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Descriptions of a New Subgenus, Fourteen New Species, and Three Substituted Names of Epitoniids from Japan (Gastropoda: Epitoniidae)

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Abstract: A single new subgenus, *Perspicioscala* and 14 new species, *Cycloscala spinosa*, *Kurodacira glans*, *Cirsotrema* (*Cirsotrema*) *amamiense*, *Cirsotrema* (*Elegantiscala*) *amplsum*, *Gyroscala* (*Circuloscala*) *watanabei*, *Amaea* (*Narvaliscala*) *kushimotensis*, *Claviscala nodulosa*, *Claviscala nagaii*, *Claviscala subulae*, *Epitonium* (*Parviscala*) *tenuipicturatum*, *Epitonium* (*Perspicioscala*) *ossium*, *Epitonium* (*Perspicioscala*) *nodai*, *Epitonium* (*Perspicioscala*) *kiyohimae* and *Alora kiiensis* are descrided. Three substituted names, *Amaea* (*Narvaliscala*) *percancellata*, *Epitonium* (*Epitonium*) *profundum* and *Epitonium* (*Parviscala*) *graciliconfusum* are proposed for *subcancellata*, *okezoko* and *confusa*, respectively. These species are figured and described in detail.

Keywords: New subgenus, *Perspicioscala*, new species, substituted names.

Introduction

The Epitoniidae is one of the most complicated families among gastropods occuring in all seas from the lower intertidal zone to abyssal seabeds. As it is well known that all species are associated with coelenterates, either as ectoparasitics or as foraging predators. Some systematic reviews were done by Sowerby (1844), Tryon (1887), Clessin (1897), and de Boury (1889) on world-wide basis, Clench and Turner (1950) and Dushane (1974), Bouchet & Warén (1986) on North American, and Kilburn (1985) on South African species, however, few works have been done on western Pacific species. Kira (1959) and Habe (1961) illustrated some epitoniids in their books, but most of them are common species without any discussion on generic basis. After that, Kuroda, Habe and Oyama (1971) studied on the mollusks from Sagami Bay, Pacific coast of central Honshu. Kilburn (1985) pointed out radula studies are useless for generic classification, while protoconch will give important information. This is one of the clues to get out from the generic chaos. The shell characters are still important, such as the presence or absence of basal cord, axial rib or lamellae, spiral rib or groove and suture are major one to classify the genera. After those studies, Nakayama (1995) described some new species collected from Japan. In this study, one new subgenus and 14 new species, and 3 substituted names are proposed and discussed.

Abbreviations: NSMT — National Science Museum Tokyo, Japan.

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Taxonomy

Kurodacirsa glans n. sp.

(Figs. 1, 2)

Description: Shell small, thin and fragile, resembling an acorn in shape, about 15 mm in height, pale brown in color; spire strongly convex, with 8 whorls; protoconch defected; body whorl with very weak basal keel on periphery; suture deep; surface with irregular, inconspicuous axial growth lines and minute fine spiral threads forming microscopic cancellate appearance. Aperture ovate; peristome thin; outer margin roundly arcuate; columellar margin straight and slightly reflexed; umbilicus closed. Operculum thin, yellow, paucispiral.

Discussion: This new species somewhat resembles *K. lotus*, however, strongly inflated whorls, with a weak basal keel and no color patterns are quite different from the latter. The type specimens were collected from offshore of Kii Peninsula by lobster gill-net at about 70 m deep. From the same location, *K. lotus* Masahito & Habe, 1975 and *K.* (*M.*) *littorinoides* (Nakayama, 1994) were also collected at the same time. This species also somewhat resembles *Epitonium* (*Globiscala*) *bullatum* (Sowerby, 1844), but differs from it in having rather straight whorls and no irregular axial ribblets.

Etymology: Species name *glans* means an acorn, after the shape of this species.

Type locality: Off Minabe, Kii Peninsula, Japan at about 70 m deep.

Type materials: Holotype (NSMT Mo-71408), height 17.8 mm; breadth 7.2 mm (Figs. 1, 2).
Paratype (Noda Collection), height 19.6 mm; breadth 8.8 mm.

Distribution: Off Kii Peninsula, Japan, at 70-100m deep.

Cirsotrema (*Cirsotrema*) *amamiense* n. sp.

(Figs. 3-6)

Description: Shell rather thick, pyramidal, small, about 20 mm in height, dull white in color; spire convex with 7 teleoconch whorls, strongly angulated on shoulder; suture deep, crossed by thick lamellae; surface with numerous blade-like axial costae grouped forming foliated coronation below suture to shoulder; secondary coronation at center of these foliation; axial costae touched to next costa below main coronation filled by intercostal space, leaving small holes which lead to shell surface below, forming cancellate pattern; with irregular strong varix; body whorl encircled basally by a distinct ridge, which forms lined small holes by axial costae; base with sinuous periphery, turbinated by lined grooves toward the columella. Aperture circular; thick outer margin strongly angulated at coronation; columellar margin reflexed and thickened; umbilicus closed. Operculum black, circular, paucispiral.

Discussion: This species was collected from the deep waters off Amami-Oshima Island. This species is similar to *C.* (*C.*) *dalli* Rehder, 1945, an Atlantic species from Florida or *C.* (*C.*) *arcella* Rehder, 1945 from North Carolina, which is considered as a synonym of *C. dalli* by Clench & Turner (1950). Moreover, this species is very close to *C. pumiceum* (Brocci, 1814) in de Boury (1912), a Pliocene fossil collected from Algeria. However, those species are not reported from the Indo-Pacific. This species has more inflated body whorl than all above species. Clench & Turner (1950) pointed out that the shell of *C. dalli* is more slender than that of *C. arcella*, which was a juvenile of *C. dalli*. Comparing with juvenile specimens of Indo-Pacific species, such as *C. varicosum* or *C. bonum*, this species is quite different in shape.

Type locality: Off Amami-Oshima Island, at about 200 m deep (collected by the R/V *Tansei-maru* at KT-92-2, STYT-1).

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Type materials: Holotype (NSMT Mo-71409), height 9.1 mm; breadth 6.3 mm (Figs. 3-6).
Paratype (Noda collection), height 6.2 mm; breadth 4.1 mm.

Distribution: Off Amami-Oshima Island; Ryukyu Islands; off Kushimoto, Kii Peninsula, at about 100-200 m deep.

Cirsotrema* (*Elegantiscala*) *amplsum n. sp.
(Figs. 7, 8)

Description: Shell wide and thick with a splendid appearance, about 40 mm in height, dull white in color; spire elevated with 8 whorls; protoconch usually defected; suture deep; surface with numerous thick imbricated axial costae, about 18 in number on last whorl; axial costae stout, sharply aculeated or coronated on shoulder, slightly reflexed, and margin piled over another whorl, reaching below to stout fasciole, which borders closed umbilicus; intercostal spaces weakly striated with spiral threads; base surrounded by low and weak peripheral keel forming a basal disc. Aperture circular; peristome complete; outer lip very strongly varicose; dilated below on base of columella.

