VENUS 63 (1-2): 1-11, 2004

New Gastropod Taxa from a Hydrothermal Vent (Kairei Field) in the Central Indian Ocean

Takashi Okutani[1], Jun Hashimoto[2] and Takenori Sasaki[3]

[1]*Japan Agency for Marine-Earth Science & Technology (JAMSTEC), 2-15 Natsushima-cho, Yokosuka, Kanagawa 237-0061, Japan; okutani@jamstec.go.jp*
[2]*Faculty of Fisheries, Nagasaki University, 1-14 Bunkyo-cho, Nagasaki 852-8521, Japan*
[3]*University Museum, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan*

Abstract: From among gastropod specimens collected from the hydrothermal vent site at Kairei Field near the Rodriguez Triple Junction in the Central Indian Ocean, by the ROV *Kaiko* and the crewed submersible *Shinkai 6500*, three new species are described: *Bruceiella wareni, Desbruyeresia marisindica,* and *Iphinopsis boucheti*. The occurrence of an *Alviniconcha* species very similar to *A. hessleri,* is also reported.

Keywords: Gastropoda, new species, Indian Ocean, hydrothermal vents

Introduction

Since hydrothermal vent communities were discovered for the first time in the Indian Ocean (Hashimoto *et al.*, 2001), only the new bivalve *Bathymodiolus marisindicus* Hashimoto, 2001 has been described from the molluscan samples from this site, Kairei Field near the Rodriguez Triple Junction. Dr. Anders Warén of the Swedish Museum of Natural History in Stockholm also acquired molluscan specimens from the same locality from Dr. Cindy L. Van Dover, College of William & Mary, USA (Van Dover *et al.*, 2001). To avoid an overlapping effort in describing molluscan taxa, we agreed with each other to separate the species to be treated. Besides the gastropods under the present study, limpets and an unusual Neomphaline gastropod from the Kairei Field (Warén *et al.*, 2003) will be described elsewhere by Dr. A. Warén and his colleagues in separate papers.

Materials

The gastropod specimens treated here were collected during the following dives by the ROV *Kaiko* (August 2000) and the crewed submersible *Shinkai 6500* (February 2002) of the Japan Agency for Marine-Earth Science & Technology in Kairei Field near the Rodriguez Triple Junction in the Central Indian Ocean (Fig. 1). The biological specimens were all scooped directly from the sea floor by a scoop-sampler manipulated by the ROV and submersible. Most of the tiny specimens were extracted from sediment samples on board the support vessels.

Kaiko Dive	168 (Aug. 26, 2000) : 25°19.17′ S, 70°02.38′ E, 2434 m.
	169 (Aug. 27, 2000) : 25°19.16′ S, 70°02.40′ E, 2442 m.
Shinkai 6500 Dive	656 (Feb. 2, 2002) : 25°19.21′ S, 70°02.39′ E, 2443 m.
	657 (Feb. 13, 2002) : 25°19.21′ S, 70°02.44′ E, 2422 m.
	659 (Feb. 15, 2002) : 25°19.22′ S, 70°02.39′ E, 2454 m.
	660 (Feb. 16, 2002) : 25°19.22′ S, 70°02.44′ E, 2424 m.
	662 (Feb. 20, 2002) : 25°19.22′ S, 70°02.44′ E, 2422 m.
	664 (Feb. 23, 2002) : 25°19.25′ S, 70°02.39′ E, 2435 m.

