Leperditiid ostracodes

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Leperditiacean ostracodes are fairly common in the Silurian sequence of Gotland. Hisinger (1831) described two species and Kolmodin (1869, 1880) added some, but since then no descriptive work on this group from the island has been attempted.

Annotated faunal list

Leperditiacea: *Eoleperditia*? *baltica* (Hisinger) (6 specimens from Högklint *c*), *Herrmannina phaseolus catarractensis* n. subsp. (25 specimens from Högklint *c* and innumerable specimens in a limestone bed from Högklint *d*, where in places the rock is crowded with valves). For ranges see Fig. 43.

Eoleperditia? *baltica* has a simple, non-denticulate hinge and lacks a chevron scar. These characters, as well as the general shape of the valves, agree with those of *Eoleperditia*, but further studies are required for a definite generic assignment. *Herrmannina phaseolus catarractensis* is described below.

Herrmannina phaseolus catarractensis n. subsp.
Figs. 38–40

1923 *Leperditia phaseolus* (His.) – Hedström, p. 336, Figs. 1–2.

Holotype. – Carapace RM Ar.49767, Fig. 38A–C; Vattenfallet, *"Pterygotus"* Beds (29.60–30.00 m).

Diagnosis. – Valves almost completely smooth, relatively convex; anterior cardinal corner somewhat swollen; ventral surface of left valve smooth; venose markings absent.

Description. – Valves smooth, with occasional very faint traces of puncta. The holotype is 6.3 mm long and 4.2 mm high (hinge-line 3.8 mm). The largest specimen in the collection is 9.0 mm long and 5.8 mm high (hinge-line 5.6 mm). For further variation in length and height, see Fig. 40. Maximum height at a position two thirds of the way

Fig. 38. *Herrmannina phaseolus catarractensis* n. subsp. A–C. Carapace in lateral and ventral view; holotype, Ar. 49767. D. Hinge of left valve; Ar. 49733. E. Anterior part of interior surface, left valve, showing chevron and adductor muscle scars; Ar. 49735. F. Anterior part of interior surface, right valve; Ar. 49734. All specimens from Högklint *d* at Vattenfallet; photograph U. Samuelson. Arrows point anteriorly, bars represent 1 mm.

