

A NEW *FALSILYRIA* (VOLUTIDAE) AND A NEW *CONUS* (CONIDAE) FROM ROATAN ISLAND, HONDURAS (ATLANTIC)

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Recent increased collecting off the coast of Roatan Island, Honduras, (approximately 16°20'N, 86°15'W) has brought to light a number of unusual and atypical Caribbean gastropods. The fauna of this area, containing such species as *Falsilyria demarcoi* (Olsson, 1965), *Pleioptygma helenae* (Radwin and Bibbey, 1977), and *Turbinella scolymoides* (Dall, 1890) (E. Vokes, 1966), more closely resembles the fauna of the Pliocene Caloosahatchee Formation of Florida than it does the modern Caribbean Molluscan Province (E. Vokes, 1966:63). In essence, the molluscan assemblages of the Recent Bay of Honduras most probably represent pockets of Pliocene relicts that, in turn, derived from the Tertiary faunas of the southeastern United States.

The archaic nature of the Roatan Island fauna is further reinforced by the recent discoveries of the second known living species of *Falsilyria* and an unusual new species of shallow water *Conus*. These interesting new Caribbean gastropods are herein described.

FAMILY Volutidae

Genus *Falsilyria* Pilsbry and Olsson, 1954

Falsilyria morrisoni new species

(Figs. 1-6)

Shell description: Shiny, highly polished; body heavy, thickened, with 4 to 5 whorls; body whorl with 7 to 12 rounded major axial ribs and 30 to 60 sharply defined minor axial ribs; spire elevated, turriculate; shoulder angled with blunt coronations; spire whorls with 3 or 4 raised, beaded spiral cords; protoconch large, with 3 bulbous, smooth whorls; aperture elongate, roughly $\frac{2}{3}$ of total shell length; columella with 8 or 9 major plications and 3 to 6 minor plications; plications heavily beaded; outer lip thickened and flaring in adults; color of base of shell salmon-pink to rose-red with 6 to 8 evenly-spaced revolv-

ing bands of alternating black and white spots; base color overlaid with numerous fine red-brown specklings and scattered large dark brown blotches; protoconch salmon-orange; interior of aperture pale pinkish white turning white toward outer lip; columellar region and plications salmon-pink; outer lip white with 11 to 14 raised black denticulations; operculum unknown.

Type locality: 60 m depth off north coast of Roatan Island, Honduras.