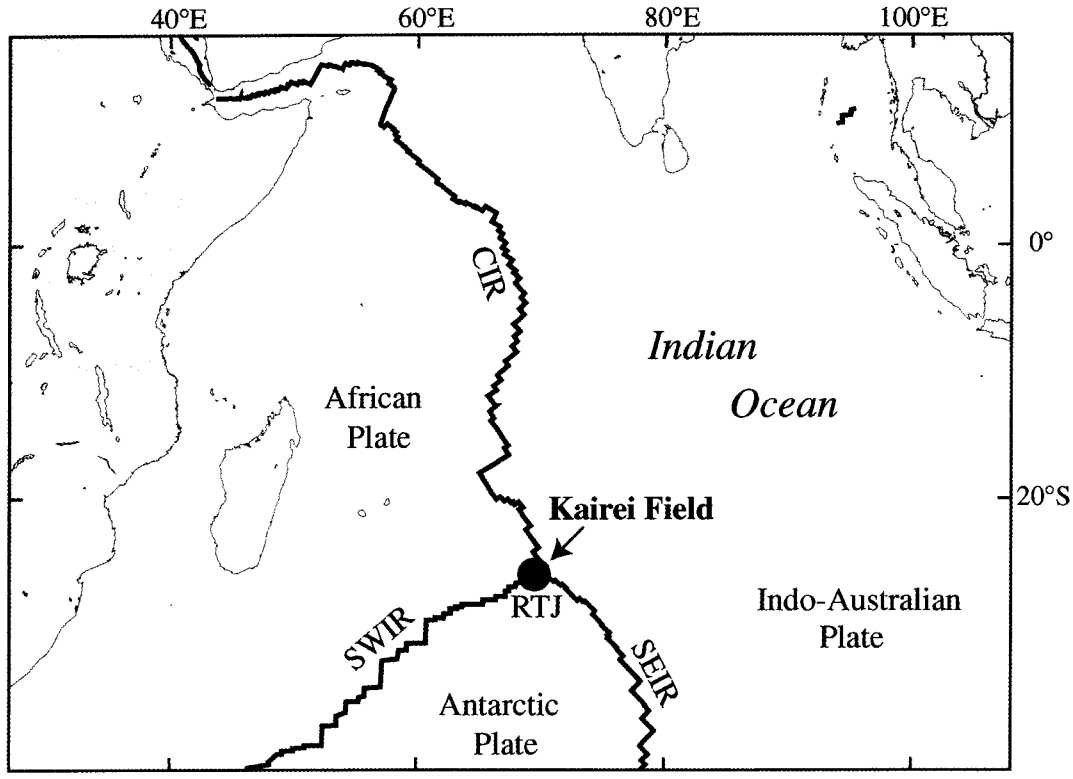

Fig. 1. The Kairei Field. Abbreviations: CIR – Central Indian Ridge, RTJ – Rodriguez Triple Junction, SEIR – Southeast Indian Ridge, SWIR – Southwest Indian Ridge.

665 (Feb. 24, 2002) : 25°19.24´ S, 70°02.40´ E, 2422 m.

Institutional abbreviations: JAMSTEC – Japan Agency for Marine-Earth Science & Technology; NSMT – National Science Museum Tokyo; UMUT – University Museum, University of Tokyo.

Taxonomy

Family Skeneidae Clark, 1851

***Bruceiella wareni* n. sp.**
(Figs. 2A-F)

Material examined: *Kaiko* Dive 168 (> 3000 specimens); *Shinkai 6500* Dive 656 (>1000 specimens); Dive 664 (88 specimens); Dive 665 (54 specimens)

Description: Shell (Fig. 2A-D) small and skeneiform with *ca.* 1.2 whorls remaining. Apical region including protoconch and early teleoconch invariably lost by corrosion. Majority of body whorl encrusted with rusty matter. Weak irregularly net-like sculpture and growth lines visible on encrust. Larval shell and initial part of subsequent whorls totally destroyed by corrosion, exposing smooth shelly matter. Umbilicus open, but often plugged by rusty matter and sediment. Aperture

