Subspecies in the Works of Friedrich Ehrhart
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If an arboretum does include only specimens from a single original locality, the source should be indicated on the plot label and in any directory, whenever it is possible to determine it. Seed should preferably be obtained from indigenous stands rather than from planted trees of unknown origin, in order to minimize the risk of lack of adaptability. Hazards of long-distance seed transport are great. A white ash tree may be quite hardy in Tennessee, but if the Tennessee tree was native to that state its progeny will probably be killed back to ground level when planted in Massachusetts. On the other hand, if the tree was native to New England, its progeny would probably do very well in New England.

For these reasons certain information should accompany any arboretum seed shipment. This should include:

1. the seed origin of the mother tree, if known, pinpointed to the nearest stand if possible or, if not, to the nearest county or at least state or province;
2. the number of trees of the taxon in the arboretum and how close together;
3. a list of all species and taxa in the arboretum which may be crossable with the tree from which the seed was collected (this information is now available for many American tree species) and approximately how far these trees are from the seed tree;
4. if possible, a published map of the arboretum, showing the arrangement and proximity of the various species and varieties.

Although many of these suggestions seem so self-evident as to be superfluous, they are apparently being overlooked by many people engaged in seed exchange. Species and varietal authenticity is clearly essential. Variation does not stop at this level, however, and we now need more information concerning racial origin, which means a minimum of information, whenever obtainable, on the native locality of the parent trees.

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**SUBSPECIES IN THE WORKS OF FRIEDRICH EHRHART**

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It has commonly been accepted that the first use of the category of subspecies in botanical systematics was by Persoon in his *Synopsis Plantarum* 1 (1805) (see Clausen 1941, pp. 157, 160; Breistroffer 1942, p. 25; Boivin 1962; Davis & Heywood 1963, p. 98), though as Weatherby (1942) has pointed out the term was earlier defined by Link in his *Philosophiae Botanicae Novae*, p. 187 (1798). In an historical review of the concept of subspecies Fuchs (1958) has stated that although Persoon was the first to differentiate nomenclaturally between subspecies and varieties, Ehrhart, as early as 1788, was the first to give a clear account of the concept of subspecies. During the preparation of an index to subspecies we have examined in detail the works of Ehrhart and have found not only more discussion of his concept of subspecies, but also actual valid publication of ninety-nine subspecific names between 1780 and 1789, the majority dating from 1780. In view of the historical interest of these references to subspecies we have given below some brief notes on Ehrhart and his publications and have quoted extensively (translating into English) some of his writings on subspecies. Since the names appear to have been completely overlooked and were first published in rare and little-known works we have appended complete lists of the subspecific names published by him. In a later paper we hope to discuss Persoon's use of subspecies.

The chief biographical work on Ehrhart is by Alpers (1905). An interesting short
account is given by Britten (1922, 1923), where references to further material may also be found. Friedrich Ehrhart was of Swiss origin, born at Holderbank in the canton of Bern in 1742. As a boy he made botanical excursions with Haller and compiled a *Florula Holderbankensis*, and in 1765 he took employment for three years in an apothecary’s shop in Nürnberg. From there he moved to Erlangen, still pursuing his botanical studies and excursions. But so great was his interest in the subject that in 1773 he went to Uppsala to attend Linnaeus’s lectures. For three and a half years he was a pupil and friend of Linnaeus, who developed a great respect for his abilities. He was an ardent collector and distributed several large sets of exsiccata, details of which are given by Britten (1922). At Uppsala he met other prominent naturalists and freely consulted Linnaeus’s herbarium in order to check his own identifications. Later he returned to Hannover as an apothecary, and married in 1780, but he continued his botanical interests and was employed to superintend the printing of the *Supplementum Plantarum*, published by Linnaeus fil. in 1781 and printed at Braunschweig. The younger Linnaeus had, like his father, held Ehrhart in high esteem, but this was considerably diminished when Ehrhart tried to insert some new genera of mosses of his own into the work (see Britten, 1923; Stearn 1961, pp. civ-cv). His subsequent botanical work seems to have been mainly around Hannover, but his later life was afflicted by ill-health and poverty. He died, probably of tuberculosis, at Herrenhausen in 1795.

The great majority of Ehrhart’s botanical papers are collected together in his *Beiträge zur Naturkunde* 1-7, 1787-1792, but most of them had appeared earlier in a local periodical, *Hannoverisches Magazin*, which was published in Hannover from 1764 onwards. The dates of publication of the *Beiträge* have been given by Rickett & Stafleu (1961, p. 82) and by Stafleu (1963, pp. 59-60) but there is little information available about the earlier appearances of the various articles. The dates of earlier publication are unfortunately not given in the *Beiträge*, and we are greatly indebted to Dr. H. Roessler of München who searched on our behalf through six years of the twice weekly issues of the *Hannover. Mag.* in the Bayerische Staatsbibliothek in order to discover the dates of publication of several of the articles. Three only of the relevant articles have not been traced in the *Hannover. Mag.*, and the publication of these is discussed below (page 99). Dryander (1798, 1:292 and 1797, 3:139) mentions three other periodicals in which papers by Ehrhart appeared, but the papers involved do not concern us here.

