

DIAGNOSES OF NEW BARNACLES FROM THE PHILIPPINE
ARCHIPELAGO AND CHINA SEA.

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The following diagnoses of some new species of Cirripedia from the *Albatross* Philippine cruise are published in advance of the final report on the collection.

ALEPAS NAVIGATOR, new species.

Type-specimen.—Cat. No. 38698, U.S.N.M.

Type-locality.—Nogas Point, Panay, surface, on a large *Discomedusa*.

Capitulum large, with well calcified, sharply defined scuta, in form of a band along the occludent margin, with a wide diverging ascending branch above. First cirrus with two basal appendages, the other cirri with one, except cirri ii and vi, which have none. Length of capitulum, 30 mm.; greatest width of capitulum, 24; length of peduncle, 25; diameter of peduncle in middle, 7; length of aperture, 16; and length of scutum, 12.

ALEPAS SPECTRUM, new species.

Type-specimen.—Cat. No. 38699, U.S.N.M.

Type-locality.—Nogas Point, Panay, surface, on *Discomedusa*.

The tunic of the narrow capitulum is excessively thin, without any trace of scuta or other plates, thereby differing from all other known species of *Alepas*.

Length of capitulum, 12 mm.; breadth of capitulum, 6; length of peduncle, 6.

SMILIUM HORRIDUM, new species.

Type-specimen.—Cat. No. 43467, U.S.N.M.

Type-locality.—*Albatross* station 5250, Gulf of Davao, 23 fathoms.

The capitulum is armed with 15 plates, those of the lower whorl projecting horn-like. It is covered with a thick yellowish cuticle in which the outlines of the plates are rather indistinct. The scutum is almost as broad as long, acute above, faintly marked with growth lines. The tergum is triangular, with a process appended on the

occludent side of the summit, which is therefore very obtuse. Carina straight, abruptly bent at the umbo, which is near the apex. Upper lateral plate vertical, long, and narrow. Rostrum small, projecting. Rostral and inframedian latera conic, projecting. Carinal latera long, the upper end projecting. Subcarina long, the apex projecting. Peduncle somewhat shorter than the capitulum, densely covered with small pebble-like scales, those near the base elongated. On the carinal side of the peduncle there are two longitudinal series of larger, more projecting scales, and on one side there is another indistinct series of similar scales.

Length of capitulum, 12 mm.; basal width, 11; length of peduncle, 11.

This species is somewhat related to *S. scorpio* Aurivillius, and especially to *S. pollicipedoides* Hoek, but differs from both in the peculiarly obtuse summit, the rows of enlarged scales of the peduncle, and various other characters.

VERRUCA ALBATROSSIANA, new species.

Type-specimen.—Cat. No. 43472, U.S.N.M.

Type-locality.—Albatross station 5447, east of Luzon, 310 fathoms.

A species with the movable valves parallel to the plane of the base, parietal areas of the walls ribbed vertically, basal margin acute, fixed scutum without internal pit or myophore. Movable scutum has five articular ridges counting the crescentic ridge, the rest of the plate being transversely grooved and finely striate longitudinally. Movable tergum having four articular ribs and a stronger diagonal rib. Apices of fixed scutum and tergum contiguous, a little produced. The carina occupies much more of the carino-rostral wall than the rostrum, which is higher and shorter, the apices of both being marginal.

Carino-rostral length between apices, 5.8 mm.; greatest width, 5 mm.; height of fixed tergum, 3.5 mm.

The unusual length of the rostrum and fixed scutum characterize this species.

VERRUCA INTEXTA, new species.

Type-specimen.—Cat. No. 43468, U.S.N.M.

Type-locality.—Albatross station 5259, off northwestern Panay, 312 fathoms. On spines of echinoids with *Megalasma*.

The barnacle is white, solid, with the opercular valves about parallel to the plane of the base; parietal areas of the plates of the wall widely ribbed.

Movable scutum with three articular and three other ribs, the inner face deeply concave; movable tergum with two articular and a strong diagonal rib, the rest of the plate transversely grooved. Fixed scutum and tergum having rather long, recurved beaks. Carina and rostrum interlocking with numerous teeth, the upper rib and tooth of the carina much longer than the others; beak of carina somewhat

produced. Rostrum having the beak removed some distance from the scutal border, the intervening area radially ribbed, the ribs terminating on the scutal border, where they interlock with those of the scutum; basal edges of the plates of the wall thin and simple. There is no myophore in the fixed scutum.

Greatest carino-rostral length, 7.5 mm.; breadth, 5.4 mm.; height of fixed tergum, 4 mm.

