

New Species of *Jaspidiconus* (Conidae: Conilithinae) from the Carolinian and Caribbean Molluscan Provinces

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ABSTRACT Seven new species of the western Atlantic endemic genus *Jaspidiconus* Petuch, 2004 are described from the Carolinian and Caribbean Molluscan Provinces. These new taxa include: *J. chaac* and *J. ixchel*, which are restricted to the eastern Yucatan Peninsula of Mexico (Yucatanian Subprovince of the Carolinian Molluscan Province); *J. chinchorroensis*, which is endemic to the Banco Chinchorro Atoll off Quintana Roo State, Mexico (Antillean Subprovince of the Caribbean Molluscan Province); *J. lusca*, which is endemic to the Turks and Caicos Islands (Antillean Subprovince of the Caribbean Molluscan Province); *J. kellyae*, which is endemic to the San Blas Islands of northern Panama (Nicaraguan Subprovince of the Caribbean Molluscan Province); *J. tayrona*, which is endemic to northern Colombia (Venezuelan Subprovince of the Caribbean Molluscan Province); and *J. booti*, which is endemic to Aruba (Grenadian Subprovince of the Caribbean Molluscan Province).

KEY WORDS Cone Shell, Conidae, Conilithinae, *Jaspidiconus*, Carolinian Molluscan Province, Caribbean Molluscan Province.

INTRODUCTION

The cone shell genus *Jaspidiconus* Petuch, 2004 is of particular interest, biogeographically and evolutionarily, in that it is completely restricted to the tropical and subtropical western Atlantic, both in the Recent fauna and in the fossil record (Petuch, 2004). This American endemic genus ranges throughout the Carolinian, Caribbean, and Brazilian Molluscan Provinces and has undergone an extensive species radiation since the mid-Pleistocene. Of this large species swarm, only one, *Jaspidiconus mindanus* (Hwass, 1792), is wide-ranging, occurring in all three western Atlantic Molluscan Provinces. This pan-provincial distribution indicates that *J. mindanus* has a long-lived planktotrophic

veliger, allowing it to disperse throughout the Tropical Western Atlantic Region. All of the other *Jaspidiconus* species have very limited distributions, with most being found only on isolated islands, reef complexes, or offshore banks, indicating that they have direct development and do not disperse throughout the region. This discovery led the second author (Berschauer, 2015) to compare the western Atlantic *Jaspidiconus* species radiation with the non-dispersing *Africonus* Petuch, 1974 species radiation from the Cape Verde Islands off West Africa (the largest single cone shell radiation currently recorded in the world).

Based upon recent research by several cone shell workers (Petuch and Sargent, 2011;

Poremski, 2014; Tucker, 2015; Berschauer, 2015; Petuch, Berschauer, and Poremski, 2015; Petuch, Berschauer, and Poremski, 2016), 35 species of *Jaspidiconus* are now known from the Carolinian and Caribbean Molluscan Provinces and more than 25 additional species are known from the Brazilian Molluscan Province (outside the scope of this paper). This makes the genus the largest-known and most species-rich group of cones in the western Atlantic. Since the descriptions of all of these taxa, we have received, or personally collected (André Poremski), seven additional new species, all from the Carolinian and Caribbean Molluscan Provinces. These are described in the following sections and listed here by biogeographical unit:

Carolinian Molluscan Province
(biogeographical designations taken from Petuch, 2013)

Yucatanian Subprovince

Jaspidiconus chaac new species

Jaspidiconus ixchel new species

Caribbean Molluscan Province

Antillean Subprovince

Jaspidiconus chinchorroensis new species

Jaspidiconus lusca new species

Nicaraguan Subprovince

Jaspidiconus kellyae new species

Venezuelan Subprovince

Jaspidiconus tayrona new species

Grenadian Subprovince

Jaspidiconus booti new species

The high level of biodiversity of the genus *Jaspidiconus*, including these seven new species, will be discussed in an up-coming book on worldwide marine molluscan biogeography (Petuch, Berschauer, and Myers, CRC Press).

SYSTEMATICS

We here follow the newest systematic arrangement for the Conoidea (Uribe, Puillandre, and Zardoya, 2017; Bouchet, personal communication), which recombines the family Conilithidae Tucker and Tenorio, 2009 with the family Conidae. The conilithids are here considered to belong to a subfamily (Conilithinae) within the family Conidae. The holotypes of the following new taxa are deposited in the type collection of the Department of Malacology, Los Angeles County Museum of Natural History, Los Angeles, California, and bear LACM numbers.

