBI)”, thereby indicating that the type is an unnumbered specimen or gathering at XJBI and validly publishing the name. In that herbarium there indeed exists a single specimen from Xinjiang, without a collection number, annotated by Lu with ‘*Lycium cylindricum* A. M. Lu, sp. nov.’”

*Prop. G (331 – Kirk & Yao in Taxon 65: 910)* Add a new paragraph to Art. 40 as follows:

“*40.6bis.* For the name of a new genus or subdivision of a genus published on or after 1 January 2019, indication of the type must include the species name (Art. 10.1) as well as citation of the type of that name (see Art. 7–9); if necessary, by designating a type for that species under the relevant provisions of Art. 7 and 9.”

Add at the end of Art. 10.1: “(but see Art. 40.6bis)”

*Prop. H (375 – McNeill in Taxon 65: 1190)* Add a new paragraph to Art. 40 to read:

“*40.8.* For the name of a new species or infraspecific taxon published on or after 1 January 2019 of which the type is a culture, the protologue must, in addition, include a statement that it is preserved in a metabolically inactive state.”

and add at the end of Art. 8.4: “(see also Art. 40.8)”

and add to the parenthesis at the end of Art. 40 Note 3: “and Art. 40.8”.

**Rapporteurs’ comments – Prop. A**, together with Art. 8 Prop. E and F, mainly concern types prepared from cultivated plants, and would allow indication of the type to be achieved by reference to syntypes belonging to separate gatherings made from a single cultivated individual or stock derived from a single wild gathering, provided that on or after 1 January 1990 a single herbarium was specified (Art. 40.7). This would allow designations such as “*Echinocereus sanpedroensis*” (Art. 8 Ex. 1) to be validly published. The proposal seems to be amending the *Code* so as to condone what is today considered poor practice, potentially reducing to isonyms names that have been validated by authors who were following the rules and fixing past problems.

*Prop. B* presumably seeks to permit a type to be indicated by reference to a gathering (or part thereof) that is taxonomically mixed even when an admixture is excluded. However, in that case, more than one gathering would be present, because it would not be “a single species or infraspecific taxon” (Art. 8.2). The proposed phrase appended to Art. 40.2 therefore creates an internal contradiction in the Article.

*Prop. C* would make it explicit that Art. 40.3 is relevant only to names published on or after 1 January 1958, which is already explicit in Art. 40.1, 40.2, and 40.4–40.7. This would prevent Art. 40.3 being applied to earlier names, where mention of a single specimen, gathering, or illustration in the protologue could be accepted as indication of the type (e.g. Linnaeus citing a single illustration). It seems to be merely an editorial oversight that “for the purpose of Art. 40” was never added to Art. 40.3, which was first introduced in the Berlin *Code* (Art. 37.2 and 37.3; Greuter & al. in *Regnum Veg.* 118. 1988). Those words now in Art. 40.4 and 40.5 were added editorially in the *Saint Louis Code* (Art. 37.4; Greuter & al. in *Regnum Veg.* 138. 2000) and *Vienna Code* (Art. 37.5), respectively.

*Prop. D* proposes deletion of three Examples (Art. 40 Ex. 3, the related Art. 46 Ex. 20, and Art. 46 Ex. 21) that the proposer

demonstrates are incorrect. This could be referred to the Editorial Committee. Art. 46 Ex. 21 is repurposed in Art. 8 Prop. C.

*Prop. E* would provide in Art. 40 Note 2 further items of information that would constitute mention of a single specimen or gathering, viz. herbarium or unique herbarium barcode or accession number. The additions are useful, but the implication is that any one of these items alone would suffice, whereas herbarium would not. The Editorial Committee could ensure that such an implication is avoided, and an “ed.c.” vote will be so interpreted.

*Prop. F* provides an Example for Art. 40 Note 2, as expanded by Prop. E. Assuming an accurate English translation of the quoted Chinese, a collection number (or, rather, explicit lack of it: “s.n.”) and mention of a herbarium are claimed to constitute mention of a single specimen or gathering. The only significant item of information here is “s.n.”, and those who consider it to be equivalent to a collecting number should vote “ed.c.”

*Prop. G* would add a new provision in Art. 40 so that, on or after 1 January 2019, indication of the type of a name of a new genus or subdivision of a genus must include the species name equivalent to that type as well as citation of the type of that species name (simultaneously designated if necessary), otherwise the generic or subdivisional name would not be validly published. This could present some practical problems. If the species name and its type were cited, one might assume the new rule had been satisfied, but what if something that was not the type was cited in error? Moreover, while the proposed rule is indeed laudable in seeking to prevent publication of new names that effectively have no types, in practice it could force authors into making hasty type choices that might be poorly considered. Some might prefer the proposed rule to instead be a Recommendation, for which see Rec. 40A Prop. B.

*Prop. H* would make clear that a “type culture” of an algal or fungal name could not be the nomenclatural type unless its metabolically inactive state was specified in the protologue, thereby avoiding uncertainty as to the validity of some algal or fungal names for which the type citation includes a culture in addition to a normally preserved type specimen. The Nomenclature Committee for Algae supports Prop. H (votes 10:1:2), as does the Nomenclature Committee for Fungi (votes 16:1:1).

#### Recommendation 40A

*Prop. A (332 – Kirk & Yao in Taxon 65: 910)* Add a new Recommendation at an appropriate place in the *Code*:

“*n. n.* Authors proposing names of new families or subdivisions of families are urged to ensure that the generic name on which the family is based is effectively typified, in line with that required for names of new genera and subdivisions of genera (see Art. 40.6bis); if necessary, by designating a type for the species that is the type of the relevant generic name.”

*Prop. B (333 – Kirk & Yao in Taxon 65: 910)* Add a new Recommendation at an appropriate place in the *Code*:

“*n. n.* Authors proposing names of new families or subdivisions of families or names of genera or subdivisions of genera are urged to ensure that the generic name on which the name of a family or subdivision of a family is based or the species name on which the name of a genus or a subdivision of genus is based is effectively typified, in line with that required for names of new species; if necessary, by designating a type for the relevant generic or species name.”

*Prop. C (173 – van Rijckevorsel in Taxon 65: 405)* In Rec. 40A.2 and 46B.2 replace “Roman script” and “Roman letters” by “Latin script”.

*Prop. D (111 – Dutta & Manudev in Taxon 64: 1341)* Amend Rec. 40A.3 as follows (new text in bold):

“40A.3. Specification of the herbarium or collection or institution of deposition (see Art. 40 Note 4) **should not be done unless and until the specimen is actually deposited there and** should be followed by any available number permanently identifying the holotype specimen (see also Rec. 9D.1).”

*Prop. E (015 – Krishna & al. in Taxon 63: 207)* Add a new paragraph to Rec. 40A:

“40A.5. Citation of the herbarium or collection or institution of deposition should be in full, with the location, when no abbreviated form is given by one of the standards mentioned in Art. 40 Note 4.”

*Prop. F (012 – Bandyopadhyay & al. in Taxon 63: 206)* Insert a new Rec. 40A.5:

“40A.5. In the absence of a number permanently identifying the holotype specimen, an author publishing the name should, if possible, annotate the holotype or publish its photograph with a scale.”

**Rapporteurs’ comments** – *Prop. A* is contingent on Art. 40 Prop. G being accepted, otherwise Prop. B is to be considered instead. Prop. A urges authors not to publish names of families or subdivisions of families formed from untypified generic names.

*Prop. B* urges authors not to publish names of families or subdivisions of families formed from untypified generic names, and not to publish names of genera or subdivisions of genera for which the species name equivalent to the type is itself untypified.

*Prop. C* would change the sole occurrences of “Roman script” and “Roman letters” in the *Code* to “Latin script”. This is probably clearer, because “Roman” could be interpreted as either Latin or non-italic (i.e. upright).

*Prop. D* addresses a weakness in Art. 40.7, which requires the herbarium where the holotype is conserved to be *specified*, which is easily verified from the protologue, but not for the holotype to actually be deposited there, which is what we would like but would be a much more difficult rule to apply. Prop. D adds this desire to Rec. 40A.3, which already helps by recommending citation of any number permanently identifying the specimen.

*Prop. E*, rather than forming a new Recommendation, could be editorially combined with Rec. 40A.4. An “ed.c.” vote will be so interpreted.

*Prop. F* seeks to provide an alternative to citing “any available number permanently identifying the holotype specimen” (Rec. 40A.3), when such a number is unavailable. Rec. 9D Prop. A is parallel.

#### Article 41

*Prop. A (112 – Niederle in Taxon 64: 1341)* Change Art. 41.1 as follows (new text in bold):

“41.1. In order to be validly published, a new combination, name at new rank, or replacement name (see Art. 6.10 and 6.11), must be accompanied by a reference to the basionym or replaced synonym. **If so, it is not the name of a new taxon regardless of whether the conditions for valid publication as such are otherwise fulfilled.**”

*Prop. B (337 – da Silva & Menezes in Taxon 65: 912)* Amend Art. 41.1 (new text in bold, deleted text in strikethrough):

“41.1. In order to be validly published, a new combination, name at new rank, or replacement name (~~see Art. 6.10 and 6.11~~); must be accompanied by a reference to the basionym or replaced synonym (**see Art. 6.10 and 6.11; see also Art. 58.1**).”

*Prop. C (338 – da Silva & Menezes in Taxon 65: 912)* Add an explanatory Note to Art. 41.1:

“*Note 0.* When, in an apparent new combination or name at new rank, the name treated as the basionym is illegitimate, the resultant new name is a legitimate or illegitimate replacement name based on a replaced synonym (see Art. 58.1 and Art. 58 Note 1).”

*Prop. D (227 – Niederle in Taxon 65: 418)* Add the following Art. 41.1bis:

“41.1bis. Reference to a single synonym is to be regarded as a reference to the replaced synonym unless the author(s) (*a*) provided a description or diagnosis with the newly published name that is different from the validating description or diagnosis of the synonym referred to, and (*b*) designated a type of the newly published name that is different from the previously or simultaneously designated type of the synonym referred to.”

*Prop. E (113 – Niederle in Taxon 64: 1341)* Change Art. 41.3 as follows (new text in bold):

“41.3. Before 1 January 1953 an indirect reference (see Art. 38.14) to a basionym or replaced synonym is sufficient for valid publication of a new combination, name at new rank, or replacement name. Thus, errors in the citation of the basionym or replaced synonym, or in author citation (Art. 46), do not affect valid publication of such names. **If so, these are not the names of new taxa regardless of whether the conditions for valid publication as such are otherwise fulfilled.**”

*Prop. F (114 – Niederle in Taxon 64: 1341)* Change Art. 41 Ex. 5 as follows (new text in bold):

“*Ex. 5.* Miller (1768), in the preface to *The gardeners dictionary*, ed. 8, stated that he had “now applied Linnaeus’s method entirely except in such particulars ...”, of which he gave examples. In the main text, he often referred to Linnaean genera under his own generic headings, e.g. to *Cactus* L. [pro parte] under *Opuntia* Mill. Therefore an implicit reference to a Linnaean binomial may be assumed when this is appropriate, and Miller’s binomials are accepted as new combinations (e.g. *O. ficus-indica* (L.) Mill., based on *C. ficus-indica* L.) or replacement names (e.g. *O. vulgaris* Mill., based on *C. opuntia* L.: both names have the reference to “*Opuntia vulgo herbariorum*” of Bauhin & Cherler in common) **despite Miller having provided diagnoses and otherwise fulfilling the conditions for the valid publication of names of new taxa.**”

*Prop. G (226 – Pagare & Janarthanam in Taxon 65: 418)* Add a new Example after Article 41.3:

“*Ex. n.* The name *Dioscorea belophylla* was validly published by Haines (Forest Fl. Chota Nagpur: 530. 1910) and ascribed to “Voigt”. Previously Prain (Bengal Pl. 2: 1065, 1067. 1903) had validly published *D. nummularia* var. *belophylla* “Voigt (sp.)”, an apparent reference to “*Dioscorea belophylla* Voigt” (a nomen nudum in Hort. Suburb. Calcutt.: 653. 1845). The mention by Haines of “Voigt” is regarded as an indirect reference through Voigt to Prain’s varietal name, and thus *Dioscorea belophylla* (Prain) Voigt ex Haines is treated as a new combination.”

*Prop. H (334 – Greuter & al. in Taxon 65: 911)* Delete the date limit in Art. 41.4, and add a phrase (new text in bold, deleted text in strikethrough):

“41.4. If, for a name of a genus or taxon of lower rank ~~published before 1 January 1953~~, no reference to a basionym is given, **or only an insufficient reference (see Art. 41.5)**, but the conditions for its valid publication as the name of a new taxon or replacement name are fulfilled, that name is nevertheless treated as a new combination or name at new rank when this was the author’s presumed intent and a potential basionym (Art. 6.10) applying to the same taxon exists.”

*Prop. I (052 – Sennikov in Taxon 64: 655)* Revise Art. 41.4 as follows (new text in bold, deleted text in strikethrough):

“41.4. If, for a name of a genus or taxon of lower rank published before 1 January 1953, no reference to a basionym is given but the conditions for its valid publication as the name of a new taxon or replacement name are fulfilled, that name is nevertheless treated as a new combination or name at new rank when ~~this was the author’s presumed intent~~ and a potential basionym (Art. 6.10) applying to the same taxon exists **and there is no explicit evidence that the author’s presumed intent was different.**”

*Prop. J (055 – Sennikov in Taxon 64: 656)* Revise the current Ex. 7 under Art. 41.4 as follows (new text in bold, deleted text in strikethrough):

“*Ex. 7. Scaevola taccada* was validly published by Roxburgh (1814) by a **sole** reference to an illustration in Rheede (Hort. Malab. 4: t. 59. 1683) that ~~appears to be its sole basis~~ **is associated with a description of a species.** As the name applies to the species previously described as *Lobelia taccada* Gaertn. (1788), it is treated as a new combination, *S. taccada* (Gaertn.) Roxb., not as the name of a new species, even though in Roxburgh’s protologue there is no reference, either direct or indirect, to *L. taccada*.”

*Prop. K (053 – Sennikov in Taxon 64: 655)* Add a new Example under Art. 41.4:

“*Ex. n.* The new names *Cyclachaena* and *Cyclachaena xanthiifolia* were published by Fresenius (1836) with a description of the genus and no reference to the conspecific *Iva xanthiifolia* Nutt. (1818) which was originally collected in another place but along the same Missouri River. As Fresenius stated that he was describing a new genus (“nov. genus”) and provided no separate description or diagnosis of its only species which was not necessarily new, his species name is treated as a new combination based on *I. xanthiifolia* because otherwise it would have been a name of new taxon published under Art. 38.5.”

*Prop. L (054 – Sennikov in Taxon 64: 655)* Add another new Example under Art. 41.4:

“*Ex. n. Sorbus franconica* f. *bakonyensis* Jáv. (in Magyar Bot. Lapok. 25: 87. 1927) was raised to the rank of species by Jávorka (in Kert. Lapok 32: 284. 1928), who supplied a short diagnosis but provided no reference of any kind to the implied basionym. The identity of *S. bakonyensis* (Jáv.) Jáv. and *S. franconica* f. *bakonyensis* is evident not only from the adopted epithet but also from the diagnostic characters, the first collector, and the distribution area, which coincide in both publications.”

*Prop. M (056 – Sennikov in Taxon 64: 656)* Add another new Example under Art. 41.4:

“*Ex. n.* The same taxon was described as *Ruta perforata* M. Bieb. (1800) and *Haplophyllum perforatum* Kar. & Kir. (1841). In spite of the coinciding final epithets and inclusion of the presumably original locality of *R. perforata* in the protologue of *H. perforatum*, the latter name has no basionym because Karelin and Kirilov stated that they were describing a new species (“nov. sp.”).”

*Prop. N (057 – Sennikov in Taxon 64: 656)* Revise the current Ex. 10 under Art. 41.4 as follows and move it under Art. 38.14:

“*Ex. [10].* Sampaio published “*Psoroma murale* Samp.” (in Bol. Real Soc. Esp. Hist. Nat. 27: 142. 1927) with the only citation of “*Lecanora saxicola* Ach.” in synonymy. By this citation he provided an indirect reference to the treatment of *L. saxicola* (Pollich) Ach. (Lichenogr. Universalis: 431. 1810), where the intended basionym *Lichen muralis* Schreb. (1771) is found in synonymy. The resulting name is to be cited as *P. murale* (Schreb.) Samp.”

*Prop. O (335 – Greuter & al. in Taxon 65: 911)* Delete the last sentence of Art. 41.5, so that it reads (deleted text in strikethrough):

“41.5. On or after 1 January 1953, a new combination, name at new rank, or replacement name is not validly published unless its basionym or replaced synonym is clearly indicated and a full and direct reference given to its author and place of valid publication, with page or plate reference and date (but see Art. 41.6 and 41.8). ~~On or after 1 January 2007, a new combination, name at new rank, or replacement name is not validly published unless its basionym or replaced synonym is cited.~~”

*Prop. P (115 – Niederle in Taxon 64: 1342)* Change Art. 41.5 as follows (new text in bold):

“41.5. On or after 1 January 1953, a new combination, name at new rank, or replacement name is not validly published unless its basionym or replaced synonym is clearly indicated and a full and direct reference given to its author and place of valid publication, with page or plate reference and date (but see Art. 41.6 and 41.8). On or after 1 January 2007, a new combination, name at new rank, or replacement name is not validly published unless its basionym or replaced synonym is cited. **If so, it is not the name of a new taxon regardless of whether the conditions for valid publication as such are otherwise fulfilled.**”

*Prop. Q (025 – Sennikov & al. in Taxon 63: 1144)* Add a new Note with two new Examples after Art. 41.5 to read:

“*Note Ibis.* Depending on a journal or author’s style, a full and direct reference to the place of valid publication can be effected by citation of the abbreviated title of the publication and the standardized author citation (see Art. 46 Note 1), with other particulars as required by Art. 41.5. It can also be effected by providing a standard reference with a page or plate number to a bibliography at the end of the publication where a full bibliographic entry may be found.”

“*Ex. 13bis.* The new combination *Harperocallis neblinae* (Steyerm. ex L. M. Campb.) L. M. Campb. & Dorr (in PhytoKeys 21: 46. 2013) was validly published with citation of “*Isidrogalvia neblinae* Steyerm. ex L. M. Campb., Harvard Pap. Bot. 15 (1): 52, fig. 1. 2010”, a full and direct reference to the author and place of valid publication of the cited basionym with the journal title abbreviated according to *BPH-2* and the author citation standardized according to IPNI (see Art. 46 Note 1) but with spaces placed between the author’s initials and the standard abbreviation of the surname.”

“*Ex. 13ter.* The new combination *Criscianthus zambiensis* (R. M. King & H. Rob.) Grossi & J. N. Nakaj. (in Phytotaxa 141: 34. 2013) was validly published with citation of “*Stomatanthes zambiensis* King & Robinson (1975: 465)”, a full and direct reference to the author and place of valid publication of the cited basionym published on page 465 in “King, R. M. & Robinson, H. (1975) New species of *Stomatanthes* from Africa (*Eupatorieae*, *Compositae*). *Kew Bulletin* 30: 463–465”, the place of valid publication being cited in full in the References section of the article of Grossi & al. (2013).”

*Prop. R (272 – Paul in Taxon 65: 655)* Amend Art. 41.6 as follows (new text in bold, deleted text in strikethrough):

“41.6. For names published on or after 1 January 1953, errors in the citation of the basionym or replaced synonym, including incorrect **but not omitted** author citation (Art. 46), ~~but not~~ **and bibliographic omissions** (Art. 41.5), **as far as they do not cause ambiguity as to the real place of the protologue or valid publication of the basionym or replaced synonym within the cited work**, do not preclude valid publication of a new combination, name at new rank, or replacement name.”

*Prop. S (273 – Paul in Taxon 65: 655)* Convert Note 1 under Art. 41 into Rec. 41A.2, amended as follows (new text in bold, deleted text in strikethrough):

“41A.2. For the purpose of Art. 41.5, a page reference (for publications with a consecutive pagination) is **should be** a reference to

the page or pages on which the basionym or replaced synonym was validly published or on which the protologue appears, but not to the pagination of the whole publication unless it is coextensive with that of the protologue (see also Art. 30 Note 2)."

*Prop. T (274 – Paul in Taxon 65: 655)* Amend Ex. 12 under Art. 41 as follows (new text in bold, deleted text in strikethrough):

"Ex. 12. When proposing "*Cylindrocladium infestans*", Peerally (in *Mycotaxon* 40: 337. 1991) cited the basionym as "*Cylindrocladiella infestans* Boesew., *Can. J. Bot.* 60: 2288–2294. 1982". **As Although** this refers to the pagination of Boesewinkel's entire paper, not of the protologue of the intended basionym alone (**which was on p. 2290, but nowhere else in the paper an alternative protologue could be found**), the combination was not validly published by Peerally; **this practice is however strongly discouraged.**"

*Prop. U (275 – Paul in Taxon 65: 655)* If Proposals (272–274) [Art. 41 Prop. R–T] fail, amend Art. 41.6 as follows (new text in bold):

"41.6. For names published on or after 1 January 1953, errors in the citation of the basionym or replaced synonym, **as far as they do not cause ambiguity as to the real place of the protologue or valid publication of this name within the cited work**, including incorrect author citation (Art. 46), but not omissions (Art. 41.5), do not preclude valid publication of a new combination, name at new rank, or replacement name."

*Prop. V (116 – Niederle in Taxon 64: 1342)* Change Art. 41.6 as follows (new text in bold):

"41.6. For names published on or after 1 January 1953, errors in the citation of the basionym or replaced synonym, including incorrect author citation (Art. 46), but not omissions (Art. 41.5), do not preclude valid publication of a new combination, name at new rank, or replacement name. **If so, these are not the names of new taxa regardless of whether the conditions for valid publication as such are otherwise fulfilled.**"

*Prop. W (336 – Greuter & al. in Taxon 65: 911)* Reword Art. 41.8(a) (new text in bold, deleted text in strikethrough):

"(a) when the ~~name cited as the~~ actual basionym or replaced synonym was validly published earlier than **the name or isonym cited as such, in the cited publication**; but in ~~the~~ that cited publication, in which all conditions for valid publication **of the name as cited** are ~~again~~-fulfilled, there is no reference to the ~~actual~~ place of valid publication **of the actual basionym or replaced synonym;**"

*Prop. X (376 – McNeill in Taxon 65: 1191)* Clarify Art. 41.8(a) by adding new text (in bold):

"(a) when the name cited as the basionym or replaced synonym was validly published earlier than in the cited publication, but in that cited publication, in which all conditions for valid publication are again fulfilled, there is no reference, **in association with the name**, to the actual place of valid publication."