Ehrhart’s first discussion of subspecies is in a paper entitled *Versuch eines Verzeichnisses der um Hannover wild wachsenden Pflanzen* in *Hannover Mag.* 1780 (14-15): 209-240 (17 & 21 Feb. 1780), which is reprinted in *Beitr.* 1: 84-121 (1787) with only very minor alterations. (Some epithets which had been abbreviated in the original version were spelled in full when reprinted in the *Beiträge*, and, somewhat surprisingly, one species, *Juncus pilosus*, with two subspecies, appears in the *Beiträge* but not in the original.) The article is dated Dec. 31, 1779, on the final page, this presumably being the date of completion of the manuscript. The major part of this paper consists of a list of species of flowering plants, ferns, mosses, algae, lichens and fungi, arranged by the Linnaean system. Generic names are given in the left hand column, specific epithets in a central column, and for certain species one or more “trivial” epithets are given in the right hand column. These “trivial” epithets are clearly and unequivocally stated in the introduction to be subspecific epithets. We give a translation of the relevant passage, retaining the German words for the critical terms in italics (*Hannover. Mag.* 1780 (14): 210-211; reprinted in *Beitr.* 1: 86 (1787)):

“For some species I have also listed the *Scheinarten*, *Halbarten* or *Subspecies* which grow here, if they were indicated by Linnaeus. I have, as with species, denoted
them with trivial names, and where no Linnaean names exist, I have taken the liberty to prepare some, and I have exchanged them for the greek letters. I hope I have done this in such a way that everyone, even without a definition, will understand me, and will know what kind of plant I had in mind; at least, I suppose that such [names] are better for practical purposes than those signs [greek letters]. Whenever I come to print my Phytopinax Linneanus, I will try to define as well as I can all the Linnaean subspecies which I have seen, in the same way as Linnaeus who has already done so in some cases, e.g. Mnium serpyllifolium and others, and who by so doing made a meritorious start.

"I would also have liked to indicate the Varietäten or Spielarten which grow here, but since this cannot be done without going into too much detail, I have to refrain from it at present."

Thus it is clear that Ehrhart deliberately distinguished between the rank of subspecies (Scheinarten, Halbarten or Subspecies) on the one hand and varieties (Variatäten or Spielarten) on the other, and that all the trinomials he proceeded to list were subspecies. In the majority of cases he simply took up the Linnaean infraspecific epithet, and, since these Linnaean epithets are considered to be of varietal status, these must be considered as "stat. nov." Where Linnaeus denoted his infraspecific variants by a greek letter, with no infraspecific epithet, Ehrhart made up a new epithet which, although not accompanied by a description, may, in the great majority of cases, be indisputably linked with the description of one of Linnaeus’ infraspecific taxa. For example, Ehrhart’s Ranunculus aquatilis peucedanifolius is clearly intended to correspond to the phrase name ‘Ranunculus albus fluitans, peucedani foliis Herm. lugdb. 517’ which forms part of Linnaeus’ Ranunculus aquatilis var. δ in Sp. Pl. ed. 2 (1762). Such names given by Ehrhart are thus validly published by indirect reference to the previously published Linnaean phrase names (cf. Art. 32, International Code, 1961). In establishing which Linnaean taxa were intended by Ehrhart for each of his subspecies we have searched those works of Linnaeus which would have been used by Ehrhart, notably Species Plantarum ed. 1 (1753), ibid. ed. 2 (1762-63), Flora Suecica ed. 2 (1755), Mantissa Plantarum (1766) and Linnaeus fil., Supplementum Plantarum (1781), and we have also consulted Richter, Codex Botanicus Linneanus (1835).

Ehrhart’s optimism that others would easily be able to associate his subspecies with Linnaean varieties is, however, not justified in a minority of cases. In some of these Linnaeus included more than one infraspecific variant and it is not clear to which of them Ehrhart’s subspecific name refers. These names in Ehrhart must be rejected on the grounds that they are either nomina nuda or nomina dubia. Occasionally Ehrhart recognised subspecies under species in which we have been unable to find any varieties recognised in the Linnaean literature and, unless further evidence comes to light, their names appear to be nomina nuda.

In two instances Ehrhart appears to have made new subspecific combinations using epithets from authors other than Linnaeus and Linnaeus fil., though he nowhere acknowledges this. Melica nutans subsp. uniflora in Hannover. Mag. 1780 (14): 215 (1780) may be regarded as based on M. uniflora of Retzius, published a year earlier in Obs. Bot. 1: 10 (1779). (The latter work is recorded by Alpers (1905, p. 439) as having been in Ehrhart’s library.) Similarly two epithets under Serapias grandiflora may be regarded as based on (illegitimate) epithets first used by Murray in Syst. Veg. ed. 14.

There are five more subspecies, to which the above remarks also refer, in the continuation of the above paper, Fortsetzung des Versuches eines Verzeichnisses der um Hannover wild wachsenden Pflanzen in Hannover. Mag. 1782 (23): 362-364 (22 March. 1782), which is reprinted in Beitr. 1: 151-155 (1787).
In Bemerkung 60 of Botanische Bemerkungen in Hannover. Mag. 1784 (11): 168-176 (1784), reprinted in Beitr. 3: 88-95 (1788), Ehrhart gives a further discussion of subspecies, referred to by Fuchs (1958), in which he gives a most interesting and detailed explanation of the taxonomic and biological nature of his subspecies. We offer a translation as follows:

"Halbarten, Scheinarten, Subspecies.

In this way I term plants which agree in essentials almost completely with each other, and are often so similar to each other that an inexperienced person has trouble in separating them, and about which one can conjecture, not without reason, that they have formerly had a common mother, notwithstanding that they now always reproduce their like from seed. They are, in a word, Varietates constantes, or an intermediate between species and Spielarten. They are separated from species in that they differ from one another in small particulars of little importance; and they differ from Spielarten in that they reproduce themselves unchangingly by seed and always beget their like. They are plants which the Ritter von Linné usually classed as Spielarten, but which Haller, Miller and others classed as species, of which the Linnaean Varietätien of Valeriana locusta, Medicago polymorpha, Fumaria bulbosa, etc. can serve as examples. Many of these Halbarten could also be taken up quite well as species; a few others, however, but not very many, could be regarded as Spielarten; but all this is still uncertain, and must first be elucidated and demonstrated through further experiments and observations. Until then I let them remain here in the middle and I hope that the two chief parties in Botany, like the Lutherans and Calvinists, that is the Linnaeans and Hallerians, will not grudge them this position, that they will thereby become reconciled as though voluntarily, and will obtain justice on both sides."