Discussion: This species has been known decades ago (Kuroda, personal communication), however, no taxonomical study has not been done yet. This species is somewhat close to *C.* (*E.*) *rugosum* Kuroda & Ito, 1961 and *C.* (*E.*) *fimbriatulum* (Masahito, Kuroda & Habe, 1971), but diffes in shell shape. The height / breadth ratio of this species is about 2.0-2.2, while those of *C.* (*E.*) *rugosum* and *C.* (*E.*) *fimbriatulum* are 2.5-2.7 and 2.6-2.8, respectively. Moreover, the spiral sculptures of this species are very weak and are not crossed over the axial costae. Basal disc and keel of this species are also weaker compared with those of above two species.

Etymology: The name *amplsum* means wide for this rather wide shell.

Type locality: Off Kushimoto, Kii Peninsula, at about 420 m deep.

Type materials: Holotype (NSMT Mo-71410), height 43.2 mm; breadth 20.1 mm (Figs. 7, 8).
Paratype (Koyama Collection), height 29.0 mm; breadth 14.3 mm.

Distribution: Off Kii Peninsula to Tosa Bay, Japan.

Gyroscala* (*Circuloscala*) *watanabei n. sp.
(Figs. 9, 10)

Description: Shell narrowly acuminate, thin and fragile, about 30 mm in height, yellowish-brown in color; suture deep; spire with about 10 convex teleoconch whorls; protoconch conical, smooth, usually defected in matured specimens; body whorl with a very thin peripheral cord forming basal disc; surface with very thin and sharp axial costae, white in color, weakly arcuate, crossed on basal cord, 20-22 on the body whorl; irregular varix present on each whorl; intercostal space glossy with microscopic axial and spiral striae. Aperture ovate; peristome incomplete; outer lip thin and slightly reflexed; columellar margin thin.

Discussion: This species is very close to *G.* (*Fragiliscala*) *tosaensis* (Azuma, 1962), however, it is distinguishable in having slender shell, weak spiral striae and irregular varix on each whorl. The axial costae are so fragile that the mature specimens are usually eroded and look like *Amaea*. This species also resembles *G.* (*Pomiscala*) *lamellosa* (Lamarck, 1822), but differs in having thin axial costae, and rather large shell. This species is named in honor of Mr. Tomio Watanabe, who collected the holotype specimen.

Type locality: Off Kumano-nada, off Kii Peninsula, at about 220m deep.

Type materials: Holotype (NSMT Mo-71411), height 29.5 mm; breadth 9.1 mm (Figs. 9, 10).
Paratype (Koyama collection), height 24.3 mm; breadth 8.2 mm.

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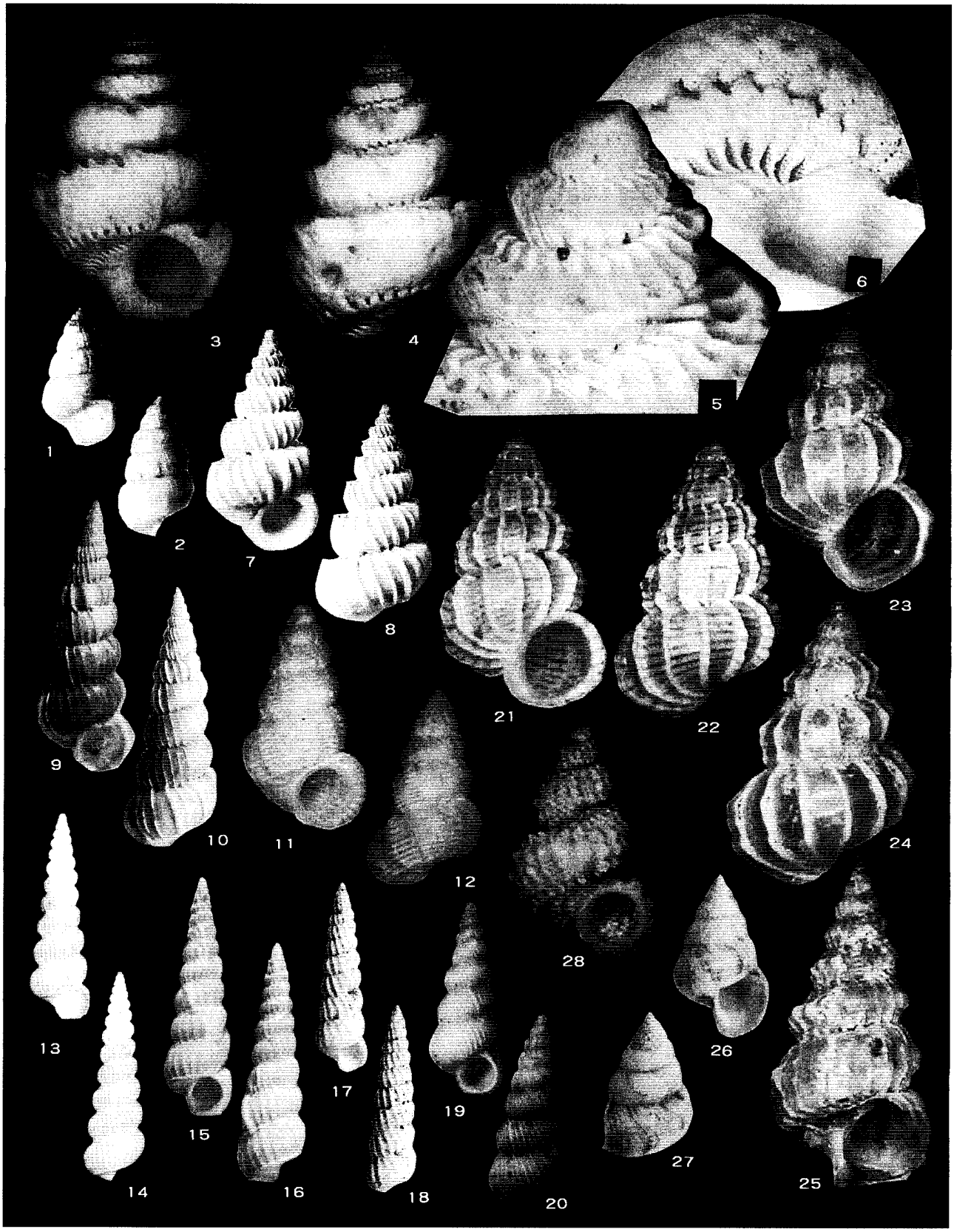

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Distribution: Off Kii Peninsula, Japan, at about 200-300m deep.

Amaea* (*Narvaliscala*) *kushimotensis n. sp.
(Figs. 11, 12)

Description: Shell acuminate, about 5-10 mm in height, brown to white in color; spire with convex whorls; protoconch of 1.5, smooth, usually defected; body whorl with well developed basal disc; suture deep; surface with axial ribs, 10 in number on body whorl, and spiral striae, 12-13 in number on body whorl crossed over axial ribs; basal disc with a strong peripheral keel. Aperture ovate, peristome doubled, complete with thick labrum on outer lip; columellar margin thick; no umbilicus.