*Prop. Y (389 – Sennikov in Taxon 65: 1197)* Amend Art. 41.8(c) and (d) as follows (deleted text in strikethrough, new text in bold), and replace Art. 41 Ex. 24 with a new Example:

"41.8. On or after 1 January 1953, in any of the following cases, a full and direct reference to a work other than that in which the basionym or replaced synonym was validly published is treated as an error to be corrected, not affecting the valid publication of a new combination, name at new rank, or replacement name:

[..]

(c) when ~~an intended the resulting~~ new combination or name at new rank would otherwise be validly published as a (legitimate or illegitimate) replacement name; or

(d) when ~~an intended the resulting~~ new combination, name at new rank, or replacement name would otherwise be the validly published name of a new taxon."

"Ex. 24. (d) Koyama (in *Jap. J. Bot.* 15: 175. 1956) accepted the name *Carex henryi*, not validly published previously, erroneously citing "C. B. Clarke ex Franchet in *Nouv. Archiv. du Muséum* 3e ser., 8: 243 (1896)" as its author and place of valid publication. In synonymy Koyama also cited its actual basionym, *C. longicuris* var. *henryi*, but with a reference to "(C. B. Clarke ex Franch.) Kükenth. in *Engl., Pflanzenr.* 4-20: 603. (1909)" instead of C. B. Clarke (in *J. Linn. Soc., Bot.* 36: 295. 1903). Since Kükenthal (1909) provided a direct reference to Clarke but also included a Latin description of the taxon, the new combination *C. henryi* (C. B. Clarke) T. Koyama was validly published by Koyama (1956) because it would otherwise have been the validly published name of a new species."

*Prop. Z (117 – Niederle in Taxon 64: 1342)* Change Art. 41.8 as follows (new text in bold):

"41.8. On or after 1 January 1953, [..]

(d) when an intended new combination, name at new rank, or replacement name would otherwise be the validly published name of a new taxon.

**If so, it is not the name of a new taxon regardless of whether the conditions for valid publication as such are otherwise fulfilled."**

*Rapporteurs' comments – Prop. A, E, F, P, V, and Z* are discussed under Art. 6 Prop. I, which would render superfluous the repeated phrase under Art. 41.1, 41.3, 41.5, 41.6, and 41.8.

*Prop. B* is essentially editorial in Art. 41.1, moving "see Art. 6.10 and 6.11" so that it does not seem restricted to new combination, name at new rank, or replacement name, but can also refer to basionym or replaced synonym. However, in the new position it could seem restricted to basionym or replaced synonym. The added reference to Art. 58.1 is intended to cover cases where an apparent new combination refers to a "basionym" that is in fact illegitimate, so that, as described in Art. 58.1, a replacement name is published instead. The proposal could be referred to the Editorial Committee.

*Prop. C* might belong better in Art. 6, where status of names is covered. The case described in Prop. C seems to suggest the apparent new combination or name at new rank is to be treated as a replacement name, even if it could otherwise be validly published as the name of a new taxon. On the other hand, the new rule proposed in Art. 6 Prop. Q would be more general in its coverage, and would allow more flexibility in correcting the status of a name.

*Prop. D* seeks a mechanism to determine the status of a name that satisfies the requirements for valid publication both as the name of a new taxon and as a replacement name. However, the proposed wording is so poorly formulated that the desired effect cannot be achieved. The issue of flexible or correctable status of new names is addressed in Art. 6 Prop. P and Q.

*Prop. G* offers an additional Example to illustrate Art. 41.3 (there are already four). It can be referred to the Editorial Committee.

*Prop. H* proposes amendments to Art. 41.4 so that certain failed new combinations or names at new rank may be validly published as such, rather than as the names of new taxa or replacement names. These cases may be few, but they are undesirable, resulting in two different names with the same epithet, with priority from different dates, with the same type or with different types, and the later one may even be illegitimate and block the desired transfer, resulting in further change.

*Prop. I* would make Art. 41.4 easier to apply by requiring, instead of evidence of the author's intent to publish a new combination or name at new rank, evidence that the author's intent was different.

*Prop. J–M* concern Examples for the revised Art. 41.4; *Prop. J* revises the current Ex. 7, whereas *Prop. K–M* are new. All four could be referred to the Editorial Committee.

*Prop. N* seeks to revise the current Art. 41 Ex. 10 and use it to illustrate “indirect reference” under Art. 38.14. This seems an overly liberal interpretation of indirect reference, whereby a basionym is allegedly indicated by reference to a heterotypic synonym that included the basionym in synonymy. Accepting this as an indirect reference would, in the Rapporteurs’ opinion, set a dangerous precedent.

*Prop. O* would rid Art. 41.5 of one of the “important dates in the *Code*” associated with what is essentially a useless provision: the requirement on or after 1 January 2007 to cite the basionym or replaced synonym. Why must this be actually *cited* if it is already “clearly indicated and a full and direct reference given to its author and place of valid publication, with page or plate reference and date”? Moreover, if it was cited incorrectly, would it be correctable under Art. 41.6 or would it fail to satisfy Art. 41.5?

*Prop. Q* provides a clarification of what would constitute a “full and direct reference” under Art. 41.5 for journals with differing editorial styles.

*Prop. R* and *S* are intended to lessen the strictness of Art. 41.6, which allows errors, but not omissions, in a full and direct reference to a basionym or replaced synonym as required by Art. 41.5. Under the proposed amended Art. 41.6, bibliographic omissions (e.g. page numbers) would be allowed, so long as the basionym or replaced synonym could be unambiguously determined in the publication referred to. There would be an unknown number of cases of designations that failed to satisfy Art. 41.5 becoming validly published, and any validations of those designations becoming isonyms.

*Prop. T* would be a consequence of accepting *Prop. R* and *S*. The designation “*Cylindrocladium infestans*” in Ex. 12 would become a validly published new combination.

*Prop. U* is contingent on *Prop. R–T* being rejected. It is intended to increase the strictness of Art. 41.6, by disallowing errors that render ambiguous the determination of the basionym or replaced synonym in the publication referred to. It seems that such errors would anyway be uncorrectable.

*Prop. W* addresses situations that Art. 41.8(a) fails to cover, i.e. when “the name cited as the basionym or replaced synonym” is not the actual basionym or replaced synonym, i.e. the cited name and the actual name represent different combinations for the same taxon, placed in different genera or species, or at different ranks.

*Prop. X* adds a phrase to close a gap in Art. 41.8(a), in which the phrase “reference to the actual place of valid publication” could be taken to mean a reference in, e.g., the general references of a work, and not in the context of the “name cited as the basionym or replaced synonym”. In such a case, one could be compelled to conclude that Art. 41.8(a) did not apply.

*Prop. Y* slightly adjusts the wording of Art. 41.8(c) and (d), so that it is neutral to the actual intent of the publishing author, who may appear to have published a new name either intentionally or unknowingly. The proposer demonstrates that the current Ex. 24 is incorrect and should be deleted (see the proposal). If *Prop. Y* is accepted, the Editorial Committee should consider whether the offered new Example is too complex, and if necessary find a simpler one.

#### Recommendation 41A

*Prop. A* (026 – *Sennikov & al. in Taxon 63: 1144*) Amend Rec. 41A as follows (new text in bold, deleted text in strikethrough):

“41A.1. The full and direct reference to the author and place of valid publication of the basionym or replaced synonym should immediately follow a proposed new combination, name at new rank, or replacement name. It should not be **placed distantly or** provided by mere cross-reference to a ~~bibliography at the end of the publication~~ or to other parts of the same publication, e.g. by use of the abbreviations “loc. cit.” or “op. cit.””

*Prop. B* (220 – *Williams & al. in Taxon 65: 416*) Add a new Recommendation with an Example to Rec. 41A:

“41A.2. If electronic publications are not paginated, page numbers should be referenced with square brackets.”

“*Ex. 1.* The name *Crocus antalyensioides* Rukšāns was published electronically in *International Rock Gardener* (ISSN 2053-7557), Volume 64, April 2015, in Portable Document Format (PDF), without page numbers included on the actual pages of the publication, although they are indicated in PDF-reading software. The reference should be cited as *Int. Rock Gard.* 64: [6]. 2015.”

**Rapporteurs’ comments** – *Prop. A* would adjust Rec. 41A.1 in the event of acceptance of Art. 41 *Prop. Q*, which would treat bibliographic citations as part of the “full and direct reference” required under Art. 41.5.

*Prop. B* is linked to Rec. 30A *Prop. C* and recommends (in line with the style of the *Code*) on how to cite page numbers in unpaginated electronic publications.

#### Recommendation 41B (new)

*Prop. A* (027 – *Sennikov & al. in Taxon 63: 1144*) Add a new Recommendation 41B as follows (its beginning to be amended if Proposal 025 [Art. 41 *Prop. Q*] fails):

“41B.1. In references formed in accordance with Art. 41 Note 1bis (first sentence), the titles of books in bibliographic citations should be abbreviated in conformity with *Taxonomic literature*, ed. 2, by Stafleu & Cowan (in *Regnum Veg.* 94, 98, 105, 110, 112, 115, 116. 1976–1988; with Supplements 1–6 by Stafleu & Mennega in *Regnum Veg.* 125, 130, 132, 134, 135, 137. 1992–2000, and 7–8 by Dorr & Nicolson in *Regnum Veg.* 149, 150. 2008–2009), or by analogy, but with capital initial letters. For journal titles, the abbreviations should follow *BPH-2* by Bridson & al. (2004) or its updated version online (<http://fmhibd.library.cmu.edu/HIBD-DB/bpho/findrecords.php>).”

**Rapporteurs’ comments** – *Prop. A* explicitly recommends adopting the standardized abbreviations of *TL-2* and *BPH-2* in bibliographic citations, something already done in many botanical journals, and in the *Code* itself, although it neglects to mention another standard, the IPNI publications database (<http://www.ipni.org/ipni/publicationsearchpage.do>). While this may promote greater consistency in botanical citations, being only a Recommendation it will have no impact on nomenclature. Besides, the *Code* presently does not explicitly recommend standards, but rather mentions their existence, e.g. for herbarium citations in Art. 40 Note 4 or author citations in Rec. 46A Note 1.

#### Chapter V Section 4 Article *n* (new)

*Prop. A* (397 – *Smith & al. in Taxon 65: 1442*) Insert a new Article and a new Note in Chapter V Section 4 to limit the principle of priority by preventing the acceptance of overlooked or unrecorded names:

“*n.n.* Names of families, genera, and species of vascular plants, excepting fossils, effectively published prior to 1 January 1970 but on 1 January 2020 not recorded in the *International Plant Names Index* (IPNI), or its successor, are not validly published. The IPNI 2020 list consists of names of families, genera, and species of vascular plants, excepting fossils, that were effectively published prior to 1 January

1970 and appeared as entries in IPNI on 1 January 2020. Names may not be added to or deleted from the list, but corrections may be made to existing entries.”

“*Note 1.* The name of a family, genus, or species of vascular plants included in the IPNI 2020 list is not validly published unless all the requirements for valid publication are met.”

**Rapporteurs’ comments** – *Prop. A* seeks to limit the principle of priority by preventing the acceptance of overlooked or unrecorded names. To achieve this goal, the concept of the “IPNI 2020 list” is conceived. While an actual such list could, in theory, be generated by the *International Plant Names Index* on 1 January 2020, the proposed provision is elegantly designed to avoid placing any additional burden on IPNI staff (or its successor, if any), so that the list is, in fact, a virtual one. *Code* users would have to be able to interpret the notes in the IPNI “Record history” correctly, because that is how to know the date on which a name was added to IPNI (guidance might be provided on the website). There is also a rule for those managing the IPNI data: “Names may not be added to or deleted from the list”. A detailed discussion supporting *Prop. A* is provided by the proposers in a separate paper (Smith & al. in *Taxon* 65: 1385–1390. 2016).

#### Article 42

*Prop. A (340 – Kirk & Yao in Taxon 65: 913)* Add a new Note to Art. 42:

“*Note n.* The words “name” and “names” are used in Art. 42.1 and 42.2 for names that may not yet be validly published, in which case the definition in Art. 6.3 does not apply. When the identifier for the name is issued by the approved repository neither identifier nor name can be changed. Authors should therefore refrain from obtaining an identifier from an approved repository until the manuscript that includes the name has completed the peer-review process and the form of the name has been finalized.”

*Prop. B (277 – Special Committee on Registration in Taxon 65: 657)* In Art. 42, add two new introductory paragraphs:

“*42.0.* An interested institution, in particular one with expertise in nomenclatural indexing, may apply for recognition as a nomenclatural repository under this *Code*. A nomenclatural repository takes charge, for specified categories of organisms, of registering nomenclatural novelties (names of new taxa, new combinations, names at new ranks, or replacement names) and/or other nomenclatural acts requiring effective publication such as type designations (Art. 7.9 and 7.10), or choices of name (Art. 11.5 and 53.6), orthography (Art. 61.3), or gender (Art. 62.3).”

“*42.0bis.* Applications for recognition as a nomenclatural repository are to be addressed to the General Committee, which will refer them to the Registration Committee and act upon its recommendation. Prior to such a recommendation, mechanisms and modalities of registration, and definition of coverage, will be developed in consultations among the applicant, the Registration Committee, and the permanent nomenclature committee(s) for the group(s) concerned, and be widely publicized in the taxonomic community; a public trial run of at least one year must have shown that the procedure works efficiently and sustainably. The General Committee has the power to suspend or revoke a granted recognition.”

*Prop. C (278 – Special Committee on Registration in Taxon 65: 658)* In Art. 42, add another introductory paragraph, with a Note:

“*42.0ter.* Registration may be proactive and/or synchronous and/or retrospective; that is, it may occur before and/or simultaneously with and/or after the valid publication of a nomenclatural novelty or the effective publication of a nomenclatural act.”

“*Note 0.* For ways in which proactive registration of nomenclatural novelties functions, see Art. 42.1 and 42.2, relevant for fungal names.”

*Prop. D (279 – Special Committee on Registration in Taxon 65: 658)* At the end of Art. 42, add the following paragraph and Note:

“*42.4.* For specified categories of organisms other than fungi, the General Committee, upon recommendation of the Registration Committee and the permanent nomenclature committee(s) for the group(s) concerned, has the power to declare registration through a recognized nomenclatural repository to be an additional requirement for (1) valid publication of nomenclatural novelties and/or (2) the achievement of nomenclatural acts. Such a decision must be widely publicized at least one year before the requirement can take effect. The General Committee has the power to cancel such a requirement, should the repository mechanism, or essential parts thereof, cease to function. Decisions made by the General Committee under these powers are subject to ratification by a subsequent International Botanical Congress.”

“*Note Ibis.* For nomenclatural novelties published after the date on which registration becomes a condition for valid publication in the group concerned, Art. 33.1 applies.”

**Rapporteurs’ comments** – *Prop. A* firstly addresses a semantic point, i.e. that the words “name” and “names” as used in Art. 42.1 and 42.2 may not in fact be names as defined in Art. 6.3 if they are not yet validly published. The statement “neither identifier nor name can be changed” seems not to be explicit or implicit elsewhere in the *Code* and would therefore be better as an Article instead of a Note (using a verb other than “can”; similarly with “Authors should” changed to “Authors must”). The Nomenclature Committee for Fungi does not support *Prop. A* (votes 6:11:1). Instead, the Committee supports an alternative approach that would treat errors in citation of identifiers as correctable (votes 11:1:6), and this will be the subject of a proposal to be moved from the floor of the Nomenclature Section in Shenzhen (May, pers. comm.).

*Prop. B–D*, together with Div. III *Prop. A*, form a set of proposals from the Special Committee on Registration of Algal and Plant Names (including fossils). The General Committee supports the *principle* of registration of new names and nomenclatural acts for algal and plant names (including fossils) (votes 18:5:2). The General Committee also supports the four proposals as suitable for investigating possible mechanisms for future registration of names and nomenclatural acts (votes 20:3:2).

*Prop. B* and *C* would, to quote the proposers, “define a flexible framework within which a system of voluntary registration could be developed for various categories of organisms”. For *Prop. B*, the General Committee supports its proposed role in recognizing nomenclatural repositories or suspending or revoking such recognition (votes 20:2:3). *Prop. C* would permit three modalities of registration: proactive (as is currently in place for fungi), synchronous, and retrospective. It is hard to understand how synchronous registration could function except as an option in addition to retroactive registration.

*Prop. D* would, to quote the proposers, “provide for future mandatory registration in a way that does not depend on the six-year intervals between International Botanical Congresses”. It would grant the General Committee (GC) the power to modify the *Code* outside of an International Botanical Congress (IBC) by declaring registration to be (or no longer to be) an additional requirement for valid publication and/or the achievement of nomenclatural acts (under very particular conditions, and not applying to fungi). The advantage would be that the activation or deactivation of registration for specified groups (e.g. algae, bryophytes, vascular plants) would not be confined to a

single opportunity every six years. Such a decision by the GC would constitute an amendment of the actual rules of the *Code*, and hence Prop. D would extend the GC's current powers beyond merely adding to or amending the Appendices of the *Code* (by conserving or rejecting names or suppressing works; see Art. 14.16, 34.2, and 56.4). All these decisions of the GC would be subject to ratification by a subsequent IBC. The Special Committee on By-laws for the Nomenclature Section has proposed (Div. III Prop. B paragraphs 5.1(1) and 5.2(8)) that accepting amendments to the *Code* require a qualified majority (at least 60%) at the Nomenclature Section, whereas accepting recommendations of the GC require a simple majority (more than 50%). With this in mind, what kind of majority would be required to ratify a GC decision on registration? One could argue that, because the rules of the *Code* had already been amended, a 60% majority to *reverse* the GC decision would be required. However, this could result in controversy, where a minority was perceived to have ratified registration, although in fact a qualified majority had already delegated decision-making power to the GC by approving Prop. D. Alternatively, if the GC's powers on registration were considered parallel to those on conservation, rejection, and suppression, the Section could decide that ratification requires a simple majority. This would remove the potential for controversy, although it would make it easier, in principle, to overturn a GC decision; but if registration were functioning well, why would there be any reason to cancel it? If Prop. D is approved, the Rapporteurs recommend simultaneous approval of the required majority for the Nomenclature Section to ratify a GC decision on registration and for this to be included in Div. III Prop. B. The GC supports its proposed role as described in Prop. D (votes 18 : 4 : 3).

#### Article 45

*Prop. A (174 – van Rijckevorsel in Taxon 65: 405)* In Art. 45 [Ex. 1] footnote 1, add “(when applied to a name)”, so that it reads:

“1 The word “available” (**when applied to a name**) in the *International Code of Zoological Nomenclature* is equivalent to “validly published” in this *Code*.”

*Prop. B (232 – Nakada in Taxon 65: 642)* Add a new Note after Note 1 of Art. 45:

“*Note Ibis*. Names of apicomplexans, ciliophorans (ciliates), foraminiferans, and radiolarians are not covered by this *Code* (see Pre. 8 and Art. 13.1(e)) even when they are considered as algae having lost their photosynthetic ability.”

**Rapporteurs' comments** – *Prop. A* is editorial, making the footnote of Ex. 1 more accurate because the term “available” is used in more than one sense in the *International Code of Zoological Nomenclature*. It can be referred to the Editorial Committee.

*Prop. B* is connected to Preamble Prop. A. See comments under that proposal.

#### Article 46

*Prop. A (377 – McNeill in Taxon 65: 1191)* Add a Note following Art. 46.1 to read:

“*Note 0*. A name of a taxon is attributed to the author of the publication in which it appears (see Art. 46.5) when none of the following provisions rules otherwise.”

The following Example might follow Art. 46.2 and be cross-referenced to the new Note:

“*Ex. n*. Wallich (Pl. Asiat. Rar. 3: 66. 15 Aug 1832) ascribed *Aikinia brunonis* to “Wall.” and although he ascribed both the diagnosis and description to “Brown”, the correct attribution is *Aikinia brunonis*

Wall., as Wallich is the author of the publication, and the name is not ascribed to anyone else (cf. Art. 46 Note 0).”

*Prop. B (134 – Sennikov & Somlyay in Taxon 65: 193)* Add a new Note under Art. 46.1 as follows:

“*Note 0*. An author citation, typically placed next to a name, may function as attribution (Art. 46.2 and 46.5) or ascription (Art. 46.3) of a name to a certain author (or authors), or may serve as an indirect reference to the basionym or replaced synonym (Art. 38.14 and Art. 46 Note 4). In certain cases an author citation may appear as an error (Art. 46.3 and 46.4).”

*Prop. C (135 – Sennikov & Somlyay in Taxon 65: 193)* Amend the second sentence of Art. 46.2 and revise Ex. 7 as follows (deleted text in strikethrough, new text in bold):

“A new combination, name at new rank, or replacement name is attributed to the author(s) to whom it was ascribed when, in the publication in which it appears, it is explicitly stated that the same author(s) contributed in **some a relevant** way to that publication.”

“*Ex. 7*. Green (1985) ascribed the new combination *Neotysonia phyllostegia* to Wilson and elsewhere in the same publication acknowledged ~~his assistance~~ **him for “nomenclatural advice”**. The name is therefore cited as *N. phyllostegia* (F. Muell.) Paul G. Wilson.”

*Prop. D (051 – Sennikov & al. in Taxon 64: 655)* If Prop. (050) [Art. 36 Prop. E] is accepted, revise the current Ex. 5 under Art. 46.2 as follows, and move it under the new Art. 36.3:

“*Ex. [5]*. In a review of Gay's *Flora chilena*, vol. 1 (1846), the otherwise unnamed author “W.” wrote “p. 348. wird die Gattung *Eucryphia* als Typus einer neuen Familie, der *Eucryphiaceae*, angesehen”, in this way reporting of the designation “Eucrifiaceae” that denoted a family in Gay (l.c.: 348). This family name was validly published later by Philippi (in *Linnaea* 30: 292. 1859), who accepted it in his publication about statistical analysis of the flora of Chile, solely by an indirect reference to the description of “Eucrifiaceae” in Gay (l.c.)”

Alternatively, this Example may be deleted as competing with our proposed new Ex. n5 [of Art. 36 Prop. E].

*Prop. E (136 – Sennikov & Somlyay in Taxon 65: 193)* Delete Ex. 6 under Art. 46.2.