Then follow discussions under the headings "Spielarten. Abarten. Varietates" and "Missgeburten, Veranstaltungen. Monstra. Deformes." after which Ehrhart continues:

"I know that my definitions are not always pertinent and unexceptionable, but it is not as easy as many believe to make definitions that fit in all cases and that never leave the reader in doubt. Probably a few examples will make me clearer to most than my imperfect descriptions. I will therefore append a few here. They can also serve as a sample to show the reader how I classify my species, Halbarten, Spielarten and Missgeburten, and thereby avoid the usual confusions of botanists. I have chosen on purpose plants that are known to almost everyone. The species I indicate with numbers, the Halbarten with greek letters, the Spielarten with latin letters, and the Missgeburten with a cross.

First example.
1. Quercus robur L. (Oak)
   a. longipedunculum (Summer Oak)
   β. brevipedunculum (Winter Oak)

Second example.
1. Ulmus campestris L. (Elm)
   a. brevipeduncula (Short Stalked)
   β. longipeduncula (Long Stalked)

Third example.
1. Tilia europaea L. (Lime)
   a. grandifolia (Summer Lime)
   β. parvifolia (Winter Lime)
Fourth example.
1. Atriplex hortensis L. (Garden Orach)
   a. viridis (Green Orach)
   b. rubra (Red Orach)"

Other examples follow, and then Ehrhart continues:

“Finally I remark that the Halbarten, Spielarten and Missgeburten in the plant kingdom were for a long time and, alas!, still are here and there being neglected by various great botanists and left to the gardeners, who then made such a confusion of it that almost nothing can be comprehended, as one can see from their writings. It is therefore very much to be wished that some botanist should take to himself the task of bringing these plants into order, as Linnaeus formerly did with species. The whole world would thank him for this, as he would well deserve. Varietäts qui ad species suas redigit non minora praestat, quam qui species ad propria genera amandavit. Linn. crit. n. 317.”

Three of these six subspecies which Ehrhart lists as examples in this article had already been published validly in 1780. The other three (those in Ulmus, and Tilia europaea subsp. grandifolia) are not described by Ehrhart, and since there is no evidence that he is basing them on Linnaean infraspecific descriptions, we consider their names to be both nomina provisoria and nomina nuda.

In Beitr. 2: 67-72 (1788) Ehrhart describes two subspecies, saying (p. 68): “Here we have two Halbarten, namely:/ a Die rothe Büschelbirn./ Pyrus arbutifolia rubra./ Pyrus ut supra; fructibus rubris./ b Die schwarze Büschelbirn./ Pyrus arbutifolia nigra./ Pyrus ut supra; fructibus nigris.” He is in this article using the same symbols and the same infraspecific taxa (Halbarten as above, and Spielarten on p. 70) that he discussed in the previously mentioned article. These epithets would seem to be attributable to Ehrhart himself, but since they are used in L. fil., Suppl. 257, with which Ehrhart must have been very familiar, it is reasonable to accept the names as new combinations.

In Beitr. 4: 15-26 (1789) four more subspecies are described in a similar manner under Mespilus lucida and M. cotoneaster, with latin descriptions. These are new names and do not seem to be new combinations.

Ehrhart’s last use of subspecies is in a further continuation of the first paper mentioned above, Dritte Fortsetzung des Versuches eines Verzeichnisses der um Hannover wild wachsenden Pflanzen in Beitr. 4: 126-132 (1789). This contains six subspecies, which, like those of the first Fortsetzung, are to be recognised in the light of the introduction quoted above.

We have found the last three of these articles only in the Beitriige. The first of them, dated “Herrenhausen, 1782, Jun.”, has not been found in Hannover. Mag. and may have been originally published in 1782 in some other local periodical (see Britten, 1922; Rickett & Stafleu 1961, p. 82; Stafleu 1963, p. 59-60); but, as Dr. Roessler pointed out to us, the other two may well have only appeared in the Beitriige, judging from Ehrhart’s remarks in the prefaces to the third and fourth volumes, which we quote, translated as follows (Beitr. 3):

“Herewth I offer the third volume of my Beitriige. One will find in it my essays written between 1 August 1783 and 24 July 1784. Those which I have written after this period are to appear in the fourth volume, which will contain, with a few exceptions, only unprinted articles and should be prepared by the New Year 1789 at the latest.”
And (Beitr. 4):

“It includes, apart from the remainder of my already printed articles everything which I have written for the press in the last year.”

Schrader (1806, p. 42) gives only the Beiträge as the place of publication for the Dritte Fortsetzung.

It is interesting to note that while the Dritte Fortsetzung, dated at the end “Herrenhausen, 1788, Mai”, contained subspecies, in an article dated “Herrenhausen, 1789, Febr.” in Beitr. 5: 1-4 (1790) Ehrhart writes (pp. 5-6):

“In the arrangement I have completely followed the Linnaean system. And where Linnaeus has listed a species as a Varietät, the same has been done by me, only with the difference that I have replaced the greek letters with ordinary trivial names.”

This suggests that between May 1788 and February 1789 Ehrhart gave up using subspecific rank and from this time regarded the Linnaean infraspecific taxa simply as varieties.

