A New Species of *Aliceia* (Gastropoda: Turridae) from Ogasawara Islands, Japan

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The family Turridae is highly diverse in most world oceans from shallow to deep waters and from high to low latitude (Tucker, 2004). Even within Japan, at least 394 species have been recorded (Higo *et al*., 1999: G3479–3872), and we frequently encounter undescribed or unidentified specimens. It is highly likely that the diversity of the family in Japan is not adequately reflected in the literature.

The genus *Aliceia* Dautzenberg & Fischer, 1897 is poorly known. There are only two described species in the world, both of small size. *Aliceia aenigmatica* Dautzenberg & Fischer, 1897 has been recorded from bathyal depths (1800–1980 m) in the Azores (Bouchet & Warén, 1980: 91), and *Aliceia simplicissima* (Thiele, 1925) was collected from off Indonesia and Zanzibar at depths of 356–470 m (Sysoev, 1997: 345, fig. 57). A possible third species (Bouchet & Warén, 1980: 90) was represented by an unidentified specimen reported by Kay (1979: 364, fig. 115N) from a depth of 700 m off Lanai, Hawaii as "*Thatcheriasyrinx* sp."

During a series of dredge survey off Ogasawara Islands, southern Japan, the first author collected a previously unknown species of *Aliceia*. This paper describes this interesting new species.

Taxonomy

Family Turridae H. Adams & A. Adams, 1853
Genus *Aliceia* Dautzenberg & Fischer, 1897

Aliceia okutanii n. sp.
(Fig. 1)

Material: Holotype (Fig. 1A–B): The University Museum, The University of Tokyo (UMUT) RM29200. 3.3 × 1.6 mm. Empty shell. West off Anijima Island, Ogasawara Islands, Japan. R/V *Tansei-Maru*, Cruise KT-97-07, Station CC01, 27°07.967′ N, 142°10.477′ E to 27°07.912′ N, 142°10.421′ E, 156–157 m deep. June 8, 1997. Paratype (Fig. 1C): UMUT RM29201. 4.9 × 2.2 mm. Empty shell. West off Ototojima Island, Ogasawara Islands, Japan. R/V *Shin'yo-Maru*, Station 12, 27°11.99′ N, 142°09.18′ E to 27°11.75′ N, 142°08.92′ E, 150–160 m deep. October 16, 1997.

Diagnosis: Shell slender with apical angles of 23–25 degrees; siphonal canal elongate; gutter-like projections prominent on shoulder; pseudoumbilicus deeply formed; axial ribs on protoconch sparse.

***Description*:** Spire slender, highly elevated and scalariform. Apical angle of teleoconch 23 (Fig. 1A) and 26 degrees (Fig. 1C) excluding projections on whorls. Whorls widest at shoulder below suture; subsutural ramp narrow and somewhat flattened. Shoulder angulate, with short gutter-like projections (anal sinuses). Sinuses roughly aligned along sides of shell, separated by *ca.* 165–180 degrees. Projections straight and slightly bent adapically. Whorls taper toward base. Shell surface almost smooth, sculptured only by sharp narrow growth lines from earlier positions of outer lip. Pseudoumbilicus deeply formed; fasciole inconspicuous. Growth lines prosocyrt below and above shoulder but reversed in selenizone. Aperture longitudinally narrow and elongate. Outer lip not thickened. Inner lip mostly disjunct from body whorl except for small area of parietal wall.

Protoconch of at least three whorls but initial whorl, protoconch I, lost both in holotype and paratype. Preserved part of protoconch ornamented with straight, slightly prosocline axial ribs; two spiral angulations formed along lower and upper limits of axial ribs (Fig. 1B).

Distribution: Off Ogasawara Islands at depths of 150–160 m. Details of the microhabitat are unknown.

Etymology: The specific name is given in honor of Dr. Takashi Okutani, emeritus professor of Tokyo University of Fisheries.