Discussion: This species has been known in decades, however, no taxonomic study had been done until today. Kawamoto (1956) illustrated a shell collected from off Mishima (Mino-sima), Sea of Japan and identified as *Cirsotrema turbinella* A. Adams, 1861. That specimen was probably the same as this species. *C. turbinella* was described without any illustration and the holotype specimens is not located at this moment. *C. turbinella* was described that the shell has undulated costae in different fashion from this species. This species is very close to *C.* (*Rectacirsa*) *peltei* (Viader, 1938), but differs in having more axial ribs and spiral striae and rather shallow suture. As Kilburn (1985) designated *C.* (*R.*) *peltei,* this species should place in the subgenus *Narvaliscala* Iredale 1936 with some hesitation.

Type locality: Off Kushimoto, Kii Peninsula, at about 100m deep.

Type materials: Holotype (NSMT Mo-71412), height 5.0 mm; breadth 2.5 mm (Figs. 11, 12).
Paratype (Nagai Collection), height 9.8 mm; breadth 3.8 mm.

Figs. 1, 2. *Kurodacirsa glans* n. sp. ドングリイトカケガイ（新種，新称）
Holotype (NSMT Mo-71408), height 17.8 mm; breadth 7.2 mm.

Figs. 3-6. *Cirsotrema* (*Cirsotrema*) *amamiense* n. sp. ラセンオリイレイトカケガイ（新種，新称）
Holotype (NSMT Mo-71409), height 9.1 mm; breadth 6.3 mm.

Figs. 7, 8 *Cirsotrema* (*Elegantiscala*) *amplsum* n. sp. ヒクヤエバイトカケガイ（新種，新称：ヒクヤエバチリメンニナ（黒田 1947））
Holotype (NSMT Mo-71410), height 43.2 mm; breadth 20.1 mm.

Figs. 9, 10. *Gyroscala* (*Circuloscala*) *watanabei* n. sp. カワリウネイトカケガイ（新種，新称）
Holotype (NSMT Mo-71411), height 29.5 mm; breadth 9.1 mm.

Figs. 11, 12. *Amaea* (*Narvaliscala*) *kushimotensis* n. sp. ホソアラメイトカケガイ（新種，新称）
Holotype (NSMT Mo-71412), height 5.0 mm; breadth 2.5 mm.

Figs. 13, 14. *Claviscala nodulosa* n. sp. キクキリイトカケガイ（新種，黒田 1947）
Holotype (NSMT Mo-71413) height 30.3 mm; breadth 8.5 mm.

Figs. 15, 16. *Claviscala nagaii* n. sp. ナガイイトカゲガイ（新種，新称）
Holotype (NSMT Mo-71415), height 25.5 mm; breadth 6.2 mm.

Figs. 17, 18. *Claviscala subulae* n. sp. ヤジリイトカケガイ（新種，新称）
Holotype (NSMT Mo-71416) height 14.7 mm; breadth 3.8 mm.

Figs. 19, 20. *Epitonium* (*Parviscala*) *tenuipicturatum* n. sp. チョウシイトカケガイ（新種，新称）
Holotype (NSMT Mo-71417), height 17.5 mm; breadth 5.5 mm.

Figs. 21, 22. *Epitonium* (*Perspicioscala*) *ossium* n. sp. スカシイトカケガイ（新種，新称）
Holotype (NSMT Mo-71419), height 8.2 mm; breadth 4.0 mm.

Figs. 23, 24. *Epitonium* (*Perspicioscala*) *nodai* n. sp. ノダスカシイトカケガイ（新種，新称）
Holotype (NSMT Mo-71421) height 5.3 mm; breadth 3.1 mm.

Figs. 25. *Epitonium* (*Perspicioscala*) *kiyohimae* n. sp. キヨヒメスカシイトカケガイ（新種，新称）
Holotype (NSMT Mo-71423), height 4.8 mm; breadth 2.1 mm.

Figs. 26, 27. *Alora kiiensis* n. sp. キイテラマチイトカケガイ（新種，新称）
Holotype (NSMT Mo-71424), height 27.5 mm; breadth 14.8 mm.

Fig. 28. *Cycloscala spinosa* n. sp. トゲクルイイトカケガイ（新種，新称）
Holotype (NSMT Mo-71425); height 7.3 mm; breadth 4.0 mm.

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Distribution: Off Kii Peninsula, Japan, at about 100m deep.

Claviscala nodulosa n. sp.
(Figs. 13, 14)

Description: Shell elongate turreted, moderately thin, glossy, about 30 mm in height, yellowish brown in color; spire elevated with 13-16 whorls; protoconch, more than 1.5 whorls, convex, small, polished, smooth, white, but generally eroded in matured specimens; teleoconch whorls 10-13 in number, convex, tightly coiled; body whorl with a basal disc, keeled at periphery; keel weakly carinated on infra-peripheral portion; base with irregular axial growth lines; suture simple and moderately deep; surface with strong axial ribs increasing in number abapically, about 28 on body whorl, with about 10 weak spiral striae on body whorl, spiral striae crossed over axial ribs forming weak nodules at crossing points; no umbilicus present. Aperture ovate; outer lip thin; columellar lip slightly thickened and recurved.

Discussion: This species is close to *Claviscala turrita* Nakayama, 1995, or *C. terebralioides* Kilburn, 1975 or *C. solar* Nakayama, 1995, but differs from them in having weakly nodulated sculpture on surface and more axial ribs. This species also resembles *Amaea* (*Clathroscala*) *cerea* (Masahito, Kuroda & Habe, 1971), but differs in having no irregular strong varix.

Type locality: Off Kii Uragami, Kii Peninsula, at about 380 m deep.

Type materials: Holotype (NSMT Mo-71413) height 30.3 mm; breadth 8.5 mm (Figs. 13, 14).
Paratype 1 (NSMT Mo-71414) height 35.3 mm; breadth 9.4 mm.
Paratype 2 (Koyama collection) height 30.0 mm; breadth 8.3 mm.

Distribution: Off Kii Peninsula, Japan, at 300-500 m deep.

Claviscala nagaii n. sp.
(Figs. 15, 16)

Description: Shell elongately turreted, moderately thick, about 25 mm in height, yellowish brown to dark brown in color; spire elevated with 12 whorls; protoconch of 1.5 whorls, convex, small, polished, smooth and flattened; teleoconch whorls 11 in number, rather slender, tightly coiled; body whorl with a basal disc; keel well developed at basal periphery; suture simple and moderately deep; surface with strong axial ribs, about 16 in number on body whorl, with 1-2 strong varix per whorl, spiral striae about 7 in number on body whorl; base with growth lines; no umbilicus present. Aperture ovate; outer lip thin; columellar margin slightly thickened.

Discussion: This species is close to *Claviscala turrita* Nakayama, 1995 or *C. terebralioides* Kilburn, 1975, but differs from them in having rather small shell with less axial ribs, irregular varices on each whorl and well-developed basal disc. This species also resembles above described *Claviscala nodulosa*, but differs from it in having spiral sculptures, which are not crossed by axial ribs. This species is rather small in size comparing with *C. turrita*, *C. terebralioides*, and *C. solar* Nakayama, 1995.

