

CORRESPONDENCE

THE TYPE-SPECIES OF *AGANIDES*, *CLYMENIA*, AND *CYRTHOCERATITES*

STR.—(1) *Aganides* de Montfort, 1808, pp. 30, 31.—When describing this genus, its author omitted to supply a binominal Latin name for his *espèce servant au type du genre*: *Aganide encapuchonné*. This was remedied by von Schlotheim (1820, p. 83) who published the name *Aganides capucinus*—overlooked by Sherborn—referring to de Montfort's earlier and better illustrated account of 1802 (p. 223; pl. xlviii, fig. 1) as well as that of 1808. This action antedates d'Orbigny's 1826 (p. 161) attribution of *Nautilus aturi* Basterot and *N. zigzag* (rightly, *N. zigzag*) J. Sowerby to *Aganides*, and so obviates the possibility of *Aturia* Bronn, 1838 (of which *N. aturi* is the type-species) being an objective junior synonym of *Aganides*. *Aganides bitauniensis* Haniel, 1915 (p. 132; pl. lv, figs. 3a-c), the type-species of *Permoceras* Miller and Collinson from the Permian of Timor, indicates that nautiloids akin to *Aganides* were in existence in Upper Palaeozoic times, so there can be small justification for doubting the essential characters of Montfort's figures.

(2) *Clymenia* Münster, 1834, p. 43.—Some confusion surrounds this genus and its type-species. Thus, Foord and Crick (1897, p. 14) date it as 1839, relying on Gümbel. In the *Treatise on Invertebrate Paleontology*, Part L (1957, p. L44), the type-species is stated to be *Planulites laevigatus* Münster, 1832, by subsequent designation of Frech, 1902. But this is not the case, Frech (1902, p. 29) merely stating—erroneously—that, "Bei der ersten Beschreibung von *Clymenia* (1839) hat Graf Münster die 1832 als *Planulites* bezeichnete *Clymenia laevigata* als typus der Gattung vorangestellt." Actually, Münster made no designation of type-species in 1839 or at any other time. Nor, indeed, was there need for him to do so, since *Clymenia* was instituted as *nomen novum* for *Planulites* Münster 1831, p. 182 (*non* Parkinson, 1821) the type of which is *Planulites laevigatus* Münster, 1831, p. 182, by monotypy, Münster having, as Dr. M. R. House has pointed out to me, given a brief but legally adequate description of the species in that year.

(3) *Cyrthoceratites* d'Archiac and de Verneuil, 1842, pp. 348-9. This genus has generally been attributed by authors (myself included) to Goldfuss, 1832, p. 482. Mr. J. M. Edmonds has shown me, by reference to Heinsius's *Allgemeines Bücher-Lexikon* that Goldfuss's publication of the name must be dated 1844. Meanwhile, d'Archiac and de Verneuil had published the name *Cyrthoceratites* in 1842. They refer some twenty-three species to it and describe six of them in detail. Among the latter is *Cyrthoceratites depressus*, already described and figured by Bronn in 1835, as *Cyrtocera depressa*. This species has been designated type of *Cyrthoceratites* Goldfuss by Flower (1950, p. 10), which it indeed is by monotypy. Nevertheless, to place the matter on a legally unassailable basis, I herewith designate *Cyrthoceratites depressus* d'Archiac and de Verneuil, 1842, p. 350; pl. xxix, figs. 1, 1a = *Cyrthoceratites depressus* (Bronn), 1835, p. 101, pl. i, fig. 5, as type-species of *Cyrthoceratites* d'Archiac and de Verneuil, 1842, of which *Cyrthoceratites* Goldfuss, 1844, is a junior absolute homonymous synonym. The name *Cyrtocera* Goldfuss, 1832, under which Bronn described the species, is an absolute junior synonym of *Cyrthoceratites* Goldfuss, 1830 (cp. Turner, 1954).

As represented by its type-species, *Cyrthoceratites* is the correct name for what is commonly understood by "*Cyrtoceras* Goldfuss" (e.g., Phillips, 1841, p. 113; Foord, 1888, p. 262). It is ironical that *Cyrtoceras* is the one name that Goldfuss did *not* institute and that the true *Cyrtoceras* Conrad, 1838, is not a cyrtoceracone at all, but tarphyceraconic.

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THE OCCURRENCE OF PEDUNCULATE BRACHIOPODS IN SOFT SEDIMENTS

SIR,—Dr. Rudwick has recently drawn attention (1961) to the fallacy of the usual assumption that pedunculate brachiopods necessarily require a hard substratum for their attachment. Whilst completely endorsing Dr. Rudwick's remarks, I should like to draw attention to another possibility which has not received much consideration. This is the likelihood that brachiopods may have attached themselves to floating seaweed of the *Sargassum* type. Attached weed is limited in its range of depth and distance from shore, and its normal environment probably makes little showing in the stratigraphical record; but floating weed could have been much wider in distribution and many organisms are known to live on it at the present day.

I have noted that certain small rhynchonelloids tend to occur in argillaceous sediments more commonly than other brachiopod groups; in such sediments they often occur as scattered individuals rather than in the closely-packed lenses or bands that are commonly found in calcareous and arenaceous rocks. Examples are *Calcirhynchia calcaria* (Buckman) in the Lower Lias, *Rhynchonelloidella spathica* (Lamarck) in the Oxford Clay, and *Thurmanella* (?) *subvariabilis* (Davidson) in the Kimeridge Clay. These rhynchonelloids commonly occur as isolated individuals and are well preserved, with no evidence in themselves or in accompanying fossils, of derivation from another environment. They are characteristically small and thin-shelled and are associated with dominantly pelagic forms or benthonic forms not requiring a hard substratum.

In an account of Upper Jurassic rhynchonelloids in the Cracow-Czestochowa chain of Poland, Rozycki (1948) distinguished three ecological groups: (1) large, often asymmetrical species associated with reefs; (2) species forming layers, associated with other brachiopods; (3) species occurring singly and usually very small. This fits well with my own observa-