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## Studies on the Crustacea of the Turks and Caicos Islands, British West Indies. III. Records of Marine Isopoda from Pine Cay, Fort George Cay, Water Cay, and Adjacent Waters

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# STUDIES ON THE CRUSTACEA OF THE TURKS AND CAICOS ISLANDS, BRITISH WEST INDIES. III. RECORDS OF MARINE ISOPODA FROM PINE CAY, FORT GEORGE CAY, WATER CAY, AND ADJACENT WATERS.

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**ABSTRACT** Between April 1987 and April 1990, 45 species of marine isopods were collected from intertidal and subtidal habitats in the vicinity of Pine Cay, Turks and Caicos, British West Indies. Five species, *Licranthura tuberculata*, *Mesanthura spongicola*, *Califanthura minuta*, *Stenetrium caicosensis*, and *Armadilloniscus stepus*, are known currently only from the northeastern Turks and Caicos Islands. The Turks and Caicos collections represent considerable range extensions for many of the species collected. Four species, *Apanthura cracenta*, *Mesanthura punctillata*, *Carpias triton*, and *Munna petronastes*, known previously from the east coast of Central America (Belize), are reported for the first time since their description. This report also presents the first published records from outside of their respective type localities for *Amakusanthura signfica*, *Mexicope kensleyi*, *Carpias brachydactylus*, *Carpias serricaudus*, *Uromunna caribea*, *Stenetrium monocule*, and *Stenobermuda acutirostrata*. The other species reported, mostly flabelliferans, appear to be widely distributed in the tropical western North Atlantic and their occurrence in the Turks and Caicos was not unexpected.

## INTRODUCTION

Geologically the Turks and Caicos Islands, which are the northernmost islands in the British West Indies and located approximately 175 km north of Hispaniola, are part of the southeastern Bahamas. With the exception of a few scattered reports dealing with anchialine cave taxa (Buden & Felder 1977, Stock & Vermuelen 1982, Bowman et al 1985, and Kornicker & Iliffe 1985, Yager & Schram 1986), the crustacean fauna of Turks and Caicos Islands is poorly known.

This report and those of Kensley & Heard (1991) and Schotte & Heard (1991), which are published together in this journal number, are the first documentations of the marine isopod fauna of the Turks and Caicos Islands. The reports by Kensley and Heard (1991) and Schotte and Heard (1991) deal with the descriptions of four new marine subtidal species (*Licranthura tuberculata*, *Mesanthura spongicola*, *Califanthura minuta*, *Stenetrium caicosensis*) and a new intertidal oniscidean (*Armadilloniscus steptus*), respectively. The records for these species are also listed in this report. The marine isopods of the general Caribbean region and Bermuda have been treated by Kensley and Schotte (1989).

## MATERIALS AND METHODS

The material recorded herein was collected primarily by the second author along with other participants in the Turks and Caicos Coral Reef Ecology Program, in the environs of Pine Cay, Fort George Cay, Water Cay, and smaller nearby Cays in the northeastern Turks and Caicos Islands (see Figure 1). Subtidal collecting methods included the use of fine mesh kicknets, suction pumps (yabby pumps), an Ockelmann dredge, plankton nets, and light traps. SCUBA was also employed in the collection of subtidal specimens. Algal-coral-sponge washings and sediments were gently elutriated and sieved before preservation and sorting. Intertidal specimens were collected by hand. The material listed here has been deposited in the collections of the National Museum of Natural History, Smithsonian Institution. Additional material has been also deposited in the Museum of the Gulf Coast Research Laboratory.