Etymology: This species is named after in honor of the late Mr. Seiji Nagai, who collected the type specimens. He devoted to study and collected by his own dredging boat around Kushimoto, Kii Peninsula, Japan.

Type locality: Off Kushimoto, Kii Peninsula, at about 310 m deep.

Type materials: Holotype (NSMT Mo-71415), height 25.5 mm; breadth 6.2 mm (Figs. 15, 16).
Paratype (Noda Collection), height 23.0 mm; breadth 5.8 mm.

Distribution: Off Kushimoto, Kii Peninsula, Japan, at 200-400m deep.

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Claviscala subulae n. sp.

(Figs. 17, 18)

Description: Shell awl-shape, elongatedly turreted, rather thin, about 15 mm in height, dull white in color; spire elevated with 12 whorls; protoconch of 1.5 whorls, convex, small, polished, smooth and flattened, white; teleoconch whorls 11 in number, rather slender, tightly coiled; body whorl with a basal disc, continued spiral sculptures; suture simple and moderately deep; surface with thick and low axial ribs, about 16 in number on body whorl, spiral striae strong, crossed over axial ribs, about 9 in number on body whorl; base with spiral striae about 9 in number; no umbilicus present. Aperture ovate; outer lip thin; columellar margin slightly thickened.

Discussion: This species is close to *Amaea* (*Scalina*) *gazeoides* Kuroda & Habe, 1961 or *A.* (*S.*) *oyasioensis* (Ozaki, 1958), but differs from them in having rather thick axial ribs, while *Amaea* species has thin axial ribs forming cancellated sculptures. These thick and low axial ribs may warrant that this species belongs to *Claviscala*. This species has distinct spiral striae on the basal disc, while other species in this genus has very strong axial sculpture instead of spiral sculptures. Some worn-out specimens slightly resemble *Claviscala nagaii*, but differs from it in having spiral striae on surface.

Etymology: The name *subulae* means a shoemaker's awl.

Type locality: Off Choshi, Boso Peninsula, at about 100 m deep.

Type materials: Holotype (NSMT Mo-71416) height 14.7 mm; breadth 3.8 mm (Figs. 17, 18).
Paratype (Koyama Collection) height 14.0 mm; breadth 3.5 mm.

Distribution: Off Choshi, Boso Peninsula to off Kushimoto, Kii Peninsula, Japan. Deep water.

Epitonium* (*Parviscala*) *tenuipicturatum n. sp.

(Figs. 19, 20)

Description: Shell small, turreted, about 20 mm in height, white in color; suture deep and very constricted; spire with 13 whorls, convex; protoconch 3, conical and glossy; surface with numerous prosocline, thin, reflexed axial costae, weakly angulate at sutures, about 36-42 in number on body whorl; intercostal space with numerous microscopic spiral striae. Aperture ovate; outer lip, thin and simple; columellar margin rather straight and thickened, slightly angulated anteriorly; umbilicus imperforate. Operculum thin, horny, yellow, paucispiral.

Discussion: This species is one of the confused species with other *Parviscala* species for long time, however, it is easy to be distinguished by its surface sculpture. This species has numerous axial costae about 40 in number, while other *Parviscala* species, such as *E.* (*P.*) *eusculptum* (Sowerby, 1903) or *E.* (*P.*) *pallidizonatum* (Masahito, Kuroda & Habe, 1971) have about 20. Posessions of axial costae with intercostal minute spiral striae indicate that this species belongs to *Parviscala*. This species also has a similarity to *Epitonium* (*Mazescala*) *subtile* (Sowerby, 1844). The original figure of Sowerby (1844) is not useful for an identification, while Kaicher (1983) illustrated one of the syntypes preserved in British Museum (Natural History). The difference between this species and *E.* (*M.*) *subtile* is that the latter has denser axial costae and spiral striae than the former. The spiral striae of this species are not crossed by axial costae, while those of *E.* (*M.*) *subtile* are crossed. *Rutelliscala cophinodes* (Melvill, 1904) is somewhat close to this species, however, *R. cophinodes* has more numerous and low axial costae and the shell is about 4 mm in size with 8 whorls, while this species has less costae and shell is about 20 mm in height with 12 whorls.

Type locality: Off Choshi, Boso Peninsula, at about 200 m deep.

Type materials: Holotype (NSMT Mo-71417), height 17.5 mm; breadth 5.5 mm, (Figs. 19, 20).
Paratype (NSMT Mo-71418), height 14.3 mm; breadth 5.1 mm.

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Distribution: Off Pacific coast of Boso Peninsula to Kii Peninsula, Japan, at about 100-200m deep.

***Perspicioscala* n. subgen.**

Type species: *Epitonium* (*Perspicioscala*) *ossium* n. sp.

Shell small, conical to pyramidal, usually translucent; suture deep, not fenestrate nor perforate; surface with rather thick and undulated or partially angulated axial costae; intercostal space with distinct and rather wide spiral threads; aperture ovate, with imcomplete peristome; umbilicus closed.

Discussion: This subgenus is characterized by having translucent shells, undulated and coronated axial costae, and broad spiral threads. Three new species *E. ossium*, *E. nodai*, and *E. kiyohimae*, are allocated in this subgenus, in addition, 2 more species, *E. hemmensi* and *E. thorssoni* described by DuShane (1988) from Hawaii belong to this subgenus. Although DuShane (1988) classified them as *Epitonium* in *sensu lato*, the character of those two well fit to the new subgenus. This subgenus is close to *Parviscala* or *Asperiscala*, but differs from them in having broad spiral sculptures and translucent shell.

***Epitonium* (*Perspicioscala*) *ossium* n. sp.**

(Figs. 21, 22)

Description: Shell conical, about 10 mm in height, translucently white in color; spire elevated, convex, with 8-9 whorls; protoconch 3, smooth brown in color; suture deep; surface with thin axial costae, 11 in number on body whorl, undulated at crossing section with spiral striae; intercostal space with 8-10 distinct white spiral striae, crossing over axial costae. Aperture ovate, thickened; peristome imcomplete; outer margin recurved and columellar margin rather straight; umbilicus closed.

Discussion: This species is morphologically unique among *Epitonium*, however, smooth conical protoconch proves that this species belongs to this genus. This species has rather obscure spiral grooves or almost white color bands. Moreover, this species has somewhat nodulated crossing sections. This species is close to *E.* (*P.*) *candeanum* (d'Orbigny, 1842) from Caribbean waters, but differs from it in having less axial costae and inconspicious undulation on axial costae. This species is also close to an Atlantis species, *Epitonium dendrophylliae* Bouchet & Warén, 1986, but axial costae of this new species has also less than those of *E. dendrophylliae*.

Etymology: The species name *ossium* means a skeleton, because the spiral sculptures of this species look like.

Type locality: Off Minabe, Kii Peninsula, at about 100 m deep (Holotype), and off Shimoda, Izu Peninsula, at about 60 m deep (Paratype).

Type materials: Holotype (NSMT Mo-71419), height 8.2 mm; breadth 4.0 mm, (Figs. 21, 22). Paratype (NSMT Mo-71420), height 7.4 mm; breadth 4.0 mm.

Distribution: Off Kii Peninsula and off Izu Peninsula, Japan, at about 50-100m deep.

