PROPOSALS TO REVISE ICBN

Nom. Ed. note: The following proposals to revise the Code have no official status for the upcoming meetings of the Nomenclature Section (17–20 August 1981) at the Sydney Congress, nor any subsequent Congress. After each Congress proposals to revise the Code are published in *Taxon* with sequential numbers (beginning with 1). This series stops with the issue of *Taxon,* in this case the February 1981 issue, which includes a Synopsis of all then available proposals, the Comment Rapporteurs on each, and the Mail Ballot.

The Mail Ballot is an important factor on the floor of the Nomenclature Section. The Chair notes the mail vote on each proposal. A proposal with substantial negative votes is discussed only if someone moves its consideration. Any registered member of the Section can offer a proposal as a motion.

The following proposals are not numbered because they could not be included in the Synopsis of Proposals and be reported to the membership of the I.A.P.T. on the Mail Ballot. They will not, by their publication here, come before the Congress unless they are introduced as a motion at the meetings of the Nomenclature Section.

ALGAL NAMES AND ARTICLE 39: FIGURATIVELY SPEAKING

The *International Code of Botanical Nomenclature* (Stafleu et al., 1978) permits an illustration or figure to validate generic names (Art. 42.1) and species or infraspecific names (Art. 44.1); they are required, after different dates, for all species or lower rank names of fossil plants (Art. 38.1), and algae (Art. 39.1). An algal name, in order to be validly published after 1 January 1958, must have a Latin description or diagnosis, and ". . . must be accompanied by an illustration or figure showing the distinctive morphological features, . . ." (Art. 39).

Questions as to what may fulfill the requirement of an "illustration" or "figure" have been raised. Can idealized or diagrammatic representations of distinctive morphological features be the figure that is necessary for valid publication? Under its present wording, Article 39 would allow for this, as long as the illustration or figure elucidates the "distinctive morphological features," even if the author uses a diagrammatic representation of the species.

In this paper we offer our interpretation of Article 39 with specific reference to the publication of W. H. Adey and P. Adey (1973) on British crustose coralline algae [Rhodophyta; Corallinaceae], in which three new species were described: *Fosliella tenuis* W. & P. Adey (1973: 398, table XIV); *Fosliella valida* W. & P. Adey (1973: 399, table XV); and *Lithophyllum nitorum* W. & P. Adey (1973: 386, table XII). For each of these taxa, the required Latin description (Articles 36, 39) and a figure (presented as a "table," see example, Fig. 1) were published. A query has been made as to whether these published "tables" satisfy the required inclusion of an "illustration or figure" under Article 39 (Mrs. Y. Butler, pers. comm.). We believe this requirement of Article 39 has been met by Adey and Adey (1973).

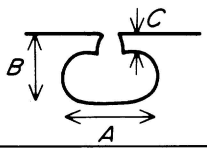
The taxonomic features used for species recognition in the genera *Fosliella* Howe (1920) and *Lithophyllum* Philippi (1837) are principally reproductive conceptacle size and shape and vegetative cell size (see e.g., Adey and Johnson, 1965; Chamberlain, 1977; Foslie, 1909; Howe, 1920). The illustrations used, labeled as "tables" in the Adey and Adey paper for their new species, not only show the diagnostic features of the reproductive conceptacles but their range and mean as defined for the species. Further, they were drawn from the actual specimens described (P. Adey, pers. comm.); consequently each is a line drawing of a specific conceptacle.

While we are not aware of any diagrammatic representation of distinctive morphological features being used solely with the description of a new algal species, a schematic representation of a reproductive conceptacle has been used by Lebednik (1977, fig. 2). *Clathromorphum*

Conceptacle dimensions (μm)

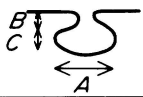
Fosliella valida

Asexual (6 concs.)



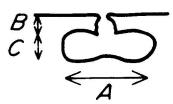
	A	B	C
Min.	75	55	12
Mean	87	66	14
Max.	100	77	16

Male (5 concs.)



