

Marine Molluscs from the Northern Mariana Islands, Micronesia

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Abstract More than 520 species of marine molluscs were recorded from the northern Mariana Islands. At least 190 species are new records for these islands. Possibilities of pseudopopulations of several species of intertidal littorinids and neritids are discussed.

Key words: Marine molluscs, northern Mariana Islands, pseudopopulation.

The northern Mariana Islands are located in the western Pacific between 16°22'N and 20°32'N. The marine molluscan fauna of the islands has been described by Eldredge *et al.* (1977) and Vermeij *et al.* (1983). Vermeij *et al.* (1983) recorded 315 species and discussed oceanic dispersal barriers between the northern Marianas and Hawaii. From May to June 1992, an expedition to the northern Mariana Islands was conducted by the Natural History Museum and Institute, Chiba (NHMIC) in cooperation with the Division of Fish and Wildlife, Department of Natural Resource (Commonwealth of the Northern Mariana Islands) and University of Guam Marine Laboratory. In this paper, we have compiled a list of marine molluscs, based on the specimens collected during the expedition and records previously published in the literatures.

Study Sites and Methods

The northern Mariana Islands consist mainly of nine islands, from south to north Anatahan, Sarigan, Guguan, Alamagan, Pagan, Agrihan, Asuncion, Maug (3 small islets) and Uracas. These islands had a Quaternary volcanic origin, and their shapes are basically acutely triangular. Volcanic activity occurs on Pagan and Uracas at the present time.

Most of the shores are formed by rocky cliffs, with pockets of boulder beaches among the rocky shores. The intertidal zones are very exposed to heavy wave action. Boulder beaches are composed of large stones ca. 30 cm in

diameter. Sandy or gravel beaches are rare on Alamagan (st. A), Pagan (sts. D, E), Agrihan (st. C) and East Island of Maug (st. A). Raised limestone shores are restricted to Pagan (st. D) and Agrihan (st. C).

Rocky intertidal regions are often bare, not covered by weeds or sessile animals. Middle to lower intertidal zones are covered by non-articulated coralline algae. Only in the large tide pools does *Sargassum* and/or *Halimeteron* occurs densely (e.g. Guguan st. C and Uracas st. A). Most of areas in subtidal zones less than 5 m depth are also not covered by any organisms, and composed of rocks or boulders. Corals rarely occur in the sheltered area of subtidal zones. Massive colonies of *Porites* occur on st. E of Pagan and the corymbose type of *Stylophora* is dominant on st. B of Maug.

See Asakura *et al.* (1994) for detailed information on each sampling stations.

Sampling was done in intertidal and subtidal areas as well as on upper shores. Living animals were taken by hand from the intertidal zones, and skin and SCUBA dives were also made in shallow subtidal zones. Drift specimens were also collected on upper shores, especially st. E of Pagan. Minute shells were extracted from sands deposited on the cliffs (alt. 5 m) at st. C of Guguan and st. B of Agrihan. This sand might have been drifted by heavy wave action from the mainly subtidal zones.

The list is composed of collected species and species previously recorded from the northern Marianas. Information about the material is as

follows: scientific name, Japanese common name, number of specimens examined, sampling site, habitat or sampling method, collector, registration number in the NHMIC with code CBM-ZM, and date in 1992; "d" after the number of specimen indicates dead (empty) shell. Habitat or sampling method are abbreviated as follows: RI = rocky intertidal, BD=beach drift, BI=boulder intertidal, Dive=SCUBA or skin diving. Abbreviations of the collectors are as follows: AA=Akira Asakura, TK= Taiji Kurozumi, HH = Hiroshi Harada, TO= Tatsuyuki Ohba and TF = Tatsuwo Furuki of the NHMIC, and TP=Todd Pitlick and PS=Peter Schupp of University of Guam Marine Laboratory. Abbreviations of island names for "Previous record" are as follows: AG= Agrihan, AL = Alamagan, AN = Anatahan, AS = Asuncion, G = Guguan, M = Maug, P=Pagan, S=Sarigan and U=Uracas.

Scientific nomenclature in the list mainly follows Kuroda (1960) and Higo and Goto (1992).

List of Marine Molluscs

Class Polyplacophora Order Neoloricata

1. Polyplacophora sp.

Previous record. P (Vermeij *et al.*, 1983).

Family Mopaliidae

2. Mopaliidae sp.

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-108341, 29 May; 1 ex., st. C, RI, AA leg., CBM-ZM-107296, 30 May.

Family Chitonidae

3. *Acanthopleura spinosa* (Bruguère)

Uni-hizara

Material examined. ANATAHAN: 11 exs., st. B, RI, AA leg., CBM-ZM-107302 & 107312, 12 May; 1 ex., st. B, RI, TK leg., CBM-ZM-107303, 12 May; 1 ex., st. D, RI, TK leg., CBM-ZM-107304, 14 May. SARIGAN: 3 exs., st. A, RI, AA leg., CBM-ZM-107311, 15 May. GUGUAN: 3 exs., st. B, RI, AA leg., CBM-ZM-107307, 17 May. ALAMAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107308, 9 June. PAGAN: 1 ex., st. C, RI, AA leg., CBM-ZM-107305, 26 May; 1 ex., st.

D, RI, TK leg., CBM-ZM-107306, 27 May. AGR-IHAN: 4 exs., st. A, RI, AA leg., CBM-ZM-107309, 28 May. ASUNCION: 2 exs., st. A, RI, AA leg., CBM-ZM-107310, 1 June. MAUG, E: 20 exs., st. A, RI, AA leg., CBM-ZM-107299, 2 June; 5 exs., st. A, RI, TK leg., CBM-ZM-107300, 2 June. MAUG, N: 2 exs., st. F, RI, AA leg., CBM-ZM-107301, 3 June.

Previous record. AN, P & M (Vermeij *et al.*, 1983).

4. Chitonidae spp.

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-108342, 29 May. MAUG, W: 3 exs., st. E, RI, AA leg., CBM-ZM-107298 & 107499, 4 June. MAUG, N: 1 ex., st. F, RI, AA leg., CBM-ZM-107297, 3 June.

Family Acanthochitonidae

5. Acanthochitonidae sp.

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107920, 29 May.

Class Gastropoda

Subclass Prosobranchia

Superorder Archeogastropoda

Order Patellogastropoda

Family Patellidae

6. *Patella (Penepatella)* sp.

Material examined. ANATAHAN: 2 exs., st. A, RI, AA leg., CBM-ZM-107350, 10 May; 3 exs., st. A, RI, AA leg., CBM-ZM-107353, 11 May; 1 ex., st. C, RI, AA leg., CBM-ZM-107359, 13 May; 1d ex., st. D, BD, AA leg., CBM-ZM-107362, 14 May. SARIGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107364, 15 May. GUGUAN: 1d ex., st. B, BD, AA leg., CBM-ZM-107370, 17 May; 3d exs., st. C, Dive, TK leg., CBM-ZM-107372, 18 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106574, 24 May; 1 ex., st. A, BD, AA leg., CBM-ZM-107377, 24 May; 10d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106459, 26 May; 28d exs., st. C, BD, TK leg., CBM-ZM-106513 & 107587, 26 May; 25d exs., st. D, BD, AA leg., CBM-ZM-106289, 27 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106682, 27 May; 45d exs., st. E, BD, TK leg., CBM-ZM-106068, 24 May; 27d exs., st. E, BD, AA leg., CBM-ZM-106184, 24 May; 2d exs., st. F, BD, TK leg., CBM-ZM-106558, 24 May. AGR-IHAN: 6d exs., st. B, BD, TK leg., CBM-ZM-107835 & 52, 29 May; 13d exs., st. C,

BD, TK leg., CBM-ZM-105946, 30 May; 1d ex., north coast, Dive, PS & TP leg., CBM-ZM-106809, 29 May. ASUNCION: 7 exs., st. A, RI, AA leg., CBM-ZM-107390, 1 June; 9d exs., st. A, RI, AA leg., CBM-ZM-107584, 1 June. MAUG, E: 11 exs., st. A, BD, TK leg., CBM-ZM-106017, 2 June; 9 exs., st. A, RI, AA leg., CBM-ZM-107395, 2 June; 1d ex., Dive, PS & TP leg., CBM-ZM-107555, 3 June. MAUG, N: 6d exs., north coast, Dive (4–5 m), TP leg., CBM-ZM-106796, 3 June; 11 exs., st. F, AA leg., CBM-ZM-107400, 3 June. MAUG, W: 1d ex., st. E, AA leg., CBM-ZM-107405, 4 June.

Previous record. As *P. flexuosa* Quoy & Gaimard from AN, G, P, AS & M (Vermeij *et al.*, 1983).

Remarks. Vermeij *et al.* (1983) identified this species as *P. flexuosa*, but Fukuda (1993) reported that the systematic status of specimens from the Ogasawaras was yet uncertain. Morphological characteristics, such as elongated shell form, a smaller shell than *P. optima* with some black spots on the margin, of specimens from the northern Marianas agree well with those of the Ogasawaras. Therefore, we have treated this from as *P. (Penepatella)* sp. in this list.

Family Nacellidae

7. *Cellana* spp.

Material examined. ANATAHAN: 25 exs., st. A, RI, AA leg., CBM-ZM-106831 & 107354, 10 May; 1 ex., st. A, RI, AA leg., CBM-ZM-107355, 11 May; 2d exs., st. B, BD, TK leg., CBM-ZM-106447, 12 May; 6 exs., st. B, RI, AA leg., CBM-ZM-107356, 12 May; 1 ex., st. B, RI, TK leg., CBM-ZM-107357, 12 May; 10 exs., st. C, RI, AA leg., CBM-ZM-107360, 13 May; 3 exs., st. D, RI, TK leg., CBM-ZM-106915, 14 May. SARIGAN: 4 exs., st. A, RI, AA leg., CBM-ZM-107365, 15 May. GUGUAN: 1 ex., st. B, RI, TK leg., CBM-ZM-106960, 17 May; 10 exs., st. B, RI, AA leg., CBM-ZM-107371, 18 May; 2d exs., st. C, BD, TK leg., CBM-ZM-107953, 18 May; 3d exs., st. C, RI, TK leg., CBM-ZM-107373, 18 May. ALAMAGAN: 4 d exs., st. A, BD, TK leg., CBM-ZM-106431, 18 May; 20d exs., st. A, BD, AA leg., CBM-ZM-107021, 19 May; 25 exs., st. A, RI, AA leg., CBM-ZM-107375, 9 June; 6 exs., st. B, Dive, TK leg., CBM-ZM-107044, 8 June. PAGAN: 2d

exs., st. A, BD, TK leg., CBM-ZM-106575, 24 May; 25 exs., st. A, RI, AA leg., CBM-ZM-107376, 24 May; 5d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106460, 26 May; 19d exs., st. C, BD, TK leg., CBM-ZM-106514 & 107588, 26 May; 2 exs., st. C, RI, AA leg., CBM-ZM-107379, 26 May; 5 exs., st. C, Dive, TK leg., CBM-ZM-107380, 26 May; 2 exs., st. D, RI, TK leg., CBM-ZM-107233, 27 May; 5 exs., st. D, RI, AA leg., CBM-ZM-107381, 27 May; 2d exs., st. D, RI, TK leg., CBM-ZM-107382, 27 May; 9d exs., st. E, BD, TK leg., CBM-ZM-106067, 24 May; 2d exs., st. E, BD, AA leg., CBM-ZM-106185, 24 May; 1d ex., Dive, TP leg., CBM-ZM-106755, 27 May. AGRIHAN: 20 exs., st. A, RI, AA leg., CBM-ZM-107384, 28 May; 4d ex., st. B, RI, TK leg., CBM-ZM-107105 & 107853, 29 May; 141 exs., st. C, BD, AA leg., CBM-ZM-105947, 30 May. ASUNCION: 100d exs., st. A, RI, AA leg., CBM-ZM-107583, 1 June; 7 exs., st. B, RI, AA leg., CBM-ZM-107392, 7 June. MAUG, E: 1 ex., st. A, BD, TK leg., CBM-ZM-106018, 2 June; 13 exs., st. A, RI, AA leg., CBM-ZM-107396, 2 June; 4 exs., st. A, RI, TK leg., CBM-ZM-107398, 2 June; 2 exs., st. B, RI, TK leg., CBM-ZM-107399, 2 June. MAUG, N: 7 exs., st. F, RI, AA leg., CBM-ZM-107401, 2 June. MAUG, W: 1 ex., st. E, RI, AA leg., CBM-ZM-107406, 4 June.

Previous record. As *C. toreuma* (Reeve) from AN, G, P, AS, M & U (Vermeij *et al.*, 1983).

Remarks. As Asakura and Kurozumi (1991) discussed, shell morphology of the *Cellana toreuma* species group in the northern Marianas was highly variable. At least two types were recognized: a tall, thick shell type with radial ribs, inhabiting rocky surfaces in middle to lower intertidal zones, and a flat, thin, smooth type living beneath the smooth boulders in the lower intertidal to subtidal areas. However, these two types could not be clearly distinguished and are treated as *Cellana* spp.

Family Lottiidae

8. *Nipponacmea boninensis* (Asakura & Nishihama)

Ogasawara-aogai

Material examined. ANATAHAN: 7 exs., st. A, BI, AA leg., CBM-ZM-107352, 11 May; 18 exs., st. A, BI, TK leg., CBM-ZM-106850, 11 May; 70 exs., st. C, BI, AA leg., CBM-ZM-107358,

13 May; 7 exs., st. C, BI, AA leg., CBM-ZM-107361, 14 May. SARIGAN: 2 exs., st. A, BI, TK leg., CBM-ZM-107366, 16 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106577, 24 May; 25 exs., st. A, BI, AA leg., CBM-ZM-107376, 24 May; 20 exs., st. B, BI, AA leg., CBM-ZM-107378, 25 May; 2 exs., st. C, BI, AA leg., CBM-ZM-107379, 26 May; 5 exs., st. C, Dive, TK leg., CBM-ZM-107380, 26 May; 5 exs., st. D, BI, AA leg., CBM-ZM-107381, 27 May; 2d exs., st. D, BI, TK leg., CBM-ZM-107382, 27 May. AGRIHAN: 20 exs., st. A, BI, AA leg., CBM-ZM-107384, 28 May; 1 ex., st. B, BI, AA leg., CBM-ZM-107387, 29 May. ASUNCION: 40 exs., st. A, BI, AA leg., CBM-ZM-107389, 1 June. MAUG, W: 20 exs., st. E, BI, AA leg., CBM-ZM-107404, 4 June.

Previous record. As *Notoacmea* cf. *N. shrenkii* (Lishke) [*N. schrenckii* (Lischke)] from AN, G, AL, P, AS & M (Vermeij *et al.*, 1983).

9. *Patelloida lentiginosa* (Reeve)

Taiwan-siborigasa

Material examined. ANATAHAN: 1 ex., st. D, RI, TK leg., CBM-ZM-106916, 14 May. GUGUAN: 3d exs., st. C, BD, TK leg., CBM-ZM-107952 & 84, 18 May. ALAMAGAN: 2 exs., st. B, Dive, TK leg., CBM-ZM-107045, 8 June. PAGAN: 7d exs., st. A, BD, TK leg., CBM-ZM-106578, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106461, 26 May; 9d exs., st. C, BD, TK leg., CBM-ZM-106515 & 107589, 26 May; 6 exs., st. C, Dive, TK leg., CBM-ZM-107216, 26 May; 5 d exs., st. E, BD, TK leg., CBM-ZM-106065, 24 May; 22d exs., st. E, BD, AA leg., CBM-ZM-106183, 24 May. AGRIHAN: 22d exs., st. B, BD, TK leg., CBM-ZM-107836 & 107854, 29 May; 70d exs., st. C, BD, AA leg., CBM-ZM-105945, 30 May. ASUNCION: 2d exs., st. A, RI, AA leg., CBM-ZM-107586, 1 June;

10. *Yayoiacmea oyamai* (Habe)

Yayoi-hanagasa

Material examined. GUGUAN: 3d exs., st. C, BD, TK leg., CBM-ZM-107951, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106675, 24 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106066, 24 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107248, 27 May. AGRIHAN: 9d exs., st. B, BD, TK leg., CBM-ZM-107855, 29 May. MAUG, E: 1 ex., st. C, Dive, TK leg., CBM-ZM-107513, 4 June.

11. "Acmaeidae" sp. A

Previous record. G, P, AS & U (Vermeij *et al.*, 1983).

12. "Acmaeidae" sp. B

Previous record. AN & P (Vermeij *et al.*, 1983).

Order Vetigastropoda

Family Haliotidae

13. *Ovinotis ovina* (Gmelin)

Ma-anago

Previous record. G & P (Vermeij *et al.*, 1983).

14. *Sanhaliotis* sp. A

Material examined. PAGAN: 5d exs., st. A, BD, TK leg., CBM-ZM-106579 & 106667, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106462, 26 May; 2d exs., st. C, BD, TK leg., CBM-ZM-107591, 26 May; 1d ex., st. D, BD, AA leg., CBM-ZM-106288, 27 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106733, 27 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106062, 24 May; 5d exs., st. E, BD, AA leg., CBM-ZM-106181, 24 May.

Previous record. As *Haliotis jacnensis* Reeve from P (Vermeij *et al.*, 1983).

Remarks. Vermeij *et al.* (1983) identified this species as *Haliotis jacnensis*. Specimens from the northern Marianas, however, exhibit the following characters: concave ventral margin, numerous regular radial ribs and dark reddish brown color; they may be a different species.

15. *Sanhaliotis* sp. B

Ana-mamori

Material examined. PAGAN: 1d ex., Dive, TP leg., CBM-ZM-106756, 27 May. AGRIHAN: 2 exs., st. A, RI, AA leg., CBM-ZM-107580, 28 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106016, 2 June; 4 exs., st. A, RI, TK leg., CBM-ZM-107445, 2 June; 3 exs., st. A, RI, AA leg., CBM-ZM-107420, 2 June; 10 exs., M. north coast, RI, HH leg., CBM-ZM-107554, 5 June. MAUG, N: 6 exs., st. F, RI, AA leg., CBM-ZM-107459, 3 June.

Previous record. As *Haliotis varia varia* L. from G, P, AN & M (Vermeij *et al.*, 1983).

Remarks. Vermeij *et al.* (1983) identified this species as *Haliotis varia varia*. Fukuda (1993) distinguished the specimens in the Ogasawaras from *S. varia* and/or *S. stomatiaeformis*, and considered that they probably represented an undescribed species. The morphology of specimens from the northern Marianas agrees well

with that of specimens from the Ogasawaras, and, therefore, the distribution range of this species should be expanded to the south.

16. *Sanhaliotis* sp. C

Material examined. PAGAN: 4d exs., st. C, BD, TK leg., CBM-ZM-107590, 26 May; 3d exs., st. E, BD, TK leg., CBM-ZM-106063, 24 May; 9d exs., st. E, BD, AA leg., CBM-ZM-106180, 24 May.

Previous record. As *Haliotis planata* Sowerby from AN, G, P, AG & M (Vermeij *et al.*, 1983).

Remarks. Vermeij *et al.* (1983) identified this species as *Haliotis planata*. All the shells obtained from the northern Marianas are flat and tiny, with a completely smooth surface. This may be an undescribed species.

Family Scissurellidae

17. *Scissurella coronata* Watson

Kogiku-kuchikire-ebisu

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107856, 29 May. MAUG, N: 1 ex., st. F, AA leg., CBM-ZM-107403, 3 June.

Previous record. P & M (Vermeij *et al.*, 1983).

18. *Scissurella* cf. *S. pseudoaequatoria* Kay

Previous record. G, P, AS & M (Vermeij *et al.*, 1983).

19. *Scissurella* cf. *S. carinata* Watson

Previous record. P & M (Vermeij *et al.*, 1983).

Family Fissurellidae

20. *Emarginula concinna* A. Adams

Kinuji-susokire

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107674, 29 May.

21. *Emarginula dilecta* A. Adams

Previous record. G, P, AG & M (Vermeij *et al.*, 1983).

22. *Emarginula* cf. *E. peasei* Thiele

Material examined. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-107838 & 107858, 29 May.

23. *Emarginula* sp.

Previous record. G, AS & M (Vermeij *et al.*, 1983).

24. *Emarginella eximia* (A. Adams)

Koban-susokire

Material examined. GUGUAN: 4d exs., st. C, BD, TK leg., CBM-ZM-107922 & 107983, 18 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107860, 29 May. MAUG, E: 1 ex., st. B, Dive,

TK leg., CBM-ZM-107407, 5 June.

25. *Emarginella biangulata* (Sowerby)

Hutakado-susokire

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107861, 29 May.

26. *Scutus unguis* (L.)

Ryukyu-otomegasa

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107982, 18 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107862, 29 May.

Previous record. P (Vermeij *et al.*, 1983).

27. *Montfortista kirana* Habe

Mikaeri-chidorigasa

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107859, 29 May.

28. *Montfortulana eurythma* (Dautzenberg)

Wakiyorigai

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106580, 24 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107592, 26 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106064, 24 May; 3d exs., st. E, BD, AA leg., CBM-ZM-106182, 24 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105953, 30 May.

29. *Diodora (Elegidion) granifera* (Pease)

Material examined. GUGUAN: 5 exs., st. B, RI, TK leg., CBM-ZM-106975, 17 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107857, 29 May. MAUG, N: 1 ex., st. F, RI, AA leg., CBM-ZM-107402, 3 June.

Previous record. G, P, AS & M (Vermeij *et al.*, 1983).

30. *Diodora (Elegidion) quadriradiata* (Reeve)

Tengai

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107837, 29 May.

31. *Diodora (Elegidion) semilunata* Habe

Mikazuki-tenngai

Material examined. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-107921 & 108337, 18 May. MAUG, N: 1 ex., st. F, RI, AA leg., CBM-ZM-108336, 3 June.

Family Trochidae

32. *Danilia* cf. *D. eucheliformis* Nomura & Hatai

Previous record. P (Vermeij *et al.*, 1983).

33. *Euchelus pauperculus* (Lischke)

Ibo-sanshogai-modoki

Previous record. G, P & M (Vermeij *et al.*, 1983).

34. *Euchelus cf. E. pauperculus* (Lischke)

Material examined. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108024, 9 June. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106071, 24 May.

35. *Euchelus cf. E. foveolatus* (A. Adams)

Previous record. G & M (Vermeij *et al.*, 1983).

36. *Euchelus cf. E. instrictus* (Gould)

Material examined. AGRIHAN: 5d exs., st. B, BD, TK leg., CBM-ZM-107863, 29 May.

37. *Fautor cf. F. comptus* (A. Adams)

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106186, 24 May.

38. *Eurytrochus affinis cognatus* (Pilsbry)

Kuruma-chigusa

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106582, 24 May; 6d exs., st. E, BD, TK leg., CBM-ZM-106075 & 106189, 24 May. MAUG, E: 2 exs., st. C, Dive, TK leg., CBM-ZM-107514, 4 June. MAUG, W: 6 exs., st. E, RI, AA leg., CBM-ZM-107463, 4 June.

39. "*Gibbula*" *marmorea* (Pease)

Material examined. GUGUAN: 42 exs., st. B, RI, AA leg., CBM-ZM-107999, 17 May; 9d exs., st. C, BD, TK leg., CBM-ZM-107923, 18 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107675, 29 May.

Previous record. G, P & AS (Vermeij *et al.*, 1983).

40. *Alcyna ocellata* A. Adams

Kiba-benibai

Material examined. GUGUAN: 4d exs., st. C, BD, TK leg., CBM-ZM-107924, 18 May.

41. *Trochus* (s.s.) *histrion* Reeve

Hakushauzu

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106581, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106463, 26 May; 1d ex., st. C, Dive, TK leg., CBM-ZM-107201, 26 May; 2d exs., st. C, BD, TK leg., CBM-ZM-107593, 26 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106069, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106192, 24 May. AGRIHAN: 1 ex., st. C, BD, TK leg., CBM-ZM-105949, 30 May.

Previous record. As *T. intextus* Kiener from P, AS & M (Vermeij *et al.*, 1983).

42. *Trochus* (s.s.) *maculatus* L.

Nisikiuzu

Previous record. G & P (Vermeij *et al.*, 1983).

43. *Trochus* (s.s.) *stellatus* Gmelin

Murasakiuzu

Material examined. ANATAHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-106448, 12 May; 1 ex., st. C, RI, AA leg., CBM-ZM-106885, 13 May; 2 exs., st. D, RI, TK leg., CBM-ZM-106918, 14 May. SARIGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108237, 15 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106356, 18 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106357, 18 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106412, 9 June; 1d ex., st. A, RI, AA leg., CBM-ZM-107033, 19 May. PAGAN: 2d exs., st. A, RI, AA leg., CBM-ZM-107143, 24 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106683, 24 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106070, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106191, 24 May. MAUG, E: 3 exs., st. A, TK leg., CBM-ZM-106019, 2 June; 1d ex., st. A, BD, TK leg., CBM-ZM-106780, 2 June; 1 ex., South edge, RI, HH leg., CBM-ZM-107505, 4 June. MAUG, W: 1 ex., st. E, RI, AA leg., CBM-ZM-107486, 4 June.

Previous record. As *T. ochroleucus* Gmelin from AN, G & P (Vermeij *et al.*, 1983).

44. *Trochus* (*Tectus*) *pyramis* (Born)

Gintakahama

Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106355, 18 May.

Previous record. P (Vermeij *et al.*, 1983).

45. *Clanculus* (s.s.) *stigmatarius* A. Adams

Benifu-natsumomo

Material examined. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106020, 2 June. PAGAN: 3d exs., st. E, BD, TK leg., CBM-ZM-106072, 24 May.

