

Family **EULIMIDAE**

Whorls flattened, suture not indented. The key is to genera.

1. Shell not conspicuously glossy; suture evident.....*Cythnia*
Shell polished; suture mostly indistinct..... 2
2. Apex mucronate, with minute pointed tip..... 3
Apex evenly tapering..... 5
3. Outline globose*Stilifer*
Outline ovate to conic..... 4
4. Spire bluntly rounded, outline ovate.....*Hypermastus*
Spire cylindrical, outline conic.....*Mucronalia*
5. Base umbilicate *Niso*
Base not umbilicate..... 6
6. Outline ovate*Turveria*
Outline conic to slenderly tapering..... 7
7. Periphery with a keel.....*Scalenostoma*
Periphery rounded, not keeled..... 8
8. Slender, many-whorled; aperture elongate.....*Eulima*
Blunt, relatively few-whorled; aperture short..... 9
9. Whorls inflated*Sabinella*
Whorls flat-sided10
10. Inner lip smoothly appressed to body whorl.....*Balcis*
Inner lip slightly elevated from body whorl.....*Eulimostraca*

now Melanella

Key to Californian and Panamic
genera (ex Keen, 1971)

Genus *Melanella* Bowdich, 1822

Shell elongate, white, with an oily, glossy surface. Whorls numerous, slightly convex. Apex sometimes bent to one side. Not umbilicated. *Eulima* Risso, 1826, is a synonym. Type: *dufresnii* Bowdich, 1822 (is *arcuata* Sowerby?). There are many named forms in this group, and their speciation is in need of revision. Some are parasites of holothurians, starfish and sea urchins.

Melanella micans (Carpenter, 1864) 1338
Carpenter's Melanella

Alaska to Baja California.

9 to 12 mm., rather straight, elongate, with about 15 flattened whorls. Parietal wall covered with a moderately thick glaze. Common; 1 to 30 fathoms.

(1339) The subspecies *borealis* Bartsch, 1917, occurring from Kodiak Island, Alaska, to Vancouver Island, British Columbia, is uniformly more slender. 12 whorls; length 11.3 mm.; width 3.3 mm.

Melanella rutila (Carpenter, 1864) 1340
Rutila Melanella

Vancouver Island to Baja California.

6 to 7 mm., straight, slender, polished. Periphery of the last whorl rounded, the base sloping in such a way as to lend the left outline a somewhat flattened appearance. Parietal wall with weak callus. Common; on starfish from 1 to 360 fathoms.



Other Pacific species:

1365 *Melanella (Balcis) montereyensis* (Trinidad to Monterey Bay), 5 mm.; *peninsularis* (1366) (San Diego to Magdalena Bay Baja California) 5 mm.; *lastra* (1367) (San Pedro to Magdalena Bay); *columbiana* (1368) (Baranoff Island, Alaska, to Departure Bay, British Columbia) 9.5 mm.; *comoxensis* (1369) (Comox Vancouver Island, British Columbia) 7 mm.; *macra* (1370) (Departure Bay to Seattle, Wash.) 7.5 mm.; *berryi* (1371) (Monterey Bay to Catalina Island, Calif.); *grippi* (1372) (San Pedro, Calif. to Point Abreojos, Baja Calif.) 8 mm.; *catalinensis* (1373) (San Rosa Island, Calif., to San Hipolito Point, Baja California) all Bartsch, 1917, *Proc. U.S. Nat. Mus.*, vol. 53.

1374 *Melanella (Balcis) thersites* Carpenter, 1864. Monterey California, to San Geronimo Island, Baja California. *M. bistorta* (Vanatta, 1899) and *M. lowei* (Vanatta, 1899) are synonyms.

1375 *Melanella (Melanella) randolphi* Vanatta, 1899. Aleutian Islands to Puget Sound. 7 mm.

1376 *Melanella compacta* Carpenter, 1864. San Pedro, California, to Point Abreojos, Baja California. 7 mm.

1377 *Melanella (Melanella) mexicana* Bartsch, 1917. Gulf of California to Acapulco, Mexico. 6.4 mm.

