Description of new and noteworthy Gastropoda from western Pacific Ocean (I)

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(With 1 plate)

西太平洋産腹足類の新種及び注目すべき種 (I

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河村良介氏の莫大優秀な貝類コレクション中、ホネガイ科とカブラガイ科を研究に提供されたので、著者の標本もあわせて、ここに記載する。コガンゼキに似た小形の沖縄産のものをコガンセキモドキとし、アラフラ海産のコセンジュに似た種をカワムラセンジュとした。コウニガンゼキはセプ島沖産の小形の貝で、類縁種は少ない。ホウライカセンはホネガイ科中の一種独特の種である。タイシノカムリはナカミガワカセンに、オトヒメカムリはキノシタカセンに、シカマカセンはスガノミヤカセンにそれぞれ似ているが異なる。カナマルカセンと カワムラサンゴヤドリは、それぞれ Latiaxis kieneri HIDALGO やオトヒメサンゴヤドリ Coralliophila inflata Dunker (=akibumii KIRA) と似ているが、異なる種である。

After publishing a paper of "New and noteworthy Gastropoda from western Pacific and Indian Oceans" (Shikama, 1977), the writer could have a chance to study furthermore interesting shells to study, stored in the famous Kawamura collection by the courtesy of himself. The writer adding a few shells in his own collection, is going to describe them in this paper. Here he extends his cordial thanks to Mr. R. Kawamura for his kindness and generosity. Also his sincere thanks are due to Mr. K. Ozaki of the Geological Institute, Yokohama National University and Dr. Y. Kanie of the Yokosuka City Museum for their different kinds of help during the course of this study.

Chicoreus (Triplex) ryukyuensis, sp. nov. コガンゼキモドキ (新) (Pl. 7, Figs. 1, 2)

Description: Shell small sized, thick, pinkish white with tint of orange colour, fusiform, turrated with 6 volutions of teleoconch. Protoconch small, round, orange red and has 1.5 volutions. Spire high with deep suture and angulated shoulder of whorl. There are running numerous spiral threads. Three varices eminent, thick, stout and carry 8-9 short spines, of which 3 lie on

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siphonal tube; uppermost spine longest, projects upward with rami of distal end moderately developed. Varix runs oblique to suture, benting anteriorly. An axial rib between varices nodulous. Siphonal tube wide, projects leftward. Aperture subrhombic with weak peristome and inner surface of violetish pink.

Holotype: Shell 37.9 mm high and 19.4 mm wide, stored in the KAWAMURA collection.

Locality: Okinawa Islands.

Remarks: This species is like *penchinati* CROSSE in general outline but is distinct from it by absence of brown coloured spiral threads, less and weaker spines of varices.

Description: Shell medium sized, thick, pinkish white in ground colour, fusiform, turrated with 7 volutions of teleoconch. Protoconch small, round, light orange red and with 1.5 volutions. Spire high with deep suture and angulated shoulder of whorl. Numerous spiral threads consist of stronger primary and weaker secondary ones lying between primary ones. Three varices thick, running oblique to suture; spines of varices very short although their rami distinct. Six varix spines beside outer lip moderate in development and brownish black giving distinct contrast against whitish colouration of the shell. Three spines along siphonal tube broad, flat, white and straightly projects anteriorly. Siphonal canal extremely narrow and deep. Two axial ribs between varices nodulous but very weak. Aperture subrhombic with weak peristome and white inner surface which is lustrous.

Holotype: Shell 53.1 mm high and 26.8 mm wide, stored in the KAWAMURA collection.

Locality: Arafura Sea.

Remarks: This unique species may be near aculeatus Lamark (=artemis Radwin et D'Attilio) Radwin and D'Attilio, 1976, p. 32, pl. 4, fig. 4) but is clearly distinct from it by black varix spines of last whorl, very obsolete varix spines of penultimate and its preceding whorls and by 2 weak nodulous axial ridges between varices, etc.

(Pl. 7, Figs. 9, 10)

Description: Shell small sized, thick, fusiform, turrated, white of ground

colour with orange or violetish red tint and with 5 volutions of teleoconch. Protoconch small, round, white and with 1.5 volutions. Spire not high with deep suture and rather angulated shoulder of whorl. Spiral ridges distinct with flat interspaces between them. Seven varices run vertical to suture with black spines projecting posteriorly; they rise from points of varix crossed by spiral ridges. Rami of spines distinct. Surface of whorl shoulder dipressed. Fasciole narrow, flat and twisted. Siphonal tube a little wide, flat and projected straight anteriorly. Siphonal canal narrow and deep. Aperture subphombic with distinct peristome and lustrous white inner surface.