*Prop. F (244 – Nakada in Taxon 65: 646)* Add a new Note after Art. 46 Ex. 11:

“*Note Ibis*. The authorship of a descriptive name (Art. 16.1(b)) is not changed if the name is used at a rank different from that at which it was first validly published because it is not a name at new rank (see Art. 6 Note 2bis [Art. 6 Prop. L]; see also Art. 49.2).”

*Prop. G (245 – Nakada in Taxon 65: 646)* Add a new Example after Art. 46 Note Ibis [Art. 46 Prop. F]:

“*Ex. 1Ibis*. *Streptophyta* Caval.-Sm. (in Lewin, *Origins of Plastids*: 340. 1993) was originally published as a name at the rank of infrakingdom (used as a rank between subkingdom and phylum). When the name is used at the rank of phylum, it is still cited as *Streptophyta* Caval.-Sm. (1993).”

*Prop. H (138 – Sennikov & Somlyay in Taxon 65: 194)* Amend Art. 46.3 as follows (deleted text in strikethrough, new text in bold):

“46.3 For the purposes of Art. 46, ascription is the direct association of the name of a person or persons with a new name or description or diagnosis of a taxon. An author citation appearing in a list of synonyms does not constitute ascription of the accepted name, nor does **a mere** reference to a basionym or a replaced synonym (regardless of bibliographic accuracy) or **a mere** reference to a homonym, ~~or a formal error~~ (see also Art. 46.4).”

*Prop. I (139 – Sennikov & Somlyay in Taxon 65: 194)* Add a new Note with two new Examples after Art. 46.3:

“*Note 3bis.* An author citation may simultaneously serve as ascription and as an indirect reference to the basionym or replaced synonym when the provisions of Art. 46.2 (second sentence) apply and a potential basionym or replaced synonym exists.”

“*Ex. 23bis.* The name *Hieracium pratense* f. *dimorphum* “Norrl.” was published in the article authored by Vainio (in Meddeland. Soc. Fauna Fl. Fenn. 3: 65. 1878) without a description or diagnosis of the taxon. Since Vainio stated that Norrlin provided *Hieracium* names for his study and the basionym *H. dimorphum* Norrl. (in Not. Sällsk. Fauna Fl. Fenn. Förh. 11: 132. 1870) exists, the new combination is therefore attributed to Norrlin and is cited as *H. pratense* f. *dimorphum* (Norrl.) Norrl.”

“*Ex. 23ter.* When Prodan (Fl. Român. 1: 553. 1923) published *Sorbus danubialis* “Jáv.”, he stated in the introduction to this work that he used an unpublished manuscript written by Jávorka but made no statement that Jávorka provided new plant names. Since *Sorbus cretica* f. *danubialis* Jáv. (in Bot. Közlem. 14: 104. 1915) is a potential basionym applying to the same taxon, the indication of “Jáv.” is to be treated as an indirect reference to a basionym, not also as ascription, and the name is therefore cited as *S. danubialis* (Jáv.) Prodan.”

*Prop. J (378 – McNeill in Taxon 65: 1191)* Amend Art. 46.3 to read (new text in bold, deleted text in strikethrough):

“46.3. For the purposes of Art. 46, ascription is the direct association of the name of a person or persons with a new name or description or diagnosis of a taxon. An author citation appearing in a list of synonyms associated with a synonym does not constitute ascription of the accepted name, nor does reference to a basionym or a replaced synonym (regardless of bibliographic accuracy) or reference to a homonym, or a formal error.”

*Prop. K (140 – Sennikov & Somlyay in Taxon 65: 194)* Amend Art. 46.3 as follows (deleted text in strikethrough, new text in bold, the effect of Prop. 138 [Art. 46 Prop. H] in square brackets), and add a new Example:

“46.3. For the purposes of Art. 46, ascription is the direct association of the name of a person or persons with a new name or description or diagnosis of a taxon. An author citation appearing in a list of synonyms does not constitute ascription of the accepted name, nor does if it [merely] serves as reference to a basionym or a replaced synonym (regardless of bibliographic accuracy) or reference to a homonym[, or a formal error (see also Art. 46.4)].”

“*Ex. 13bis.* Willdenow (Sp. Pl. 3: 1845. 1803) ascribed the name *Artemisia siversiana* Ehrh. ex Willd., commemorating Johann Sievers, to Ehrhart by citing “*Artemisia siversiana. Ehrh.*” in synonymy.”

*Prop. L (092 – Nakada & Nagamasu in Taxon 64: 1066)* Amend Art. 46.4 as follows (new text in bold, deleted text in strikethrough):

“46.4. When the **final** epithet of a validly published name **combination** is taken up from and attributed to the author of a different **binary** designation **at the same rank, or to the author of a designation at different rank**, that has not been validly published, only the author of the validly published name may be cited.”

*Prop. M (137 – Sennikov & Somlyay in Taxon 65: 193)* Amend Art. 46.4 with Ex. 24 as follows (deleted text in strikethrough, new text in bold), move amended Ex. 19, and add three new Examples:

“46.4. When the epithet of a validly published name **or its final epithet** is taken up from and **attributed credited** to the author of a different **binary** designation **or one at a different rank** that has not been validly published, only the author of the validly published name may be cited.”

“*Ex. 24.* When publishing *Andropogon drummondii*, Steudel (1854) **attributed credited** the name to “Nees. (mpt. sub: Sorghum).”

This reference to the unpublished binary designation “*Sorghum drummondii* Nees” is not ascription of *A. drummondii* to Nees, and the name is cited as *A. drummondii* Steud., not *A. drummondii* “Nees ex Steud.”

“*Ex. [19].* Following their description of *Hosackia* [unranked] *Drepanolobus*, Torrey & Gray (Fl. N. Amer. 1: 324. 1838) **attributed credited** the name as “*Drepanolobus*, Nutt.” This reference to Nuttall’s unpublished generic designation is not ascription of *Hosackia* [unranked] *Drepanolobus* to Nuttall, ~~but is considered a formal error~~ because Torrey and Gray (on p. 322) stated that they disagreed with Nuttall’s view that *Drepanolobus* formed a distinct genus. The name is cited as *Hosackia* [unranked] *Drepanolobus* Torr. & A. Gray.”

“*Ex. 24bis.* Reichenbach (1828) based the new generic name *Anoplion* on the description of “*Orobanche tribus Anoplion*”, which was not validly published by Wallroth (*Orobanches* Gen. Diask.: 25 & 66. 1825) under Art. 37.6. The resulting name should be cited as *Anoplion* Rchb., not *Anoplion* “Wallr. ex Rchb.””

“*Ex. 24ter.* Tzvelev (in Novosti Sist. Vyssh. Rast. 31: 73. 1998) validly published *Batrachium* subsect. *Peltata*, which he credited to “V. Krecz. ex Tzvel.” In this name he used the final epithet from “*Batrachium* ser. *Peltata* V. Krecz.” (in Komarov, Fl. SSSR 7: 349. 1937), a designation that has not been validly published because it was not accompanied with a description or diagnosis in Latin. As the ranks of the validly published name and the original designation were different, the new name cannot be attributed to Kreczetovicz.”

“*Ex. 24quater.* Don (in Sweet, Hort. Brit., ed. 3: 636. 1839) validly published subtribe *Pleurothallidinae* G. Don (as “*Pleurothalleae*”) with a reference to “Section I. *Pleurothalleae*” of Lindley (Gen. Sp. Orchid. Pl.: 3. 1830), whose rank was denoted by a misplaced term (contrary to Art. 37.6). Since Lindley and Don used different rank-denoting terms, Lindley’s name cannot be cited in the authorship.”

*Prop. N (142 – Sennikov & Somlyay in Taxon 65: 195)* Amend Art. 46.4 as follows (new text in bold, the effect of Prop. 137 [Art. 46 Prop. M] in square brackets) and add a new Example:

“46.4. When [the epithet of] a validly published name **[or its final epithet]** is taken up from and **[attributed credited]** to the author of a different **[binary]** designation **[or one at a different rank]** that has not been validly published (**orthographic corrections being disregarded**), only the author of the validly published name may be cited.”

“*Ex. 24quinquies.* *Pietrosia laevitomentosa* Nyár. was validly published by Sennikov (in Komarovia 1: 78. 1999) who took up and corrected the designation “*P. levitomentosa*” (Nyárády in Rev. Biol. (Bucharest) 8: 252. 1963) that was not validly published. This correction of the original spelling does not make the validly published name different from the original designation, and the new name should be attributed to Nyárády to whom both the name and validating description were ascribed by Sennikov.”

*Prop. O (145 – Sennikov & Somlyay in Taxon 65: 195)* Add a new Example under Art. 46.5:

“*Ex. 29bis.* *Cortinarius balteatotomentosus* was published by Henry (in Bull. Trimestriel Soc. Mycol. France 74: 303. 1958) with a description in Latin but without designation of a type. Henry (in Bull. Trimestriel Soc. Mycol. France 101: 4. 1985) designated a holotype and provided a full and direct reference to the validating description. According to Art. 46.2, the name is to be cited as *C. balteatotomentosus* Rob. Henry, not *C. balteatotomentosus* “Rob. Henry ex Rob. Henry”, because Henry in 1985 ascribed the name to himself, not to a different author as in Art. 46.5.”

*Prop. P (143 – Sennikov & Somlyay in Taxon 65: 195)* Amend Ex. 9 under Art. 46.2 as follows (new text in bold, deleted text in strikethrough) and move it under Art. 46.6:

“*Ex. [9].* The name and original description of *Verrucaria aethiobola* Wahlenb. (in Acharius, Methodus, Suppl.: 17. 1803) **was were published** in a single paragraph ascribed to whose authorship was stated as “Wahlenb. Msc.” **Since Wahlenberg is the author of the text of that paragraph**, the name is therefore cited as *V. aethiobola* Wahlenb., not “Wahlenb. ex Ach.” nor “Wahlenb. in Ach.” (unless a full bibliographic citation is given), **regardless of the other description of the same taxon provided at the same time by Acharius.**”

*Prop. Q (144 – Sennikov & Somlyay in Taxon 65: 195)* Move the amended Ex. 12 (new text in bold, deleted text in strikethrough) from Art. 46.3 to Art. 46.6:

“*Ex. [12].* The name *Atropa sideroxyloides* was published in Roemer & Schultes (Syst. Veg. 4: 686. 1819), with the name and diagnosis in a single paragraph followed by “Reliq. Willd. MS.” As this represents direct association **indication** of Willdenow **with as the author of the text including** both the name and the diagnosis, the name is cited as *A. sideroxyloides* Willd., not *A. sideroxyloides* “Roem. & Schult.” nor *A. sideroxyloides* “Willd. ex Roem. & Schult.””

*Prop. R (146 – Sennikov & Somlyay in Taxon 65: 195)* Amend Art. 46.8 (new text in bold) and move the revised Ex. 16 under it:

“*46.8.* In determining the correct author citation, only internal evidence in the publication as a whole (as defined in Art. 37.5) where the name was validly published is to be accepted, including ascription of the name, **direct or indirect references to effectively published works**, statements in the introduction, title, or acknowledgements, and typographical or stylistic distinctions in the text (**but see Art. 46.9**).”

“*Ex. [16].* By citing “*Dichelodontium nitidum* Hook. fil. et Wils.”, Brotherus (in Engler & Prantl, Nat. Pflanzenfam. I(3): 875. 1907) published a new combination with an indirect reference to the basionym, *Leucodon nitidus* Hook. f. & Wilson (in Hooker, Bot. Antarct. Voy. 2(2): 99. 1853), and did not ascribe the new combination to Hooker and Wilson because he did not acknowledge their contribution (Art. 46.5). He also validly published the name of a new genus, *Dichelodontium* Broth., with a direct reference to the provisional generic name *Dichelodontium* which appeared without a statement of authorship in the text authored by Wilson. Brotherus’s citation of the authorship of “*Dichelodontium* Hook. fil. et Wils.” is an error under Art. 46.3.”

*Prop. S (141 – Sennikov & Somlyay in Taxon 65: 194)* Move the second sentence of Ex. 13 under Art. 46.3 into a new Example under Art. 46.8, rewritten as follows:

“*Ex. 38bis.* *Malpighia emarginata* Moc. & Sessé ex DC. (Prodr. 1: 578. 1824) was published as “*M. emarginata* (f l. mex. ic. ined.)”. Elsewhere in the same publication Candolle (l.c.: 70) referred to the same unpublished work as “Sessé et Moç. f l. mex. ic. ined.” which constitutes the direct association (Art. 46.3) of the names of Sessé and Moçônio also with the new name *M. emarginata*, following internal evidence in the publication of Candolle as a whole (Art. 46.8).”

*Prop. T (147 – Sennikov & Somlyay in Taxon 65: 196)* Amend Art. 46.10 as follows (new text in bold):

“*46.10.* Authors publishing nomenclatural novelties and wishing other persons’ names followed by “ex” to precede theirs in authorship citation may adopt the “ex” citation in the protologue. **The “ex” citation has no standing, even if it appears in the protologue, when Art. 46.2 or Art. 46.4 apply.**”

**Rapporteurs’ comments** – *Prop. A* might make Art. 46 slightly less austere by implying, almost at the beginning, that in most cases a name is attributed to the author of the publication in which it appears. Of course, one must still read all the other provisions to determine if they rule otherwise, but at least one can embark on one’s journey not utterly clueless. The proposed Note actually helps understand a case

not explicitly covered elsewhere in Art. 46, i.e. when a name of a new taxon appears in a publication by author A, is ascribed to author A, and the validating description or diagnosis is ascribed to author B.

*Prop. B* is essentially editorial and would add a guiding Note to the beginning of Art. 46. The purpose of a Note is to “explain something that may not at first be readily apparent but is covered explicitly or implicitly elsewhere in the *Code*” (see Preface of the *Melbourne Code*: p. xviii). The proposed Note summarizes how an author citation may function, and this is already explicit in the relevant rules of Art. 46, but those who feel that this is not at first readily apparent may consider the Note to be helpful.

*Prop. C* makes Art. 46.2 more precise by replacing the rather vague “some way” in the second sentence with “a relevant way”. The adjustment to Ex. 7 helps to make the point.

*Prop. D* is contingent on acceptance of Art. 36 *Prop. E*, which the Rapporteurs’ cannot be sure is devoid of unwanted consequences. Attempting to demonstrate that the conserved family name *Eucryphiaceae* is not validly published in the place cited for it in App. IIB is questionably constructive, when Art. 14.15 forbids such a change to App. IIB.

*Prop. E* would delete Ex. 6, which concerns the family name *Elaeocarpaceae* (conserved in App. IIB), because of uncertainty as to ascription of the name to Jussieu, stemming from how to interpret a full stop (period). The attribution of the name to Jussieu was agreed by the Special Committee on Suprageneric Names, which reported to the Vienna Congress (Turland & Watson in *Taxon* 54: 491–499. 2005). The proposal could be referred to the Editorial Committee, which should at least add the year of publication of the family name (1816), which was present when this was Art. 46 Ex. 13 in the *Vienna Code*.

*Prop. F* and *G* would make it clear that the authorship of descriptive names does not change when they are used at different ranks, because they are not thereby names at new ranks. If *Prop. F* is accepted, the new Note would be better placed at the end of Art. 49 and the Example should be referred to the Editorial Committee, which might also expand the Glossary entry for descriptive name.

*Prop. H* and *I* seek to address a perceived difficulty in distinguishing between ascription of a name to an author under the second sentence of Art. 46.2 and an indirect reference to a basionym, replaced synonym, or homonym as mentioned under Art. 46.3. The proposers evidently believe that citing the name of an author can be *both* ascription and an indirect reference, which is contrary to Art. 46.3. It is hard to understand how the proposed solution (replacing “reference” with “a mere reference” in Art. 46.3 and giving two seemingly inconsistent Examples) will add to the clarity of Art. 46. *Prop. H* also removes “formal error” from Art. 46.3, which was unexplained until the Editorial Committee provided Ex. 19 in the *Melbourne Code*, hence Ex. 19 was invented for formal error, not the opposite as the proposers state. Those who disagree with *Prop. H* but agree to the deletion of “formal error” may so indicate by voting “ed.c.”

*Prop. J* and *K* both address a situation, found especially in 19th century protologues, where the accepted name first appears without author ascription and then appears again, with ascription, in a list of synonyms or in a synonym position. *Prop. J* solves the problem by amending Art. 46.3 so that an author citation *associated with a synonym* does not constitute ascription of the accepted name. *Prop. K* is more drastic and would remove this notion entirely, considering it redundant, although the Rapporteurs are not quite certain that it would be redundant. The Example of *Prop. K* could anyway be referred to the Editorial Committee.

*Prop. L–N* are similar in that they all expand the application of Art. 46.4. *Prop. L* extends the rule to all combinations, not only to binary ones. *Prop. M* goes further and applies the rule to uninomials and combinations and replaces “attributed” with “credited” (because the proposers prefer to reserve the term “attribution” for the authorship that is treated as correct under the rules for a name). *Prop. N* goes further still in ruling that orthographical corrections are to be disregarded. *Prop. L* is redundant unless both *Prop. M* and *N* are rejected. *Prop. M* includes three new Examples and amends the existing Ex. 19 and 24, while *Prop. N* adds a further new Example; these can be referred to the Editorial Committee if the proposals are accepted.

*Prop. O* offers a new Example to illustrate Art. 46.5 with a case to which not that Article but Art. 46.2 applies. It could be referred to the Editorial Committee.

*Prop. P* and *Q* adjust Ex. 9 and 12 and move them to illustrate Art. 46.6, but without actually changing the conclusions. They could be referred to the Editorial Committee.

*Prop. R* would augment Art. 46.8 so that references to other publications would be another kind of internal evidence used to determine author citation. This could in some cases be problematic. For example, an apparent ascription to an author could instead be an indirect reference to a basionym (Art. 46.3), but determining which it was could be impossible without resorting to external evidence, which would be contrary to Art. 46.8. The revised Ex. 16 might be better left unchanged under Art. 46.3.

*Prop. S* would move the second sentence of Ex. 13, introduced in the *Vienna Code*, and reverse its meaning to make a new Example illustrating Art. 46.8, which the proposers interpret as permitting the indirect association of a plant name with authors to constitute direct association (and presumably therefore ascription under Art. 46.3) because other names in the same publication are directly associated with the same authors. The definition of ascription in Art. 46.3 – “the direct association of the name of a person or persons with a new name or description or diagnosis” – is straightforward in its interpretation, whereas *Prop. S* unduly complicates this by allowing an indirect association to be interpreted as ascription.

*Prop. T* seeks to make explicit what is already implicit in Art. 46, viz. if authors cite other persons’ names followed by “ex” to precede theirs, and Art. 46.2 or 46.5 rule that the correct author citation is different, Art. 46.10 does not override the other two Articles. This raises the question as to whether Art. 46.10 has any function as a rule. If *Prop. T* is accepted the Editorial Committee should consider demoting the Article to a Note or Recommendation.

### Recommendation 46A

*Prop. A* (028 – Sennikov in *Taxon* 63: 1144) Amend Note 1 under Rec. 46A to read:

“Note 1. Brummitt & Powell’s *Authors of plant names* (1992), updated as necessary from the *International Plant Names Index* (www.ipni.org) and *Index Fungorum* (www.indexfungorum.org), should be followed when standardizing author citations of names. Depending on editorial policy, spaces may be optionally placed between the author’s initial(s) or abbreviated names and the surname or its standard abbreviation or contraction, except when the surname is abbreviated to a single letter, and also between surnames and suffixes.”

*Prop. B* (031 – Drobniak in *Taxon* 63: 1384) Add a new paragraph and a new Example to Recommendation 46A:

“46A.5. Author citations should be typed (as in this *Code*) in accordance with the following recommendations: a closing parenthesis and each full stop should be followed by a space. Full stops should

not be omitted (except for well-established abbreviations, e.g. “DC.” for Augustin Pyramus de Candolle). The plant name should not be followed by a comma.”

“Ex. 5. *Epifagus virginiana* (L.) W. P. C. Barton (not “(L.) W.P.C. Barton”, nor “(L.) W.P.C.Barton”, nor “(L.)W.P.C. Barton”, nor “(L.) WPC. Barton”).”

*Prop. C* (118 – Danet & Berthold in *Taxon* 64: 1342) Amend Rec. 46A Ex. 3, with removal of spaces, to read:

“Ex. 3. R.Br. for Robert Brown; A.Juss. for Adrien de Jussieu; Burm.f. for Burman filius; J.F.Gmel. for Johann Friedrich Gmelin, J.G.Gmel. for Johann Georg Gmelin, C.C.Gmel. for Carl Christian Gmelin, S.G.Gmel. for Samuel Gottlieb Gmelin; Müll.Arg. for Jean Müller argoviensis (of Aargau).”

*Prop. D* (119 – Danet & Berthold in *Taxon* 64: 1343) Amend Rec. 46A Note 1 (deleted text in strikethrough) and add a new Example to read:

“Note 1. Brummitt & Powell’s *Authors of plant names* (1992) provides unambiguous standard forms for a large number of authors of names of organisms in conformity with this Recommendation. These abbreviations, updated as necessary from the *International Plant Names Index* (www.ipni.org) and *Index Fungorum* (www.indexfungorum.org), have been used for author citations throughout this *Code*.”

“Ex. 5. *Rhododendron platyphyllum* (Franch. ex Diels) Balf.f. & W.W.Sm. (not “*R. platyphyllum* (Franch. ex Diels) Balf. f. & W.W. Sm.”, nor “*R. platyphyllum* (Franch. ex Diels) Balf. f. & W. W. Sm.”).”

**Rapporteurs’ comments** – *Prop. A* seeks to convert Note 1, which informs *Code* users of the existence of standards in author citation, into an explicit Recommendation, and goes further in spelling out minor differences in editorial style (i.e. the use of spaces in author citations) that the *Code* would otherwise view as merely a matter of typography.

*Prop. B* is even more prescriptive with regard to typography than *Prop. C*, and the same considerations apply.

*Prop. C* and *D* would change the typography of author citations in Ex. 3, and presumably throughout the *Code*, to match that of the standard forms given by the *International Plant Names Index* (IPNI), i.e. without spaces (e.g. “J.F.Gmel.”). The mention of IPNI in Note 1 would be retained, but that of *Index Fungorum* would be deleted, because that index provides standard forms containing spaces (e.g. “J.F. Gmel”). The same considerations as for *Prop. A* and *B* apply here.

### Recommendation 46C

*Prop. A* (120 – Danet & Berthold in *Taxon* 64: 1343) Amend Rec. 46C.1 and Ex. 1 to read (new text in bold, deleted text in strikethrough):

“46C.1. After a name published jointly by two authors, both authors should be cited, linked by the word “et” or by an ampersand (&).”