Class Gastropoda

Subclass Orthogastropoda

Superorder Caenogastropoda

Order Sorbeoconcha

Infraorder Neogastropoda

Superfamily Conoidea

Family Conidae

Subfamily Conilithinae

Genus *Jaspidiconus* Petuch, 2004

New Species from the Yucatanian Subprovince (Carolinian Molluscan Province)

Jaspidiconus chaac Petuch, Berschauer and Poremski new species
(Figure 1A)

Description: Shell small for genus, stocky and rotund, broad across shoulder; spire distinctly pyramidal, with highly sloping whorls, and with whorls being rounded and convex; shoulder rounded, without distinct angle or carina; body whorl smooth and polished, ornamented with 10-12 deeply-incised and widely-separated spiral sulci around anterior half; shell color pale pinkish-tan, overlaid with dense network of

amorphous small reddish-tan flammules; 2 broad bands of darker reddish-brown flammules encircle body whorl near mid-body, with narrow pale pink band separating both; spire whorls marked with dark reddish-tan, widely-separated and evenly-spaced crescent-shaped flammules; flammules on last spire whorl extend over shoulder angle; aperture proportionally wide, becoming larger toward anterior end; interior of aperture pale cream within interior; protoconch exerted, proportionally large, bulbous, mammilate, composed of 2 whorls, white in color.

Type Material: HOLOTYPE: length 14.5 mm, width 8.0 mm, from off Playa del Carmen, Quintana Roo, Mexico, LACM 3478; Other material examined: length 15.0 mm, width 9.0 mm, from the same locality as the holotype, in the research collection of the senior author.

Type Locality: 2.5 m depth off Playa del Carmen, Quintana Roo State, Mexico (Yucatan Peninsula). Collected by André Poremski, 2017.

Range: At present, known only from the northeastern coast of the Yucatan Peninsula and Quintana Roo State, Mexico.

Ecology: The new species prefers open hard limestone sea floors, covered with coral rubble and carbonate silt and devoid of vegetation, in 2-3 m depths (data from André Poremski).

Etymology: Named for Chaac, the Mayan rain god.

Discussion: With its stocky, inflated body whorl and rounded shoulder, *Jaspidiconus chaac* most closely resembles *J. anaglypticus* (Crosse, 1865) from Puerto Rico and the Greater Antilles (Antillean Subprovince, Caribbean Province), but differs in being a smoother, less sculptured shell that lacks the

strong pustules that characterize its congener. The two congeners also differ greatly in color; with *Jaspidiconus anaglypticus* being a uniformly bright orange or yellow-orange shell, while the Yucatan *J. chaac* has a much more subdued color scheme of pale pink and reddish-tan. The species name for this newly-discovered cone, and that of the next new species, are taken from the Mayan pantheon.

Jaspidiconus ixchel Petuch, Berschauer
and Poremski new species
(Figure 1 B)

Description: Shell small for genus, stocky, with sharply-angled, carinated shoulder and distinctly stepped, scalariform spire; body whorl shiny and polished, ornamented with 15-18 strong, deeply-incised spiral sulci over entire surface, giving shell rough texture; shell color pale violet-purple with pink overtones, overlaid with 18 spiral rows of small brown dots and dashes and with large, scattered amorphous dark brown flammules, mostly arranged in a band around mid-body; anterior canal lighter in color than body whorl; spire whorls marked with row of tiny, evenly-spaced dark brown dots along suture and with widely-scattered larger dark brown spots on edge of shoulder and along shoulder carina; aperture wide, becoming wider toward anterior end, colored deep reddish-brown within interior; protoconch mammilate, protracted, composed of 2 whorls.

Type Material: HOLOTYPE: length 18.3 mm, width 9.9 mm, from off Isla Mujeres, Quintana Roo, Mexico, LACM 3479; Other material examined: 2 specimens, lengths 15.0 mm and 16.0 mm, from the same locality as the holotype, in the research collection of the senior author; length 14.0 mm, width 6.9 mm, same locality as the holotype, in the Berschauer research collection; 4 specimens, length 15.5 mm, same

locality as the holotype, in the Poremski research collection.