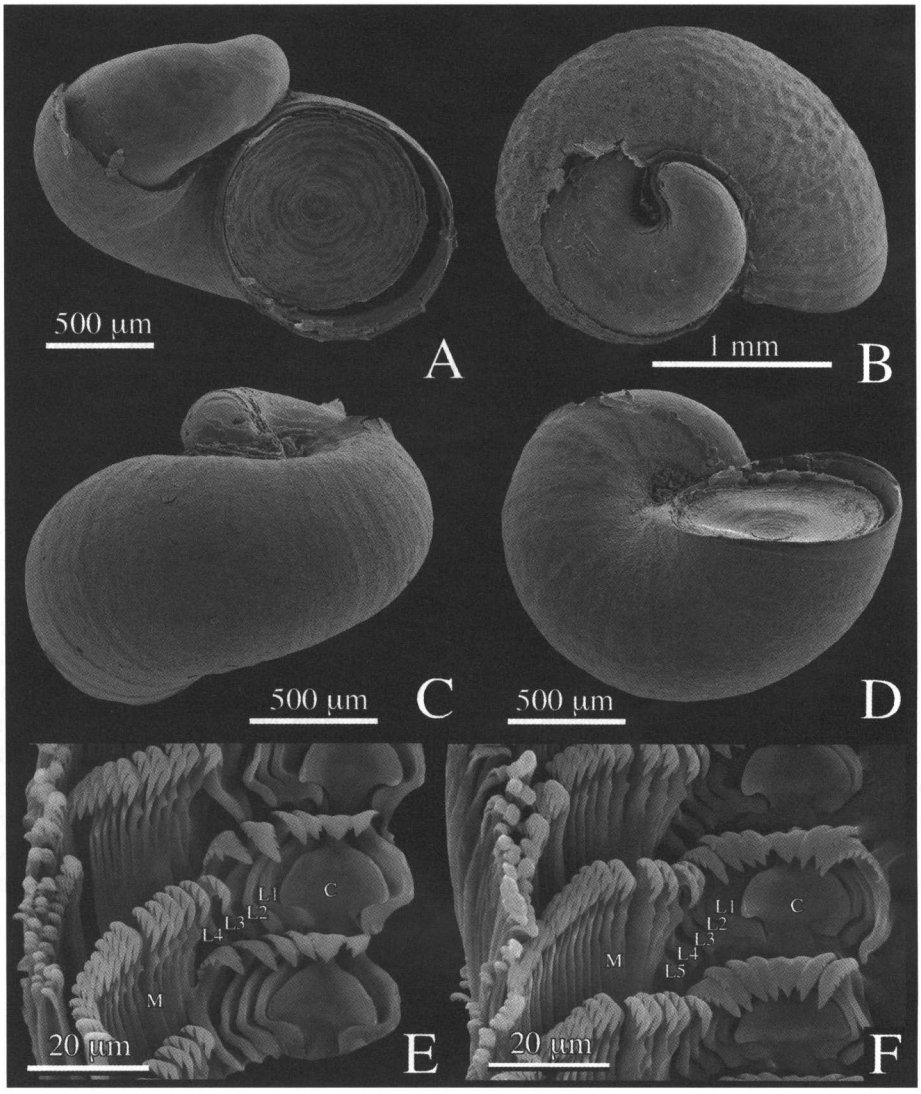

Fig. 2. *Bruceiella wareni* n. sp. **A.** Holotype, apertural view (UMUT-RM 28666). **B.** Paratype #2, apical view (UMUT-RM 28668). **C.** Paratype #1, dorsal view (UMUT-RM 28667). **D.** Paratype #3, basal view (UMUT-RM 28669). **E, F.** Radula (E: UMUT-RM 28671; F: UMUT-RM 28672). Abbreviations: C - central tooth, L1 to L5 - lateral teeth 1 to 5, M - marginal teeth.

large, circular, closed by multispiral horny operculum (Fig. 2A).

Radula rhipidoglossate. Central tooth (C in Figs. 2E, F) flask-shaped in outline with single incurved, central cusp which is finely dentate on lateral edges. Lateral teeth 5 in number (L1 to L5 in Figs. 1E, F); all have flat shaft with attenuated, serrated cutting edge ending in triangular, pointed tip, with interlocking support at base below elbow. Latero-basal interlocking support of innermost lateral tooth particularly large and fixed at lateral base of central tooth. Marginal teeth with straight shaft and rake-like cutting edge (M in Figs. 2E, F). Teeth of inner group about 18-20 in number, sturdier than several teeth of outer group. Shafts of teeth in inner group with low triangular wing near top, but those of outer group skinny and smooth.

Type depository and measurements of selected type specimens (shell diameter):
Holotype (UMUT-RM 28666: *Kaiko* Dive 168): 1.9 mm (Fig. 2A).
Paratype #1 (UMUT-RM 28667: *Kaiko* Dive 168): 1.6 mm (Fig. 2C).
Paratype #2 (UMUT-RM 28668: *Kaiko* Dive 168): 2.1 mm (Fig. 2B).
Paratype #3 (UMUT-RM 28669: *Kaiko* Dive 168): 1.7 mm (Fig. 2D).
[Above four specimens are all dried, mounted on SEM stub, coated with gold.]
Paratypes (UMUT-RM 28670: *Kaiko* Dive 168: 496 specimens): Maximum 2.2 mm.
Paratypes (NSMT-Mo 73612: *Kaiko* Dive 168: 500 specimens): Maximum 2.2 mm.
Paratypes JAMSTEC 033591-034590, 035092-035591, 036599-037098, 434591-035090: all *Kaiko* Dive 168: 2500 specimens

Etymology: The name honors Dr. Anders Warén, Swedish Museum of Natural History, Stockholm, in appreciation of his energetic contributions to molluscan taxonomy, including that of vent/seep-associated gastropods.

Remarks: The genus *Bruceiella* was established by Warén & Bouchet (1993) typifying *B. globulus* from the North Fiji Basin and Lau Basin, in 1750-2000 m depth. They later added another species, *B. athlia* Warén & Bouchet, 2001, from the Aleutian Trench at about 4800 m deep (Warén & Bouchet, 2001). Both were from chemosynthetic environments. Neither species exhibits any marked conchological difference from the present new species. The irregular net-like pattern on the shell of the present new species may not be sculpture, but simply a pattern in the periostracum or perhaps of foreign origin, such as a rusty deposit or bacterial growth. *B. globulus* has a slightly more globular shell and more deeply constricted suture. The unique varix between the protoconch and teleoconch in *B. globulus* was not observed in the present species, because no specimen that retains the protoconch was discovered, even among such a large number of specimens available for study. The central tooth of *B. globulus* has a concave basal line and broad anterior supports unlike that of the present species, which has an oval or flask-shaped outline. The shell of *B. athlia* is somewhat higher than that of the present species. The central tooth of *B. athlia* has a trapezoid outline with a broad lateral wing. The horizontal central ridge on the basal plate is peculiar to that species. The configuration of lateral teeth in *B. athlia* is very similar to that in the present species.

Family Provannidae Warén & Ponder, 1991

Desbruyeresia marisindica n. sp.
(Figs. 3A-C, 4A-B)

Material examined: *Kaiko* Dive 168 (66 specimens); *Shinkai 6500* Dive 656 (2 specimens); Dive 659 (80+ specimens); Dive 660 (6 specimens); Dive 664 (57 specimens); Dive 665 (37 specimens).

Description: Shell cerithioid in shape, sturdy, with high spire and large body whorl that occupies nearly 60% of shell length (Fig. 3A). Whorls moderately inflated, usually yellowish to brownish, frequently even reddish.