Previous record. As *C. clanguloides* (Wood) from P & AS (Vermeij *et al.*, 1983).

46. *Clanculus* (*Mescoclanculus*) *denticulatus* (Gray)

Tetsuiro-natsumomo

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106584, 24 May; 10d exs., st. E, BD, AA leg., CBM-ZM-106188, 24 May.

Previous record. As *C. atropurpureus* (Gould) from G & P (Vermeij *et al.*, 1983).

47. *Ethalia guamensis* (Quoy & Gaimard)

Nishiki-kisago

Material examined. PAGAN: 2d exs., st. A,

BD, TK leg., CBM-ZM-106666, 24 May.

48. *Talopena vernicosa* (Gould)

Habutae-shitadami

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106190, 24 May.

49. *Rossiteria nucleus* (Philippi)

Konoborigai

Material examined. PAGAN: 10d exs., st. A, BD, TK leg., CBM-ZM-106583, 24 May; 17d exs., st. E, BD, TK leg., CBM-ZM-106074, 24 May; 5d exs., st. E, BD, AA leg., CBM-ZM-106187, 24 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107866, 29 May; 4 exs., st. C, BD, TK leg., CBM-ZM-105950, 30 May.

Previous record. As *Monilea philippiana* (Dunker) from P (Vermeij *et al.*, 1983).

50. *Synaptocochlea concinna* (Gould)

Kumori-chigoasiya

Material examined. AGRIHAN: 13d exs., st. B, BD, TK leg., CBM-ZM-107676 & 107870, 29 May; 1d ex., SW coast, Dive 15 m (surge zone), TP leg., CBM-ZM-107115, 30 May. MAUG, E: 1 ex., st. E, RI, AA leg., CBM-ZM-107498, 4 June; 1 ex., st. B, Dive, TK leg., CBM-ZM-107544, 5 June.

Previous record. G, P, AS & M (Vermeij *et al.*, 1983).

51. Trochidae sp.

Previous record. P (Vermeij *et al.*, 1983).

Family Stomatellidae

52. *Stomatella planulata* (Lamarck)

Hira-hime-awabi

Material examined. ANATAHAN: 12 exs., st. D, Dive, TK leg., CBM-ZM-106919, 14 May. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106428, 18 May; 10 exs., st. B, Dive, TK leg., CBM-ZM-107046, 8 June; 1d ex., st. A, BD, TK leg., CBM-ZM-106413, 9 June. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106464, 26 May; 8 exs., st. C, Dive, TK leg., CBM-ZM-107217, 26 May; 2d exs., st. E, BD, AA leg., CBM-ZM-106193, 24 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107840, 29 May; 8d exs., st. C, BD, TK leg., CBM-ZM-105951 & 107413, 30 May; 7d exs., north coast, Dive, PS & TP leg., CBM-ZM-106811, 29 May.

Previous record. AN & U (Vermeij *et al.*, 1983).

53. *Stomatella varia* (A. Adams)

Hime-awabi

Material examined. ANATAHAN: 2 exs., st. D, RI, TK leg., CBM-ZM-106920, 14 May. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-107925, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106678, 24 May. 1d ex., st. E, BD, AA leg., CBM-ZM-106194, 24 May. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-107677, 29 May.

54. *Stomatella* sp.

Material examined. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106567 & 106677, 24 May; 2d exs., st. D, BD, TK leg., CBM-ZM-106734, 27 May; 3d exs., st. E, BD, AA leg., CBM-ZM-106195, 24 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107839, 29 May; 4d exs., st. C, BD, TK leg., CBM-ZM-107411, 30 May; 1d ex., north coast, Dive, PS & TP leg., CBM-ZM-106810, 29 May. MAUG, W: 9 exs., st. E, RI, AA leg., CBM-ZM-107565, 4 June.

Previous record. As *S. cf. S. auricula* Lamarck from G & P (Vermeij *et al.*, 1983).

Remarks. Vermeij *et al.* (1983) reported this species as *S. cf. S. auricula* Lamarck. This species has regularly radial ribs and may be endemic to the northern Marianas.

55. *Stomatolina sanguinea* (A. Adams)

Kurenai-ashiyagama

Material examined. GUGUAN: 1 ex., st. B, RI, AA leg., CBM-ZM-106652, 17 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106676, 24 May; 6d exs., st. A, BD, AA leg., CBM-ZM-106286, 24 May.

56. *Stomatolina* sp. A

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107872, 29 May.

57. *Stomatolina* sp. B

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-108034, 29 May. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-108009, 6 June.

58. *Pseudostomatella* sp.

Previous record. P & M (Vermeij *et al.*, 1983).

59. Stomatellidae sp.

Material examined. AGRIHAN: 2 exs., st. B, BD, TK leg., CBM-ZM-107873, 29 May.

Family Skeneidae

60. *Brookula cf. B. iki* Kay

Previous record. G (Vermeij *et al.*, 1983).

61. *Leucorhynchia tricarinata* Melvill & Standen

Mitsukado-otoginosugai

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107926, 18 May.

62. *Leucorhynchia* cf. *L. crossei* (Tryon)

Previous record. M (Vermeij *et al.*, 1983).

63. *Cyclostremiscus emeryi* (Ladd)

Mikagami-shitadami

Previous record. G, P, AS & M (Vermeij *et al.*, 1983).

64. *Lophocochlias minutissimus* (Pilsbry)

Mijin-kabuto-shitadami

Previous record. P & AS (Vermeij *et al.*, 1983).

Family Liotiidae

65. *Liotina (Dentarene) loculosa* (Gould)

Haguruma-himekatabe

Previous record. M (Vermeij *et al.*, 1983).

Family Turbinidae

66. *Turbo* (s.s.) *petholatus* L.

Ryuten

Material examined. PAGAN: 2d exs., st. D, BD, AA leg., CBM-ZM-106291, 27 May; 2 d exs., Dive, PS leg., CBM-ZM-106736, 24 May; 1 ex., Dive, PS leg., CBM-ZM-107198, 24 May; 4d exs., Dive, PS & TP leg., CBM-ZM-106746, 25 May. MAUG: 6d exs., N. west coast, Dive (15 m), TP leg., CBM-ZM-106796, 4 June.

Previous record. AN, S, P, AS & M (Vermeij *et al.*, 1983).

67. *Turbo (Marmarostoma) argyrostomus* L.

Chosen-sazae

Material examined. ANATAHAN: 2d exs., Dive, PS & TP leg., CBM-ZM-106805, 12 May. ALAMAGAN: 1d ex., Dive (7 m), PS leg., CBM-ZM-108248, 19 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106587, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106466, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106078, 24 May; 3d exs., Dive, PS & TP leg., CBM-ZM-106747, 25 May. ASUNCION: 2d exs., Dive (10–15 m), TP leg., CBM-ZM-106824, 1 June. MAUG, E: 1d ex., st. C, Dive, TK leg., CBM-ZM-107515, 4 June.

Previous record. AN, S, P, AS & M (Vermeij *et al.*, 1983).

68. *Turbo (Marmarostoma) setosus* Gmelin

Maru-sazae

Material examined. ANATAHAN: 1ex., RI, AA leg., ZM106632, 10 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106431, 11 May; 1 ex., st. A, RI, AA leg., CBM-ZM-106832, 10 May; 1 ex., st. A, RI, AA leg., CBM-ZM-107576, 11 May; 1d ex., st. B, BD, TK leg., CBM-ZM-106449, 12 May; 1 ex., st. B, RI, AA leg., CBM-ZM-107322, 12 May; 2 exs., st. C, BD, TK leg., CBM-ZM-106899, 13 May; 1 ex., st. C, BD, AA leg., CBM-ZM-107323, 13 May. SARIGAN: 15 exs., st. A, RI, AA leg., CBM-ZM-107324, 15 May. GUGUAN: 1d ex., st. A, RI, TK leg., CBM-ZM-108309, 16 May. ALAMAGAN: 7 exs., st. A, RI, AA leg., CBM-ZM-107325, 19 May; 3 exs., st. A, RI, AA leg., CBM-ZM-107332, 9 June. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106586, 24 May; 3 exs., st. A, RI, AA leg., CBM-ZM-107144, 24 May; 8d exs., st. C, BD, TK leg., CBM-ZM-106576 & 107594, 26 May; 4d exs., st. D, BD, AA leg., CBM-ZM-106290, 27 May; 4 exs., st. D, RI, TK leg., CBM-ZM-107326, 27 May; 3 exs., st. E, Dive, TK leg., CBM-ZM-107247, 27 May; 5d exs., st. E, BD, TK leg., CBM-ZM-106077, 24 May; 5d exs., st. E, BD, AA leg., CBM-ZM-106197, 24 May. AGRIHAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107083, 28 May; 1d ex., st. C, BD, TK leg., CBM-ZM-105952, 30 May. ASUNCION: 8 exs., st. A, RI, AA leg., CBM-ZM-107327, 1 June; 1d ex., Dive (10–15 m), TP leg., CBM-ZM-106825, 1 June. MAUG, E: 30 exs., st. A, TK leg., CBM-ZM-106021, 2 June; 7 exs., st. A, RI, AA leg., CBM-ZM-107328, 2 June; 22 exs., st. A, RI, TK leg., CBM-ZM-107329 & 107436, 2 June. MAUG, N: 8 exs., st. F, RI, AA leg., CBM-ZM-107330, 3 June. MAUG, W: 21 exs., st. E, RI, AA leg., CBM-ZM-107464, June. URACAS: 7 exs., st. A, RI, AA leg., CBM-ZM-107331, 6 June.

Previous record. AN, G, P, AG, AS & M (Vermeij *et al.*, 1983).

69. *Astrarium (Distellifer) rhodostoma* (Lamarck)

Oo-urauzu

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106292, 27 May; st. E, BD, TK leg., CBM-ZM-106079, 24 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106292, 27 May. MAUG, E: 1 ex., Dive, PS & TP leg., CBM-ZM-107556, 3 June.

Previous record. G, P & M (Vermeij *et al.*, 1983).

70. *Collonista* cf. *C. glareosa* Gould

Material examined. GUGUAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108000, 17 May; 8d exs., st. C, BD, TK leg., CBM-ZM-107954, 18 May. PAGAN: 1 ex., st. E, Dive, TK leg., CBM-ZM-107267, 27 May. AGRIHAN: 14d exs., st. B, BD, TK leg., CBM-ZM-107678, 107841 & 107867, 29 May. MAUG, E: 1 ex., st. D, Dive, TK leg., CBM-ZM-107536, 5 June.

71. *Leptothyra* cf. *L. inepta* (Gould)

Previous record. P (Vermeij *et al.*, 1983).

72. *Leptothyra* cf. *L. maculosa* (Pease)

Previous record. G, P & M (Vermeij *et al.*, 1983).

73. *Leptothyra* sp.

Previous record. M (Vermeij *et al.*, 1983).

Family Phasianellidae

74. *Phasianella solida* (Born)

Sarasabai

Material examined. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106585, 24 May; 8 exs., st. C, Dive, TK leg., CBM-ZM-107202, 26 May; 95d exs., st. E, BD, TK leg., CBM-ZM-106076, 24 May; 25d exs., st. E, BD, AA leg., CBM-ZM-106196, 24 May; 2 exs., st. E, Dive, TK leg., CBM-ZM-107268, 27 May. AGRIHAN: 3 exs., st. B, BD, TK leg., CBM-ZM-107869, 29 May; 13d exs., st. C, BD, TK leg., CBM-ZM-105954, 30 May.

Previous record. P (Vermeij *et al.*, 1983).

Family Tricoliidae

75. *Tricolia variabilis* (Pease)

Benibai

Material examined. GUGUAN: 60 exs., st. B, RI, AA leg., CBM-ZM-108001, 17 May; 1 ex., st. C, RI, TK leg., CBM-ZM-107997, 18 May. PAGAN: 1 ex., st. D, RI, TK leg., CBM-ZM-107236, 27 May. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-107868, 29 May.

Previous record. G, P & M (Vermeij *et al.*, 1983).

Order Neritopsina

Family Neritopsidae

76. *Neritopsis radula* (L.)

Amagai-modoki

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106685, 24 May.

Previous record. P & M (Vermeij *et al.*, 1983).

Family Neritidae

77. *Nerita (Ritena) guamensis* Quoy & Gaimard

Material examined. ANATAHAN: 1 ex., st. A, RI, AA leg., ZM106833, 10 May; 3 exs., st. A, RI, AA leg., ZM106841, 11 May; 3 exs., st. D, RI, TK leg., CBM-ZM-106907, 14 May. SARIGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-106934, 16 May. AGRIHAN: 1 ex., North, RI, TO leg., CBM-ZM-107102, 29 May; 6 exs., west coast, RI, TO & HH leg., CBM-ZM-107108, 30 May. MAUG, E: 15 exs., st. A, RI, AA leg., CBM-ZM-107422, 2 June; 25 exs., st. A, RI, TK leg., CBM-ZM-107446, 2 June. MAUG, N: 11 exs., st. F, RI, AA leg., CBM-ZM-107460, 3 June.

Previous record. AN & S (Vermeij *et al.*, 1983)

78. *Nerita (Ritena) plicata* L.

Kiba-amagai

Material examined. ANATAHAN: 1d ex., st. A, RI, AA leg., CBM-ZM-106840, 10 May; 1 ex., st. A, RI, TK leg., ZM106851, 11 May; 11 exs., st. A, RI, AA leg., CBM-ZM-107566, 11 May; 4 exs., st. B, RI, AA leg., CBM-ZM-106873, 12 May; 32 exs., st. C, RI, AA leg., CBM-ZM-106884, 13 May; 7 exs., st. D, RI, TK leg., CBM-ZM-106902, 14 May. SARIGAN: 1 ex., st. A, RI, TK leg., CBM-ZM-106925, 16 May. GUGUAN: 5 exs., st. B, RI, AA leg., CBM-ZM-106942, 17 May; 2 exs., st. B, RI, TK leg., CBM-ZM-106957, 17 May. ALAMAGAN: 3d exs., st. A, BD, AA leg., CBM-ZM-107028, 19 May. PAGAN: 33d exs., st. A, RI, AA leg., CBM-ZM-107145, 24 May; 2 exs., st. A, RI, AA leg., CBM-ZM-107173, 25 May; 50 exs., st. B, RI, AA leg., CBM-ZM-107167, 25 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106466, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107595, 26 May; 2d exs., st. D, BD, AA leg., CBM-ZM-106293, 27 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106684, 24 May; 1 ex., st. D, RI, AA leg., CBM-ZM-107189, 27 May; 13 exs., st. D, RI, TK leg., CBM-ZM-107223 & 107224, 27 May. AGRIHAN: 2 exs., st. A, RI, AA leg., CBM-ZM-107076 & 107084, 28 May; 2d exs., st. C, BD, TK leg., CBM-ZM-105955, 30 May; 8 exs., st. C, RI, AA leg., CBM-ZM-107104, 30 May; 1 ex., east coast, RI, TO & HH leg., CBM-ZM-107107, 30 May. ASUNCION: 11 exs., st. A, RI, AA leg., CBM-ZM-107124, 1 June. MAUG, E: 22

exs., st. A, RI, AA leg., CBM-ZM-107421, 2 June; 22 exs., st. A, RI, TK leg., CBM-ZM-107442, 2 June.

Previous record. S, G, AL, P, AS & M (Vermeij *et al.*, 1983).

79. *Nerita (Ritena) insculpta* Récluz

Ryukyu-amagai

Material examined. PAGAN: 1 ex., st. B, RI, AA leg., CBM-ZM-107162, 25 May. MAUG, E: 1 exs., st. A, RI, AA leg., CBM-ZM-107423, 2 June.

Previous record. P (Vermeij *et al.*, 1983).

80. *Nerita (Ritena) maxima* Gmelin

Oo-amagai

Previous record. P (Vermeij *et al.*, 1983).

81. *Nerita (Amphinerita) polita* L.

Nishiki-amaobune

Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106432, 11 May; 1d ex., st. A, RI, AA leg., CBM-ZM-106832, 10 May; 1 ex., st. A, RI, AA leg., CBM-ZM-107567, 11 May. GUGUAN: 2 exs., st. B, RI, AA leg., CBM-ZM-106945, 17 May. ALAMAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107061, 9 June. PAGAN: 1 d ex., st. C, BD, TK leg., CBM-ZM-107596, 26 May; 1 ex., st. D, RI, AA leg., CBM-ZM-107190, 27 May. MAUG, E: 2d exs., st. A, RI, AA leg., CBM-ZM-108302, 2 June.

Previous record. P (Vermeij *et al.*, 1983).

82. *Nerita (Thelyostyla) albicilla* L.

Amaobune

Material examined. ANATAHAN: 1 ex., st. B, RI, AA leg., CBM-ZM-106857, 12 May.

Previous record. P (Vermeij *et al.*, 1983).

83. *Puperita bensoni* (Récluz)

Ukon-amagai

Material examined. AGRIHAN: 1 ex., st. B, RI, AA leg., CBM-ZM-107085, 29 May. PAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-107146, 24 May; 9 exs., st. C, RI, AA leg., CBM-ZM-107174, 26 May; 11 exs., st. D, RI, TK leg., CBM-ZM-107224 & 107235, 27 May.

Previous record. P (Vermeij *et al.*, 1983).

84. *Pisulina adamsiana* G. & H. Nevill

Shiratama-amagai

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107679, 29 May.

Family Phenacolepadidae

85. *Phenacolepas crenulatus* (Broderip)

Yuki-suzume

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106668, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106287, 24 May.

86. *Phenacolepas* sp.

Material examined. AGRIHAN: 1 ex., st. B, BD, TK leg., CBM-ZM-107874, 29 May.

Superorder Caenogastropoda

Order Neotaenioglossa

Family Diastomatidae

87. *Clathrofenella perparvulum* (Watson)

Previous record. As *Cerithidium perparvulum* from P, AS & M (Vermeij *et al.*, 1983).

88. *Clathrofenella* sp.

Previous record. As *Cerithidium* sp. from P & AS (Vermeij *et al.*, 1983).

89. *Obtortio pupoides* A. Adams

Sanagi-motsubo

Previous record. As *Finella pupoides* from P, AS & M (Vermeij *et al.*, 1983).

Family Scaliolidae

90. *Scaliola* sp.

Previous record. M (Vermeij *et al.*, 1983).

Family Dialidae

91. *Diala varia* A. Adams

Suzume-hamatubo

Material examined. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-107928, 18 May.

92. *Diala flammea* (Pease)

Previous record. AN (Vermeij *et al.*, 1983).

Family Litiopidae

93. Litiopidae cf. *Alaba* sp.

Previous record. M (Vermeij *et al.*, 1983).

Family Cerithiidae

94. *Bittium parcum* Gould

Ooshima-chigusa-kanimori

Material examined. GUGUAN: 71 exs., st. B, RI, AA leg., CBM-ZM-106954 & 108002, 17 May; 19 exs., st. B, RI, TK leg., CBM-ZM-106959 & 106976, 17 May; 40d exs., st. C, BD, TK leg., CBM-ZM-107943, 18 May. ALAMAGAN: 5 d exs., st. A, RI, AA leg., CBM-ZM-108286, 9 June. PAGAN: 4d exs., st. C, Dive, TK leg., CBM-ZM-107201, 26 May; 10 exs., st. D, RI, TK leg., CBM-ZM-107245, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106179, 24 May. AGRIHAN: 32d

exs., st. B, BD, TK leg., CBM-ZM-107683 & 107879, 29 May. URACAS: 1 ex., st. A, RI, TK leg., CBM-ZM-107007, 6 June; 40 exs., st. A, RI, AA leg., CBM-ZM-108010, 108013 & 108017, 6 June.

Previous record. G, P, AS & M (Vermeij *et al.*, 1983).

95. *Cerithium* (s.s.) *boeticum* Pease

Kurifu-kanimori

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107929, 18 May. PAGAN: 3 exs., st. E, Dive, TK leg., CBM-ZM-107273, 27 May. MAUG, E: 1 ex., st. C, Dive, TK leg., CBM-ZM-107518, 4 June.

96. *Cerithium* (s.s.) *citrium* Sowerby

Kiiru-kanimori

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106592, 24 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107598, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106080, 24 May.

97. *Cerithium* (s.s.) *columna* Sowerby

Ko-oninotsuno

Material examined. ALAMAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107059, 9 June. PAGAN: 1 d ex., st. E, RI, AA leg., CBM-ZM-108255, 27 May. AGRIHAN: 1d ex., st. B, RI, AA leg., CBM-ZM-107086, 29 May.

Previous record. P (Vermeij *et al.*, 1983).

98. *Cerithium* (s.s.) *echinatum* Lamarck

Me-oninotsuno

Material examined. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108250, 19 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106593, 24 May; 5d exs., st. C, BD, TK leg., CBM-ZM-107597, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106294, 27 May. AGRIHAN: 3d exs., st. C, BD, TK leg., CBM-ZM-105965, 30 May. MAUG, E: 1 ex., North edge, RI, HH leg., CBM-ZM-107511, 5 June.

Previous record. As *C. mutatum* Sowerby and *C. cf. C. rubus* Deshayes from AN, G, AL, P, AG & M (Vermeij *et al.*, 1983).

99. *Cerithium* (s.s.) *nodulosum* Bruguière

Oninotsunogai

Previous record. M (Vermeij *et al.*, 1983).

100. *Cerithium* (*Ischnocerithium*) *rostratum* Sowerby

Hashinaga-tsunobue

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106082, 24 May; 1d ex., st. E,

BD, AA leg., CBM-ZM-106199, 24 May.

101. *Cerithium* (*Semivertagus*) *interstriatum* Sowerby

Meotosuji-kanimori

Material examined. MAUG, E: 1 ex., st. C, Dive, TK leg., CBM-ZM-107517, 4 June.

Previous record. P & M (Vermeij *et al.*, 1983).

102. *Cerithium* (*Semivertagus*) *nesioticum* Pilsbry & Vanatta

Kurimushi-kanimori

Material examined. ANATAHAN: 1d ex., st. C, TK leg., CBM-ZM-106901, 13 May. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107989, 18 May. ALAMAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107058, 9 June. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106595, 24 May; 1 ex., st. A, RI, AA leg., CBM-ZM-107148, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106468, 26 May; 2d exs., st. D, BD, TK leg., CBM-ZM-106688, 27 May; 1 ex., st. D, RI, AA leg., CBM-ZM-107186, 27 May; 5 exs., st. D, RI, TK leg., CBM-ZM-107227 & 107241, 27 May; 7 d exs., st. E, BD, TK leg., CBM-ZM-106084, 24 May; 10d exs., st. E, BD, AA leg., CBM-ZM-106200, 24 May; 2 exs., st. E, Dive, TK leg., CBM-ZM-107249 & 107270, 27 May; AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-105962, 30 May. MAUG, E: 11 exs., st. C, Dive, TK leg., CBM-ZM-107516, 4 June.

Previous record. G, P & M (Vermeij *et al.*, 1983).

103. *Cerithium* (*Semivertagus*) *zebrum* Kiener

Hana-kanimori

Material examined. GUGUAN: 1d ex., st. B, RI, AA leg., CBM-ZM-106947, 17 May. ALAMAGAN: 5 d exs., st. A, RI, AA leg., CBM-ZM-108287, 9 June. PAGAN: 27 exs., st. D, RI, TK leg., CBM-ZM-107228 & 107244, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106083, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106201, 24 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107271, 27 May.

Previous record. G, P, AS & M (Vermeij *et al.*, 1983).

104. *Cerithium* (*Conocerithium*) *atromarginatum* Dautzenberg & Bouge

Konshibori-tsunobue

Material examined. ANATAHAN: 1d ex., st. C, RI, AA leg., CBM-ZM-106896, 13 May. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-

107944 & 107990, 18 May. ALAMAGAN: 3d exs., st. A, RI, AA leg., CBM-ZM-108288, 9 June. PAGAN: 7d exs., st. E, BD, TK leg., CBM-ZM-106085, 24 May; 3d exs., st. E, BD, AA leg., CBM-ZM-106202, 24 May; 2 exs., st. E, Dive, TK leg., CBM-ZM-107269, 27 May. MAUG, W: 1d ex., st. E, AA leg., CBM-ZM-108268, 4 June. URACAS: 1d ex., st. A, RI, AA leg., CBM-ZM-108281, 6 June.

Previous record. P (Vermeij *et al.*, 1983).

105. *Cerithium (Conocerithium) egenum* Gould

Hoso-shibori-tsunobue

Material examined. GUGUAN: 1d ex., st. B, RI, AA leg., CBM-ZM-106946, 17 May. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108289, 9 June. PAGAN: 4d exs., st. A, RI, AA leg., CBM-ZM-107147, 24 May; 4d exs., st. C, Dive, TK leg., CBM-ZM-107204, 26 May; 2 exs., st. D, RI, TK leg., CBM-ZM-107226, 27 May; 1 ex., st. D, RI, TK leg., CBM-ZM-107242, 27 May; 2d exs., st. E, BD, AA leg., CBM-ZM-106203, 24 May. AGRIHAN: 1d exs., st. B, BD, TK leg., CBM-ZM-107684, 29 May; 1d ex., st. C, BD, TK leg., CBM-ZM-105964, 30 May. URACAS: 6 exs., st. A, RI, TK leg., CBM-ZM-107006, 6 June; 5 exs., st. A, RI, AA leg., CBM-ZM-108010 & 108016, 6 June.

Previous record. G, AL, P, AG, AS & M (Vermeij *et al.*, 1983).

106. *Clypeomorus nympha* Houbrick

Kurofu-kanimori

Material examined. ALAMAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107035, 19 May; 7 exs., st. A, RI, AA leg., CBM-ZM-107057, 9 June; 3d exs., st. A, RI, AA leg., CBM-ZM-108025, 9 June.