***Epitonium* (*Perspicioscala*) *nodai* n. sp.**

(Figs. 23, 24)

Description: Shell conical, about 10 mm in height, translucently light brown in color; spire elevated, convex, ovo-quadrate with 7-8 whorls; protoconch 3, smooth brown in color; body whorl with pseudo-basal disc, to which axial costae continued; suture deep; surface with thin and low

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axial ribs, 11 in number on body whorl, angulated at shoulder and corner; intercostal space with 6 white spiral grooves, crossing with axial costae. Aperture subquadrate; peristome imcomplete; outer lip thin and simple; columellar margin rather straight; umbilicus closed.

Discussion: This species is close to the former species, *E.* (*P.*) *ossium*, however, axial ribs of this species is lower and more angulated at the shoulder and the corner, while *E.* (*P.*) *ossium* has round and thin costae. This species also resembles *E.* (*P.*) *kiyohimae*, but differs from it in having less costae and inflated body whorl. This species has both axial and spiral sculptures, which are key characters of this subgenus.

Etymology: This species is named after in honor of Mr. Kazutaka Noda, who collected the type specimens.

Type locality: Off Simokusui, Gobo, Kii Peninsula, at about 30 m deep.

Type materials: Holotype (NSMT Mo-71421) height 5.3 mm; breadth 3.1 mm, (Figs. 23, 24).
Paratype 1 (NSMT Mo-71422) height 4.7 mm; breadth 2.5 mm.
Paratype 2 (Noda collection), height 5.7 mm; breadth 3.3 mm.

Distribution: Off Gobo, Kii Peninsula, Japan.

Epitonium* (*Perspicioscala*) *kiyohimae n. sp.

(Figs. 25)

Description: Shell turreted, about 10 mm in height, translucently brown with 2 dark brown bands in color; spire elevated, convex, 8-9 ovo-quadrate whorls; protoconch 3, smooth brown in color; body whorl almost quadrate with pseudo-basal disc, to which axial costae continued; suture deep; surface with thin axial costae, 19 in number on body whorl, angulated at shoulder and corner; intercostal space with 7-9 microscopic, very weak spiral striae, which are not crossed by axial costae. Aperture ovate, thickened; peristome imcomplete; outer lip simple, thin; columellar margin rather straight; umbilicus closed.

Discussion: This species has undulated axial costae with minute spiral striae, smooth protoconch and translucent shell. These characters indicate that this taxon belongs to the subgenus *Perspicioscala*. On the other hand, this species has pseudo-basal disc, to which axial costae continued. These features are somewhat different from the remaining species in this subgenus, suggesting that this species might be allocated in different subgenus. This species is close to a North Atlantic abyssal species *Eccliseogyra pyrrhias* (Watson, 1886) at a glance, but differs in morphology of the protoconch. This species has smooth protoconch, while *E. pyrrhias* has axially ribbed protoconch.

Etymology: The name *kiyohimae* is derived from a heroin's name of an old story in Gobo, Kii Peninsula, Japan.

Type locality: Off Shimokusui, Gobo, Kii Peninsula, at about 30 m deep.

Type materials: Holotype (NSMT Mo-71423), height 4.8 mm; breadth 2.1 mm (Figs. 25).
Paratype (Noda collection), height 7.5 mm; breadth 3.1 mm.

Distribution: Off Gobo, Kii Peninsula, Japan.

Alora kiiensis n. sp.

(Figs. 26, 27)

Description: Shell thin, conical to pyramidal, about 25 mm in height, yellowish brown in color; spire with 7 convex whorls; protoconch with 1-1.5 whorls, flattened, translucently white, glossy; suture simple and shallow; surface with spiral lirae, 12-13 in number on penultimate whorl; interstitial space with 3-4 minor spiral striae; axial growth lines very fine, somewhat undulated. Aperture ovate with indistinct pseudosiphonal canal; outer margin thin and simple; columellar mar-

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gin halfly reflecting over umbilicus; umbilicus closed.

Discussion: This species is confused with *A. annulata* (Kuroda & Ito,1961), however, *A. annulata* has a rather small shell, more convex whorls, and umbilical perforations. These two species were collected from the same locations, the deep sea bottom off Kii Peninsula, Japan. This species also resembles *A. billeeanae* (Dushane & Bratcher, 1965) but differs from it in having rather large size without strong axial sculptures.

Type locality: Off Kushimoto, Kii Peninsula, trawled at about 500 m deep.

Type materials: Holotype (NSMT Mo-71424), height 27.5 mm; breadth 14.8 mm (Figs. 26, 27). Paratype (Koyama Coll.) height 30.5 mm; breadth 17.0 mm.

Distribution: From off Kii Peninsula to Tosa Bay, Japan, at 400-500 m deep.

Cycloscala spinosa n. sp.

(Fig. 28)

Description: Shell minute, narrowly to widely scalariform, about 7 mm in height, dull white in color; spire uncoiled from first teleoconch of 4.5 whorls; protoconch 3, multigyrate, conical with microscopic axial striae; surface with axial costae, erected and slightly recurved, 20 on first and second whorls, 18 on 3rd whorl, 19 on the body whorl, strongly fluted, nodulated with blunt coronation on shoulder; no spiral sculptures present. Aperture ovate; peristome complete; outer lip reflexed.

Discussion: This new species is unique among the genus *Cycloscala*. The axial costae of this species is strongly fluted, nodulated or spined, while those of other *Cycloscala* species have no nodulations nor spines on costae. Same as *C. gazae* Kilburn, 1985, the protoconch of matured specimens is usually worn out, therefore, the key character of this genus, namely, axially striated protoconch, is sometimes impossible to be observable. This species was collected from offshore waters of Japan, same as *C. gazae*, while *C. hyalina* (Sowerby, 1844) is collected from intertidal zone.

Type locality: Off Minabe, Kii Peninsula, at about 30 m deep, and Sumiyo Bay, Amami-Oshima Island.

Type materials: Holotype (NSMT Mo-71425); height 7.3 mm; breadth 4.0 mm (Fig. 28). Paratype (Noda collection); height 5.0 mm; breadth 3.0 mm.

Distribution: Off Minabe, Kii Peninsula, and off Amami-Oshima Island, Japan, at about 30-100 m deep.

Amaea (Narvaliscala) percancellata nom. n.

(Fig. 29)

Amaea (*Clathroscala*) *subcancellata*: Azuma, 1962, 134, fig 4.

Epitonium (*Clathroscala*) sp.: Shikama, 1963, 109, pl. 60, fig. 2.

Description: Shell turreted, about 40 mm in height, yellowish brown in color; spire with 18-20 whorls, convex; body whorl with basal disc, strongly keeled at periphery; suture deep; surface with regularly spaced, thick axial ribs and many distinct minute spiral striae, 25-26 and about 9 in number, respectively, on body whorl; crossing points form nodules, but no spiral cords present on first 5-6 whorls. Aperture almost ovate, with thickened labrum, outer and columellar margins slightly reflexed.

