# Chapter 8 Philbertinae: Kermia Species

#### Species 56 *Kermia felina* (Hinds, 1843)

Shell, 8 x 2.5 mm, cylindrical-fusiform, decussated by axial and spiral sculpture, white in color with chestnut axial rectangles There are about 18 axial ribs and 6 spiral cords on the penultimate whorl. Aperture, narrow and parallelsided with many small denticles at the edge of the outer lip . The sinus is deep, U-shaped, subsutural. The anterior canal, short, recurved dorsally It is shown as Fig. 56 below.

# Species 57 *Kermia tessellata* (Hinds, 1843)

Shell, 5 x 1.7 mm, oblong-ovate, and turreted. Has 5 teleconch whorls with a steep shoulder to the suture. Protoconch brown, conic, with 4 decussated whorls. The sculpture includes about 14 axial ribs and 6 spiral cords on the penultimate whorl with beads at the intersections.. Aperture is narrow with an incurved outer lip. The shell is sub-transparent white with a brown band at the sinus and some brown to orange axial lines of 2 or 3-nodules below the suture

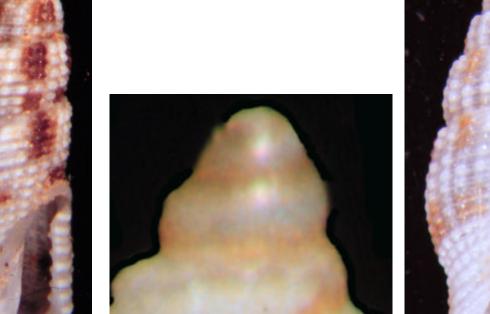




Fig.56. *Kermia felina* (Hinds, 1843 8 mm from Lutao, Taiwan

Fig. 57 *Kermia tessellata* (Hinds, 1843) 5 mm from Lutao apex.and Ventral view



# Species 58 *Kermia daedalea* (Garrett, 1873)

Shell, 6 x 2 mm, resembles *Kermia tessellata* (Hinds) very much, but its aperture is shorter with axial lines of beads longer. It is shown as Fig. 58

# Species 59 *Kermia maculosa* (Brazier, 1876)

Shell, 4 x 1.5 mm ovate-fusiform, with nodules formed by strong axial ribs and spiral cords There are 9-10 axials and 3 spirals on the penultimate whorl. It is white with alternate ribs brown on the spire whorls. There are 3 denticles, inside the outer lip varix that weaker toward the bottom It is shown as Fig. 59



Fig. 58 *Kermia daedalea* (Garrett, 1873) 6 mm from Lutao, Taiwan

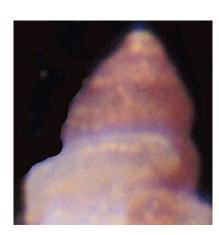


Fig. 58b . *Kermia daedalea* (Garrett, 1873) Apex of Fig. 58.



Fig. 59 *Kermia maculosa* (Brazier, 1876) 4 mm from Lutao

### Species 60 *Kermia chichijimana* (Pilsbry, 1906)

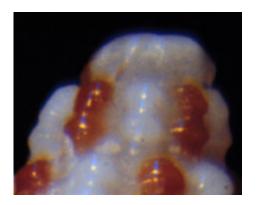
Shell, 5.5 x 1.8 mm as Fig. 60 is almost the same as *Kermia maculosa* (Brazier) but the brown on ribs extends from suture to suture whereas on *Kermia maculosa* the brown does not cross the subsutural area.. According to (Pilsbry, 1904), its protoconch is trochiform of 2-1/2 yellow whorls and the outer lip has 4 small teeth within.

## Species 61 *Kermia luteopicta* (Hervier, ?)

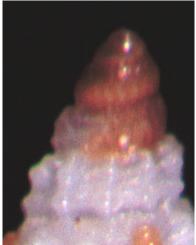
Shell, 4.5 x 2 mm shown in Fig. 61, looks like *Clathurella barnardi* Brazier shown in Fig. 61c, but (a) this shell has orange, on the alternate ribs of each whorl instead of the dark reddish spots of *K. barnardi*; (b) the K. barnardi has 2 white rows above the sinus instead of one. The identification is based on Hedley's (1922,p.345) description because it is hard to obtain a figure of its prototype.