Protoconch bulbous, smooth except for delicate growth lines (Fig. 4B), 1.5 whorls with distinct boundary with teleoconch. Succeeding initial part, teleoconch weakly shouldered and ornamented by growth lines. At about second teleoconch whorl, axial ribs appear. Ribs almost equally spaced, 16-17 in number per turn, becoming acutely nodulous at intersections with shoulder rib. Second spiral rib appears on the periphery at about 4th whorl, and likewise nodulous at intersections with axial ribs (Fig. 4A). Two more nodulous spiral ribs above shoulder on body whorl. All ribs except basal ones nodulous. Six spiral ribs on base, usually smooth, but one or two adapical ones occasionally weakly nodulose and abapicalmost one diffused, with low siphonal

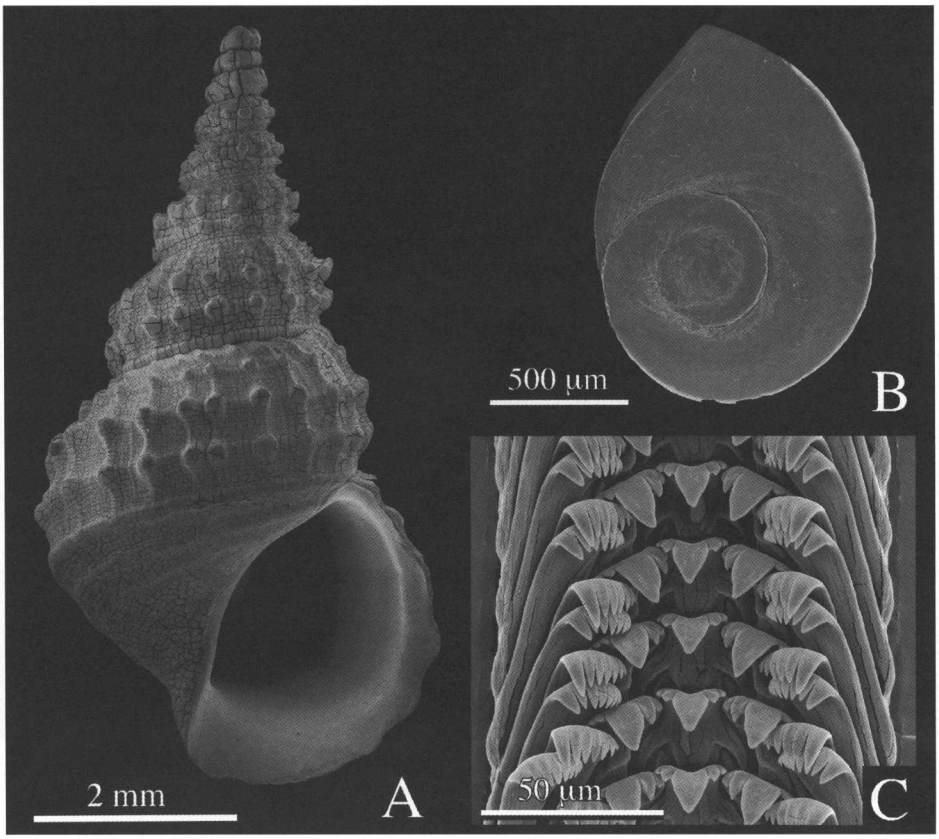

Fig. 3. *Desbruyeresia marisindica* n. sp. **A.** Holotype (UMUT-RM 28673). **B.** Operculum (UMUT-RM 28674), **C.** Radula (UMUT-RM 28675).

fasciole.

Aperture semicircular and white within. Labral margin somewhat undulating, corresponding with external spiral sculpture. Columellar lip smooth, ending in shallow siphonal sinus.

Operculum typical for genus, paucispiral with central nucleus (Fig. 3B).

Radula is taneioglossate, with formula 2-1-1-1-2 (Fig. 3C). Central tooth with large, triangular bluntly tipped central cusp, accompanied by two small lateral cusps on both sides. Basal plate with large wing-like lateral lobes. Lateral tooth with large, triangular, rather sharply tipped central cusp. Middle-sized and small lateral cusps present inside, and two more small lateral cusps outside. Low bump present near head. Marginal tooth with rake-like cutting edge bearing 6-8 incurved cusps that diminish in size inwardly. Inter-spaces between sharp cusps deeply incised. Shaft straight, parallel-sided, and plate-like in appearance.

Type depository and measurements of selected types (shell length × shell diameter):

Holotype (UMUT-RM 28673: *Kairei* Dive 168): 6.5 × 3.9 mm (Fig. 3A).

Paratype #1 (NSMT-Mo 73613: *Shinkai 6500* Dive 665): 9.6 × 5.5 mm.

Paratype #2 (NSMT-Mo 73614: *Shinkai 6500* Dive 665): 8.8 × 4.8 mm.

Paratype #3 (NSMT-Mo 73615: *Shinkai 6500* Dive 665): 8.9 × 5.2 mm.