107. *Rhinoclavis fasciata* (Bruguère)

Naga-takenoko-kanimori

Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106372, 18 May. PAGAN: 5d exs., st. D, BD, TK leg., CBM-ZM-106687, 27 May.

Previous record. AN, G & P (Vermeij *et al.*, 1983).

108. *Rhinoclavis cedonulli* (Sowerby)

Hime-togata-kanimori

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106295, 27 May. MAUG, E: 1d ex., st. A, RI, TK leg., CBM-ZM-108303, 2 June.

109. *Rhinoclavis sinensis* (Gmelin)

Togata-kanimori

Material examined. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106371, 18 May. PAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106591, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106467, 26 May; 3d exs., st. D, BD, TK leg., CBM-ZM-106686, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106081, 24 May; 5d exs., st. E, BD, AA leg., CBM-ZM-106198, 24 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107272, 27 May. AGRIHAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108260, 29 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106024, 2 June.

Previous record. AN, S, P & AS (Vermeij *et al.*, 1983).

110. *Rhinoclavis articulata* (A. Adams & Reeve)

Kazari-kanimori

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106594, 24 May.

111. *Rhinoclavis aspera* (L.)

Yokowa-kanimori

Previous record. AN (Vermeij *et al.*, 1983).

Family Plesiotrochidae

112. *Plesiotrochus exilis* (Pease)

Hime-chigusa-kanimori

Material examined. AGRIHAN: 1 ex., st. B, BD, TK leg., CBM-ZM-107881, 29 May.

Family Planaxidae

113. *Angiola labiosa* (A. Adams)

Yokosuji-tamakibi-modoki

Material examined. ANATAHAN: 1 ex., st. A, RI, TK leg., CBM-ZM-106854, 11 May; 29 exs., st. A, RI, AA leg., CBM-ZM-107569, 11 May; 1 ex., st. B, RI, TK leg., CBM-ZM-106876, 12 May; 13 exs., st. C, RI, AA leg., CBM-ZM-106881, 13 May; 16 exs., st. D, RI, TK leg., CBM-ZM-106909, 14 May. SARIGAN: 4d exs., st. A, RI, AA leg., CBM-ZM-108241, 15 May. GUGUAN: 22 exs., st. B, BD, AA leg., CBM-ZM-106944, 17 May; 24 exs., st. B, BD, TK leg., CBM-ZM-106958, 17 May; 27d exs., st. C, BD, TK leg., CBM-ZM-107941 & 107986, 18 May. ALAMAGAN: 3 exs., st. B, RI, TK leg., CBM-ZM-107047, 8 June. PAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107149, 24 May; 1 ex., st. B, RI, TK leg., CBM-ZM-107169, 25 May; 3d exs., st. E, BD, TK leg., CBM-ZM-106088, 24 May; 4 exs., st. C, RI,

TK leg., CBM-ZM-107218, 26 May; 23 exs., st. D, RI, TK leg., CBM-ZM-107240, 27 May. AGRIHAN: 1 ex., st. B, RI, AA leg., CBM-ZM-107092, 29 May; 9d exs., st. B, BD, TK leg., CBM-ZM-107680, 107843, & 107876, 29 May; 14d exs., st. C, BD, TK leg., CBM-ZM-105959, 30, May. MAUG, E: 6 exs., st. A, RI, TK leg., CBM-ZM-107449, 2 June. MAUG, N: 32 exs., st. F, RI, AA leg., CBM-ZM-107461, 4 June. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-107005, 6 June.

Previous record. As *Planaxis zonatus* A. Adams from AN, G, AL, P, AS & M (Vermeij *et al.*, 1983).

114. *Supplanaxis niger* (Quoy & Gaimard)

Kuro-tamakibi-modoki

Material examined. ANATAHAN: 40 exs., st. A, BI, TK leg., CBM-ZM-106853, 11 May; 68 exs., st. C, BI, AA leg., CBM-ZM-106880, 13 May; 11 exs., st. D, BI, TK leg., CBM-ZM-106910, 14 May; 100 exs., st. A, BI, AA leg., CBM-ZM-107570, 11 May. SARIGAN: 29 exs., st. A, BI, TK leg., CBM-ZM-106929, 16 May; 120 exs., st. A, BI, AA leg., CBM-ZM-106933, 16 May. ALA-MAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107031, 19 May. PAGAN: 6d exs., st. E, BI, TK leg., 24, May; 2d exs., st. E, BI, AA leg., CBM-ZM-106205, 24 May; 150 exs., st. B, BI, AA leg., CBM-ZM-107168, 25 May; 1 ex., st. D, BI, AA leg., CBM-ZM-107193, 27 May. ASUNCION: 100 exs., st. A, BI, AA leg., CBM-ZM-107128, 1 June. MAUG, E: 1 ex., st. A, BI, AA leg., CBM-ZM-107432, 2 June; 4 exs., st. A, BI, TK leg., CBM-ZM-107437, 2 June. MAUG, W: 3 exs., st. E, BI, AA leg., CBM-ZM-107462, 4 June. URACAS: 8d exs., st. A, RI, AA leg., CBM-ZM-108279, 6 June.

Previous record. S, G, AL, P, AS & M (Vermeij *et al.*, 1983).

Family Modulidae

115. *Modulus tectum* (Gmelin)

Katabe-damashi

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106089, 24 May. MAUG, E: 1d ex., st. E, Dive, TK leg., CBM-ZM-108270, 5 June.

Previous record. M (Vermeij *et al.*, 1983).

Family Cingulopsidae

116. *Pseudopisinna* sp.

Material examined. GUGUAN: 1 ex., st. C, RI,

TK leg., CBM-ZM-107996, 18 May.

Family Vitrinellidae

117. *Sansonia* sp.

Previous record. G (Vermeij *et al.*, 1983).

Family Rissoidae

118. *Alvania* sp.

Material examined. AGRIHAN: 3 exs., st. B, BD, TK leg., CBM-ZM-107890, 29 May.

119. *Parashiela beetsi* Ladd

Previous record. P (Vermeij *et al.*, 1983).

120. *Rissoina (Peripatella) ambigua* (Gould)

Hososuji-choji

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107934, 18 May. PAGAN: 2 exs., st. E, Dive, TK leg., CBM-ZM-107274, 27 May. MAUG, E: 1 ex., st. C, Dive, TK leg., CBM-ZM-107519, 4 June.

Previous record. G, P & AS (Vermeij *et al.*, 1983).

121. *Rissoina (Zebinella) imbricata* (Gould)

Makisuji-choji

Previous record. As *Zebina imbricata* from M (Vermeij *et al.*, 1983).

122. *Rissoina (Apataxia) cerithiiformis* Tryon

Kinsuji-choji

Material examined. GUGUAN: 9d exs., st. C, BD, TK leg., CBM-ZM-107931 & 108338, 18 May. PAGAN: 1d ex., st. E, Dive, TK leg., CBM-ZM-107275, 27 May. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-107896, 29 May.

Previous record. As *R. miltozona* Tomlin from G, P, AS & M (Vermeij *et al.*, 1983).

123. *Rissoina (Rissolina) turricula* Pease

Ganko-choji

Material examined. GUGUAN: 12d exs., st. C, BD, TK leg., CBM-ZM-107932 & 108339, 18 May. AGRIHAN: 5d exs., st. B, BD, TK leg., CBM-ZM-107682 & 107893, 29 May.

Previous record. G, P, M & AS (Vermeij *et al.*, 1983).

124. *Rissoina (Rissolina)* sp. A

Material examined. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-107892, 29 May.

125. *Rissoina (Rissolina)* sp. B

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107894, 29 May.

126. *Phosinella* sp.

Material examined. 1d ex., AGRIHAN: st. B, BD, TK leg., CBM-ZM-107895, 29 May.

127. "Schwartziella gracilis (Pease)"

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107935, 18 May.

Previous record. G (Vermeij *et al.*, 1983).

128. Zebina semiplicata (Pease)

Material examined. GUGUAN: 16d exs., st. C, BD, TK leg., CBM-ZM-107930, 107933 & 108340, 18 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107891, 29 May.

129. Zebina tridentata (Michaud)

Kurimushi-choji

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106090, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106206, 24 May.

Previous record. G, P & M (Vermeij *et al.*, 1983).

Family Assimineidae

130. "Assiminea" nitida Pease

Material examined. AGRIHAN: 6d exs., st. B, BD, TK leg., CBM-ZM-107681 & 107878, 29 May.

Family Caecidae

131. Caecum arcuatum de Folin

Previous record. G, AS & M (Vermeij *et al.*, 1983).

132. Caecum oahuense (Pilsbry)

Previous record. G & M (Vermeij *et al.*, 1983).

133. Caecum sepimentum de Folin

Previous record. G, P & AS (Vermeij *et al.*, 1983).

134. Caecum cf. C. glabellum A. Adams

Previous record. M (Vermeij *et al.*, 1983).

Family Littorinidae

135. Littoraria coccinea (Gmelin)

Teri-tamakibi

Material examined. ANATAHAN: 3 exs., st. A, RI, AA leg., CBM-ZM-106843, 11 May; 1 ex., st. B, RI, TK leg., ZM106874, 12 May; 3 exs., st. A, RI, AA leg., CBM-ZM-106843, 11 May; 1 ex., st. B, RI, AA leg., CBM-ZM-106874, 12 May; 1 ex., st. D, RI, TK leg., CBM-ZM-106904, 14 May. SARIGAN: 2 exs., st. A, RI, TK leg., CBM-ZM-106927, 16 May. ALAMAGAN: 5 exs., st. A, RI, AA leg., CBM-ZM-107029, 19 May; 1 ex., ALA-

MAGAN: st. A, RI, AA leg., CBM-ZM-107056, 9 June. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106588, 24 May; 7 exs., st. B, RI, AA leg., CBM-ZM-107163, 25 May; 4 exs., st. D, RI, TK leg., CBM-ZM-107225 & 107237, 27 May. AGRIHAN: 1 ex., st. B, RI, TO leg., CBM-ZM-107103, 29 May; 6 exs., east coast, RI, TO & HH leg., CBM-ZM-107110, 30 May. ASUNCION: 2 exs., st. A, AA leg., CBM-ZM-107125, 1 June. MAUG, E: 1 ex., st. A, RI, AA leg., CBM-ZM-107426, 2 June, 2 exs., st. A, RI, TK leg., CBM-ZM-107443, 2 June. MAUG, W: 1 ex., st. E, RI, AA leg., CBM-ZM-107485, 4 June. URACAS: 1d ex., st. A, AA leg., CBM-ZM-108278, 6 June.

Previous record. AN, S & P (Vermeij *et al.*, 1983).

136. Littoraria pintado (Wood)

Kodaka-tamakibi

Material examined. ANATAHAN: 1 ex., st. A, RI, AA leg., CBM-ZM-106835, 10 May; 26 exs., st. A, RI, AA leg., CBM-ZM-106842 & 107568, 11 May; 9 exs., st. A, RI, TK leg., CBM-ZM-106852, 11 May; 8 exs., st. B, RI, TK leg., CBM-ZM-106875, 12 May; 2 exs., st. C, RI, TK leg., CBM-ZM-106900, 13 May; 19 exs., st. C, RI, AA leg., CBM-ZM-106882, 13 May; 1 ex., st. D, RI, TK leg., CBM-ZM-106903, 14 May. SARIGAN: 8 exs., st. A, BD, TK leg., CBM-ZM-106928, 16 May. GUGUAN: 41 exs., st. B, AA leg., CBM-ZM-106941 & 107578, 17 May; 34d exs., GUGUAN: st. C, BD, TK leg., CBM-ZM-106979, 107942 & 107985, 18 May. ALAMAGAN: 53 exs., st. A, RI, AA leg., CBM-ZM-107023 & 107030, 19 May. PAGAN: 8d exs., st. E, BD, TK leg., CBM-ZM-106086, 24 May; 4d exs., st. E, BD, AA leg., CBM-ZM-106204, 24 May; 5 exs., st. A, RI, AA leg., CBM-ZM-107154, 24 May; 100 exs., st. B, RI, AA leg., CBM-ZM-107165, 25 May; 27 exs., st. C, RI, AA leg., CBM-ZM-107175, 26 May; 14 exs., st. D, RI, AA leg., CBM-ZM-107191, 27 May; 13 exs., st. D, RI, TK leg., CBM-ZM-107238, 27 May; 4d exs., st. E, BD, AA leg., CBM-ZM-106204, 24 May. AGRIHAN: 40 exs., st. A, RI, AA leg., CBM-ZM-107078, 28 May; 20 exs., st. B, RI, AA leg., CBM-ZM-107090, 29 May; 4d exs., st. B, BD, TK leg., CBM-ZM-107842 & 107875, 29 May; 40d exs., st. C, BD, TK leg., CBM-ZM-105958, 30 May. 49 exs., st. D, RI, TK leg., CBM-ZM-107118, 107119 & 107120, 30 May; 40 exs., east coast, RI, TO & HH leg.,

CBM-ZM-107111, 30 May. ASUNCION: 7 exs., st. A, RI, AA leg., CBM-ZM-10126, 1 June; 50 exs., st. B, RI, AA leg., CBM-ZM-107136, 7 June. MAUG, E: 5 exs., st. A, RI, TK leg., CBM-ZM-107447, 2 June. MAUG, N: 40 exs., st. F, RI, AA leg., CBM-ZM-107470, 3 June. URACAS: 5 exs., st. A, RI, AA leg., CBM-ZM-106995, 6 June.

Previous record. AN, S, G, AL, P, AS, M & U (Vermeij *et al.*, 1983).

137. *Littoraria undulata* (Gray)

Hososuji-uzura-tamakibi

Material examined. ANATAHAN: 1 ex., st. A, RI, AA leg., CBM-ZM-106844, 11 May. ALAMAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107024, 19 May. PAGAN: 1 ex., st. B, RI, AA leg., CBM-ZM-107164, 25 May. AGRIHAN: 1 ex., st. B, RI, AA leg., CBM-ZM-107091, 29 May; 2d exs., st. C, BD, TK leg., CBM-ZM-105957, 30 May.

Previous record. P (Vermeij *et al.*, 1983).

138. *Nodilittorina* (s.s.) *trochoides* (Gray)

Ibo-tamakibi

Material examined. AGRIHAN: 6 exs., st. B, RI, AA leg., CBM-ZM-107089, 29 May. ASUNCION: 11 exs., st. A, AA leg., CBM-ZM-107127 & 107581, 1 June; 9 exs., st. B, RI, AA leg., CBM-ZM-107137, 7 June. MAUG, N: 21 exs., st. F, RI, AA leg., CBM-ZM-107472, 3 June. MAUG, W: 1 ex., st. E, RI, AA leg., CBM-ZM-107484, 4 June. URACAS: 1 ex., st. A, BD, AA leg., CBM-ZM-106994, 6 June.

Previous record. As *N. pyramidalis* (Q. & G.) from P, AS, M & U (Vermeij *et al.*, 1983).

139. *Nodilittorina* (*Granulilittorina*) sp. A

Ogasawara-tamakibi

Material examined. ANATAHAN: 1 ex., st. A, RI, AA leg., CBM-ZM-106834 & 106845, 10 May; 9 exs., st. B, RI, AA leg., CBM-ZM-106858, 12 May; 10 exs., st. C, RI, AA leg., CBM-ZM-106883, 13 May; 6 exs., st. D, RI, TK leg., CBM-ZM-106905, 14 May. SARIGAN: 6 exs., st. A, RI, TK leg., CBM-ZM-106926, 16 May; 6 exs., st. A, RI, AA leg., CBM-ZM-106935, 16 May. GUGUAN: 13 exs., st. A, RI, AA leg., CBM-ZM-106940, 16 May; 4 exs., st. A, RI, TK leg., CBM-ZM-106956, 16 May; 2 exs., st. C, RI, TK leg., CBM-ZM-106978 18 May. ALAMAGAN: 50 exs., st. A, RI, AA leg., CBM-ZM-107022, 19 May. PAGAN: 7 exs., st. A, RI, AA leg., CBM-ZM-107153, 24 May; 7 exs., st. B, RI, AA leg.,

CBM-ZM-107163, 25 May; 10 exs., st. B, RI, AA leg., CBM-ZM-107166, 25 May; 13 exs., st. C, RI, AA leg., CBM-ZM-107177, 26 May; 5 exs., st. D, RI, AA leg., CBM-ZM-107192, 27 May; 2 exs., st. D, RI, TK leg., CBM-ZM-107239, 27 May. AGRIHAN: 40 exs., st. A, RI, AA leg., CBM-ZM-107077, 28 May; 32 exs., st. B, RI, AA leg., CBM-ZM-107088, 29 May; 3 exs., east coast, RI, TO & HH leg., CBM-ZM-107109, 30 May; 5 exs., st. D, RI, TK leg., CBM-ZM-107117, 30 May; 5d exs., st. C, BD, TK leg., CBM-ZM-105956, 30 May. ASUNCION: 45 exs., st. A, AA leg., CBM-ZM-107582, 1 June; 25 exs., st. B, RI, AA leg., CBM-ZM-107138, 7 June; 24 exs., st. B, RI, TK leg., CBM-ZM-107140 & 107141, 7 June. MAUG, E: 12 exs., st. A, RI, AA leg., CBM-ZM-107424 & 107425, 2 June; 5 exs., st. A, RI, TK leg., CBM-ZM-107448, 2 June. MAUG, N: 48 exs., st. F, RI, AA leg., CBM-ZM-107471, 3 June. MAUG, W: 1 ex., st. E, RI, AA leg., CBM-ZM-107491, 4 June. URACAS: 4 exs., st. A, RI, AA leg., CBM-ZM-106993, 6 June.

Previous record. As *N. quadricincta feejeensis* (Reeve) from AN, G, P, AS & M (Vermeij *et al.*, 1983).

Remarks. Vermeij *et al.* (1983) reported this species as *N. quadricincta feejeensis*. However, Asakura and Kurozumi (1991) discussed its taxonomy, and specimens from the northern Marianas had stronger spiral cords on the body whorl, a lower spiral and less clear zigzag stripe patterns than *N. quadricincta feejeensis*. Therefore, we have treated it as *N. (G.)* sp.

140. *Nodilittorina* (*Granulilittorina*) sp. B

Maru-arare-tamakibi

Material examined. ANATAHAN: 1 ex. st. A, RI, AA leg., CBM-ZM-106846, 11 May; 1 ex., st. D, RI, TK leg., CBM-ZM-106906, 14 May. ASUNCION: 1 ex., st. B, RI, AA leg., CBM-ZM-107139, 7 June; 1 ex., st. B, RI, TK leg., CBM-ZM-107142, 7 June.

Remarks. Higo and Goto (1992) and Fukuda (1993) reported this species as *N. ventricosa* (Philippi), but Rosewater (1970) showed that this familiar name was junior homonym of *Littorina scabra ventricosa*. Though Rosewater (1970) treated this species as a synonym of *N. millegrana* (Philippi), *N. (G.)* sp. B has regularly ribs with black lines among the ribs. Probably, this is a different species, and it may be *N. (G.)*

granocostata Reeve.

141. *Nodilittorina (Granulilittorina) vidua* (Gould)

Taiwan-tamakibi

Previous record. As *N. millegrana* (Philippi) from P (Vermeij *et al.*, 1983).

Family Strombidae

142. *Strombus (Canarium) microunceus* (Kira)

Yasagata-mukashi-tamoto

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107945, 18 May. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108290, 9 June. PAGAN: 14d exs., st. A, BD, TK leg., CBM-ZM-106598, 24 May; 2d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106470, 26 May; 1 ex., st. C, RI, TK leg., CBM-ZM-107210, 26 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107220, 26 May; 4 d exs., st. C, BD, TK leg., CBM-ZM-107612, 26 May; 11d exs., st. D, BD, TK leg., CBM-ZM-106299, 27 May; 43d exs., st. E, BD, TK leg., CBM-ZM-106092, 24 May; 14d exs., st. E, BD, AA leg., CBM-ZM-106208, 24 May; 2 exs., st. E, Dive, TK leg., CBM-ZM-107252, 27 May. AGRIHAN: 1d ex., st. B, RI, AA leg., CBM-ZM-107087, 29 May; 3d exs., st. B, BD, TK leg., CBM-ZM-107844 & 107877, 29 May; 12d exs., st. C, BD, TK leg., CBM-ZM-105967, 30 May.

Previous record. P & AG (Vermeij *et al.*, 1983).

143. *Strombus (Canarium) mutabilis* Swainson

Mukashi-tamoto

Material examined. ANATAHAN: 1d ex., st. D, Dive, TK leg., CBM-ZM-108236, 14 May. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106378, 18 May. PAGAN: 6d exs., st. A, BD, TK leg., CBM-ZM-106597, 24 May; 5 exs., st. C, Dive, TK leg., CBM-ZM-107209 & 107219, 26 May; 3 d exs., st. C, BD, TK leg., CBM-ZM-107611, 26 May; 4d exs., st. D, BD, TK leg., CBM-ZM-106298, 106692, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106091, 24 May; 2d exs., st. E, BD, AA leg., CBM-ZM-106207, 24 May; 7 exs., st. E, Dive, TK leg., CBM-ZM-107251, 27 May. AGRIHAN: 1 ex., st. C, BD, TK leg., CBM-ZM-105968, 30 May.

Previous record. P (Vermeij *et al.*, 1983).

144. *Strombus (Canarium) dentatus* L.

Mitsuyubigai

Material examined. ALAMAGAN: 1d ex., st.

A, BD, TK leg., CBM-ZM-106376, 18 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106414, 9 June.

Previous record. AN (Vermeij *et al.*, 1983).

145. *Strombus (Dolomena) plicatus pulchellus* Reeve

Ohaguro-shidoro

Previous record. P (Vermeij *et al.*, 1983).

146. *Lambis truncata sebae* (Kiener)

Rakudagai

Material examined. SARIGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106430, 16 May. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106377, 18 May.

Previous record. P & M (Vermeij *et al.*, 1983).

147. *Harpago chiragra* (L.)

Suijigai

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-106518, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107613, 26 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106781, 2 June.

Previous record. As (Vermeij *et al.*, 1983).

148. *Terebellum terebellum* (L.)

Tonbogai

Previous record. P (Vermeij *et al.*, 1983).

Family Hipponicidae

149. *Sabia acuta* (Quoy & Gaimard)

Atsu-kiku-suzume

Material examined. ANATAHAN: 1 ex., st. A, RI, TK leg., CBM-ZM-107577, 11 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106596, 24 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106733, 24 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106114, 24 May; 1 ex., Dive, PS & TP leg., CBM-ZM-106754, 25 May. MAUG, E: 1 ex., st. C, Dive, TK leg., CBM-ZM-107531, 4 June; 1 ex., st. D, Dive, TK leg., CBM-ZM-107537, 5 June. MAUG, N: 1d ex., north coast, Dive (3 m), TP leg., CBM-ZM-107564, 3 June.

Previous record. As *S. conica* (Schmacher) from AN, G, P, AG, AS & M (Vermeij *et al.*, 1983).

150. *Cheilea tortilis* (Reeve)

Shiwa-furin-chidori

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106285, 24 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106670, 24 May.

Family Vanikoridae

151. *Vanikoro acuta* (Récluz)
Previous record. P (Vermeij *et al.*, 1983).
152. *Vanikoro cancellata* (Lamarck)
 Kagome-shironezumi
Previous record. P (Vermeij *et al.*, 1983).
153. *Vanikoro distans* (Récluz)
 Kubire-shironezumi
Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107947, 18 May.
Previous record. G (Vermeij *et al.*, 1983).
154. *Vanikoro gueriniiana* (Récluz)
 Itokake-shironezumi
Material examined. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108297, 9 June. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106209, 24 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107898, 29 May.
155. *Vanikoro solida* (Sowerby)
 Tama-shironezumi
Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107946, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106569 & 106669, 24 May.

Family Capulidae

156. *Capulus batus* Dunker
 Kasen-chidori
Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107897, 29 May.

Family Vermetidae

157. *Serpulorbis variabilis* Hadfield & Kay
 Mikan-hebigai
Material examined. ANATAHAN: 2 exs., st. A, RI, TK leg., CBM-ZM-106836, 10 May; 2 exs., st. D, RI, TK leg., CBM-ZM-106908, 14 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106373, 18 May. PAGAN: 3d exs., st. E, BD, TK leg., CBM-ZM-106093, 24 May; 4d exs., st. E, BD, AA leg., CBM-ZM-106210, 24 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106589, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106469, 26 May. AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-105961, 105963, 30 May. MAUG, E: 11d exs., st. A, BD, TK leg., CBM-ZM-106023, 2 June; 5 exs., st. A, RI, TK leg., CBM-ZM-107450, 2 June.
Previous record. P, AS & M (Vermeij *et al.*,

1983).

158. *Serpulorbis* sp. A

Material examined. ALAMAGAN: 2 exs., st. A, RI, AA leg., CBM-ZM-107034, 19 May. PAGAN: 3d exs., st. E, BD, TK leg., CBM-ZM-106094, 24 May; 3d exs., st. E, BD, AA leg., CBM-ZM-106211, 24 May.

159. *Serpulorbis* sp. B

Material examined. ALAMAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106374, 18 May. PAGAN: 2d exs., st. D, BD, TK leg., CBM-ZM-106689, 27 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106095, 24 May.

160. *Bivonia?* sp.

