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

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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 (II)

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西太平洋産腹足類 (I) に続き、イモガイ類の次の新種、新亜種、新型を記載した。アヤムラサキイモ Conus (Leporiconus) blatteus、新種・新称;ミズヒキイモ C. (Rhizoconus) clandestinatous、新種:ムラサキカミスジイモ C. (R.) clandestinus purpuratus、新亜種・新称;カイゾクイモ C. (R.) suluensis、新種・新称;カワムライモ C. (Leptoconus) zukiae、新種・新称;タテニシキイモ C. (L.) thalassiarcus forma ikatt、新型・新称;カミナリイモ C. (Strioconus) brontodes、新種・新称;ハナガスミイモ C. (Chelyconus) kinoshitai forma calliginosus、新型・新種. なお、かつて独立種と考えた C. tamiko-ana を C. (Chelyconus) kinoshitai の一型とし、タミコイモの名を与えた。

Conus (Leporiconus) blatteus, sp. nov. アヤムラサキイモ (新) (Pl. 1, figs. 1, 2)

Description: Shell small sized, rather thick, reddish purple in ground colour, fusiform with shallow suture and round shoulder. Both lines of last whorl gently curved. Spire high, turreted with 7 volutions of teleoconch. Protoconch small, round, lustous, light yellowish brown and has 2 volutions. Subsutural band slightly vaulted. Many spiral striations run on shoulder surface which is gently sloped. Surface of last whorl smooth, lustrous, carries many brownish purple spiral lines and feeble spiral striations. There are 3 colour bands with brown patches on shoulder, middle, and anterior portions of last whorl. Brown axial colour bands are oblique to suture on spire. Fasciole narrow, whitish and twisted. Aperture narrow with thin outer lip and lustrous purplish white inner surface.

Holotype: Shell 33.6 mm high and 14.0 mm wide, stored in the KAWAMURA collection.

Locality: Off Taiwan.

Remarks: This species is near tenuisulcatus Sow., 1882 in general outline and ground colour of last whorl but is distinct from it by apparent colour bands

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with brown patches. Species glans Brug. (Marsh and Rippingale, 1964) is clearly different from this species in more distinct and tortuous spiral striations and spiral colour bands without patches. Species scabrisculus Dillwyn, 1817 (Marsh and Rippingale, 1964) is far distant from this species as judged from general outline, more distinct spiral striations and from distinct white outline, more distinct spiral striations and from distinct whorl.

Conus (Rhizoconus) clandestinatous, sp. nov.
$$\forall x \in \mathcal{X} \in \mathcal{X}$$
 (Pl. 1, figs. 3, 4)

Description: Shell small to medium sized, rather thin, elongate conical with straight side lines. Spire relatively small and acutely projected from slightly sloped shoulder surface. Suture shallow and shoulder sharply angulated. Teleoconch has 8 volutions protoconch very small, round, yellowish brown and has 2 volutions; Shoulder surface carries axial brown lines running oblique to suture. Surface of last whorl flat, smooth, lustrous and white of ground colour. There are many spiral brown lines which become often broken. Two orange yellow spiral bands run on last whorl. Anterior tip of last whorl has 5 rather strong spiral keels of brown colour; their brown colouration becomes often broken. Fasciole and aperture narrow with thin outer lip and white lustrous inner surface with orange tint.

Holotype: Shell 43.5 mm high and 22.5 mm wide, stored in the KAWAMURA collection.

Referred specimens: Two shells in the KAWAMURA collection and 2 in the writer's collection; the largest shell 48.8 mm high and 23.5 mm wide.

Locality: South China Sea; not common.

Remarks: This species is related to *volminalis avus* PILSBRY in general outline and colour pattern, but is distinguished from it by distinct brown spiral lines, 2 orange colour bands and by brown axial lines on shoulder surface. Species avus has more spiral striations on shoulder surface which is weakly undulated. Species *urashimanus* Kuroda & Ito, 1961 and *gloriakiiensis* Kuroda & Ito, 1961 are similarly different from the new one.