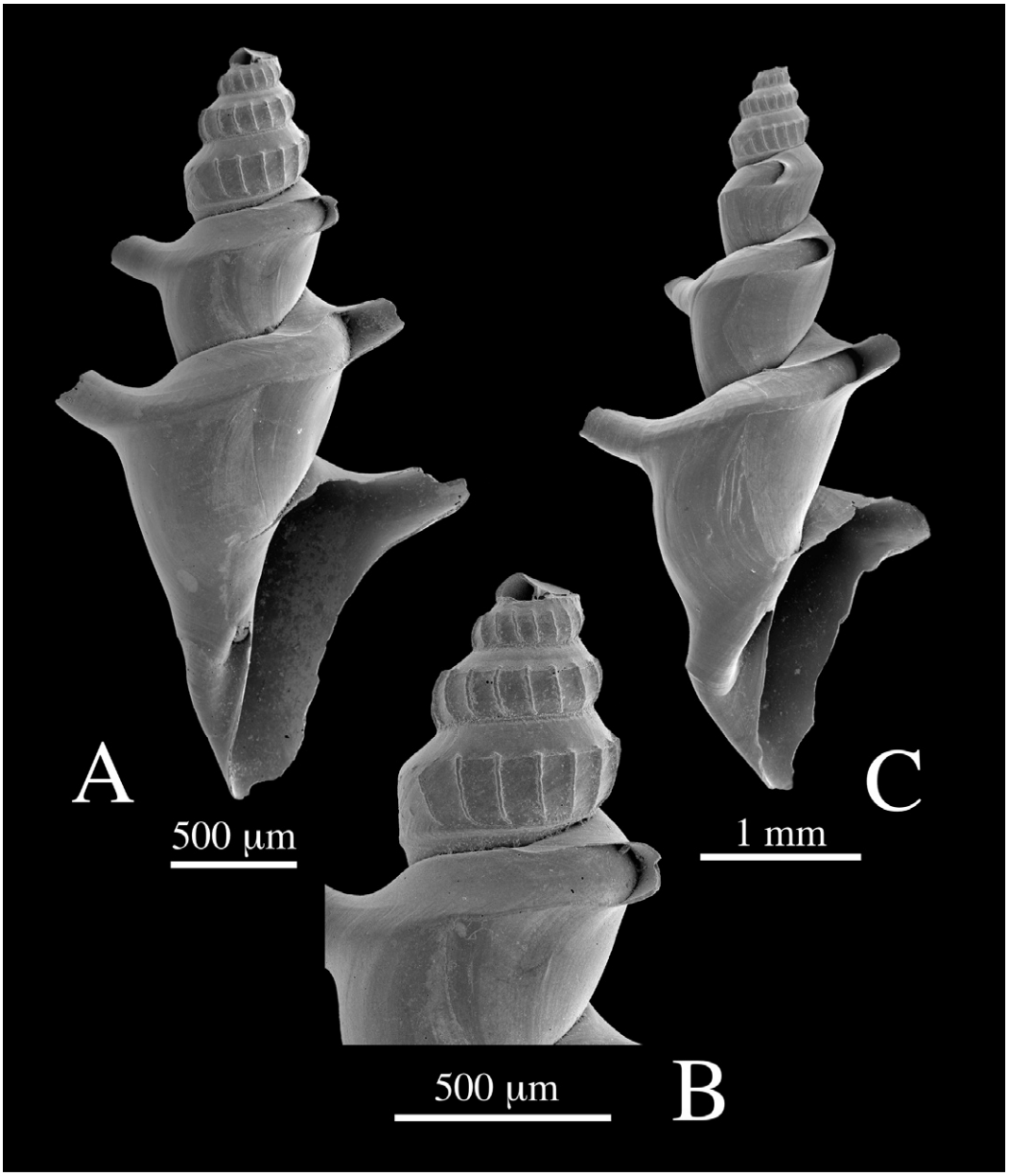

Fig. 1. *Aliceia okutanii* n. sp. **A**–**B.** Holotype, UMUT RM29200. **C.** Paratype, UMUT RM29201.