Figs. 60 above, 60b below *Kermia chichijimana* (Pilsbry, 1906) 5.5 mm from Lutao,Taiwan







Figs. 61 left, 61b above, *Kermia luteopicta* (Hervier, ?) 4.5 mm from Lutao,



Fig. 61c .right Clathurella barnardi Brazier after Hedley (1922)

# Species 62 *Kermia excellens* (Sowerby, 1917)

Shell, 6.5 x 2.8 mm shown as Fig 62 resembles *Kermia luteopicta* (Hervier) but having (a) more spiral cords, 5 cords on the penultimate while the luteopicta has 3 cords. (b) orange spots on whole alternate ribs and more erratic with white less intense, (c) anterior canal of this shell is narrow, not so broad and open as the *K.luteopicta* (c) protoconch of *K excellens* is longer with probably one more whorl

# Species 63 *Kermia euryacme* (Melvill, 1926)

Shell shown in Fig. 63 is minute, 3.5x1.6 mm, white with brown to orange maculations between nodules. It has moderately large nodules at intersections of ribs and cords. There are 9 ribs and 4 spirals on the penultimate whorl. Outer lip is backed by a varix and has 3 denticles within. The columella is flexuous . Its fatherland is Lifu, Indian Ocean.



Fig. 62b above. Kermia excellens (Sowerby, 1917) Apex.



Fig. 63 *Kermia euryacme* (Melvill, 1926) 3.5 mm from Lutao, Taiwan

Fig. 62 above. *Kermia excellens* (Sowerby, 1917) 6.5 mm from Lutao, Taiwan

# Species 64 *Kermia pumila* (Mighels, 1845)

Shell, 6 x 2.4 mm, oblong-ovate. As seen in Fig. 64, it has 5 teleconch whorls and 2+ brown protoconch whorls It has beaded sculpture formed by axial ribs and spiral cords, 15 - 17 ribs and 4 cords on the penultimate whorl with fewer cords on earlier whorls. The sinus has a large parietal callus pad. The outer lip has 4 teeth within and the columella is smooth. It is pale violet. The Hawaiian shell is more brown and usually has darker brown bands as shown in Fig. 64b



Fig. 64 *Kermia pumila* (Mighels, 1845) 6 mm from Lutao, Taiwan

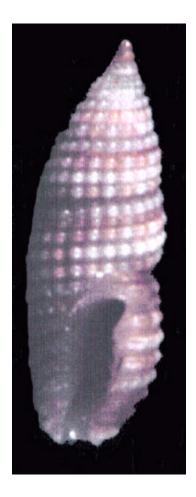


Fig. 64b *Kermia pumila* (Mighels, 1845) 6 mm from Hawaii

# Species 65 *Kermia melanoxytum* (Hervier, 1895)

Shell seen in fig. 65 is 5.4 x 1.8 mm, ovate-fusiform, with 5 convex teleconch whorls and a protoconch of 4 brown-red, decussated, whorls. It is white with a light-brown to orange

adapicl band on each whorl. There are about 9 ribs and 3 - 4 cords on the penultimate whorl. The outer lip is backed by a varix and has 5 denticles within. The sinus has a large yellow parietal callus pad. The Hawaiian species looks broader as seen in Fig. 65b. Kay (1979) illustration has this form too.

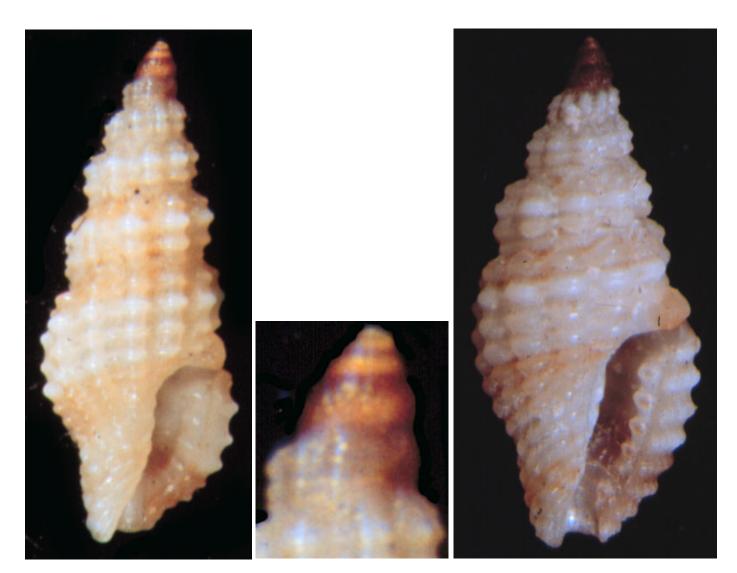


Fig.65. *Kermia melanoxytum* (Hervier, 1895) 5.4 mm from Lutao,Taiwan Ventral view & apex