(Pl. 1, figs. 5, 6)

Description: Shell medium sized, rather thin, elongate conical with straight side lines. Teleoconch has 10 volutions, shallow sutures and angulated shoulder of whorl. Protoconch small, round, brownish purple and has 2 volutions. Spire

small and projected from gently sloped shoulder surface which become nodulous. Surface of last whorl flat, smooth, lustrous and bluish purple of ground colour with brown spiral lines which become often broken; there are 2 light brown colour bands. Anterior tip of last whorl carries 5 spiral keels. Fasciole narrow and whitish. Aperture narrow with thin outer lip.

Holotype: Shell 45.7 mm high and 21.6 mm wide, stored in the KAWAMURA collection.

Locality: South China Sea, off Taiwan; quite rare.

Remarks: This subspecies is distinguished from *clandestinus* CHEMNITZ by coarser spiral brown lines and bluish purple ground colouration.

Description: Shell medium sized, rather thin, elongate conical with straight side lines and gently sloped shoulder surface. Teleoconch has 10 volutions, shallow sutures and acutely angulated shoulder. Protoconch small, round, light brown and has 2 volutions. Spire small, acutely projected from shoulder surface which carries many spiral striations. Surface of last whorl flat, smooth, lustrous, white with bluish purple thint and has about 15 weak spiral grooves on anterior portion of it. There are many spiral brown dotted lines and 2 spiral yellowish brown colour bands. Axial yellowish brown colour bands run oblique to suture on shoulder surface. Also there are axial yellowish brown colour bands on surface of last whorl. Fasciole narrow, white and a little twisted. Aperture narrow with thin outer lip and white lustrous inner surface.

Holotype: Shell 54.4 mm high and 22.9 mm wide, stored in the KAWAMURA collection.

Locality: Sulu Sea, about 100 m deep off Cebu Island, Philippines.

Remarks: This species is rather allied to *clandestinus purpuratus* subsp. nov. but is distinct from it by more flat shoulder surface with many spiral striations, more spiral grooves on anterior portion of last whorl and by axial brown colour bands on last whorl.

Description: Shell large sized, conical with almost straight both lines. Spire not high with 7 volutions of teleoconch. Shoulder of whorl moderately angulated and surface of shoulder feebly depressed. Plane of spire almost flat

or a little depressed. Suture shallow and subsutural band carries a spiral striation. Surface of last whorl smooth, lustrous and yellowish brown in ground colour with many spotted spiral lines of brown colour which have relatively wide ones and very thin ones. Wide brownish black colour bands run on shoulder and middle of last whorl carrying many white triangular blotches. There are brownish black zigzag lines on shoulder surface of white colouration; the lines run oblique to suture. Anterior tip of last whorl thick brown with concentrated growth lines. Aperture narrow with thin outer lip and white lustrous inner surface.

Holotype: Shell 70.5 mm high and 37.3 mm wide, stored in the KAWAMURA collection.

Locality: Off Philippines.

Remarks: This species is near amadis GMELIN, 1791 (MARSH and RIPPINGALE, 1964), ammiralis L., 1758, thalassiarchus Sow., 1882 or maldivus BRUG., etc. in general outline and basal pattern of colouration, but is distinct from them by relatively wide black bands of shoulder and middle of last whorl. Species maldivus HWASS (KOHN, 1968) may be nearest but is distinguished from this species by characteristics just mentioned, undepressed shoulder surface and by absence of a subsutural striation.

Description: Shell medium sized, conical, thick with straight both lines. Spire not high and shoulder surface of last whorl flat. Surface of last whorl flat, smooth, lustrous and lemon yellow of ground colour with many white blotches which are almost subquadrate or subtriangular, longer than wide in spiral direction. Spire surface nearly white and rather flat. Anterior tip of last whorl almost white. Aperture narrow with thin outer lip and white lustrous inner surface.