Type Locality: Found in 2 m depth off Isla Mujeres, Quintana Roo State, Mexico. Collected by André Poremski, 2017.

Range: At present, known only from Isla Mujeres, Quintana Roo, Mexico, and probably endemic to the island.

Ecology: The new species prefers a hardpan limestone seafloor covered by thick layers of fine carbonate sand and dense growths of brown algae, in 1-2 m depths (data from André Poremski).

Etymology: Named for Ixchel, the Mayan goddess of the moon and fertility.

Discussion: With its sharply-angled and carinated shoulder, distinctly stepped spire, and pale purple, violet, and pink base color, *Jaspidiconus ixchel* somewhat resembles another Carolinian Molluscan Province cone, *J. pfluegeri* Petuch, 2004 from the Georgian Subprovince and the northern Florida Keys. The new Yucatecan Subprovince species differs from its eastern Floridian congener in being a consistently smaller, broader, and stockier shell with a proportionally lower spire.

New Species from the Antillean Subprovince (Caribbean Molluscan Province)

[This subprovince encompasses the atolls and Great Barrier Reef complex off Belize and Quintana Roo, Mexico, the southern coast of Cuba, and the islands of the West Indian Arc.]

Jaspidiconus chinchorroensis Petuch,
Berschauer and Poremski new species
(Figure 1C)

Description: Shell small for genus, inflated, fusiform, with distinctly rounded, convex sides; spire pyramidal, with sloping and slightly scalariform whorls; shoulder sharply-angled; body whorl completely ornamented with extremely strong sculpture composed of 14-16 spiral rows of proportionally-large rounded pustules; shallow incised spiral groove present between rows of pustules; shell color white or pale cream-white, often with scattered very faint pale orange-cream amorphous flammules; aperture wide, enlarging toward anterior end, colored pale yellow or orange-yellow within interior; protoconch white, highly protracted and exerted, mammilate, rounded, composed of 2 whorls.

Type Material: HOLOTYPE: length 16.5 mm, width 8.8 mm, from Banco Chinchorro Atoll, Quintana Roo, Mexico, LACM 3480; Other material examined: 3 specimens, lengths 17.0 mm, 18.0 mm, and 18.0 mm, from the same locality as the holotype, in the research collection of the senior author; length 16.2 mm, width 7.8 mm, same locality as the holotype, in the Berschauer research collection; 3 specimens, lengths 16.0 mm, and 17.0 mm, in the Poremski research collection.

Type Locality: The type lot was collected in the main lagoon of Banco Chinchorro Atoll, off the coast of Chetumal, Quintana Roo, Mexico. Collected by Neal Deynzer, 1992.

Range: The new species has only been collected on Banco Chinchorro and is presumed to be endemic to the atoll.

Ecology: *Jaspidiconus chinchorroensis* prefers a clean carbonate sand substrate, at 1- 4 m

depths. Here, the new species occurs together with another Banco Chinchorro endemic cone, the rarely-seen *Cariboconus deynzerorum* (Petuch, 1995).

Etymology: Named for Banco Chinchorro Atoll, to which the new cone is endemic.

Discussion: Of the known pustulated *Jaspidiconus* species, *J. chinchorroensis* is most similar to three other species; *J. nodiferus* (Kiener, 1845) (Figure 1E) from the southern Bahamas and West Indian Arc, *J. verrucosus* (Hwass, 1792) (Figure 2D) from the northern and western Bahamas, and *J. jaspideus* (Gmelin, 1791) (Figure 2E; type of the genus *Jaspidiconus*) from the southern Caribbean (Panama, the islands off Venezuela, and Trinidad and Tobago). Of these, the new species is most similar, in color and shape, to *J. nodiferus*, but differs in being a smaller shell with a different arrangement of pustule rows. In *J. chinchorroensis*, the pustules are aligned on a smooth, wide band bordered by a deep furrow or sulcus on either side. In *J. nodiferus*, the pustules are arranged along a raised spiral cord and there is no deep sulcus between the rows. The deep yellow aperture color of the new species also separates it from *J. nodiferus*, which has a white aperture. Likewise, *J. jaspideus* and *J. verrucosus* also have their pustules arranged along raised spiral cords and also lack a deep sulcus between the pustulated cords. They are also much larger and more colorful species, most often having base colors of cream-white and pale violet overlaid with very large, prominent, amorphous brown flammules. These shell characters have not been seen in *J. chinchorroensis*, which seems to have very little variation in color.

