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Some time ago, I was asked to look into the validity of the name *Pseudoemiliana lacunosa*. As this is a rather complicated case, a fully documented account is presented here.

**Kamptner (1963)** introduced the genus *Ellipsoplacolithus* as follows (p. 171, translated):

*Ellipsoplacolithus* nov. gen. (paragen.).

*Elliptical calcareous bodies, that are probably built placolithically or at least represent derivations of the placolithic type, of which, however, the generic relationship could not yet be determined. This provisional unit is primarily intended for electron micrographs. Most of the forms assigned to it may in reality belong to the genus Cocolithus.*

Type species: *E. lacunosus* nov. spec. (paraspec.).

Because Kamptner clearly intended *Ellipsoplacolithus* to be a provisional generic name, it is invalid under ICBN Art.34.1, which reads:

34.1. A name is not validly published (a) when it is not accepted by the author in the original publication; (b) when it is merely proposed in anticipation of the future acceptance of the group concerned, or of a particular circumscription, position, or rank of the group (so-called provisional name); (c) ...

In the same publication Kamptner introduced the species *E. lacunosus* (p.172), and designated it the type species of *Ellipsoplacolithus*. No holotype was indicated but, because only one specimen was illustrated (Pl.9, Fig.50), this may be regarded as the holotype of the species following Art.7.3 of the ICBN:

7.3. A holotype is the one specimen or illustration used by the author or designated by him as the nomenclatural type. ....

However, because the name of the genus was not validly published the name of the species is not valid either, following ICBN Art. 43.1:

43.1. A name of a taxon below the rank of genus is not validly published unless the name of the genus or species to which it is assigned is validly published at the same time or was validly published previously.

**Gartner (1969)** introduced the genus *Pseudoemiliana*, including *P. lacunosa* as the only species. Hence *P. lacunosa* is automatically the type species of *Pseudoemiliana*. It is not clear what Gartner intended. If he regarded *Ellipsoplacolithus* and *lacunosus* as valid names, *Pseudoemiliana* would have been a junior synonym of *Ellipsoplacolithus*. If, on the other hand he was aware that *E. lacunosus* was not valid, why would he have treated it as valid, referring it to Kamptner by quoting it as *Pseudoemiliana lacunosa* (Kamptner), treating it as a new combination?

Since a name that is not valid is not available, and therefore basically treated as non-existent, this would make *Pseudoemiliana lacunosa* invalid. (Art. 12.1: A name of a taxon has no status under this Code unless it is validly published). As the genus is monospecific, the name *Pseudoemiliana* would also be invalid.

**Gartner (1977)** defended the validity of *Pseudoemiliana lacunosa* by referring to ICBN Art.66 (no longer existent) and Art.68:

Art. 68.1. A specific name is not illegitimate merely because its epithet was originally combined with an illegitimate generic name, but is to be taken into consideration for purposes of priority if the epithet and the corresponding combination are in other respects in accordance with the rules.

However, both articles deal with illegitimate names, rather than invalid names, as is evident even from the sections quoted in Gartner's publication (p.15). So Gartner made the common mistake of not distinguishing between illegitimacy and invalidity (Illegitimate names are those designated as such in Arts. 18.3 or 63-65, such as homonyms and names based on

holotypes of other taxa. Invalid names are ones that are not published in accordance with Arts. 32-45).

**Discussion:** How, then, can the familiar name *Pseudoemiliana lacunosa* be 'rescued'? The answer lies in Gartner (1969). Given that Kamptner's original name was invalid, one might consider whether Gartner in effect introduced a new name. While introducing the, monospecific, genus *Pseudoemiliana* Gartner gives a full description and diagnosis, thereby fulfilling part of the requirements. The only thing apparently lacking, is the designation of a holotype. But according to Art.7.3 (quoted above) the holotype is the one specimen or illustration used by the author. One may argue that by assigning the name *lacunosa* to Kamptner, Gartner uses the one illustration given by Kamptner (Pl.9, Fig.50), which therefore automatically becomes the holotype.

Even if this argumentation seems tenuous, a final argument to preserve the name *Pseudoemiliana lacunosa* is provided by one of the Preambles of the Code, which states:

*9. In the absence of a relevant rule or where the consequences of rules are doubtful, established custom is followed.*

So the correct full citation for the species is *Pseudoemiliana lacunosa* Kamptner 1963 ex Gartner 1969. For an abbreviated citation *P. lacunosa* Gartner 1969 is also correct.

## REFERENCES

- GARTNER S., 1969: Correlation of Neogene planktonic foraminifer and calcareous nannofossil zones. *Trans. Gulf Coast Assoc. Geol. Socs.*, **19**, 585-599.
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- GREUTER W. et al., 1988: International Code of Botanical Nomenclature. Koeltz Scientific Books, 328 pp.
- KAMPTNER E., 1963: Coccolithineen-Skelettreste aus Tiefsee- Ablagerungen des Pazifischen Ozeans. *Ann. Naturhist. Mus. Wien*, **66**, 139-204.