Specimen described: Shell 58.7 mm high and 31.3 mm wide, stored in the KAWAMURA collection.

Locality: Off Zamboanga, Mindanao Island, Philippines.

Remarks: The writer is going to regard this shell as a new form allied to the Palawan type of *thalassiarchus* Sow., 1882. Several subspecific names may be proposed in this species.

Description: Shell medium sized, thin, elongate conical with gently curved

side lines, white with light purple tint. Teleoconch has 7 volutions, shallow sutures and moderately angulated shoulder of last whorl. Shoulder surface gently sloped with many spiral striations. Spire moderately high. Shoulder white with brown axial patches. Surface of last whorl flat, smooth with few spiral grooves on anterior tip and brown to white irregular patches.

Holotype: Shell 46.2 mm high and 23.6 mm wide, stored in the KAWAMURA collection.

Locality: Off Taiwan; quite rate.

Remarks: This species is rather near to gubernator Brug., 1792 (Marsh and Rippingale, 1964) in general outline, ground colour and pattern of colour patches, but is distinct from it by more obsolute spiral grooves of anterior tip, absence of axial brown bands of spire and by relatively narrower anterior portion of last whorl, etc.

Conus (Chelyconus) kinoshitai Kuroda forma calliginosus, nom. nov.

(Pl. 1, figs. 15, 16)

Description: Shell medium sized, thin, subconical with gently curved side lines and much sloped shoulder surface. Spire rather high with shallow sutures and angulated shoulder of last whorl. Teleoconch has 8 volutions and many spiral striations on shoulder surface. Protoconch small, round, greyish white and has 2 volutions. Surface of last whorl smooth, lustrous and white with light purple tint. It carries 3 spiral light brown colour bands and many small white irregular patches. Anterior tip of last whorl has about 8 shallow spiral grooves. Shoulder has many small brown spotts. Fasciole narrow and twisted. Aperture narrow with thin outer lip.

Specimen described: Shell 51.3 mm high and 21.3 mm wide, stored in the KAWAMURA collection.

Locality: Off Taiwan; quite rate.

Remarks: This form belongs to *kinoshitai* Kuroda, 1956, a very variable species of the Japanese water. It may situate between *kinoshitai* and forma *wistaria* Shikama.

Conus (Chelyconus) kinoshitai Kuroda forma tamikoana Shikama

(Pl. 1, fig. 17)

1973. Conus (Virgiconus) tamikoana Shikama, pp. 7-8, pl. 1, figs. 8, 9.

Specimen: A medium sized shell from off Taiwan stored in the KAWAMURA

collection.

Remarks: This form is beautiful yellow form, a noteworthy mutant of kinoshitai Kuroda, 1956, normal type of which has shells of purple ground colour with brown blotches. The writer ever described this as a new species from East China Sea.

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Explanation of plate 1

All figures are in natural size.

- Figs. 1, 2. Conus (Leporiconus) blatteus, sp. nov. Holotype.
- Figs. 3, 4. Conus (Rhizoconus) clandestinutous, sp. nov. Holotype.
- Figs. 5, 6. Conus (Rizoconus) clandestinus purpuratus, subsp. nov. Holotype.
- Figs. 7, 8. Conus (Rhizoconus) suluensis, sp. nov. Holotype.
- Figs. 9, 10. Conus (Leptoconus) zukiae, sp. nov. Holotype.
- Figs. 11, 12. Conus (Leptoconus) thalassiarchus Sow. forma ikatt, nom. nov.
- Figs. 13, 14. Conus (Strioconus) brontodes, sp. nov. Holotype.
- Figs. 15, 16. Conus (Chelyconus) kinoshitai Kuroda forma Caliginosus, nom. nov.
- Fig. 17. Conus (Chelyconus) kinoshitai Kuroda forma Shikama.

Photos by K. OZAKI.