1378 *Melanella (Melanella) oldroydi* (San Pedro to Point Abreojos, Baja California) 9 mm.; *californica* (1379) (Catalina Island and San Martin, California); *hemphilli* (1380) (San Diego, California, to Point Abreojos, Baja California) 8.3 mm.; *tacomaensis* (1381) (Tacoma, Wash.) 5 mm., all Bartsch, 1917, *Proc. U.S. Nat. Mus.*, vol. 53.

1382 *Melanella (Sabinella) monterosata*, 1890) *bakeri* Bartsch 1917. San Diego, California. 2.7 mm.

1383 *Melanella ptilocrinicola* (Bartsch, 1907). Off British Columbia, 1,588 fms. 9.5 mm. Parasitic on the crinoid, *Ptilocrinus pinnatus*.

1384 *Melanella rosa* Willett, 1944. Off Redondo Beach, California, 125 fms. *Bull. So. Calif. Acad. Sci.*, vol. 43, p. 72.

1385 *Melanella (Balcis) titubans* (S. S. Berry, 1956). Anacapa Island, California, 46 to 58 fms. *Jour. Wash. Acad. Sci.*, vol. 46 p. 155.

1386 *Melanella (Balcis) delmontensis* (A. G. Smith and M. Gordon, 1948). Off Del Monte, California, 10 fms. *Proc. Calif. Acad. Sci.*, series 4, vol. 26, p. 219. 4.5 mm.

Genus *Strombiformis* Da Costa, 1778

Shell small, transparent, elongate, glossy, with an umbilical depression. Type: *glabra* (Da Costa, 1778). *Leiostraca*

H. and A. Adams, 1853, is a synonym. The genus name is masculine.

Strombiformis californicus Bartsch, 1917
Californian Melanella

1395

Catalina Island to San Diego, California.

11 mm., with 13 flat-sided whorls. Elongate, narrow, polished. Early whorls yellowish white, succeeding ones light-brown, marked with a dark-brown band at the periphery. A second band occurs a little below the middle of the whorl. Outer lip edged with brown. Pale-brown growth streaks present on whorls. Parietal wall callused. Uncommon; 14 to 60 fathoms.

Strombiformis almo Bartsch, 1917
Almo's Melanella

1396

Santa Rosa Island to San Diego, California.

7 mm., broadly elongate-conic, polished, whitish with a broad chestnut-brown band around the middle of the whorls. 10 whorls slightly convex. Uncommon; 53 to 113 fathoms on sandy mud bottom.

Genus *Niso* Risso, 1826

Shell flat-sided, acutely conic, with a glossy surface. Umbilicus deep. Outer lip simple. Operculum corneous, thin, transparent-tan. Type: *eburnea* (Risso, 1826), Pliocene of Italy. For a review of the Eastern Pacific species, see W. K. Emerson, 1965, *Amer. Mus. Novitates*, no. 2218.

Niso hipolitensis Bartsch, 1917

1413

Hipolito Niso

San Diego, California, to the Gulf of California.

3 mm., with 10 flat-sided whorls. Narrowly umbilicate. Apex yellowish white; base white with a broad median brown band. Anterior half of aperture white. Suture feebly impressed. Periphery of the last whorl angulated. Uncommon. See *Amer. Mus. Novitates*, no. 2218, figs. 9 and 10, by W. K. Emerson, 1965.

Other Pacific species:

1416 *Niso lomana* Bartsch, 1917. Santa Rosa Island to Point Loma, California.

Genus *Cythnia* Carpenter, 1864

Embedded in starfish. Similar to *Stilifer*, but the nuclear whorls are normal, not pupiform, and the operculum is multispiral. Type: *asteriaphila* Carpenter, 1857. *Cythna* is a misspelling. One United States species.

1427 *Cythnia albida* Carpenter, 1864. San Diego, southern California. Parasitic on starfishes.

1428 *Cythnia asteriaphila* Carpenter, 1864. Cape San Lucas, Baja California.

Abbott, 1974