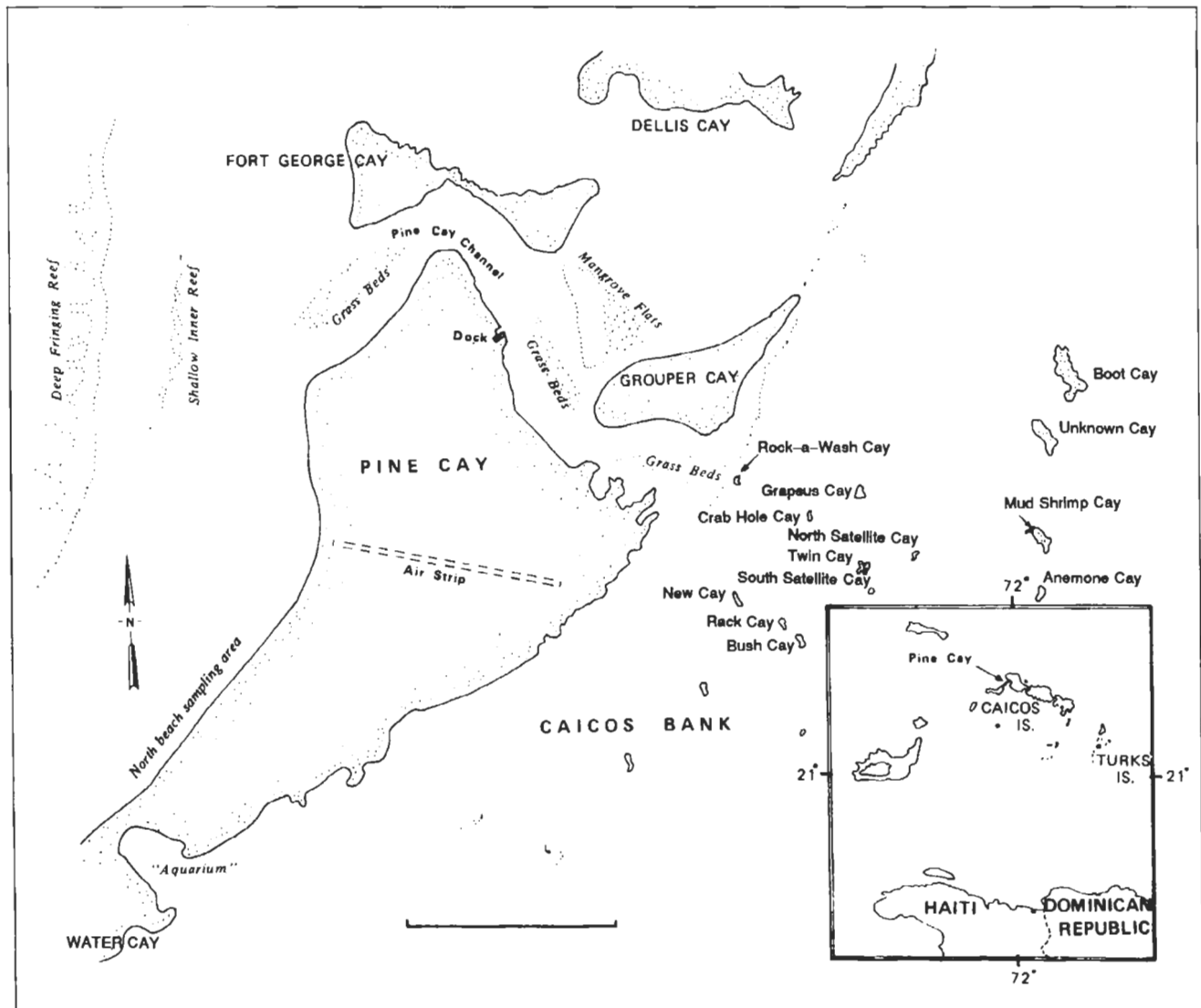


Figure 1. Map showing the collecting sites in the vicinity of the Pine Cay, Turks and Caicos Islands, British West Indies. Scale = 1 km

## RESULTS

We identified 45 distinct species of free-living or semi-parasitic marine isopods from collections made between April 1987 and April 1990 in marine habitats on, or in the vicinity of, Pine Cay, Fort George Cay, and Water Cay (Figure 1). These species represented 18 different families belonging to the suborders Anthuridea, Asellota, Flabellifera, Valvifera and Oniscidea. Parasitic species belonging to the suborders Epicaridea and Gnathiidea, and the flabelliferan family Cymothoidae were also collected, but are not treated in this report. The suborders, families, and species are arranged alphabetically in the following taxonomic listing of records.

## SUBORDER ANTHURIDEA Family Anthuridae

*Amakusanthura significa* (Paul and Menzies, 1971)  
**Material.** 11 females, Pine Cay, rubble bottom inside fringing reef, 4-5 m, 9 Apr 1989.  
**Previous Records.** Venezuela.