Discussion

The assignment of the new species to the genus *Aliceia* is based on the characteristic shell morphology, including the turreted whorls with regularly repeated, gutter-like projections on the shoulder separated by about half a whorl, the deeply sinuous outer lip (as shown by growth lines), and the protoconch with prominent axial ribs abruptly starting at the edge of the smooth subsutural ramp and ending just as abruptly at the suture of the subsequent whorl.

There are two described and one unnamed species to be compared with *A. okutanii* n. sp (see

introduction). Differences between the new species and similar congeners exist in five conchological characters:

(1) *A. okutanii* has a much more slender profile than the other two species. The apical angle of the teleoconch (excluding projections) is 23–25 degrees in *A. okutanii* (Fig. 1), but it is nearly 30 in *A. simplicissima* (Sysoev, 1997: fig. 57) and 40 in *A. aenigmatica* (Bouchet & Warén, 1980: fig. 190) and in "*Thatcheriasyrinx* sp." (Kay, 1979: fig. 115N).

(2) The aperture and siphonal canal are more elongate in *A. okutanii*.

(3) The projections on the shoulder are more prominent in *A. okutanii*.

(4) The pseudoumbilicus is deeply formed in *A. okutanii,* as in the type species of the genus (*A. aenigmatica*), but it is absent in *A. simplicissima* (Sysoev, 1997) and indistinct in "*Thatcheriasyrinx* sp." (Kay, 1979).

(5) The axial ribs on the protoconch are more sparse in *A. okutanii* than in *A. aenigmatica* (Bouchet & Warén, 1980) and *A. simplicissima* (Sysoev, 1997). The protoconch sculpture of "*Thatcheriasyrinx* sp." is unclear in Kay's (1979) figure. The number of protoconch whorls of *A. aenigmatica* is between four and five (Bouchet & Warén, 1980), and it is probably similar in an intact condition in *A. okutanii*. The habitat of *A. okutanii* is the shallowest for the genus.

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References

Bouchet, P. & Warén, A. 1980. Revision of the Northeast Atlantic bathyal and abyssal Turridae (Mollusca, Gastropoda). *The Journal of Molluscan Studies, Supplement* (8): 1–119.

Higo, S., Callomon, P. & Goto, Y. 1999. *Catalogue and Bibliography of the Marine Shell-bearing Mollusca of Japan*. 749 pp. Elle Scientific Publications, Osaka.

Kay, E. A. 1979. *Hawaiian Marine Shells.* Bernice P. Bishop Museum Special Publication 64(4). xviii + 652 pp. Bishop Museum Press, Honolulu, Hawaii.

Sysoev, A. 1997. Mollusca Gastropoda: New deep-water turrid gastropods from eastern Indonesia. *Résultats des Campagnes Musorstom 16, Mémoires du Muséum national d'Histoire naturelle* 172: 325–355.

Tucker, J. K. 2004. Catalog of Recent and fossil turrids (Molusca: Gastropoda). *Zootaxa* 682: 1–1925.

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小笠原諸島から採集されたクダマキガイ科 *Aliceia* 属の新種

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Aliceia okutanii n. sp. タチヒレシャジク（和名新称）

小笠原諸島沖から未知のクダマキガイ科の小型種が得られた。本種は半管状の突起が約 180° ごとに並ぶ**特徴的な形態を持っており**，*Aliceia* 属に分類される。本属には，*A. aenigmatica*（北大西洋アゾレス諸島沖水深 1800–1980 m）と *A. simplicissima*（インドネシアおよびタンザニア・ザンジバル沖水深 356–470 m）が記載されているのみであり，Kay（1979）によって *Thatcheriasyrinx* sp. として図示された未同定種（ハワイ沖水深 700 m）も同属であると考えられる。本新種は，螺層が細く殻頂角が小さいこと，殻口が縦に長く伸びること，肩部に顕著な突起を形成すること，偽臍孔が形成されること，原殻の螺肋の数が少ないこと，の 5 点によって上記の種とは異なる。本新種は，*Aliceia* 属の西北太平洋における新記録である。