Material examined. ALAMAGAN: 3 exs., st. B, Dive, TK leg., CBM-ZM-107048, 8 June; 1d ex., st. A, BD, TK leg., CBM-ZM-106375, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106590, 24 May; 2 exs., st. C, Dive, TK leg., CBM-ZM-107203, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-106517, 26 May; 3d exs., st. D, BD, TK leg., CBM-ZM-106296, 6690, 27 May. AGRIHAN: 3d exs., st. C, BD, TK leg., CBM-ZM-105966, 30 May. MAUG: E, 2d exs., st. A, BD, TK leg., CBM-ZM-106022, 2 June; 2 exs., st. B, Dive, TK leg., CBM-ZM-107545 & 107546, 5 June.

161. *Dendropoma planorbis* (Dunker)

Mijin-mukadegai
 ANATAHAN: 1 ex., st. C, RI, AA leg., CBM-ZM-106886, 13 May. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107987, 18 May. ALAMAGAN: 2 exs., st. B, Dive, TK leg., CBM-ZM-107049, 8 June. PAGAN: 2d exs., st. D, BD, TK leg., CBM-ZM-106297 & 106691, 27 May; 4d exs., st. E, BD, TK leg., CBM-ZM-106096, 24 May; 8 d exs., st. C, BD, TK leg., CBM-ZM-107601, 26 May. AGRIHAN: 2d exs., st. A, BD, TK leg., CBM-ZM-105960, 30 May.

162. *Dendropoma* cf. *D. spiruliformis* de Serres

Material examined. GUGUAN: 4d exs., st. C, BD, TK leg., CBM-ZM-107988, 18 May.

Family Cypraeidae

163. *Cypraea (Erosaria) erosa* L.

Komon-dakara
Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106434, 11 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-

106607, 24 May; 1d ex., st. A, BD, AA leg., CBM-ZM-107156, 24 May; 9d exs., st. C, BD, TK leg., CBM-ZM-106525 & 107605, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106300, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106102, 24 May; 3d exs., st. E, BD, AA leg., CBM-ZM-106214, 24 May; 1d ex., st. F, BD, TK leg., CBM-ZM-106559, 24 May.

Previous record. G, P & M (Vermeij *et al.*, 1983).

164. *Cypraea (Erosaria) helvola* L.

Kamon-dakara

Material examined. GUGUAN: 1d ex., st. C, TK leg., CBM-ZM-108312, 18 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106390, 18 May. PAGAN: 8d exs., st. A, BD, TK leg., CBM-ZM-106606, 24 May; 6d exs., st. C, BD, TK leg., CBM-ZM-106520 & 107604, 26 May; 7 exs., st. D, BD, TK leg., CBM-ZM-106301 & 106707, 27 May; 3d exs., st. E, BD, TK leg., CBM-ZM-106100, 24 May; 2d exs., st. E, BD, AA leg., CBM-ZM-106215, 24 May; 1d ex., st. E, BD, TK leg., CBM-ZM-107277, 27 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105975, 30 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106029, 2 June. MAUG, N & W: 1d ex., Dive (5–10 m), TP leg., CBM-ZM-106790, 2 June.

Previous record. AN, P, AS & M (Vermeij *et al.*, 1983).

165. *Cypraea (Erosaria) poraria* L.

Ayame-dakara

Material examined. ANATAHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-106450, 12 May. ALAMAGAN: 8d exs., st. A, BD, TK leg., CBM-ZM-106388, 18 May; 2d exs., st. A, BD, TK leg., CBM-ZM-106418, 9 June. PAGAN: 42d exs., st. A, BD, TK leg., CBM-ZM-106605, 24 May; 6d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106471, 26 May; 29d exs., st. C, BD, TK leg., CBM-ZM-106519 & 107603, 26 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107207, 26 May; 17d exs., st. D, BD, TK leg., CBM-ZM-106302 & 106706, 27 May; 11d exs., st. E, BD, TK leg., CBM-ZM-106099, 24 May; 18d exs., st. E, BD, AA leg., CBM-ZM-106216, 24 May; 2 exs., st. E, Dive, TK leg., CBM-ZM-107250 & 107276, 27 May; 2d exs., Dive, PS & TP leg., CBM-ZM-106748, 25 May. AGRIHAN: 5d exs., st. C, BD, TK leg., CBM-ZM-105972, 30 May; 1d ex., west coast, Dive, TP leg., CBM-ZM-106820, 30 May.

MAUG, E: 14d exs., st. A, BD, TK leg., CBM-ZM-106028 & 107444, 2 June.

Previous record. AN, S, G, AL, P, AG, M & U (Vermeij *et al.*, 1983).

166. *Cypraea (Erosaria) labrolineata* Gmelin
Nashiji-dakara

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106101, 24 May.

167. *Cypraea (Luria) isabella* L.

Yanagishibori-dakara

Material examined. ANATAHAN: 1 ex., st. C, RI, AA leg., CBM-ZM-106887, 13 May. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106389, 18 May. PAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106612, 24 May; 5d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106473, 26 May; 14d exs., st. C, BD, TK leg., CBM-ZM-106523 & 107610, 26 May; 3 exs., st. D, BD, TK leg., CBM-ZM-106709, 27 May; 6d exs., st. E, BD, TK leg., CBM-ZM-106106, 24 May; 7d exs., st. E, BD, AA leg., CBM-ZM-106218, 24 May; 2d exs., Dive, PS leg., CBM-ZM-106738, 24 May; 1d ex., Dive, PS & TP leg., CBM-ZM-106753, 25 May; 2d exs., Dive, TP leg., CBM-ZM-106758, 27 May. MAUG, E: 3d exs., st. A, BD, TK leg., CBM-ZM-106030, 2 June. URACAS: 1d ex., st. A, RI, TK leg., CBM-ZM-107009, 6 June.

Previous record. AN, S, G, P, M & U (Vermeij *et al.*, 1983).

168. *Cypraea (Arabica) maculifera* Schilder
Kikko-dakara

Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106436, 11 May; 1d ex., st. B, BD, TK leg., CBM-ZM-106451, 12 May; 1 ex., st. B, RI, AA leg., CBM-ZM-106859, 12 May. ALAMAGAN: 30d exs., st. A, BD, TK leg., CBM-ZM-106386, 18 May; 6d exs., st. A, BD, TK leg., CBM-ZM-106415, 9 June; 1d ex., NW coast, Dive (10–15 m), TP leg., CBM-ZM-106806, 9 June. PAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106615, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106475, 26 May; 3d exs., st. C, BD, TK leg., CBM-ZM-106527, 26 May; 5d exs., st. E, BD, TK leg., CBM-ZM-106097, 24 May; 7d exs., st. E, BD, AA leg., CBM-ZM-106212, 24 May. AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-105970, 30 May. ASUNCION: 1d ex., Dive (10–15 m), TP leg., CBM-ZM-106827, 1 June. MAUG, E: 6d exs., st. A, BD, TK leg., CBM-ZM-106025, 2 June; 4 exs., st. A, RI, AA

leg., CBM-ZM-107428, 2 June; 2 exs., st. A, RI, TK leg., CBM-ZM-107451, 2 June.

Previous record. G, P, M & U (Vermeij *et al.*, 1983).

169. *Cypraea (Arabica) depressa* Gray

Hime-yakushima-dakara

Material examined. ANATAHAN: 4d exs., st. A, BD, TK leg., CBM-ZM-106437, 11 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106419, 9 June. PAGAN: 3d exs., st. C, BD, TK leg., CBM-ZM-106526 & 107608, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106712, 27 May; 1d ex., Dive, PS & TP leg., CBM-ZM-106751, 25 May.

Previous record. P (Vermeij *et al.*, 1983).

170. *Cypraea (Mauritia) mauritiana* L.

Hachijo-dakara

Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106438, 11 May; 1 ex., st. A, RI, AA leg., CBM-ZM-107333, 11 May; 1d ex., st. B, BD, TK leg., CBM-ZM-106453, 12 May; 5 exs., st. B, RI, AA leg., CBM-ZM-107334, 12 May; 6 exs., st. C, RI, AA leg., CBM-ZM-107335, 13 May; 8 exs., st. D, RI, TK leg., CBM-ZM-107336, 14 May. SARIGAN: 15 exs., st. A, RI, AA leg., CBM-ZM-107337, 15 May. GUGUAN: 3 exs., st. B, RI, AA leg., CBM-ZM-106943, 17 May; 16 exs., st. B, RI, TK leg., CBM-ZM-106966, 17 May; 10 exs., st. B, RI, AA leg., CBM-ZM-107338, 17 May. ALAMAGAN: 7 exs., st. A, RI, AA leg., CBM-ZM-107339, 19 May; 12 exs., st. A, RI, AA leg., CBM-ZM-107060 & 107349, 9 June. PAGAN: 2 exs., st. A, RI, AA leg., CBM-ZM-107160, 24 May; 3 exs., st. B, RI, AA leg., CBM-ZM-107172, 25 May; 7 exs., st. C, RI, AA leg., CBM-ZM-107340, 26 May; 2d exs., st. C, BD, TK leg., CBM-ZM-107609, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106306, 27 May; 4 exs., st. D, RI, AA leg., CBM-ZM-107341, 27 May; 1d ex., Dive, TP leg., CBM-ZM-106757, 27 May. AGRIHAN: 15 exs., st. B, RI, AA leg., CBM-ZM-107342, 29 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107419, 30 May; 1d ex., W coast, Dive, TP leg., CBM-ZM-106822, 31 May. ASUNCION: 4 exs., st. A, RI, AA leg., CBM-ZM-107343, 1 June; 1d ex., Dive (10–15 m), TP leg., CBM-ZM-106826, 1 June; 1 ex., st. A, RI, J. Guery leg., CBM-ZM-107121, 1 June. MAUG, E: 8 exs., st. A, RI, AA leg., CBM-ZM-107344 & 107427, 2 June; 4 exs., st. A, RI, TK leg., CBM-ZM-107345 &

107438, 2 June. MAUG, N: 3 exs., st. F, RI, AA leg., CBM-ZM-107346, 3 June. MAUG, W: 12 exs., st. E, RI, AA leg., CBM-ZM-107347 & 107494, 4 June. URACAS: 10 exs., st. A, RI, AA leg., CBM-ZM-107348, 6 June.

Previous record. G, AL, P, Ag & M (Vermeij *et al.*, 1983).

171. *Cypraea (Monetaria) moneta* L.

Kihiro-dakara

Material examined. 1d ex., ANATAHAN: st. A, BD, TK leg., CBM-ZM-106433, 11 May; 1 ex., st. A, RI, AA leg., CBM-ZM-106847, 11 May. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106391, 18 May; 5d exs., st. A, BD, TK leg., CBM-ZM-106417, 9 June; 1 ex., st. A, RI, AA leg., CBM-ZM-107064, 9 May. PAGAN: 4d exs., st. A, BD, TK leg., CBM-ZM-106604, 24 May; 2 exs., st. A, RI, AA leg., CBM-ZM-107155, 24 May; 8 d exs., st. C, BD, TK leg., CBM-ZM-106521, 107208 & 107602, 26 May; 26 exs., st. D, BD, TK leg., CBM-ZM-106705, 27 May; 3d exs., st. E, BD, TK leg., CBM-ZM-106105, 24 May; 1 d ex., Dive, PS & TP leg., CBM-ZM-106749, 25 May. MAUG, E: 1 ex., st. B, Dive, TK leg., CBM-ZM-107547, 5 June. MAUG, W: 6 exs., st. E, RI, AA leg., CBM-ZM-107492, 4 June.

Previous record. AN, AL, P, AS & M (Vermeij *et al.*, 1983).

172. *Cypraea (Monetaria) moneta* L. (*monetoides* Iredale)

(Fusidaka-kihiro-dakara)

Material examined. PAGAN: 3d exs., st. D, BD, TK leg., CBM-ZM-106303, 27 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105974, 30 May.

173. *Cypraea (Lyncina) lynx* L.

Hime-hoshi-dakara

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106108, 24 May.

Previous record. P, AL & M (Vermeij *et al.*, 1983).

174. *Cypraea (Ponda) carneola* L.

Kuchimurasaki-dakara

Material examined. ANATAHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-106452, 12 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106393, 18 May. PAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106614, 24 May; 3d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106474, 26 May; 3d exs., st. C, BD, TK leg., CBM-ZM-106524 &

107607, 26 May; 4d exs., st. D, BD, TK leg., CBM-ZM-106304 & 106710, 27 May; 2d exs., st. E, BD, AA leg., CBM-ZM-106217, 24 May; 1d ex., Dive, PS & TP leg., CBM-ZM-106750, 25 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105971, 30 May. MAUG, E: 6 exs., st. A, BD, TK leg., CBM-ZM-106027, 2 June. MAUG, N & W: 1d ex., Dive (5–10 m), TP leg., CBM-ZM-106789, 2 June.

Previous record. G, P, Ag & M (Vermeij *et al.*, 1983).

175. *Cypraea (Ponda) schilderoorum* (Iredale)
Okinawa-dakara

Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106392, 18 May.

176. *Cypraea (Mystaponda) vitellus* L.
Hoshikinuta

Previous record. P (Vermeij *et al.*, 1983).

177. *Cypraea (Palmadusta) undata* Lamarck
Ajiro-dakara

Material examined. 1d ex., PAGAN: st. A, BD, TK leg., CBM-ZM-106611, 24 May.

178. *Cypraea (Palmadusta) contaminata* Sowerby
Kuroshio-dakara

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106610, 24 May.

179. *Cypraea (Purpuradusta) fimbriata* Gmelin

Tsumamurasaki-me-dakara

Material examined. PAGAN: 4d exs., st. A, BD, TK leg., CBM-ZM-106609, 24 May. PAGAN: 9d exs., st. E, BD, TK leg., CBM-ZM-106103 & 106104, 24 May. PAGAN: 2d exs., st. E, BD, AA leg., CBM-ZM-106221 & 106220, 24 May.

Previous record. P (Vermeij *et al.*, 1983).

180. *Cypraea (Ravitrana) caputserpentis* L.
Hanamaruyuki

Material examined. ANATAHAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106435, 11 May. ALAMAGAN: 17d exs., st. A, BD, TK leg., CBM-ZM-106387, 18 May; 6d exs., st. A, BD, TK leg., CBM-ZM-106416, 9 June. PAGAN: 6d exs., st. A, BD, TK leg., CBM-ZM-106608, 24 May; 8d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106472, 26 May; 25d exs., st. C, BD, TK leg., CBM-ZM-106522 & 107606, 26 May; 26d exs., st. D, BD, TK leg., CBM-ZM-106305 & 106708, 27 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106107, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106213,

24 May. AGRIHAN: 21d exs., st. C, BD, TK leg., CBM-ZM-105971 & 107417, 30 May. MAUG, E: 7d exs., st. A, BD, TK leg., CBM-ZM-106026, 2 June; 1 ex., north edge, RI, PS & TP leg., CBM-ZM-107557, 3 June; 1 ex., south edge, RI, HH leg., CBM-ZM-107506, 4 June. MAUG, N: 2d exs., north coast, Dive (6–15 m), CBM-ZM-106803, 5 June. MAUG, W: 1 ex., st. E, RI, AA leg., CBM-ZM-107493, 4 June. URACAS: 2 exs., st. A, RI, TK leg., CBM-ZM-106999 & 107008, 6 June.

181. *Cypraea (Talostolida) teres* Gmelin
E-dakara

Previous record. G (Vermeij *et al.*, 1983).

182. *Cypraea (Talparia) talpa* L.
Taru-dakara

Material examined. GUGUAN: 3d exs., st. C, Dive, TK leg., CBM-ZM-106990, 18 May. PAGAN: 1d ex., Dive, PS leg., CBM-ZM-106737, 24 May; 1d ex., Dive (15 m), PS leg., CBM-ZM-106743, 26 May.

Previous record. P (Vermeij *et al.*, 1983).

183. *Cypraea (Chelycypraea) testudinaria* L.
Murakumo-dakara

Material examined. AGRIHAN: 1d ex., west coast, Dive, TP leg., CBM-ZM-106823, 31 May. ASUNCION: 1d ex., Dive (10–15 m), TP leg., CBM-ZM-106830, 1 June.

Previous record. P (Vermeij *et al.*, 1983).

184. *Cypraea (Pustlaria) globulus* L.
Meno-chidori-dakara

Previous record. P & M (Vermeij *et al.*, 1983).

185. *Cypraea (Pustlaria) mediocris* Schilder & Schilder

Koge-chidori-dakara

Material examined. PAGAN: 1 ex., st. D, BD, TK leg., CBM-ZM-106711, 27 May.

186. *Cypraea (Staphylaea) staphylaea* L.
Same-dakara

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106098, 24 May.

187. *Cypraea (Staphylaea) nucleus* L.
Ibo-dakara

Material examined. PAGAN: 3d exs., st. E, BD, AA leg., CBM-ZM-106222, 24 May; 2d exs., st. A, BD, TK leg., CBM-ZM-106613, 24 May.

Family Triviidae

188. *Trivirostra oryza* (Lamarck)
Shiratama

Material examined. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105971, 30 May.

189. *Trivirostra edgari* (Shaw)

Wasure-shiratama

Material examined. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106616, 24 May; 6d exs., st. E, BD, TK leg., CBM-ZM-106111, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106224, 24 May.

Family Eratoidea

190. *Eratonea sulcifera* (Sowerby)

Zakuro-gai-modoki

Previous record. As *Lachryma sulcifera* from G & P (Vermeij *et al.*, 1983).

Family Naticidae

191. *Mammila melanostomus* (Gmelin)

Risugai

Previous record. As *Polinices melanostomus* from U (Vermeij *et al.*, 1983).

192. *Natica bougei* Sowerby

Kanoko-dama

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106600, 24 May.

193. *Natica* sp.

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106113, 24 May.

194. *Tanea sagittata* (Menke)

Hagino-tsuyu

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106599, 24 May; 2d exs., st. E, BD, AA leg., CBM-ZM-106225, 24 May; 1d ex., st. E, Dive, TK leg., CBM-ZM-107281, 27 May.

195. *Notocochlis lurida* (Philippi)

Hoshuno-tama

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106112, 24 May.

196. Naticidae sp.

Previous record. AN (Vermeij *et al.*, 1983).

Family Cassidae

197. *Casmaria ponderosa* (Gmelin)

Amegai

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107632, 26 May.

Previous record. P (Vermeij *et al.*, 1983).

198. *Cassis cornutus* (L.)

To-kamuri

Previous record. P & M (Vermeij *et al.*, 1983).

Family Tonnidae

199. *Tonna perdix* (L.)

Uzuragai

Material examined. AGRIHAN: 1d ex., west coast, Dive, TP leg., CBM-ZM-106819, 30 May.

Family Ranellidae

200. *Cymatium (Septa) hepaticum* (Röding)

Juseira

Material examined. 1d ex., MAUG, W: st. E, RI, AA leg., CBM-ZM-108267, 4 June.

Previous record. P (Vermeij *et al.*, 1983).

201. *Cymatium (Septa) limberti* (Röding)

Hime-juseira

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107617, 26 May.

202. *Cymatium (Septa) rubecula* (L.)

Shojora

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106603, 24 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106693, 27 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106477, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107616, 26 May.

203. *Cymatium (Septa) pileare* (L.)

Shinomaki

Material examined. PAGAN: 1d ex., st. E, RI, AA leg., CBM-ZM-108298, 24 May.

Previous record. P & AG (Vermeij *et al.*, 1983).

204. *Cymatium (Gutturium) muricinum* (Röding)

Shiobora

Previous record. M (Vermeij *et al.*, 1983).

205. *Cymatium (Cymatriton) nicobaricum* (Röding)

Mitsukado-bora

Material examined. ANATAHAN: 1d ex., st. A, RI, TK leg., CBM-ZM-108294, 27 May. ALA-MAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106364, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106602, 24 May; 4d exs., st. C, BD, TK leg., CBM-ZM-106528 & 107615, 26 May; 2d exs., st. E, BD, AA leg., CBM-ZM-106227, 24 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105979, 30 May.

Previous record. AG (Vermeij *et al.*, 1983).

206. *Cymatium (Lampusia) aquatilis* (Reeve)

Satsuma-bora

Material examined. PAGAN: 1d ex., st. A, BD,

TK leg., CBM-ZM-106601, 24 May; 5d exs., st. C, BD, TK leg., CBM-ZM-106529 & 107614, 26 May; 3d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106476, 26 May; 3d exs., st. E, BD, TK leg., CBM-ZM-106115, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106226, 24 May; 1d ex., Dive, PS leg., CBM-ZM-106739, 24 May. AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-105978, 30 May. MAUG, N: 1d ex., st. F, RI, AA leg., CBM-ZM-108263, 3 June. URACAS: 1d ex., st. A, RI, AA leg., CBM-ZM-108273, 6 June.

207. *Cymatium (Turritriton) labiosum* (Wood)

Hime-mitsukado-bora

Material examined. URACAS: 1d ex., RI, AA leg., CBM-ZM-108274, 1 June.

208. *Cymatium lotorium* (L.)

Fujitsugai

Material examined. PAGAN: 2d exs., st. C, BD, TK leg., CBM-ZM-106530, 31, 26 May.

209. *Charonia tritonis* (L.)

Horagai

Material examined. MAUG, E: 1d ex., st. C, BD, TO leg., CBM-ZM-106788, 4 June.

210. *Distorsio anus* (L.)

Shima-ibo-bora

Material examined. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108026, 9 June.

Family Bursidae

211. *Bursa (Colubrellina) granularis* (Röding)

Iwakawa-une-bora

Material examined. ANATAHAN: 1d ex., st. A, RI, TK leg., CBM-ZM-108295, 11 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106379, 18 May. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107621, 26 May. MAUG, N: 1d ex., st. F, RI, AA leg., CBM-ZM-108264, 3 June.

Previous record. G & P (Vermeij *et al.*, 1983).

212. *Bursa* (s.s.) *bufonia dunkeri* Kira

Okinishi

Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106366, 18 May. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107618, 26 May. AGRIHAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108259, 29 May.

Previous record. As *B. bufonia* (Gmelin) from AN & P (Vermeij *et al.*, 1983).

213. *Bursa (Lampadopsis) rhodostoma* (Sowerby)

Ohaguro-okinishi

Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106363, 18 May. PAGAN: 3d exs., st. C, BD, TK leg., CBM-ZM-106532 & 107619, 26 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105980, 30 May.

214. *Bursa (Lampadopsis) cruentata* (Sowerby)

Shiwa-okinishi

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107620, 26 May.

Family Cerithiopsidae

215. *Jaculator* sp.

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107882, 29 May.

216. *Horologica* sp. A

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107949, 18 May.

217. *Horologica* sp. B

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-108311, 18 May.

Family Triphoridae

218. *Viriola elegans* (Hinds)

Madara-kiriore

Material examined. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-107936, 18 May.

219. *Viriola incisa* (Pease)

Sabi-kiriore

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107937, 18 May.

220. *Viriola* sp.

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107889, 29 May.

221. *Triphora hervieri* (Kosuge)

Heritori-murasaki-kiriore

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107888, 29 May.

222. *Triphora* sp.

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107887, 29 May.

223. *Mastonia crassula* (Martens)

Nezumi-kiriore

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107886, 29 May.

224. *Mastonia monilifera* (Hinds)

Mikeiro-kiriore

Material examined. MAUG, E: 1 ex., st. B, Dive, TK leg., CBM-ZM-107552, 5 June.

225. *Mastonia* sp.

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107885, 29 May.

226. *Epiforis projecta* (Laseron)

Chibi-mitsukuchi-kiriore

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107938, 18 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107883, 29 May.

227. *Iniforis* cf. *I. jousaumei* (Hervier)

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107884, 29 May.

228. *Iniforis cingulata* (Pease)

Ebiro-mitsukuchi-kiriore

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107939, 18 May.

229. *Iniforis concors* (Hinds)

Shiro-kiriore

Material examined. PAGAN: 1d ex., st. E, Dive, TK leg., CBM-ZM-107282, 27 May.

Family Janthinidae

230. *Janthina janthina* (L.)

Asagaogai

Material examined. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107409, 30 May.

Family Epitoniidae

231. *Gyroscala perplexa* (Pease)

Nejigai

Material examined. AGRIHAN: 4d exs., st. C, BD, TK leg., CBM-ZM-105977 & 107412, 30 May

232. *Laeviscala* sp.

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107950, 18 May. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106116, 24 May.

Family Eulimidae

233. *Pyramidelloides suta* (Pilsbry)

Previous record. G (Vermeij *et al.*, 1983).

234. *Balcis* sp.

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107940, 18 May.

235. *Echineulima robusta* (Pease)

Gangaze-yadorinina

Material examined. PAGAN: 1 ex., st. C, Dive, TK leg., CBM-ZM-107206, 26 May.

236. Eulimidae cf. *Echineulima* sp.

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106679, 24 May.

Order Neogastropoda

Family Muricidae

237. *Chicoreus (Triplex) brunneus* (Link)

Ganzeki-bora

Previous record. M (Vermeij *et al.*, 1983).

238. *Thais (Stramonita) armigera* (Link)

Shirakumogai

Material examined. ANATAHAN: 1ex., st. A, RI, AA leg., CBM-ZM-107573, 11 May. ALA-MAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106362, 18 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106420, 9 June. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106309, 27 May.

Previous record. AN, G, P & M (Vermeij *et al.*, 1983).

239. *Thais (Thaisella) muricina* (Blainville)

Uni-reishi-damashi

Material examined. PAGAN: 1d ex., st. C, RI, AA leg., CBM-ZM-108029, 26 May.

240. *Mancinella hippocastanum* (L.)

Tsuno-tetsu-reishi

Material examined. PAGAN: 3 exs., st. C, RI, AA leg., CBM-ZM-107180, 26 May.