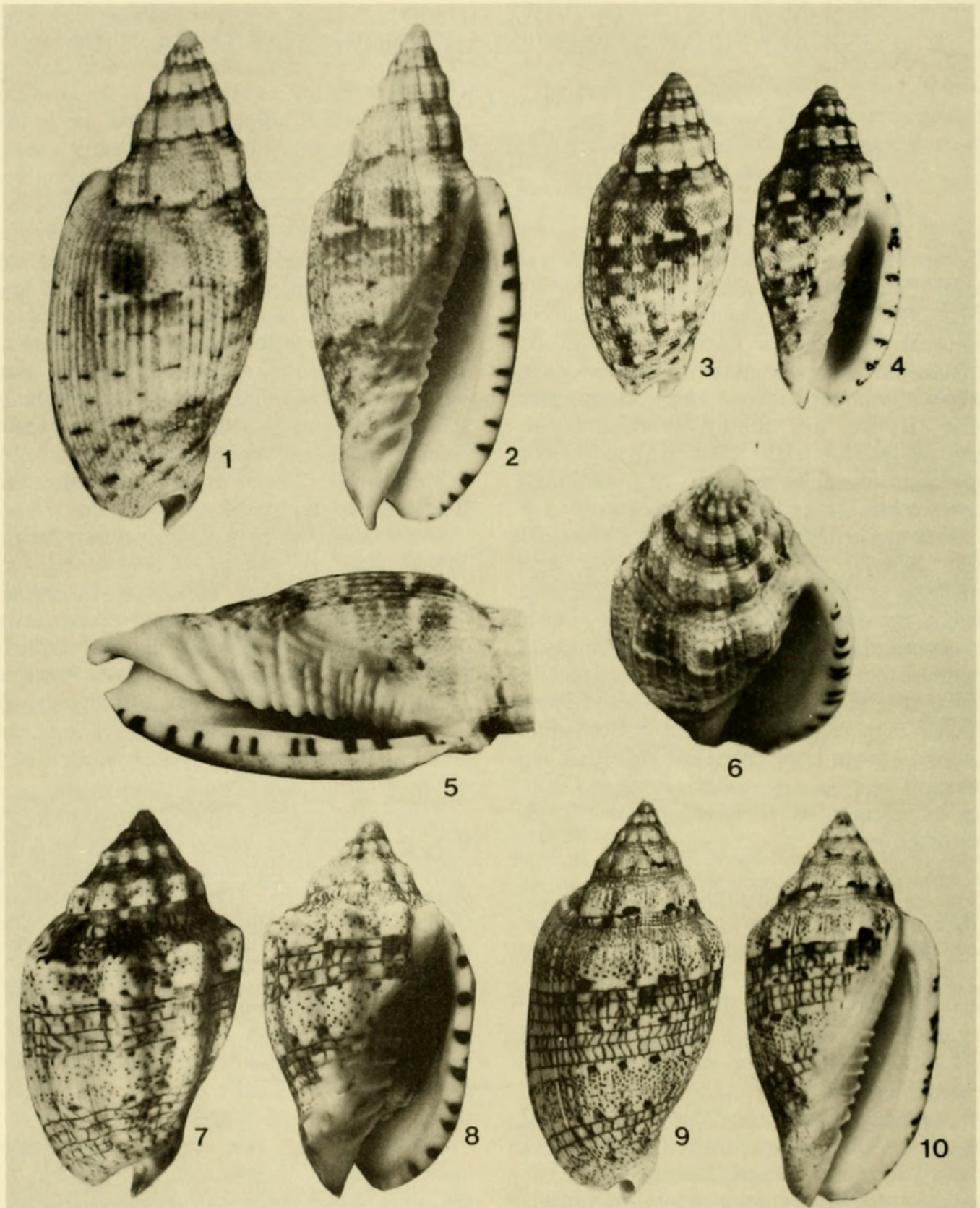
Distribution: At present, known only from off Roatan Island.

Material examined: Holotype—Length 73.4 mm, width 31.5 mm, 60 m depth off north coast of Roatan Island, Honduras, January, 1979, U.S. National Mus. Nat. Hist. No. 784485. Paratype—Length 45.4 mm, same depth, locality, and date as holotype, USNM 784486; Length 42 mm, same depth and locality as holotype, collection of Dr. Emilio F. Garcia, Lafayette, Louisiana.

Associated mollusks: Commonly taken with this species, in both lobster pots and shrimper's nets, are the following large gastropods; *Phalium granulatum* (Born, 1778), *Fusinus dowianus* Olsson, 1954, *Pleioptygma helenae*, *Falsilyria demarcoi*, *Conus cingulatus* Lamarck, 1810, *C. lorenzianus* Dillwyn, 1817, *C. spurius* Gmelin, 1791, and a large undescribed *Hindsiclava*.

Etymology: Named for Robert Morrison of Sarasota, Florida, who first recognized the species as new and who kindly donated the type material.

Discussion: The new volute is the second known living *Falsilyria* and is sympatric with the other living species, *F. demarcoi* (Figures 9 and 10) (S. Hoerle and E. Vokes, 1978:107). *Falsilyria morrisoni* differs from *F. demarcoi* by having a higher spire, more acutely angled shoulder, less numerous and heavily beaded columellar plications, and by having a larger protoconch.



FIGS. 1-10. 1, *Falsilyria morrisoni* n. sp. Dorsal aspect of holotype. USNM 784485. 2, *Falsilyria morrisoni* n. sp. Ventral aspect of holotype. USNM 784485. 3, *Falsilyria morrisoni* n. sp. Dorsal aspect of paratype. USNM 784486. 4, *Falsilyria morrisoni* n. sp. Ventral aspect of paratype. USNM 784486. 5, *Falsilyria morrisoni*, detail of columellar plications of

holotype. 6, *Falsilyria morrisoni*, detail of spire sculpture of holotype. 7, *Voluta musica* Linnaeus, 1758. 54 mm specimen from Carriacou, Grenadines. 8, *Voluta musica*. Ventral aspect of same specimen. 9, *Falsilyria demarcoi* (Olsson, 1965). 70 mm specimen from Roatan Island, Honduras. 10, *Falsilyria demarcoi*. Ventral aspect of same specimen.