	A	B	C
Min.	47	12	25
Mean	53	15	27
Max.	57	17	30

Cystocarpic (3 concs.)



	A	B	C
Min.	77	10	27
Mean	89	13	30
Max.	95	15	32

Fig. 1. An example of the "tables" used by Adey and Adey (1973, table XV) for their new taxa (reproduced by permission of Dr. W. H. Adey).

nereostratum Lebednik (1977: 79) has reference in the text and table xiii to this figure, but the taxon's description is also accompanied by photographic illustrations of the holotype.

The question we now address is the desirability of figures showing "distinctive morphological features" being prepared from an actual specimen as opposed to reflecting an idealized or generalized abstraction. For example, a phycologist may prepare a composite drawing, using various vegetative and/or reproductive stages from more than one specimen, thus creating an illustration for a specimen that does not exist. On the other hand, an illustration may be prepared which is so highly abstracted that it is difficult or impossible to connect it to an actual specimen.

While we believe both these examples are acceptable under Art. 39, providing they depict the "distinctive morphological features," we do not believe them desirable if presented alone.

We strongly feel that illustrations of a new taxa would best serve phycology if they were drawn accurately, not only from actual specimens but from type specimens and, when possible, the holotype. In short, the illustration depicting "distinctive morphological features" should be as realistic as possible, not idealized or theoretical in nature.

We note that there is a difference between the wording "distinctive morphological features" of Article 39, and the "essential characters" of Articles 38, 42, and 44. We do not suggest the wording of Article 39 be modified or changed, but in order to avoid future confusion and the relative interpretation by algal taxonomists as to what constitutes the required illustration or figure, we propose to amend the *International Code of Botanical Nomenclature* by adding the following new recommendations:

New Rec. 39A. The illustration or figure showing the distinctive morphological features should be prepared from an actual specimen, preferably the holotype.

New Rec. 39B. If diagrammatic representation is used, it should be presented in conjunction with line drawings or photographs of the distinctive morphological features and/or type specimen habit illustrations.

Acknowledgements

We thank Mrs. Yvonne Butler for bringing this problem to our attention; and we especially appreciate the helpful discussion of Drs. F. Ray Fosberg and Dan H. Nicolson and their review of the manuscript.

References

Adey, W. H. and P. Adey. 1973. Studies on the biosystematics and ecology of the epilithic crustose Corallinaceae of the British Isles. *Br. Phycol. J.* 8: 343–407.

——— and J. A. Johnson. 1965. Studies of *Lithophyllum* and related algal genera. *Col. Sch. Mines Qu.* 60: 1–105.

Chamberlain, Y. M. 1977. The occurrence of *Fosliella limitata* (Foslie) Ganesan (a new British record) and *F. lejolisii* (Rosanoff) Howe (Rhodophyta, Corallinaceae) on the Isle of Wight. *Br. Phycol. J.* 12: 67–81.

Foslie, M. 1909. Algologiske notiser VI. *Det. Kgl. Norske Vid. Selsk. Skrif.* 1909: 1–63.

Howe, M. A. 1920. Algae, pp. 553–631. *In:* Britton, N. L. and C. F. Millspaugh, *The Bahama Flora*. New York: Published by the authors.

Lebednik, P. A. 1977[1976]. The Corallinaceae of northwestern North America, I: *Clathromorphum* Foslie *emend.* Adey. *Syesis* 9: 59–112.

Stafleu, F. A. et al. (eds.). 1978. *International Code of Botanical Nomenclature*. Regnum Veg. 97: XIV + 487. Utrecht: Bohn, Scheltema & Holkema.

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A NOTE ON EFFECTIVE PUBLICATION

Summary

It is proposed that, until the regulation of Effective Publication has been dealt with by a Special Committee, Recommendation 29 A be extended in order to restrict the publication of new names and descriptions to easily available publications, viz. mainly to botanical periodicals having good distribution.