241. *Mancinella intermedia* (Kiener)

Koibo-tetsu-reishi

Material examined. GUGUAN: 1d ex., st. C, RI, TK leg., CBM-ZM-106987, 18 May. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107628, 26 May; 2d exs., st. D, BD, TK leg., CBM-ZM-106310 & 106698, 27 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105984, 30 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106034, 2 June. URACAS: 2d exs., st. A, RI, AA leg., CBM-ZM-108275, 6 June.

Previous record. AN, G, P & M (Vermeij *et al.*, 1983).

242. *Mancinella tuberosa* (Röding)

Tsuno-reishi

Previous record. G & P (Vermeij *et al.*, 1983).

243. *Mancinella bufo* (Lamarck)

Taiwan-reishi

Material examined. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105985, 30 May.

244. *Morula biconica* (Blainville)

Komurasaki-reishi-damashi

Material examined. ANATAHAN: 1 ex., st. B, RI, AA leg., CBM-ZM-106867, 12 May. GU-

- GUAN: 2 exs., st. C, BD, TK leg., CBM-ZM-107955 & 107991, 18 May. PAGAN: 5d exs., st. D, BD, TK leg., CBM-ZM-106312 & 106696, 27 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106229, 24 May; 2 exs., st. E, Dive, TK leg., CBM-ZM-107254, 27 May. MAUG, E: 1 ex., st. C, Dive, TK leg., CBM-ZM-107521, 4 June.
- Previous record.* G, P & AS (Vermeij *et al.*, 1983).
- 245. *Morula granulata* (Duclos)**
Reishi-damashi
- Material examined.* ANATAHAN: 3 exs., st. A, RI, AA leg., CBM-ZM-106839, 10 May; 5 exs., st. A, RI, AA leg., CBM-ZM-106848 & 107571, 11 May; 8 exs., st. B, RI, AA leg., CBM-ZM-106865, 12 May; 10 exs., st. C, RI, AA leg., CBM-ZM-106890, 13 May. SARIGAN: 10 exs., st. A, RI, TK leg., CBM-ZM-106930, 16 May; 2 exs., st. A, RI, AA leg., CBM-ZM-106936, 15 May. GUGUAN: 2 exs., st. B, RI, AA leg., CBM-ZM-106950, 17 May; 4 exs., st. B, RI, TK leg., CBM-ZM-106962, 17 May. ALAMAGAN: 5 exs., st. A, RI, AA leg., CBM-ZM-107072, 9 June. PAGAN: 5 exs., st. A, RI, AA leg., CBM-ZM-107150, 24 May; 6 exs., st. C, RI, AA leg., CBM-ZM-107181, 26 May; 3 exs., st. D, RI, AA leg., CBM-ZM-107187, 26 May; 8 exs., st. D, RI, TK leg., CBM-ZM-107246, 27 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106697, 27 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106228, 24 May. AGR-IHAN: 16 exs., st. B, RI, AA leg., CBM-ZM-107094, 29 May; 1d ex., st. C, BD, TK leg., CBM-ZM-105987, 30 May. ASUNCION: 1d ex., st. A, RI, AA leg., CBM-ZM-107129, 1 June. MAUG, E: 3 exs., st. A, RI, TK leg., CBM-ZM-107439 & 107452, 2 June. MAUG, W: 6 exs., st. E, RI, AA leg., CBM-ZM-107465, 4 June. URACAS: 2 exs., st. A, RI, AA leg., CBM-ZM-106996, 6 June.
- Previous record.* AN, G, P & AS (Vermeij *et al.*, 1983).
- 246. *Morula spinosa* (H. & A. Adams)**
Toge-reishi-damashi
- Previous record.* AN (Vermeij *et al.*, 1983).
- 247. *Morula striata* (Pease)**
Kuchimurasaki-reishi-damashi
- Material examined.* ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108285, 9 June. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106478, 26 May; 2d exs., st. D, BD, TK leg., CBM-ZM-106695, 27 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106033, 2 June.
- 248. *Morula* sp.**
Nippon-reishi-damashi
- Material examined.* ANATAHAN: 1 ex., st. C, RI, AA leg., CBM-ZM-106892, 13 May. AGR-IHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105990, 30 May.
- 249. *Morula uva* (Röding)**
Kuroibo-reishi-damashi
- Material examined.* ANATAHAN: 6 exs., st. B, RI, AA leg., CBM-ZM-106866, 12 May; 1 ex., st. C, RI, AA leg., CBM-ZM-106891, 13 May; 4 exs., st. D, Dive, TK leg., CBM-ZM-106922, 14 May. SARIGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-106937, 15 May. GUGUAN: 3 exs., st. B, RI, AA leg., CBM-ZM-106949, 17 May; 4 exs., st. B, RI, TK leg., CBM-ZM-106963, 17 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106359, 18 May; 3 exs., st. A, RI, AA leg., CBM-ZM-107027 & 107039, 19 May. 1d ex., st. B, Dive, TK leg., CBM-ZM-107051, 8 June; 2d exs., st. A, BD, TK leg., CBM-ZM-106421, 9 June. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106619, 24 May; 3d exs., st. C, BD, TK leg., CBM-ZM-107625, 26 May; 3d exs., st. D, BD, TK leg., CBM-ZM-106311, 27 May; 16d exs., st. D, BD, TK leg., CBM-ZM-106694, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106120, 24 May; 10 exs., st. E, Dive, TK leg., CBM-ZM-107253, 27 May. AGR-IHAN: 9 exs., st. B, BD, AA leg., CBM-ZM-107095, 29 May. MAUG, E: 6d exs., st. A, BD, TK leg., CBM-ZM-106032 & 107440, 2 June; 29 exs., st. C, Dive, TK leg., CBM-ZM-107520, 4 June; 7 exs., st. D, Dive, TK leg., CBM-ZM-107538, 5 June; 2 exs., Dive, PS & TP leg., CBM-ZM-107558, 3 June. MAUG, W: 2 exs., st. E, RI, AA leg., CBM-ZM-107466, 4 June. MAUG, N: 2 exs., st. F, RI, AA leg., CBM-ZM-107473, 3 June; 1 ex., north coast, Dive (3m), TP leg., CBM-ZM-107563, 3 June. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-107005, 9 June.
- Previous record.* AN, G, P, AG, AS & M (Vermeij *et al.*, 1983).
- 250. *Maculotriton serrialis* (Deshayes)**
Gomafu-nukabora
- Material examined.* GUGUAN: 1 ex., st. B, RI, AA leg., CBM-ZM-108004, 18 May. PAGAN: 2 exs., st. C, RI, AA leg., CBM-ZM-107183, 26 May. MAUG, E: 1 ex., st. A, RI, TK leg., CBM-

ZM-107457, 2 June. URACAS: 3 exs., st. A, Dive, TK leg., CBM-ZM-107013, 6 June.

Previous record. As *M. bracteata* (Hinds) from P & M (Vermeij *et al.*, 1983).

251. *Drupella cornus* (Röding)

Shiro-reishi-damashi

Material examined. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106361, 18 May. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106481, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106313, 27 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105988, 30 May. MAUG, E: 3 exs., north coast, Dive, PS & TP leg., CBM-ZM-107559, 3 June.

Previous record. As *D. elata* (Blainville) from P & M (Vermeij *et al.*, 1983).

252. *Pascuala ochrostoma* (Blainville)

Kinafu-reishi-damashi

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106620, 24 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107627, 26 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106121, 24 May. MAUG, E: 1 ex., st. A, RI, AA leg., CBM-ZM-108031, 2 June. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-108033, 6 June.

Previous record. As *Drupella ochrostoma* from P & AG (Vermeij *et al.*, 1983).

253. *Drupa (Ricinella) clathrata* (Lamarck)

Hirokuchi-iga-reishi

Material examined. ANATAHAN: 2 exs., st. B, RI, AA leg., CBM-ZM-106864, 12 May. PAGAN: 1d ex., st. D, RI, TK leg., CBM-ZM-108256, 27 May. ASUNCION: 1d ex., st. A, RI, AA leg., CBM-ZM-108299, 1 June. MAUG, E: 2d exs., st. A, BD, TK leg., CBM-ZM-106031, 2 June. MAUG, N: 2 exs., st. F, RI, AA leg., CBM-ZM-107476, 3 June. URACAS: 1d ex., st. A, RI, AA leg., CBM-ZM-108272, 6 June.

Previous record. G, P, & M (Vermeij *et al.*, 1983).

254. *Drupa (Ricinella) rubusidaeus* Röding

Aka-iga-reishi

Material examined. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108305, 9 June. PAGAN: 1d ex., st. D, RI, AA leg., CBM-ZM-108254, 27 May. MAUG, E: 1d ex., st. C, Dive, TK leg., CBM-ZM-108292, 4 June.

Previous record. AN, P, AS & M (Vermeij *et al.*, 1983).

255. *Drupa (s.s.) morum morum* Röding

Murasaki-iga-reishi

Material examined. ANATAHAN: 8 exs., st. A, RI, AA leg., CBM-ZM-106838, 10 May; 4 exs., st. A, RI, AA leg., CBM-ZM-107572, 11 May; 15 exs., st. B, RI, AA leg., CBM-ZM-106860, 12 May; 3 exs., st. D, Dive, TK leg., CBM-ZM-106923, 14 May. SARIGAN: 2 exs., st. A, RI, AA leg., CBM-ZM-106938, 15 May. GUGUAN: 5 exs., st. C, Dive, TK leg., CBM-ZM-106981 & 106986, 18 May. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106360, 18 May; 39 exs., st. A, RI, AA leg., CBM-ZM-107025 & 107036, 19 May; 24 exs., st. A, RI, AA leg., CBM-ZM-107002, 9 June. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106617, 24 May; 3 exs., st. A, RI, AA leg., CBM-ZM-107152, 24 May; 5d exs., st. C, BD, TK leg., CBM-ZM-107623, 26 May; 3d exs., st. D, BD, TK leg., CBM-ZM-106308 & 106699, 27 May; 1 ex., st. D, RI, TK leg., CBM-ZM-107230, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106119, 24 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107263, 27 May; 1d ex., Dive, PS & TP leg., CBM-ZM-106752, 25 May. AGRIHAN: 7d exs., st. C, BD, TK leg., CBM-ZM-105982, 30 May. ASUNCION: 1 ex., st. A, RI, AA leg., CBM-ZM-107131, 1 June. MAUG, E: 2 exs., st. A, RI, TK leg., CBM-ZM-107453, 2 June; 2 exs., South edge, HH leg., CBM-ZM-107508, 4 June; 1 ex., north coast, Dive, PS & TP leg., CBM-ZM-107561, 3 June. MAUG, N: 5 exs., st. F, RI, AA leg., CBM-ZM-107475, 3 June. URACAS: 6 exs., st. A, Dive, TK leg., CBM-ZM-107011, 6 June.

Previous record. AN, G, AL, P, AG & M (Vermeij *et al.*, 1983).

256. *Drupa (s.s.) ricinus* (L.)

Kimadara-iga-reishi

Material examined. ANATAHAN: 4 exs., st. B, RI, AA leg., CBM-ZM-106862, 12 May; 1 ex., st. C, RI, AA leg., CBM-ZM-106889, 13 May. ALAMAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107038, 19 May. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106700, 27 May. AGRIHAN: 1d ex., north coast, Dive, PS & TP leg., CBM-ZM-106812, 29 May. MAUG, E: 2 exs., st. D, Dive, TK leg., CBM-ZM-107539, 5 June; 2 exs., north coast, Dive, PS & TP leg., CBM-ZM-107560, 3 June.

Previous record. AN, G, P, AS & M (Vermeij *et al.*, 1983).

257. *Drupa (s.s.) albolabris* (Blainville)

Shiro-iga-reishi

Material examined. ANATAHAN: 5 exs., st. A, RI, AA leg., CBM-ZM-106837, 10 May; 7 exs., st. B, RI, AA leg., CBM-ZM-106861, 12 May; 5 exs., st. C, RI, AA leg., CBM-ZM-106888, 13 May; 6 exs., st. D, Dive, TK leg., CBM-ZM-106911 & 106924, 14 May. SARIGAN: 30 exs., st. A, RI, AA leg., CBM-ZM-106939, 15 May. GUGUAN: 4 exs., st. B, RI, AA leg., CBM-ZM-106948, 17 May; 16 exs., st. B, RI, TK leg., CBM-ZM-106961, 17 May; 8 exs., st. C, RI, TK leg., CBM-ZM-106985, 18 May. ALAMAGAN: 1 d ex., st. A, BD, TK leg., CBM-ZM-106358, 18 May; 1 ex., st. A, RI, AA leg., CBM-ZM-107026, 19 May; 16 exs., st. A, RI, AA leg., CBM-ZM-107003 & 107037, 19 May; 3 exs., st. A, RI, AA leg., CBM-ZM-107079, 9 June. PAGAN: 17 exs., st. A, RI, AA leg., CBM-ZM-107151, 24 May; 3d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106479, 26 May; 2 exs., st. C, RI, AA leg., CBM-ZM-107179, 26 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107221, 26 May; 9d exs., st. C, BD, TK leg., CBM-ZM-107622, 26 May; 2 exs., st. D, RI, AA leg., CBM-ZM-107194, 27 May; 4d exs., st. D, BD, TK leg., CBM-ZM-106307, 27 May; 21 exs., st. D, RI, TK leg., CBM-ZM-107231, 27 May; 4d exs., st. E, BD, TK leg., CBM-ZM-106118, 24 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107278, 27 May. AGRIHAN: 4 exs., st. B, BD, AA leg., CBM-ZM-107096, 29 May; 30d exs., st. C, BD, TK leg., CBM-ZM-105981, 30 May. ASUNCION: 1 ex., st. A, RI, AA leg., CBM-ZM-107130, 1 June. MAUG, E: 7d exs., st. A, BD, TK leg., CBM-ZM-107441 & 107454, 2 June; 1 ex., st. B, RI, TK leg., CBM-ZM-107548, 5 June; 1 ex., st. C, Dive, TK leg., CBM-ZM-107522, 4 June; 4 exs., South edge, HH leg., CBM-ZM-107507, 4 June. MAUG, N: 61 exs., st. F, RI, AA leg., CBM-ZM-107474 & 107477, 3 June. MAUG, W: 4 exs., st. E, RI, AA leg., CBM-ZM-107496 & 107497, 4 June. URACAS: 10 exs., st. A, RI, AA leg., CBM-ZM-106997, 6 June; 28 exs., st. A, RI, TK leg., CBM-ZM-107010, 6 June.

Previous record. As *D. arachnoides* (Lamarck) from S, P, AS & M (Vermeij *et al.*, 1983).

258. *Drupa (Drupina) grossularia* Röding

Kihiro-iga-reishi

Material examined. ANATAHAN: 2 exs., st. B, RI, AA leg., CBM-ZM-106863, 12 May. PAGAN:

1d ex., st. A, BD, TK leg., CBM-ZM-106618, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106480, 26 May; 3d exs., st. C, BD, TK leg., CBM-ZM-106533 & 107624, 26 May; 4d exs., st. D, BD, TK leg., CBM-ZM-106701, 27 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105983, 30 May. MAUG, E: 6 exs., st. C, Dive, TK leg., CBM-ZM-107523, 4 June; 3 exs., st. D, Dive, TK leg., CBM-ZM-107540, 4 June; 1 ex., north coast, Dive, PS & TP leg., CBM-ZM-107562, 3 June.

Previous record. G, P & AG (Vermeij *et al.*, 1983).

259. *Nassa sarta* (Bruguère)

Hanawa-reishi

Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106439, 11 May. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107630, 26 May. MAUG, E: 1d ex., st. A, RI, AA leg., CBM-ZM-108301, 2 June. URACAS: 1d ex., st. A, RI, AA leg., CBM-ZM-108280, 6 June.

Previous record. P (Vermeij *et al.*, 1983).

260. *Cronia (Usilla) fusconigra* (Pease)

Shiinomi-reishi

Material examined. ANATAHAN: 1 ex., st. D, Dive, TK leg., CBM-ZM-106921, 14 May. SARIGAN: 4d exs., st. A, RI, AA leg., CBM-ZM-108242, 15 May. GUGUAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108245, 17 May. PAGAN: 2d exs., st. E, BD, TK leg., CBM-ZM-106122, 24 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107222, 26 May. AGRIHAN: 1 ex., st. B, RI, AA leg., CBM-ZM-107093, 29 May; 6d exs., st. C, BD, TK leg., CBM-ZM-105989, 30 May. MAUG, W: 12 exs., st. E, RI, AA leg., CBM-ZM-107467, 4 June. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-106998, 6 June; 1 ex., st. A, Dive, TK leg., CBM-ZM-107012, 6 June.

Previous record. AN & P (Vermeij *et al.*, 1983).

261. *Purpura persica* (L.)

Hososuji-tetsubora

Material examined. ANATAHAN: 1 ex., st. A, RI, TK leg., CBM-ZM-106855, 11 May; 5 exs., st. B, RI, AA leg., CBM-ZM-106877 & 107313, 12 May; 8 d exs., st. B, BD, TK leg., CBM-ZM-106458, 14 May; 5 exs., st. C, RI, AA leg., CBM-ZM-107314, 13 May; 3 exs., st. D, RI, TK leg., CBM-ZM-106912, 14 May. SARIGAN: 4 exs., st. A, RI, AA leg., CBM-ZM-107315, 15 May. GUGUAN: 1 ex., st. B, RI, AA leg., CBM-ZM-

107316, 17 May. ALAMAGAN: 6 exs., st. A, RI, AA leg., CBM-ZM-107317, 19 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106621, 24 May; 14 exs., st. B, RI, AA leg., CBM-ZM-107170, 25 May; 2d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106482, 26 May; 5 exs., st. C, RI, AA leg., CBM-ZM-107182, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107625, 26 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106230, 24 May. AGRIHAN: 4 exs., st. A, RI, AA leg., CBM-ZM-107080, 28 May; 5 exs., st. B, BD, AA leg., CBM-ZM-107097, 29 May; 3 exs., East coast, BD, TO & HH leg., CBM-ZM-107093, 30 May; 2d exs., st. C, BD, TK leg., CBM-ZM-105986, 30 May. ASUNCION: 7 exs., st. A, RI, AA leg., CBM-ZM-107318, 1 June. MAUG, E: 1d ex., st. A, TK leg., CBM-ZM-106782, 2 June; 1 ex., st. A, AA leg., CBM-ZM-107319, 2 June. MAUG, W: 8 exs., st. E, AA leg., CBM-ZM-107320 & 107495, 4 June. MAUG, N: 1 ex., st. F, RI, AA leg., CBM-ZM-107480, 3 June. URACAS: 5 exs., st. A, AA leg., CBM-ZM-107321, 6 June.

Previous record. AN, G, P, M & U (Vermeij *et al.*, 1983).

Family Coralliophilidae

262. *Coralliophila neritoidea* (Lamarck)

Kuchimurasaki-sangoyadori

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106622, 24 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106123, 24 May. AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-105991, 30 May. URACAS: 1 ex., st. A, Dive, TK leg., CBM-ZM-107014, 6 June.

Previous record. As *C. violacea* (Kiener) from AN & P (Vermeij *et al.*, 1983).

263. *Coralliophila bulbiformis* (Conrad)

Hirase-toyotsu

Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106367, 18 May. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106483, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107631, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106314, 27 May. AGRIHAN: 1 ex., st. C, BD, TK leg., CBM-ZM-105992, 30 May.

264. *Coralliophila costularis* (Lamarck)

Suji-sangoyadori

Material examined. PAGAN: 1d ex., st. C, RI, AA leg., CBM-ZM-108030, 26 May.

265. *Coralliophila erosa* (Röding)

Kabuto-sangoyadori

Material examined. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108249, 19 May. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106124, 24 May.

266. *Coralliophila squamoissima* (Smith)

Kagome-sangoyadori

Material examined. MAUG, E: 1d ex., st. A, RI, TK leg., CBM-ZM-108032, 2 June.

267. *Quoyola madreporara* (Sowerby)

Hitoha-sangoyadori

Material examined. GUGUAN: 1 ex., st. C, BD, TK leg., CBM-ZM-107956, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106623, 24 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106702, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106125, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106231, 24 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106035, 2 June; 2 exs., st. A, RI, AA leg., CBM-ZM-107434, 2 June; 3 exs., st. B, Dive, TK leg., CBM-ZM-107549, 107550 & 107551, 5 June. MAUG, N: 4 exs., st. F, RI, AA leg., CBM-ZM-107478 & 107479, 3 June.

Previous record. As *Q. monodonta* (Blainville) from P & AG (Vermeij *et al.*, 1983).

268. *Leptoconchus striatus* Rüppell

Murogai

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107957, 18 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107900, 29 May.

Family Columbellidae

269. *Euplica borealis* (Pilsbry)

Hime-maru-futokoro

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-108312, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106624, 24 May; 7d exs., st. E, BD, TK leg., CBM-ZM-106131 & 106237, 24 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107255, 27 May. AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-105994, 30 May.

270. *Euplica deshayesi* (Crosse)

Heshage-futokoro

Previous record. P (Vermeij *et al.*, 1983).

271. *Euplica turturina* (Lamarck)

Maru-futokoro

Previous record. P (Vermeij *et al.*, 1983).

272. *Euplica varians* (Sowerby)

Chijimi-futokoro

Material examined. GUGUAN: 6 exs., st. B, RI, AA leg., CBM-ZM-106955, 17 May. PAGAN: 2d exs., st. E, BD, TK leg., CBM-ZM-106134, 24 May.

Previous record. P (Vermeij *et al.*, 1983).

273. *Pyrene obtusa* (Sowerby)

Previous record. AS & M (Vermeij *et al.*, 1983).

274. *Graphicomassa* sp.

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106625, 24 May.

275. *Zafra dautzenbergi* (Hervier)

Unenashi-nominina

Material examined. GUGUAN: 3 exs., st. C, BD, TK leg., CBM-ZM-107958, 18 May. AGR-IHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107902, 29 May.

276. *Zafra virginea* (Gould)

Previous record. As *Seminella virginea* from AS & M (Vermeij *et al.*, 1983).

277. *Zafra isomella* (Duclos)

Kagome-nominina

Material examined. GUGUAN: 1ex., st. C, BD, TK leg., CBM-ZM-107960, 18 May.

278. *Zafra* cf. *Z. validicosta* (Habe)

Material examined. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-107903, 29 May.

279. *Zafra* cf. *Z. ocellatula* (Hervier)

Material examined. GUGUAN: 1 ex., st. C, BD, TK leg., CBM-ZM-107958, 18 May. AGRIHAN: 3d exs., st. B, BD, TK leg., CBM-ZM-107901, 29 May.

280. *Zafra* sp.

Previous record. As *Seminella* sp. from AS (Vermeij *et al.*, 1983).

281. "*Zafra*" *nanisca* (Hervier)

Hososhiwa-nominina

Material examined. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-107686, 29 May.

282. *Zafra lifuana* (Hervier)

Samehada-mugigai

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107961, 18 May.

283. *Pseudamycla rorida* (Reeve)

Miyori-yobai

Material examined. PAGAN: 1 ex., st. E, Dive, TK leg., CBM-ZM-107279, 27 May.

Family Buccinidae

284. *Caducifer decapitata* (Reeve)

Kogei-ro-horadamashi

Material examined. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-107962 & 107992, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106627, 24 May; 4d exs., st. E, BD, TK leg., CBM-ZM-106127, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106232, 24 May.

Previous record. As *C. decapitata fuscmaculata* (Pease) from P (Vermeij *et al.*, 1983).

285. *Prodotia iostoma* (Gray in Griffiths & Pidgin)

Kagome-horadamashi

Previous record. P (Vermeij *et al.*, 1983).

286. *Pisania ignea* (Gmelin)

Bekkobai

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106760, 27 May.

Previous record. G (Vermeij *et al.*, 1983).

287. *Pollia fumosa* (Dillwyn)

Horadamashi

Previous record. As *Cantharus fumosus* from M (Vermeij *et al.*, 1983).

288. *Pollia undosa* (L.)

Sujiguro-horadamashi

Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106440, 11 May. SARIGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108238, 15 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106368, 18 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106626, 24 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107633, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106126, 24 May. GUGUAN: 1 ex., st. B, RI, TK leg., CBM-ZM-106965, 17 May. ASUNCION: 1 ex., st. A, RI, AA leg., CBM-ZM-107132, 1 June. MAUG, W: 2 exs., st. E, RI, AA leg., CBM-ZM-107468, 4 June.

Previous record. As *Cantharus undosus* from AN, G, P & M (Vermeij *et al.*, 1983).

Family Colubrariidae

289. *Colubraria tortuosa* (Reeve)

Nejire-sekobai

Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106380, 18 May. GUGUAN: 1d ex., st. B, RI, TK leg., CBM-ZM-108244, 17 May. ALAMAGAN: 2d exs., st. A,

RI, AA leg., CBM-ZM-108027, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106628, 24 May; 1d ex., st. C, BD, TK leg., CBM-ZM-106536, 26 May.

Family Nassariidae

290. *Telasco gaudiosus* (Hinds)

Hime-yobai

Material examined. MAUG, W: 1d ex., st. E, RI, AA leg., CBM-ZM-108269, 4 June.

Previous record. As *Nassarius gaudiosus* from P & AG (Vermeij *et al.*, 1983).

291. *Telasco velatus* (Gould)

Shiinomi-yobai

Material examined. PAGAN: 7d exs., st. A, BD, TK leg., CBM-ZM-106630, 24 May; 2d exs., st. C, BD, TK leg., CBM-ZM-106534, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107634, 26 May; 2d exs., st. D, BD, TK leg., CBM-ZM-106703, 27 May; 17d exs., st. E, BD, TK leg., CBM-ZM-106129, 24 May; 8d exs., st. E, BD, AA leg., CBM-ZM-106233, 24 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107280, 27 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107845, 29 May. MAUG, W: 6d exs., st. E, RI, AA leg., CBM-ZM-107469, 4 June. URACAS: 2d exs., st. A, RI, AA leg., CBM-ZM-108284, 6 June.