Jaspidiconus lusca Petuch, Berschauer
and Poremski new species
(Figure 1D)

Description: Shell small for genus, very stocky and rotund, inflated, wide across shoulder, with slightly convex sides; spire distinctly pyramidal, slightly scalariform; shoulder sharply angled, bordered by distinctive undulating carina, producing coronated appearance; body whorl polished and shiny, sculpted with 10-12 deeply incised spiral sulci around the anterior one-half of shell; smaller secondary sulci present on cords formed by pairs of primary sulci; shell base color white or pale cream-white, overlaid with 18-20 spiral rows of small reddish-brown dots; some specimens with scattered large patches of dark reddish-brown; shoulder carina marked with widely-spaced small brown dots along edge, corresponding to depressions in carina undulations; aperture proportionally wide, becoming wider toward anterior end, pale yellow color within interior; protoconch white, proportionally large, mammilate, composed of 2 whorls.

Type Material: HOLOTYPE: length 15.3 mm, width 8.4 mm, from Providenciales Island, Turks and Caicos Islands, LACM 3481; Other material examined: length 17.0 mm, width 10.0 mm, from the same locality as the holotype, in the research collection of the senior author; length 16.3 mm, width 8.6 mm, same locality as the holotype, in the Berschauer research collection; 3 specimens.

Type Locality: In 3 m depth on sand near patch reef, off the northern end of Providenciales Island ("Provo Island"), Turks and Caicos Islands. Collected by André Poremski, 2009.

Range: Known only from the Turks and Caicos Islands, in the vicinity of Providenciales Island.

Ecology: *Jaspidiconus lusca* prefers coarse carbonate sand patches between sparse Turtle Grass and small patch reefs of living corals, in 2-3 m depths (data from André Poremski).

Etymology: Named for the Lusca, a Bahamian and Turks and Caicos mythological sea monster, half octopus and half moray eel, that is said to drag unwary fishermen into blue holes.

Discussion: Of the known northern Caribbean *Jaspidiconus* species, *J. lusca* is closest to *J. oleiniki* Petuch, 2013 from the Bimini Chain of the western Great Bahama Bank. Both species share the same broad, stocky shape and pale color pattern, but *J. lusca* differs in being a more heavily-sculptured shell, having numerous strong spiral sulci around the body whorl, in having an undulating shoulder carina and a coronated appearance, and in having numerous rows of small brown dots on the body whorl.

New Species from the Nicaraguan Subprovince (Caribbean Molluscan Province)

Jaspidiconus kellyae Petuch, Berschauer
and Poremski new species
(Figure 2A)

Description: Shell of average size for genus, elongated and fusiform, with high protracted and scalariform spire; shoulder sharply-angled, bordered with small, well-defined carina; body whorl smooth and polished, sculpted with 12-16 thin, deeply-incised spiral sulci around anterior two-thirds of shell; shell base color bright salmon-pink or salmon-orange; body whorl with wide band of paler salmon-pink or pinkish-white around mid-body, bordered anteriorly and posteriorly by 2 wide bands of dark reddish-brown amorphous flammules; mid-body band characteristically devoid of any brown markings; spire whorls heavily marked with large, evenly-spaced amorphous reddish-brown flammules;

aperture wide, colored deep salmon-pink within interior; protoconch proportionally large, bulbous and mamillate, composed of 2 whorls, pale salmon-pink in color.

Type Material: HOLOTYPE: length 20.8 mm, width 9.7 mm, from 40 m depth of the Farallones Islands, Portobello, Panama, LACM 3482; Other material examined: 4 specimens, lengths 18-20 mm, from the same locality as the holotype, in the research collection of the senior author; length 19.0 mm, width 8.9 mm, same locality as the holotype, in the Berschauer research collection; 4 specimens, lengths 10.0 mm, 20.5 mm, and 21.0 mm, same locality as the holotype, Poremski research collection.

Type Locality: Dredged from 40 m depth off the Farallones Islands, Portobello, Panama. Collected by James Ernest, 2006.

Range: At present, known only from the deeper offshore areas of northern Panama, in the vicinity of Portobello.