Paratypes JAMSTEC 032886-032951: *Kairei* Dive 168; 047425-047426: *Shinkai 6500* Dive 656; 047153-047232 *Shinkai 6500* Dive 659; 046943-046948 *Shinkai 6500*

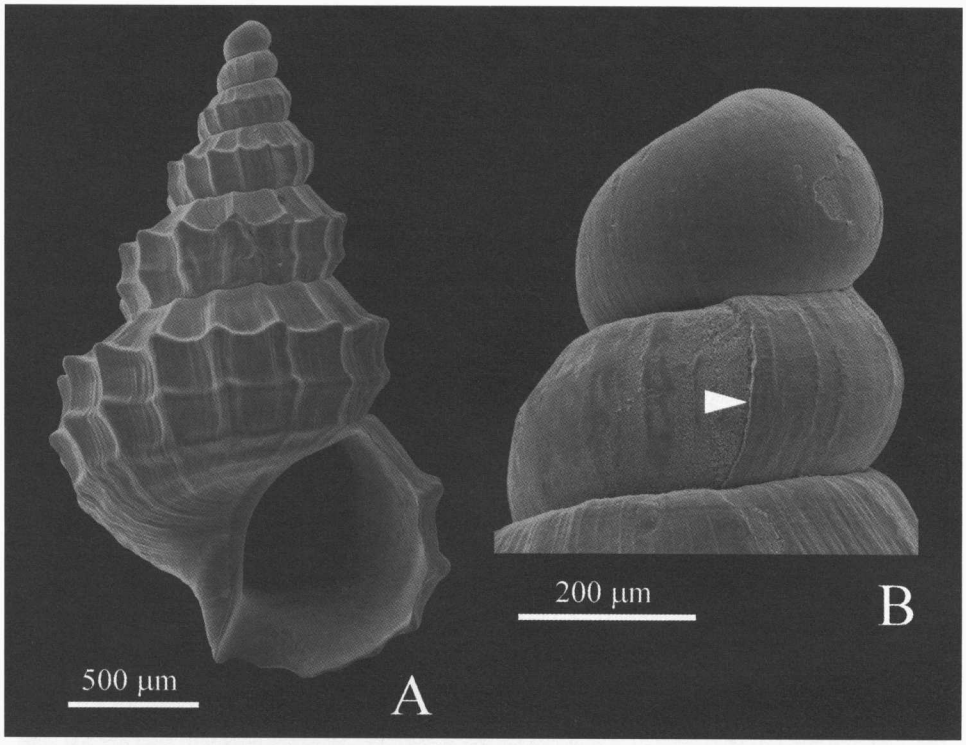

Fig. 4. *Desbruyresia marisindica* n. sp. **A.** A juvenile specimen (UMUT-RM 28676). **B.** Protoconch (An arrowhead indicates the boundary between protoconch and teleoconch).

Dive 660; 047016-047072: *Shinkai 6500* Dive 664; 047090-04126: *Shinkai 6500* Dive 665.

Etymology: The species name reflect the its type locality, the Indian Ocean.

Remarks: A few species of the genera *Provanna* and *Desbryueresia* bear a superficial resemblance to the present new species, such as *Provanna goniata* Warén & Bouchet, 1986 from the Guayamas Basin, and *P. segonzaci* Warén & Ponder, 1991 from the Fiji Back Arc, but *Desbruyeresia* differs from *Provanna* in lacking the pallial tentacle (Warén & Bouchet, 1993). Moreover, the radular characters, especially the lateral cusps on the central tooth, large triangular central cusp on the lateral tooth, and deeply incised rake-like serrations in the marginal tooth clrarly characterize the present new taxon. Known species with the similar radular characters include *Desbruyeresia cancellata* Warén & Bouchet, 1993 from the Lau Basin and *D. spinosa* Warén & Bouchet, 1993 from the North Fiji Basin, but the conchological characters of these Southwest Pacific species never agree with those of the present new species.

Alviniconcha aff. *hessleri* Okutani & Ohta, 1988

(Figs. 5A-B, 6)

Materal examined: *Kaiko* Dive 168 (5 specimens); *Shinkai 6500* Dive 659 (1 specimen); 660 (1 specimen); 662 (11 specimens); 664 (5 specimens); 665 (16 specimens).

Description: Shell (Fig. 4A-B) globose, rather elastic to touch, particularly at labral margin. Protoconch and early teleoconch whorls eroded, resulting in depressed apex. Body whorl occupies

