Case 2809

Fursenkoina Loeblich & Tappan, 1961 (Foraminiferida): proposed conservation

Stefan A. Revets
Department of Palaeontology, Koninklijk Belgisch Instituut voor Natuurwetenschappen, Vautierstraat 29, B1040 Brussels, Belgium

Abstract. The purpose of this application is to conserve the foraminiferan generic name Fursenkoina Loeblich & Tappan, 1961. Fursenkoina is a replacement name for Virgulina d’Orbigny, 1826, which is a junior homonym. The name Cassidella Hofker, 1953 was proposed for a generic concept which makes it a senior synonym of Fursenkoina, although its type species has been misidentified in more than one way. The name Cassidella has been misunderstood and little used and its suppression is proposed in order to safeguard Fursenkoina, which is in wide use and the basis of a family-group name.

1. d’Orbigny (1826, p. 267) established the genus Virgulina by describing the single new species V. squammosa from Pliocene deposits of the Siena region, Italy. No type material can be found among the d’Orbigny material in the Museum National d’Histoire Naturelle, Paris, which has been extensively recurated and was extensively damaged by flooding of the Seine in 1912. Cushman (1930, p. 63) discussed the provenance of d’Orbigny’s foraminifera from Siena, and in a systematic revision (Revets, 1995, in press) of the family bolivinitidae Cushman, 1927 I intend to designate specimen P 52796 in the Micropalaeontology collection of the Natural History Museum, London as the neotype of V. squammosa. The specimen is from Cava Semplice, Coroncina, Siena, Italy.

2. Hofker (1950, p. 68) mentioned the new generic name Cassidella and illustrated (fig. 41a) a toothplate, but in the absence of a description or type species designation the name did not become available. Later (1951, p. 264) Hofker described Cassidella, but on p. 264 he said that the ‘genotype’ was Virgulina tegulata Reuss, 1846 whereas on p. 265 the new species C. oligocenica was given as ‘the type of the genus’. The failure to designate a single type species meant that the generic name remained unavailable (Article 13b of the Code). Hofker (p. 266) included Virgulina squamosa [sic] d’Orbigny in Cassidella, although he did retain Virgulina for other species; this is of course incorrect since V. squammosa is the type species of Virgulina (para. 1 above). On p. 265 he contrasted Virgulina (in the sense of the species included by him) and Cassidella. Thalmann (1952, p. 971), in a report on the works published in 1951 concerning foraminifera, listed ‘Virgulina (Bolivina) tegulata (Reuss)’ as the ‘genotype’ of Cassidella, citing only p. 264 of Hofker (although giving the wrong bibliographic reference); the additional designation of C. oligocenica on p. 265 was overlooked. This incomplete and inaccurate citation of Hofker did not make the name
available from Thalmann (1952), although that authorship was accepted by Loeblich (1953, p. 39) despite his remark (p. 40) that the attribution was ‘certainly unfortunate’.

3. Hofker (1953a) remedied the lack of valid type designations for the genera introduced in his earlier (1951) work and on p. 26 designated Virgulina tegulata Reuss, 1845 (recte 1846) as the type of Cassidella; the name thereupon finally became available. He remarked (p. 27) ‘I am always in a state of war with the Rules of Nomenclature, since I believe that these rules have added considerably to the confusion in the taxonomy of the foraminifera. This is the reason why I do not always follow them in my publications’. Hofker said of V. tegulata: ‘Reuss himself reported the species several times from the Turonian as well as from the upper Senonian and Maestrichtian. Yet we now know that these forms appear to be different species. What is the true Virgulina tegulata?’. From this it is not clear on what taxonomic species Hofker (1953a) based his concept of V. tegulata. Wood (1954) commented ‘Neglect of the elementary principles of nomenclature has made nonsense of the paper [Hofker, 1953a]’, and he cast doubt on the classificatory characters which had been used to separate ‘Virgulina (Hofker non d’Orbigny) and Cassidella (really Virgulina)’.

4. Hofker (1953b) retained V. squammosa in Cassidella, but an editorial note reported as follows: ‘Virgulina squammosa d’Orbigny, 1826 is the monotypic genotype of Virgulina d’Orbigny, 1826, and consequently cannot be removed from Virgulina and placed in Cassidella. This situation was pointed out to Dr. Hofker, who replied (personal communication, October 1953) that he agreed, and that he now proposes to suppress Cassidella as [it is] a synonym of Virgulina, restricting the name Virgulina to Virgulina squammosa and other species having the same wall and toothplate structure. He also plans to establish a new genus for those species which differ from Virgulina squammosa... The new genus will be described in the near future...’. This plan was never carried out.