Apart from the paper by Fuchs (1958) there appears to have been no recognition at all of Ehrhart’s writings about subspecies. In the very detailed account of his works given by Alpers (1905) we find no reference to subspecies, even though a list of other trinomials published by Ehrhart is given (p. 398). This is perhaps not surprising, for during the 19th century, and even up to the present time, the nomenclature of subspecies has been confused and often difficult to reconcile with the International Code. It is remarkable that Ehrhart, apparently the first to publish valid subspecific names, should have done so with so much nomenclatural success, though, as will be seen from the list below, almost half of them must be regarded as illegitimate. It is perhaps even more remarkable that he should have defined his concept of subspecies so lucidly at such an early date. Many of Ehrhart’s comments of some 180 years ago are still relevant in discussion of subspecies today.

Subspecific names validly published by Ehrhart (Linnaean varietal names raised to subspecific status, new names validated by indirect reference to previously published Linnaean phrase names, and names of newly described subspecies.)

Those names which appear to us to be illegitimate because they are based on the typical element of the Linnaean species are indicated by the abbreviation “nom. illegit.” in this list, but further studies in typification may well alter our decisions in several cases.

H.M. = Hannoverisches Magazin.

Acorus calamus L. subsp. vulgaris Ehrh. in H.M. 1780 (14): 220 (1780) nom. illegit.  
(A. calamus L. var. a vulgaris L., Sp. Pl. 324 (1753) nom. illegit.)

Actaea spicata L. subsp. nigra Ehrh. in H.M. 1780 (14): 224 (1780) nom. illegit.  
(A. spicata L. var. nigra L., Sp. Pl. 504 (1753) nom. illegit.)

Alisma plantago-aquatica L. subsp. latifolia Ehrh. in H.M. 1780 (14): 221 (1780) nom. illegit.  
(A. plantago-aquatica L., var. typ., see L., Sp. Pl. 342 (1753) & Mantissa 370 (1771))

Artemisia absinthium L. subsp. campestris (L.) Ehrh. in H.M. 1780 (14): 222 (1780) ? nom. illegit.  
(A. rubra L. var. a campestris L., Sp. Pl. 423 (1753) ? nom. illegit.)

A. rubra L. subsp. marina (L.) Ehrh. in H.M. 1780 (14): 222 (1780)  
(A. rubra L. var. a marina L., Sp. Pl. 423 (1753))

Arnica montana L. subsp. pratensis Ehrh. in H.M. 1780 (15): 231 (1780) nom. illegit.  
(A. montana L. var. typ. L., Sp. Pl. ed. 2, 1245 (1763))

Asplenium scolopendrium L. subsp. officinale Ehrh. in H.M. 1780 (15): 235 (1780) nom. illegit.  
(A. scolopendrium L. var. typ. L., Sp. Pl. 1079 (1753))
Betula alnus L. subsp. glutinosa (L.) Ehrh. in H.M. 1780 (15): 233 (1780)
(B. alnus L. var. a glutinosa L., Sp. Pl. 983 (1753))
Carex acuta L. subsp. nigra (L.) Ehrh. in H.M. 1780 (15): 233 (1780)
(C. acuta L. var. a nigra L., Sp. Pl. 978 (1753))
(C. acuta L. var. ruffa L., Sp. Pl. 978 (1753) ? nom. illegit.)
C. vesicaria L. subsp. flavescens Ehrh. in H.M. 1780 (15): 233 (1780)
(C. vesicaria L. var. ? L., Sp. Pl. 979 (1753))
C. vesicaria L. subsp. subfusca Ehrh. in H.M. 1780 (15): 233 (1780) nom. illegit.
(C. vesicaria L. var. typ. L., Sp. Pl. 979 (1753))
C. vesicaria L. subsp. sylvatica Ehrh. in H.M. 1780 (15): 233 (1780)
(C. vesicaria L. var. # L., Sp. Pl. 979 (1753))
Corylus avellana L. subsp. sylvestris Ehrh. in H.M. 1780 (15): 234 (1780) nom. illegit.
(C. avellana L. var. typ. L., Sp. Pl. 998 (1753))
Dipsacus fullonum L. subsp. sylvestris Ehrh. in H.M. 1780 (14): 216 (1780) nom. illegit.
(D. fullonum L. var. typ. L., Sp. Pl. 97 (1753))
Epilobium hirsutum L. subsp. grandiflorum Ehrh. in H.M. 1780 (14): 221 (1780) nom. illegit.
(E. hirsutum L. var. typ. L., Sp. Pl. 947 (1753))
E. hirsutum L. subsp. parviflorum Ehrh. in H.M. 1780 (14): 221 (1780)
(E. hirsutum L. var. # L., Sp. Pl. 348 (1753))
(E. europaeus L. var. tenuifolius L., Sp. Pl. 197 (1753) ? nom. illegit.)
Euphorbia exigua L. subsp. acuta Ehrh. in H.M. 1780 (14): 223 (1780) nom. illegit.
(E. exigua L. var. acuta L., Sp. Pl. 456 (1753) nom. illegit.)
Euphrasia officinalis L. subsp. major Ehrh. in H.M. 1780 (15): 227 (1780) nom. illegit.
(E. officinalis L. var. typ. L., Fl. Suec. ed. 2, 212 (1755))
F. vesca L. subsp. pratensis Ehrh., Beitr. 4: 129 (1789)
(F. vesca L. var. # pratensis L., Sp. Pl. ed. 2, 709 (1762) nom. illegit. — see ed. 1, 495 (1753))
(F. vesca L. var. sylvesteris L., Sp. Pl. 495 (1753) ? nom. illegit.)
F. vulgaria L. subsp. cava (L.) Ehrh. in H.M. 1780 (15): 228 (1780) ? nom. illegit.
(F. vulgaria L. var. cava L., Sp. Pl. 699 (1753) ? nom. illegit.)
F. bulbosa L. subsp. intermedia (L.) Ehrh., Beitr. 4: 129 (1789)
(F. bulbosa L. var. intermedia L., Sp. Pl. 699 (1753))
F. bulbosa L. subsp. solida (L.) Ehrh. in H.M. 1780 (15): 228 (1780)
(F. bulbosa L. var. solida L., Sp. Pl. 699 (1753))
Galeopsis ladanum L. subsp. angustifolia [augustifol.] Ehrh. in H.M. 1780 (15): 226 (1780) nom. illegit.
(G. ladanum L. var. typ. L., Fl. Suec. ed. 2, 204 (1755))
(G. ladanum L. var. typ. L., Fl. Suec. ed. 2, 204 (1755))
G. tetrahit L. subsp. grandiflora [grandiflor] Ehrh. in H.M. 1780 (15): 226 (1780)
(G. tetrahit L. var. # L., Sp. Pl. 580 (1753))
(G. tetrahit L. var. typ. L., Sp. Pl. 579 (1753))
Gentiana centaurium L. subsp. pumilum Ehrh. in H.M. 1780 (14): 219 (1780)
(G. centaurium L. var. # L., Sp. Pl. 230 (1753))
(J. articulatus L. var. # aquaticus L., Syst. Nat. ed. 12, 2: 250 (1767) ? nom. illegit.)
(J. articulatus L. var. # sylvaticus L., Syst. Nat. ed. 12, 2: 250 (1767) ? nom. illegit.)
J. pilosus L. subsp. albus Ehrh., Beitr. 1: 96 (1787)
(J. pilosus L. var. # L., Sp. Pl. 329 (1753))