Fig.65b abovet. *Kermia melanoxytum* (Hervier, 1895) 4.2 mm from Hawaii

# Species 66 *Kermia pustulosa* (De Folin, 1867)

Shell, 7 x 2 mm as Fig. 66 has 6 teleconch whorls. The protoconch is white and paucispiral. The shell is light yellow to white with orange nodule tops. Nodules are at intersections of axial ribs and spiral cords. There is a white peripheral band on the body whorl

# Species 67 *Kermia thespecia* (Melvill & Standen, 1897)

Shell, 4.2 x 1.7 mm as Fig. 67 looks like *K*. *pustulosa* (De Folin) but having: (a) axial lines of orange spots more random, more numerous and more oblique; (b) 2 white bands on the body whorl rather than one; (c) whorls, squarely ventricose with broader and deeper suture; (d) whorls more convex and sloped more; and (e) protoconch has 3+ convex, orange and light yellow whorls.

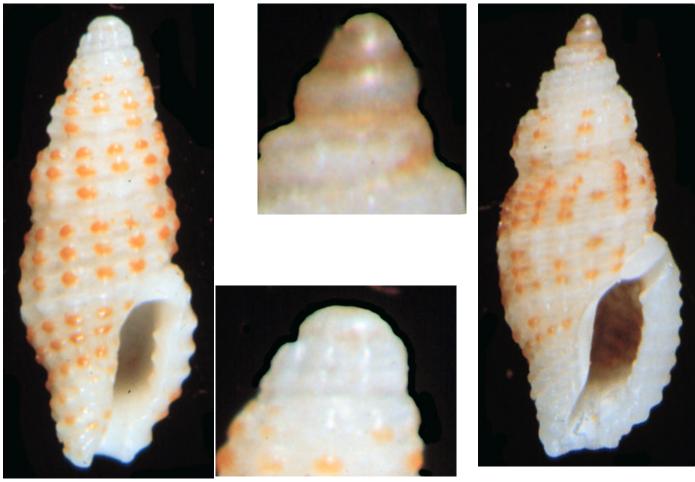


Fig. 66 *Kermia pustulosa* (De Folin, 1867) 7 mm from Lutao, Taiwan Ventral view above left & Apex immediately above and right

Fig. 67 above. *Kermia thespecia* (Melvill & Standen, 1897) 4.2 mm from Lutao, Taiwan Ventral view

### Species 68 *Kermia psalterium* (Melvill and Standen, 1896)

Shell, 5.4 x 2.1 mm is shown in Fig. 68. It has 5 teleconch whorls that are angulate to the prominent suture.. There is a broken apex (even on the prototype). It is beaded at the intersections of about 14 axial ribs and 4 spiral cords on the penultimate whorl. The outer lip has 6 - 7 fine denticles within. The shell is white with brown-red squarish blotches in a band below suture on each whorl and some additional brown-red nodes on lower cords and on the base.

# Species 69 Kermia tokyoensis (Pilsbry, 1895)

Shell shown Fig. 69 is 8 x 2.5 mm and is oblongovate. It has 6 teleconch whorls that are slightly convex, angulate at upper suture. The protoconch is depressed of 1+ whorls It has meshed sculpture of about 16 axials and 6 spirals on the penultimate whorl Yellow in color has a whitish band at periphery of the body whorl.

# Species 70 Kermia chrysolitha

#### (Melvill & Standen, 1896)

Fig. 70 is a shell, 6.2 x 2.4 mm with 6 teleconch whorls. The sculpture is small meshes formed by broad axial ribs and spiral cords. There are about 9 ribs and 3 cords on the penultimate whorl. The outer lip is varicose and incurved having 3 teeth within fading toward the bottom. The color is white with some nodules yellowish. This specimen also has a white band at the periphery of the body whorl.