*Apanthura cracenta* Kensley, 1984  
**Material.** 3 females, New Cay, 13 Apr 1988. 3 females, Twin Cay, washings, ca. 1 m, 1 Nov 1988. 1 female, Rock-a-Wash Cay, orange sponge washings, 1 m, 30 Oct 1988. 1 female, Rack Cay, *Neogoniolithon* washings, 1 m, 31 Oct 1988. 1 male, 8 females, 8 juv., Rock-a-Wash Cay, 0.5-1 m, 30 Oct 1988. 2 females, inner fringing reef off Pine Cay, rubble bottom, 4-5 m, 3 Nov 1988. 1 female, Twin Cay, Ockelmann dredge, 1 Nov 1988. 1 female, off

Pine Cay, sand patch in outer reef, 33 m, 2 Nov 1988. 3 females, from "lamb's wool sponge" washings, Mud Shrimp Cay, 17 April 1988.

**Previous Records.** Carrie Bow Cay, Belize

*Apanthura cf. crucis* (Barnard, 1925)

**Material.** 1 male (premale), Rack Cay, 12 Apr 1988.

**Previous Records for *A. crucis*.** St. Croix, U. S. Virgin Islands.

**Remarks.** As the single specimen is a premale, the change from premale to male is incomplete, making specific identification uncertain.

*Eisothistos petrensis* Kensley, 1984

**Material.** 1 female, Pine Cay, *Neogoniolithon* washings, 0.5 m, 16 Apr 1988.

**Previous Records.** Florida, Belize, U. S. Virgin Islands.

*Licranthura tuberculata* Kensley & Heard, 1991

**Material.** 1 male, 1 female, deep fringing reef, from yellow sponge, 37-40 m, 10 Nov 1988.

**Distribution.** off Pine Cay, Turks and Caicos Islands

*Malacanthura* sp.

**Material.** 1 female, off Pine Cay, deep fringing reef, from "bread sponge", 37 m, 10 Nov 1988.

**Remarks.** This form may represent an undescribed species, but a larger series of specimens is needed for study before it can be properly described.

*Mesanthura fasciata* Kensley, 1982

**Material.** 1 female, off Pine Cay, inner fringe reef, rubble bottom, 4-5 m, 3 Nov 1988. 1 female, same station, 4 April 1989.

**Previous Records.** Looe Key, Florida; Cozumel, Mexico; Carrie Bow Cay, Belize; Puerto Rico; Jamaica.

*Mesanthura pulchra* Barnard, 1925

**Material.** 1 female, New Cay, 13 Apr 1988. 1 female, off Water Cay, algae at reef top, 3-4 m, 18 Apr 1988. Ft. George Cay, in *Neogoniolithon* washings, 0.5 m, 18 Apr 1988. 1 female, Crab Hole Cay, 15 Apr 1988. 1 female, Mud Shrimp Cay, washings, ca. 1 m, 14 Apr 1988; 1 female, Twin Cay, from algae-sponge washings, 1 - 1.5 m, 1 Nov 1988. 1 female, South Satellite Cay, *Porites*-algae-sponge washings, 1-1.5 m, 11 Nov 1988.

**Previous Records.** Florida (Egmont Key, Looe Key, & Dry Tortugas); Puerto Rico; Carrie Bow Cay, Belize; U.S. Virgin Islands (St. Thomas and St. John's); Cozumel, Mexico.

*Mesanthura punctillata* Kensley, 1982

**Material.** 1 ovig. female, New Cay, 13 Apr 1988. 1 ovig. female, Mud Shrimp Cay, ca. 1 m, 14 Apr 1988. 1 ovig. female, Ft. George Cay, *Neogoniolithon* washings, 8 Nov 1988;

**Previous Records.** Carrie Bow Cay, Belize, 0.2-20 m.

*Mesanthura spongicola* Kensley & Heard, 1991

**Material.** 1 female, off Pine Cay, outer reef, on *Verongia*, 21 m, 31 Oct 1988. 18 females, off Pine Cay, on *Verongia*, 25-28 m.

**Distribution.** Off Pine Cay, Turks and Caicos Islands

Family Hyssuridae

*Xenanthura brevitelson* Barnard, 1925

**Material.** 1 male, 32 females, Mud Shrimp Cay, ca. 1 m, 14 Apr 1988. 5 males, 12 females, 1 juv., Mud Shrimp Cay, in algae and associated carbonate substratum, 0.5 - 1 m, 8 Apr 1988. 1 male, 4 females, Rock-a-Wash Cay, from *Neogoniolithon* washings, 16 Apr 1988. 2 males, 6 females, Twin Cay, Ockelmann dredge, ca. 1 m, 1 Nov 1988.