Ecology: *Jaspidiconus kellyae* prefers fine silty sand sea floors, in depths of 40-50 m (data from James Ernest, 2006).

Etymology: Named for Kelly McCarthy, wife of André Poremski; inspired naturalist, photographer, and diver.

Discussion: With its large size, narrow shape, and high spire, *Jaspidiconus kellyae* resembles only one other species from the southern Caribbean, *J. jaspideus*, the type of the genus (Figure 2E). The new Panamanian species differs from the genotype in being a much smoother and unornamented shell, lacking the characteristic strong pustules seen on *J. jaspideus*. The shell color of the new species is relatively invariant, being consistently a bright salmon-pink on all specimens examined. This

contrasts with the pale violet base color of *J. jaspideus*, which also has a more ornate pattern of undulating brown flammules on the body and spire whorls.

New Species from the Venezuelan Subprovince (Caribbean Molluscan Province)

Jaspidiconus tayrona Petuch, Berschauer
and Poremski new species
(Figure 2C)

Description: Shell small for genus, fusiform and distinctly biconic, with length of spire whorls being approximately same as length of body whorl; shoulder sharply-angled, bordered by large raised carina, producing distinctly canaliculated spire whorls; body whorl shiny and polished, sculpted with 10-12 deeply-incised spiral sulci around the anterior half; shell base color deep blue-purple or purple-brown, with lighter unmarked band around mid-body; pale band bordered posteriorly and anteriorly by 2 wide bands of large brown checker-like spots and faint patches; spire whorls paler blue in color, with only few very widely-spaced, small brown spots, turning pale reddish-tan on earliest whorls; aperture narrow, colored deep purple-brown within interior; protoconch pale reddish-brown in color, proportionally large and bulbous, mammilate, composed of 2 whorls.

Type Material: HOLOTYPE: length 16.9 mm, width 8.0 mm, off Tayrona National Park, Magdalena Province, Colombia, LACM 3483; Other material examined: length 18.0 mm, width 10.0 mm, from the same locality as the holotype, in the research collection of the senior author; length 17.0 mm, width 8.7 mm, same locality as the holotype, in the Berschauer research collection..

Type Locality: Found on coarse sand and coral rubble, in 1.5 m depth, off Tayrona National Park, Magdalena Province, Colombia (collected by Erique Yidi, 2007).

Range: Known only from the Tayrona National Park area of northern Colombia.

Ecology: *Jaspidiconus tayrona* prefers open coarse sand and rubble sea floors in 1-2 m depths (data from Enrique Yidi).

Etymology: Named for the Tayrona (or Tairona) people of northern Colombia, who formed a rich and advanced civilization between 200 and 1600 A.D.

Discussion: With its biconical shape, distinctive canaliculate spire whorls, and purple-blue shell color, *Jaspidiconus tayrona* resembles no other known Caribbean *Jaspidiconus* species. This small shell appears to have evolved in a completely isolated area along northern Colombia and has taken on an unusual shell shape not seen in any other congener.

New Species from the Grenadian Subprovince (Caribbean Molluscan Province)

Jaspidiconus booti Petuch, Berschauer
and Poremski new species
(Figure 2B)

Description: Shell small for genus, stocky, inflated, wide across shoulder, with distinctly convex sides; spire subpyramidal, with slightly stepped whorls; shoulder sharply-angled, bordered with small, thin raised carina; body whorl shiny, completely sculpted by 18-20 deeply-incised, evenly-spaced spiral sulci; shell areas between pairs of sulci slightly raised, producing broad, low cord and with each cord containing a line of low, almost obsolete

rounded pustules; shell base color pale yellowish-white or pale orange, overlaid with scattered large amorphous darker orange flammules and blotches; spire whorls marked with widely-separated dark orange crescent-shaped flammules; aperture wide, with dark yellow-orange color within the interior; protoconch proportionally large, bulbous, mammillate, composed of 2 whorls, pale yellow in color.

Type Material: HOLOTYPE: length 19.7 mm, width 10.5 mm, from off Malmok, Aruba, Dutch Caribbean, LACM 3484; Other material examined: 3 specimens, lengths 16-21 mm, from the same locality as the holotype, in the research collection of the senior author; length 17.6 mm, width 9.1 mm, same locality as the holotype, in the Berschauer research collection; length 16.0 mm, same locality as the holotype, in the Poremski research collection

Type Locality: From 2 m depth off Malmok, Aruba, Dutch Caribbean.