292. *Alectrion papillosus* (L.)

Same-mushiro

Material examined. GUGUAN: 1d ex., st. A, RI, TK leg., CBM-ZM-108296, 16 May. ALAMAGAN: 2d exs., st. A, RI, AA leg., CBM-ZM-108291, 9 June. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106631, 24 May; 2d exs., st. C, BD, TK leg., CBM-ZM-106535, 26 May; 1d ex., Dive, TP leg., CBM-ZM-106759, 27 May. AGRIHAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108261, 29 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106036, 2 June.

Previous record. As *Nassarius papillosus* from P (Vermeij *et al.*, 1983).

293. *Reticunassa pauperus* (Gould)

Namihime-mushiro

Material examined. GUGUAN: 7 exs., st. C, BD, TK leg., CBM-ZM-107963 & 93, 18 May. ALAMAGAN: 2d exs., st. A, RI, AA leg., CBM-ZM-108291, 9 June. PAGAN: 12d exs., st. A, BD, TK leg., CBM-ZM-106629, 24 May; 1d ex., st. A, RI, AA leg., CBM-ZM-107157, 24 May; 16d exs., st. E, BD, TK leg., CBM-ZM-106128, 24 May;

11d exs., st. E, BD, AA leg., CBM-ZM-106234, 24 May. AGRIHAN: 1 ex., st. B, RI, AA leg., CBM-ZM-107098, 29 May; 6d exs., st. B, BD, TK leg., CBM-ZM-107906, 29 May.

Previous record. As *Nassarius pauperus* from G, P & AS (Vermeij *et al.*, 1983).

Family Fasciolariidae

294. *Peristernia nassatula* (Lamarck)

Murasaki-tsunomata-modoki

Material examined. ANATAHAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108235, 12 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106632, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106484, 26 May; 5d exs., st. C, BD, TK leg., CBM-ZM-107635, 26 May; 1d ex., Dive, PS leg., CBM-ZM-106741, 24 May. AGRIHAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108258, 29 May. MAUG, N: 1d ex., st. F, RI, AA leg., CBM-ZM-108265, 3 June.

Previous record. AN, AL, P, AS & M (Vermeij *et al.*, 1983).

295. *Latirus polygonus* (Gmelin)

Ryukyu-tsunomata

Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106441, 11 May. GUGUAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108246, 17 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106370, 18 May. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107637, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106130, 24 May. AGRIHAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108262, 29 May; 1d ex., st. C, BD, TK leg., CBM-ZM-105995, 30 May. ASUNCION: 1d ex., st. A, RI, AA leg., CBM-ZM-108300, 1 June. MAUG, E: 2d exs., st. A, BD, TK leg., CBM-ZM-106037, 2 June.

Previous record. As *L. barclayi* (Reeve) from AN, G, P, AG, AS, M & U (Vermeij *et al.*, 1983).

296. *Latirus nodatus* (Gmelin)

Botto-tsunomata

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106633, 24 May; 4d exs., st. C, BD, TK leg., CBM-ZM-106537 & 107636, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106315, 27 May. MAUG, E: 1d ex., st. A, RI, TK leg., CBM-ZM-108304, 2 June.

Previous record. AL, P, AG & U (Vermeij *et al.*, 1983).

297. *Latirus noumeensis* (Crosse)

Kinsuji-ko-tsunomata

Previous record. P (Vermeij *et al.*, 1983).

Family Turbinellidae

298. *Vasum ceramicum* (L.)

Oni-kobushi

Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106365, 18 May. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-106538, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106316, 27 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107261, 27 May. MAUG, E: 4 exs., st. D, Dive, TK leg., CBM-ZM-107541, 5 June.

Previous record. AN, S, G, AL, P, AS, M & U (Vermeij *et al.*, 1983).

299. *Vasum turbinellum* (Reeve)

Ko-oni-kobushi

Previous record. M (Vermeij *et al.*, 1983).

Family Olividae

300. *Oliva (Annulatoliva) annulata* Gmelin

Satsuma-bina

Material examined. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106485, 26 May; 3d exs., st. C, BD, TK leg., CBM-ZM-106538, 26 May; 2d exs., st. D, BD, TK leg., CBM-ZM-106317 & 106704, 27 May.

Previous record. AN (Vermeij *et al.*, 1983).

301. *Oliva (Acutoliva) duclosi* Reeve

Sarasa-makura

Material examined. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106640, 24 May. AGR-IHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105997, 30 May.

Family Harpidae

302. *Harpa amouretta* Röding

Hime-shokkora

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107638, 26 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106038, 2 June.

Family Marginellidae

303. *Kogomea cf. K. falsijaponica* (Habe)

Material examined. GUGUAN: 7d exs., st. C, BD, TK leg., CBM-ZM-108314, 18 May. AGR-IHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-107904, 29 May.

304. *Cystiscus cf. C. japonica* (Nomura &

Hatai)

Material examined. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-108035, 29 May.

305. *Cystiscus* sp.

Material examined. URACAS: 10 exs., st. A, RI, AA leg., CBM-ZM-108011, 108014 & 108018, 6 June.

306. *Cystiscus?* sp.

Material examined. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-108036, 29 May.

307. *Volvarinella* sp.

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-108037, 29 May.

Family Mitridae

308. *Mitra (Tiarella) stictica* (Link)

Nishikino-kiba-fude

Previous record. P (Vermeij *et al.*, 1983).

309. *Mitra (Phaeomitra) imperialis* Röding

Beniuni-fude

Previous record. M (Vermeij *et al.*, 1983).

310. *Mitra (Phaeomitra) coffea* Schbert & Wagner

Kuriiro-fude

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106328, 27 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106713, 27 May.

311. *Mitra (Nebularia) chrysostoma* Broderip

Kogane-yatate

Previous record. P & M (Vermeij *et al.*, 1983).

312. *Mitra (Nebularia) aurora flodidula* Sowerby

Mushiro-fude

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106634, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106486, 26 May; 2d exs., st. C, BD, TK leg., CBM-ZM-106540 & 107640, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106132, 24 May; 5d exs., st. D, BD, TK leg., CBM-ZM-106327 & 106717, 27 May.

Previous record. S (Vermeij *et al.*, 1983).

313. *Mitra (Nebularia) ferruginea* Lamarck

Bekko-fude

Material examined. PAGAN: 2d exs., st. C, BD, TK leg., CBM-ZM-106541 & 107639, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106714, 27 May.

Previous record. G, P & AG (Vermeij *et al.*,

1983).

314. *Mitra (Nebularia) chrysalis* Reeve

Mayu-fude

Previous record. M (Vermeij *et al.*, 1983).

315. *Mitra (Nebularia) coarctata* Reeve

Kogitsune-fude

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106329, 27 May.

316. *Strigatella impressa* (Anton)

Kiirō-fude

Material examined. PAGAN: 2d exs., st. D, BD, TK leg., CBM-ZM-106715, 27 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107265, 27 May.

Previous record. As *S. pelliserpentis* (Reeve) from P & AS (Vermeij *et al.*, 1983).

317. *Strigatella paupercula* (L.)

Nagashima-yatate

Previous record. G & P (Vermeij *et al.*, 1983).

318. *Strigatella litterata* (Lamarck)

Midareshima-yatate

Material examined. ANATAHAN: 1 ex., st. B, RI, AA leg., CBM-ZM-106868, 12 May. GUGUAN: 2 exs., st. B, RI, AA leg., CBM-ZM-106951, 17 May. ALAMAGAN: 3 exs., st. A, RI, AA leg., CBM-ZM-107066, 9 June. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106488, 26 May; 1 ex., st. C, RI, TK leg., CBM-ZM-107211, 26 May. AGRIHAN: 4d exs., st. C, BD, TK leg., CBM-ZM-105998, 30 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106039, 2 June; 3 exs., st. A, TK leg., CBM-ZM-107455, 2 June. MAUG, W: 8 exs., st. E, AA leg., CBM-ZM-107487, 4 June. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-108015, 6 June.

Previous record. AN, G & P (Vermeij *et al.*, 1983).

319. *Strigatella turturina* (Souverbie)

Komon-yatate

Material examined. GUGUAN: 1 ex., st. C, RI, TK leg., CBM-ZM-106982, 18 May; 2 exs., st. C, RI, TK leg., CBM-ZM-106988, 18 May. ALAMAGAN: 3 exs., st. A, RI, AA leg., CBM-ZM-107041, 19 May; 1 ex., st. B, Dive, TK leg., CBM-ZM-107052, 8 June. PAGAN: 2 exs., st. C, RI, TK leg., CBM-ZM-107212, 26 May; 5d exs., st. D, BD, TK leg., CBM-ZM-106323, 27 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106133, 24 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-105999, 30 May.

Remarks. This species has been often report-

ed as *S. maculosa* Reeve by Japanese malacologists (Kuroda, 1960; Higo and Goto, 1993). Cernohorsky (1976) also considered *S. maculosa* as a synonym of *S. litterata* Lamarck, and he considered *S. turturina* as a forma of *S. auriculoides*. However, *S. turturina* could be distinguished at the species level its low spiral, chestnut brown color and smaller white spots on the body whole.

320. *Strigatella assimilis* (Pease)

Shirofu-yatate

Material examined. PAGAN: 5d exs., st. A, BD, TK leg., CBM-ZM-106638, 24 May; 30d exs., st. D, BD, TK leg., CBM-ZM-106324 & 106718, 27 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106236, 24 May. AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-106000, 30 May.

321. *Strigatella* sp.

Previous record. AN, G & P (Vermeij *et al.*, 1983).

322. *Strigatella fastigium* (Reeve)

Kuriiro-yatate

Material examined. ALAMAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107040, 19 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106637, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106487, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106322, 27 May; 5d exs., st. D, BD, TK leg., CBM-ZM-106716, 27 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106235, 24 May.

Previous record. G, P & M (Vermeij *et al.*, 1983).

323. *Imbricaria punctata* (Swainson)

Tsunoiro-chochin-fude

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106636, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106489, 26 May; 3d exs., st. D, BD, TK leg., CBM-ZM-106325 & 106719, 27 May.

Previous record. P & AS (Vermeij *et al.*, 1983).

324. *Imbricaria olivaeformis* (Swainson)

Makura-fude

Previous record. P (Vermeij *et al.*, 1983).

325. *Swainsonia casta* (Gmelin)

Zoge-fude

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106635, 24 May.

326. *Neocancilla clathrus* (Gmelin)

Iwakawa-fude

Material examined. 1d ex., PAGAN: st. D, BD,

TK leg., CBM-ZM-106326, 27 May.

Family Costellariidae

- 327. *Arenimitra pacifica* (Reeve)**
Chijimi-hamazuto
Material examined. PAGAN: 1 ex., st. E, Dive, TK leg., CBM-ZM-107262, 27 May.
Previous record. As *Costellaria pacificum* from P (Vermeij *et al.*, 1983).
- 328. *Costellaria coronata* (Helbling)**
Kagome-tsukushi
Previous record. P (Vermeij *et al.*, 1983).
- 329. *Costellaria cf. C. modesta* (Reeve)**
Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106721, 27 May.
- 330. *Costellaria cf. C. zelotypa* (Reeve)**
Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106722, 27 May.
- 331. *Costellaria sp. A***
Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106720, 27 May.
- 332. *Costellaria sp. B***
Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106330, 27 May.
- 333. *Pusia crocata* (Lamarck)**
Safuran-otomefude
Previous record. P (Vermeij *et al.*, 1983).
- 334. *Pusia unifascialis* (Lamarck)**
Chasuji-tsukusi
Previous record. AL (Vermeij *et al.*, 1983).
- 335. *Pusia amabilis* (Reeve)**
Mame-otomefude
Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106639, 24 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106320, 27 May; 1 ex., st. D, RI, AA leg., CBM-ZM-107188, 26 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106238, 24 May.
Previous record. AN & P (Vermeij *et al.*, 1983).
- 336. *Pusia cancellarioides* (Anton)**
Arare-otomefude
Previous record. AG (Vermeij *et al.*, 1983).
- 337. *Pusia consanguinea* (Reeve)**
Miyori-otomefude
Material examined. PAGAN: 6d exs., st. D, BD, TK leg., CBM-ZM-106318 & 106724, 27 May.
Previous record. P (Vermeij *et al.*, 1983).
- 338. *Pusia infausta* (Reeve)**
Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106728, 27 May.
- 339. *Pusia lauta* (Reeve)**

Hade-otomefude

Material examined. PAGAN: 2d exs., st. D, BD, TK leg., CBM-ZM-106723, 27 May.

Previous record. P (Vermeij *et al.*, 1983).

340. *Pusia microzonias* (Lamarck)

Kuro-otomefude

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106321, 27 May.

Previous record. AN & P (Vermeij *et al.*, 1983).

341. *Pusia cf. P. microzonias* (Lamarck)

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106727, 27 May.

342. *Pusia patriarchalis* (Reeve)

Kuchibeni-otomefude

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-108313, 18 May. ALA-MAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106369, 18 May. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106490, 26 May; 9d exs., st. D, BD, TK leg., CBM-ZM-106319 & 106726, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106136, 24 May.

Previous record. G, P & AG (Vermeij *et al.*, 1983).

343. *Pusia speciosa* (Reeve)

Otomefude

Material examined. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106491, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106725, 27 May.

Previous record. P (Vermeij *et al.*, 1983).

344. *Pusia sp.*

Previous record. P (Vermeij *et al.*, 1983).

Family Turridae

345. *Clavus sp. A*

Material examined. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-106007, 30 May.

346. *Clavus sp. B*

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106135, 24 May.

347. *Carinapex minutissima* (Garrett)

Previous record. P (Vermeij *et al.*, 1983).

348. *Carinapex sp.*

Material examined. GUGUAN: 1 ex., st. C, BD, TK leg., CBM-ZM-107964, 18 May.

349. *Iredalea sp.*

Previous record. P (Vermeij *et al.*, 1983).

350. *Turris spectabilis* (Reeve)

Hanayaka-kudamaki

Material examined. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106493, 26 May.

351. *Lienardia mighelsi* Iredale & Tomlin
Noshime-arabori-kuchikire

Material examined. GUGUAN: 1 ex., st. C, BD, TK leg., CBM-ZM-107966, 18 May.

352. *Lienardia* cf. *L. mighelsi* Iredale & Tomlin
Previous record. P & M (Vermeij *et al.*, 1983).

353. *Lienardia rubida* (Hinds)
Rubi-futanashi-shajiku

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106641, 24 May; 1d ex., st. A, RI, AA leg., CBM-ZM-107158, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106239, 24 May.

354. *Lienardia* sp.

Previous record. P (Vermeij *et al.*, 1983).

355. *Macteola interrupta* (Reeve)
Sashiko-tsubu

Material examined. GUGUAN: 1 ex., st. C, BD, TK leg., CBM-ZM-107965, 18 May. AGRIHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-107905, 29 May.

Previous record. As *M. segesta* (Chenu) from P (Vermeij *et al.*, 1983).

356. *Mitromorpha (Anarithma) metula* (Hinds)
Sizuku-nina

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107687, 29 May.

357. *Microdaphne trichodes* Dall

Material examined. GUGUAN: 1 ex., st. C, BD, TK leg., CBM-ZM-107967, 18 May.

358. *Tritonoturris cumingii* (Powys)
Oriire-fude-shajiku

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106243, 24 May.

359. *Daphnella ornata* (Hinds)
Fui-ri-fude-shajiku

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106241, 24 May.

360. *Daphnella varicosa* (Souverbie)
Une-fude-shajiku

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106240, 24 May.

361. *Daphnella flammea* (Hinds)
Hoso-fude-shajiku

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106242, 24 May.

362. *Daphnella* sp.

Previous record. As *Tritonoturris* sp. from G (Vermeij *et al.*, 1983).

Family Conidae

363. *Conus (Virroconus) chaldaeus* (Röding)
Komadara-imo

Material examined. ANATAHAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107574, 11 May. GUGUAN: 1 ex., st. B, RI, TK leg., CBM-ZM-106972, 17 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106426, 9 June. MAUG, E: 2d exs., st. A, BD, TK leg., CBM-ZM-106040, 2 June; 2 exs., st. A, RI, TK leg., CBM-ZM-107456, 2 June. MAUG, W: 5 exs., st. E, RI, AA leg., CBM-ZM-107489, 4 June.

Previous record. P & M (Vermeij *et al.*, 1983).

364. *Conus (Virroconus) coronatus* Gmelin
Juzukake-sayagata-imo

Material examined. ANATAHAN: 1 ex., st. C, RI, AA leg., CBM-ZM-106894, 13 May. GUGUAN: 2 exs., st. B, RI, TK leg., CBM-ZM-106969, 17 May. ALAMAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107068, 9 June. MAUG, E: 1d ex., st. C, Dive, TK leg., CBM-ZM-108293, 4 June.

Previous record. P & M (Vermeij *et al.*, 1983).

365. *Conus (Virroconus) barbadensis* Hwass
Kasumi-sayagata-imo

Material examined. GUGUAN: 5 exs., st. B, RI, TK leg., CBM-ZM-106968, 17 May. ALAMAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106401, 18 May. PAGAN: 2d exs., st. C, BD, TK leg., CBM-ZM-106543 & 107645, 26 May; 3d exs., st. D, BD, TK leg., CBM-ZM-106341 & 106762, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106248, 24 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107416, 30 May. MAUG, E: 2d exs., st. A, BD, TK leg., CBM-ZM-106044, 2 June; 3 exs., st. C, Dive, TK leg., CBM-ZM-107524, 4 June. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-107001, 6 June.

366. *Conus (Virroconus) miliaris* Hwass
Benifuji-sayagata-imo

Previous record. AN, G, AL, P, AG, AS & M (Vermeij *et al.*, 1983).

367. *Conus (Virroconus) ebraeus* L.
Madara-imo

Material examined. 1 ex., ANATAHAN: st. B, RI, AA leg., CBM-ZM-106870, 12 May. GUGUAN: 1 ex., st. B, RI, TK leg., CBM-ZM-106971, 17 May. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106406, 18 May; 1 ex., st. A, RI, AA leg., CBM-ZM-107043, 19 May; 2 exs., st. A,

RI, AA leg., CBM-ZM-107067, 9 June. PAGAN: 1 d ex., st. D, BD, TK leg., CBM-ZM-106767, 27 May; 1 ex., st. E, RI, TK leg., CBM-ZM-107258, 27 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106041, 2 June.

Previous record. AN & P (Vermeij *et al.*, 1983).

368. *Conus (Virroconus) fulgetrum* Sowerby
Sayagata-imo

Material examined. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106051, 2 June.

Previous record. P (Vermeij *et al.*, 1983).

369. *Conus (Virroconus) musicus* Hwass
Gakufu-imo

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106340, 27 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106766, 27 May.

Previous record. P & AG (Vermeij *et al.*, 1983).

370. *Conus (Virroconus) nanus* Sowerby
Shiro-seiron-imo

Material examined. ANATAHAN: 1 ex., st. B, RI, AA leg., CBM-ZM-106869, 12 May. ALAMAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106403, 18 May; 3 exs., st. A, RI, AA leg., CBM-ZM-107042, 19 May; 3 exs., st. A, RI, AA leg., CBM-ZM-107069, 9 June. PAGAN: 9d exs., st. A, BD, TK leg., CBM-ZM-106642, 24 May; 4d exs., st. A, RI, AA leg., CBM-ZM-107195, 27 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106494, 26 May; 4d exs., st. C, BD, TK leg., CBM-ZM-106542 & 107647, 26 May; 8 exs., st. C, Dive, TK leg., CBM-ZM-107214, 26 May; 32d exs., st. D, BD, TK leg., CBM-ZM-106338 & 106764, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106139, 24 May; 5d exs., st. E, BD, TK leg., CBM-ZM-106247, 24 May; 15 exs., st. E, Dive, TK leg., CBM-ZM-107256, 27 May. AGRIHAN: 1 d ex., st. B, RI, AA leg., CBM-ZM-107099, 29 May; 8d exs., st. C, BD, TK leg., CBM-ZM-106006, 30 May. MAUG, E: 3d exs., st. A, BD, TK leg., CBM-ZM-106053, 2 June; 3 exs., st. C, RI, TK leg., CBM-ZM-107525, 4 June. MAUG, W: 1 ex., st. E, RI, AA leg., CBM-ZM-107488, 4 June. URACAS: 3 exs., st. A, RI, AA leg., CBM-ZM-107000 & 108019, 6 June; 9 exs., st. A, Dive, TK leg., CBM-ZM-107015, 6 June.

Previous record. AN, S, G, P, AG, AS, M & U (Vermeij *et al.*, 1983).

371. *Conus (Virroconus) sponsalis* Hwass
Hanawa-imo

Material examined. ANATAHAN: 1d ex., st.

A, RI, AA leg., CBM-ZM-108234, 11 May. GUGUAN: 1 ex., st. B, RI, TK leg., CBM-ZM-106970, 17 May. ALAMAGAN: 7 exs., st. A, RI, AA leg., CBM-ZM-107070, 9 June. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106643, 24 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107646, 26 May; 7d exs., st. D, BD, TK leg., CBM-ZM-106339 & 106763, 27 May; 7 exs., st. E, Dive, TK leg., CBM-ZM-107257, 27 May. AGRIHAN: 1d ex., st. B, RI, AA leg., CBM-ZM-107100, 29 May. MAUG, E: 2d exs., st. A, BD, TK leg., CBM-ZM-106048, 2 June.

Previous record. AN, S, G, P & AG (Vermeij *et al.*, 1983).

372. *Conus (Virgiconus) distans* Hwass
Ibokaba-imo

Material examined. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106783, 2 June.

Previous record. G & AG (Vermeij *et al.*, 1983).

373. *Conus (Virgiconus) lividus* Hwass
Iboshima-imo

Material examined. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108251, 19 May. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106244, 24 May. AGRIHAN: 4d exs., st. C, BD, TK leg., CBM-ZM-106003, 30 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106045, 2 June.

Previous record. AN, G, AL & P (Vermeij *et al.*, 1983).

374. *Conus (Virgiconus) sanguinolentus* Quoy & Gaimard
Nise-iboshima-imo

Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106442, 11 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106454, 12 May. GUGUAN: 1 ex., st. B, RI, TK leg., CBM-ZM-106973, 17 May. ALAMAGAN: 8d exs., st. A, BD, TK leg., CBM-ZM-106397, 18 May. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106333, 27 May; 1d ex., st. E, BD, AA leg., CBM-ZM-107691, 24 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107259, 27 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107414, 30 May. MAUG, E: 1 ex., st. C, Dive, TK leg., CBM-ZM-107528, 4 June; 2 exs., st. D, Dive, TK leg., CBM-ZM-107543, 5 June.

Previous record. G & P (Vermeij *et al.*, 1983).

375. *Conus (Virgiconus) moreleti* Crosse
Ogokuda-imo

Material examined. ALAMAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106400, 18 May. PAGAN: 1d ex., st. C, AA, TF & HH leg., CBM-ZM-106898, 26 May; 2d exs., st. C, BD, TK leg., CBM-ZM-106331 & 107644, 26 May; 2d exs., st. D, BD, TK leg., CBM-ZM-106768, 27 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107260, 27 May. MAUG, E: 2d exs., st. A, BD, TK leg., CBM-ZM-106052, 2 June; 1 ex., st. C, Dive, TK leg., CBM-ZM-107530, 4 June.

Previous record. AN, G, P & AS (Vermeij *et al.*, 1983).

376. *Conus (Virgiconus) balteatus* Sowerby
Beni-itadaki-imo

Material examined. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106424, 9 June.

Previous record. AN, AL & AG (Vermeij *et al.*, 1983).

377. *Conus (Virgiconus) flavidus* Lamarck
Kinutsukatsugi-imo

Material examined. ALAMAGAN: 4d exs., st. A, BD, TK leg., CBM-ZM-106399, 18 May; 2d exs., st. A, BD, TK leg., CBM-ZM-106423, 9 June. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107643, 26 May; 4d exs., st. D, BD, TK leg., CBM-ZM-106332 & 106769, 27 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106137, 24 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106245, 24 May; 1d ex., st. E, Dive, TK leg., CBM-ZM-107283, 27 May. AGRIHAN: 3d exs., st. C, BD, TK leg., CBM-ZM-106002, 30 May; 1d ex., st. B, AA leg., CBM-ZM-107101, 29 May. MAUG, E: 2d exs., st. A, BD, TK leg., CBM-ZM-106042, 2 June; 3 exs., st. C, Dive, TK leg., CBM-ZM-107529, 4 June.

Previous record. AN, G, P, AG, AS & M (Vermeij *et al.*, 1983).

378. *Conus (Virgiconus) frigidus* Reeve
Fukura-kinukatsugi-imo

Previous record. P & AG (Vermeij *et al.*, 1983).

379. *Conus (Virgiconus) virgo* L.
Otome-imo

Previous record. G (Vermeij *et al.*, 1983).

380. *Conus (Stephanoconus) varius* L.
Murakumo-imo

Previous record. P (Vermeij *et al.*, 1983).