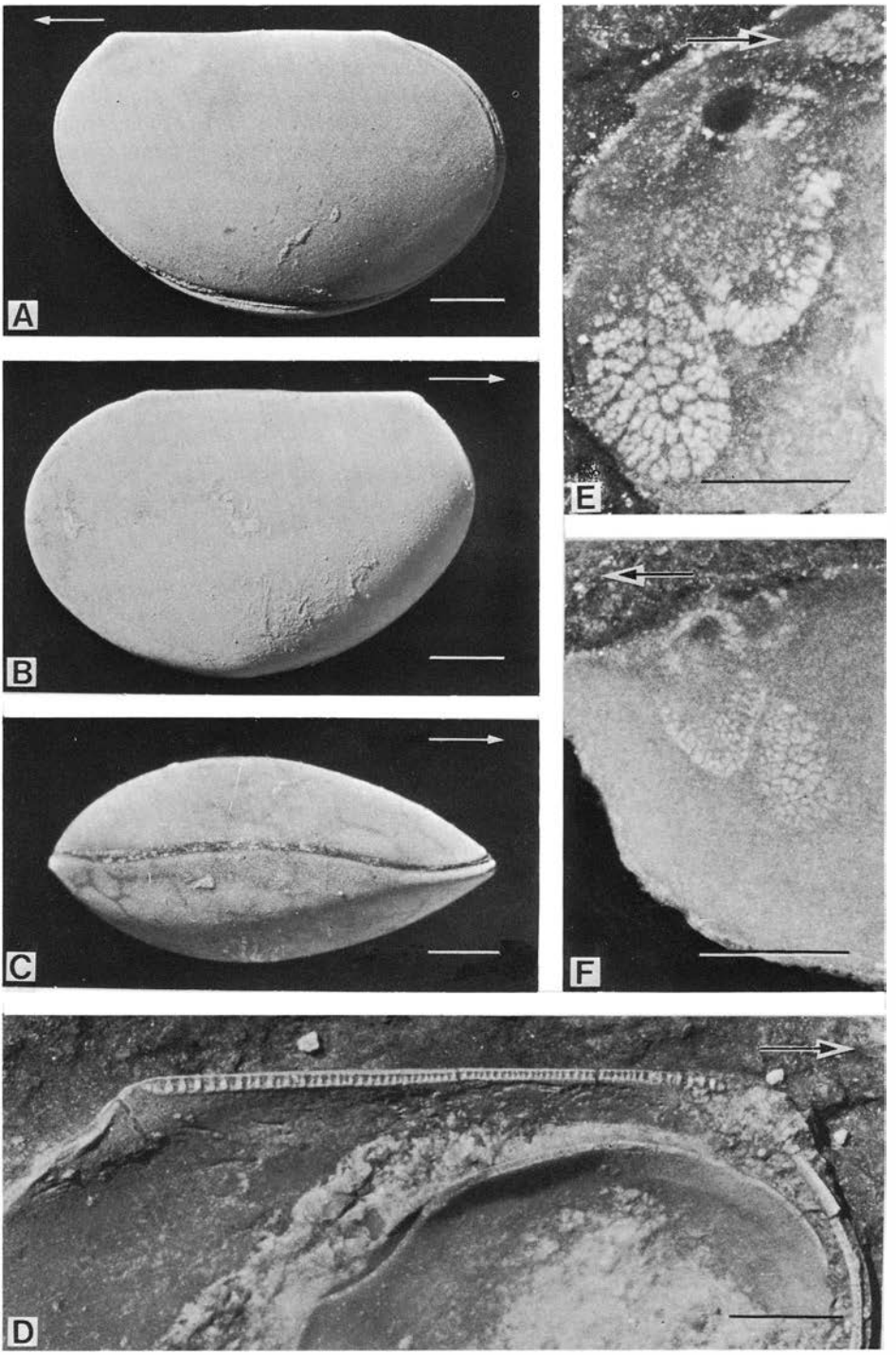
A
B
C
D
E
F

Fig. 39. *Herrmannina phaseolus catarractensis* n. subsp. Camera lucida drawing of adductor, chevron and dorsal muscle scars based on specimen Ar. 49735 (see Fig. 38E). The arrow points anteriorly.

along the hinge-line from the anterior cardinal corner. Maximum convexity of the valves close to the adductor muscle scar. The overlapped area of the left valve is smooth. Anterior cardinal corner somewhat accentuated with a faint subjacent depression. Eye tubercle weak, but represented by a deep pit on interior of valve, surrounded with about 200 muscle spots (Fig. 39). Marked chevron scar situated subjacent to eye tubercle, on interior surface of the valve limited by a distinct ridge ventrally. Limbs of chevron scar form an angle of about 70°. Venose markings absent. Hinge finely denticulate (Fig. 38 D).

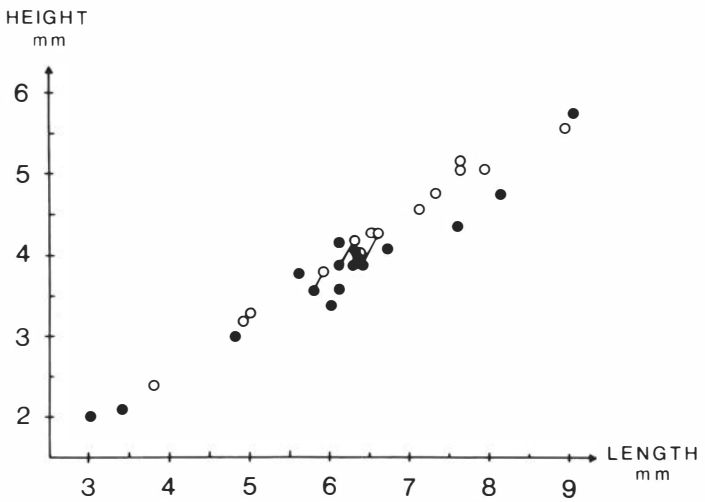

Fig. 40. *Herrmannina phaseolus catarractensis* n. subsp. Diagram showing relationship between length and height of valves based on measured specimens from Högklint *d* at Vattenfallet. Dots and circles denote left and right valves, respectively; symbols connected by a line refer to the same carapace.

Remarks. – *Herrmannina phaseolus phaseolus* and *H. phaseolus catarractensis* are similar in shape. However, the former has a larger average size and is also finely punctose all over the whole exterior surface, whereas specimens from the *"Pterygotus"* Beds do not possess distinct puncta, although most are well preserved. The overlapped flat ventral area of the left valve in *H. phaseolus phaseolus* shows a faint, elongate depression, which is not present in *H. phaseolus catarractensis*. Moreover, the anterior cardinal corner is less pronounced in *H. p. phaseolus*. On well preserved valves of this subspecies, the venose markings are easily distinguished; such markings have not been observed on any valves from the *"Pterygotus"* Beds.

Occurrence. – The exact vertical range of *H. p. catarractensis* cannot be determined without further studies. It is common to abundant in the uppermost Högklint Limestone and seems to occur also in the Tofta Limestone.

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