**Previous Records.** Off Georgia, 20-145 m; off Florida, 8-10 m; Gulf of Mexico; St. Thomas, U.S. Virgin Islands, 50-60 m.

Family Paranthuridae

*Califanthura minuta* Kensley & Heard, 1991

**Material.** 3 females, off Pine Cay, inner fringing reef, in coarse sand rubble, 1.5 m, 3 Nov 1988. 1 female, off Pine Cay, inner fringing reef, in coarse sand and rubble, 5 m, 16 Nov 1989.

**Distribution.** Pine Cay, Turks and Caicos Islands

SUBORDER ASELOTOTA

Family Incertae Sedis

*Mexicope kensleyi* Hooker, 1985

**Material.** 1 female, 1 juv., Rack Cay, sponge washings, 12 Apr 1988. 2 females (1 ovig.), Rock-a-Wash Cay, *Neogoniolithon* washings, 0.5 m, 16 Apr 1988. 1 male, 1 female, Rack Cay, 1-1.5 m, 31 Oct 1988. 2 males, 2 females (1 ovig.), Rock-a-Wash Cay, *Neogoniolithon* washings, 1-1.5 m, 30 Oct 1988. 1 male, off Pine Cay, deep fringing reef, sand-rubble bottom, 9-10 m, 11 Nov 1989.

**Previous Records.** Florida Middle Grounds, Gulf of Mexico, 30 m.

Family Janiridae

*Carpas algicola* (Miller, 1941)

**Material.** 1 male, Rack Cay, *Neogoniolithon* washings, 11 Apr 1988. 2 males, Rock-a-Wash Cay, *Neogoniolithon* washings, 1-1.5 m, 16 Apr 1988. 8 males, 2 females, patch reef off Water Cay, algae scrapings, 3-4 m, 18 Apr 1988.

**Previous Records.** Looe Key, Florida, 1-1.5 m; Yucatan, Mexico; Carrie Bow Cay, Belize, 0-2 m; Puerto Rico; Jamaica; Venezuela; Indo-West Pacific.

*Carpis brachydactylus* (Pires, 1982)

**Material.** 1 male, 4 females (2 ovig.), Rack Cay, 12 Apr 1988. 1 female, New Cay, 13 Apr 1988. 3 males, 11 females (6 ovig.), Crab Hole Cay, 15 Apr 1988. 1 male, 1 female (ovig.), Mud Shrimp Cay, 17 Apr 1988. 1 female, algal mat on patch reef off Water Cay, 3-4 m; 18 Apr 1988. 2 males, 4 females (1 ovig.), Crab Hole Cay, from algae and sponge washings, 1-1.5 m, 4 Nov 1988. 3 males, 3 females (ovig.), 2 juv., Rack Cay, from orange sponge washings, 1-1.5 m, 31 Oct 1988. 3 males, 7 females (3 ovig.), South Satellite Cay, *Porites*-algae-sponge washings, 1-1.5 m, 11 Nov 1988.

**Previous Records.** Puerto Rico, 1.5 m.

*Carpis serricaudus* (Menzies and Glynn, 1968)

**Material.** 5 males, 4 females (2 ovig.), Rack Cay, 12 Apr 1988. 3 males, 8 females (3 ovig.), Crab Hole Cay, 15 April 1988. 1 male, patch reef off Water Cay, algae scrapings, 3-4 m, 18 Apr 1988. 5 males, 3 females (ovig.), Rack Cay, 31 Oct 1988.

**Previous Records.** Puerto Rico.

*Carpis triton* (Pires, 1982)

**Material.** 21 males (4 subadults), 44 females (17 ovig.), Rack Cay, 12 April 1988. 13 males, 14 females (6 ovig.), Rock-a-Wash Cay, 16 Apr 1988. 10 males, 12 females, Rack Cay, 31 Oct 1988. 6 males, Rock-a-Wash Cay, 30 Oct 1988.

**Previous Records.** Carrie Bow Cay, Belize, intertidal reef crest.

## Family Joeropsidae

*Joeropsis rathbunae* Richardson, 1902

**Material.** 15 males, 15 (6 ovig.), 5 juvs., Ft. George Cay, *Neogoniolithon* washings, 0.5 m, 18 Apr 1988. 3 males, 2 females, New Cay, 13 Apr 1988. 1 male, Rock-a-Wash Cay, 1-1.5 m, 30 Oct 1988. 2 males, 4 females (1 ovig.), 3 juv., Twin Cay, algae-sponge washings, 1 Nov 1988. 1 male, 2 females (1 ovig.), Rack Cay, 31 Oct 1988.