Holotype: Reddish coloured shell 19.3 mm high and 15.7 mm wide, stored in the KAWAMURA collection.

Locality: Off Cebu Island, Philippines.

Remarks: This species may be near melanamathos GMELIN, an Atlantic species in general outline but is distinct from it by less varices, less developed spines, longer spines of shoulder and by smaller size, etc. Famous Pacific species as anatomica Perry, scorpio Linné or zamboi Burch et Burch are clearly distinct by longer spines of eminent rami.

Lataxiena (?) taiwanica, sp. nov. ホウライカセン (中安) (Pl. 7, Figs. 11-16)

Description: Shell medium sized, thick, stout, fusiform, turrated, white of ground colour with yellowish orange tint and with 4 volutions of teleoconch. Protoconch small, round, white and with 2 volutions. Spire high with shallow suture and sharply angulated shoulder of whorl. Many spiral ridges fimbricated. Four primary ridges below shoulder carry many triangular and lamellated spines which are light red, reddish brown or brownish black. Two or four secondary spiral ridges between primary ones far thinner than them and white or brown. There is running a brown to black spiral colour band below suture. Spines of shoulder eminent and project posteriorly. Fasciole rather narrow, white, lustrous and twisted. Aperture lenticular with thin outer lip and white lustrous inner surface. Siphonal tube short, shallow and wide.

Holotype: Shell 37.2 mm high and 22.7 mm wide, stored in the writer's collection.

Referred specimens: Two shells in the KAWAMURA collection; larger shell 39.3 mm high.

Locality: Off Taiwan.

Remarks: This unique species may be near fimbriata HINDS (=lataxiena JOUSSEAME) in general outline and construction of spiral ribs but is distinct by

development of triangular lamellated spines and variegated coloured spiral ribs.

Description: Shell medium sized, thick, pure white, trochoid, turrated and with 5 volutions of teleconch. Protoconch very small, round, greyish white, lustrous and with 2 volutions. Spire high with shallow suture and sharply angulated shoulder of whorl, which carries triangular lamellated spines, projecting upward, which are open against apertural side. Many spiral keels finely torturous and above 16 on a surface above shoulder of last whorl. There are above 20 keels on a surface below it. Four strong keels run on middle height of the surface just mentioned. One to three weaker keels run between the stronger main keels. Fasciole a little broad, twisted with marginal keel consisting of overlapped lamellted spines. Umbilicus open, deep and narrow. Siphonal canal narrow, deep and twisted. Aperture subrhombic with thin outer lip and fine peristome; inner surface lustrous and white with violetish red tint. Operculum thin, suboval and brown.

Holotype: Shell 35.3 mm high and 28.5 mm wide, stored in KAWAMURA collection.

Locality: Off southwest Taiwan; quite rare, procured by coral net fisheries.

Remarks: This species is allied to kinoshitai Fulton in general outline of shell and construction of spiral keels but is distinguished from it by 4 strong main keels of middle height of last whorl below shoulder and by more delicate weaker spiral keels on shoulder surface running with consistent arrangement.

Description: Shell medium sized, thick, trochoid, turrated, pure white and with 5 volutions of teleoconch. Protoconch small, round, dark white and with 2 volutions. Spire high with deep suture and sharply angulated shoulder of whorl. General outline like that of *dunkeri* Kuroda et Habe. Shoulder carries foliated triangular spines, projecting upward, which are open against apertural side, many spiral keels finely laminated. There are 9–10 keels above shoulder of last whorl and 29–30 below it. On the area of siphonal tube there is seen an alternate arrangement of stronger keel and weaker one. No axial ribs. Fasciole narrow, white, lustrous and a little twisted. Unbilicus closed. Siphonal

canal shallow, a little wide and twisted. Aperture subrhombic with sharp peristome and lustrous white inner surface. Operculum thin, suboval and yellowish brown.

Holotype: Shell 34.5 mm high and 22.8 mm wide, stored in the KAWAMURA collection.

Locality: Off southwestern Taiwan; quite rare, procured by coral net fisheries.

Remarks: This species is rather allied to nakamigawai Kuroda and dunkeri Kuroda et Habe, but is distinguished from them by weaker shoulder spines and a little stronger spine-keels.