The new species lacks the bright orange or peach base color that is characteristic of *F. demarcoi* (Olsson, 1965:663). The raised, beaded cords on the spire of *F. morrisoni* (Figure 6) also separate the new species from the smooth-spined *F. demarcoi*. The beaded columellar plications of *F. morrisoni* (Figure 5) more closely resemble the beaded plications of the fossil *F. mansfieldi* (Dall, 1916) (S. Hoerle and E. Vokes, 1978: pl. 4, figs. 4a, 5) than they do those of the living *F. demarcoi*. Conversely, the smoothly plicated *F. demarcoi* is closer to the fossil *F. anoptos* S. Hoerle and E. Vokes, 1978 than it is to the new species.

The genus *Falsilyria*, though resembling the genus *Voluta*, differs in having more numerous columellar plications, and in the case of *F. morrisoni*, beaded plications. As pointed out by Hoerle and Vokes (1978:107), the two genera represent parallel evolution from a common ancestral stock. *Voluta* s.s. is restricted to the southern Caribbean, both in Recent and fossil assemblages, while *Falsilyria* is known primarily from fossil deposits in the southeastern United States. The latter is now restricted to the northernmost Caribbean, specifically the Yucatan Peninsula and Gulf of Honduras areas. For comparison of the two genera, a typical specimen of *Voluta musica* Linnaeus, 1758 from Carriacou,

Grenadines, Lesser Antilles, is shown in Figures 7 and 8.

FAMILY Conidae

Genus *Conus* Linnaeus, 1758

***Conus kulkulcan* new species**

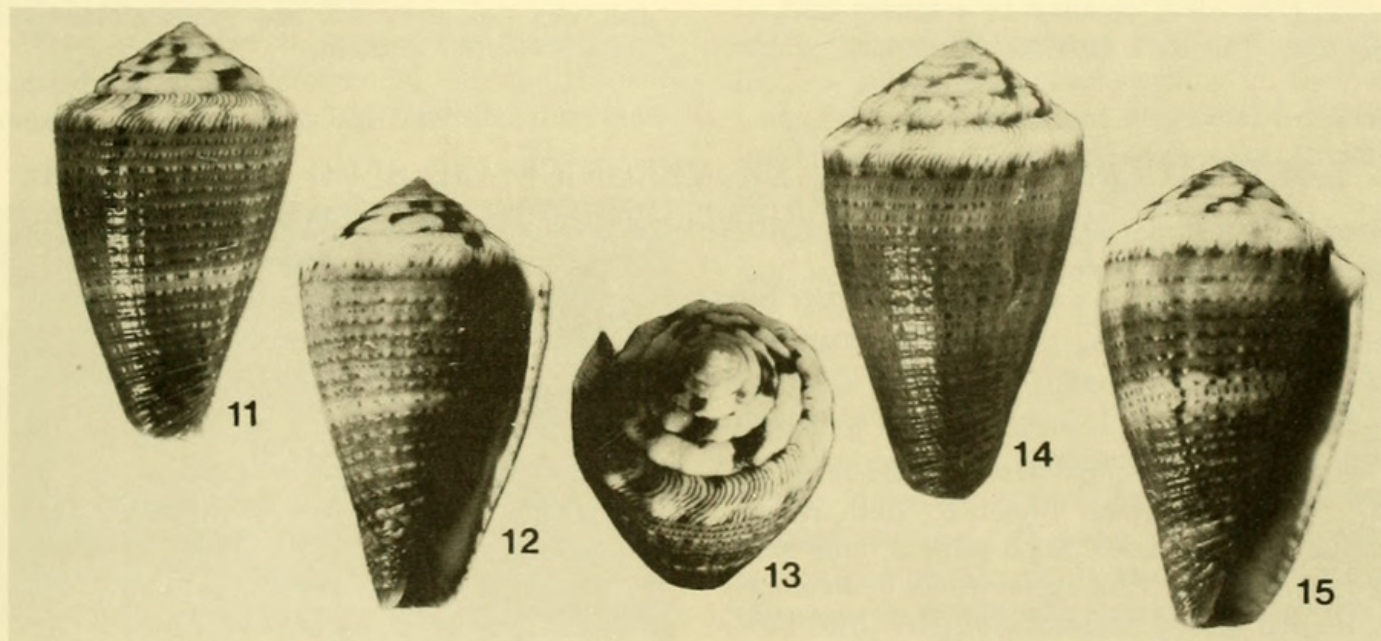
(Figs. 11-15)

