

Genus *Gymnopatagus* Döderlein 1901

Test very fragile, especially the oral side; outline elongated heart-shaped with conspicuous frontal sulcus; in profile very low and with sharp margin;
apical system anterior, ethmolytic, four gonopores positioned on the inner part of genital plates;
anterior ambulacrum depressed increasingly towards the margin; pore-pairs small, uniserially arranged and with simple podia;
paired petals subequal and bowed, narrowing distally;
oral side flat, peristome D-shaped; **periproct** on short, truncated posterior side;
labrum long and narrow, straight cut;
peripetalous fasciole without lateral indentations;
shield-shaped subanal **fasciole** with two pore-pairs to each side;
heterogeneous **tubercles** within the peripetalous fasciole;
sharp contrast between the long spines within the fasciole and the short, fine, densely distributed small ones on the rest of the aboral surface;
tubercles crenulated and not sunken.

The genus includes two species:

- ***Gymnopatagus magnus*** A. Agassiz & H.L. Clark 1907. Indo-West Pacific.
- ***Gymnopatagus valdiviae*** Döderlein 1901. East coast of Africa.

The two species differ in the distribution of the primary tubercles and spines within the peripetalous fasciole: In *Gymnopatagus magnus* both the lateral interambulacra and the posterior interambulacrum are set with primary tubercles; in *G. valdiviae* the primary tuberculation is restricted to the lateral interambulacra.

Gymnopatagus magnus A. Agassiz & H.L. Clark 1907

Main characteristics of the genus.

Max. length recorded 111 mm.

Test low in profile, with the highest point at the apical system, gently sloping to the anterior margin and less steeply to the low, shortly truncated posterior end;
anterior pore zones of **anterior petals** curved like a shallow **S**; pore-pairs barely conjugate;
pore-zones distally almost closed;
oral side with a low, but distinct posterior keel;
labrum long and narrow, sternum fully tuberculated;
subanal fasciole shield-shaped, with two pore-pairs on each side;
oral **tubercles** rather uniform; naked areas in posterior ambulacra broad, continue into the anterior groove.

Distribution: The species is known from the Indian Ocean to Japan, at depths of c. 780 – 2350 m (David & De Ridder 1989).

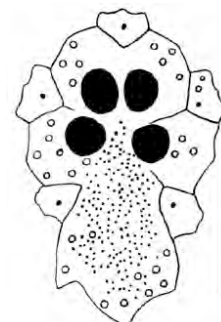


Fig. 1176. Right above: *Gymnopatagus magnus*.

Length 111 mm, Philippines. ZMUC

Right above: Oral side: The naked areas in the posterior ambulacra are broad, the sternal plates being fully tuberculated.

Right below: Apical system: The gonopores are clustered in the centre. Scale 2 mm. Mortensen 1951



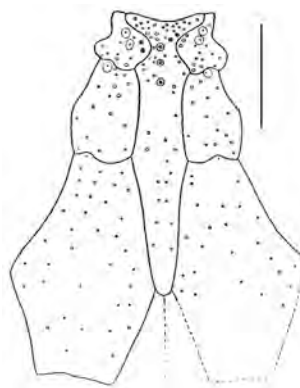
Fig. 1177. *Gymnopatagus magnus*.
Length 111 mm, Philippines. ZMUC
Above: Aboral side: The anterior row of pore zones in the anterior petals is curved like a shallow S.
Below: Side view: The posterior end is low.



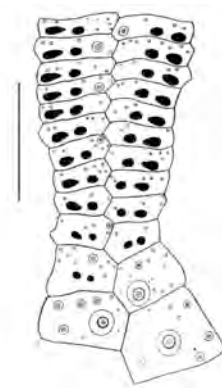
Fig. 1178. *Gymnopatagus magnus*.
Length 105 mm, Philippines. ZMUC
Above: Aboral side: Numerous long primary spines are distributed within the peripetalous fasciole. Outside the fasciole the spines are fine and uniform.



Fig. 1179. *Gymnopatagus magnus*.
a. Labrum and adjacent ambulacral plates. Scale 6 mm.
b. Distal part of anterior petal.
Scale 6 mm.
Mortensen 1951



a.



b.

Abatus elongatus (Koehler 1908)

Fig. 1318. *Abatus elongatus*, female.
Length 39 mm. Mc Murdo Sound, Ross Sea,
Antarctica. ZMUC
Left: Aboral side.
Above: Side view.

Main characteristics of the genus. Max. length 65 mm.

Test ovoid, anterior side rounded without depression, posterior part narrowing to the truncated posterior face;

anterior ambulacrum flush;

anterior petals strongly diverging at about an angle of 160°;

periproct on posterior truncated face, bordered by two characteristic tufts of spines;

labrum short, extending to first or second adjoining ambulacral plates;

fasciolar band very thin, three to five miliaries in width;

valves of globiferous **pedicellariae** with two long hooks.

Distribution: Recorded from the South Orkney Is. and in the Mc Murdo Sound, Ross Sea, Antarctica. Bathymetric range 11 – 804 m.

Abatus ingens Koehler 1926

Main characteristics of the genus. Length usually reaches 60 – 70 mm, max. length recorded 88 mm.

Test rounded anteriorly without depression, conspicuously attenuated towards the posterior; periproct visible in oral sight;

labrum usually extending to the 4th adjoining ambulacral plates; overarchng the peristome;

fasciolar band sinuous, indenting in all interambulacra;

valves of globiferous **pedicellariae** terminating in two long hooks.

Colour in life very dark, almost black.

Distribution: This species is recorded from Prydz Bay to the east coast of the Ross Sea, at a depth of 20 – 271 m.

Biology: This species is observed ploughing through the sediment with only the lowest part of the test buried. (David et al. 2005)



Fig. 1319. *Abatus ingens*, female. Length 87 mm, Ross Sea, Antarctica. ZMUC.
View into the internal test from the oral side: The four marsupia are strongly developed.
Below right: Aboral side.

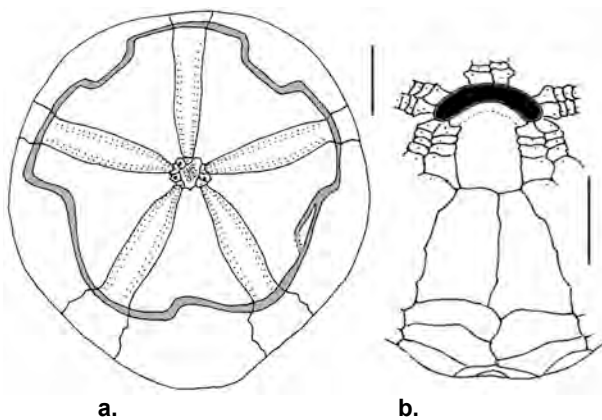


Fig. 1320. *Abatus ingens*, male.
a. Aboral side: There is no anterior notch. The fasciole is strongly sinuous. Fasciole shaded.
b. Peristome, labrum and sternum: The labrum extends to the fourth adjoining ambulacral plates, the sternal plates being relatively straight.
Scale 10 mm. Modified after Madon-Senez 1998.