“Ex. 1. *Didymopanax gleasonii* Britton et P. Wilson or *D. gleasonii* Britton & P. Wilson (not “*Didymopanax gleasonii* Britton et P. Wilson”).”

*Prop. B* (121 – Danet & Berthold in *Taxon* 64: 1343) Amend Rec. 46C.2 and Ex. 2 to read (new text in bold, deleted text in strikethrough):

“46C.2. After a name published jointly by more than two authors, the citation should be restricted to the first author followed by “et al.” or “& al.”, except in the original publication.”

“Ex. 2. *Lapeirousia erythrantha* var. *welwitschii* (Baker) Geerinck, Lisowski, Malaisse & Symoens (in Bull. Soc. Roy. Bot. Belgique 105: 336. 1972) should be cited as *L. erythrantha* var. *welwitschii* (Baker) Geerinck et al. (not “*L. erythrantha* var. *welwitschii* (Baker) Geerinck & al.”).”

**Rapporteurs' comments** – Prop. A and B seek to standardize author citations so that, when citing a name jointly published by two authors, only “&” (not “et”) should be used between the authors. On the other hand, when citing a name jointly published by more than two authors, the first author should be followed only by “et al.” (not “& al.”). The *Code* currently recommends use of either “et” or “&” in both cases. The proposers use the two methods to differentiate between citing two authors and citing more than two authors, although they do not explain why such differentiation may be desirable. If Prop. B were accepted, presumably the *Code* would have to follow its own Recommendation and replace “& al.” with “et al.” throughout. Considering that the ampersand (&) is essentially a form of the word “et”, this seems, like the use of spaces in author citations, to be merely a matter of typography.

#### Recommendation 46D

*Prop. A (058 – Bandyopadhyay & al. in Taxon 64: 656)* Add a new Recommendation to Rec. 46D:

“46D.2. Authors publishing nomenclatural novelties and changing their personal names should continue to use the name under which they first published.”

*Prop. B (059 – Bandyopadhyay & al. in Taxon 64: 656)* Add two new Examples after the new Rec. 46D.2:

“*Ex. 1.* Pratibha Jalmi changed her name to Pratibha Ashish Prabhugaonkar after her marriage in 2011, but has published nomenclatural novelties only under her name Pratibha (*Ceeveesubramaniomyces litseae* Pratibha & al. in *Kavaka* 32: 22. 2005 ‘litseai’; *Digitoramispora tambdisurlensis* Pratibha & al. in *Mycotaxon* 107: 383. 2009; *Jayarambhatia rhizophorae* Pratibha in *Mycotaxon* 125: 140. 2013).”

“*Ex. 2.* Inger Nordal, Debika Das, Anjali Das, and Sandhyajyoti Das published novelties both under their maiden names and their married names. Two different standard forms (Björnstad and Nordal, D. Das and Debika Mitra, A. Das and Anjali Biswas, Sandh. Das and Phukan, respectively) are provided for each person in Brummitt & Powell’s *Authors of plant names* (1992) and the *International Plant Names Index* (<http://www.ipni.org>).”

**Rapporteurs' comments** – Prop. A would recommend that authors who change their personal names continue to use the name under which they first publish, so as to avoid the possible confusion of two standard forms existing for the same author. Some may feel that the *Code* should not concern itself with matters that may be quite personal.

*Prop. B* provides two Examples that are merely statements of fact and have no significance if Prop. A is rejected.

#### Article 48

*Prop. A (151 – Sennikov & Somlyay in Taxon 65: 196)* Add a new Note after Art. 48.1, with a new Example:

“*Note 2bis.* An incorrect attribution of a name, including implications that a potential basionym or replaced synonym exists, without explicit exclusion of the type of that name does not constitute valid publication of a later homonym.”

“*Ex. 3bis.* *Ruta perforata* M. Bieb. (1800) and *Haplophyllum perforatum* Kar. & Kir. (1841) are treated as heterotypic names referable to the same species. When citing “*H. perforatum* (M. Bieb.) Kar. & Kir.”, Vvedensky (1949) is not considered to have created a later homonym, *H. perforatum* “(M. Bieb.) Vved. non Kar. & Kir.” because he did not explicitly exclude the type of *Haplophyllum perforatum* Kar. & Kir.”

**Rapporteurs' comments** – Prop. A seems unnecessary because the proposed new Note does not really tell us anything that is not

already clear from Art. 48.1, although the Example could be helpful. An “ed.c.” vote would refer the Example to the Editorial Committee.

#### Recommendation 50E

*Prop. A (080 – Hawksworth in Taxon 64: 861)* Amend Rec. 50E.3 as follows:

“50E.3. If a name has been adopted by Fries or Persoon, and thereby sanctioned (see Art. 13.1(d) and 15), “~~Fr.~~” or “~~Pers.~~” should be added in a formal citation the abbreviation “**nom. sanct.**” (**nomen sanctum**) should be added in a formal citation, followed by the citation of the place of sanctioning if considered desirable. The same convention should be used for the basionym of the sanctioned name, if it has one, and for all combinations based on either the sanctioned name or its basionym.”

*Prop. B (081 – Hawksworth in Taxon 64: 861)* Instruct the Editorial Committee to revise Rec. 50E Ex. 6 and 7 if Proposal 080 [Prop. A] is accepted.

**Rapporteurs' comments** – Prop. A is part of a series of proposals (063–085) “to clarify and enhance the naming of fungi” and affects only citations of fungal names. It appears to have the support of mycologists (according to the proposer) in modifying a notation first recommended in the *Sydney Code* (Voss & al. in *Regnum Veg.* 111. 1983), but confusing to some mycologists and not often followed, including by *Index Fungorum*. Furthermore, it would correct the misleading treatment of basionyms of sanctioned names as though they also are sanctioned under Art. 15, when in fact they are not. Its implementation would require considerable editorial adjustment to the citations of fungal names in the Appendices to the *Code*. *Prop. B* would become necessary from the adoption of Prop. A. The Nomenclature Committee for Fungi does not support Prop. A and B (votes 6 : 11 : 1).

#### Article 52

*Prop. A (341 – Greuter in Taxon 65: 913)* Add a phrase to Art. 52 Note 1 (new text in bold):

“*Note 1.* The inclusion, with an expression of doubt, of an element in a new taxon, e.g. the citation of a name with a question mark, **or in a sense that excludes one or more of its potential type elements**, does not make the name of the new taxon nomenclaturally superfluous.”

*Prop. B (342 – Greuter in Taxon 65: 913)* After Art. 52 Note 2, add a Note:

“*Note 2bis.* For the purpose of Art. 52.2(e), citation of a name can be effected by unambiguous reference to it, e.g. by mention of its original sequential number or diagnostic phrase name (Linnaean “nomen specificum legitimum”) rather than its epithet.”

*Prop. C (343 – Greuter in Taxon 65: 913)* [After Art. 52 Note 2] Add another Note:

“*Note 2ter.* For the purpose of Art. 52.2(e), citation of a later isonym is equivalent to citation of the name itself if the citing author does not normally cite the primary source, or if the name is usually not cited from its primary source in contemporary literature. However, if it is possible to imply that the isonym is cited “in the sense of” the later author or “as used in” the later source, its inclusion does not by itself cause illegitimacy.”

*Prop. D (006 – van Rijckevorsel in Taxon 63: 205)* In Art. 52.3 delete “legitimate” in “legitimate generic name”.

*Prop. E (007 – van Rijckevorsel in Taxon 63: 205)* In Art. 52.3 delete “the stem of”.

**Rapporteurs' comments** – Prop. A–C seek to clarify what constitutes “citation of the name itself” in Art. 52.2(e). *Prop. A* excludes “pro parte” citations of the name.

*Prop. B* would allow citation of a name “to be effected by unambiguous reference to it”. As a Note, this could be hard to justify, because a distinction is found in the *Code* between “indicate” (e.g. unambiguously refer to something) and “cite” (actually mention something), hence it is possible to indicate something without actually citing it (e.g. a type or basionym). Such concerns could be allayed by converting the Note to an Article. In any case, the proposed provision is desirable because it would prevent many names currently regarded as illegitimate from being reinterpreted as legitimate.

*Prop. C* applies when a later isonym is cited, and provides flexibility and guidance in determining whether the isonym is equivalent to the name itself or is used in the sense of a later author.

*Prop. D* removes what the proposer regards as overkill in specifying a *legitimate* generic name in Art. 52.3, because the name of a family or subdivision of a family that was nomenclaturally superfluous when published and is based on the stem of an illegitimate generic name is also illegitimate under Art. 18.3 or 19.6. While the proposer is technically correct, the Rapporteurs are concerned that deleting “legitimate” could imply that superfluous names based on the stem of a generic name are legitimate, which is not necessarily so, although the phrase “on account of its superfluity” should make it clear that other causes of illegitimacy may apply, i.e. Art. 18.3, 19.6, and 53 (the last also applying to a superfluous name with a basionym). If the proposal is accepted, the Editorial Committee might consider adding a Note to make this clear.

*Prop. E* points out that “stem of” in Art. 52.3 is redundant, provided that “based on” is correctly understood to mean a name of a family or subdivision of a family formed from a generic name under Art. 18.1 or 19.1 rather than the name of a subdivision of a genus that has a generic name as its basionym or replaced synonym. General Prop. J would replace “based on” with “formed from” and avoid such confusion. If the proposals are accepted, the Editorial Committee could make it clear that the name formed from a generic name is the name of a family or subdivision of a family.

### Article 53

*Prop. A* (287 – Sennikov & Calonje in *Taxon* 65: 894) Add a new paragraph after Art. 53.1:

“53.1bis. For the purposes of Art. 53.1 and 53.4, a name spelled exactly like an earlier name is treated as based on a different type if the two do not share any of these: (a) types previously designated or established in the protologue (holotypes) or by other authors (lectotypes or neotypes); or (b) holotypes or original types established under Art. 40.3; or (c) types previously conserved under Art. 14.9; or (d) at least one syntype under Art. 9.5 or element eligible as type under Art. 10.2; or (e) in the absence of designated or established types, at least one element of original material under Art. 9.3(a) (see also Art. 48.1).”

*Prop. B* (288 – Sennikov & Calonje in *Taxon* 65: 894) Add a new Note and two new Examples after Art. 53.1 or new Art. 53.1bis [Prop. A]:

“*Note Ibis*. When an author uses the same name for the same taxon and does not definitely exclude its type as specified in Art. 48.1, no new name is considered to have been published by that author (see also Art. 6.3bis [Art. 6 Prop. E]).”

“*Ex. 7bis*. *Allium globosum* was described independently by Candolle (in Redouté, *Liliac.* 3(30): ad tab. 179. 1807) on living material originating from Marschall von Bieberstein, and then by Bieberstein (Fl. Taur.-Caucas. 1: 262. 1808). Although the original material of these names did not overlap, both authors were describing the same

species from the same source. No nomenclatural novelty was published by Bieberstein.”

“*Ex. 7ter*. The generic name *Catalpa* Scop. (1777) was based on *Bignonia catalpa* L. (1753). Later, Walter (1788) accepted *Catalpa* with a new generic description and included a single species, *C. bignonioides* Walter (1788), but with no citation of Scopoli or of the Linnaean species name. Walter’s treatment of *Catalpa* does not constitute publication of a new generic name because Scopoli and Walter applied the same name to the same taxon and the original type of Scopoli was not explicitly excluded by Walter.”

*Prop. C* (240 – Wiersema & al. in *Taxon* 65: 645) Amend Art. 53.5 as follows (new text in bold):

“53.5. When it is doubtful whether names or their epithets are sufficiently alike to be confused, a request for a decision may be submitted to the General Committee (see Div. III), which will refer it for examination to the committee(s) for the appropriate taxonomic group(s). A recommendation, whether or not to treat the names concerned as homonyms, may then be put forward to an International Botanical Congress and, if ratified, will become a binding decision **with retroactive effect**. These binding decisions are listed in App. VIII.”

*Prop. D* (211 – Machado & dos Santos in *Taxon* 65: 414) Amend Art. 53.5 as follows (new text in bold):

“53.5. When it is doubtful whether names or their epithets are sufficiently alike to be confused, a request for a decision may be submitted **by publication in the journal *Taxon*** to the General Committee (see Div. III), which will refer it for examination to the committee(s) for the appropriate taxonomic group(s). [...]”

*Prop. E* (093 – Belyaeva & al. in *Taxon* 64: 1067) Amend Art. 53.6 (new text in bold):

“53.6. **A name that was a homonym when published is not illegitimate on account of its homonymy if it is spelled exactly like a name based on a different type that was simultaneously and validly published for a taxon of the same rank, unless an earlier homonym exists (see also Art. 11 Note 2).** When two or more homonyms have equal priority, the first of them that is adopted in an effectively published text (Art. 29–31) by an author who simultaneously rejects the other(s) is treated as having priority. Likewise, if an author in an effectively published text replaces with other names all but one of these homonyms, the homonym for the taxon that is not renamed is treated as having priority (see also Rec. 42A.2).”

**Rapporteurs’ comments** – *Prop. A* and *B*, together with Art. 6 *Prop. E*, seek to overcome difficulties in distinguishing between later usage of a name representing a homonym or an isonym, in the absence of typification. *Prop. A* adds a new rule to Art. 53, apparently modelled on Art. 52.2, to determine when names are based on different types, which is one of the criteria for determining homonyms in Art. 53.1. Clauses (a)–(c) are self-evident: if the names do not share the same type they are based on different types. Otherwise, clauses (d) and (e) address the difficulty mentioned above: names that have no syntypes or other elements of original material in common are treated as based on different types. The wording of the proposed new Article is rather convoluted, which hinders its being understood. It would be important to prevent any implication that the converse of the rule could apply, i.e. “a name spelled exactly like an earlier name is treated as based on the same type if the two share any of these ...”, which could result in homonyms becoming isonyms with untold disruption. If the proposal were accepted, the Editorial Committee would be charged with addressing these issues.

*Prop. B* would add a Note and two Examples to go with either Art. 53.1 or the new Article of *Prop. A*. The Note is essentially the

converse of Art. 48.1, except for the phrase “for the same taxon” (see comments under Art. 6 Prop. E), and could be regarded by some as stating the obvious or by others as a useful clarification. However, the wording needs to be made clearer and there should be no implication that the converse of the new rule of Prop. A could apply, as discussed above. If Prop. B were accepted, the Editorial Committee would have to address these issues and consider the best placement of the Note and Examples (perhaps instead under Art. 6 Note 2 concerning isonyms, although the Note would be largely redundant there if Art. 6 Prop. E were accepted).

Prop. C would rule that a binding decision under Art. 53.5, on whether or not to treat names as homonyms, would take retroactive effect upon ratification by an International Botanical Congress, because actions taken under the rules of nomenclature are not automatically retroactive (as discussed under Art. 14 Prop. M, Art. 34 Prop. C, and Art. 38 Prop. D).

Prop. D is discussed under Art. 14 Prop. F and G.

Prop. E seeks to make explicit what is implied in Art. 53.1 and 53.6, that homonyms with equal priority may be legitimate. However, the proposed additional wording is awkward and unnecessarily repetitive of Art. 53.1. A simpler solution would be to insert a new Note after Art. 53.1 stating that “Simultaneously published homonyms are not illegitimate on account of their homonymy unless an earlier homonym exists” and amend the first clause to Art. 53.6 to read “When two or more **legitimate** homonyms have equal priority”. An “ed.c.” vote will be interpreted as supporting this alternative.

#### Article 54

Prop. A (082 – *Hawksworth in Taxon 64: 861*) Add a new clause to Art. 54.1 as follows:

“(c) A name published on or after 1 January 2019 for an alga or fungus is illegitimate if it is a later homonym of a bacterial or protozoan name.”

Prop. B (360 – *Hawksworth in Taxon 65: 917*) Add a new paragraph to Art. 54.1 as follows:

“(c) A name published on or after 1 January 2025 for any organism covered under this *Code* is illegitimate if it is a later homonym of a name available under either the prokaryote or the zoological *Code*.”

Prop. C (390 – *McNeill & al. in Taxon 65: 1198*) Add a new paragraph to Art. 54.1 (with a footnote) to read:

“(c) A name of a genus is treated as an illegitimate later homonym if it is spelled identically with a previously published intergeneric graft hybrid “name” established<sup>1</sup> under the provisions of the *International Code of Nomenclature for Cultivated Plants*.”

<sup>1</sup> The term “established” is used by the ICNCP for the concept of validly published in the ICN.”

and add to the parenthesis at the end of Art. H.6.1: “and 54.1(c)”.

The Editorial Committee should also consider replacing the words “not treated as algae, fungi, or plants” in Art. 54.1 by “not treated under this *Code*”.

Prop. D (280 – *Nakada in Taxon 65: 658*) Amend Art. 54.1 as follows (new text in bold):

“54.1. Consideration of homonymy does not extend to the names of taxa not treated as algae, fungi, or plants, except as stated below:

(a) Later homonyms of the names of taxa once treated as algae, fungi, or plants **in effective publications** are illegitimate, even when the taxa have been reassigned to a different group of organisms to which this *Code* does not apply.

(b) A name originally published for a taxon other than an alga, fungus, or plant, even if validly published under this *Code* (Art.

32–45), is illegitimate if it becomes a homonym of an algal, fungal, or plant name when the taxon to which it applies is first treated as an alga, fungus, or plant **in an effective publication** (see also Art. 45.1).

(c) **For the purpose of Art. 54, simple statements on affinities of taxa to algae, fungi, or plants, without explicit statements on the treatment, or associated nomenclatural proposals, under this *Code*, are not considered as treatments as algae, fungi, or plants.**”

Prop. E (281 – *Nakada in Taxon 65: 659*) Add two new Examples after Art. 54 Note 1:

“Ex. 1. *Micromonas* Borrel (1902) is listed in *Index Nominum Genericorum* as a member of “Flagellata?” without explicit statements on the treatment, or associated nomenclatural proposals, under this *Code*. Doweld (*Prosyllabus Tracheophytorum*: LXXIII. 2001) proposed *Micrinomonas* Doweld as a new name for *Micromonas* I. Manton & M. Parke (1960) citing *Micromonas* Borrel as an earlier homonym under the *Code*. Therefore, Doweld (2001) first treated *Micromonas* Borrel as algae, fungi or plants.”

“Ex. 2. Nozaki & al. (in *J. Molec. Evol.* 56: 485–497. 2003) included many protozoan lineages (“*Kinetoplastida*”, “*Heterolobosea*”, “*Apicomplexa*”, and “*Ciliophora*”) in *Plantae*, based on phylogenetic analyses. However, no explicit statements on the treatment, or associated nomenclatural proposals, under this *Code* are in the publication, and these assignments are not considered as treatments as algae, fungi, or plants under Art. 54.”

Prop. F (233 – *Nakada in Taxon 65: 642*) Add a new Example after Art. 54 Note 1:

“Ex. 1. *Triadinium* Dodge (1981), a dinophycean algal genus, is not a later homonym of “*Triadinium* Fiorentini, 1890”, which is available under the *International Code of Zoological Nomenclature*, as a ciliate generic name (see also Pre. 8).”

**Rapporteurs’ comments** – Prop. A, together with Rec. 54A Prop. A, is part of a series of proposals (063–085) “to clarify and enhance the naming of fungi”, but the provisions under consideration, placing an additional burden to avoid homonymy with bacterial or protozoan names in publishing new names, would extend to algal names as well. The Nomenclature Committee for Fungi supports Prop. A (votes 10:7:1), whereas the Nomenclature Committee for Algae does not support it (votes 1:11:1), preferring Prop. B instead.

Prop. B, together with Rec. 54A Prop. B, is essentially the same as Prop. A but with a starting date six years later, applying to all organisms treated under the *Code*, and extending “bacterial or protozoan name” to “a name available under either the prokaryote or the zoological *Code*”. Because the starting date is after the 2023 International Botanical Congress, the rule would function only as a warning in the *Shenzhen Code*. The proposer chose the 2025 date “to allow time for the International Commission on Zoological Nomenclature to consider incorporating a complementary proposal into the next edition of the zoological *Code*”. Starting in 2025, it would become necessary, when publishing a new name, to check all relevant nomenclatural indexes to avoid creating homonyms. The Nomenclature Committee for Fungi has only 50% support for Prop. B (votes 9:8:1), whereas the Nomenclature Committee for Algae supports it (votes 11:1:1).

Prop. C would add a new clause to Art. 54.1 to allow homonymy between generic names validly published under the *International Code of Nomenclature for algae, fungi, and plants* (ICN) and intergeneric graft hybrid names established under the *International Code of Nomenclature for Cultivated Plants* (ICNCP). The authors argue that, because names of intergeneric graft hybrids are comparable with generic and nothogeneric names governed by the ICN, precluding

duplication between them is clearly desirable. Prop. C can be likened to the provisions in Art. 16.3, 17.1, 19.3, and 20.1 that prevent confusion between names governed by the ICN and names of viruses. In order to help avoid possible future publication of homonyms, the proposal contains an enumeration of all ten graft hybrid names known to have been established under the ICNCP.

*Prop. D* and *E* seek to define “treated as algae, fungi, or plants”, which appears in Art. 54.1. The proposer decides that such treatment must be in effectively published works, so as to “avoid confusing consequences from ambiguous treatments”. Which organisms are treated as algae, fungi, or plants is currently based on tradition, not on provisions of the *Code*, but these proposals would make it definable by an act, which would have a binding effect on taxonomy. The Nomenclature Committee for Algae does not support Prop. D and E (votes 1:11:1), whereas the Nomenclature Committee for Fungi has only 50% support for them (votes 9:5:4).

*Prop. F* is connected to Preamble Prop. A. See comments under that proposal.

#### Recommendation 54A

*Prop. A (083 – Hawsworth in Taxon 64: 861)* Amend Rec. 54A.1 as follows:

“54A.1. Authors naming new **plant** taxa under this *Code* should, as far as is practicable, avoid using such names as already exist for zoological and bacteriological taxa.”

*Prop. B (361 – Hawsworth in Taxon 65: 917)* Amend Rec. 54A.1 as follows (new text in bold):

“54A.1. Authors naming new taxa under this *Code* **prior to 1 January 2025** should, as far as is practicable, avoid using such names as already exist for zoological and **prokaryote** taxa.”

**Rapporteurs’ comments** – *Prop. A* would become necessary upon acceptance of Art. 54 Prop. A. The Nomenclature Committee for Fungi supports Prop. A (votes 10:7:1), whereas the Nomenclature Committee for Algae does not support it (votes 0:12:1), preferring Prop. B instead.

