日本産海産腹足類6新種の記載

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Descriptions of Six New Species of Japanese Marine Gastropoda

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(挿図 Text-figs. 1-11)

Tristichotrochus iwaotakii Azuma, sp. nov. (Trochidae) タキエビスガイ (新種新称) (Text-fig. 3)

Shell conical, spirally sculptured, granulated, light yellowish white, rather flamed by brown; nuclear whorl 1, round, smooth; post-nuclear whorls 8, rather convex at the central part of each whorl, distinctly triangulate, granulated, spirally sculptured by acutely serrated ridges. Primary spiral P₁ very small, primary spirals P₂ and P₃ rather similar in size and larger than P₁ and they start from the first post-nuclear whorl; secondary spiral row lacking; suprasutural one row appearing from first post-nuclear whorl to 6th post-nuclear whorl but 3 rows on the penultimate whorl, 4 or 5 rows on the body whorl; body whorl 19 mm. in diameter, convex, angulate at P_2 , P_3 and the periphery which is very distinct; diameter at P3 greater than the diameter at periphery; peripheral keel spirally margined by granules of equal size as P₃. Sutures rather deep. Base faintly convex, ornamented with 12 subequal spiral cords, which are distinctly granulose; width of interspace of basals subequal or wider than cords, and numerous interstitial spirals are seen. Aperture roundly quadrangular; outer lip pearly, thin; inner lip pearly, reflected inward to cover umbilicus. Columella short, oblique, without tubercle. Operculum light brown, circular with a nucleus at its centre.

Height 19.7 mm., breadth 19 mm., 9 whorls (figured type specimen). Type locality: Off Tosa (80—100 fms.), Shikoku, Japan.

This new species somewhat resembles Tristichotrochus aculeatus

Sowerby, but can be easily distinguished by the following characters: viz. in this species the secondary spiral row is lacking, the suprasutural 4 or 5 rows are found on the body whorl, the base is almost without brown colour, etc. This species is named in honour of Dr. Iwao Taki for the sixty-first anniversary of his birth.

Amaea iwaotakii Azuma, sp. nov. (Epitoniidae) タキイトカケ (新種・新称) (Text-fig. 4)

Shell small, milky white, without gloss, rather elongated conical in outline; with very deep sutures and many distinct longitudinal ribs which are 35—41 in number on the last whorl, each of which rather similar in size, somewhat irregularly arranged in order, which are provided with a small wavy process near the previous suture, which is very thin and rather curved backward; whorls with many distinct minute spiral striae except the upper 1/3 of each whorl, and the lower peripheral part of the last whorl has a thick spiral stria which is the important character of the genus Amaea. Whorls 13—14 without an umbilical perforation. Aperture roughly pyriform-ovate in outline; lip thin, rather crenulated with feeble minute reflections at the outer margin. Operculum dark grey, ovate-elliptical with a nucleus situated at a position somewhat shifted to the inner side of the aperture from its centre. Radula is represented by only marginal teeth, which bear three minute cusps at its apex.

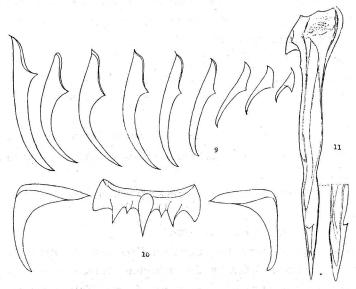
Length 48.5mm., breadth 15.2mm., 13 whorls (figured type specimen). Length 49 mm., breadth 14.8 mm., 14 whorls (paratype specimen, No. 1). Length 50 mm., breadth 15 mm., $13+\alpha$ whorls (paratype specimen, No. 2). Length 42 mm., breadth 13.5 mm., $12+\alpha$ whorls (paratype specimen, No. 3). Length 42.5 mm., breadth 13 mm., $12+\alpha$ whorls (paratype specimen, No. 4). Type locality: Off Tcsa (100 fms.), Shikoku, Japan.

This new species somewhat resembles *Amaea* secunda Kuroda & Ito, but can be easily distinguished by the following characters: each whorl has strong longitudinal ribs and indistinct minute spiral striae; operculum dark grey in colour, etc. This species is named in honour of Dr. Iwao



Text-fig. 1. Tristichotrochus tosaensis Kuroda et Habe. トサエビスガイ frontal view. 2. Latiaxis (Latiaxis) latipinnatus Azuma. トサキキョウ

ニシ frontal view (Type). 3. Tristichotrochus iwaotakii Azuma タキエビスガイ frontal view (Type). 4. Amaea iwaotakii Azuma タキイトカケ frontal view (Type). 5. Epitonium kandai Kuroda et Azuma. カンダイトカケ frontal view (Type). 6. トサキキョウニシ basal view. 7. Murex (Siratus) propinguus Kuroda et Azuma セキトリハッキガイ frontal view (Type) 8. Conus (Asprella) petricosus Azuma イワイモ frontal view (Type).



- 9. Radula of Epitonium kandai Kuroda et Azuma カンダイトカケの歯舌
- 10. The same of Murex (Siratus) propinquus Kuroda et Azuma セキトリハッキガイの歯舌.
- 11. The same of Conus (Asprella) petricosus Azuma イワイモの歯舌.

Taki for the sixty-first anniversary of his birth.

Epitonium kandai Kuroda et Azuma, sp. nov. (Epitoniidae) カンダイトカケ (新種・新称) (Text-fig. 5, 9.)

Shell small, short conical, milky white, sometimes stained dull light gray at the peripheral part of the last whorl, more or less glossy; very deep suture at the half younger whorls, the rest whorls without suture This new species somewhat resembles *Latiaxis* (*Latiaxis*) *deburghiae* (Reeve), but can be easily distinguished by the following characters: spire extremely depressed at the shoulder of the last whorl, the peculiar feature of the long and strong spines of the shoulder of the last whorl, etc. Type and paratype specimens are preserved in my collection.

Conus (Asprella) petricosus Azuma, sp. nov. (Conidae) イワイモ (新種・新称) (Text-figs. 8, 11)

Shell large, thick, very solid, dull creamy in colour, without any colour pattern: periostracum dull yellowish, sublamellar; spire concavely elevated, containing nearly one-fifth in the shell length; whorls 12, the apex eroded, rather widely excavated, appressed at the suture, which is shortly overhanged by the shoulders of previous whorls, the last whorl obtusely angled above and rather convexly for a short distance; incremental growth striae rather distinct and irregular, with very obscure spiral striae; aperture rather wide, very irregularly parallel-sided, very narrow above and gradually wider below; outer lip thick and dull, rather arcuated; columellar margin bearing a very strong subvertical, widely sigmoid fold; throat milky white in colour.

Radula is represented by only marginal teeth, each of which 0.5 mm. long by 0.04 mm. wide, its base has a small horn-like process; its middle part very slender; near the apex there are a minute barb on one side and on another side also a small barb (blade with barb).

Length 80 mm., breadth 33.5 mm., 12 whorls (figured type specimen). Off Tosa, from a deep bottom, said to be about 200 fathoms, only the type specimen, collected by the author.

This species more or less looks like *Conus* (*Endemoconus*) *sieboldi* (Reeve), but differs in the following points: shell very solid, dull creamy without any colour pattern; aperture very irregularly parallel; 5th whorl to 8th whorl have distinct and regular incremental growth striae and radular characters, etc.

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