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J. pilosus L. subsp. maximus Ehrh. in H.M. 1782 (23): 363 (1782)
(J. pilosus L. var. ñ L., Sp. Pl. 329 (1753))
Lichen islandicus L. subsp. tenuissimus (L.) Ehrh. in H.M. 1780 (15): 238 (1780)
(L. islandicus L. var. ñ tenuissimus L., Sp. Pl. 1145 (1753))
L. rangiferinus L. subsp. alpestris Ehrh. in H.M. 1780 (15): 239 (1780) nom. illegit.
(L. rangiferinus L. var. ñ alpestris L., Sp. Pl. 1153 (1753) nom. illegit.)
L. rangiferinus L. subsp. sylvaticus (L.) Ehrh. in H.M. 1780 (15): 239 (1780)
(L. rangiferinus L. var. ñ sylvaticus L., Sp. Pl. 1153 (1753))
Lotus corniculatus L. subsp. major Ehrh. in H.M. 1780 (15): 229 (1780)
(L. corniculatus L. var. ñ L., Sp. Pl. 776 (1753))
L. corniculatus L. subsp. minor Ehrh. in H.M. 1780 (15): 229 (1780) nom. illegit.
(L. corniculatus L. var. ñ typ. L., Sp. Pl. 775 (1753))
Melica nutans L. subsp. uniflora (Retz.) Ehrh. in H.M. 1780 (14): 215 (1780)
(Melica uniflora Retz., Obs. Bot. 1: 10 (1779)) [see page 97]
Mespilus cotoneaster L. subsp. nigra Ehrh., Beitr. 4: 19 (1789) subsp. nov. cum descr. latin.
M. cotoneaster L. subsp. rubra Ehrh., Beitr. 4: 18 (1789) subsp. nov. cum descr. latin. [nom. illegit., = subsp. typ.]
M. lucida (Miller) Ehrh. subsp. angustifolia Ehrh., Beitr. 4: 18 (1789) subsp. nov. cum descr. latin.
M. lucida (Miller) Ehrh. subsp. latifolia Ehrh., Beitr. 4: 18 (1789) subsp. nov. cum descr. latin. [nom. illegit., = subsp. typ.]
Myosotis scorpioides L. subsp. arcensis (L.) Ehrh. in H.M. 1780 (14): 217 (1780)
(M. scorpioides L. subsp. ñ arcensis L., Sp. Pl. 131 (1753))
M. scorpioides L. subsp. palustris (L.) Ehrh. in H.M. 1780 (14): 217 (1780)
(M. scorpioides L. var. ñ palustris L., Sp. Pl. 131 (1753))
Ononis arvensis L. subsp. spinosa (L.) Ehrh. in H.M. 1780 (15): 228 (1780)
(Ononis arvensis L. var. ñ spinosa L., Sp. Pl. ed. 2, 1006 (1763)) (see also L., Fl. Suec. ed. 2, 249 (1755))
Orchis militaris L. subsp. major Ehrh. in H.M. 1780 (15): 232 (1780)
(O. militaris L. var. ñ L., Sp. Pl. 941 (1753))
Ophrys insectifera L. subsp. myodes (L.) Ehrh. in H.M. 1780 (15): 232 (1780)
(O. insectifera L. var. ñ myodes L., Sp. Pl. 948 (1753))
(P. crus-galli L. subsp. ñ breviaristatum L., Sp. Pl. 56 (1753))
P. crus-galli L. subsp. longiaristatum [longiaristat] Ehrh. in H.M. 1780 (14): 214 (1780)
(P. crus-galli L. var. ñ longiaristatum L., Sp. Pl. 56 (1753))
Polygonum amphibium L. subsp. aquaticum Ehrh. in H.M. 1780 (14): 221 (1780)
(P. amphibium L. var. ñ aquaticum L., Fl. Suec. ed. 2, 129 (1755))
P. amphibium L. subsp. terrestre Ehrh. in H.M. 1780 (14): 221 (1780) nom. illegit.
(P. amphibium L. var. ñ terrestre L., Fl. Suec. ed. 2, 129 (1755))
P. aviculare L. subsp. latifolium Ehrh. in H.M. 1780 (14): 221 (1780) nom. illegit.
(P. aviculare L. var. ñ latifolium L., Sp. Pl. 362 (1753))
Primula veris L. subsp. elatior (L.) Ehrh. in H.M. 1780 (14): 217 (1780)
(P. veris L. var. ñ elatior L., Sp. Pl. 143 (1753))
P. veris L. subsp. officinalis Ehrh. in H.M. 1780 (14): 217 (1780) nom. illegit.
(P. veris L. var. ñ officinalis L., Sp. Pl. 142 (1753) nom. illegit.)
Prunella vulgaris L. subsp. grandiflora (L.) Ehrh. in H.M. 1780 (15): 226 (1780)
(P. vulgaris L. var. ñ grandiflora L., Sp. Pl. 600 (1753))
P. vulgaris L. subsp. parviflora Ehrh. in H.M. 1780 (15): 226 (1780) nom. illegit.
(P. vulgaris L. var. ñ parviflora L., Fl. Suec. ed. 2, 210 (1755))
Prunus cerasus L. subsp. austera (L.) Ehrh., Beitr. 4: 128 (1789)
(P. cerasus L. var. ñ austera L., Sp. Pl. 474 (1753))
Pyrus arbutifolia (L.) L. fil. subsp. nigra (L. fil.) Ehrh., Beitr. 2: 69 (1788)
(P. arbutifolia (L.) L. fil. var. ñ nigra L. fil., Suppl. 257 (1781))
P. arbutifolia (L.) L. fil. subsp. rubra (L. fil.) Ehrh., Beitr. 2: 69 (1788) ? nom. illegit.
(P. arbutifolia (L.) L. fil. var. ñ rubra L. fil., Suppl. 257 (1781) ? nom. illegit.)
P. communis L. subsp. pyraster (L.) Ehrh. in H.M. 1780 (14): 223 (1780) ? nom. illegit.