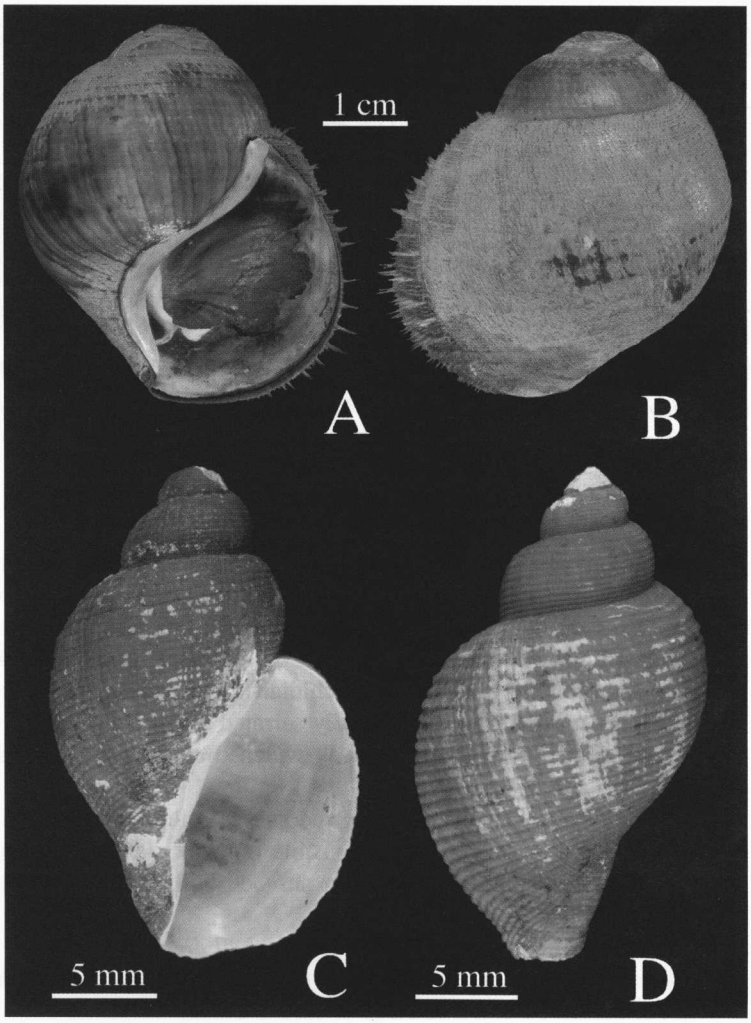

Fig. 5. A-B. *Alviniconcha* aff. *hessleri* Okutani & Ohta, 1988 from *Kaiko* Dive 665. **C-D.** *Iphinopsis boucheti*. C. Holotype (NSMT-Mo 73616). D. Paratype #1 (NSMT-Mo 73617).

more than 90% of shell height. Surface dark brown in color, ornamanted by irregularly spaced growth lines, and covered by thick periostracum, which is frequently corroded on ventral surface of body whorl. Periostracum with raised spinous hairs that are regularly and spirally arranged. Spiral rows of major periostracal hairs number about 20 on body whorl, including basal area, but are interposed by several interstitial rows of tiny hairs. Rows of microscopic pits remain on surface where periostracum was detached. Aperture large, occupying more than 70% of shell height, and pyriform in outline. Outer lip smoothly curved, never thickened but bordered by hairy periostracum. Parietal region smooth without any structure, covered by whitish or blackish callus. Neither umbilicus nor siphonal fasciole present, but sign of shallow anterior notch. Internal surface very weakly calloused, dark gray to dark brown in color.

Operculum fan-shaped, with almost straight inner edge and heavily corroded outer margin. Spirally coiled nucleus situated basally.

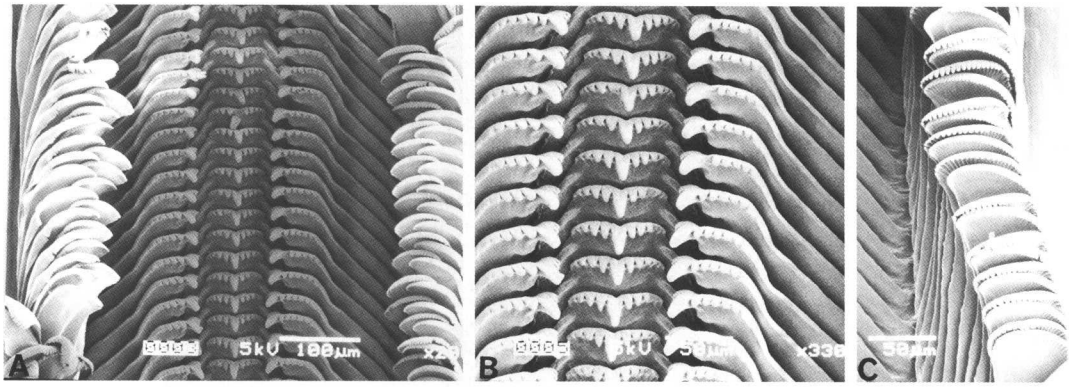

Fig. 6. Radula of *Alviniconcha* aff. *hessleri* from *Kaiko* Dive 168 (Electron micrograph: Courtesy of Dr. K. Fujikura, JAMSTEC). **A.** Middle part of radula ribbon. **B.** Central and lateral teeth. **C.** Marginal teeth.

Radula (Fig. 6) taenioglossate and very small; ribbon 5 mm in length with more than 300 transverse rows. Rachidian tooth wider than high, with digitate central cusp accompanied by 4 shorter, blunter lateral cusps on both sides. Base with elongate, tapering lateral support on both sides. Lateral tooth with prominent main cusp, flanked by 4-5 outer denticles and 3 inner ones. Cutting edge of lateral tooth as wide as that of rachidian tooth and slightly upturned creating palm-like appearance. Upper portion of shaft minutely serrated along lateral edge. Marginal teeth the same both in size and shape; cutting edge slightly widened and curved, equipped with 25-30 denticles. Shaft of marginal teeth long, straight and flat.

Fresh animal translucently gray except for pale reddish cephalic tentacles and reddish snout tip, which is rather flat and round. Nuchal furrow visible on right side. Pallial margin equipped with short and regularly spaced papillae, about 35 in number. Gill large, visible through mantle. Pedal sole squarish, with wrinkled surface.

Measurements of 5 selected specimens (shell height × shell diameter):

63.2 × 51.5 mm, 47.1 × 41.9 mm, 46.0 × 40.9 mm (Fig. 4A, B), 45.7 × 37.6 mm, 39.8 × 33.8 mm, 36.3 × 28.6 mm. All preserved at JAMSTEC.