Fig.68 *Kermia psalterium* (Melvill & Standen, 1896) 5.4 mm from Lutao, Taiwan

Fig. 69 *Kermia tokyoensis* (Pilsbry, 1895) 8 mm from North Taiwan. Ventral view & apex

Fig. 70 *Kermia chrysolitha* (Melvill & Standen, 1896) 6.2 mm from Lutao, Taiwan

#### **Species 71** *Kermia pustulata* (Angas, 1877)

Shell, 4 x 1.9 mm, white with 4 teleconch whorls that are slightly convex with a broad suture. It is reticulately sculptured by 8 -9 axial ribs and 3 spiral cords on the penultimate whorl. The outer lip has 4 teeth inside the variced outer lip. It is shown as Fig. 71.

#### **Species 72** Kermia bifasciata (Pease,1860)

Shell, 5.3 x 1.8 mm, white as seen in Fig. 72. It has 4 teleconch whorls that are slightly convex and has a brown apex. It has coarse, clathrate sculpture with nodules at intersections of. about 9 axial ribs and 4 spiral cords on the penultimate whorl. The outer lip

is heavily variced, firmbriated and incurved. The sinus is deep and has a large parietal callus pad. The canal is short and open with 4 granular threads on the fasciole. It occurs in Hawaii and Australia.

#### **Species 73** Kermia caletria (Melvill & Standen, 1896)

The shell, 6 x 2.3 mm, beautiful, and turreted and shown as Fig 73 has 5 teleconch whorls, and a paucispiral protoconch of 2 light, red-brown whorls. It is sculptured with 9 strong axial ribs overridden by 4 spiral cords on the penultimate whorl. The outer lip is varicose and lirate inside. It is white with light brown in the node interstices and a wide, light brown band on the base.

Fig 71 Kermia pustulata

(Angas, 1877) 4 mm from Lutao, Taiwan

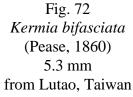
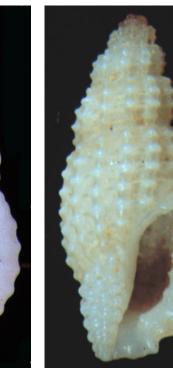


Fig. 73 Kermia caletria (Melvill & Standen, 1896) 6 mm from Lutao, Taiwan Ventral view and apex.





# Species 74 *Kermia pyrgoidea* (Melvill, 1916)

Shell, 6 x 2.2 mm, buff in color, cylindrical, turreted spired as Fig.74 has mature whorls, 5 and protoconch, narrow, stalk-like of 3 whorls It has reticulate sculpture of about 15 ribs and 5-6 spirals on penultimate whorl; There are 6 small teeth inside outer lip.. Sinus, deep has a large parietal callus pad. Fig. 74b shows the Hawaiian species which is described by Kay (1979) as white and cylindrical with 25 fine axial ribs crossed by fine spiral cords.

## Species 75 *Kermia episema* (Melvill & Standen, 1896)

Shell, 5 x 2 mm, fusiform, turreted is shown in Fig. 75. It has 5 teleconch whorls, and the protoconch is elevated with 3 convex whorls. It has weak cancellate sculpture of about 11 axial ribs and 4 spiral cords on the penultimate whorl. The aperture is narrow with 6 denticles inside the outer lip It is white having yellow to orange lines on the sutures and adapical spiral cord of each whorl and 3-4 extra yellow lines on the body whorl.



Fig. 74 *Kermia pyrgoidea* (Melvill, 1916) 6 mm from Lutao, Taiwan



Fig. 74b. *Kermia pyrgoidea* (Melvill, 1916) 5 mm from Hawaii



Fig. 75 *Kermia episema* (Melvill & Standen, 1896) 5 mm from Lutao

# **Species 76** *Kermia lutea* (Pease, 1860)

Figure 76 shows this shell, 5 x 2.2 mm, ovatefusiform, and yellowish. It has 5 teleconch whorls, plus the white, paucispiral protoconch. The body whorl rapidly contracts forming a narrow neck and a produced and recurved canal. It has cancellate sculpture with about 4 spiral cords and 11 -13 axial ribs on the penultimate whorl. There are 4 denticles on the swelling inside the outer lip.

# **Species 77** Kermia granosa (Dunker, 1871)

The shell in Fig. 77 is 5.5 x 2.5 mm, ovatebiconic and looks like Kermia lutea (Pease) but has: (a) a more acute conic, turreted spire and a more produced and flared anterior canal; (b) an erected protoconch of 2 smooth, white convex whorls; and (c) The shell color is cream with light brown to orange lines.