(P. communis L. var. pyraster L., Sp. Pl. 479 (1753) ? nom. illegit.)

P. malus L. subsp. sylvestris (L.) Ehrh. in H.M. 1780 (14): 223 (1780) ? nom. illegit.

(P. malus L. var. sylvestris L., Sp. Pl. 479 (1753) ? nom. illegit.)

Quercus robur L. subsp. brevipeduncula [brevipeduncula] Ehrh. in H.M. 1780 (15): 234 (1780)

(Q. robur L. var. β L., Fl. Suec. ed. 2, 340 (1755))

Q. robur L. subsp. brevipeduncula [brevipedunculum] Ehrh. in H.M. 1784 (11): 172 (1784)

= subsp. praececd.


(Q. robur L. var. typ. L., Fl. Suec. ed. 2, 340 (1755))

Quercus robur L. subsp. brevipeduncula [brevipedunculum] Ehrh. in H.M. 1784 (11): 172 (1784)

= subsp. praececd.

Ranunculus aquatilis L. subsp. abrotanifolius [abrotanifol] Ehrh. in H.M. 1780 (15): 225 (1780)

(R. aquatilis L. var. γ L., Sp. Pl. ed. 2, 782 (1762))

R. aquatilis L. subsp. diversifolius Ehrh. in H.M. 1780 (15): 225 (1780) nom. illegit.

(R. aquatilis L. var. typ. L., Sp. Pl. ed. 2, 781 (1762))

R. aquatilis L. subsp. peucedanifolius Ehrh. in H.M. 1780 (15): 225 (1780) nom. illegit.

(R. aquatilis L. var. δ L., Sp. Pl. ed. 2, 782 (1762))


(R. crista-galli L. var. β L., Fl. Suec. ed. 2, 212 (1755))


(R. crista-galli L. var. α L., Fl. Suec. ed. 2, 212 (1755))

Ribes nigrum L. subsp. vulgare Ehrh. in H.M. 1780 (14): 218 (1780) nom. illegit.

(R. nigrum L. var. typ. L., Sp. Pl. 201 (1753))


(S. telephium L. var. album L., Sp. Pl. 430 (1753) ? nom. illegit.)

Serapias grandiflora L. subsp. ensifolia Ehrh. in H.M. 1780 (15): 232 (1780) nom. nud.

(S. grandiflora L. var. ensifolia Ehrh., Beitr. 1: 109 (1787)

(S. ensifolia Murray in L., Syst. Veg. ed. 14, 815 (1784) nom. illegit.)

S. grandiflora L. subsp. lancifolia Ehrh. in H.M. 1780 (15): 232 (1780) nom. nud.

(S. grandiflora L. var. lancifolia Ehrb., Beitr. 1: 109 (1787)

(S. lancifolia Murray in L., Syst. Veg. ed. 14, 815 (1784) nom. illegit.)

Sisymbrium amphibium L. subsp. aquaticum (L.) Ehrh. in H.M. 1780 (15): 228 (1780)

(S. amphibium L. var. aquaticum L., Sp. Pl. 657 (1753))

S. amphibium L. subsp. palustre (L.) Ehrh. in H.M. 1780 (15): 228 (1780) ? nom. illegit.

(S. amphibium L. var. palustre L., Sp. Pl. 657 (1753) ? nom. illegit.)

S. amphibium L. subsp. terrestre (L.) Ehrh. in H.M. 1780 (15): 228 (1780)

(S. amphibium L. var. terrestre L., Sp. Pl. 657 (1753))

Solanum nigrum L. subsp. villosum (L.) Ehrh. in H.M. 1780 (14): 218 (1780)

(S. nigrum L. var. γ villosum L., Sp. Pl. 186 (1753))

S. nigrum L. subsp. vulgarum Ehrh. in H.M. 1780 (14): 218 (1780) nom. illegit.

(S. nigrum L. var. vulgarum L., Sp. Pl. ed. 2, 266 (1762) nom. illegit.)