*Prop. B* would become necessary upon acceptance of Art. 54 Prop. B, but it would only apply as a Recommendation until the new rule of Art. 54 Prop. B took effect on 1 January 2025 (hence it would be editorially deleted in the *Code* resulting from the 2029 Congress). The Nomenclature Committee for Fungi has only 50% support for Prop. B (votes 9:8:1), whereas the Nomenclature Committee for Algae supports it (votes 11:1:1).

#### Article 55

*Prop. A (176 – van Rijckevorsel in Taxon 65: 405)* In Art. 55.1 and 55.2 replace “epithet was originally placed under an illegitimate” by “epithet is combined with an illegitimate”.

*Prop. B (177 – van Rijckevorsel in Taxon 65: 405)* In Art. 55 add a Note:

“*Note 1.* A name as indicated in Art. 55.1 and 55.2 is unavailable for use, but, if not otherwise illegitimate, may serve as basionym of another name or combination based on the same type.”

*Prop. C (178 – van Rijckevorsel in Taxon 65: 405)* Rephrase Art. 55 Ex. 4, so that it reads:

“*Ex. 4.* Upon publication, *Alpinia languas* J. F. Gmel. (1791) and *A. galanga* (L.) Willd. (1797) were assigned to *Alpinia* L. (1753). When the name *Alpinia* was conserved from a later publication (Art. 14.9), as *Alpinia* Roxb. (1810), these two species were included in the newly named genus and their names are to be accepted without any change in status under this *Code*.”

*Prop. D (282 – Deng in Taxon 65: 659)* Add a new paragraph to Art. 55:

“55.4. The epithet of the name of a species or subdivision of a genus that was originally placed under a generic name that is a later homonym, or the final epithet of the name of an infraspecific taxon that was originally placed under a species name that is a later homonym, may be placed under the respective legitimate earlier homonym without change of authorship and date.”

*Prop. E (283 – Deng in Taxon 65: 659)* If Prop. (282) [Art. 55 Prop. D] is accepted, add up to three new Examples to Art. 55:

“*Ex. 5.* The epithet of *Haplanthus hygrophiloides* T. Anderson (1867) was originally placed under the illegitimate generic name *Haplanthus* T. Anderson (1867), a later homonym of *Haplanthus* Nees (1832). When *H. hygrophiloides* is considered to belong instead to *Haplanthus* Nees, it is so accepted without change of authorship and date.”

“*Ex. 6.* When the homonyms *Acidosasa* B. M. Yang (1981) and *Acidosasa* C. D. Chu & C. S. Chao (1982) are considered to apply to the same genus, *A. chinensis* C. D. Chu & C. S. Chao (1982) is so accepted even though its epithet was originally placed under the illegitimate *Acidosasa* C. D. Chu & C. S. Chao (1982).”

“*Ex. 7.* When the homonyms *Dendrocalamopsis* Q. H. Dai & X. L. Tao (1982) and *Dendrocalamopsis* (L. C. Chia & H. L. Fung) Keng f. (1983) are considered to apply to the same genus, *D. oldhamii* (W. Munro) Keng f. (1983) and seven other simultaneously published species names are so accepted even though their epithets were originally placed under the illegitimate *Dendrocalamopsis* (L. C. Chia & H. L. Fung) Keng f. (1983).”

**Rapporteurs’ comments** – *Prop. A* is essentially editorial, pointing out that “originally” in Art. 55.1 and 55.2 is redundant. These provisions date back to the Stockholm *Code* (Art. 73; Lanjouw & al. in *Regnum Veg.* 3. 1952), where the phrase was “originally published under”; this became “originally combined with” and “originally placed under” in the Sydney *Code* of 1983 (Art. 68.1 and 68.2) and finally both “originally placed under” in the Tokyo *Code* of 1994 (the changes apparently editorial). The proposal could be referred to the Editorial Committee.

*Prop. B* would add a Note, based on Art. 14.10, explaining how a name as indicated in Art. 55.1 and 55.2 may be used, or not used. It seems a useful addition, and could be referred to the Editorial Committee.

*Prop. C* could be referred to the Editorial Committee if the proposed rewording of Ex. 4 were felt to be an improvement.

*Prop. D* and *E* seek to add a provision in Art. 55 to explicitly allow a combination with a generic (or species) name that is a later homonym to be combined with the corresponding earlier, legitimate homonym without change of authorship and date. It is implicit that this is anyway possible, because the combination in either position is spelled exactly the same and has the same type. If Prop. D is accepted, the Examples of Prop. E can be referred to the Editorial Committee.

#### Article 56

*Prop. A (379 – McNeill in Taxon 65: 1191)* Add a Note following Art. 56.1:

“*Note 1.* A name rejected under Art. 56.1 does not become illegitimate on account of its rejection and can continue to indicate the type of a name at higher rank. Similarly, a combination under a rejected name, although unavailable for use because of the inclusion of the rejected name, may be legitimate, and may serve as basionym for another combination.”

The Editorial Committee may wish to consider including an Example under the new Note:

“*Aloe perfoliata* L. was designated as the type of *Aloe* L. by Britton & Millspaugh (Bahama Fl.: 69. 1920) and confirmed as such by Hitchcock & Green (in Sprague, Nom. Prop. Brit. Bot.: 146–147. 1929). Its status as type will be unaffected if the recommendation to reject *A. perfoliata* under Art. 56.1 (Klopper & al. in Taxon 65: 1173–1175. 2016) is accepted.”

*Prop. B (212 – Machado & dos Santos in Taxon 65: 414)* Amend Art. 56.2 as follows (new text in bold):

“56.2. The list of *nomina utique rejicienda* (suppressed names) will remain permanently open for additions and changes. Any proposal for rejection of a name must be accompanied by a detailed statement of the cases both for and against its rejection, including considerations of typification. Such proposals must be submitted by **publication in the journal Taxon** to the General Committee (see Div. III), which will refer them for examination to the committees for the various taxonomic groups (see also Art. 14.12 and 34.1).”

*Prop. C (069 – Hawksworth in Taxon 64: 859)* Amend Art. 56.3 as follows:

“56.3. In the interests of nomenclatural stability, for organisms treated as fungi (including lichenicolous fungi, but excluding lichen-forming fungi and those fungi traditionally associated with them taxonomically, e.g. *Mycocaliciaceae*), lists of names to be **rejected suppressed** may be submitted to the General Committee, which will refer them to the Nomenclature Committee for Fungi (see Div. III) for examination by subcommittees established by that Committee in consultation with the General Committee and appropriate international bodies. **Suppressed** names on these lists, which become Appendices of the *Code* once reviewed and approved by the Nomenclature Committee for Fungi and the General Committee, are to be treated as rejected under Art. 56.1 and may become eligible for use only by conservation under Art. 14 (see also Art. 14.13).”

*Prop. D (076 – Hawksworth in Taxon 64: 860)* Amend the first sentence of Art. 56.3 as follows:

“56.3. In the interests of nomenclatural stability, for organisms treated as fungi (~~including lichenicolous fungi, but excluding lichen-forming fungi and those fungi traditionally associated with them taxonomically, e.g. *Mycocaliciaceae*~~), lists of names to be rejected may be submitted to the General Committee, which will refer them to the Nomenclature Committee for Fungi (see Div. III) for examination by subcommittees established by that Committee in consultation with the General Committee and appropriate international bodies.”

*Prop. E (213 – Machado & dos Santos in Taxon 65: 414)* Amend Art. 56.3 as follows (new text in bold):

“56.3. In the interest of nomenclatural stability, for organisms treated as fungi (including lichenicolous fungi, but excluding lichen-forming fungi and those fungi traditionally associated with them taxonomically, e.g. *Mycocaliciaceae*), lists of names to be rejected may be submitted by **publication in the journal Taxon** to the General Committee, which will refer them to the Nomenclature Committee for Fungi (see Div. III) for examination by subcommittees established by that Committee in consultation with the General Committee and appropriate international bodies. [...]”

*Prop. F (070 – Hawksworth in Taxon 64: 859)* Amend Art. 56.4 as follows:

“56.4. When a proposal for the rejection **or suppression** of a name under Art. 56 has been approved by the General Committee after study by the Committee for the taxonomic group concerned, rejection

**or suppression** of that name is authorized subject to the decision of a later International Botanical Congress (see also Art. 14.16 and 34.2).”

*Prop. G (237 – Wiersema & al. in Taxon 65: 645)* Amend Art. 56.4 as follows (new text in bold) and add a new Note:

“56.4. When a proposal for the rejection of a name under Art. 56 has been approved by the General Committee after study by the Committee for the taxonomic group concerned, rejection of that name is authorized subject to the decision of a later International Botanical Congress (see also Art. 14.16 and 34.2). **Rejection takes effect on the date of effective publication (Art. 29–31) of the General Committee’s approval.**”

“*Note 1.* The date of the General Committee decision on a particular rejection proposal can be determined by consulting the proposals database at <http://botany.si.edu/references/codes/props/index.cfm>.”

*Rapporteurs’ comments – Prop. A* would be useful to dispel any doubts as to whether a rejected name can serve as the type of a higher-ranked name (it can). The second part of the Note, clarifying that a combination with a species name or generic name that is rejected is unavailable for use but may be legitimate, makes the same point that Art. 55 Prop. B makes with regard to Art. 55.1 and 55.2.

*Prop. B and E* are discussed under Art. 14 Prop. F and G.

*Prop. C, D, and F* are part of a series of proposals (063–085) “to clarify and enhance the naming of fungi”, affect only fungal names, and have strong support among mycologists. *Prop. C and F* propose a standard and less ambiguous label for the lists created under Art. 56.3. Note that the term “suppressed names” is currently in use for the entries in App. V of the *Code*, which would require a new title. Presumably, by the current wording of Art. 56.3, to be “treated as rejected under Art. 56.1” would include rejection of all names for which a listed name is the basionym, so the standing of the names in the current App. V and those on the lists generated under Art. 56.3 would be identical, the difference being in the process by which the respective entries were generated, with those in current App. V resulting from the procedures outlined in Art. 56.2. One could therefore ask whether we need a separate Appendix, under a different title, to accommodate the names on these lists. *Prop. D*, together with Art. 14 Prop. J and Art. 57 Prop. B, form part of a subset of the larger series of fungal proposals to remove the exception for lichen-forming fungi from three provisions adopted at the Melbourne Congress but no longer supported by most mycologists. The Nomenclature Committee for Fungi supports Prop. C and F (votes 12:2:4) and Prop. D (votes 12:5:1), but notes that both lichenologists on the Committee oppose Prop. D. The Council of the International Association for Lichenology supports Prop. D (votes 9:0:2).

*Prop. G* is parallel to Art. 14 Prop. M concerning conservation. See comments under that proposal.

#### Recommendation 56A

*Prop. A (071 – Hawksworth in Taxon 64: 859)* Amend Rec. 56A as follows:

“56A.1. When a proposal for the rejection **or suppression** of a name under Art. 56 has been referred to the appropriate Committee for study, authors should follow existing usage of names as far as possible, pending the General Committee’s recommendation on the proposal (see also Rec. 14A and 34A).”

*Rapporteurs’ comments – Prop. A* is part of the series of proposals (063–085) “to clarify and enhance the naming of fungi”, and the comments made under Art. 56 Prop. C and F are relevant here. The Nomenclature Committee for Fungi supports Prop. A (votes 12:2:4).

**Article 57**

*Prop. A (084 – Hawksworth in Taxon 64: 862)* Delete Art. 57.2 and Ex. 2 and Ex. 3.

*Prop. B (077 – Hawksworth in Taxon 64: 860)* Instruct the Editorial Committee to delete the following words in Art. 57.2 in the event that Prop. (084) [Art. 57 Prop. A] to delete that provision is not accepted:

“fungi (including lichenicolous fungi, but excluding lichen-forming fungi and those fungi traditionally associated with them taxonomically, e.g. *Mycocaliciaceae*)”

**Rapporteurs’ comments** – *Prop. A* eliminates a provision that first appeared in the *Melbourne Code*, when dual nomenclature for fungi was abandoned, and gave preference to teleomorph-typified names when competing with anamorph-typified names for the same taxon. Nearly all mycologists favour its removal, which would then allow priority to operate normally between such names. The Nomenclature Committee for Fungi supports Prop. A (votes 13:3:2).

*Prop. B*, together with Art. 14 Prop. J and Art. 56 Prop. D, form part of a subset of proposals to remove the exception for lichen-forming fungi from three provisions adopted at the Melbourne Congress but no longer supported by most mycologists. It becomes redundant if Prop. A is accepted. The Nomenclature Committee for Fungi supports Prop. B (votes 12:5:1), but notes that both lichenologists on the Committee oppose it. The Council of the International Association for Lichenology supports Prop. B (votes 9:0:2).

**Article 58**

*Prop. A (339 – da Silva & Menezes in Taxon 65: 912)* Add an Example to Art. 58.1:

“*Ex. n. Cymbella subalpina* Hust. (1942) is illegitimate according to Art. 53.1 because it is a later homonym of *C. subalpina* F. Meister (1912). When Mann (in Round & al., *Diatoms: 667. 1990*) transferred *C. subalpina* Hust. to *Encyonema Kütz.*, he called it *E. subalpinum*. This name is a replacement name according to Art. 58.1 and is cited as *E. subalpinum* D. G. Mann, not *E. subalpinum* “(Hust.) D. G. Mann”. However, *C. mendosa* VanLand. (1969) had already been published as a replacement name for *C. subalpina* Hust. Therefore, *E. subalpinum* is illegitimate according to Art. 52.1 because when published it included the type of *C. mendosa*, the epithet of which should have been adopted.”

**Rapporteurs’ comments** – *Prop. A* offers a new Example to illustrate Art. 58.1. The first part is relevant, but the second part (“However, *C. mendosa* ...”), although apparently correct, is not relevant to Art. 58.1. The proposal could be referred to the Editorial Committee.

**Article 59**

*Prop. A (085 – Hawksworth in Taxon 64: 862)* Insert a new provision in Art. 59:

“59.2. If, prior to 1 January 2013, an author publishing a new species name for the morph of a fungus that had an earlier name typified by a different morph adopted the specific epithet of the name of the previously described morph, the newly published name is to be treated as a new combination and not the name of a new taxon with a different type. Designations such as “sp. nov.” and ascriptions excluding the earlier name are to be treated as formal errors requiring correction.”

**Rapporteurs’ comments** – *Prop. A* is part of the series of proposals (063–085) “to clarify and enhance the naming of fungi”. It appeared to have majority support among mycologists, although less than some of the other proposals of this series. The proposers believe

that the gains from adopting this provision, in preserving familiar names or epithets, will outweigh any unintended consequences from misapplication of a combination to a different taxon. Other mechanisms under Art. 14.13 also exist to resolve the underlying issue. However, the Nomenclature Committee for Fungi does not support Prop. A (votes 2:6:2), with 8 voting for a Special Committee to examine the matter. If the proposal were referred to a Special Committee, by 2023 the matter might be resolved anyway under Art. 14.13.

**Article 60**

*Prop. A (180 – van Rijkevorsel in Taxon 65: 406)* Add an Example to Art. 60.3:

“*Ex. 8bis.* When Franco made the combination *Pseudotsuga menziesii*, its basionym *Abies menziesii* (honouring “le naturaliste Menzies”) had not been used at all, and he was at liberty to correct.”

*Prop. B (344 – Greuter & Gandhi in Taxon 65: 914)* Add a word in Art. 60.5, and a sentence at the end (new text in bold):

“60.5. When a name has been published in a work where the letters *u, v* or *i, j* are used interchangeably or in any other way incompatible with modern **typographical** practices (e.g. one letter of a pair not being used in capitals, or not at all), those letters are to be transcribed in conformity with modern nomenclatural usage. **When names or epithets are derived from Greek words that include the diphthong *ey* (εϋ), its transcription as *ev* is treated as an error correctable to *eu*.**”

*Prop. C (345 – Greuter & Gandhi in Taxon 65: 914)* Add another sentence at the end of Art. 60.5:

“[...] **When names or epithets of Latin but not Greek origin include the letter *i* used as a semi-vowel (followed by another vowel to form a diphthong), it is treated as an error correctable to *j*.**”

*Prop. D (380 – McNeill in Taxon 65: 1191)* Add a new paragraph in Art. 60 to read:

“60.5bis. When the original publication of a name adopted a use of the letters *u, v* or *i, j* in any way incompatible with modern practices, those letters are to be transcribed in conformity with modern nomenclatural usage.”

*Prop. E (181 – van Rijkevorsel in Taxon 65: 406)* Add an Example to Art. 60.6:

“*Ex. 12bis.* Tilde to be suppressed: *Vochysia “kosñipatae”*, named after the valley of Kosñipata, is correctly cited as *Vochysia kosnipatae* Huamantupa (2005).”

*Prop. F (087 – Committee on Fossils in Taxon 64: 863)* Amend Art. 60.9 as follows (new text in bold):

“60.9. The use of a hyphen in a compound epithet is treated as an error to be corrected by deletion of the hyphen. A hyphen is permitted only when the epithet is formed of words that usually stand independently, or when the letters before and after the hyphen are the same (see also Art. 23.1 and 23.3). **The use of a hyphen in the name of a fossil-genus is in all cases treated as an error to be corrected by deletion of the hyphen.**”

*Prop. G (088 – Committee on Fossils in Taxon 64: 863)* Amend Art. 60 Note 3 as follows (new text in bold):

“*Note 3.* Art. 60.9 refers only to epithets (in combinations), not to names of genera (**fossils excepted**) or taxa in higher ranks; a **non-fossil** generic name published with a hyphen can be changed only by conservation (Art. 14.11; see also Art. 20.3).”

*Prop. H (089 – Committee on Fossils in Taxon 64: 863)* Add the following new Example after Art. 60 Note 3:

“*Ex. 27bis.* “*Cicatricosi-sporites*” R. Potonié & Gelletich (1932) and “*Pseudo-Araucaria*” Fliche (1896) are names of fossil-genera.

They are treated as errors to be corrected by deletion of the hyphen to *Cicatricosisporites* and *Pseudoaraucaria*, respectively.”

*Prop. I* (182 – van Rijckevorsel in *Taxon* 65: 406) In Art. 60 Ex. 26 replace “*rolandii-principis* (see Art. 60.12)” by “*rolandi-principis*”.

*Prop. J* (183 – van Rijckevorsel in *Taxon* 65: 406) Add an Example to Art. 60.9:

“*Ex. 26bis*. The insertion of a hyphen in *Loranthus* “*pseudo-odoratus*” (in *Flora of China* 5: 224. 2003) is an error not to be followed.”

*Prop. K* (284 – Hartley & al. in *Taxon* 65: 660) Add a voted Example to Art. 60.9:

“*\*Ex. 24bis*. Hyphen to be omitted: *Peperomia lasierrana* Trel. & Yunck. (1950 as “*la-sierrana*”), not “*la-sierrana*”; hyphen not to be inserted: *Synsepalum letestui* Aubrév. & Pellegr. (1961 as “*Le Testui*”), not “*le-testui*”.”

*Prop. L* (285 – Hartley & al. in *Taxon* 65: 660) Add a voted Example to Art. 60.9:

“*\*Ex. 25bis*. Hyphen to be maintained: *Peperomia la-sierrana* Trel. & Yunck. (1950), not “*laserrana*”; hyphen to be inserted: *Synsepalum le-testui* Aubrév. & Pellegr. (1961 as “*Le Testui*”), not “*letestui*”.”

*Prop. M* (381 – McNeill in *Taxon* 65: 1192) Add to the first sentence of Art. 60.10 (new text in bold):

“*60.10*. The use of an apostrophe or quotation mark in an epithet is treated as an error to be corrected by deletion of the apostrophe or quotation mark unless it follows ‘M’ to represent the patronymic prefix ‘Mc’ (or ‘M’) in which case it is replaced by the letter ‘c’. The use of a full stop (period) in an epithet that is derived from a personal or geographical name that contains this full stop is treated as an error to be corrected by deletion of the full stop.”

and include, as an Example, appropriate text from the second paragraph below:

For example Harvey (Fl. Cap. 3: 494. 1865) published a new species of *Stobaea* in the form “*S. M’Kenii*”. The name commemorates one of the collectors of the type specimen, Mark Johnston McKen (1823–1872), given as “M’K” in the protologue. This name appears as *Stobaea mkenii* in IPNI (<http://www.ipni.org>) – correctly so under the current wording of Art. 60.10, but quite absurd when it commemorates someone called “McKen”. The same collector is commemorated in a more appropriate form in the genus *Mackenia* Harv. (Gen. S. Afr. Pl., ed. 2: 233. 1868), which Harvey named “in honour of Mr. J. M’Ken, Esq., Curator of the Botanic Gardens, Natal, a very zealous and successful collector of the plants of the Natal colony”, and similarly in *Cephalandra mackennii* Naudin (in *Ann. Sci. Nat., Bot., sér. 5*, 5: 17. 1866), although in this case the collector’s surname was given as “Mac Ken”.

*Prop. N* (184 – van Rijckevorsel in *Taxon* 65: 406) Instruct the Editorial Committee to add an Example to Art. 60.11 of an 18th century name, not by Linnaeus, with an abbreviation in its epithet.

*Prop. O* (185 – van Rijckevorsel in *Taxon* 65: 406) In Art. 60.12, rephrase the second sentence, so it reads:

“However, epithets formed in accordance with Rec. 60C.2 are to be accepted as correct.”

*Prop. P* (060 – Sennikov in *Taxon* 64: 657) Add a new Article and two new Examples after Art. 60.12:

“*60.12bis*. For names of species and infraspecific taxa, epithets formed by analogy with Rec. 60B are admitted.”

“*Ex. n. Syringa josikaea* J. Jacq. ex Rchb. (Iconogr. Bot. Pl. Crit. 8: 32. 1830, ‘*Josikaea*’), being named in honour of Countess Rozália Csáky, Baroness Jósika, is not to be corrected to “*josikae*”.”

“*Ex. n.* In *Cacalia kleinia* L. (Sp. Pl.: 834. 1753, ‘*Kleinia*’), the specific epithet is taken from an earlier generic designation (Linnaeus,

Hort. Cliff.: 395. 1738) honouring the German zoologist Jacob Theodor Klein. Rec. 60C.1 notwithstanding, it is not to be corrected to “*kleinii*”.”