381. *Conus (Rhizoconus) miles* L.
Yanagishibori-imo

Material examined. ANATAHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-106456, 12 May. SARIGAN: 2d exs., st. A, RI, AA leg., CBM-ZM-

108239, 15 May. ALAMAGAN: 9d exs., st. A, BD, TK leg., CBM-ZM-106396, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106645, 24 May; 2d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106495, 26 May; 2d exs., st. D, BD, TK leg., CBM-ZM-106336 & 106774, 27 May; 1 ex., st. E, Dive, TK leg., CBM-ZM-107284, 27 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106047, 2 June; 2 exs., st. C, Dive, TK leg., CBM-ZM-107527, 4 June; 3 exs., st. D, Dive, TK leg., CBM-ZM-107542, 5 June. MAUG, N & W: 1d ex., Dive (5–10 m), TP leg., CBM-ZM-106795, 2 June.

Previous record. AN, G, AL, P, AG, AS, M & U (Vermeij *et al.*, 1983).

382. *Conus (Rhizoconus) rattus* Hwass
Haiiro-minashi

Material examined. ANATAHAN: 2d exs., st. B, BD, TK leg., CBM-ZM-106455, 12 May; 1 ex., st. B, RI, AA leg., CBM-ZM-106871, 12 May; 1 ex., st. C, RI, AA leg., CBM-ZM-106893, 13 May. GUGUAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108247, 17 May. ALAMAGAN: 12d exs., st. A, BD, TK leg., CBM-ZM-106395, 18 May; 1 ex., st. A, RI, AA leg., CBM-ZM-107032, 19 May; 1 ex., st. A, RI, AA leg., CBM-ZM-107071, 9 June. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106644, 24 May; 5d exs., st. C, BD, TK leg., CBM-ZM-106544 & 107642, 26 May; 2d ex., st. C, AA, TF & HH leg., CBM-ZM-106897, 26 May; 7d exs., st. D, BD, TK leg., CBM-ZM-106335 & 106775, 27 May. AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-106004 & 107415, 30 May. MAUG, E: 3d exs., st. A, BD, TK leg., CBM-ZM-106043, 2 June; 1 ex., st. C, Dive, TK leg., CBM-ZM-107526, 4 June. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-108020, 6 June. 1 ex., st. A, Dive, TK leg., CBM-ZM-107016, 6 June.

Previous record. S, G, AL, P, AG, AS & M (Vermeij *et al.*, 1983).

383. *Conus (Rhizoconus) pertusus* Hwass
Barafu-imo

Previous record. G (Vermeij *et al.*, 1983).

384. *Conus (Rhizoconus) capitaneus* L.
Sarasa-minashi

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106773, 27 May.

Previous record. AL (Vermeij *et al.*, 1983).

385. *Conus (Rhizoconus) vexillus* Gmelin
Kaba-minashi

- Material examined.* PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106772, 27 May.
- 386. *Conus (Dauciconus) vitulinus* Hwass**
Sarasa-modoki
Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106411, 18 May. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107649, 26 May.
- 387. *Conus (Dauciconus) litoglyphus* Hwass**
Naga-sarasa-minashi
Previous record. AN, G, AL & P (Vermeij *et al.*, 1983).
- 388. *Conus (Leptoconus) generalis* L.**
Akashima-minashi
Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107648, 26 May. MAUG, E: 2d exs., st. A, BD, TK leg., CBM-ZM-106784, 2 June.
Previous record. P & AG (Vermeij *et al.*, 1983).
- 389. *Conus* (s.s.) *marmoreus* L.**
Nanyo-kuro-minashi
Previous record. AN (Vermeij *et al.*, 1983).
- 390. *Conus* (s.s.) *bandanus* Hwass**
Kuro-minashi
Material examined. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106402, 18 May.
Previous record. AN, AL & P (Vermeij *et al.*, 1983).
- 391. *Conus (Rhombus) imperialis* L.**
Mikado-minashi
Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106444, 11 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106409, 18 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106046, 2 June.
Previous record. AG & M (Vermeij *et al.*, 1983).
- 392. *Conus (Lithoconus) tessulatus* Born**
Harushagai
Previous record. AG (Vermeij *et al.*, 1983).
- 393. *Conus (Lithoconus) leopardus* Röding**
Kurofumodoki
Material examined. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106054, 2 June.
- 394. *Conus (Lithoconus) litteratus* L.**
Anbon-kurozame
Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106425, 9 June.
- 395. *Conus (Puncticulis) pulicarius* Hwass**
Gomafu-imo
Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106410, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106647, 24 May; 2d exs., st. C, BD, TK leg., CBM-ZM-107650, 26 May; 3d exs., st. D, BD, TK leg., CBM-ZM-106776, 27 May.
Previous record. AN, G, P, AS & M (Vermeij *et al.*, 1983).
- 396. *Conus (Hermes) terebra* Born**
Itomaki-imo
Material examined. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106404, 18 May.
- 397. *Conus (Hermes) circumciscus* Born**
Naga-bekko-imo
Material examined. GUGUAN: 1d ex., Dive, PS leg., CBM-ZM-106992, 18 May.
- 398. *Conus (Hermes) luteus* Sowerby**
Sonare-imo
Material examined. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106049, 2 June.
- 399. *Conus (Darioconus) magnificus* Reeve**
Naga-ajiro-imo
Material examined. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107418, 30 May.
Previous record. P & M (Vermeij *et al.*, 1983).
- 400. *Conus (Darioconus) canonicus* Hwass**
Hime-tagayasan-minashi
Material examined. ALAMAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106405, 18 May. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106497, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106141, 24 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-106001, 30 May.
Previous record. P & AG (Vermeij *et al.*, 1983).
- 401. *Conus (Darioconus) aulicus* L.**
Tsubo-imo
Material examined. PAGAN: 2d exs., st. D, BD, TK leg., CBM-ZM-106777, 27 May. AGRIHAN: 1d ex., north coast, Dive, TP leg., CBM-ZM-106816, 29 May. ASUNCION: 1d ex., north west coast, Dive (15m), TP leg., CBM-ZM-106829, 7 June.
Previous record. P (Vermeij *et al.*, 1983).
- 402. *Conus (Chelyconus) catus* Hwass**
Arare-imo
Material examined. ANATAHAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106443, 11 May; 1d ex., st. B, BD, TK leg., CBM-ZM-106457, 12 May. SARIGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-108240, 15 May. ALAMAGAN: 22d exs., st. A,

BD, TK leg., CBM-ZM-106394, 18 May; 3d exs., st. A, BD, TK leg., CBM-ZM-106422, 9 June. PAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106646, 24 May; 1d ex., st. A, AA leg., CBM-ZM-107159, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106496, 26 May; 8d exs., st. C, BD, TK leg., CBM-ZM-106545, 106771 & 107625, 26 May; 11d exs., st. D, BD, TK leg., CBM-ZM-106337, 27 May; 5d exs., st. E, BD, TK leg., CBM-ZM-106138 & 106246, 24 May. AGRIHAN: 4d exs., st. C, BD, TK leg., CBM-ZM-106005, 30 May; 1d ex., north coast, Dive, PS & TP leg., CBM-ZM-106813, 29 May. MAUG, E: 1 d ex., st. A, BD, TK leg., CBM-ZM-106050, 2 June; 1 d ex., st. A, BD, TK leg., CBM-ZM-106785, 2 June; 1 ex., st. A, RI, AA leg., CBM-ZM-107429, 2 June; 1 ex., South edge, RI, HH leg., CBM-ZM-107505, 4 June. MAUG, W: 1 ex., st. E, RI, AA leg., CBM-ZM-107490, 4 June. MAUG, N: 1 ex., st. F, RI, AA leg., CBM-ZM-107481, 3 June.

Previous record. AN, P & AG (Vermeij *et al.*, 1983).

403. *Conus (Dendroconus) striatus* L.

Nishiki-minashi

Material examined. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106408, 18 May. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106498, 26 May; 1d ex., Dive, PS leg., CBM-ZM-106744, 25 May.

Previous record. P & AG (Vermeij *et al.*, 1983).

404. *Conus (Gastridium) tulipa* L.

Shiro-anboina

Material examined. 3d exs., ALAMAGAN: st. A, BD, TK leg., CBM-ZM-106398, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106648, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106499, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-, 26 May; 4d exs., st. C, BD, TK leg., CBM-ZM-106546 & 107652, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106250, 24 May; 1d ex., st. F, BD, TK leg., CBM-ZM-106560, 26 May. AGRIHAN: 1d ex., north coast, Dive, PS & TP leg., CBM-ZM-106814, 29 May. MAUG, E: 1 ex., st. A, RI, AA leg., CBM-ZM-107430, 2 June.

Previous record. P & M (Vermeij *et al.*, 1983).

405. *Conus (Gastridium) geographus* L.

Anboina

Material examined. GUGUAN: 1d ex., Dive, PS leg., CBM-ZM-106991, 18 May. PAGAN: 1d

ex., st. A, BD, TK leg., CBM-ZM-106649, 24 May; 2d exs., st. C, BD, TK leg., CBM-ZM-107651, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106249, 24 May. AGRIHAN: 1d ex., north coast, Dive, TP leg., CBM-ZM-106815, 29 May.

Previous record. P (Vermeij *et al.*, 1983).

406. *Conus (Gastridium) obscurus* Sowerby

Murasaki-anboina

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107653, 26 May; 3d exs., st. E, BD, TK leg., CBM-ZM-106142 & 106251, 24 May.

Previous record. P (Vermeij *et al.*, 1983).

Family Terebridae

407. *Hastula (Hastulina) solida* (Deshayes)

Goban-take

Material examined. PAGAN: 2d exs., st. D, BD, TK leg., CBM-ZM-106343 & 106779, 27 May.

Previous record. AN (Vermeij *et al.*, 1983).

408. *Hastula (s.s.) strigillata* (L.)

Shichiku-modoki

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106778, 27 May.

Previous record. P (Vermeij *et al.*, 1983).

409. *Hastula (Impages) stylata* (Hinds)

Kuchibiro-take

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106252, 24 May.

410. *Terebra (Decorihastula) affinis* Gray

Mushiro-take

Previous record. P (Vermeij *et al.*, 1983).

411. *Terebra (Dimidacus) laevigata* (Gray)

Hoso-niku-take

Previous record. AS (Vermeij *et al.*, 1983).

412. *Terebra (Oxymeris) felina* (Dillwyn)

Zoge-take

Previous record. AS (Vermeij *et al.*, 1983).

413. *Terebra (Oxymeris) crenulata* (L.)

Kiba-take

Previous record. G & P (Vermeij *et al.*, 1983).

414. *Terebra (Subula) dimidiata* (L.)

Beni-take

Previous record. P & M (Vermeij *et al.*, 1983).

Subclass Heterobranchia

Order Heterostropha

Family Orbitestellidae

415. *Orbitestella regina* Kay

Previous record. G, AS & M (Vermeij *et al.*,

1983).

Family Architectonicidae

416. *Philippia radiata* (Röding)

Ko-guruma

Material examined. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-107968, 18 May.

417. *Heliacus dorsuosus* (Hinds)

Kuriiro-nawame-guruma

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107907, 29 May.

418. *Heliacus* sp.

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106117, 24 May.

Family Rissoellidae

419. *Risoella* sp.

Material examined. GUGUAN: 30 exs., st. C, RI, AA leg., CBM-ZM-108003, 18 May.

Family Omalogyridae

420. *Omalogyra japonica* (Habe)

Mijin-wadachigai

Previous record. G & AS (Vermeij *et al.*, 1983).

Family Pyramidellidae

421. *Miralda* cf. *M. scopulorum* Watson

Previous record. G (Vermeij *et al.*, 1983).

422. *Miralda* sp.

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107969, 18 May.

423. *Pyrgulina* sp.

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107908, 29 May.

424. *Odostomella* sp.

Material examined. GUGUAN: 1d ex., st. B, RI, AA leg., CBM-ZM-108005, 18 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107972, 18 May.

425. *Styloptygma* sp. A

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107970, 18 May.

426. *Styloptygma* sp. B

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107971, 18 May.

427. Pyramidellidae sp. A

Previous record. G (Vermeij *et al.*, 1983).

428. Pyramidellidae sp. B

Previous record. G, AS & M (Vermeij *et al.*, 1983).

429. Pyramidellidae sp. C

Previous record. G, P & M (Vermeij *et al.*, 1983).

Subclass Opisthobranchia

Order Cephalaspidea

Family Hydatinidae

430. *Micromelo guamensis* (Quoy & Gaimard)

Konshibori

Previous record. P (Vermeij *et al.*, 1983).

Family Scaphandridae

431. *Cylichna* sp.

Previous record. G (Vermeij *et al.*, 1983).

Family Acteocinidae

432. *Acteocina hawaiiensis* Pilsbry

Previous record. G & M (Vermeij *et al.*, 1983).

433. *Acteocina* sp.

Previous record. M (Eldridge *et al.*, 1977).

Family Aglajidae

434. *Chelidonura hirundinina* Q. & G.

Nishiki-tsubamegai

Previous record. M (Eldridge *et al.*, 1977).

435. *Chelidonura inornata* Baba

Ohaguro-tsubamegai

Material examined. PAGAN: 1 ex., Dive (5 m), PS leg., CBM-ZM-107190, 24 May.

Family Gastropteridae

436. *Gastropteron flavum* Tokioka & Baba

Kiuro-umikocho

Previous record. M (Eldridge *et al.*, 1977).

Family Bullidae

437. *Bulla difficilis* Habe

Hime-natumegai

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-1066671, 24 May.

Family Atyidae

438. *Diniatys dentifer* (A. Adams)

Kiba-kaikogai

Material examined. GUGUAN: 9 exs., st. B, RI, AA leg., CBM-ZM-108007, 17 May; 7d exs., st. C, BD, TK leg., CBM-ZM-107973, 18 May. PAGAN: 1 ex., st. E, Dive, TK leg., CBM-ZM-108028, 6 June. URACAS: 1 ex., st. A, RI, TK leg., CBM-ZM-107019, 6 June.

439. *Limulatus* sp.

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106144, 24 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106650, 24 May.

440. *Atys* sp.

Previous record. G (Vermeij *et al.*, 1983).

441. *Atys*? sp.

Previous record. M (Eldridge *et al.*, 1977).

442. *Lamprohaminoea cymbalum* (Quoy & Gaimard)

Migaki-budogai

Material examined. ANATAHAN: 1 ex., st. A, RI, AA leg., CBM-ZM-106849, 11 May. GUGUAN: 1 ex., st. C, RI, TK leg., CBM-ZM-106989, 18 May. ALAMAGAN: 2 exs., st. A, RI, AA leg., CBM-ZM-107073, 9 June.

Previous record. As *Haminoea cymbalum* from AN, G & AS (Vermeij *et al.*, 1983) & M (Eldridge *et al.*, 1977).

443. *Haloa flavescens* (A. Adams)

Ao-budogai

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106253, 24 May.

444. *Haloa* sp.

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-108233, 24 May.

445. *Haminoea* sp. A

Previous record. M (Eldridge *et al.*, 1977).

446. *Haminoea* sp. B

Previous record. M (Eldridge *et al.*, 1977).

Family Smargdinellidae

447. *Smaragdina calyculata* (Broderip & Sowerby)

Midorigai

Material examined. ANATAHAN: 1 ex., st. A, RI, AA leg., CBM-ZM-106895, 12 May; 29 exs., st. B, RI, AA leg., CBM-ZM-106872, 12 May; 1 ex., st. B, RI, TK leg., CBM-ZM-106878, 12 May; 1 ex., st. D, RI, TK leg., CBM-ZM-106913, 14 May. GUGUAN: 3 exs., st. C, RI, TK leg., CBM-ZM-106984, 18 May. PAGAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107161, 24 May; 4 exs., st. C, RI, AA leg., CBM-ZM-107184, 26 May. AGR-IHAN: 3 exs., st. A, RI, AA leg., CBM-ZM-107081, 28 May; 7d exs., st. C, BD, TK leg., CBM-ZM-107410, 30 May. ASUNCION: 9 exs., st. A, RI, AA leg., CBM-ZM-107133, 1 June. MAUG, E: 7 exs., st. A, RI, AA leg., CBM-ZM-107431, 2 June; 1 ex., st. A, RI, TK leg., CBM-ZM-107458, 2 June. MAUG, N: 9 exs., st. F, RI,

AA leg., CBM-ZM-107482, 2 June. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-107002, 6 June.

Previous record. M (Eldridge *et al.*, 1977) & AN, G, P & AS (Vermeij *et al.*, 1983).

448. *Lathophthalmus* sp.

Material examined. AGR-IHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107909, 29 May.

Family Retusidae

449. *Retusa (Ventomnestia) bizonata* A. Adams
Hade-yamamayugai

Material examined. GUGUAN: 2 exs., st. B, RI, AA leg., CBM-ZM-108008, 17 May.

450. *Retusa* sp.

Previous record. G & AS (Vermeij *et al.*, 1983).

Order Runcinacea

Family Runcinidae

451. *Ibia mariana* Hoff & Carson

Previous record. P & M (Hoff & Carlson, 1990) and as *I.* sp. from M (Eldridge *et al.*, 1977).

Order Sacoglossa

Family Juliidae

452. *Julia exquisita* Gould

Material examined. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-107974, 18 May. AGR-IHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107910, 29 May.

Previous record. G & AS (Vermeij *et al.*, 1983).

453. *Julia* cf. *J. zebra* Kawaguti

Material examined. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-107974, 18 May.

Family Caliphyllidae

454. *Cyerce* sp.

Previous record. M (Eldridge *et al.*, 1977).

Family Hermaeidae

455. *Ercolania smaragdina* Baba

Tamamiru-umiushi

Previous record. As *Hermaeina smaragdina* from M (Eldridge *et al.*, 1977).

456. *Ercolania* sp.

Previous record. M (Eldridge *et al.*, 1977).

Family Elysiidae

457. *Elysia bayeri* Marcus

Previous record. M (Eldridge *et al.*, 1977).

458. *Elysia gracilis* Risbec

Previous record. M (Eldridge *et al.*, 1977).

459. *Elysia halimeda* Macnae

Previous record. M (Eldridge *et al.*, 1977).

460. *Thuridilla vatae* Risbec

Previous record. M (Eldridge *et al.*, 1977).

Order Aplysiomorpha

Family Aplysiidae

461. *Aplysia (Pruvotaplysia) cf. A. (P.) parvula* Gould in Mörch

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106570, 24 May.

Previous record. As *A. cf. parvula* from M (Eldridge *et al.*, 1977).

462. *Dolabrifera dolabrifera* (Rang)

Biwagata-namekujii

Material examined. URACAS: 4 exs., st. A, Dive, TK leg., CBM-ZM-107018, 6 June.

Previous record. M (Eldridge *et al.*, 1977).

Family Notarchidae

463. *Stycheilus longicaudus* (Quoy & Gaimard)

Kurosujii-amefurashi

Material examined. PAGAN: 1 ex., st. E, Dive, TK leg., CBM-ZM-107285, 27 May.

Previous record. M (Eldridge *et al.*, 1977).

Order Thecosomata

Family Cavoliniidae

464. *Diacria quadridentata* (Lesueur)

Kiyoko-kamegai

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107910, 29 May.

Order Nudibranchia

Family Polyceridae

465. *Roboastra luteolineata* (Baba)

Ishigaki-ryugu-umiushi

Previous record. As *Nembrotha luteolineata* from M (Eldridge *et al.*, 1977).

Family Gymnodorididae

466. *Gymnodoris* sp.

Previous record. M (Eldridge *et al.*, 1977).

Family Vayssiereidae

467. *Vayssiera elegans* (Baba)

Okada-umiushi

Previous record. As *Okadaia elegans* from M

(Eldridge *et al.*, 1977).

Family Chromodorididae

468. *Casella* sp.

Material examined. MAUG, E: 1 ex., st. B, Dive, TK leg., CBM-ZM-107553, 5 June.

Family Halgerdidae

469. *Halgerda malessio* Carlson & Hoff

Previous record. S (Carlson & Hoff, 1993).

Family Phyllidiidae

470. *Fryeria ruppelli* Bregh

Furieri-ibo-umiushi

Previous record. M (Eldridge *et al.*, 1977).

471. *Fryeria guamensis* Brunckhorst

Material examined. ALAMAGAN: 1 ex., st. B, Dive, TK leg., CBM-ZM-107054, 8 June.

472. *Phyllidiella pustulosa* (Cuvier)

Ko-ibo-umiushi

Material examined. PAGAN: 2 exs., Dive (5 m), PS leg., CBM-ZM-107197 & 107200, 24 May.

Subclass Pulmonata

Order Systellommatophora

Family Onchidiidae

473. *Onchidiella* sp.

Material examined. GUGUAN: 5 exs., st. B, RI, AA leg., CBM-ZM-107579, 17 May.

Order Archaeopulmonata

Family Ellobiidae

474. "*Melampus*" *castaneus* (Mühlfeld)

Material examined. ANATAHAN: 1 ex., st. A, RI, AA leg., CBM-ZM-107575, 11 May; 1 ex., st. A, RI, TK leg., CBM-ZM-106856, 11 May; 9 exs., st. B, RI, TK leg., CBM-ZM-108022, 12 May. SARIGAN: 1 ex., st. A, RI, TK leg., CBM-ZM-106931, 16 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106651, 24 May; 6 exs., st. B, RI, AA leg., CBM-ZM-107171, 25 May; 5 exs., st. E, BD, TK leg., CBM-ZM-106146, 24 May; 3d exs., st. E, BD, AA leg., CBM-ZM-106255, 24 May. AGRIHAN: 1d ex., st. C, BD, TK leg., CBM-ZM-106008, 30 May; 16 exs., east coast, RI, TO & HH leg., CBM-ZM-107113, 30 May. ASUNCION: 2 exs., st. A, RI, AA leg., CBM-ZM-107134, 1 June.

Previous record. AN, S, P & AS (Vermeij *et al.*, 1983).

475. *Melampus flavus* (Gmelin)

Tsuya-hamashiinomi

Material examined. ANATAHAN: 1 ex., st. B, RI, TK leg., CBM-ZM-108023, 12 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106652, 24 May.

Previous record. P (Vermeij *et al.*, 1983).

**Order Basommatophora
Family Trimusculidae**

476. *Walliamia radiata* (Pease)

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107912, 29 May.

Previous record. P & AS (Vermeij *et al.*, 1983).

Family Siphonariidae

477. *Siphonaria* cf. *S. guamensis* (Quoy & Gaimard)

Material examined. GUGUAN: 23d exs., st. C, BD, TK leg., CBM-ZM-107914, 107980 & 107994, 18 May. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-107383, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106147, 24 May; 3d exs., st. E, BD, AA leg., CBM-ZM-106254, 24 May. AGRIHAN: 50 exs., st. A, RI, AA leg., CBM-ZM-107386, 28 May; 9d exs., st. B, BD, TK leg., CBM-ZM-107689, 107847 & 107912, 29 May. ASUNCION: 20 exs., st. A, RI, AA leg., CBM-ZM-107391, 1 June; 1 ex., st. B, RI, AA leg., CBM-ZM-107393, 7 June; 2 exs., st. B, RI, TK leg., CBM-ZM-107394, 7 June. URACAS: 1d ex., st. A, RI, AA leg., CBM-ZM-107408, 6 June.

Previous record. P (Vermeij *et al.*, 1983).

478. *Siphonaria (Mestasisiphon) subatra* Pillsbry

Kuro-karamatsugai

Material examined. ANATAHAN: 6 exs., st. A, RI, AA leg., CBM-ZM-107351, 10 May; 3 exs., st. D, RI, TK leg., CBM-ZM-107363, 14 May. GUGUAN: 8 exs., st. B, RI, TK leg., CBM-ZM-107368, 17 May; 50 exs., st. B, RI, TK leg., CBM-ZM-107369, 17 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107374, 18 May; 14d exs., st. C, BD, TK leg., CBM-ZM-107995, 18 May. AGRIHAN: 30 exs., st. A, RI, AA leg., CBM-ZM-107385, 28 May; 1d ex., st. B, RI, AA leg., CBM-ZM-107388, 1 June; 34d exs., st. B, BD, TK leg., CBM-ZM-107846 & 107913, 29 May. ASUNCION: 4d exs., st. A, AA leg., CBM-ZM-107585, 1 June.

Previous record. As *S. sirius* Pillsbry from AN, G & P (Vermeij *et al.*, 1983).

Remarks. Vermeij *et al.* (1983) identified this species as *S. sirius*, which is distributed throughout the temperate Japan mainland (Higo and Goto, 1992). Specimens from the northern Marianas have weaker and more numerous radial ribs than *S. sirius*, and were identified as *S. (M.) subatrata*, previously described from the Ogasawara Islands.

**Class Bivalvia
Subclass Pteriomorpha
Order Arcoida
Family Arcidae**

479. *Arca avellana* Lamarck

Funegai

Material examined. ANATAHAN: 1d ex., GUGUAN: st. C, BD, TK leg., CBM-ZM-107976, 18 May. ALAMAGAN: 1d ex., st. A, TK leg., CBM-ZM-106381, 18 May. PAGAN: 5d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106500, 26 May; 1d ex., st. C, BD, TK leg., CBM-ZM-, 26 May; 6d exs., st. C, BD, TK leg., CBM-ZM-107654, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106547 & 106345, 27 May; 17d exs., st. E, BD, TK leg., CBM-ZM-106148, 24 May; 21d exs., st. E, BD, AA leg., CBM-ZM-106257, 24 May; 3 exs., st. C, Dive, TK leg., CBM-ZM-107286, 27 May. AGRIHAN: 4d exs., st. B, BD, TK leg., CBM-ZM-107848 & 107917, 29 May; 2d exs., st. C, BD, TK leg., CBM-ZM-106010, 30 May. MAUG, E: 3d exs., st. A, BD, TK leg., CBM-ZM-106056, 2 June; 2 exs., st. C, Dive, TK leg., CBM-ZM-107532, 4 June. MAUG, W: 2d exs., st. E, RI, AA leg., CBM-ZM-107500, 4 June.