# **Species 78** Kermia subspurca (Hervier, 1896)

The shell, 5.5 x 2.5 mm is shown as Fig. 78 and looks like K. lutea (Pease) but

(a) this shell has more elevated apex

(b) This shell has 8 small denticles at the edge of the outer lip while the lutea has 4 minute denticles on the swelling inside outer lip.

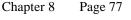




Fig. 76 Kermia lutea (Pease, 1860) 5 mm from Lutao, Taiwan

Fig. 77 Kermia granosa (Dunker, 1871) .5.5 mm from Lutao. Ventral view & apex.

Fig. 78 Kermia subspurca (Hervier, 1896) 5.5 mm from Lutao..



#### Species 79 *Kermia ramsayi* (Brazier, 1876)

This shell is  $6 \ge 2.6$  mm, white, ovate with a conic, subturreted spire and is shown as Fig. 79. It has sculpture of axial ribs and massive spiral, wavy cords which is unusual because other members of Kermia do not have such prominent cords

#### Species 80 *Kermia modesta* (Angas, 1888)

Fig. 80 shell is minute, 3.5 x 1.2 mm, ovatefusiform and has 5 teleconch whorls and a protoconch of a single, smooth whorl plus an initial tilted whorl, It has reticulate sculpture with nodules at intersection as with the usual shells of Kermia. But its aperture is narrowly pear-shaped with pustules on the columella which is chocolate in color. It is the type species of Genus *Paramontana* Laseron,1954 Now, I consider it moved to Kermia to simplify the classification

#### Species 81 *Kermia* sp A

Fig. 81 shell is 5.9 x 2 mm, white, cylindrical, turreted and has 5 teleconch whorls that are flat and angulate to the suture. The protoconch has 2 depressed whorls. It is sculptured with axial ribs overridden by spiral threads forming beads at intersections, with about 16 axials and 6 spirals on the penultimate. The aperture is narrow, parallel sided with the outer lip, varicose and serrated at the edge. The sinus is deep and has a heavy parietal callus pad



Fig. 79 *Kermia ramsayi* (Brazier, 1876) 6 mm from Yihliu, N.Taiwan



Fig. 80 *Kermia modesta* (Angas, 1888) 3.5 mm from Lutao, Taiwan



Fig. 81 *Kermia* sp. A 5.9 mm from Lutao, Taiwan

# Species 82 *Kermia* sp. B

Fig, 82 Shell is 6. x 2 mm, fusiform, turreted and looks like Kermia sp. A. but this shell has a longer anterior canal and a wider sinus without an apparent callus pad, and has coarser sculpture with 9 - 10 axial ribs and 4 spiral cords on the penultimate whorl. Its color is white tinted with pink here and there and is purplish on the apex. Oyama (1958) took this shell as *Philbertia lutea* (Pease, 1860). The lectotype of *Borsonia lutea* Pease is shown as Fig.82b They seem different.



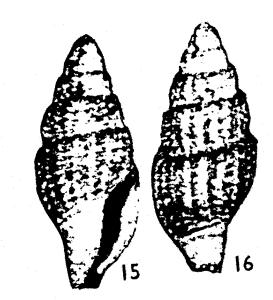


Fig. 82b *Borsonia lutea* Pease, 1860. Lectotype, 9mm After (Kay,1966)

Fig. 82. *Kermia* sp. B 6 mm from Lutao Ventral view & Apex

#### Species 83 Kermia sp. C

Fig.83 shell is  $4.4 \times 1.3$  mm, sub-transparent, and looks like Kermia sp. B but: (a) has a more slender spire with a large and broader protoconch, and (b) has narrower ribs with larger interstices in sculpture It is shown as Fig. 83.

Species 84

#### *Kermia* sp. D

Fig. 84 shell is 5.7 x 2 mm, elongate and has 5 convex teleconch whorls and a protoconch that is conic

with 3 brown whorls. It has clathrate sculpture, about 15 axial ribs and 5 spiral cords on the penultimate Aperture is narrow having a deep subsutural sinus and a short, recurved canal. Outer lip is flat, incurved and firmbriated It is semitransparent white with a pale buff peripheral band on each spire whorl, 2 on the body whorl. It probably is a new species