**Previous Records.** Bermuda; Puerto Rico; Florida Keys; Gulf of Mexico. Intertidal to 36 m.

## Family Microparasellidae

*Microcharon* sp.

**Material.** 3 males, 4 females (3 ovig.), off Pine Cay, inner fringing reef, sand-rubble bottom, 3-4 m, 16 Nov 1989.

**Remarks.** Our specimens do not appear to represent any of the three species of *Microcharon* Karaman, 1934 previously recorded from the Caribbean area (see Kensley and Schotte 1989). Considerable work and collections are still required to resolve the complexities of this genus.

## Family Munnidae

*Munna petronastes* Kensley, 1984

**Material.** 2 females (1 ovig.), South Satellite Cay, *Porites*-algae-sponge washings, 1-1.5 m, 11 Nov 1988.

**Previous Records.** Carrie Bow Cay, Belize, intertidal to 2m.

*Uromunna caribea* (Carvacho, 1977)

**Material.** 1 female, Rock-a-Wash Cay, *Neogoniolithon* washings, 16 Apr 1988. 2 males, 2 females (ovig.), Crab Hole Cay, 15 Apr 1988. 3 males, 14 females (12 ovig.), Rack Cay, 12 Apr 1988. 1 female (ovig.), South Satellite Cay, *Porites*-algae-sponge washings, 1-1.5 m, 11 Nov 1988.

**Previous Records.** Canal de la Belle Plaine, Guadeloupe, in water of 25 ppt.

## Family Pleurocopidae

*Pleurocope floridensis* Hooker, 1985

**Material.** 6 females, Rack Cay, algae-sponge washings, ca. 1 m, 12 Apr 1988. 3 females, Ft. George Cay, *Neogoniolithon* washings, 0.5 m, 18 Apr 1988.

**Distribution.** Florida Middle Grounds, Gulf of Mexico, 55 m; Carrie Bow Cay, Belize, 3-10 m.

## Family Santidae

*Santia milleri* (Menzies & Glynn, 1968)

**Material.** 2 females (ovig.), Crab Hole Cay, 15 Apr 1988. 27 females (17 ovig.), 1 juv., Rack Cay, sponge washings, 12 Apr 1988. 3 females, algal mats on patch reef off Water Cay, 3-4 m, 18 Apr 1988. 1 specimen, Ft. George Cay, algae and sponge washings, 4 Nov 1988. 1 specimen, Rack Cay, 31 Oct 1988.

**Distribution.** Carrie Bow Cay, Belize, intertidal to 30 m; Puerto Rico, 1.5 m; San Salvador, Bahamas, 6 m; Anguilla; Jamaica; Cozumel, Mexico; Gulf of Mexico; Brazil, 1-6 m.

## Family Stenetriidae

*Stenetrium caicoensis* Kensley and Heard, 1991

**Material.** 5 males, 15 females (6 ovig.), 9 juvs, Fort George Cay, *Neogoniolithon* washings, 0.5 m, 18 Apr 1988. 1 male, Crab Hole Cay, 15 Apr 1988. 2 males, 11 females (4 ovig.), 1 juv., Ft. George Cay, *Neogoniolithon* washings, 1-1.5 m, 8 Nov 1988. 1 male, Pine Cay, inner fringing reef, sand-rubble bottom, 3-4 m, 5 Nov 1988.

**Distribution.** Presently known only from Turks and Caicos Islands.

*Stenetrium serratum* Hansen, 1904

**Material.** 9 males, 5 females, 19 juvs., Rock-a-Wash Cay, *Neogoniolithon* washings, 16 Apr 1988. 3 females (ovig.), Rock-a-Wash Cay, *Neogoniolithon* washings, 11 Apr 1988. 6 males, 7 females (ovig.), 41 juvs., Rack

Cay, sponge washings, 12 Apr 1988. 2 males, 3 females (ovig.), 14 juvs., New Cay, 13 Apr 1988.

**Previous Records.** Looe Key, Florida, 0.5-6 m; Jamaica; Puerto Rico, intertidal to 3 m; St. Thomas, U.S. Virgin Islands; Carrie Bow Cay, Belize, intertidal to 15 m.