Shell description: Squat, shiny, with strongly coronated shoulder; body with 6 whorls; shell sculptured with 15 to 20 raised, pustulated spiral cords, becoming coarser on anterior end; spire smooth; shell color blue-gray with two wide dark gray-brown bands, one above shell midline, one below; raised spiral cords white with fine brown dots and dashes; body midline with pale blue-gray band; anterior tip dark blackish brown; spire and early whorls bright pink; spire pure white with numerous red-brown radiating hair-lines; early spire whorls with large black-brown blotches; aperture deep blue-purple, becoming paler in interior; periostracum smooth, translucent yellow.

Type locality: 2 m depth on north side of Roatan Island, Honduras.

Distribution: At present, known only from shallow water near Roatan Island.

Material examined: Holotype—Length 21.3 mm, width 12.2 mm, 2 m depth, north coast of



FIGS. 11-15. 11, *Conus kulkulcan* n. sp. Dorsal aspect of holotype. USNM 784487. 12, *Conus kulkulcan* n. sp. Ventral aspect of holotype. USNM 784487. 13, *Conus kulkulcan*, detail

of spire color pattern of holotype. 14, *Conus kulkulcan* n. sp. Dorsal aspect of paratype. 15, *Conus kulkulcan* n. sp. Ventral aspect of paratype.

Roatan Island, Honduras, January, 1979, U.S. National Mus. Nat. Hist. No. 784487; Paratype—Length 22 mm, same depth, locality, and date as holotype, in my collection.

Ecology: The new species was found in sand underneath large coral boulders in 2 m of water near the shoreline. Other mollusks found with *Conus kulkulcan* included the gastropods *Morum oniscus* (Linnaeus, 1767), *Muricopsis schrammi* (Crosse, 1863), and *Vexillum dermestinum* (Lamarck, 1811), and the spinose polyplacophoran *Craspedochiton hemphilli* (Pilsbry, 1893).

Etymology: Named for Kulkulcan, feathered snake god of the Mayans. Like his nautical equivalent, Quetzalcoatl, Kulkulcan was often associated with the sea. Since Roatan was a Mayan trading center in precolumbian times, the taxon honors the indian sea god.

Discussion: At first glance, *Conus kulkulcan* would not be taken for a Caribbean species, so unusual is the color pattern. With the white coronated shoulder, blue-gray body color, black anterior tip, and deep blue aperture, the new species very closely resembles *Conus parvulus* Link, 1807 and *C. imperator* Woolacott, 1956 from the Indo-Pacific region. Small specimens of *C. biliosus* Röding, 1798 from India also resemble *C. kulkulcan*.

In the western Atlantic, only *Conus mus* Hwass, 1792, could possibly be confused with *C. kulkulcan*. The dark hairline flammules on the

spire (Figure 13) and the purple-blue aperture, however, easily separate the new species from the well-known and similarly colored *C. mus*. *Conus kulkulcan* appears to be related to the West Indian *Conus magellanicus* Hwass, 1792—*C. cardinalis* Hwass, 1792, species complex and is the only known Central American representative of this group of small, rock-dwelling cones.

ACKNOWLEDGMENTS

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LAEVICAULIS HAROLDI, A NEW VERONICELLID SLUG FROM NATAL, SOUTH AFRICA (GASTROPODA: PULMONATA)

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While collecting amphibians on December 23, 1977, in Durban, Natal Province, South Africa, Dr. Harold A. Dundee found some strange-looking organisms on living *Typha* leaves in an empty lot. He and a local herpetologist, Mr. Lynn Raw, originally thought they were lepidopteran larvae. Only after being collected did they extend the body and tentacles so as to be recognizable by me

as veronicellid slugs. I have worked with Veronicellidae for years and these are the most bizarre ones I have ever seen. Only six specimens could be found despite an intensive effort by all three of us. This author is indebted to Mr. Raw for taking us to that locality in the course of the day's collecting.

Pictures of the living slugs were taken im-



1980. "A new Falsilyria (Volutidae) and a new Conus (Conidae) from Roatan Island, Honduras (Atlantic)." *The Nautilus* 94, 115–118.

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