Sonchus oleraceus L. subsp. asper (L.) Ehrh. in H.M. 1780 (15): 230 (1780)

(S. oleraceus L. var. asper L., Sp. Pl. 794 (1753))


(S. oleraceus L. var. laevis L., Sp. Pl. 794 (1753) ? nom. illegit.)

Sphagnum palustre L. subsp. capillifolium Ehrh. in H.M. 1780 (15): 236 (1780)

(S. palustre L. var. α L., Sp. Pl. 1106 (1753))

S. palustre L. subsp. cymbifolium Ehrh. in H.M. 1780 (15): 235 (1780) nom. illegit.

(S. palustre L. var. typ. L., Sp. Pl. 1106 (1753))

Statice armeria L. subsp. major Ehrh. in H.M. 1780 (14): 220 (1780) nom. illegit.

(S. armeria L. var. typ. L., Sp. Pl. 274 (1753))

Stellaria graminea L. subsp. fontana Ehrh. in H.M. 1780 (14): 222 (1780)

(S. graminea L. var. γ L., Fl. Suec. ed. 2, 150 (1755))

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S. graminea L. subsp. palustris Ehrh. in H.M. 1780 (14): 222 (1780)
(S. graminea var. β L., Sp. Pl. 422 (1753))
Tanacetum vulgare L. subsp. planifolium Ehrh. in H.M. 1780 (15): 231 (1780) nom. illegit.
(T. vulgare L. var. typ. L., Sp. Pl. 844 (1753))
Thlaspi bursa-pastoris L. subsp. integrifolia Ehrh. in H.M. 1780 (15): 227 (1780)
(T. bursa-pastoris L. var. γ L., Fl. Suec. ed. 2, 226 (1755))
T. bursa-pastoris L. subsp. pinnatifolia Ehrh. in H.M. 1780 (15): 227 (1780) nom. illegit.
Tilia europaea L. subsp. parvifolia Ehrh. in H.M. 1780 (14): 224 (1780)
(T. europaea L. var. γ L., Sp. Pl. 514 (1753))
T. europaea L. subsp. parvifolia Ehrh. in H.M. 1784 (11): 172 (1784) = subsp. praeced.
Utricularia vulgaris L. subsp. major (L.) Ehrh. in H.M. 1780 (14): 213 (1780) ? nom. illegit.
(U. vulgaris L. var. major L., Sp. Pl. 18 (1753) & Fl. Suec. ed. 2, 9 (1755) ? nom. illegit.)
(U. vulgaris L. var. minor L., Sp. Pl. 18 (1753) & Fl. Suec. ed. 2, 9 (1755) ? nom. illegit.)
Valeriana locusta L. subsp. dentata (L.) Ehrh. in H.M. 1782 (23): 363 (1782)
(V. locusta L. var. δ dentata L., Sp. Pl. 34 (1753))
V. locusta L. subsp. olitoria (L.) Ehrh. in H.M. 1780 (14): 213 (1780) ? nom. illegit.
(V. locusta L. var. α olitoria L., Sp. Pl. 33 (1753) ? nom. illegit.)
Vicia sativa L. subsp. nigra (L.) Ehrh. in H.M. 1780 (15): 229 (1780)
(V. sativa L. var. β nigra L., Sp. Pl. ed. 2, 1037 (1763))
Viola tricolor L. subsp. erecta Ehrh. in H.M. 1780 (15): 232 (1780) nom. illegit.
(V. tricolor L. var. lyr. L, Sp. Pl. 935 (1753))
V. tricolor L. subsp. procumbens Ehrh. in H.M. 1780 (15): 232 (1780)
(V. tricolor L., var. β L., Sp. Pl. 936 (1753))

Subspecific names proposed by Ehrhart which are nomina nuda, published as examples, without descriptions or reference to basionyms

Tilia europaea L. subsp. grandifolia Ehrh. in H.M. 1784 (11): 172 (1784)
Ulmus campestris L. subsp. brevipedunculata Ehrh. in H.M. 1784 (11): 172 (1784)
U. campestris L. subsp. longipedunculata Ehrh. in H.M. 1784 (11): 172 (1784)

Subspecific names proposed by Ehrhart which he does not define and which are not clearly and unambiguously associated with any of the infraspecific variants in the Linnaean literature, and which therefore appear to be nomina nuda or nomina dubia

Gentiana centaurium L. subsp. procernus Ehrh. in H.M. 1780 (14): 219 (1780)
Hordeum murinum L. subsp. macrostachyum [macrostach] Ehrh. in H.M. 1780 (14): 216 (1780)
H. murinum L. subsp. microstachyum [microstach] Ehrh. in H.M. 1780 (14): 216 (1780)
Juncus pilosus L. subsp. vulgaris Ehrh., Beitr. 1: 96 (1878)
Jungermannia asplenioides L. subsp. major Ehrh. in H.M. 1780 (15): 237 (1780)
J. asplenioides L. subsp. minor Ehrh. in H.M. 1780 (15): 237 (1780)
Myosotis scorpioides L. subsp. collina Ehrh. in H.M. 1782 (23): 363 (1782)
M. scorpioides L. subsp. sylvatica Ehrh. in H.M. 1782 (23): 363 (1782)
Pimpinella saxifraga L. subsp. poterifolia Ehrh. in H.M. 1780 (14): 219 (1780)
P. saxifraga L. subsp. selinifolia Ehrh. in H.M. 1780 (14): 219 (1780)
Polygonum aviculare L. subsp. angustifolium Ehrh. in H.M. 1780 (14): 222 (1780)
Rumex acetosa L. subsp. pratensis Ehrh. in H.M. 1780 (14): 221 (1780)
Sambucus nigra L. subsp. vulgaris Ehrh. in H.M. 1780 (14): 220 (1780)
Thalictrum flavum L. subsp. vulgare Ehrh. in H.M. 1780 (14): 224 (1780)
Tilia europaea L. subsp. grandifolia Ehrh., Beitr. 4: 129 (1789)