Range: Known only from the Malmok coast of Aruba, where it appears to be endemic.

Ecology: *Jaspidiconus booti* prefers clean coral sand sea floors in depths of 2-3 m.

Etymology: Named for Robert Boot of Aruba, diver and amateur naturalist, who collected the type lot of the new cone.

Discussion: Of the known Grenadian Subprovince *Jaspidiconus* species, the new Aruban cone is most similar to *J. arawak* Petuch and Myers, 2014 from Grenada and the Grenadines, Lesser Antilles. Although having the same basic shell structure and shell size, *Jaspidiconus booti* differs from *J. arawak* in being a less-elongated, broader, and stockier shell that is wider across the shoulder area. The

new Aruban shell is also a less-colorful species, lacking the bright pink and lavender shell colors that are typical of *J. arawak*. The new species is also similar to *J. vantwoudti* Petuch, Berschauer, and Poremski, 2015, from Arashi, Noord District, Aruba, but differs in being a much larger shell with a broader, stockier shell outline, in having a more sharply-angled shoulder with a distinct carina, in having less-sloping spire whorls, and in lacking the vibrant bright pink shell color that characterizes *J. vantwoudti*. Two endemic species of *Jaspidiconus* are now known to occur on Aruba, as well as *J. mindanus karinae* (Nowell-Usticke, 1968).

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REFERENCES

- Berschauer, D.P. 2015.** A comparison of adaptive radiation in Conidae and Conilithidae (Gastropoda: Conoidea) in the eastern and western Atlantic, together with an Iconography of the conilithid genus *Jaspidiconus*. *Festivus* 47(2):99-110.
- Petuch, E.J. 2013.** Biogeography and Biodiversity of Western Atlantic Mollusks. CRC Press, New York and Boca Raton. 234 pp.
- Petuch, E.J., D.P. Berschauer, and A. Poremski. 2015.** Additions to the Cone Shell Faunas of Australia and Aruba (Conidae, Conilithidae). *Festivus* 47(4):219-228.

Petuch, E.J., D.P. Berschauer, and A.

Poremski. 2016. Five New Species of *Jaspidiconus* (Conilithidae: Conilithinae) from the Caribbean Molluscan Province. *Festivus* 48(3):172-178.

Petuch, E.J. and D.M. Sargent. 2011. New Species of Conidae and Conilithidae from the Tropical Americas and Philippines, with notes on some poorly-known Floridian species. *Visaya* 3(3):37-58.

Poremski, A. 2014. Disentangling the Hidden Biodiversity of the Genus *Jaspidiconus*. *Festivus* 45(4):126-128.

Tucker, J.K. 2015. *Jaspidiconus*: what are the options? *Festivus* 47(4):250-254.

Uribe, J.E., N. Puillandre, and R. Zardoya. 2017. Beyond *Conus*: Phylogenetic relationships of Conidae based on complete mitochondrial genomes. *Molecular Phylogenetics and Evolution* 107:142-151.