*Stenetrium stebbingi* Richardson, 1902

**Material.** 13 males, 7 females (ovig.), 40 juvs., Ft. George Cay, *Neogoniolithon* washings, 0.5 m, 18 Apr 1988. 22 males, 16 females (ovig.), 26 juvs., Rack Cay, sponge washings, 12 Apr 1988. 2 males, 5 juvs., Mud Shrimp Cay, from algae, 8 Apr 1988. 2 males, 2 juvs., Rock-a-Wash Cay, *Neogoniolithon* washings, 11 Apr 1988. 1 male, 2 females (ovig.), 2 juvs., Rock-a-Wash Cay, *Neogoniolithon* washings, 16 Apr 1988. 1 male, 5 females (ovig.), 6 juvs., Mud Shrimp Cay, lamb's wool sponge washings, 17 Apr 1988. 1 male, Mud Shrimp Cay, ca. 1 m, 14 Apr 1988. 16 males, 20 females (ovig.), 37 juvs., New Cay, 13 Apr 1988. 14 males, 6 females (ovig.), 18 juvs., Crab Hole Cay, 15 Apr 1988. 2 males, 1 female, from algal mat on patch reef off Water Cay, 3-4 m, 18 Apr 1988. 29 males, 9 females (1 ovig.), Twin Cay, from algae-sponge washings, 1-1.5 m, 1 Nov 1988. 1 male, 1 female (ovig.), Rack Cay, on small black sponge, 31 Oct 1988. 1 male, South Satellite Cay, *Porites*-algae-sponge washings, 1-1.5 m, 11 Nov 1988.

**Previous Records.** Bermuda, 0.5-4 m; Florida Keys, 18.3 m; Bahamas, 5 m; Cuba; Jamaica; U.S. Virgin Islands, 50 m; Carrie Bow Cay, Belize, 0.5-36 m; Gulf of Mexico.

*Stenetrium minocule* Menzies and Glynn, 1968

**Material.** 2 males, 6 females (1 ovig.), Pine Cay, inner fringing reef, rubble bottom, 4-5 m, 9 Apr 1989.

**Previous Records.** Puerto Rico

*Stenobermuda acutirostrata* Schultz, 1978

**Material.** 1 male, 1 female, Rack Cay, sponge washings, 12 April 1988. 4 females, Pine Cay, inside fringing reef, rubble-sand substratum, 4-5 m, 9 April 1989.

**Previous Records.** Off Bermuda, 90 m.

SUBORDER FLABELLIFERA

Family Aegidae

*Rocinela signata* Schioedte and Meinert, 1879

**Material.** 1, Pine Cay, rubble bottom, inside inner fringing reef, 3-4 m, 9 Apr 1989. 1 female, same data, 17 Nov 1989.

**Previous Records.** Florida Keys, Bahamas, widespread throughout Caribbean and Gulf of Mexico, southern California to Panama and Costa Rica.

Family Cirolanidae

*Calyptolana hancocki* Bruce, 1985

**Material.** 1 female, off Pine Cay, 4 m, sand-rubble

bottom adjacent to inner fringing reef, 5 Nov 1988. 1 male, off Pine Cay, inner fringing reef, sand-rubble bottom, 9-10 m, 11 Nov 1989.

**Previous Records.** Dominican Republic; Aruba Island; Netherlands Antilles, 43.2 m.

*Cirolana parva* Hansen, 1890

**Material.** 6 females, 17 juvs., Ft. George Cay, *Neogoniolithon* washings, 0.5 m, 18 Apr 1988. 1 male, 1 female, 7 juvs., Rack Cay, sponge washings, 12 Apr 1988. 1 female, 1 juv., New Cay, 13 Apr 1988. 4 male, 1 female, 10 juvs., Rock-a-Wash, *Neogoniolithon* washings, 0.5 m, 16 Apr 1988. 1 male, 2 juvs., Crab Hole Cay, 15 Apr 1988. 27 specimens, Twin Cay, algae-sponge washings, 1-1.5 m, 1 Nov 1988. 5 juvs., South Satellite Cay, *Porites*-algae-sponge washings, 1-1.5 m, 11 Nov 1988. 20+ specimens, Rack Cay, algae-sponge washings, 1-1.5 m, 31 Oct 1988.

**Previous Records.** North and South Carolina; St. Thomas and St. Croix, U.S. Virgin Islands; Andros Is., Bahamas; Puerto Rico; Jamaica; Florida Keys; Dry Tortugas; Barbados; Carrie Bow Cay, Belize; Cozumel, Mexico; Panama; intertidal to 55 m.