Discussion: Azuma (1962) described this species as *Amaea* (*Clathroscala*) *subcancellata*. He

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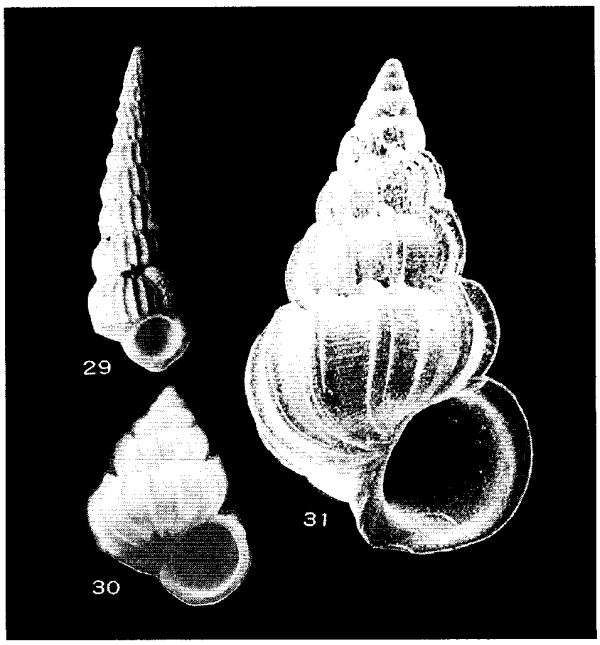

Fig. 29. *Amaea* (*Clathroscala*) *percancellata* nom. n. カゴメイトカケガイ（東）
height 42.1 mm; breadth 12.0 mm.
Fig. 30. *Epitonium* (*Epitonium*) *profundum* nom. n. オオクワガタイトカケガイ（黒田）
height 35.0 mm; breadth 22.3 mm.
Fig. 31. *Epitonium* (*Parviscala*) *graciliconfusum* nom. n. ツギノスナギンチャクイトカケガイ（中山）
height 3.0 mm; breadth 1.5 mm.

referred this species to the subgenus *Clathroscala* of the genus *Amaea* because of presence of basal disc which is strongly keeled at the periphery on the body whorl. But, this species has thick labrum, characterizing this subgenus. The name *Amaea subcancellata* was preoccupied by d'Orbigny (1852) for an European fossil species. Therefore, the substituted name is introduced herewith.

Material studied: Koyama Collection from off Kushimoto, Kii Peninsula, at 390 m deep.

Dimensions: Height 42.1 mm; breadth 12.0 mm (Fig. 29).

Distribution: From Sagami Bay to Tosa Bay, Japan.

Epitonium* (*Epitonium*) *profundum (Kuroda, MS) nom. n.
(Fig. 30)

Viciniscala okezoko: Azuma, 1962, 133, fig. 3.
Epitonium (*Viciniscala*) sp.: Shikama & Horikoshi, 1963, 32, fig. 48-3.
Viciniscala profundorum [sic]: Matsumoto, 1979, 124, pl. 3, fig. 6.

Description: Shell conical, about 40 mm in height, white in color; suture fenestrated; surface with blade-like axial costae, 13-15 in number, either bluntly angulated anteriorly or hooked on suture and slightly reflexed backward, and with microscopic spiral striae in the intercostal space. Aperture ovo-pyriform in shape; umbilicus deeply perforated.

Discussion: Although Azuma (1962) described this species as *Viciniscala okezoko*, however, the name *okezoko* was preoccupied by *Epitonium* (*Epitonium*) *okezoko* (Habe, 1961), therefore, this species needs a new name. Kuroda (personal communication in 1951) proposed the name *E. profundum* (non *profundorum*, in Matsumoto, 1979), so that this name is adopted here. This species resembles *E.* (*E.*) *pallasii* (Kiener, 1838), however, it is distinguishable from it in having broad

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body whorl. Moreover, this species is morphologically very similar to an African species, *E. trochoides* (de Boury, 1912), but the size of this species is about 40 mm, while that of *E. trochoides* is under 10 mm. These two species are not considered the same species.

Material studied: Koyama Collection from off Kushimoto, Kii Peninsula, at about 320 m deep.

Dimensions: Height 35.0 mm; breadth 22.3 mm (Fig. 30).

Distribution: Off Kii Peninsula to Tosa Bay, Japan, deep water.

Epitonium* (*Parviscala*) *graciliconfusum nom. n.

(Fig. 31)

Graciliscala confusa: Nakayama, 1995, 175, figs. 1, 2.

Description: Shell small, conical, about 5 mm in height, milky white in color; spire elevated, convex, slightly ovo-quadrate with 8-9 whorls; protoconch 5, smooth brownish purple in color; suture deep, fenestrate; surface with thin axial costae, 12-14 in number on body whorl; intercostal space with numerous microscopic spiral striae. Aperture ovate, with thickened peristome complete; outer lip reflexed; umbilicus closed. Operculum thin, yellowish brown, paucispiral.

Discussion: Although Nakayama (1995) described this species as *Graciliscala confusa*, however, the name *confusa* was preoccupied by *Epitonium* (*Epitonium*) *confusum* (E. A. Smith, 1890), therefore this species needs a new name.

Material studied: Nakayama Collection (Topotype).

Dimensions: Height 3.0 mm; breadth 1.5 mm (Fig. 31).

Distribution: Off Kii Peninsula, Japan.

Acknowledgments:— I am very grateful to Messers. Yasuo Koyama, Tomio Watanabe, Kazutaka Noda, the late Seiji Nagai, and Makoto Tanaka, who offered me their specimens for this study. Koyama Collection and Nagai Collection in this study are now deposited in the Wakayama Prefectural Museum of Natural History, and they are to be registered in the museum. I am very grateful to Dr. Tadashige Habe and Prof. Takashi Okutani, who encouraged me to complete this work. I am extremely thank to the late Eiji Tsuchida for his information and his data offered for the present works.

日本産イトカケガイ科の1新亜属，14新種および3新名

中山　大成

要　約

日本産イトカケガイ科の1新亜属と14新種を記載する。また異種同名となる3種に新名を与える。

Kurodacirsa glans n. sp.　ドングリイトカケガイ（新種，新称）（Figs. 1, 2）

殻は10～20 mmの小型で薄く，形は椎の実に似る。薄褐色。螺層の膨らみは強く，体層には非常に弱い底盤の角張りを持つ。殻表は不規則な成長肋と弱い螺肋を持つ。殻口は楕円形で外唇は薄く軸唇は直線状でわずかに反る。臍孔は閉じる。蓋は薄く黄色で角質，少旋形。殻高17.8 mm，殻径7.2 mm（ホロタイプ）。

模式産地：和歌山県南部町沖，水深70 m；分布：紀伊半島沖。

本種はハスノミイトカケガイ *K. lotus* に似るが螺層の膨らみが著しく容易に区別できる。またフクロイトカケガイ *Epitonium*（*Globiscala*）*bullatum* に似るが不規則な鰭状の縦肋がないことで区別でき

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る。

Cirsotrema* (*Cirsotrema*) *amamiense n. sp. ラセンオリイレイトカケガイ（新種，新称）(Figs. 3-6)

