Case 3235

Sclerocrinus Jaekel, 1891 (Crinoidea, Cyrtocrinida): proposed precedence over Gammarocrinites Quenstedt, 1857

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Abstract. The purpose of this application, under Articles 23.9.3 and 81.2.3 of the Code, is to conserve the generic name Sclerocrinus Jaekel, 1891 for a group of fossil (Upper Jurassic (Oxfordian)-Lower Cretaceous (Valanginian)) crinoids by giving it precedence over the name Gammarocrinites Quenstedt, 1857 whenever the two are considered to be synonyms. The two names have been used indiscriminately for the same taxon.

Keywords. Nomenclature; taxonomy; sclerocrinidae; Sclerocrinus; Gammarocrinites; Gammarocrinites compressus; Sclerocrinus strambergensis; fossil crinoids; Upper Jurassic-Lower Cretaceous; Europe.

1. In 1857 Quenstedt (p. 654) proposed the name Gammarocrinites for a group of small fossil crinoids and included the nominal species Eugeniacrinites compressus Goldfuss, 1829, E. nutans Goldfuss, 1829 and similar forms which are different from E. caryophyllatus Goldfuss, 1829. Although Quenstedt did not designate a type species for Gammarocrinites, de Loriol (1879, p. 209) was of the opinion that he had introduced Gammarocrinites for Eugeniacrinus nutans [sic]. In discussing the variability of E. nutans, de Loriol (1879, p. 209) considered E. compressus to be within the range of variation of E. nutans and thus conspecific with that species. Subsequently de Loriol (1882, p. 115) mentioned that Quenstedt had established the generic name Gammarocrinites for Eugeniacrinus caryophyllatus. Jaekel (1891, p. 626) considered E. compressus to be different from E. nutans on the basis of the granular surface. In his main and final work, Quenstedt (1873, p. 427) placed E. compressus in the genus Eugeniacrinus Agassiz, 1836 but Gammarocrinites was not mentioned. The extant and related species Gymnocrinus richeri Bourseau, Améziane-Cominardi & Roux, 1987 demonstrates that granularity is a variable character within a species of cyrtocrinid crinoids (Bourseau et al., 1991, p. 277).

2. In 1891 Jaekel (p. 621) established the genus Sclerocrinus mentioning S. strambergensis Jaekel, 1891 (p. 623) as a typical species and also (p. 602) established the genus Cyrtocrinus. He recognized the main differences from other cyrtocrinids (his ‘holopocrinids’) as a more spherical cup with a deep, broad aboral excavation, a shallow oral cavity and also flat articular brachial facets with only small muscular fields. Jaekel (1891, p. 622) mentioned the existence of many intermediates between the two genera. Sclerocrinus has the most massive crown of all cyrtocrinids. The oldest ‘Sclerocrinus’ fossils with a granular surface, ‘S. compressus’ from the Oxfordian (Late Jurassic), closely resemble granular specimens of Cyrtocrinus nutans
(see Hess & Spichiger, 2001). Rasmussen (1961, p. 217) treated Sclerocrinus as a valid genus and designated S. strambergensis as the type species.

3. Rasmussen (1978, p. T831), in the Treatise on Invertebrate Paleontology, treated Sclerocrinus as a junior synonym of Gammarocrinites (type species Eugeniacrinites compressus Goldfuss, 1829, p. 164). He thus followed Bather (1900, p. 197) who recorded Sclerocrinus as a junior synonym of Gammarocrinites. As explained in para. 2 above, E. compressus may be conspecific with E. mutans and separation at the generic level is not warranted. Cyrtocrinus is a well-defined and widely used name for an important group of crinoids, the Cyrtocrinida and it should therefore be preserved. The type species of Sclerocrinus, S. strambergensis, is clearly different from E. mutans.

4. In more recent literature both Gammarocrinites and Sclerocrinus have been used without considering the validity of these names. Gluchowski (1987), following the Treatise (Rasmussen, 1978), accepted Gammarocrinites Quenstedt, 1857 as a valid name for E. compressus as did Jäger (1980, p. 64) and Nicosia (1991, p. 396). However, Žitt (1974, p. 17; 1975, p. 115) and Pisera & Dzik (1979, p. 813) followed Arendt (1974, p. 101) in treating Sclerocrinus as a valid genus. In the interest of stability we propose that the name Sclerocrinus Jaekel, 1891 be given precedence over Gammarocrinites Quenstedt, 1857, whenever the two names are considered to be synonyms. Therefore, the case is referred to the Commission under Articles 23.9.3 and 81.2.3 of the Code.

5. The family name Sclerocrinidae was established by Jaekel (1918, p. 75) and maintained in the Treatise (Rasmussen, 1978, p. T829) under Article 40. The nominal genera Gammarocrinites and Cyrtocrinus were included in this family in the Treatise.

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

(1) to use its plenary power to give the name Sclerocrinus Jaekel, 1891 precedence over the name Gammarocrinites Quenstedt, 1857, whenever the two are considered to be synonyms;

(2) to place on the Official List of Generic Names in Zoology the following names:
   (a) Sclerocrinus Jaekel, 1891 (gender: masculine), type species by subsequent designation by Rasmussen (1961) S. strambergensis Jaekel, 1891, with the endorsement that it is to be given precedence over the name Gammarocrinites Quenstedt, 1857 whenever the two names are considered to be synonyms;
   (b) Gammarocrinites Quenstedt, 1857 (gender: masculine), type species by subsequent designation by Rasmussen (1978) Eugeniacrinites compressus Goldfuss, 1829, with the endorsement that it is not to be given priority over the name Sclerocrinus Jaekel, 1891 whenever the two names are considered to be synonyms;

(3) to place on the Official List of Specific Names in Zoology the following names:
   (a) strambergensis Jaekel, 1891, as published in the binomen Sclerocrinus strambergensis (specific name of the type species of Sclerocrinus Jaekel, 1891);
   (b) compressus Goldfuss, 1829, as published in the binomen Eugeniacrinites compressus (specific name of the type species of Gammarocrinites Quenstedt, 1857).
References


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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

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