Remarks: The specimens collected from the present locality do not exhibit any significant differences in external morphology and gross anatomy from *Alviniconcha hessleri* Okutani & Ohta, 1988 of the Marianas and the Lau and North Fiji Basins (Warén & Bouchet, 1993). The only minor conchological differences between them and the present material may be the more spherical shell and sparser periostracal hairs, which were mostly stripped off the ventral surface of the body whorl. These differences are only between individuals in a population, or in the size of the animal. More material to be collected in future dives may or may not reveal more morphological/anatomical differences among genetically isolated taxa.

The systematic position of *Alviniconcha* has been fully discussed by Warén & Bouchet (1993) based on very detailed and thorough anatomical observations on specimens from the Lau and North Fiji Basins.

Partial sequences (696 base pairs) of mitochondrial genes for COI were determined by Dr. S. Kojima, Ocean Research Institute, University of Tokyo, for three specimens of *Alviniconcha* from the same locality in the Indian Ocean (Kojima *et al.*, 2004). A deduced amino acid sequence for the Indian Ocean specimens was identical to that of *A. hessleri* and *Alviniconcha* spp. type 2 of Kojima *et al.* (2001), but a single amino acid substitution was detected between them and *Alviniconcha* spp. type 1 of Kojima *et al.* (2001). As the results of analyses using both the

neighbour-joining and maximum parsimony methods, he suggested that *Alviniconcha* population of the Indian Ocean is genetically independent from those living in other vent fields in the Pacific Ocean.

Family Cancellariidae Forbes & Hanley, 1851

Iphinopsis boucheti n. sp.

(Figs. 5C-D)

Material examined: *Kairei* Dive 168 (13 specimens); 169 (1 specimen); *Shinkai 6500* Dive 656 (10 specimens).

Description: Shell thin, and buccinoid in shape, with moderately elevated spire with deep suture (Fig. 4C-D). Protoconch completely eroded. External surface of teleoconch also heavily corroded, but ornamented by almost equally spaced, angulated spiral riblets tending to become stronger and more widely spaced adapically. Spiral riblets occasionally interrupted by irregular growth lines. Spiral riblets on body whorl of holotype number 35 or more including those on basal portion and a few intercalated cords. Thin ochre periostracum covers exterior, sometimes rusty in parts. Body whorl occupies 65% of total shell length; gently inflated, with obsolete siphonal fasciole at bottom. Aperture semicircular and white within. Outer lip thin and fragile, continuous to shallow and open siphonal canal. Thin callus deposited on inner lip, extending to columellar lip, where it is barely reflected over siphonal fasciole. Columellar lip nearly straight, bearing single deep fold at about halfway along length.

Operculum and radula are lacking. Animal has no eyes.

Type depository and measurements of selected types (Shell length × shell diameter):

Holotype (NSMT-Mo 73616: *Kaiko* Dive 168): 23.6 × 15.0 mm (Fig. 4C).

Paratype #1 (NSMT-Mo 73617: *Kaiko* Dive 168): 24.2 × 14.1 mm (Fig. 4D).

Paratype #2 (NSMT-Mo 73618: Shinkai 6500 Dive 656): 32.6 × 20.7 mm.

Paratypes JAMSTEC 032952-032963: *Kairei* Dive 168; 033031 *Kairei* Dive 169; 046861-046870: *Shinkai 6500* Dive 656

Etymology: This species is named after Dr. Philippe Bouchet, Museum National d'Histoire Naturelle, Paris, in recognition of his exhaustive contributions to the taxonomy of gastropods, not only of shallow waters but also of deep world oceans.

Remarks: The present taxon may be placed in the genus *Iphinopsis* Dall, 1924, which was transferred from the Trichotropidae to the Cancellariidae by Bouchet & Warén (1985). Besides the characters mentioned by them (1985, p. 261), members of this genus usually have rather thin shells that are ornamented by strong, regular spiral ribs, with much weaker axial sculpture, and coated by a velvety periostracum. The present species resembles *Iphinopsis alba* Bouchet & Warén, 1985 from the Bay of Biscay and the Rockall Trough, 1900-2900 m. However, Bouchet & Warén's species is distinguishable from the present taxon in having weak axial sculpture and a slit-like umbilicus. Comparison of the protoconchs could not be made, because all specimens under the present study have corroded apices.

Two deep-sea cancellariid species from the Indian Ocean, *Admete aethiopica* Thiele, 1925 from a depth of 693-1134 m (Thiele, 1952) and *A. decapensis* Barnard, 1960 from a depth of 2745-3221 m off South Africa (Barnard, 1960), differ from the present species in having axial ribs and eyes. Cancellariid species may undergo geographical speciation, judging by the reproductive strategy of the typical Neogastropoda.

