Stromatoporoids

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Until recently the stromatoporoid fauna of Gotland was poorly known, but it has now been described monographically by Mori (1969, 1970). The fauna includes numerous species that also occur in the Silurian of Estonia, where they have been monographed by Nestor (1964, 1966).

Material collected from Vattenfallet consists of 83 coenostea or fragments of coenostea (for distribution see Fig. 20).

Annotated faunal list

Clathrodictyidae
Clathrodictyon simplex (Nestor), *C. delicatulum* Nestor, *C.* cf. *gotlandense* Mori.

Actinostromatidae
Densastroma pexisum (Yavorsky), D. aff. *yakovlevi* (Riabinin), *D.* sp. indet. (29.6–30.0 m).

The coenosteum of *Densastroma* aff. *yakovlevi* consists of a very delicate skeletal network, and when the structure is somewhat recrystallized it is difficult to distinguish between this species and *D. pexisum*. Nestor (1966) and Mori (1969) have clearly included such forms in *D. pexisum*.

Pseudolabechiidae
Vikingia tenuis (Nestor), *V.* cf. *nestori* (Mori), "*Pseudolabechia*" *hesslandi* Mori.

Stromatoporidae
Stromatopora impexa Nestor, *S.* sp. indet., *Syringostromella* cf. *yavorskyi* Mori.

Stratigraphical remarks

In the Vattenfallet section stromatoporoids are most common in the upper half of the Upper Visby Marl, where their taxonomic composition agrees with that of other Upper Visby exposures on Gotland. In the section the difference in the stromatoporoid fauna between the Upper Visby Marl and the Högklint Limestone is distinct in that they have only a single species in common.

However, assessment of Mori's (1969) data suggests that elsewhere the difference is not so sharp because *Clathrodictyon simplex* also occurs in places in the Högklint beds, and "*Pseudolabechia*" *hesslandi* together with *Stromatopora impexa* has been recorded from the lowermost Högklint. On Saaremaa (Estonia), typical Upper Visby species characterize the marls of the Jaani Stage, with the particular Upper Visby assemblage of the Vattenfallet section occurring in marls immediately below the base of the Ninase beds.

At Vattenfallet no stromatoporoids have been found in Högklint *a*, and Högklint *b* has yielded relatively few specimens, mostly belonging to species that are difficult to identify and have limited stratigraphical significance. The available material is insufficient to allow any meaningful stratigraphical conclusions to be made.

The lower part of Högklint *c* is relatively rich in stromatoporoids, with *Vikingia tenuis* the dominant species. According to Mori (1969) this species is the most common form in the Upper Högklint reefs and in the Tofta Beds. He also records it from the uppermost part of the Upper Visby Marl and the lower part of the Slite Beds. Most stromatoporoid specimens from Högklint *c* of the section are either rounded pebbles or show signs of wear, and they may belong to debris washed out from contemporaneous Högklint reefs. In his diary Liljevall does not mention any reeflike accumulation of stromatoporoids at these levels in the section (Jaanusson, personal communication). *Vikingia tenuis* is also the principal reef-forming organism in the stratotype exposure of the Jaagarahu Stage on Saaremaa (Nestor 1966).

Most stromatoporoids from Högklint *d* occur as rounded pebbles embedded in the soft "*Pterygotus*" Marl. They are obviously re-deposited. However, some small, unworn coenostea of *Vikingia tenuis* also occur, indicating that this species may have lived there during deposition of the "*Pterygotus*" Marl.

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