Previous record. P & M (Vermeij *et al.*, 1983).

480. *Arca ventricosa* Lamarck

Oo-takanoha

Material examined. SARIGAN: 1 ex., st. A, RI, TK leg., CBM-ZM-106932, 16 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106653, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106501, 26 May; 5d exs., st. C, BD, TK leg., CBM-ZM-107655, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106149, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106258, 24 May. MAUG, W: 1d ex., west coast, Dive (15–25 m), TP leg., CBM-ZM-106800, 4 June.

Previous record. AN, P, AS & M (Vermeij *et*

al., 1983).

481. *Acar plicatum* (Dillwyn)

Koshirogai

Material examined. GUGUAN: 2d exs., st. C, BD, TK leg., CBM-ZM-107977, 18 May. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106654, 24 May; 2d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106502, 26 May; 7d exs., st. C, BD, TK leg., CBM-ZM-106550 & 107658, 26 May; 15d exs., st. E, BD, TK leg., CBM-ZM-106155, 24 May; 20d exs., st. E, BD, AA leg., CBM-ZM-106264, 24 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107288, 27 May. AGRIHAN: 2d exs., North west coast, Dive, TP leg., CBM-ZM-106817, 29 May.

Previous record. As *A. divaricosa* (Sowerby) from P & M (Vermeij *et al.*, 1983).

482. *Barbatia (Abarbatia) lima* (Sowerby)

Egai

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106153, 24 May.

Previous record. As *B. decussata* (Sowerby) from P & M (Vermeij *et al.*, 1983).

483. *Barbatia (Ustularca) amygdalumtosum* (Röding)

Beni-egai

Material examined. PAGAN: 3d exs., st. C, BD, TK leg., CBM-ZM-106548, 26 May; 14d exs., st. E, BD, TK leg., CBM-ZM-106150, 24 May; 18d exs., st. E, BD, AA leg., CBM-ZM-106259, 24 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107287, 27 May; 9d exs., st. C, BD, TK leg., CBM-ZM-107656, 26 May; 1d ex., st. F, BD, TK leg., CBM-ZM-106562, 24 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107849, 30 May. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106786, 2 June. MAUG, N & W: 2d exs., Dive (5–10 m), TP leg., CBM-ZM-106791, 2 June. MAUG, N: 1d ex., north coast, Dive (6–15 m), TP leg., CBM-ZM-106804, 4 June.

Previous record. P (Vermeij *et al.*, 1983).

484. *Barbatia (Ustuaraca) lacerata* (Bruguère)

Oo-mino-egai

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-106549, 26 May; 3d exs., st. C, BD, TK leg., CBM-ZM-107657, 26 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106151, 24 May; 3d exs., st. E, BD, AA leg., CBM-ZM-106260, 24 May.

485. *Barbatia (Ustuaraca) stearnsi* Pilsbry

Hana-egai

Material examined. PAGAN: 21d exs., st. E, BD, TK leg., CBM-ZM-106152, 24 May; 9d exs., st. E, BD, AA leg., CBM-ZM-106262, 24 May. AGRIHAN: 4d ex., st. B, BD, TK leg., CBM-ZM-107850 & 107918, 29 May. MAUG, E: 1 ex., st. C, Dive, TK leg., CBM-ZM-107533, 4 June.

486. *Barbatia (Barbarca) tenella* (Reeve)

Habutae-egai

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106672, 24 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106154, 24 May; 4d exs., st. E, BD, AA leg., CBM-ZM-106263, 24 May.

Previous record. P (Vermeij *et al.*, 1983).

Family Glycymerididae

487. *Glycymeris* sp.

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106729, 27 May.

Previous record. P (Vermeij *et al.*, 1983).

Family Limopsidae

488. *Limopsis* sp.

Previous record. G (Vermeij *et al.*, 1983).

Order Mytiloidea

Family Mytilidae

489. *Modiolus auriculatus* (Krauss)

Ryukyu-hibari

Material examined. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106503, 26 May; 5d exs., st. E, BD, TK leg., CBM-ZM-106156, 24 May; 9d exs., st. E, BD, AA leg., CBM-ZM-106261, 24 May.

Previous record. P (Vermeij *et al.*, 1983).

490. *Septifer excisus* (Wiegmann)

Shiro-inko

Material examined. ANATAHAN: 1d ex., st. B, TK leg., CBM-ZM-106879, 12 May. ALAMAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106382, 18 May. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106655, 24 May; 6d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106504, 26 May; 3d exs., st. C, BD, TK leg., CBM-ZM-106551, 107215 & 107661, 26 May; 2d exs., st. D, BD, TK leg., CBM-ZM-106346, 27 May; 7d exs., st. E, BD, TK leg., CBM-ZM-106157, 24 May; 14d exs., st. E, BD, AA leg., CBM-ZM-106265, 24 May; 1d ex., st. F, BD, TK leg., CBM-ZM-106563, 24 May.

AGRIHAN: 3d exs., st. C, BD, TK leg., CBM-ZM-106011, 30 May. MAUG, W: 1 ex., st. E, RI, AA leg., CBM-ZM-107501, 4 June.

Previous record. G & P (Vermeij *et al.*, 1983).

491. *Septifer* sp.

Material examined. PAGAN: 2d exs., st. E, BD, TK leg., CBM-ZM-106158, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106266, 24 May.

**Order Pterioida
Family Pteriidae**

492. *Pinctada margaritifera* (L.)

Kurochogai

Previous record. G & P (Vermeij *et al.*, 1983).

493. *Pinctada maculata* (Gould)

Midori-aori

Material examined. PAGAN: 3d exs., st. E, BD, TK leg., CBM-ZM-106160, 24 May. URACAS: 1 ex., st. A, RI, AA leg., CBM-ZM-107004; 6 June.

494. *Pinctada* sp.

Previous record. P (Vermeij *et al.*, 1983).

Family Isognomonidae

495. *Isognomon* (s.s.) *perna* (L.)

Aorigai

Previous record. P (Vermeij *et al.*, 1983).

496. *Isognomon* (s.s.) *marspiale* (Röding)

Kaishi-aori

Material examined. PAGAN: 4d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106505, 26 May; 2 exs., st. C, Dive, TK leg., CBM-ZM-107289, 27 May.

497. *Isognomon* (s.s.) *incisum* (Conrad)

Material examined. GUGUAN: 1d ex., st. B, RI, TK leg., CBM-ZM-106974, 17 May.

Previous record. P (Vermeij *et al.*, 1983).

498. *Isognomon* (s.s.) cf. *I. legumen* (Gmelin)

Material examined. PAGAN: 3d exs., st. D, BD, TK leg., CBM-ZM-106730, 27 May.

499. *Isognomon* (*Parviperna*) *nucleus* (Lamarck)

Heritori-aori

Material examined. ANATAHAN: 1 ex., st. D, RI, TK leg., CBM-ZM-106914, 14 May. AGR-IHAN: 2 exs., st. A, RI, AA leg., CBM-ZM-107082, 28 May. ASUNCION: 3 exs., st. A, RI, AA leg., CBM-ZM-107135, 1 June. MAUG, N: 1 ex., st. F, RI, AA leg., CBM-ZM-107483, 3 June.

Family Malleidae

500. *Malvifundus irregularis* Jousseaume

Hiryogai

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106159, 24 May.

Family Pectinidae

501. *Chlamys* (*Bractaeclamys*) *coruscans* *coruscans* (Hinds)

Yagasuri-hiyoku

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-108315, 18 May. PAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106571, 24 May; 1d ex., st. A, BD, TK leg., CBM-ZM-106673, 24 May; 7d exs., st. E, BD, AA leg., CBM-ZM-106267 & 106268, 24 May.

Previous record. P (Vermeij *et al.*, 1983).

502. *Chlamys* (s.s.) *squamosa* (Gmelin)

Ryukyuu-nadeshiko

Previous record. G & P (Vermeij *et al.*, 1983).

503. *Chlamys* (s.s.) sp. A

Material examined. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106572, 24 May.

504. *Chlamys* (s.s.) sp. B

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-108307, 26 May.

505. *Semipallium tigris* (Lamarck)

Nishiki-ogi

Material examined. PAGAN: 1d ex., Dive, TP leg., CBM-ZM-106761, 26 May. MAUG, N & W: 1d ex., Dive (5–10 m), TP leg., CBM-ZM-106792, 2 June.

506. *Excellichalamys spectabilis* (Reeve)

Chihirogai

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-108306, 26 May.

Family Spondylidae

507. *Spondylus butleri* Reeve

Kabatoge-umigiku

Material examined. PAGAN: 1d ex., st. D, BD, TK leg., CBM-ZM-106348, 27 May. ASUNCION: 1d ex., north-west coast, Dive (15 m), TP leg., CBM-ZM-106828, 7 June. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106787, 2 June. MAUG, W: 1d ex., west coast, Dive (15–25 m), TP leg., CBM-ZM-106801, 4 June.

508. *Spondylus nicobaricus* Schreibers

Mihikari-mengai

Material examined. PAGAN: 7d exs., st. C, BD, TK leg., CBM-ZM-106552 & 107665, 26 May; 4d exs., st. E, BD, TK leg., CBM-ZM-106161, 24 May; 2 d exs., st. E, BD, AA leg., CBM-ZM-106270, 24 May.

509. *Spondylus* spp.

Material examined. PAGAN: 1 ex., st. C, Dive, TK leg., CBM-ZM-107290, 27 May; 7d exs., st. E, BD, TK leg., CBM-ZM-106162, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106269, 24 May. AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-106012 & 106013, 30 May.

Previous record. G & M (Vermeij *et al.*, 1983).

Family Plicatulidae

510. *Plicatula australis* Lamarck

Kasuri-ishigaki-modoki

Material examined. ALAMAGAN: 1d ex., st. A, TK leg., CBM-ZM-106383, 18 May. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106507, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106731, 24 May; 5d exs., st. E, BD, TK leg., CBM-ZM-106163, 24 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107291, 27 May. MAUG, E: 2d exs., st. A, BD, TK leg., CBM-ZM-106057, 2 June; 1 d ex., st. C, Dive, TK leg., CBM-ZM-107534, 4 June.

511. *Plicatula* sp.

Material examined. PAGAN: 1 ex., st. C, Dive, TK leg., CBM-ZM-107292, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106164, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106271, 24 May. URACAS: 2 exs., st. A, Dive, TK leg., CBM-ZM-107020, 6 June.

Family Limidae

512. *Lima vulgaris* Link

Minogai

Material examined. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106656, 24 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107659, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106352, 27 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106165, 24 May.

Previous record. As *L. lima* (L.) from P (Vermeij *et al.*, 1983).

513. *Ctenoides annulata* (Lamarck)

Midare-hanegai

Material examined. PAGAN: 5d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106508, 26 May;

29 exs., st. C, BD, TK leg., CBM-ZM-106554 & 107660, 26 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107293, 27 May; 39d exs., st. E, BD, TK leg., CBM-ZM-106166, 24 May; 20d exs., st. E, BD, AA leg., CBM-ZM-106272, 24 May.

Previous record. As *Lima annulata* from P (Vermeij *et al.*, 1983).

514. *Ctenoides ales* (Finley)

Ukon-hanegai

Material examined. ASUNCION, N: 1d ex., Dive, TP leg., CBM-ZM-107123, 1 June. MAUG, N: 1d ex., north coast, Dive (4–5 m), TP leg., CBM-ZM-106797, 3 June.

515. *Limatula cf. L. bullata* (Born)

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107978, 18 May.

Family Pycnodonteidae

516. *Pycnodonte numisma* (Lamarck)

Previous record. M (Vermeij *et al.*, 1983).

517. *Hytotissa chemnitzii* (Hanley)

Benigaki

Material examined. PAGAN: 8d exs., st. C, BD, TK leg., CBM-ZM-107663, 26 May. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107851, 29 May.

518. *Hytotissa inaequalis* (Sowerby)

Hiragaki

Material examined. URACAS: 2 exs., st. A, Dive, TK leg., CBM-ZM-107019, 6 June.

Subclass Heterodonta

Order Veneroida

Family Lucinidae

519. *Epicodakia bella* (Conrad)

Hime-tsukigai

Material examined. PAGAN: 3d exs., st. A, BD, TK leg., CBM-ZM-106665, 24 May; 10d exs., st. E, BD, TK leg., CBM-ZM-106173, 24 May; 3d exs., st. E, BD, AA leg., CBM-ZM-106275, 24 May. MAUG, E: 1d ex., st. C, Dive, TK leg., CBM-ZM-107535, 4 June. MAUG, W: 1d ex., st. E, RI, AA leg., CBM-ZM-107503, 4 June.

Previous record. As *Ctena bella* G & M (Vermeij *et al.*, 1983).

520. *Epicodakia* sp.

Hososuji-hime-tsukigai

Material examined. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106662, 24 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106172, 24 May. 4d

exs., st. E, BD, AA leg., CBM-ZM-106276, 24 May.

Family Carditidae

521. *Cardita variegata* (Bruguière)

Kurofu-tomayagai

Material examined. MAUG, E: 1d ex., st. A, BD, TK leg., CBM-ZM-106061, 2 June. MAUG, W: 3d exs., st. E, RI, AA leg., CBM-ZM-107502, 4 June.

Previous record. M (Vermeij *et al.*, 1983).

522. *Carditella* cf. *C. hawaiiensis* Dall, Bartsch & Rehder

Previous record. AS (Vermeij *et al.*, 1983).

Family Fimbriidae

523. *Fimbria fimbriata* (L.)

Chijimi-kagogai

Previous record. M (Vermeij *et al.*, 1983).

524. *Fimbria* sp.

Previous record. P (Vermeij *et al.*, 1983).

Family Chamidae

525. *Chama japonica* Lamarck

Kikuzarugai

Material examined. ALAMAGAN: 1d ex., st. A, TK leg., CBM-ZM-106384, 18 May. 1d ex., north west coast, Dive (10–15 m), TP leg., CBM-ZM-106807, 9 June. PAGAN: 4d exs., st. A, BD, TK leg., CBM-ZM-106661, 24 May; 3d exs., st. C, BD, AA, TF & HH leg., CBM-ZM-106510, 26 May; 1 ex., st. C, Dive, TK leg., CBM-ZM-107295, 27 May; 1d ex., st. C, BD, TK leg., CBM-ZM-107667, 26 May; 1d ex., st. D, BD, TK leg., CBM-ZM-106350, 27 May; 14d exs., st. E, BD, TK leg., CBM-ZM-106171, 24 May; 6d exs., st. E, BD, AA leg., CBM-ZM-106273, 24 May; 1d ex., st. F, BD, TK leg., CBM-ZM-106564, 24 May. AGRIHAN: 2d exs., st. C, BD, TK leg., CBM-ZM-106014, 30 May. MAUG, E: 3d exs., st. A, BD, TK leg., CBM-ZM-106060, 2 June.

526. *Chama divaricata* Reeve

Shima-zarugai

Material examined. PAGAN: 5d exs., st. A, BD, TK leg., CBM-ZM-106660, 24 May; 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106509, 26 May; 40d exs., st. C, BD, TK leg., CBM-ZM-106353 & 107666, 26 May; 5d exs., st. E, BD, TK leg., CBM-ZM-106169, 24 May; 1d ex., Dive, PS leg., CBM-ZM-106742, 24 May. MAUG, E: 4d

exs., st. A, BD, TK leg., CBM-ZM-106058, 2 June. MAUG, W: 1d ex., west coast, Dive (15–25 m), TP leg., CBM-ZM-106802, 4 June.

527. *Chama dunkeri* Lischke

Keitogai

Material examined. 1d ex., PAGAN: st. D, Dive, TK leg., CBM-ZM-107264, 27 May. 1d ex., MAUG, E: st. A, BD, TK leg., CBM-ZM-106059, 2 June.

528. *Chama iostoma* Conrad

Kanetsuke-zaru

Previous record. G, P & M (Vermeij *et al.*, 1983).

529. *Chama* sp. A

Material examined. PAGAN: 12d exs., st. E, BD, TK leg., CBM-ZM-106170, 24 May; 1d exs., st. E, BD, AA leg., CBM-ZM-106274, 24 May.

530. *Chama* sp. B

Material examined. PAGAN: 1d ex., st. E, BD, TK leg., CBM-ZM-106168, 24 May.

531. *Chama* sp.

Previous record. G & AG (Vermeij *et al.*, 1983).

Family Kelliidae

532. *Kellia* cf. *K. porculus* Pilsbry

Material examined. AGRIHAN: 1d ex., st. B, BD, TK leg., CBM-ZM-107919, 29 May.

533. *Nesobornia bartschi* Chavan

Material examined. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-1066812, 24 May.

Previous record. P (Vermeij *et al.*, 1983).

Family Galeommatidae

534. *Pseudogaleomma* sp.

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-107979, 18 May.

535. *Scintilla* sp.

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106282, 24 May.

Family Cardiidae

536. *Vasticardium angulatum* (Lamarck)

Fujiiro-zaru

Material examined. MAUG, N & W: 1d ex., Dive (5–10 m), TP leg., CBM-ZM-106793, 2 June.

Family Tridacnidae

537. *Tridacna maxima* Röding

Shiranami

Material examined. ANATAHAN: 2d exs., st.

A, BD, TK leg., CBM-ZM-106445, 11 May. ALAMAGAN: 1 d ex., st. A, TK leg., CBM-ZM-106385, 18 May. PAGAN: 1d ex., st. C, BD, AA, TF & HH leg., CBM-ZM-106512, 26 May; 8d exs., st. C, BD, TK leg., CBM-ZM-106555 & 107670, 26 May; 5d exs., st. D, BD, TK leg., CBM-ZM-106354, 27 May; 10d exs., st. E, BD, TK leg., CBM-ZM-106167, 24 May; 6d exs., st. E, BD, AA leg., CBM-ZM-106277, 24 May. MAUG, W: 1d ex., st. E, RI, AA leg., CBM-ZM-107504, 4 June.

Previous record. S, P & M (Vermeij *et al.*, 1983).

538. *Tridacna squamosa* Lamarck

Hire-jako

MAUG: field observation.

Previous record. AN & M (Vermeij *et al.*, 1983).

Family Mactridae

539. *Mactra* sp.

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-108308, 26 May.

Family Mesodesmatidae

540. *Rochefortina sandwichensis* (Smith)

Hakobeno-hanagai

Previous record. As *Ervilia sandwichensis* from G & M (Vermeij *et al.*, 1983).

Family Tellinidae

541. *Tellina (Tellinella) crucigera* Lamarck

Hinodegai

Previous record. P (Vermeij *et al.*, 1983).

542. "*Tellina*" sp.

Previous record. M (Vermeij *et al.*, 1983).

543. *Quidnipagus palatam* Iredale

Ryukyu-shiratori

Previous record. P (Vermeij *et al.*, 1983).

544. *Scutarcopagia scobinata* (L.)

Same-zara

Material examined. ALAMAGAN: 1d ex., st. A, RI, AA leg., CBM-ZM-107074, 9 June. PAGAN: 2d exs., st. C, BD, TK leg., CBM-ZM-106556 & 107672, 26 May.

545. *Pinguitellina robusta* (Hanley)

Uraki-hime-zara

Previous record. P (Vermeij *et al.*, 1983).

546. *Jactellina obliquistriata* (Sowerby)

Goshiki-zakuragai

Material examined. ALAMAGAN: 1d ex., st. A, AA leg., CBM-ZM-107114, 9 June. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106573, 24 May; 1d ex., st. C, BD, TK leg., CBM-ZM-106547, 26 May; 1d ex., st. E, BD, TK leg., CBM-ZM-106177, 24 May; 1d ex., st. E, BD, AA leg., CBM-ZM-106280, 24 May.

547. *Elliptotellina euglypta* (Gould)

Chijimi-himezara

Material examined. GUGUAN: 1d ex., st. C, BD, TK leg., CBM-ZM-108316, 18 May.

Family Semelidae

548. *Semele obscura* Deshayes

Shiwa-same-zaragai-modoki

Material examined. PAGAN: 2d exs., st. A, BD, TK leg., CBM-ZM-106663, 24 May; 3d exs., st. E, BD, TK leg., CBM-ZM-106178, 24 May; 2d exs., st. E, BD, AA leg., CBM-ZM-106279, 24 May.

Family Trapeziidae

549. *Trapezium oblongum* (L.)

Suehiro-funagatagai

Material examined. PAGAN: 1d ex., st. E, BD, AA leg., CBM-ZM-106278, 24 May.

Previous record. P & M (Vermeij *et al.*, 1983).

Family Veneridae

550. *Periglypta reticulata* (L.)

Ara-nunome

Material examined. ALAMAGAN: 3d exs., st. A, RI, AA leg., CBM-ZM-107075, 9 June. PAGAN: 1d ex., st. A, BD, TK leg., CBM-ZM-106664, 24 May; 2d exs., st. C, BD, TK leg., CBM-ZM-106732 & 107671, 26 May; 5d exs., st. E, BD, TK leg., CBM-ZM-106175, 24 May; 8d exs., st. E, BD, AA leg., CBM-ZM-106281, 24 May; 2 d exs., st. F, BD, TK leg., CBM-ZM-106565, 24 May; MAUG, N & W: 2d exs., Dive (5-10 m), TP leg., CBM-ZM-106794, 2 June.

Previous record. P (Vermeij *et al.*, 1983).

551. *Gafrarium pectinatum* (L.)

Hososuji-inami

Previous record. P (Vermeij *et al.*, 1983).

552. *Pitar?* sp.

Material examined. PAGAN: 5d exs., st. E, BD, TK leg., CBM-ZM-106174, 24 May; 4d exs., st. E, BD, AA leg., CBM-ZM-106283 & 106284, 24 May.

553. *Liochoncha hieroglyphica* (Conrad)

Sarasagai

Previous record. M (Vermeij *et al.*, 1983).

554. *Venus (Ventricolaria) toreuma* Gould

Maru-sudaregai

Material examined. PAGAN: 1d ex., st. C, BD, TK leg., CBM-ZM-106557, 26 May; 2d exs., st. E, BD, TK leg., CBM-ZM-106176, 24 May.

Class Cephalopoda

Order Octopoda

555. Octopoda spp.

Material examined. AGRIHAN: 1 ex., st. C, Dive, TK field observation, 30 May. MAUG, E: 1 ex., st. B, Dive, SM field observation, 5 June.

Discussion

More than 520 species, including 4 chitons, 456 gastropods and 68 bivalves of marine molluscs have been recorded from the northern Marianas by this expedition and in the previously published literatures. At least 190 species were new records from these islands.

Almost all the species are widely distributed in the Indo-western Pacific (Kuroda, 1960; Abbott, 1960; Burgess, 1985; Houbbrick, 1992). Some species of Vetigastropoda, such as *Sanhaliotis* spp. and *Stomatella* sp., exhibit different shell characters compared with those in the other Pacific areas. These forms may in fact be distinct species. Fukuda (1993) reported that *Sanhaliotis* sp. B from the Ogasawara Islands was an undescribed species. On the other hand, *Nipponacmea boninensis* is endemic to the southern Izu, Ogasawara and northern Mariana Islands (Asakura and Kurozumi, 1991; Sasaki and Okutani, 1993). *Siphonaria (Mestasi-phon) subatra* was common on the Ogasawara and the northern Mariana Islands. These observations suggest that the Ogasawara and northern Mariana Islands might be located in the same biogeographical region.

Among the intertidal littorinids and neritids, some species previously reported from the northern Marianas were rarely or never found during this expedition. *Nerita (Ritena) maxima* and *N. (R.) insculpta* have been reported from Pagan (Vermeij *et al.*, 1983). The former species could not be found, and only two specimens of the latter were collected at different sites. Also

N. (Thelyostyla) albicilla has been reported from Pagan (Vermeij *et al.*, 1983), only one specimens collected from Anatahan. *Littorina undulata* and *Nodilittorina (Granulilittorina)* sp. B was obtained from several islands, but only one or two specimens of these species were collected at each site. The scarcity of these five species might suggest that their populations in the northern Mariana Islands are pseudopopulations (see Oyama, 1955; Nishimura, 1981, for definition).

As Vermeij *et al.* (1983) showed that *Nodilittorina* (s. s.) *pyramidalis* is distributed from Pagan to the further northern islands, and the present expedition has confirmed this distribution pattern. This species was dominant on rocky intertidal zones in the Ogasawara Islands (Asakura *et al.*, 1990, 1991) and was also recorded from intertidal zones on the Kazan (Volcano) Islands (Nishimura, 1987a, b, 1988). Therefore, dispersal might have occurred from the Ogasawara and/or Kazan Islands. This dispersal pattern can also be recognized within *Nipponacmea boninensis* and *Siphonaria (Mestasi-phon) subatra*.

The land hermit crab *Coenobita purpureus* was collected only from Maug (Asakura *et al.*, 1994). This species is probably endemic in Japan (Nakasone, 1987) and occurred abundantly in the Ogasawaras (Tokyo Metropolitan Board of Education, 1987). This land hermit crab may also have dispersed from the Ogasawaras to the northern end of the northern Marianas.

Some pseudopopulations of the above mentioned species may have been dispersed from the Ogasawara Islands, as they have been recorded from Ogasawaras (Fukuda, 1993). On the other hand, *N. (R.) maxima* has not been collected from the Ogasawara or Kazan Islands (Nishimura, 1987a, b, 1988; Fukuda, 1993), but it was collected in Apra Harbr, Guam (CBM-ZM-101779). Dispersal of this species probably occurs from the southern Marianas.

Detailed distribution patterns of each species, further taxonomic studies of some vetigastropods, and comparisons of species composition are needed.

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