*Prop. Q* (061 – Sennikov in *Taxon* 64: 657) If Prop. (060) [Art. 60 Prop. P] is accepted, change Art. 60.12 accordingly (new text in bold):

“*60.12*. The use of a termination (for example *-i*, *-ii*, *-ae*, *-iae*, *-anus*, or *-ianus*) contrary to Rec. 60C.1 is treated as an error to be corrected (see also Art. 32.2). However, terminations of epithets formed in accordance with Art. 60.12bis and Rec. 60C.2 are not to be corrected.”

*Prop. R* (179 – van Rijckevorsel in *Taxon* 65: 405) Split Art. 60, while promoting Rec. 60C.1 and Rec. 60G to Rules: one Article on original spelling (Art. 60.1–3, the first half of 60.7, 60.13), one on allowable characters (Art. 60.4–6, 60.9–11), one on personal names (the second half of Art. 60.7, Art. 60.12, Rec. 60C.1), and one on compounds (Art. 60.8 and Rec. 60G).

**Rapporteurs’ comments** – *Prop. A* would add an Example to Art. 60.3 that does not seem to illustrate that rule. If the original spelling “*menziezii*” is an orthographical error, Franco could correct it under Art. 60.1. However, the proposed Example claims that Franco was free to correct the spelling because it “had not been used at all”. The proposer states that “usage of a name is a factor in considering whether or not to correct a spelling”, but does not cite a provision of the *Code* in support (although Pre. 13 could apply in some cases). This seems to be introducing a new concept into Art. 60, and via an Example is not the way to achieve it.

*Prop. B* would specify that the “modern practices” referred to in Art. 60.5 were only typographical ones. It would also standardize all transcription of the Greek diphthong *ευ* to *eu*, so that *ev* would be a correctable error.

*Prop. C* would further expand Art. 60.5, standardizing usage of *i* as a semi-vowel in Latin-derived words to *j*. The proposers explain that they are spelling out what has traditionally been taken for granted, for Latin-derived names and epithets, although no consistent tradition exists for Greek, hence the explicit exclusion of Greek origin.

*Prop. D* is independent of the success or otherwise of Prop. B and C, but is only critical if these are accepted. Its thrust is to remove the “any [...] way incompatible with modern practices” entirely out of the context of “a work where the letters *u*, *v* or *i*, *j* are used interchangeably”, so that, even if Prop. B and C fail, it can no longer be argued that Art. 60.5 applies only to works with interchangeable use of these letters. If all three proposals are accepted, the Editorial Committee will integrate them appropriately.

*Prop. E* offers an Example of suppression of a tilde (ñ) under Art. 60.6. It can be referred to the Editorial Committee.

*Prop. F–H*, together with Art. 20 Prop. B, are written by and unanimously supported by the Nomenclature Committee on Fossils (votes 13:0:0). They would require that use of a hyphen in the name of a fossil-genus be treated as an error to be corrected by deletion of the hyphen. This efficient and enduring solution would avoid the need to conserve numerous de-hyphenated names against unused hyphenated forms. Doweld (in *Taxon* 62: 638–642. 2013) proposed to conserve 23 names of fossil-genera with de-hyphenated spellings, but action on these proposals was deferred pending the outcome of Prop. F–H and Art. 20 Prop. B (Wilson in *Taxon* 65: 1151. 2016). The Committee on Fossils suspects that other names of fossil-genera published with a hyphen exist in the early literature, although Doweld claims (in *Taxon* 66: 209–210. 2017) that there exist only ca. 40 such names out of more than 12,000 known names of fossil-genera.

*Prop. I* claims that in Ex. 26 “*rolandi principis*” is correctable under Art. 60.9 to “*rolandi-principis*”, not to “*rolandii-principis*” as currently given. It should be referred to the Editorial Committee.

*Prop. J* attempts to illustrate that *Loranthus* “*pseudodoratus*” (original spelling) is not correctable under Art. 60.9 to *L. “pseudodoratus”* as given in the *Flora of China* (Qiu & Gilbert in Wu & al., Fl. China 5: 224. 2003). This is not at all clear from the current wording of the proposal, but it could nevertheless be referred to the Editorial Committee, which, if it accepted the Example, would strive to make it clear.

*Prop. K* and *L* are alternatives, and would provide a Voted Example under Art. 60.9 to rule on whether hyphens in epithets formed from names containing a preposition or definite article are to be omitted/not inserted or maintained/inserted. If *Prop. K* is accepted (hyphen to be omitted/not inserted), 135 and 209 records will require correction in the International Plants Names Index and the World Checklist of Selected Plant Families, respectively. The proposers explain that, if *Prop. L* is approved (hyphen to be maintained/inserted), “because these records cannot be easily searched for we do not know how many epithets would be affected and they would have to be dealt with as and when they come to light”.

*Prop. M* addresses a detail not currently covered by Art. 60.10: the use in epithets of a “6-shaped” quotation mark (‘) instead of an apostrophe (’), as was sometimes used in Scottish or Irish names such as M’Ken to represent the letter “c” (i.e. McKen). The proposed amendment allows epithets originally spelled (e.g.) “*M’Kenii*” to be corrected to “*mkenii*” rather than “*mkenii*”.

*Prop. N* challenges the Editorial Committee to find a very particular kind of Example for Art. 60.11. Those who feel that such an Example would help interpret the Article should vote “ed.c.”

*Prop. O* would improve the wording of Art. 60.12, because terminations “formed in accordance with Rec. 60C.2” are presumably correct and can therefore hardly be “corrected”.

*Prop. P* and *Q*, together with Rec. 60C Prop. A, seek to permit epithets such as that of *Syringa josikaea* to be accepted as correct, whereas otherwise they would be correctable under Art. 60.12 but without the correct form being apparent. These cases are very rare, and perhaps it is better just to tolerate them rather than explicitly permit an indefinite number of new names with a new kind of epithet derived from a personal name. One of the Examples of *Prop. P*, that of *Cacalia kleinia*, could anyway be considered by the Editorial Committee as a possible Example under Art. 60.12, as the epithet is a pre-1753 generic name used in apposition to which one could argue that Art. 60.12 and Rec. 60C.1 do not apply.

*Prop. R* would result in a major overhaul of Art. 60, splitting it into four Articles (presumably Art. 60–63, with consequent renumbering of the corresponding Recommendations as well as Art. 61 and 62) and promoting Rec. 60C.1 and 60G to Articles (to end their current “back-door rule” status). This would all be purely editorial, and could be carried out by the Editorial Committee, but only if it were certain to make Art. 60 easier to apply. Otherwise a “no” vote would avoid time-consuming and needless restructuring.

#### Recommendation 60C

*Prop. A* (062 – *Sennikov* in *Taxon* 64: 657) If *Prop.* (060) [Art. 60 *Prop. P*] is accepted, change the first sentence of Rec. 60C.1 accordingly (new text in bold):

“60C.1. When personal names are given Latin terminations in order to form specific and infraspecific epithets, formation of those epithets is as follows (but see **Art. 60.12bis** and Rec. 60C.2):”

*Prop. B* (382 – *McNeill* in *Taxon* 65: 1192) Amend Rec. 60C.5(a) to read (new text in bold; deleted text in strikethrough):

“(a) The Scottish **and Irish** patronymic prefix “Mac”, “Mc”, “**M**”, or “**M**”\*, meaning “son of”, should **either all** be spelled

as “mac” or the latter three as “mc” and united with the rest of the name (e.g. *macfadyenii* after Macfadyen, *macgillivrayi* after MacGillivray, *macnabii* or *mcnabii* after McNab, *maekeni macclellandii* or *mccllellandii* after M’Ken M’Clelland).”

[\* The proposal as originally published cited “M”, whereas the *Code* has “M”. This change was deliberate (McNeill, pers. comm.), and is accordingly indicated here].

**Rapporteurs’ comments** – *Prop. A* is discussed under Art. 60 *Prop. P* and *Q*.

*Prop. B* introduces more latitude into Rec. 60C.5(a) by recommending that variants of the Scottish and Irish patronymic prefix when used in epithets be spelled not only as “mac” but alternatively as “mc”; hence, e.g., “*mcneillii*” would not be against the Recommendation.

#### Recommendation 60E

*Prop. A* (186 – *van Rijkevorsel* in *Taxon* 65: 406) In Rec. 60E.1, replace “The epithet in a name of a new taxon or replacement name should be written [...]” by “A new epithet should be formed [...]”.

**Rapporteurs’ comments** – *Prop. A* returns to the wording “new epithet” used in the Berlin *Code* of 1988 (Rec. 73E.1). This might be thought to render Rec. 60E.1 more parsimonious, but perhaps it would obscure the point that the new epithet is new because it is in the name of a new taxon or replacement name, and not in a new combination or name at new rank. The same concern applies to Rec. 60H *Prop. A*.

#### Recommendation 60G

*Prop. A* (017 – *Drobnik & Bacler-Žbikowska* in *Taxon* 63: 208) In Rec. 60G Ex. 3 replace the words “honey (*mel*, *melitos*)” with “honey (*meli*, *melitos*)”.

**Rapporteurs’ comments** – *Prop. A* points out that the word for “honey” given in Rec. 60G Ex. 3 is Latin (*mel*), whereas from the context it evidently should be Greek (*meli*). The proposal can be referred to the Editorial Committee.

#### Recommendation 60H

*Prop. A* (187 – *van Rijkevorsel* in *Taxon* 65: 406) Rephrase Rec. 60H.1, so that it reads:

“60H.1. The etymology of new generic names should be given and also that of new epithets when the meaning of these is not obvious.”

*Prop. B* (016 – *Drobnik & Bacler-Žbikowska* in *Taxon* 63: 208) To avoid bad word formation in Latin epithets derived from generic names, add the following new Recommendation to Rec. 60H:

“60H.2. Original or subsequent authors should derive adjectival forms from Latin generic names in accordance with classical usage or at least nomenclatural tradition, carefully considering the etymology and rules of classical declension. If such a rule is not obvious, the genitive form should be proposed and effectively published (compare Art. 62.3).”

**Rapporteurs’ comments** – *Prop. A* would amend Rec. 60H.1 to include also the epithets of replacement names. This is perfectly logical, but the wording “new epithets” might obscure the point that the new epithet is new because it is in the name of a new taxon or replacement name, and not in a new combination or name at new rank (cf. Rec. 60E *Prop. A*). Those who wish to add the epithets of replacement names to Rec. 60H.1, without the other proposed changes, should vote “ed.c.”

*Prop. B* concerns etymological practice when forming compound adjectival epithets in which the genitive form of a generic name appears in a non-final position (see Rec. 60G). The proposed

Recommendation, as currently worded, is perhaps not easily interpreted (although the supporting text of the proposal is clearer). Moreover, it recommends effective publication of a proposed genitive form of a generic name, which, were it a rule, would be parallel to the formal nomenclatural acts of Art. 61.3 and 62.3. Those who feel that this additional guidance is both useful and needed will vote accordingly.

### Division III

*Prop. A (276 – Special Committee on Registration in Taxon 65: 657)* In Div. III.2, add a new permanent nomenclature committee, as follows:

“(8) Registration Committee, charged with assisting the design and implementation of repositories for new names and nomenclatural acts, monitoring the functioning of existing repositories, and advising the General Committee on relevant matters. It is chaired by the Secretary-General of the International Association for Plant Taxonomy or his/her deputy and includes at least 5 members appointed by the Nomenclature Section selected, in part, to ensure geographic balance, and representatives from: (1) the other permanent nomenclature committees, (2) prospective or functioning repositories, (3) the International Organisation of Palaeobotany, (4) the International Phycological Society, (5) the International Mycological Association, and (6) the International Association of Bryologists.”

*Prop. B (286 – Special Committee on By-laws in Taxon 65: 661)* Replace Division III of the Code with the following new version:

[To avoid unnecessary repetition of this long text, Prop. B is online at <https://doi.org/10.12705/653.41>].

*Prop. C (362 – May & al. in Taxon 65: 918)* Amend Division III of the Code so that proposals on matters relating solely to names of organisms treated as fungi are dealt with by the Fungal Nomenclature Session of an International Mycological Congress.

[To avoid unnecessary repetition of this long text, Prop. C is online at <https://doi.org/10.12705/654.47>].

*Prop. D (363 – May & al. in Taxon 65: 920)* Amend Division III of the Code so that the Nomenclature Committee for Fungi is elected by an International Mycological Congress.

[See note under Prop. C above].

**Rapporteurs’ comments – Prop. A** is part of a set of four proposals from the Special Committee on Registration of Algal and Plant Names (including fossils) and would create a new Permanent Nomenclature Committee, namely the Registration Committee. To quote the proposers, Prop. A “would declare registration an ongoing concern of the botanical, mycological, and phycological community and provide the basic structure for making it possible”. The General Committee supports Prop. A (votes 21:2:2). The other three proposals are Art. 42 Prop. B–D (under which see comments).

*Prop. B* was developed by the Special Committee on By-laws for the Nomenclature Section. The proposal is to replace Div. III of the Code with a new, much-expanded version. The aims are to improve transparency and Congress-to-Congress consistency in the governance of the nomenclature of algae, fungi, and plants. Currently, there are many issues of governance that exist only by tradition. They are recorded in Committee reports or the proceedings of Nomenclature Sections, or they are passed on orally. This results in a lack of transparency for those who seek to understand how nomenclature is governed, and it can be discouraging to those who want to become more involved. The proposed new Div. III largely distills into words what is already current practice. The provisions of the current Div. III are included. The items that are new to Div. III and/or to current

practice can be summarized as follows (the paragraph numbers correspond to those in the proposal):

1.4. Clarifies the role of the International Association for Plant Taxonomy (IAPT). The General Committee would have the power to specify how nomenclatural publications required by Div. III are published (for which see 1.4 footnote).

2.1–2.6. Specifies pre-Congress procedures for the submission and evaluation of proposals to amend the main text and Appendices of the Code.

3.1, 7.1(3), 7.5, and 7.10. The Committee on Institutional Votes is new, comprising the Rapporteur-général and six other members. It maintains and updates the list of institutional votes, which is currently done by the Bureau of Nomenclature. Procedures on the exercising of institutional votes at the Nomenclature Section are provided in 3.3 and 3.4.

4.1–4.12. Elaborates the procedures and functions of the Nomenclature Section and its officers, modified as follows:

4.3(4). Special Committees are renamed “Special-purpose Committees”.

4.6. The President of the Nomenclature Section is elected by the General Committee. Currently the President is elected by the Organizing Committee of the International Botanical Congress. The President is authorized to move a resolution at a plenary session of the Congress that the decisions and appointments of the Nomenclature Section be approved. At recent Congresses this was done by the Rapporteur-général.

4.9. The Vice-rapporteur is appointed by the Rapporteur-général and is approved by the General Committee. Currently the Vice-rapporteur is elected by the Organizing Committee on the proposal of the Rapporteur-général.

5.1–5.10. Provides details on voting procedures at the Nomenclature Section, including the following items:

5.2(8). A simple majority (more than 50%) of votes cast is required at the Nomenclature Section to accept recommendations of the General Committee. This was (tacitly) the case prior to the Vienna Congress of 2005, at and after which controversy raged over requiring a 60% majority to *reject* a recommendation of the General Committee (to conserve the name *Acacia* with a conserved type). This 60% majority to reject was again adopted on a motion from the floor of the Nomenclature Section at the Melbourne Congress in 2011. This issue was the most controversial in the Special Committee’s discussions, but, after much discussion, and two rounds of voting, with ranked preferences in the second round, at least 70% of the Committee members voting supported the simple majority option (see p. 668 in the report of the Special Committee: Knapp & al. in Taxon 65: 665–669. 2016).

5.3. Provides a mechanism for the Nomenclature Section to vote separately on an individual recommendation of the General Committee.

5.4. When a singled-out recommendation (5.3) does not achieve the required majority (more than 50%) at the Nomenclature Section, the recommendation is cancelled and referred back to the Committee. Retention or rejection of a name or suppression of a work is no longer authorized under Art. 14.16, 56.4, or 34.2.

5.6. Any proposals to amend the Code concerning Examples (except Voted Examples), Notes, or the Glossary are automatically referred to the Editorial Committee unless there is a motion to discuss them at the Nomenclature Section. The Section in Melbourne agreed to handle Examples in this way, the reason being that the Editorial Committee can anyway add, amend, or delete Examples as it sees

fit. Glossary entries and Notes (if they are truly Notes) are similarly editorial.

6.1. Specifies post-Congress procedures for publishing the results of the Nomenclature Section.

7.1–7.12. Specifies the composition, functions, and decision-making procedures of the permanent nomenclature committees, with the following adjustments:

7.1. The Committees for Vascular Plants, Bryophytes, Fungi, Algae, and Fossils are collectively called “specialist committees”. The Committee *on* Fossils becomes the Committee *for* Fossils.

7.3. The Vice-rapporteur is an additional voting ex-officio member of the General Committee.

7.6. The Vice-rapporteur is an additional non-voting ex-officio member of the five specialist committees.

7.11. In the case of binding decisions on valid publication (Art. 38.4) and on homonymy (Art. 53.5), a qualified majority (at least 60%) decides whether or not a binding decision should be recommended, then a simple majority (more than 50%) decides between the two alternatives (i.e. validly published/not validly published, homonyms/not homonyms). The aim here is to avoid having to list in App. VII and VIII cases without doubt, where a binding decision is really not needed (because at present a binding decision must be recommended if a request is published, regardless of the level of doubt). If a specialist committee is unable to make a recommendation after voting 3 times, the committee is considered to have recommended against the proposal or against making a binding decision.

7.12. When the General Committee votes on a recommendation of a specialist committee and the required majority is not achieved, the matter is referred back to that specialist committee for further consideration. Currently the General Committee may make a recommendation that overrides that of a specialist committee.

The General Committee almost unanimously supports the general principle of the new Div. III (votes 24 : 0 : 1), supports the proposed new paragraphs that affect the General Committee (with the option to specify those not supported) (votes 18 : 4 : 3), and supports the collective name “specialist committees” (votes 19 : 4 : 2). The General Committee does not support certain details of paragraphs in Rec. 7A, 7.11, and 7.12, and has proposed amendments to those paragraphs, which are currently being considered by the Special Committee on By-laws, which will decide whether or not to accept them as friendly amendments. Details will be provided at or before the Nomenclature Section.

*Prop. C* was developed by the Special Subcommittee on Governance of the *Code* with Respect to Fungi. It builds directly upon the proposed new Division III of Prop. B, seeking to achieve greater autonomy for mycologists in the governance of fungal nomenclature. The proposal essentially seeks to allow proposals to amend the *Code* relating solely to fungi to be dealt with at an International Mycological Congress, the decisions of which are to be binding on an International Botanical Congress, with the General Committee having the power to rule on whether proposals relate solely to fungi. Key points of the proposed amendments and additions to the proposed new Div. III can be summarized as follows (the paragraph numbers correspond to those in the proposal):

8.2. The General Committee has the final say on whether proposals relate solely to fungi.

8.3. The International Mycological Association organizes the preliminary guiding (mail) vote on such proposals.

8.4–8.7. The International Mycological Congress includes a Fungal Nomenclature Session (not Section), which includes a Fungal Nomenclature Bureau, comprising a Chair, Secretary, and Deputy

Secretary (corresponding to President, Rapporteur-général, and Vice-rapporteur, respectively). The Session has similar functions to a Nomenclature Section, including electing the Nomenclature Committee for Fungi (see also Prop. C).

8.8. The Rapporteur-général is invited to attend the Fungal Nomenclature Session.

8.9. There are no “fungal” institutional votes.

8.10. The decisions of the Fungal Nomenclature Session, accepted by the same International Mycological Congress, are binding on the Nomenclature Section of the subsequent International Botanical Congress (but are open to editorial adjustments by the Editorial Committee).

8.12. Amendments to the *Code* accepted by an International Mycological Congress “should be inserted into any online version of the *Code* in such a manner that it is clear that the modifications originated from that International Mycological Congress”. This would prolong the activity of the Editorial Committee; the online version of the *Shenzhen Code* could require two rounds of amendment, as there will be International Mycological Congresses in 2018 and 2022.

1.4. For nomenclatural publications required by Div. III and relating solely to fungi, the journal *IMA Fungus* (<http://www.imafungus.org/>) is authorized in addition to *Taxon*.

7.4. The Editorial Committee includes a nominee of the Nomenclature Committee for Fungi.

The General Committee does not support the general principle of Prop. C (votes 8 : 14 : 3) and does not support the proposed new paragraphs of Prop. C that affect the General Committee (with the option to specify those not supported) (votes 6 : 11 : 8). On the other hand, the Nomenclature Committee for Fungi supports Prop. C (votes 11 : 5 : 2).

*Prop. D* also comes from the Special Subcommittee on Governance of the *Code* with Respect to Fungi. It seeks that the Nomenclature Committee for Fungi be elected by an International Mycological Congress *instead of* an International Botanical Congress. The General Committee does not support the general principle of Prop. D (votes 8 : 14 : 3), whereas the Nomenclature Committee for Fungi supports it (votes 10 : 6 : 2).

## Appendix I

*Prop. A (034 – Zhu in Taxon 63: 1386)* Move Appendix I into the main body of the *Code* as Chapter X. Renumber the Articles such that Art. H.1–H.12 become Art. 63–74, with the Recommendations renumbered accordingly. Renumber App. II–VIII as App. I–VII. Editorially adjust the relevant cross-references throughout the *Code*.

**Rapporteurs’ comments** – *Prop. A* would be a perfectly logical adjustment, especially now that App. II–VIII are separate from the main body of the *Code*. However, the Rapporteurs consider that it would be clearer and less disruptive to retain the current numbering of Articles and Recommendations from Art. H.1 to H.12, following Art. 62. Renumbering App. II–VIII could also be achieved with minimal disturbance by renumbering App. IIA and IIB as App. I and II, respectively. Those who agree should vote “ed.c.”

## Article H.5

*Prop. A (188 – van Rijckevorsel in Taxon 65: 406)* In Art. H.5 Ex. 2 replace “nothospecific designation” by “nothospecific name”.

**Rapporteurs’ comments** – *Prop. A* corrects in Ex. 2 an inappropriate use of the term “designation” (in the sense of something not validly published) to “name”, which in this case has been validly published. It can be referred to the Editorial Committee.

**Recommendation H.5B (new)**

*Prop. A (228 – Shang & Zhang in Taxon 65: 419)* Add a new Recommendation H.5B:

“*H.5B.1.* If the known or postulated parent taxa of an interspecific hybrid are at different ranks, and no nothospecific name has been previously published for a hybrid between those species, the hybrid formula should be used instead of publishing a nothospecific name that would be in a rank inappropriate to that hybrid formula.”

