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ON TYPIFYING NAMES VALIDATED BY PLATES UNACCOMPANIED BY TEXT

Martin Cheek[1]

Summary

It is shown here that names validated by analytical plates unaccompanied by text should, according to the articles of the current Code, be typified by using the plates as holotypes rather than by attempting to select, as lectotypes, specimens on which the plates might be based.

Introduction

Whilst making some new combinations for various species of Malagasy Meliaceae (Cheek, 1989), I was forced, in citing the basionyms, to consider the question of typification for some names published in Grandidier's monumental *Histoire physique, naturelle et politique de Madagascar.* This work contained five volumes entitled *Histoire naturelle de plantes* published in many parts from 1890–1909 and largely consisting of numerous named plates of excellent quality. Several authors were responsible for the scientific names (many of which are new) on the plates and a breakdown is given in *Taxonomic literature* (Stafleu and Cowan, 1976: 979–981). It transpires that H. E. Baillon was largely responsible for the botanical names, including all those of the Meliaceae (Baillon, 1892: t. 250–260).

Validity

For the most part the plates are 'analytical' in that they include copious dissections and therefore constitute protologues to the validly published names, although these are unaccompanied in most cases by written text:

"Article 44.1. The name of a species or of an infra-specific taxon published before 1 Jan. 1908 is validly published if it is accompanied only by an illustration with analysis showing essential characters".

Typification

The question raised here is what are the types of these names? In this area, the Code is not completely explicit. My impression is that these plates were largely based on Grandidier's specimens at the Paris herbarium. Many are believed to be annotated by Baillon and it might be possible, by studying them, to discover which of these most closely match Baillon's plates and which bear labels in his hand. One could then make a good case for selecting such specimens as holotypes for the protologues. Such is normal practice. However, careful reading of the new Code (Greuter et al., 1988) reveals that:

'Article 7.3. A holotype is the one specimen or illustration used by the author or designated by him as the nomenclatural type.' and '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. 7.4.). If the author included only one element, that one must be accepted as the holotype'.

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Fig. 1. Analytical plate, protologue and holotype of *Trichilia peltostylis* Baillon (*Astrotrichilia asterotricha* (Radlk.) Cheek ined.), t. 255 from Baillon (1892).

It is clear from Article 7.3 and its 'Note 1', that one cannot make such a good case for selecting such specimens as holotypes since they were not definitely designated by the original author as the nomenclatural type at the time of the original publication of the name of the taxon. The evidence for considering one of these specimens as 'used by the author' is equivocal. However, there is no doubt at all that the *illustration* was used by the author, indeed it is the *one and only element* included by the author and therefore (according to the last line of note 1) is the one that 'must be accepted as the holotype'. It seems then, that these plates can be regarded as holotypes for such names.

Ramifications

This interpretation of the Code greatly facilitates the typification of the names of many Malagasy plants. About 500 higher plants were illustrated in the work cited though not all have novel names. Baillon's plates are so well executed (see Fig. 1) as to leave no doubt as to the identity of the plants

named. They are superior in that respect to most contemporary specimens and have the additional advantage of being widely available. Since a holotype is a 'single element' (Art. 7.2), the fact that dozens of copies exist of each plate raises the question—*which* one *is* the holotype? Perhaps the original engraving should be taken as the holotype and the copies cited as isotypes. But Art. 7.6 states that 'an isotype is any duplicate of the holotype; it is always a specimen', and anyway surely it is better to view type plates as being analogous to photographs of holotypes—which also can exist in large numbers. The big difference is that whilst photographs of holotypes must in most cases contain less information than the specimen (unless they are fully dissected and photomicrography is used), each copy of the plate must for practical purposes be identical with the original engraving.

Currently, in typifying plant names, there seems some prejudice towards selecting specimens over plates where both are available (not as here) as possible lectotypes. Where there is a perfectly good plate, some workers try to find a mouldering old specimen to lectotypify in its place. There seems to be a conception that a plate is only a poor substitute for, or second best, to a specimen, though in terms of access to information, it is often the case as here, that a plate is superior. Indeed, whereas once the Code stated that the 'type of a name of a species or infraspecific taxon is a single specimen *or other element*' (Stafleu et al., 1972: Art. 9), the code now *specifically* states, as cited earlier, that 'A holotype is the one specimen *or illustration*' (Greuter et al., 1988: Art. 7.3). Where the Code does specify on the selection of a lectotype (Art. 7.5), it clearly states that either a specimen or illustration is suitable, and makes no statement as to the preference of one to the other.

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EUCAMPIA ANTARCTICA (CASTRACANE) MANGIN (BACILLARIOPHYTA): COMPLEX NOMENCLATURAL AND TAXONOMIC HISTORY

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A common Antarctic diatom used to trace the ice edge from sediments historically has been placed in several different genera (*Eucampia, Moelleria, Hemiaulus*). A contemporary consensus is that it is properly placed in the genus *Eucampia,* typified by *E. zodiacus* Ehrenberg (1839). There has not been a consensus, however, concerning its correct name in that genus. This diatom has been referred to as

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