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A new species of living scallop of the genus *Anguipecten* (Bivalvia, Pectinidae) from the tropical Indo-Pacific

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Anguipecten pacificus spec. nov. is described from the tropical Indo-Pacific.

Key words: Bivalvia, Pectinidae, *Anguipecten*, new species, Marquesas Islands, Indonesia.

INTRODUCTION

During the Indonesian-French Karubar cruise to eastern Indonesia a new scallop was found near the Kai Islands, which was provisionally identified by Dijkstra & Kastoro (1997: 279, figs 156-159), based on a few dead specimens from the upper bathyal depths. Subsequently, more material was collected by the French Musorstom 9 cruise to the Marquesas Islands (French Polynesia), sufficient to describe it herein. All specimens (empty shells) were deposited in MNHN, with voucher specimens in the private pectinoid reference collection of the author.

Acronyms and abbreviations: HD, H.H. Dijkstra colln, Sneek, The Netherlands; MNHN, Muséum national d'Histoire naturelle, Paris, France. For shell characters: D, diameter (thickness of both valves); H, height (dorsal-ventral); lv, left valve (upper valve); pr, paired (articulated) valves; rv, right valve (lower valve); W, width (anterior-posterior).

SYSTEMATIC PART

Subfamily Pectininae Wilkes, 1810
Tribe Decatopectinini Waller, 1986

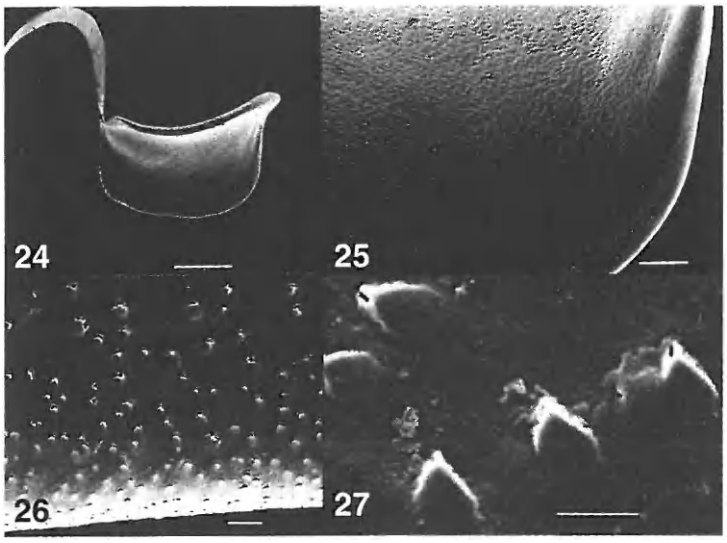
Anguipecten Dall, Bartsch & Rehder, 1938

Anguipecten Dall, Bartsch & Rehder, 1938: 92. Type species (by original designation): *Anguipecten gregoryi* Dall, Bartsch & Rehder, 1938 [junior synonym of *Pecten lamberti* Souverbie, in Souverbie & Montrouzier, 1874], Miocene to Recent, tropical Indo-Pacific (Hayami, 1989: 15).

Anguipecten pacificus spec. nov. (figs 1-4)

Anguipecten spec. cf. *picturatus* Dijkstra, 1995; Dijkstra & Kastoro, 1997: 279, figs 156-159.

Material examined (in MNHN, unless stated otherwise). — French Polynesia, Marquesas Islands (Musorstom 9 cruise; Bouchet, Dayrat & Richer de Forges leg.): Stn DW 1274, Eiao Island, 07°54.6'S



Figs 24-27. *Idyla (I.) castalia yeruni* subspec. nov., Macedonia, nomos Grevena, 25 km W of Grevena, small limestone outcrop, 1.25 km SW of Dotsiko, S-slope, 1400 m alt., UTM EK1039. 24, clausilial blade; 25, detail below the basal tip; 26, detail near the lower border; 27, microdenticles. Scale bars 0.5 mm, 0.1 mm, 10 µm, and 5 µm, respectively. SEM-photographs by A. Gittenberger, NNM Leiden.

Derivatio nominis.— The epithet *yeruni* is based on a phonetic spelling of the first name of Jeroen Goud, in appreciation of good-fellowship in malacology and the many photographs he made over the years.