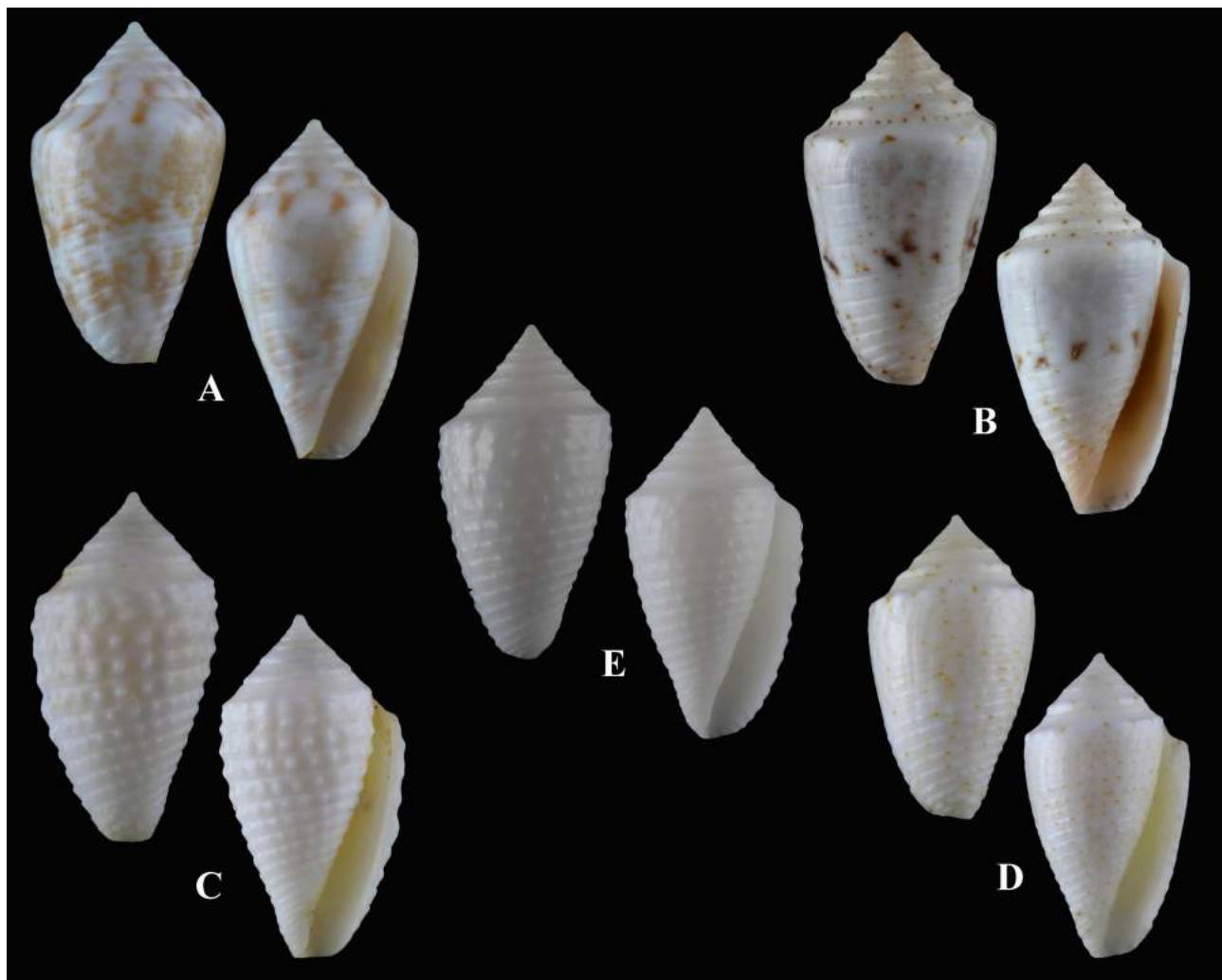


Figure 1. New Species of *Jaspidiconus* from the Carolinian and Caribbean Molluscan Provinces. A= *Jaspidiconus chaac* new species; dorsal and ventral aspects of the holotype, length 14.5 mm, Playa del Carmen, Quintana Roo State, Mexico; B= *Jaspidiconus ixchel* new species; dorsal and ventral aspects of the holotype, length 18.3 mm, Isla Mujeres, Quintana Roo State, Mexico; C= *Jaspidiconus chinchorroensis* new species; dorsal and ventral aspects of the holotype, length 16.5 mm, Banco Chinchorro Atoll, off Quintana Roo State, Mexico; D= *Jaspidiconus lusca* new species; dorsal and ventral aspects of the holotype, length 15.3 mm, Providenciales Island, Turks and Caicos Islands; E= *Jaspidiconus nodiferus* (Kiener, 1845); dorsal and ventral aspects of a 21.0 mm specimen, St. Maartin (for comparison with *J. chinchorroensis*).