Subspecific names proposed by Ehrhart which he does not define, and in species under which no infraspecific variants are indicated in the Linnaean literature, and which are therefore nomina nuda

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Aira aquatica L. subsp. biflora Ehrh. in H.M. 1780 (14): 215 (1780)
A. aquatica L. subsp. multiflora Ehrh. in H.M. 1780 (14): 215 (1780)
Conferva gelatinosa L. subsp. major Ehrh. in H.M. 1780 (15): 239 (1780)
C. gelatinosa L. subsp. minor Ehrh. in H.M. 1780 (15): 239 (1780)
Lichen ericetorum L. subsp. sessile Ehrh. in H.M. 1780 (15): 238 (1780)
L. ericetorum L. subsp. stipitatus Ehrh. in H.M. 1780 (15): 238 (1780)
Melica nutans L. subsp. biflora Ehrh. in H.M. 1780 (14): 215 (1780)

Subspecific names proposed by Ehrhart which are invalid primarily because they were published before the starting-point for the groups in question ("basionyms" etc. are not given)

Bryum apocarpum subsp. incanum Ehrh. in H.M. 1780 (15): 236 (1780)
B. apocarpum subsp. virens Ehrh. in H.M. 1780 (15): 236 (1780)
B. extinctorium subsp. majus Ehrh. in H.M. 1782 (23): 364 (1782)
B. extinctorium subsp. minus Ehrh. in H.M. 1780 (15): 236 (1780)
B. striatum subsp. intermedium Ehrh., Beitr. 4: 130 (1789)
B. striatum subsp. thyphylleum Ehrh. in H.M. 1780 (15): 236 (1780)
B. striatum subsp. ulophyllum Ehrh. in H.M. 1780 (15): 236 (1780)
Clavaria pistillaris subsp. alba Ehrh. in H.M. 1780 (15): 240 (1780)
C. pistillaris subsp. lutea Ehrh. in H.M. 1780 (15): 240 (1780)
Helvella mitrata subsp. mentzeliana Ehrh. in H.M. 1780 (15): 240 (1780)
H. mitrata subsp. micheliana Ehrh., Beitr. 4: 131 (1789)
Hypnum complanatum subsp. acuminatum Ehrh. in H.M. 1780 (15): 237 (1780)
H. complanatum subsp. obtusum Ehrh. in H.M. 1780 (15): 237 (1780)
Lycoperdon bovista subsp. globiformis Ehrh. in H.M. 1780 (15): 240 (1780)
L. bovista subsp. maxima Ehrh. in H.M. 1780 (15): 240 (1780)
Mnium polytrichoides subsp. longifructum [longifruct] Ehrh. in H.M. 1780 (15): 236 (1780)
M. polytrichoides subsp. rotundifructum [rotundifruct] Ehrh. in H.M. 1780 (15): 236 (1780)
M. serpyllifolium subsp. cuspidatum Ehrh. in H.M. 1780 (15): 236 (1780)
M. serpyllifolium subsp. proliferum Ehrh. in H.M. 1780 (15): 236 (1780)
M. serpyllifolium subsp. punctatum Ehrh. in H.M. 1780 (15): 236 (1780)
M. serpyllifolium subsp. undulatum Ehrh. in H.M. 1780 (15): 236 (1780)
Phascum acaulon subsp. major Ehrh. in H.M. 1780 (15): 235 (1780)
P. acaulon subsp. minus Ehrh. in H.M. 1780 (15): 235 (1780)
Polytrichum commune subsp. juccaefolium Ehrh. in H.M. 1780 (15): 235 (1780)
P. commune subsp. juniperifolium [juniperifol] Ehrh. in H.M. 1780 (15): 235 (1780)
P. commune subsp. pilosum Ehrh. in H.M. 1780 (15): 235 (1780)

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References


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THE PUBLICATION OF MANUSCRIPT NAMES

B. L. Burtt (Edinburgh)

In contributing his article "On Citing the Names of Publishing Authors" to Taxon [14 (5): 154-160. May 1965] Edward G. Voss has underlined the importance of strict adherence to the Code and has discussed some of the points where interpretation is liable to be inconsistent. However, the most frequently recurring trouble in citation of authors is still that exemplified in his third paragraph: the plain error in abbreviating, for example, 'Schkuhr ex Willdenow' to 'Schkuhr' instead of to 'Willdenow'. No clarification of when 'ex' should be used, or when 'in' is more appropriate, contributes to this problem.

It has, I think, to be faced that the full form of citation that is correct under the Code simply invites incorrect contraction.

Individual solutions to problems of this nature may be reprehensible, but there are times when one is reluctant to continue an unsatisfactory format until change receives the approval of an International Congress. This was my own position, and I quote from the introduction to a paper on Gesneriaceae (Notes Roy. Bot. Gard. Edinburgh 21 (4): 193. 1954).

"One point must be mentioned concerning the form of citation used for the authorities for genera and species. For a long time the Rules of Nomenclature have made it clear that when a name is proposed in manuscript by one author (A) and taken up and published by another (B), the full citation should be in the form "A ex B," but that for brevity it is perfectly correct to cite only B. It is incorrect to cite only A. Despite this clear and common-sense rule, all working taxonomists know the brevity is all too commonly attained by dropping "ex B." In an attempt to avoid this I have adopted the form of citation "[A ex] B." When there has been a change in the type specimen (when, that is, the published description was not based on the specimen to which the manuscript name was originally applied) it seems preferable to drop the citation of