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On the basis of a more limited material, Mr. H. Nordsieck gave me his opinion on the various taxa described above, which is greatly appreciated. It does not mean that he has any responsibility for any possible mistakes in this paper. I am also grateful to Mr. W. Reenema who explained the geological maps, and to Messrs. A. Gittenberger, who made the SEM photographs, and J. Goud, who made the other photographs.

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140°40.1'W, 100-120 m, 3 paratypes (1 lv, 2 rv); Stn DW 1281, Motu One, 07°48'S 140°21'W, 450-455 m, holotype (lv), 2 paratypes (rv); Stn DW 1287, Eiao Island, 07°54'S 140°40'W, 163-245 m, 3 paratypes, one of which in HD (lv).

Indonesia (Karubar cruise; Bouchet, Kastoro & Métivier leg.): Stn DW 30, Kai Islands, 05°39'S 132°56'E, 111-118 m, 4 specimens, not considered paratypes (2 lv, 2 rv).

Description. – Shell up to c. 60 mm high, solid, compressed, oblong, nearly equivalve and equilateral, right valve slightly more convex than left valve, auricles short and subequal, umbonal angle c. 85°, colour creamy, maculated with reddish dots and streaks, right valve somewhat paler.

Both valves radially undulated and sculptured with six prominent lirae; laterally an additional but weakly developed ridge. Interstices somewhat narrower than lirae. Secondary radial sculpture of small lirae (on right valve weaker) on the lirae and interstices, commence on the central part of the disc (c. 10 per lira) and extend to the ventral margin. Microsculpture consists of delicate and closely spaced commarginal lamellae throughout (c. 8-10 per mm in the central part). Anterior auricles very weakly sculptured with c. 10 radial riblets, posterior auricles nearly smooth. Inner surface plicated, more prominently so near periphery. Resilifer triangular. Byssal notch, fasciole and ctenolium lacking. Cardinal crura rather broad with closely and vertically set small ridges.

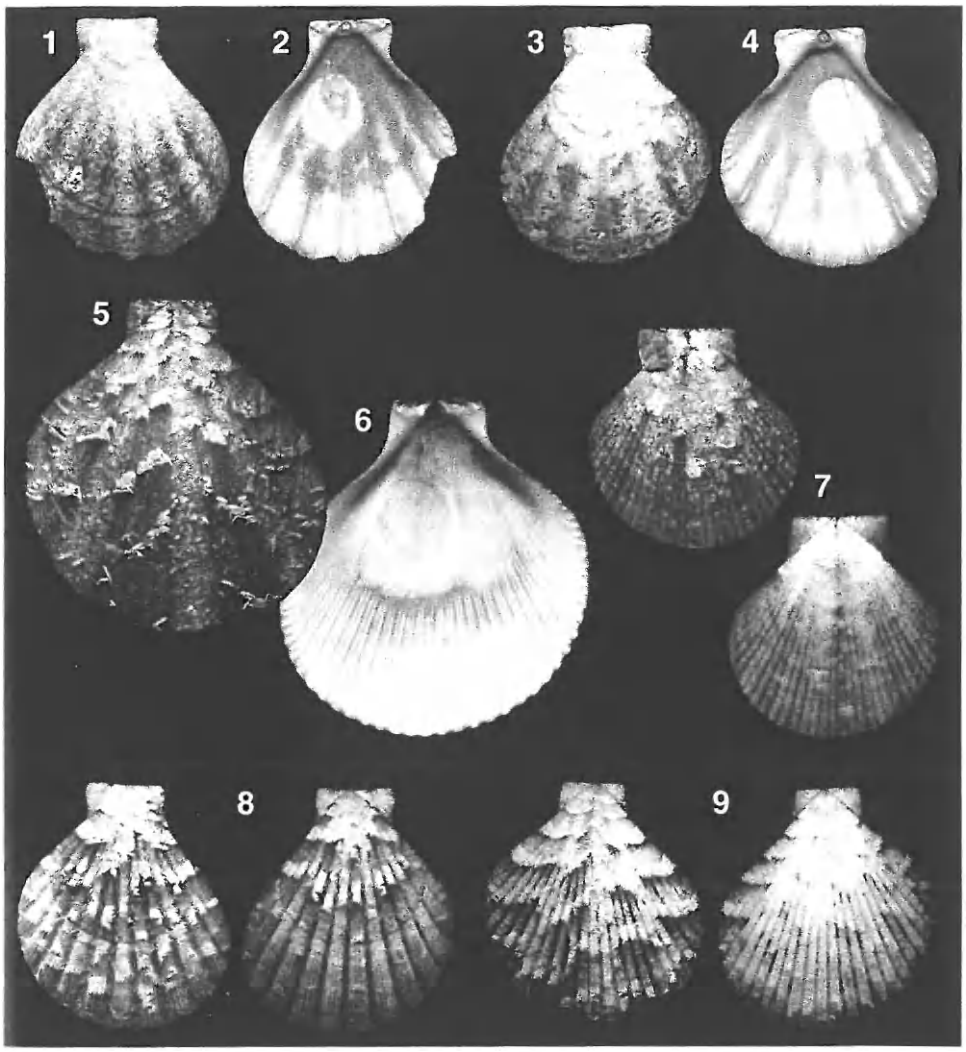
Measurements of type series: holotype H 40.2 mm, W 35.8 mm; largest paratype H 60.5 mm.