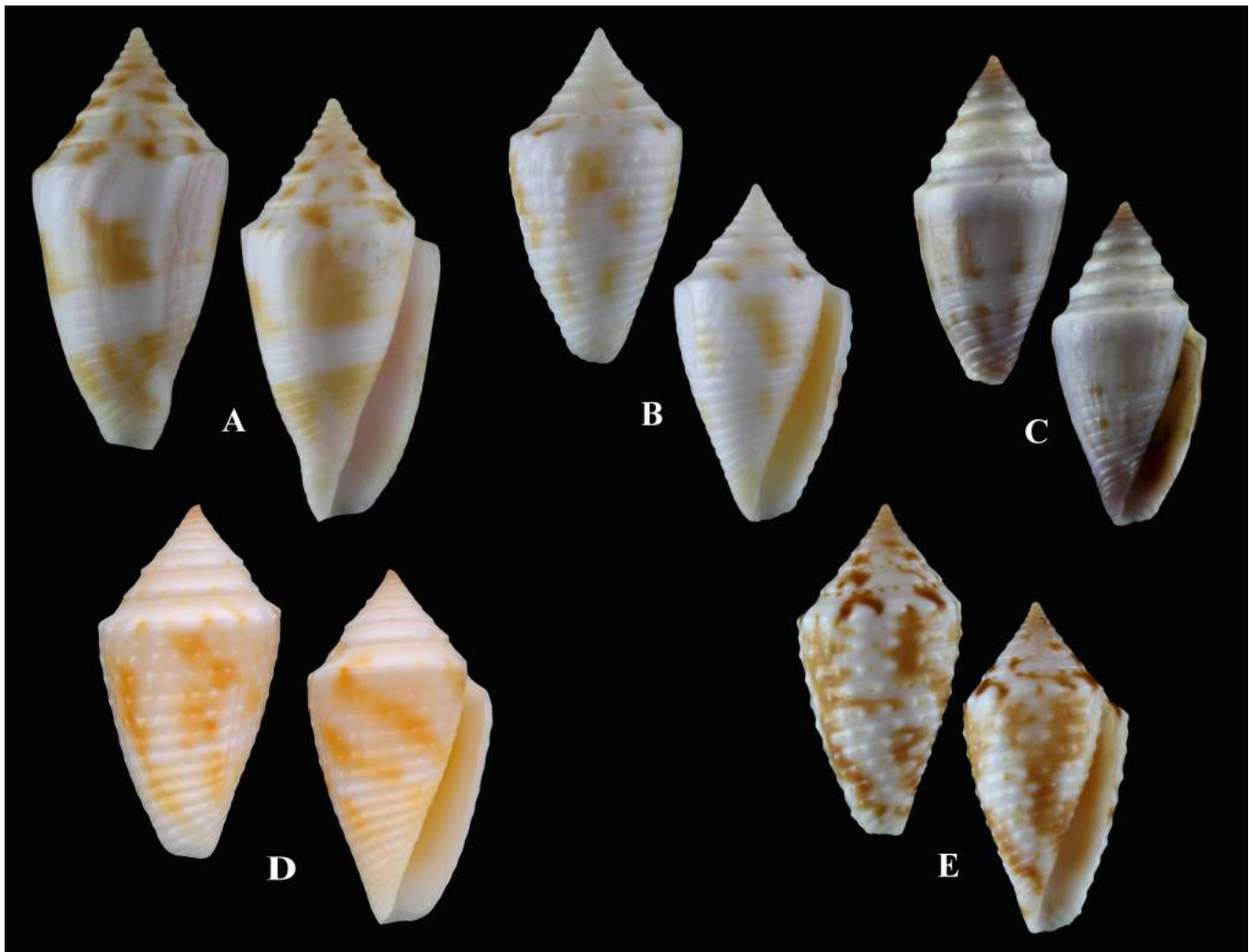


Figure 2. New Species of *Jaspidiconus* from the Caribbean Molluscan Province. **A**= *Jaspidiconus kellyae* new species; dorsal and ventral aspects of the holotype, length 20.8 mm, 40 m depth off the Farallones Islands, Portobello, Panama; **B**= *Jaspidiconus booti* new species; dorsal and ventral aspects of the holotype, length 19.7 mm, Malmok, Aruba, Dutch Caribbean; **C**= *Jaspidiconus tayrona* new species; dorsal and ventral aspects of the holotype, length 16.9 mm, Tayrona National Park, Magdalena Province, Colombia; **D**= *Jaspidiconus verrucosus* (Hwass, 1792); dorsal and ventral aspects of a 17.9 mm specimen, Cat Cays, Bimini, Bahamas (for comparison with *J. chinchorroensis*); **E**= *Jaspidiconus jaspideus* (Gmelin, 1791); dorsal and ventral aspects of a 18.0 mm specimen, San Blas Islands, Panama (for comparison with *J. kellyae*, *J. chinchorroensis*, and *J. booti*).