殻は 10 ～ 20 mm の小型で厚く，形は螺旋階段状で白色。螺層は非常に強い王冠状の突起となった角張りを持つ。縫合は深く板状の縦肋が折り重なる。体層には弱い底盤の角張りを持つ。殻表は縦肋が重なり網目状となる。底盤の端部は波打ち状となり，螺軸方向へ螺旋状の弱い螺溝を刻む。殻口は円形。臍孔は閉じる。蓋は厚く黒色，円形で少旋形。殻高 9.1 mm，殻径 6.3 mm（ホロタイプ）。

模式産地：鹿児島県奄美大島沖，水深 200 m ；分布：奄美大島沖，紀伊半島潮岬沖。

本種は特異な形状をしているがその彫刻は *Cirsotrema* 属・亜属特有であり容易に判別できる。*C.* (*C.*) *dalli* や *C.* (*C.*) *varicosum* や *C.* (*C.*) *bonum* に似るが体層が膨らむこと，小型種であることで区別できる。

Cirsotrema* (*Elegantiscala*) *amplsum n. sp. ヒクヤエバイトカケガイ (Figs. 7, 8)
（新種，改称：ヒクヤエバチリメンニナ（黒田））

殻は 40 ～ 50 mm の中型で厚く，形は螺旋状で幅広く白色。縦肋に非常に強い突起を持つ。縫合は深い。体層には弱い底盤の角張りを持つ。肋間の殻表は弱い螺溝を刻むが強い縦肋とは交差しない。殻口は円形。殻高 43.2 mm，殻径 20.1 mm（ホロタイプ）。

模式産地：和歌山県串本沖，水深 420 m ；分布：紀伊半島串本沖，土佐湾。

本種は *C.* (*E.*) *rugosum* に似るが殻高／殻径に比率が異なることと螺肋が縦肋と交差しないことで容易に区別できる。吉良はヒクヤエバチリメンニナの和名を与えたが *C.* (*E.*) *rugosum* の和名は現在ヤエバチリメンニナではなくヤエバイトカケガイとされているため上記和名と改称した。

Gyroscala* (*Circuloscala*) *watanabei n. sp. カワリウネイトカケガイ（新種，新称）(Figs. 9, 10)

殻は 20 ～ 30 mm の小型で薄く，紡錘形。淡褐色。螺層の膨らみ，各層に不規則な縦張肋をなす。体層は弱い角張りの底盤を持つ。殻表は薄い縦肋を持ち肋間は微視的な縦溝と螺脈を持つ。殻口は楕円形で外唇は薄くわずかに反る。殻高 29.5 mm，殻径 9.1 mm（ホロタイプ）。

模式産地：紀伊半島熊野灘沖，水深 220 m ；分布：紀伊半島熊野灘沖。

本種は *G.* (*Fragiscala*) *tosaensis* と混同されてきたが不規則な縦張肋があることで容易に区別できる。本種は銚子市の渡辺富男氏の採集によるものであり，同氏に献名した。

Amaea* (*Narvaliscala*) *kushimotensis n. sp. ホソアラメイトカケガイ（新種，新称）(Figs. 11, 12)

殻は 5 ～ 10mm の小型，紡錘形。淡褐色から白色。螺層はやや膨らみ，縫合は深い。体層は強い角張りの底盤を持つ。殻表は強い縦肋と螺肋が格子状を作る。殻口は楕円形で外唇に厚い縦張肋を持つ。殻高 5.0 mm，殻径 2.5 mm（ホロタイプ）。

模式産地：紀伊半島潮岬沖，水深 100 m ；分布：紀伊半島潮岬沖。

本種は *Cirsotrema turbinella* (A. Adams, 1861)，in Kawamoto, 1956 と同種と思われるが同標本との比較が不能のため本記載から省いた。また *C. turbinella* は模式標本がなく，記載が不十分で比較が不能であるため失効とした。

Claviscala nodulosa n. sp. キクキリイトカケガイ（新種，黒田）(Figs. 13, 14)

殻は 30 ～ 50 mm の細型でやや薄く，尖塔形。淡褐色。胎殻は 1.5 層で膨らみ滑らか，成長とともに失う。螺層はやや膨らむ。体層は明瞭な底盤を持つ。殻表は弱い縦肋を持ち螺肋との交点で結節となる。殻口は楕円形で外唇は薄く，軸唇はやや厚くわずかに反る。殻高 30.3 mm，殻径 8.5 mm（ホロタイプ）。

模式産地：和歌山県那智勝浦町浦上沖，水深 380 m ；分布：紀伊半島熊野灘沖。

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本種は *C. turrita* や *C. terebralioides* や *C. solar* に似るが縦肋と螺肋が結節状となることで容易に区別できる。

Claviscala nagaii n. sp. ナガイイトカゲガイ（新種，新称）(Figs. 15, 16)

殻は 20 ～ 30 mm の細型でやや厚く，尖塔形。淡褐色。胎殻は 1.5 層で膨らみ滑らか。体層は明瞭な底盤を持つ。殻表は強い縦肋を持ち 7 条の弱い螺肋がありさらに不規則な縦張肋を持つ。殻口は楕円形で外唇は薄く，軸唇はやや厚い。殻高 25.5 mm，殻径 6.2 mm（ホロタイプ）。

模式産地：和歌山県串本町潮岬沖，水深 310 m ；分布：紀伊半島潮岬沖。

本種は *C. turrita* や *C. terebralioides* に似るが強い縦肋が少ないこと不規則な縦張肋をもつことで容易に判別できる。本種は串本町に在住し潮岬沖のドレッジを精力的に行われ，潮岬沖の貝類相の研究に尽くされた故 永井誠二氏に献名した。本種標本はすべて故 永井氏の採集によるものである。

Claviscala subulae n. sp. ヤジリイトカケガイ（新種，新称）(Figs. 17, 18)

殻は 10 ～ 20 mm の細型でやや厚く，尖塔形で白色。胎殻は 1.5 層で膨らみ滑らか。体層は明瞭な底盤を持つ。殻表は強い縦肋を持ち 9 条の強い螺肋があり交差する。殻口は楕円形で外唇は薄く，軸唇はやや厚い。殻高 14.7 mm，殻径 3.8 mm（ホロタイプ）。

模式産地：千葉県銚子市沖，水深 100 m ；分布：房総半島沖，紀伊半島潮岬沖　水深 100 m 内外。

本種は *Amaea*（*Scalina*）*gazeoides* に似るがかなり小型であることと強い縦肋を持つことで区別できる。また，*C. nagaii* にも似るが明瞭な螺肋をもつことで区別できる。

Epitonium **（*Parviscala*）*tenuipicturatum*** n. sp. チョウシイトカケガイ（新種，新称）(Figs. 19, 20)

殻は 10 ～ 20 mm の細型でやや厚く，紡錘形で白色。胎殻は 3 層で円筒状で滑らか。螺層はやや膨らむ。底盤はない。殻表は細かく薄い 40 内外の縦肋を持つ。肋間には微視的な螺肋がある。殻口は楕円形で外唇は薄く，軸唇はやや厚く後方に反る。臍孔はかすかに開く。蓋は薄く角質で黄色，少旋形。殻高 17.5 mm，殻径 5.5 mm（ホロタイプ）。

模式産地：千葉県銚子市沖，水深 200 m ；分布：房総半島沖　水深 150 ～ 200 m 内外。

本種は *Rutelliscala cophinodes* に似るが縦肋の数が多いこと，形が体層が細いこと，肋間に微視的螺肋を持つことで区別できる。

Perspicioscala n. subgen. スカシイトカケガイ亜属（新亜属，新称）

Epitonium の新亜属として *Perspicioscala* を創設する。半透明な螺層に縦肋を持つことを特徴とする。

模式種： *Epitonium*（*Perspicioscala*）*ossium* n. sp.