**Rapporteurs’ comments** – *Prop. A* addresses a problem that may arise when only one nothotaxon between two species is known, and at least one of the parent taxa is at an infraspecific rank. In such a case, a nothospecific name for the nothotaxon will be inappropriate to its hybrid formula and therefore incorrect in relation to that hybrid formula (see Art. H.5 Note 1). The proposed Recommendation is generally sound advice and accords well with the advice already given in Rec. H.10B.1. The wording does not allow for the parent taxa to be at the same infraspecific rank, but this would be resolved by the Editorial Committee if the proposal is accepted.

**Article H.6**

*Prop. A (122 – Coetzee in Taxon 64: 1343)* Amend Art. H.6.2 to include a length restriction (new text in bold):

“*H.6.2.* The nothogeneric name of a bigeneric hybrid is a condensed formula in which the names adopted for the parental genera are combined into a single word, **not exceeding eight syllables**, using the first part or the whole of the one, the last part or the whole of the other (but not the whole of both) and, optionally, a connecting vowel.”

*Prop. B (229 – Greuter in Taxon 65: 419)* Add a sentence at the end of Art. H.6.2; add an apposite reference to Art. H.6.2 under Art. 60 Note 3 (new text in bold):

“*H.6.2.* The nothogeneric name of a bigeneric hybrid is a condensed formula in which the names adopted for the parental genera are combined into a single word, using the first part or the whole of one, the last part or the whole of the other (but not the whole of both) and, optionally, a connecting vowel. **The use of a hyphen rather than a connecting vowel is treated as an error to be corrected by deletion of the hyphen.**”

[Art. 60] “*Note 3.* Art. 60.9 refers only to epithets (in combinations), not to names of genera or taxa in higher ranks; a generic name published with a hyphen can be changed only by conservation (Art. 14.11; see also Art. 20.3; **but see Art. H.6.2.**)”

The Editorial Committee may wish to add an Example under Art. H.6.2, such as:

“*Ex. n.* The nothogeneric name *×Anthematricaria* Asch. (in Ber. Deutsch. Bot. Ges. 9: (99). 1892), proposed for hybrids with the parentage *Anthemis* L. *× Matricaria* L., was originally published as “*Anthe-Matricaria*.””

**Rapporteurs’ comments** – *Prop. A* would bring Art. H.6.2 in line with Art. H.6.3 and H.6.4 so that all nothogeneric names would be restricted to a maximum of eight syllables, whereas currently names of bigeneric hybrids are unrestricted. The proposer draws attention to the apparent lack of purpose in this anomaly and could find only two names that would become not validly published: *×Aporoheliocereus* Airy Shaw (*Aporocactus* Lem. *× Heliocereus* Britton & Rose) and *×Coeloglossogymnadenia* A. Camus. (*Coeloglossum* Hartm. *× Gymnadenia* R. Br.). Under Art. H.8.1, depending on taxonomy, either name could anyway be incorrect.

*Prop. B* seeks to permit nothogeneric names of bigeneric hybrids that included a hyphen to be validly published (with hyphen to be deleted), whereas currently they are not. The wording should be

adjusted because some of these names were published with both a hyphen and a connecting vowel (e.g. *×Bolleo-chondrorhyncha* Cogn., *×Brasso-cattleya* Rolfe, *×Tsugo-keteleeria* Van Campo & Gausсен, and *×Tsugo-picea* Van Campo & Gausсен). This would be done by the Editorial Committee if the proposal is accepted.

**Glossary**

*Prop. A (328 – Mosyakin & McNeill in Taxon 65: 908)* Amend Glossary (entry *alternative name*) as follows (new text in bold):

“**alternative names.** Two or more different names based on the same type proposed simultaneously for the same taxon by the same author **and accepted as alternatives by that author in the same publication** (Art. 36.2).”

*Prop. B (148 – Sennikov & Somlyay in Taxon 65: 196)* Add a new entry to Glossary:

“**attribution.** Citation of the authorship of a name that is determined by the provisions of Art. 46.”

*Prop. C (030 – Zhu in Taxon 63: 1146)* Amend the Glossary entry for “gathering” as follows (addition shown in boldface):

“*gathering.* [Not defined]—used for a collection of one or more specimens made by the same collector(s) at the one place and time **irrespective of whether it bears one or more collection numbers** (Art. 8.2 and 8.3 footnote).”

*Prop. D (094 – Belyaeva & al. in Taxon 64: 1067)* Amend the entries for “homonym” and “superfluous name” in the Glossary by adding “but see” references as follows (shown in bold):

“**homonym.** A name spelled exactly like another name published for a taxon of the same rank based on a different type (Art. 53.1). Note: names of subdivisions of the same genus or of infraspecific taxa within the same species that are based on different types and have the same final epithet are homonyms even if they differ in rank, the rank-denoting term not being part of the name (Art. 53.4; **but see Art. 53.6.**)”

“**superfluous name.** A name that, when published, was applied to a taxon that, as circumscribed by its author, definitely included the type of a name that ought to have been adopted, or of which the epithet ought to have been adopted, under the rules (Art. 52.1; **but see Art. 52.3.**)”

*Prop. E (048 – Prado & al. in Taxon 64: 651)* Add a new entry to the Glossary:

“**inadvertent lectotypification (or neotypification).** A designation of a lectotype (or neotype) without the intention of the typifying author(s) (see Art. 9 Note *n*).”

*Prop. F (042 – Matos & al. in Taxon 64: 649)* Add to the definition of “original material” in the Glossary (new text in bold italics):

“**original material.** The set of specimens and illustrations from which a lectotype may be chosen (see Art. 9.3, **9.12** and Notes 2–4 for details; but see Art. 9.10), **or the holotype (see Art. 9.1).**”

*Prop. G (095 – Krishna & Bandyopadhyay in Taxon 64: 1067)* Add the following definition to the Glossary:

“**pro synonymo (pro syn., as synonym).** A name that is not validly published because it was merely cited as a synonym (Rec. 50A).”

*Prop. H (189 – van Rijckevorsel in Taxon 65: 406)* In the Glossary add an entry:

“*unavailable for use.* [Not defined] – not available for use as the correct name of a taxon, but in itself legitimate (and available to serve as a basionym); (1) a rejected earlier homonym of a conserved or sanctioned name (Art. 14.10, 15.2), (2) a homonym that was rejected in favour of a simultaneously published homonym (Art. 53.6), (3) a combination with a rejected homonym (but see Art. 55.3), or (4) a combination with an illegitimate name (Art. 55.1–2).”

**Rapporteurs' comments** – *Prop. A* should be referred to the Editorial Committee if Art. 36 *Prop. D* is accepted.

*Prop. B* should be referred to the Editorial Committee.

*Prop. C* would expand in the Glossary the definition of “gathering” to clarify that a single gathering can bear one or more collection numbers. Compare with the complementary Art. 8 *Prop. C* and the conflicting Art. 8 *Prop. K*.

*Prop. D* is linked to Art. 53 *Prop. E* and seeks to make clear that homonyms and superfluous names are not in all cases illegitimate, as the proposers consider illegitimacy to be implied by the references to Art. 53.1 and 52.1 in the respective Glossary entries. The proposal could be referred to the Editorial Committee, which might consider amending the references to simply Art. 53 and 52, respectively.

*Prop. E* would add “inadvertent lectotypification (or neotypification)” to the Glossary. The term would be new to the *Code*, only appearing in the proposed Note of Art. 9 *Prop. QQ*, and the definition seems self-evident. Those who feel such a definition is useful could refer *Prop. E* to the Editorial Committee.

*Prop. F* points out that the Glossary definition of original material assumes that a lectotype may be chosen, whereas this may not always be the case. If there is a holotype, that too is original material and no lectotype may be chosen. The proposed change addresses such a situation, but raises the broader issue that the definition of original material in the Glossary should reflect the definition in Art. 9.3. This can be resolved by referring the proposal to the Editorial Committee.

*Prop. G* and *H* should be referred to the Editorial Committee.

## ■ INDEX OF PROPOSALS

- 001 van Rijckevorsel, *Taxon* 63: 205, **Art. 6 Prop. G**  
 002 van Rijckevorsel, *Taxon* 63: 205, **Art. 18 Prop. A**  
 003 van Rijckevorsel, *Taxon* 63: 205, **Art. 18 Prop. B**  
 004 van Rijckevorsel, *Taxon* 63: 205, **Art. 19 Prop. B**  
 005 van Rijckevorsel, *Taxon* 63: 205, **Art. 19 Prop. C**  
 006 van Rijckevorsel, *Taxon* 63: 205, **Art. 52 Prop. D**  
 007 van Rijckevorsel, *Taxon* 63: 205, **Art. 52 Prop. E**  
 008 van Rijckevorsel, *Taxon* 63: 206, **Art. 7 Prop. A**  
 009 van Rijckevorsel, *Taxon* 63: 206, **Art. 10 Prop. A**  
 010 van Rijckevorsel, *Taxon* 63: 206, **General Prop. J**  
 011 Bhattacharjee, B. & al., *Taxon* 63: 206, **Rec. 30A Prop. F**  
 012 Bandyopadhyay & al., *Taxon* 63: 206, **Rec. 40A Prop. F**  
 013 Bandyopadhyay & al., *Taxon* 63: 206, **Rec. 9D Prop. A**  
 014 Bhattacharjee, A. & al., *Taxon* 63: 207, **Rec. 31B Prop. C**  
 015 Krishna & al., *Taxon* 63: 207, **Rec. 40A Prop. E**  
 016 Drobnik & Bacler-Żbikowska, *Taxon* 63: 208, **Rec. 60H Prop. B**  
 017 Drobnik & Bacler-Żbikowska, *Taxon* 63: 208, **Rec. 60G Prop. A**  
 018 Prado & Moran, *Taxon* 63: 448, **Art. 9 Prop. B**  
 019 Prado & Moran, *Taxon* 63: 448, **Art. 9 Prop. F**  
 020 Prado & Moran, *Taxon* 63: 448, **Art. 9 Prop. Y**  
 021 Li & Guan, *Taxon* 63: 693, **Art. 40 Prop. E**  
 022 Li & Guan, *Taxon* 63: 693, **Art. 40 Prop. F**  
 023 Vázquez, *Taxon* 63: 1142, **Art. 5 Prop. A**  
 024 Vázquez, *Taxon* 63: 1142, **Art. 5 Prop. B**  
 025 Sennikov & al., *Taxon* 63: 1144, **Art. 41 Prop. Q**  
 026 Sennikov & al., *Taxon* 63: 1144, **Rec. 41A Prop. A**  
 027 Sennikov & al., *Taxon* 63: 1144, **Rec. 41B (new) Prop. A**  
 028 Sennikov, *Taxon* 63: 1144, **Rec. 46A Prop. A**  
 029 Liao & al., *Taxon* 63: 1145, **Art. 9 Prop. E**  
 030 Zhu, *Taxon* 63: 1146, **Glossary Prop. C**  
 031 Drobnik, *Taxon* 63: 1384, **Rec. 46A Prop. B**  
 032 Jørgensen, *Taxon* 63: 1384, **Art. 9 Prop. W**  
 033 Mazumdar, *Taxon* 63: 1385, **Art. 11 Prop. A**  
 034 Zhu, *Taxon* 63: 1386, **App. I Prop. A**  
 035 Sennikov, *Taxon* 64: 182, **Art. 9 Prop. J**  
 036 Sennikov, *Taxon* 64: 182, **Art. 9 Prop. G**  
 037 Sennikov, *Taxon* 64: 182, **Art. 38 Prop. K**  
 038 Sennikov, *Taxon* 64: 392, **Art. 13 Prop. B**  
 039 Sennikov, *Taxon* 64: 393, **Art. 30 Prop. L**  
 040 Sennikov, *Taxon* 64: 393, **Art. 30 Prop. J**  
 041 Sennikov, *Taxon* 64: 393, **Art. 30 Prop. A**  
 042 Matos & al., *Taxon* 64: 649, **Glossary Prop. F**  
 043 Matos & al., *Taxon* 64: 649, **Art. 9 Prop. C**  
 044 Clementi & Peruzzi, *Taxon* 64: 649, **Art. 9 Prop. K**  
 045 Ferrer-Gallego & al., *Taxon* 64: 650, **Art. 9 Prop. GG**  
 046 Prado & al., *Taxon* 64: 651, **Art. 9 Prop. QQ**  
 047 Prado & al., *Taxon* 64: 651, **Art. 9 Prop. RR**  
 048 Prado & al., *Taxon* 64: 651, **Glossary Prop. E**  
 049 da Silva & Menezes, *Taxon* 64: 652, **Art. 16 Prop. C**  
 050 Sennikov & al., *Taxon* 64: 654, **Art. 36 Prop. E**  
 051 Sennikov & al., *Taxon* 64: 655, **Art. 46 Prop. D**  
 052 Sennikov, *Taxon* 64: 655, **Art. 41 Prop. I**  
 053 Sennikov, *Taxon* 64: 655, **Art. 41 Prop. K**  
 054 Sennikov, *Taxon* 64: 655, **Art. 41 Prop. L**  
 055 Sennikov, *Taxon* 64: 656, **Art. 41 Prop. J**  
 056 Sennikov, *Taxon* 64: 656, **Art. 41 Prop. M**  
 057 Sennikov, *Taxon* 64: 656, **Art. 41 Prop. N**  
 058 Bandyopadhyay & al., *Taxon* 64: 656, **Rec. 46D Prop. A**  
 059 Bandyopadhyay & al., *Taxon* 64: 656, **Rec. 46D Prop. B**  
 060 Sennikov, *Taxon* 64: 657, **Art. 60 Prop. P**  
 061 Sennikov, *Taxon* 64: 657, **Art. 60 Prop. Q**  
 062 Sennikov, *Taxon* 64: 657, **Rec. 60C Prop. A**  
 063 Hawksworth, *Taxon* 64: 858, **Art. 9 Prop. U**  
 064 Hawksworth, *Taxon* 64: 859, **Art. 7 Prop. H**  
 065 Hawksworth, *Taxon* 64: 859, **Art. 7 Prop. I**  
 066 Hawksworth, *Taxon* 64: 859, **Art. 7 Prop. J**  
 067 Hawksworth, *Taxon* 64: 859, **Art. 9 Prop. VV**  
 068 Hawksworth, *Taxon* 64: 859, **Art. 14 Prop. H**  
 069 Hawksworth, *Taxon* 64: 859, **Art. 56 Prop. C**  
 070 Hawksworth, *Taxon* 64: 859, **Art. 56 Prop. F**  
 071 Hawksworth, *Taxon* 64: 859, **Rec. 56A Prop. A**  
 072 Hawksworth, *Taxon* 64: 860, **Art. 14 Prop. I**  
 073 Hawksworth, *Taxon* 64: 860, **Art. 14 Prop. K**  
 074 Hawksworth, *Taxon* 64: 860, **Rec. 14A Prop. A**  
 075 Hawksworth, *Taxon* 64: 860, **Art. 14 Prop. J**  
 076 Hawksworth, *Taxon* 64: 860, **Art. 56 Prop. D**  
 077 Hawksworth, *Taxon* 64: 860, **Art. 57 Prop. B**  
 078 Hawksworth, *Taxon* 64: 861, **Rec. 38B Prop. A**  
 079 Hawksworth, *Taxon* 64: 861, **Rec. 38B Prop. B**  
 080 Hawksworth, *Taxon* 64: 861, **Rec. 50E Prop. A**  
 081 Hawksworth, *Taxon* 64: 861, **Rec. 50E Prop. B**  
 082 Hawksworth, *Taxon* 64: 861, **Art. 54 Prop. A**  
 083 Hawksworth, *Taxon* 64: 861, **Rec. 54A Prop. A**  
 084 Hawksworth, *Taxon* 64: 862, **Art. 57 Prop. A**  
 085 Hawksworth, *Taxon* 64: 862, **Art. 59 Prop. A**  
 086 Bhattacharjee, A. & al., *Taxon* 64: 862, **Art. 9 Prop. LL**  
 087 Committee on Fossils, *Taxon* 64: 863, **Art. 60 Prop. F**  
 088 Committee on Fossils, *Taxon* 64: 863, **Art. 60 Prop. G**  
 089 Committee on Fossils, *Taxon* 64: 863, **Art. 60 Prop. H**  
 090 Committee on Fossils, *Taxon* 64: 863, **Art. 20 Prop. B**

- 091 Niederle, *Taxon* 64: 1066, **Art. 6 Prop. I**  
 092 Nakada & Nagamasu, *Taxon* 64: 1066, **Art. 46 Prop. L**  
 093 Belyaeva & al., *Taxon* 64: 1067, **Art. 53 Prop. E**  
 094 Belyaeva & al., *Taxon* 64: 1067, **Glossary Prop. D**  
 095 Krishna & Bandyopadhyay, *Taxon* 64: 1067, **Glossary Prop. G**  
 096 Sennikov, *Taxon* 64: 1336, **Art. 7 Prop. F**  
 097 Sennikov, *Taxon* 64: 1336, **Art. 7 Prop. G**  
 098 Sennikov, *Taxon* 64: 1336, **Art. 7 Prop. E**  
 099 Sennikov, *Taxon* 64: 1338, **Art. 40 Prop. D**  
 100 Sennikov, *Taxon* 64: 1338, **Art. 8 Prop. C**  
 101 Bandyopadhyay & Bhattacharjee, A., *Taxon* 64: 1338, **Rec. 9B Prop. B**  
 102 Barkworth & al., *Taxon* 64: 1339, **Art. 14 Prop. A**  
 103 Barkworth & al., *Taxon* 64: 1339, **Art. 14 Prop. B**  
 104 Sennikov, *Taxon* 64: 1339, **Art. 21 Prop. A**  
 105 Sennikov, *Taxon* 64: 1339, **Rec. 21B Prop. A**  
 106 Sennikov, *Taxon* 64: 1339, **Rec. 21B Prop. B**  
 107 Sennikov, *Taxon* 64: 1340, **Art. 23 Prop. A**  
 108 Sennikov, *Taxon* 64: 1340, **Art. 23 Prop. I**  
 109 Sennikov, *Taxon* 64: 1340, **Art. 32 Prop. B**  
 110 Kambale & Yadav, *Taxon* 64: 1340, **Art. 38 Prop. C**  
 111 Dutta & Manudev, *Taxon* 64: 1341, **Rec. 40A Prop. D**  
 112 Niederle, *Taxon* 64: 1341, **Art. 41 Prop. A**  
 113 Niederle, *Taxon* 64: 1341, **Art. 41 Prop. E**  
 114 Niederle, *Taxon* 64: 1341, **Art. 41 Prop. F**  
 115 Niederle, *Taxon* 64: 1342, **Art. 41 Prop. P**  
 116 Niederle, *Taxon* 64: 1342, **Art. 41 Prop. V**  
 117 Niederle, *Taxon* 64: 1342, **Art. 41 Prop. Z**  
 118 Danet & Berthold, *Taxon* 64: 1342, **Rec. 46A Prop. C**  
 119 Danet & Berthold, *Taxon* 64: 1343, **Rec. 46A Prop. D**  
 120 Danet & Berthold, *Taxon* 64: 1343, **Rec. 46C Prop. A**  
 121 Danet & Berthold, *Taxon* 64: 1343, **Rec. 46C Prop. B**  
 122 Coetzee, *Taxon* 64: 1343, **Art. H.6 Prop. A**  
 123 Nakada, *Taxon* 65: 192, **Art. 4 Prop. A**  
 124 Nakada, *Taxon* 65: 192, **Art. 4 Prop. B**  
 125 Nakada, *Taxon* 65: 192, **Art. 4 Prop. C**  
 126 Nakada, *Taxon* 65: 192, **Art. 4 Prop. D**  
 127 Nakada, *Taxon* 65: 192, **Rec. 4A (new) Prop. A**  
 128 Nakada, *Taxon* 65: 192, **Rec. 4A (new) Prop. B**  
 129 Nakada, *Taxon* 65: 192, **Art. 37 Prop. A**  
 130 Nakada, *Taxon* 65: 192, **Art. 37 Prop. B**  
 131 Nakada, *Taxon* 65: 192, **Art. 37 Prop. D**  
 132 Nakada, *Taxon* 65: 192, **Art. 37 Prop. E**  
 133 Sennikov & Somlyay, *Taxon* 65: 193, **Art. 36 Prop. B**  
 134 Sennikov & Somlyay, *Taxon* 65: 193, **Art. 46 Prop. B**  
 135 Sennikov & Somlyay, *Taxon* 65: 193, **Art. 46 Prop. C**  
 136 Sennikov & Somlyay, *Taxon* 65: 193, **Art. 46 Prop. E**  
 137 Sennikov & Somlyay, *Taxon* 65: 193, **Art. 46 Prop. M**  
 138 Sennikov & Somlyay, *Taxon* 65: 194, **Art. 46 Prop. H**  
 139 Sennikov & Somlyay, *Taxon* 65: 194, **Art. 46 Prop. I**  
 140 Sennikov & Somlyay, *Taxon* 65: 194, **Art. 46 Prop. K**  
 141 Sennikov & Somlyay, *Taxon* 65: 194, **Art. 46 Prop. S**  
 142 Sennikov & Somlyay, *Taxon* 65: 195, **Art. 46 Prop. N**  
 143 Sennikov & Somlyay, *Taxon* 65: 195, **Art. 46 Prop. P**  
 144 Sennikov & Somlyay, *Taxon* 65: 195, **Art. 46 Prop. Q**  
 145 Sennikov & Somlyay, *Taxon* 65: 195, **Art. 46 Prop. O**  
 146 Sennikov & Somlyay, *Taxon* 65: 195, **Art. 46 Prop. R**  
 147 Sennikov & Somlyay, *Taxon* 65: 196, **Art. 46 Prop. T**  
 148 Sennikov & Somlyay, *Taxon* 65: 196, **Glossary Prop. B**  
 149 Sennikov & Somlyay, *Taxon* 65: 196, **Art. 6 Prop. F**  
 150 Sennikov & Somlyay, *Taxon* 65: 196, **Rec. 23A Prop. A**  
 151 Sennikov & Somlyay, *Taxon* 65: 196, **Art. 48 Prop. A**  
 152 van Rijckevorsel, *Taxon* 65: 403, **Art. 6 Prop. B**  
 153 van Rijckevorsel, *Taxon* 65: 403, **Art. 6 Prop. C**  
 154 van Rijckevorsel, *Taxon* 65: 403, **Art. 6 Prop. D**  
 155 van Rijckevorsel, *Taxon* 65: 403, **Art. 6 Prop. M**  
 156 van Rijckevorsel, *Taxon* 65: 403, **General Prop. K**  
 157 van Rijckevorsel, *Taxon* 65: 403, **Art. 14 Prop. D**  
 158 van Rijckevorsel, *Taxon* 65: 403, **Art. 14 Prop. E**  
 159 van Rijckevorsel, *Taxon* 65: 403, **Art. 16 Prop. A**  
 160 van Rijckevorsel, *Taxon* 65: 404, **Rec. 18A (new) Prop. A**  
 161 van Rijckevorsel, *Taxon* 65: 404, **Art. 20 Prop. C**  
 162 van Rijckevorsel, *Taxon* 65: 404, **Art. 21 Prop. C**  
 163 van Rijckevorsel, *Taxon* 65: 404, **Art. 21 Prop. B**  
 164 van Rijckevorsel, *Taxon* 65: 404, **Art. 21 Prop. D**  
 165 van Rijckevorsel, *Taxon* 65: 404, **Art. 23 Prop. B**  
 166 van Rijckevorsel, *Taxon* 65: 404, **Art. 23 Prop. C**  
 167 van Rijckevorsel, *Taxon* 65: 404, **Art. 24 Prop. C**  
 168 van Rijckevorsel, *Taxon* 65: 404, **Art. 28 Prop. A**  
 169 van Rijckevorsel, *Taxon* 65: 404, **Art. 28 Prop. B**  
 170 van Rijckevorsel, *Taxon* 65: 405, **Rec. 30A Prop. D**  
 171 van Rijckevorsel, *Taxon* 65: 405, **Art. 36 Prop. C**  
 172 van Rijckevorsel, *Taxon* 65: 405, **Art. 38 Prop. A**  
 173 van Rijckevorsel, *Taxon* 65: 405, **Rec. 40A Prop. C**  
 174 van Rijckevorsel, *Taxon* 65: 405, **Art. 45 Prop. A**  
 175 van Rijckevorsel, *Taxon* 65: 405, **General Prop. L**  
 176 van Rijckevorsel, *Taxon* 65: 405, **Art. 55 Prop. A**  
 177 van Rijckevorsel, *Taxon* 65: 405, **Art. 55 Prop. B**  
 178 van Rijckevorsel, *Taxon* 65: 405, **Art. 55 Prop. C**  
 179 van Rijckevorsel, *Taxon* 65: 405, **Art. 60 Prop. R**  
 180 van Rijckevorsel, *Taxon* 65: 406, **Art. 60 Prop. A**  
 181 van Rijckevorsel, *Taxon* 65: 406, **Art. 60 Prop. E**  
 182 van Rijckevorsel, *Taxon* 65: 406, **Art. 60 Prop. I**  
 183 van Rijckevorsel, *Taxon* 65: 406, **Art. 60 Prop. J**  
 184 van Rijckevorsel, *Taxon* 65: 406, **Art. 60 Prop. N**  
 185 van Rijckevorsel, *Taxon* 65: 406, **Art. 60 Prop. O**  
 186 van Rijckevorsel, *Taxon* 65: 406, **Rec. 60E Prop. A**  
 187 van Rijckevorsel, *Taxon* 65: 406, **Rec. 60H Prop. A**  
 188 van Rijckevorsel, *Taxon* 65: 406, **Art. H.5 Prop. A**  
 189 van Rijckevorsel, *Taxon* 65: 406, **Glossary Prop. H**  
 190 Sennikov, *Taxon* 65: 406, **Art. 9 Prop. L**  
 191 Sennikov, *Taxon* 65: 407, **Art. 7 Prop. D**  
 192 Sennikov, *Taxon* 65: 407, **Art. 9 Prop. X**  
 193 Singh, *Taxon* 65: 408, **Art. 9 Prop. WW**  
 194 Gnanasekaran & al., *Taxon* 65: 409, **Rec. 7A Prop. A**  
 195 Niederle, *Taxon* 65: 409, **Art. 40 Prop. A**  
 196 Niederle, *Taxon* 65: 409, **Art. 8 Prop. E**  
 197 Niederle, *Taxon* 65: 409, **Art. 8 Prop. F**  
 198 Singh, *Taxon* 65: 410, **Art. 9 Prop. P**  
 199 Husain & al., *Taxon* 65: 411, **Art. 9 Prop. Q**  
 200 Husain & al., *Taxon* 65: 411, **Art. 9 Prop. R**  
 201 Husain & al., *Taxon* 65: 411, **Art. 9 Prop. S**  
 202 Bandyopadhyay & Bhattacharjee, A., *Taxon* 65: 411, **Art. 9 Prop. SS**  
 203 Prado & Hirai, *Taxon* 65: 412, **Art. 9 Prop. PP**  
 204 Pročków & Pročków, *Taxon* 65: 412, **Art. 9 Prop. TT**  
 205 Pročków & Pročków, *Taxon* 65: 413, **Art. 9 Prop. UU**  
 206 Husain & al., *Taxon* 65: 413, **Rec. 9A Prop. B**  
 207 Machado & dos Santos, *Taxon* 65: 414, **Art. 14 Prop. F**  
 208 Machado & dos Santos, *Taxon* 65: 414, **Art. 14 Prop. G**