*Eurydice personata* Kensley, 1987

**Material.** 2 males, 3 females, 3 juvs., Pine Cay, plankton tow off north beach at night, 1.5 m, 30 Oct 1988. 1 juv., off Pine Cay, coarse sand, rubble bottom, inner fringing reef, 4 m, 3 Nov 1988.

**Previous Records.** Bermuda; off Georgia, 18-27 m; off South Carolina, 34 m; off Miami, Florida; Puerto Rico, 13-17 m; Bahamas, 1-2 m and surface plankton tow; Haiti; Cuba; Venezuela.

*Excirologa braziliensis* Richardson, 1912

**Material.** 5 females, 3 juv., Pine Cay, plankton tow at night off north beach, 1.5 m, 30 Oct 1988.

**Previous Records.** Caribbean to Brazil; Gulf of Mexico; Gulf of California to Chile.

*Metacirolana halia* Kensley, 1984

**Material.** 2 females, 2 juvs., Ft. George Cay, *Neogoniolithon* washings, 0.5 m, 18 Apr 1988. 12 females, 5 juvs., Rack Cay, 12 Apr 1988. 1 female Rock-a-Wash Cay, *Neogoniolithon* washings, 16 Apr 1988. 1 male, 8 females, Twin Cay, 1-1.5 m, algae-sponge washings, 1 Nov 1989.

**Previous Records.** Carrie Bow Cay, Glover's Reef, Belize; Bahamas; Jamaica; Cozumel, Mexico; intertidal to 23 m.

*Metacirolana sphaeromiformis* (Hansen, 1890)

**Material.** 9 females, 6 juvs., Ft. George Cay, *Neogoniolithon* washings, 18 Apr 1988.

**Previous Records.** Looe Key, Florida, intertidal reef crest; St. Thomas, U. S. Virgin Islands.

## Family Corallanidae

*Excorallana quadricornis* (Hansen, 1890)

**Material.** 1 male, Grapsus Cay, algae-sponge washings, 1-1.5 m, 5 Nov 1988.

**Distribution.** Bermuda; St. Thomas, U.S. Virgin Islands; Jamaica; Martinique; Belize; Venezuela.

*Excorallana tricornis tricornis* (Hansen, 1890)

**Material.** 1 female, off Pine Cay, *Neogoniolithon* washings, 16 Apr 1988. 1 male, 1 female, Mud Shrimp Cay, in "lamb's wool sponge," 17 Apr 1988. 1 juv., Rock-a-Wash Cay, *Neogoniolithon* washings, 11 April 1988. 1 male, 1 juv., Rock-a-Wash Cay, algae-sponge washings, 1-1.5 m, 1 Nov 1988.

**Distribution.** St. Thomas and St. Croix, U.S. Virgin Islands; Cuba; Puerto Rico; Belize; Gulf of Mexico, intertidal to 55 m.

*Excorallana cf. berbicensis* Boone, 1918

**Material.** 1 female, Pine Cay, outer reef, from yellow sponge, 40 m, 5 Nov 1988.

**Remarks:** Stone and Heard (1989) have discussed some of the taxonomic problems and questionable records from French Guiana and Guadeloupe for *E. berbicensis*. Until a large series of adult specimens, especially males, from the Turks and Caicos Islands are available for study, the specific status of the Pine Cay material will remain uncertain.

**Previous Records** for *E. berbicensis*: Guyana (type locality); French Guiana; Guadeloupe.

## Family Sphaeromatidae

*Paracerceis caudata* (Say, 1818)

**Material.** 1 male, 17 females, 15 juv., on algal mat from patch reef off Water Cay, 3-4 m, 18 Apr 1988. 1 male, 8 females, 1 juv., New Cay, 13 Apr 1988. 1 female, 1 juv., Rock-a-Wash Cay, *Neogoniolithon* washings, 16 Apr 1988. 1 female, Twin Cay, algae-sponge washings, 1-1.5 m, 1 Nov 1988. 1 female, 1 juv., Rack Cay, from small black sponge, 1-1.5 m, 31 Oct 1988.

**Previous Records.** New Jersey to Florida Keys; Gulf of Mexico; Bermuda; Yucatan to Venezuela; Cuba; Puerto Rico; Bahamas; Jamaica; Haiti; St. Maartens; St. Lucia, 20 cm to 127 m.