Description: Shell medium sized, thick, white, rhomboidal with deep suture and sharply angulated shoulder of whorl. Spire high, turrated with 6 volutions of teleoconch. Protoconch very small, round, white and has 1.5 volutions. Shoulder carries narrow spines acutely projected upward and moderately curved. Many spiral keels minutely lancellated, running in alternate arrangement of stronger main keel and weaker secondary one. Nine axial ribs obsolete, crossed by spiral keels, deducing small obloete spines on the crossing points of keels. Surface of shoulder flat and narrow, with 3-4 spiral keels. There are running about 15 main and secondary keels on surface below shoulder of last whorl. Fasciole narrow and a little twisted. Siphonal canal narrow and deep. Aperture subrhombic with thin outer lip and fine peristome. Operculum thin, suboval and yellowish brown.

Syntypes: Two shells stored in the KAWAMURA collection. Larger shell 27.3 mm high and 12.9 mm wide.

Locality: Off Tosa (Kochi); quite rare, gained by coral net fisheries.

Remarks: This species is rather like *filiaregis* Kurohara in general outline of shell but is distinct from it by relatively lower last whorl and eminent spines of shoulder. L. (B.) fearnleyi Emerson et D'Attilio may be near in general outline but is distinguished by more round shoulder and absence of acutely projected spines of shoulder.

Latiaxis (Babelomurex) kanamarui, sp. nov. カナマルカセン (新) (Pl. 7, Figs. 25, 26) Description: Shell medium sized, thick, white, subfusiform with deep suture and angulated shoulder of whorl. Spire high, turrated and with 5 volutions of teleoconch. Protoconch small, dark white and with 2 volutions. Nine axial ribs moderately vaulted and run oblique to suture, carrying small and obtusely projected spines on shoulder. Many spiral keels acute, finely torturous and about 20 below shoulder of last whorl. Shoulder surface narrow and obtusely sloped. Fasciole narrow and twisted. Siphonal tube not long and twisted. Siphonal canal narrow and deep. Aperture suboval with thick outer lip.

Holotype: Shell 33.8 mm high and 20.3 mm wide, stored in the KAWAMURA collection.

Locality: Tosa; quite rare, procured by coral net fisheries.

Remarks: Species *kieneri* HIDALGO is rather near this species but is distinguished from it by acute spines on shoulder, toutrous spiral keels and by narrower and longer siphonal tube, etc.

Description: Shell small sized, thick, stout, white, subrhomboidal with deep suture and round shoulder of whorl. Spire rather high, turrated and with 4 volutions of teleoconch. Protoconch small, dark white, round and has 2 volutions. Last whorl relatively large sized. About 11 axial ribs of last whorl distinct, running oblique to suture. Spiral keels sharp, finely lamellated crossed by axial ribs, deducing cancellated sculpture of whorl surface and obtuse short spines projecting upward on the cross points. Fasciole narrow, white and twisted. Siphonal tube long, narrow and twisted. Siphonal canal narrow, deep and twisted. Aperture subrhombic with relatively thick outer lip. Operculum thin, suboval and brown.

Syntypes: Two shells stored in the Kawamura collection. The larger shell 32.5 mm high and 18.4 mm wide.

Locality: Tosa; quite rare, procured by coral net fisheries.

Remarks: This species is related to *inflata* DUNKER (=akibumii KIRA) in general outline of shell but is distinct from it by spines of ribs, more acutely fimbricated spiral keels and by relatively larger siphonal canal, etc. C. alucoides BLAINV of Mediterranean Sea is rather like this species in general outline and sculpture of shell but is distinct from it by obsolete spines of ribs, less axial ribs and by relatively shorter siphonal tube, etc.

Literature cited

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Explanation of plate 7

All figures are in natural size.

Figs. 1, 2. Chicoreus (Triplex) ryukyuensis, sp. nov. Holotype.

Figs. 3, 4, 7, 8. Chicoreus (Triplex) ryosukei, sp. nov. Referred specimens.

Figs. 5, 6. Chicoreus (Triplex) ryosukei, sp. nov. Holotype.

Figs. 9, 10. Homalocantha echiniformis, sp. nov. Holotype.

Figs. 11, 12. Lataxiena (?) taiwanica, sp. nov. Holotype.

Figs. 13-16. Lataxiena (?) taiwanica, sp. nov. Referred specimens.

Figs. 17, 18. Latiaxis (Tolema) filiaris, sp. nov. Holotype.

Figs. 19, 20. Latiaxis (Tolema) regius, sp. nov. Holotype.

Figs. 21-24. Latiaxis (Babelomurex) michikoae, sp. nov. Syntypes.

Figs. 25, 26. Latiaxis (Babelomurex) kanamarui, sp. nov. Holotype.

Figs. 27-30. Coralliophila (Hirotomurex) kawamurai, sp. nov. Syntypes.

Photos by K. OZAKI.