5. Loeblich & Tappan (1961, p. 314) proposed the name Fursenkoina as a replacement for Virgulina d’Orbigny, 1826 (see para. 1 above), which they pointed out was a junior homonym of Virgulina Bory de St. Vincent, 1823, the name of a trematode genus. The type species of Fursenkoina is automatically (under Article 67h of the Code) that of Virgulina d’Orbigny, i.e. V. squammosa. Loeblich & Tappan also replaced the subfamily name virgulininae Cushman, 1927 (p. 68) by FURSENKOININAE.

6. Loeblich & Tappan (1964, p. 732; 1987, p. 530) listed V. tegulata as the type species of Cassidella, although they attributed the genus and type designation to Hofker (1951) rather than to his 1953a paper or to Thalmann (1952) (see paras. 2 and 3 above). In both 1964 and 1987 Loeblich & Tappan treated Cassidella and Fursenkoina as separate genera on the ground that V. tegulata and V. squammosa were sufficiently different to merit generic distinction. However, in doing this Loeblich & Tappan relied on information published by Hofker and on their own interpretation of V. tegulata, and not on examination of original Reuss material. In 1964 they illustrated (fig. 600, 5-7) examples of ‘C. tegulata’ from Arkansas (U.S.A.) and the Netherlands, while in 1987 only the Arkansas specimen which they had identified as C. tegulata was illustrated (pl. 578, figs. 26 and 27).
7. The specimens identified by Hofker as V. tegulata Reuss and which he included in Cassidella were obtained from Maastrichtian chalk of the Jekerdal in Belgium (see Hofker, 1951a, p. 265), whereas Reuss (1846, p. 40) had described his species from the Turonian of Kystra (Czech Republic). Cushman (1937, p. 5) mentioned specimens of V. tegulata from other Turonian localities in Central Europe and added that some Cretaceous (Austin and Taylor chalk and marl) specimens from the southern United States 'seem identical with the European species'. The original Reuss material was destroyed in Budapest in 1956 (H. Kollman, pers. comm.). Hofker's specimens of 'V. tegulata' cannot be traced, but comparison of his description and drawings with Czech specimens of V. tegulata shows that Hofker had misidentified his Belgian material. Unfortunately the preservational state of the Turonian material from the Bohemian region precludes description of the taxonomically important features of Reuss's species and hence the satisfactory selection of a neotype for it. Hofker's 'V. tegulata' was different and clearly congeneric with V. squammosa d'Orbigny, as is Cassidella oligocenica, the second 'type species' of Cassidella (para. 2 above). Hofker himself included both 'V. tegulata' and V. squammosa in Cassidella, and this and his explicit statement reported in para. 4 above show that his concept of that genus was the same as that of Virgulina d'Orbigny and hence of Fursenkoina Loeblich & Tappan.

8. As already mentioned (para. 6), Loeblich & Tappan also misidentified V. tegulata, but whereas Hofker cited Belgian material they relied primarily on American specimens. Their distinction between Cassidella and Fursenkoina was faulty although their taxonomic misidentification was not the same as Hofker's. Article 70b of the Code requires that Cassidella should be referred to the Commission because it has a misidentified type species. It would be inappropriate to fix Virgulina tegulata Reuss, 1846 as the type species, since the genus was neither originally proposed nor has subsequently been used in that sense, and in any case V. tegulata is itself a nomen dubium. The American specimens identified as 'V. tegulata Reuss' by Loeblich & Tappan (1961, 1964, 1987) and Cushman (1937) probably belong to Coryphostoma Loeblich & Tappan, 1962 or to Loxostomum Ehrenburg, 1854, so if used in that sense Cassidella would be a subjective synonym of one or both of those generic names, both of which are in current use. Although in accord with Hofker's original concept, it would be particularly undesirable to designate either of the originally included nominal species Virgulina squammosa or C. oligocenica as the type species of Cassidella Hofker, 1953, for the name would then be confirmed as a senior synonym of Fursenkoina Loeblich & Tappan, 1961. Cassidella has been used very little, and only in a confused way. On the other hand Fursenkoina is in wide use (see e.g. Haynes, 1981; Loeblich & Tappan, 1987) and as mentioned in para. 5 above it is the basis of a family-group name. In view of its muddled history and particularly to avoid any threat to Fursenkoina I propose that the name Cassidella should be suppressed.

9. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the name Cassidella Hofker, 1953 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
(2) to place on the Official List of Generic Names in Zoology the name *Fursenkoina* Loeblich & Tappan, 1961 (gender: feminine), type species by monotypy of the replaced nominal genus *Virgulina* d’Orbigny, 1826 *Virgulina squammosa* d’Orbigny, 1826;

(3) to place on the Official List of Specific Names in Zoology the name *squammosa* d’Orbigny, 1826, as published in the binomen *Virgulina squammosa* and as defined by the neotype (specimen P 52796 in the Natural History Museum, London to be designated by Revets (1995)) (specific name of the type species of *Fursenkoina* Loeblich & Tappan, 1961);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Cassidella* Hofker, 1953, as suppressed in (1) above.

References


