

Cretaceous Crinoidea.

Second preliminary report.

By

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As a result of continued studies and redescriptions of North European Cretaceous crinoids a few observations and corrections have been made of which an account is here presented.

Isselocrinus and *Lipocrinus*.

The genus *Isselocrinus* was established by ROVERETO in 1914 with genotype and only species *I. insculptus* ROVERETO, 1914, from the Oligocene of Italy. This genus has never since been discussed and no other species has been recorded as belonging to it. This is due to the fact that the description is generalized and gives no details of the characteristics of the nodal joint and articular surface which are the only features on which identification of the genus is possible. SIEVERTS-DORECK (1939, p. 128) considers that its validity is doubtful. *Isselocrinus* is, however, correctly established, and further investigation of the figures has shown that it is identical with the genus *Lipocrinus* established by the present author in 1953, which is thus a synonym. The type specimen has not been restudied and identified, but seems to be related to—and probably identical with—*I. subbasaltiformis* or *I. didactylus*. Both these species are recorded by ROVERETO from the Oligocene of Italy, the former from the same locality as *Isselocrinus*.

The genus *Isselocrinus* can thus be defined by the diagnosis of *Lipocrinus* (RASMUSSEN, 1953). The genotype is *I. insculptus* ROVERETO, 1914 (= ?*P. subbasaltiformis* MILLER, 1821).

The species *Pentacrinus crassus* BR. NIELSEN, 1913, also belongs to this genus, but is invalid as homonym of *P. crassus* DESOR, 1845.

Isocrinus carinatus and *I. agassizii*.

In my first report these two species were regarded as identical. *I. carinatus* was established by ROEMER partly on the basis of specimens from the Upper Senonian White Chalk of Rügen and erratic flints of North Germany, probably of the same age, and partly on specimens from the Lower Senonian near Hannover. The figure given by ROEMER is not identifiable and it has not been possible to find the type specimen, of which the locality is un-

known. There is no doubt that specimens from the first-mentioned localities are identical with *I. agassizii* as also are specimens from Denmark. But all the specimens referred to *I. carinatus* in German collections belong to another Lower Senonian species for which it would be natural to use the name introduced by ROEMER.

Bourgueticrinus, *Mesocrinus*, and *Metapiocrinus*.

The genotype of *Mesocrinus* CARPENTER, 1881, is *M. fischeri* (GEINITZ), 1875. From a reexamination of the type specimen of this species (GEINITZ 1875, pl. 6, fig. 9), it appears that genus and species are based on an artificial combination of a very small calyx of *Bourgueticrinus*, the proximale of which has been broken off, with single joints of stem and cirrus glued on a piece of limestone. Small differences in morphology, size and colour show that the joints have belonged to different individuals. The swollen stem joint included in this structure has no doubt acquired its characteristic form from an attack of *Myxostoma* or some other parasite. The strange position of a cirrus on the upper part of the stem is artificial and is placed at a casual, secondary injury, not at a cirrus facet.

The only other species referred to the genus *Mesocrinus* is *M. suedicus* CARPENTER, 1881. The type specimen is registered as lacking in the Swedish collection, but from the same zone of the Senonian at Ignaberga, Sweden, is found a calyx showing all the characteristics of the species except that the proximale is preserved and clearly demonstrates that the species belongs to *Bourgueticrinus*.

The genus *Metapiocrinus* JAEKEL, 1918, with the only species *M. minutus* JAEKEL, 1918, is based on a small and hardly determinable specimen of *Bourgueticrinus* from a boulder of unknown origin.

Mesocrinus and *Metapiocrinus* are thus both subjective synonyms of *Bourgueticrinus*.

Glenotremites and *Sphaerometra*.

The genus *Glenotremites* was established by GOLDFUSS in 1831 with genotype *G. paradoxus* GOLDFUSS, 1831. In this species only the controdorsal is known. Gislén, 1924, does not regard comatulids in which only the controdorsal is known as generically determinable and uses for them the name *Glenotremites* as a provisional generic name. This is unfortunate because the duly established genus *Glenotremites* might be interpreted in a more restricted way as a result of new discoveries, and because the rules of zoological nomenclature do not allow such provisional names but recommend the use of "open nomenclature", the provisional character of which can be seen from the mark of interrogation. Furthermore it is possible, with reasonable certainty, to refer many of these controdorsals to well-determined genera as also appears from the accounts by GISLÉN 1924 and 1925. Moreover it seems possible at the present moment to decide that the genus is identical with *Sphaerometra*, GISLÉN, 1924. In this connection it must be mentioned that GISLÉN himself referred the *Glenotremites paradoxus* group to *Sphaerometra*. *Glenotremites* must therefore be regarded as a valid genus, and *Sphae-*

rometra as a synonym unless the genus is divided into two groups based on differences of the genotypes.

Several specimens described as species of *Glenotremites* merely represent growth and variation of other species.

G. janeti (VALETTE), 1917, is an *Orthogonocrinus* belonging to the family *Roveacrinidae*.

Gasterometra.

This genus, established by GISLÉN 1925, was demonstrated by BR. NIELSEN 1943 to be a synonym of *Stauranderaster* SPENCER, 1907, and belongs to the asteroids.

The presence in Cretaceous deposits of the following genera formerly recorded by various authors has not been confirmed: *Balanocrinus*, *Pentacrinus*, *Cyclocrinus*, *Mespilocrinus*, *Conocrinus*.

BIBLIOGRAPHY.

- BIESE, W. & H. STEVERTS-DORECK: Crinoidea caenozoica. Fossilium Catalogus I, Pars 80. s'Gravenshage 1939.
- NIELSEN, K. BRÜNNICH: The Asteroids of the Senonian and Danian Deposits of Denmark. Det Kongelige danske Vidensk. Selsk. Biol. Skrifter. Vol. II, Nr. 5. København 1943.
- RASMUSSEN, H. WIENBERG: Cretaceous Crinoidea. Meddelelser f. Dansk Geologisk Forening Bd. 12, København 1953.
- ROVERETO, G.: Nuovi Studi sulla Stratigrafia e sulla Fauna dell' Oligocene Ligure. Genova 1914.