- 209 Machado & dos Santos, *Taxon* 65: 414, **Art. 34 Prop. B**  
 210 Machado & dos Santos, *Taxon* 65: 414, **Art. 38 Prop. E**  
 211 Machado & dos Santos, *Taxon* 65: 414, **Art. 53 Prop. D**  
 212 Machado & dos Santos, *Taxon* 65: 414, **Art. 56 Prop. B**  
 213 Machado & dos Santos, *Taxon* 65: 414, **Art. 56 Prop. E**  
 214 Niederle, *Taxon* 65: 415, **Art. 23 Prop. F**  
 215 Niederle, *Taxon* 65: 415, **Art. 23 Prop. G**  
 216 Niederle, *Taxon* 65: 415, **Art. 23 Prop. H**  
 217 Niederle, *Taxon* 65: 416, **Art. 30 Prop. K**  
 218 Niederle, *Taxon* 65: 416, **Rec. 30A Prop. E**  
 219 Williams & al., *Taxon* 65: 416, **Rec. 30A Prop. C**  
 220 Williams & al., *Taxon* 65: 416, **Rec. 41A Prop. B**  
 221 Deng, *Taxon* 65: 417, **Rec. 31B Prop. B**  
 222 Deng, *Taxon* 65: 417, **Rec. 31B Prop. E**  
 223 Wang, *Taxon* 65: 417, **Art. 38 Prop. H**  
 224 Wang, *Taxon* 65: 417, **Art. 38 Prop. J**  
 225 Wang, *Taxon* 65: 418, **Art. 38 Prop. I**  
 226 Pagare & Janarthanam, *Taxon* 65: 418, **Art. 41 Prop. G**  
 227 Niederle, *Taxon* 65: 418, **Art. 41 Prop. D**  
 228 Shang & Zhang, *Taxon* 65: 419, **Rec. H.5B (new) Prop. A**  
 229 Greuter, *Taxon* 65: 419, **Art. H.6 Prop. B**  
 230 Nakada, *Taxon* 65: 642, **Preamble Prop. A**  
 231 Nakada, *Taxon* 65: 642, **Art. 13 Prop. A**  
 232 Nakada, *Taxon* 65: 642, **Art. 45 Prop. B**  
 233 Nakada, *Taxon* 65: 642, **Art. 54 Prop. F**  
 234 Wiersema & al., *Taxon* 65: 643, **Art. 14 Prop. C**  
 235 Wiersema & al., *Taxon* 65: 644, **Art. 6 Prop. H**  
 236 Wiersema & al., *Taxon* 65: 644, **Art. 14 Prop. M**  
 237 Wiersema & al., *Taxon* 65: 645, **Art. 56 Prop. G**  
 238 Wiersema & al., *Taxon* 65: 645, **Art. 34 Prop. C**  
 239 Wiersema & al., *Taxon* 65: 645, **Art. 38 Prop. D**  
 240 Wiersema & al., *Taxon* 65: 645, **Art. 53 Prop. C**  
 241 Wiersema & al., *Taxon* 65: 645, **Art. 9 Prop. V**  
 242 Nakada, *Taxon* 65: 646, **Art. 6 Prop. L**  
 243 Nakada, *Taxon* 65: 646, **Art. 16 Prop. B**  
 244 Nakada, *Taxon* 65: 646, **Art. 46 Prop. F**  
 245 Nakada, *Taxon* 65: 646, **Art. 46 Prop. G**  
 246 Deng, *Taxon* 65: 647, **Art. 9 Prop. AA**  
 247 Deng, *Taxon* 65: 647, **Art. 8 Prop. H**  
 248 Sennikov, *Taxon* 65: 647, **Art. 8 Prop. G**  
 249 Sennikov, *Taxon* 65: 647, **Art. 8 Prop. B**  
 250 Sennikov, *Taxon* 65: 648, **Art. 8 Prop. L**  
 251 Sennikov, *Taxon* 65: 648, **Art. 8 Prop. N**  
 252 Sennikov, *Taxon* 65: 648, **Art. 9 Prop. DD**  
 253 Sennikov, *Taxon* 65: 649, **Art. 9 Prop. Z**  
 254 Sennikov, *Taxon* 65: 649, **Art. 9 Prop. EE**  
 255 Sennikov, *Taxon* 65: 649, **Art. 9 Prop. JJ**  
 256 Sennikov, *Taxon* 65: 649, **Art. 40 Prop. B**  
 257 Sennikov, *Taxon* 65: 649, **Art. 9 Prop. FF**  
 258 Sennikov, *Taxon* 65: 650, **Rec. 9A Prop. C**  
 259 Proćków & Proćków, *Taxon* 65: 650, **Art. 9 Prop. HH**  
 260 Proćków & Proćków, *Taxon* 65: 651, **Art. 9 Prop. CC**  
 261 Proćków & Proćków, *Taxon* 65: 652, **Art. 9 Prop. II**  
 262 Wiersema & Greuter, *Taxon* 65: 652, **Art. 19 Prop. A**  
 263 Deng, *Taxon* 65: 653, **Art. 29 Prop. A**  
 264 Turland & Knapp, *Taxon* 65: 653, **Rec. 29A Prop. A**  
 265 Turland & Knapp, *Taxon* 65: 653, **Art. 30 Prop. D**  
 266 Turland & Knapp, *Taxon* 65: 654, **Art. 30 Prop. E**  
 267 Turland & Knapp, *Taxon* 65: 654, **Art. 30 Prop. G**  
 268 Turland & Knapp, *Taxon* 65: 654, **Art. 30 Prop. I**  
 269 Turland & Knapp, *Taxon* 65: 654, **Rec. 30A Prop. A**  
 270 Turland & Knapp, *Taxon* 65: 654, **Rec. 30A Prop. B**  
 271 Turland & Knapp, *Taxon* 65: 654, **Rec. 31B Prop. A**  
 272 Paul, *Taxon* 65: 655, **Art. 41 Prop. R**  
 273 Paul, *Taxon* 65: 655, **Art. 41 Prop. S**  
 274 Paul, *Taxon* 65: 655, **Art. 41 Prop. T**  
 275 Paul, *Taxon* 65: 655, **Art. 41 Prop. U**  
 276 Special Committee on Registration, *Taxon* 65: 657, **Div. III Prop. A**  
 277 Special Committee on Registration, *Taxon* 65: 657, **Art. 42 Prop. B**  
 278 Special Committee on Registration, *Taxon* 65: 658, **Art. 42 Prop. C**  
 279 Special Committee on Registration, *Taxon* 65: 658, **Art. 42 Prop. D**  
 280 Nakada, *Taxon* 65: 658, **Art. 54 Prop. D**  
 281 Nakada, *Taxon* 65: 659, **Art. 54 Prop. E**  
 282 Deng, *Taxon* 65: 659, **Art. 55 Prop. D**  
 283 Deng, *Taxon* 65: 659, **Art. 55 Prop. E**  
 284 Hartley & al., *Taxon* 65: 660, **Art. 60 Prop. K**  
 285 Hartley & al., *Taxon* 65: 660, **Art. 60 Prop. L**  
 286 Special Committee on By-laws, *Taxon* 65: 661, **Div. III Prop. B**  
 287 Sennikov & Calonje, *Taxon* 65: 894, **Art. 53 Prop. A**  
 288 Sennikov & Calonje, *Taxon* 65: 894, **Art. 53 Prop. B**  
 289 Sennikov & Calonje, *Taxon* 65: 894, **Art. 6 Prop. E**  
 290 Sennikov & Calonje, *Taxon* 65: 895, **Art. 9 Prop. T**  
 291 Sennikov & Calonje, *Taxon* 65: 895, **Art. 7 Prop. B**  
 292 Sennikov & Calonje, *Taxon* 65: 895, **Art. 40 Prop. C**  
 293 Sennikov & Calonje, *Taxon* 65: 895, **Art. 9 Prop. D**  
 294 Sennikov & Calonje, *Taxon* 65: 895, **Art. 8 Prop. M**  
 295 Sennikov & Calonje, *Taxon* 65: 895, **Art. 8 Prop. D**  
 296 Sennikov & Calonje, *Taxon* 65: 895, **Art. 9 Prop. KK**  
 297 Greuter, *Taxon* 65: 897, **Art. 6 Prop. N**  
 298 Greuter, *Taxon* 65: 897, **Art. 6 Prop. O**  
 299 Greuter, *Taxon* 65: 897, **Art. 7 Prop. C**  
 300 Greuter, *Taxon* 65: 897, **Art. 6 Prop. P**  
 301 Greuter, *Taxon* 65: 898, **Art. 6 Prop. A**  
 302 Greuter, *Taxon* 65: 898, **Art. 6 Prop. Q**  
 303 Greuter, *Taxon* 65: 898, **Art. 6 Prop. J**  
 304 Greuter, *Taxon* 65: 898, **Art. 6 Prop. K**  
 305 Husain & al., *Taxon* 65: 899, **Art. 8 Prop. K**  
 306 Husain & al., *Taxon* 65: 899, **Rec. 9A Prop. A**  
 307 Husain & al., *Taxon* 65: 899, **Art. 8 Prop. J**  
 308 Hawksworth & al., *Taxon* 65: 900, **Art. 8 Prop. O**  
 309 Hawksworth & al., *Taxon* 65: 900, **Rec. 8C (new) Prop. A**  
 310 Hawksworth & al., *Taxon* 65: 900, **Art. 9 Prop. A**  
 311 Ferrer-Gallego & Crespo, *Taxon* 65: 901, **Rec. 9C Prop. A**  
 312 Ferrer-Gallego & Crespo, *Taxon* 65: 901, **Art. 9 Prop. BB**  
 313 Wisnev, *Taxon* 65: 901, **Art. 9 Prop. MM**  
 314 Wisnev, *Taxon* 65: 902, **Rec. 9B Prop. A**  
 315 Head & al., *Taxon* 65: 903, **Art. 11 Prop. B**  
 316 Head & al., *Taxon* 65: 903, **Art. 11 Prop. D**  
 317 Head & al., *Taxon* 65: 903, **Art. 11 Prop. E**  
 318 Head & al., *Taxon* 65: 903, **Art. 11 Prop. F**  
 319 Head & al., *Taxon* 65: 903, **Art. 11 Prop. C**  
 320 Linda in Arcadia & Lücking, *Taxon* 65: 903, **Art. 20 Prop. A**  
 321 Greuter & al., *Taxon* 65: 905, **Art. 24 Prop. B**  
 322 Kirschner & Thines, *Taxon* 65: 906, **Art. 30 Prop. B**  
 323 Kirschner & Thines, *Taxon* 65: 907, **Art. 30 Prop. C**  
 324 Kirschner & Thines, *Taxon* 65: 907, **Art. 30 Prop. H**

- 325 Kirschner & Thines, *Taxon* 65: 907, **Art. 30 Prop. F**  
 326 Kirschner & Thines, *Taxon* 65: 907, **Rec. 31B Prop. D**  
 327 Mosyakin & McNeill, *Taxon* 65: 908, **Art. 36 Prop. D**  
 328 Mosyakin & McNeill, *Taxon* 65: 908, **Glossary Prop. A**  
 329 Deng, *Taxon* 65: 909, **Art. 38 Prop. F**  
 330 Deng, *Taxon* 65: 909, **Art. 38 Prop. G**  
 331 Kirk & Yao, *Taxon* 65: 910, **Art. 40 Prop. G**  
 332 Kirk & Yao, *Taxon* 65: 910, **Rec. 40A Prop. A**  
 333 Kirk & Yao, *Taxon* 65: 910, **Rec. 40A Prop. B**  
 334 Greuter & al., *Taxon* 65: 911, **Art. 41 Prop. H**  
 335 Greuter & al., *Taxon* 65: 911, **Art. 41 Prop. O**  
 336 Greuter & al., *Taxon* 65: 911, **Art. 41 Prop. W**  
 337 da Silva & Menezes, *Taxon* 65: 912, **Art. 41 Prop. B**  
 338 da Silva & Menezes, *Taxon* 65: 912, **Art. 41 Prop. C**  
 339 da Silva & Menezes, *Taxon* 65: 912, **Art. 58 Prop. A**  
 340 Kirk & Yao, *Taxon* 65: 913, **Art. 42 Prop. A**  
 341 Greuter, *Taxon* 65: 913, **Art. 52 Prop. A**  
 342 Greuter, *Taxon* 65: 913, **Art. 52 Prop. B**  
 343 Greuter, *Taxon* 65: 913, **Art. 52 Prop. C**  
 344 Greuter & Gandhi, *Taxon* 65: 914, **Art. 60 Prop. B**  
 345 Greuter & Gandhi, *Taxon* 65: 914, **Art. 60 Prop. C**  
 346 Hawksworth, *Taxon* 65: 915, **General Prop. A**  
 347 Hawksworth, *Taxon* 65: 915, **General Prop. B**  
 348 Hawksworth, *Taxon* 65: 915, **General Prop. C**  
 349 Hawksworth, *Taxon* 65: 915, **General Prop. D**  
 350 Hawksworth, *Taxon* 65: 915, **General Prop. E**  
 351 Hawksworth, *Taxon* 65: 915, **General Prop. F**  
 352 Hawksworth, *Taxon* 65: 915, **General Prop. G**  
 353 Hawksworth, *Taxon* 65: 915, **General Prop. H**  
 354 Hawksworth, *Taxon* 65: 915, **General Prop. I**  
 355 Hawksworth, *Taxon* 65: 916, **Art. 37 Prop. C**  
 356 Hawksworth, *Taxon* 65: 916, **Art. 9 Prop. M**  
 357 Hawksworth, *Taxon* 65: 916, **Art. 9 Prop. N**  
 358 Hawksworth, *Taxon* 65: 916, **Art. 15 Prop. A**  
 359 Hawksworth, *Taxon* 65: 917, **Art. 34 Prop. A**  
 360 Hawksworth, *Taxon* 65: 917, **Art. 54 Prop. B**  
 361 Hawksworth, *Taxon* 65: 917, **Rec. 54A Prop. B**  
 362 May & al., *Taxon* 65: 918, **Div. III Prop. C**  
 363 May & al., *Taxon* 65: 920, **Div. III Prop. D**  
 364 Wiersema, *Taxon* 65: 1186, **Art. 8 Prop. A**  
 365 Gautier & al., *Taxon* 65: 1187, **Art. 8 Prop. I**  
 366 McNeill & al., *Taxon* 65: 1188, **Art. 9 Prop. H**  
 367 McNeill & al., *Taxon* 65: 1189, **Art. 9 Prop. I**  
 368 McNeill & al., *Taxon* 65: 1189, **Art. 9 Prop. NN**  
 369 McNeill & al., *Taxon* 65: 1189, **Art. 9 Prop. OO**  
 370 McNeill, *Taxon* 65: 1189, **Art. 9 Prop. O**  
 371 McNeill, *Taxon* 65: 1190, **Art. 10 Prop. B**  
 372 McNeill, *Taxon* 65: 1190, **Art. 14 Prop. L**  
 373 McNeill, *Taxon* 65: 1190, **Art. 36 Prop. A**  
 374 McNeill, *Taxon* 65: 1190, **Art. 38 Prop. B**  
 375 McNeill, *Taxon* 65: 1190, **Art. 40 Prop. H**  
 376 McNeill, *Taxon* 65: 1191, **Art. 41 Prop. X**  
 377 McNeill, *Taxon* 65: 1191, **Art. 46 Prop. A**  
 378 McNeill, *Taxon* 65: 1191, **Art. 46 Prop. J**  
 379 McNeill, *Taxon* 65: 1191, **Art. 56 Prop. A**  
 380 McNeill, *Taxon* 65: 1191, **Art. 60 Prop. D**  
 381 McNeill, *Taxon* 65: 1192, **Art. 60 Prop. M**  
 382 McNeill, *Taxon* 65: 1192, **Rec. 60C Prop. B**  
 383 McNeill & Greuter, *Taxon* 65: 1194, **Art. 23 Prop. J**  
 384 McNeill & Greuter, *Taxon* 65: 1194, **Art. 23 Prop. K**  
 385 Wiersema & Gandhi, *Taxon* 65: 1196, **Art. 32 Prop. A**  
 386 Wiersema & Gandhi, *Taxon* 65: 1196, **Art. 23 Prop. D**  
 387 Wiersema & Gandhi, *Taxon* 65: 1196, **Art. 23 Prop. E**  
 388 Wiersema & Gandhi, *Taxon* 65: 1196, **Art. 24 Prop. A**  
 389 Sennikov, *Taxon* 65: 1197, **Art. 41 Prop. Y**  
 390 McNeill & al., *Taxon* 65: 1198, **Art. 54 Prop. C**  
 391 Sp. Comm. Largely Mech. Type Select., *Taxon* 65: 1441, **Art. 10 Prop. C**  
 392 Sp. Comm. Largely Mech. Type Select., *Taxon* 65: 1441, **Art. 10 Prop. D**  
 393 Sp. Comm. Largely Mech. Type Select., *Taxon* 65: 1441, **Art. 10 Prop. E**  
 394 Sp. Comm. Largely Mech. Type Select., *Taxon* 65: 1441, **Art. 10 Prop. F**  
 395 Sp. Comm. Largely Mech. Type Select., *Taxon* 65: 1441, **Rec. 10A Prop. A**  
 396 Sp. Comm. Largely Mech. Type Select., *Taxon* 65: 1441, **Art. 10 Prop. G**  
 397 Smith & al., *Taxon* 65: 1442, **Chapter V Section 4 Art. n (new) Prop. A**