Acknowledgements

We extend our thanks to Prof. S. Ohta, Ocean Research Institute, University of Tokyo, and colleague scientists of various institutions on board the R/Vs *Kairei* and *Yokosuka* for their cooperation in sampling the biological specimens. The operation teams of the ROV *Kaiko* and the crewed submersible *Shinkai 6500* are deeply appreciated for their effort and skill in successful diving operations. Dr. S. Kojima, Ocean Research Institute, University of Tokyo, kindly permitted us to cite his unpublished information of molecular analyses for discussing the systematic status of *Alviniconcha* under study. Dr. A. Warén, Swedish Museum of Natural History, kindly agreed to let us treat different taxa from the same locality. His taxonomic suggestions during this study were of great help in improving the manuscript.

References

Barnard, K. H. 1960. New species of South African marine gastropods. *Journal of Conchyliologie* 24: 438-422.

Bouchet, P. & Warén, A. 1985. Revision of the northeast Atlantic bathyal and abyssal nogastropoda excluding Turridae (Mollusca, Gastropoda). *Bollettino Malacologico, Supplemento* 1: 123-296.

Hashimoto, J., Ohta, S., Gamo, T., Chiba, H., Yamaguchi, T., Tsuchida, S., Okudaira, T., Watanabe, H., Yamanaka, T. & Kitazawa, M. 2001. First hydrothermal vent communities from the Indian Ocean discovered. *Zoological Science* 18: 717-721.

Kojima, S., Segawa, R., Fujiwara, Y., Fujikura, K., Ohta, S. & Hashimoto, J. 2001. Phylogeny of hydrothermal vent-endemic gastropods *Alviniconcha* spp. from the western Pacific revealed by mitocondrial DNA sequences. *Biological Bulletin* 200: 298-304.

Kojima, S., Fujikura, K., Okutani, T. & Hashimoto, J. 2004. Phylogenetic relationship of *Alviniconcha* gastropods from the Indian Ocean to those from the Pacific Ocean (Mollusca: Provannidae) revealed by nucleotide sequences of mitochondrial DNA. *Venus* 63: 67-71.

Okutani, T. & Ohta, S. 1988. A new gastropod mollusc associated with hydrothermal vents in the Mariana back-arc basin, western Pacific. *Venus (Japanese Journal of Malacology)* 47: 1-9.

Thiele, J. 1925. Gastropoden der Deutschen Tiefsee-Expedition. *Wissenschaftliche Ergebnisse der Deutschen Tiefsee-Expedition auf dem Dampfer "Valdivia" 1898-1899.* 17: 35-382.

Van Dover, C. L., Humphris, S. E., Fornari, D., Cavanaugh, C. M., Collier, R., Goffredi, S. K., Hashimoto, J., Lilley, M. D., Reysenbach, A. L., Shank, T. M., Von Damm, K. L., Banta, A., Gallant, R. M., Gotzu, D., Green, D., Hall, J., Harmer, T. L., Hurtado, L. A., Johnson, P., McKiness, Z. P., Meredith, C., Olson, E., Pan, I. L., Turnipseed, M., Won, Y., Young III, C. R. & Vrijenhoek, R. C. 2001. Biogeography and ecological setting of Indian Ocean hydrothermal vents. *Science* 264: 818-823.

Warén, A. & Bouchet, P. 1993. New records, species, genera, and a new family of gastropods from hydrothermal vents and hydrocarbon seeps. *Zoologica Scripta* 22: 1-90.

Warén, A. & Bouchet, P. 2001. Gastropoda and Monoplacophora from hydrothermal vents and seeps; new taxa and records. *The Veliger* 44: 116-231.

Warén, A., Bengtson, S., Goffredi, S. K. & Dover, C. L. van 2003. A hot-vent gastropod with iron sulfide dermal sclerites. *Science* 302: 1007.

(Received August 4, 2003 / Accepted March 16, 2004)

インド洋中央部の熱水噴出域から採集された腹足類の新種

奥谷喬司・橋本　惇・佐々木猛智

要　約

インド洋中央部のロドリゲス三重会合点付近の熱水噴出域「かいれいフィールド」から無人探査機「かいこう」及び潜水調査船「しんかい6500」によって採集された腹足類のうち，3新種について記載する。また同時にアルビンガイの近似種も発見された。

Bruceiella wareni n. sp. カイレイワタゾコシタダミ（新種）（ワタゾコシタダミ科）
殻径2 mm前後。殻表は鉄錆様の沈着物に被われ，初生層は激しく腐食している。本属にはこれまで2種しか知られてないが，いずれの種とも歯舌特に中歯の形態において，一致しない。

Desbruyeresia marisindica n. sp. チャイロハイカブリニナ（新種）（ハイカブリニナ科）
殻高9 mm程度。殻は細高く，3列の縦肋が螺肋と交わって顆粒状になる。歯舌の特徴は *D. cancellata* や *D. spinosa* に似ているが殻の形態，彫刻が異なる。

Alviniconcha aff. *hessleri* Okutani & Ohta, 1988 アルビンガイ近似種（ハイカブリニナ科）
殻の特徴および歯舌の特徴はマリアナ背弧海盆から採集されたアルビンガイにほとんど一致する。しかし塩基配列の解析（小島他，本号）によると，この個体群は遺伝的に独立していると思われる。

Iphinopsis boucheti n. sp. インドゴロモ（新種）（コロモガイ科）
殻高3 cmくらい。殻表には等間隔の，角張った螺肋があり，体層では約35条に及ぶ。前管溝は浅い。軸唇の奥部に1襞がある。