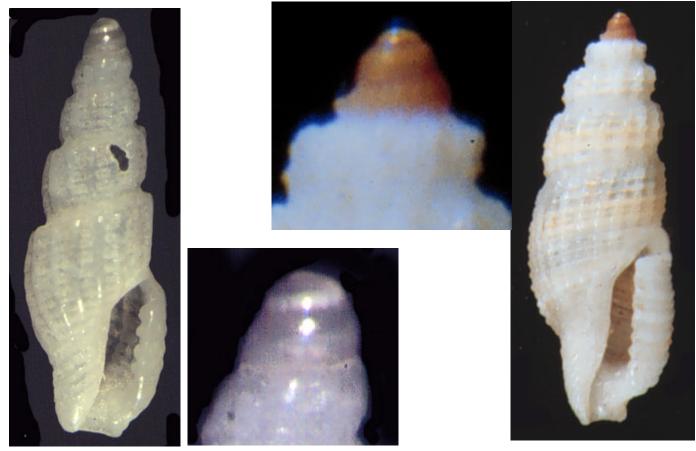


Fig. 83 above. *Kermia* sp. C 4.4 mm from Lutao, Taiwan Ventral view and Apex

Fig. 84 above. *Kermia* sp. D 5.7 mm from Lutao, Taiwan Ventral view and Apex

#### Species 85 Kermia sp, E

Figs. 85 and 85b shell is  $6 \ge 2.1$  mm, oblong-ovate with a conic, subturreted spire, light grey colored with 2 snow white bands on the last whorl and 1 band on the penultimate whorl in the dorsal view. There are 5 teleconch whorls with sloping shoulder and 3 convex protoconch whorls that are brown. It has clathrate sculpture with 13 axial ribs and 5 spiral cords on the penultimate whorl. The aperture is narrow, has the outer lip incurved and firmbriated. The sinus is deep and subsutural. This is probably a new species too.

#### Species 86 Kermia Sp. F

Fig. 86 shell is  $5.8 \ge 2.4$  mm and looks like *Kermia*. *subspurca* (Hervier) but this shell is broader, has plicae on columella and lacks denticles inside outer lip while the *K. subspurca* has denticles inside the outer lip and lacks plicae on the columella





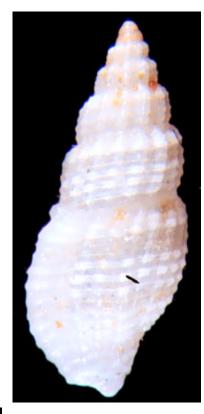


Fig 85 *Kermia* sp,E, 6 mm from Lutao ventral view, dorsal view and Apex..



Fig. 86 *Kermia* sp. F 5.8 mm from North Taiwan

#### References

Cernohorsky, W. O., 1978 Tropical Pacific Marine Shells pl. 57-12,13

- Garrett, A., 1873 Description of New Species of Marine Shells from the South Sea Proc. Acad. Nat. Sc., Philadelphia pp. 219,220 & pl. 2-33
- Hedley, C.A., 1922 A Revision of the Australian Turridae Records of Australian Museum 13 (6): pp. 345,353 and Figs. 177, 178, 187,192,193
- Hervier, R.P.J., 1897 Description d'especes ouvelles de Mollusques Provenant l'Archpel dela Nouvelle Calendonia Jour. de Conchyliogy 44: pl.2
- Kay, E.A., 1965 Marine Molluscs in the cuming collection, British Museum Described by W.H. Pease Bull. Britsh Museum Zoology Supplement, I London pls. 2, 8

Kay, E.A, 1979 Hawaiian Marine Shells, Bishop Museum Press pp. 354-363 & Figure 116 & 118

Mellvill, J.C. & Standen, R Notes on A collection of Shells from Lifu and Uvea, Loyalty Is., Journal 1895-1897 of Conchology. Pl. 9-23

Melvill, J.C., 1926 Descriptions of 8 New sp. of Turridae Proc, Malaco. Soc. Vol. XVII pl XII-8 Oyama, K., 1957-1961 the Molluscan shells Philbertia (1), (4)

Pilsbry, H.A., 1904 New Japanese Marine Mollusca Proc. Acad. Nat. Sci. Phila. Vol. 56. P.11 & pl. I

Reeve, L.A., 1843-1878 Monograph of Genus Pleurotoma Conchologia iconica Vol. 1 Sp. 80, 244

Tryon, G.W., 1884 Pleruotomidae Manual of Conchology Vol. VII pp.192, 295 pls.17,18,19, 22 and 32