Epitonium **（*Perspicioscala*）*ossium*** n. sp. スカシイトカケガイ（新種，新称）(Figs. 21, 22)

殻は 5 ～ 10 mm で薄く，紡錘形で半透明白色。胎殻は 3 層，褐色で滑らか。体層はやや膨らむ。底盤はない。殻表は細かく薄い白色の縦肋と螺肋を持ち，交点は波打つ。肋間は半透明で平滑。殻口は楕円形で外唇は湾曲し，軸唇は直線状。臍孔は閉じる。殻高 8.2 mm，殻径 4.0 mm（ホロタイプ）。

模式産地：和歌山県南部町沖，水深 100 m，静岡県下田市沖　水深 60 m ；分布：紀伊半島沖，伊豆半島沖，水深 50 ～ 100 m 内外。

本種は半透明の特異な形態をし，他の亜属の種と容易に区別できる。*E.*（*P.*）*hemmensi*, *E.*（*P.*）*thorssoni* に似るが縦肋と螺肋の交点が波打つこと，縦肋の数が多いことで区別できる。

Epitonium **（*Perspicioscala*）*nodai*** n. sp. ノダスカシイトカケガイ（新種，新称）(Figs. 23, 24)

殻は 5 ～ 10 mm で薄く，紡錘形で半透明褐色。胎殻は 3 層，褐色で滑らか。体層はやや膨らむ。底

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盤はない。殻表は細かく薄い褐色の縦肋と螺肋を持ち，交点は結節状。肋間は半透明褐色で平滑。殻口は楕円形で外唇は湾曲し，軸唇は直線状。臍孔は閉じる。殻高 5.3 mm，殻径 3.1 mm（ホロタイプ）。

模式産地：和歌山県御坊市下楠井沖，水深 30m ；分布：模式産地のみ　水深 30 ～ 50 m 内外。

本種は褐色半透明の特異な形態をし，模式種 *E.*（*P.*）*ossium* に似るが縦肋，螺肋とも少なく交点も結節状となり異なる。本種は御坊市の野田和孝氏の採集によるもので，同氏に献名した。

Epitonium*（*Perspicioscala*）*kiyohimae n. sp.　キヨヒメスカシイトカケガイ（新種，新称）（Figs. 25）

殻は 5 ～ 10 mm で薄く，紡錘形で半透明褐色。胎殻は 3 層，褐色で滑らか。体層は膨らまない。底盤はない。殻表は細かく薄い 19 条内外の褐色の縦肋を持つ。縦肋は角張る。微細な螺肋を持つが，縦肋とは交差しない。肋間は半透明褐色。殻口は楕円形でやや厚く，軸唇は直線状。臍孔は閉じる。殻高 4.8 mm，殻径 2.1 mm（ホロタイプ）。

模式産地：和歌山県御坊市下楠井沖，水深 30 m ；分布：模式産地のみ　水深 30 ～ 50 m 内外。

本種は褐色半透明の特異な形態をし，模式種 *E.*（*P.*）*ossium* に似るが縦肋は多く，螺肋が少なく縦肋螺肋は交差しない点が異なる。本種は御坊市在住の野田和孝氏の採集によるもので，同氏の居住地，御坊市の民話の主人公に献名した。

Alora kiiensis n. sp.　キイテラマチイトカケガイ（新種，新称）（Figs. 26, 27）

殻は 20 ～ 30 mm で薄く，卵形で黄褐色。胎殻は 1 ～ 1.5 層，平滑。体層は著しく膨らむ。底盤はない。殻表は低い螺肋を持つ。肋間は微視的な成長肋と螺肋が交差し網目状となる。殻口は楕円形で擬水管を持つ，外唇は薄く，軸唇は反り臍孔を覆う。臍孔は閉じる。殻高 27.5 mm，殻径 14.8 mm（ホロタイプ）。

模式産地：和歌山県串本町沖，水深 500 m ；分布：模式産地のみ　水深 500 m 内外。

本種は *A. annulata* に似るがやや大きく，体層の膨らみが少なく，臍孔が閉じることが異なる。*A. billeeanae* に似るが明瞭な縦肋を持たないことで区別できる。

Cycloscala spinosa n. sp.　トゲクルイイトカケガイ（新種，新称）（Figs. 28）

殻は 5 ～ 10 mm で小型，縫合は離れ，まきとけ状。鈍い白色。胎殻は 3 層，円錐形で細かな縦溝を持つ。殻表は刺状になった縦肋を持つ。螺肋はない。殻口は円形。殻高 7.3 mm，殻径 4.0 mm（ホロタイプ）。

模式産地：和歌山県南部町沖，水深 30 m，鹿児島県奄美大島；分布：紀伊半島沖，奄美大島沖　水深 30 ～ 100 m 内外。

本種は *C. gazae* や *C. hyalina* に似るが縦肋の刺状結節を持つことで容易に区別できる。

Amaea*（*Narvaliscala*）*percancellata nom. n.　カゴメイトカケガイ（Fig.29）

本種は東（1962）により *Amaea*（*Clathroscala*）*subcancellata* として記載されたが本種名は d'Orbigny（1852）により記載されたヨーロッパ産の化石種 *Amaea subcancellata* と異物同名であり改名した。

Epitonium*（*Epitonium*）*profundum （Kuroda, MS）nom. n.　オオクワガタイトカケガイ（黒田）（Fig.30）

東（1962）によりオケゾコイトカケガイ *Viciniscala okezoko* として記載されたが *E. okezoko* の名はナマクライトカケガイ *Epitonium*（*Epitonium*）*okezoko*（Habe, 1961）に先取されており改名の必要が生じた。一方本種は従来より未記載種として知られていたオオクワガタイトカケガイ *Epitonium*（*Epitonium*）*profundum*（Kuroda, MS）と同種であることが判明しており今回黒田の名を尊重した。また松本（1979）に図示された *E. profundorum*（Kuroda　MS）は誤りである。

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Epitonium* (*Parviscala*) *graciliconfusum nom. n. ツギノスナギンチャクイトカケガイ(中山) (Fig.31)

中山 (1995) により *Graciliscala confusa* として記載されたが属を細分化しない考えに基づき *Graciliscala* 属を *Epitonium* 属 1 亜属としたため *confusa* が異物同名となった。この名は *Epitonium* (*Depressiscala*) *confusum* (E. A. Smith, 1890) により先取されており今回改名した。また亜属についても縦肋間に細かい螺肋を生じる特徴から *Parviscala* 亜属とした。

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