This is a very distinct species, by reason of the shape of the rostrum, in which the summit stands remote from the scutal margin as in *V. nexa* and *V. kähleri*.

PACHYLASMA DARWINIANUM, new species.

Type-specimen.—Cat. No. 43465, U.S.N.M.

Type-locality.—Albatross station 5168, Sulu Archipelago, Tawi Tawi group, 80 fathoms.

A species living upon and partly embedded in a hard sponge. Walls solid, base wholly membraneous. The walls form a low cone, with rather large, deeply toothed aperture and are dull red, fading toward the rostrum, which is pale or whitish. The plates are strong, with the parietes smooth except for a fine rugosity; the alæ broad, regularly striate vertically, with oblique, minutely crenulate summits. The scutum is half as wide as long, convex externally, with sculpture of crowded, strongly crinkled growth ridges. Internally there is a low articular ridge and no adductor ridge. The tergum is triangular, without a spur, striate longitudinally on the carinal half, having a low, rounded rib, bounded by depressions on the scutal half. Internally there is a high, short articular ridge, and irregular crests for the depressor muscles, projecting in jagged teeth below the margin.

Greatest diameter of the wall, 18 to 20½ mm.

Strikingly unlike all known species in the sculpture of the scutum and the shape of the tergum.

Pachylasma darwinianum agrees with *P. giganteum* (Philippi), *P. crinoidophilum* Pilsbry, and *P. chinense*, new species, in having conspicuous alæ on the carina, carino-lateral and medio-lateral plates, thereby differing from *P. aurantiacum* Darwin, in which the carino-lateral and medio-lateral plates unite in a simple, linear suture. It differs from all other known species, except *P. crinoidophilum*, by having the base wholly membraneous.

The species of *Pachylasma* now known are very distinct from one another. So far as we know, all are local in distribution, and apparently rare. *P. darwinianum* is known by several specimens cut out of a very dense, hard sponge.

PACHYLASMA CHINENSE, new species.

Type-specimen.—Cat. No. 43471, U.S.N.M.

Type-locality.—Albatross station 5301, latitude 20° 37' N.; longitude 115° 43' E., China Sea, near Hongkong, in 208 fathoms, on the scutum of a living *Scalpellum stearnsi*.

Base calcareous, very thin in the center, thicker and solid toward the edges. Plates of the walls solid, without radii. The plates are white, clouded with pink near the summits of the side-plates and carina, the parietes covered with a very thin yellowish cuticle; opercular plates yellow, pinkish toward their apices. The orifice is large, piriform, toothed; the alæ have arched, minutely serrate upper edges. The sheath is very short, and its lower edge does not overhang. Rostrum and rostral latera separated by inconspicuous linear sutures. Scutum narrow, its greatest width less than half the length, convex outside, with sculpture of smooth, wide, and even growth ridges parted by deep, narrow grooves. The articular ridge is very low, and there is no adductor ridge. The tergum has an extremely short spur and no trace of a longitudinal furrow. There is a high articular ridge, and a series of short teeth in place of the depressor muscle crests.

Greatest diameter of base, 16.5 mm.; height of carina, 13.6 mm.

ACASTA PECTINIPES, new species.

Type-specimen.—Cat. No. 43473, U.S.N.M.

Type-locality.—Albatross station 5276, near Malavatuan Island, off southern Luzon, 18 fathoms.

The barnacle has a deep base, rather weakly striate. The plates of the wall are inflected above, with sculpture of prickly longitudinal threads. Parietes of carina-lateral plate reaching to the base, but extremely narrow, about one-seventh as wide as the rostro-lateral; radii and alæ quite narrow. There are narrow but distinct slits bridged by membrane between the bases of the plates. Scutum regularly sculptured with ridges of growth, the basal margin approaching the ocludent margin in length. Tergum very short, with cancellated external sculpture and an extremely short spur, about one-third the width of the basal margin.

Length of walls and base, 8 mm.; carino-rostral diameter, 6.2 mm.

ACASTA IDIOPOMA, new species.

Type-specimen.—Cat. No. 43466, U.S.N.M.

Type-locality.—Albatross station 5254, Gulf of Davao, Mindanao, 21 fathoms.

Walls white. Base deeply bowl-shaped; parietes of carina-lateral plate more than half as wide as rostro-lateral; no apertures between the bases of the wall-plates, which do not converge upward. Scutum strongly striate longitudinally, with a carina marking off the ocludent third, which protrudes as a rounded lobe or scutal spur beyond the rest of the lower outline. Tergum having a short triangular spur united with the adjacent border of the plate.

Greatest diameter of the wall, 7.2 mm.

Readily known by the peculiar opercular plates.