Distribution. – Eastern Indonesia (Kai Islands) and French Polynesia (Marquesas Islands); only dead taken bathyally (100-455 m), probably living sublittorally according to other data of *Anguipecten* species from the tropical Indo-Pacific (Dijkstra, unpubl. data).

Comparison. – The specimens of *A. pacificus* from eastern Indonesia are somewhat atypical and slightly differ from the type material by having somewhat larger auricles with a shallow byssal notch on the right valve, which is lacking in typical material. Therefore these specimens are excluded from the type series. *Anguipecten superbus* (G.B. Sowerby II, 1842), known from the Indo-West Pacific, is very similar in size, shape, colour, and microsculpture, but differs from *A. pacificus* in having many more (18-23, *A. pacificus*: 6-7) radial lirae and a far less prominent secondary sculpture. *Anguipecten lamberti* (Souverbie, in Souverbie & Montrouzier, 1874), known from New Caledonia and Hawaiian Islands, differs in having numerous (c. 30) very compressed radial lirae and a weak secondary radial sculpture. Other morphological characters are similar to those of *A. pacificus* and *A. superbus* (size, shape, colour, and microsculpture).

Anguipecten picturatus Dijkstra, 1995, also known from the Indo-West Pacific, differs from *A. pacificus* in size (up to c. 45 mm in height), in colour (more bright), in having more radial lirae (12-15), a coarser secondary radial sculpture, and a commarginal microsculpture in the late growth stage.

Etymology. – From the Pacific Ocean (Lat. *pacificus*, adjective = pacific, peaceable).



Figs 1-9. *Anguipecten* spec. Figs 1-4. *A. pacificus* spec. nov., Marquesas Islands, Motu One, Musorstom 9, Stn DW 1281, 07°48'S 140°21'W, depth 450-455 m, dead, N/O "Alis", 07.ix.1997. 1-2, holotype (H 40.2 mm, W 35.8 mm); 1, lv, exterior; 2, lv, interior. 3-4, paratype (H 40.0 mm, W 35.8 mm); 3, rv, exterior; 4, rv, interior (MNHN, not registered). Figs 5-7. *A. lamberti* (Souverbie, in Souverbie & Montrouzier, 1874). 5-6, New Caledonia, Boula Ri Pass, outside of reef, 60 m, alive, soft sediments, 1985; pr (H 69.9 mm, W 63.1 mm, D 13.9 mm). 5, lv, exterior; 6, lv, interior (HD 2535); 7, Hawaiian Islands, Oahu, 73 m, alive, under slab, c. 1988; rv (H 36.8 mm, W 35.2 mm, D 6.8 mm), lv and rv, exterior (HD 7237). Fig. 8. *A. picturatus* Dijkstra, 1995, Japan, Okinawa, Horseshoe, depth 40 m, alive, soft sediments, 1985; pr (H 47.9 mm, W 42.8 mm, D 13.9 mm), lv and rv, exterior (HD 1949). Fig. 9. *A. superbus* (Sowerby II, 1842), Solomon Islands, Ontong Java Atoll, 20 m, alive, soft sediments, 1986; pr (H 58.1 mm, W 55.8 mm, D 15.5 mm), lv and rv, exterior (HD 2937).

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