*Paracerceis edithae* Boone, 1930

**Material.** 1 male, 3 females, Rock-a-Wash Cay, from gray sponge, 1-1.5 m, 30 Oct 1988. 1 male, 2 females, Pine Cay, from sponge on fringing reef, 27-30 m, 17 Nov 1989.

**Previous Records.** Bahamas, 60-66 m, in vase sponge; Haiti; Puerto Rico, 20-25 m.

## Family Limnoriidae

*Limnoria platycauda* Menzies, 1957

**Material.** 2 females (ovig.), Twin Cay, 1 Nov 1988.

**Previous Records.** Cuba; Puerto Rico to Curaçao; Cozumel, Mexico; Belize; Aldabra Atoll, Indian Ocean.

## SUBORDER VALVIFERA

## Family Idoteidae

*Cleantioides planicauda* (Benedict, 1899)

**Material.** 1 female, Pine Cay, in seagrass, 4 m, 9 Nov 1988.

**Distribution.** Maryland to Florida; Puerto Rico; Panama; Louisiana, Gulf of Mexico.

*Erichsonella filiformis* (Say, 1818)

**Material.** 2 males, Rack Cay, sponge washings, 12 Apr 1988. 2 males, 1 female, Pine Cay, New Cay, 13 Apr 1988. 2 males, South Satellite Cay, *Porites*-algae-sponge washings, 11 Nov 1988.

**Previous Records.** Connecticut to Florida, shallow intertidal to 55 m; Florida, Texas, Gulf of Mexico; Bahamas; Quintana Roo, Yucatan Peninsula, Mexico, 60-109 m.

## SUBORDER ONISICIDEA

## Family Scyphacidae

*Armadilloniscus septus* Schotte and Heard, 1991

**Material.** 1 juv., Northeastern end of Pine Cay (Boat Dock), upper intertidal under leaves, 9 November 1989. 7 males, 6 females (5 ovig.), 19 juvs., southwestern end of Pine Cay ("Aquarium"), upper intertidal under slabs of soft carbonate rock, 1 May 1990.

**Distribution.** At present known only from Turks and Caicos Islands (Pine Cay).

## Family Ligidae

*Ligia baudiniana* H. Milne Edwards, 1840

**Material.** 1 male, 2 females, Grapsus Cay, supratidal and intertidal, on or under slabs of carbonate rock or shore debris, Nov 1988. 1 female (ovig.), Pine Cay, from dock, 2 Nov 1988.

**Previous Records.** Bermuda; Bahamas; U.S. Virgin Islands; Antigua; Carrie Bow Cay, Belize; Bonaire; Aruba; Trinidad; Tobago; Gulf of Mexico.

## Family Philoscidae

*Littorophiloscia culebrae* (Moore, 1901)

**Material.** 3 females, Pine Cay, boat dock, intertidal, under dead leaves, 2 Nov 1988. 7 females (5 ovig.), same location, April 9, 1987. 2 males, 9 females (5-ovig), same location, 9 November 1989.

**Previous Records.** Florida; U. S. Virgin Islands; Puerto Rico; Belize.

**Remarks:** This species was listed under the genus *Vandeloscia* Roman, 1977 by Kensley and Schotte (1989).

## DISCUSSION

Of the 45 marine isopods reported here, five species, viz. *Licranthura tuberculata*, *Mesanthura spongicola*, *Califanthura minuta*, *Stenetrium caicoensis*, and *Armadilloniscus steptus*, are known currently only from the northeastern Turks and Caicos Islands (see Kensley and Heard 1991 & Schotte and Heard 1991). Our Turks and Caicos collections represent considerable range extensions for many of the species collected. Four species (*Apanthura cracenta*, *Mesanthura punctillata*, *Carpas triton*, and *Munna petronastes*, known previously from the east coast of Central America (Belize), are reported for the first time since their description. This report also presents the first published records from outside of their respective type localities for *Amakusanthura significa* (Venezuela), *Mexicope kensleyi* (eastern Gulf of Mexico), *Carpas brachydactylus* (Puerto Rico), *Carpas serricaudus* (Puerto Rico), *Uromunna caribea* (Guadeloupe), *Stenetrium monocule* (Puerto Rico), and *Stenobermuda acutirostrata* (Bermuda). Due to inadequate material or taxonomic problems, the specific status of four taxa, *Apanthura cf. crucis*, *Malacanthura* sp., and *Microcharon* sp. and *Excorallana cf. berbicensis*, will require further study. The other 26 species listed, mostly

flabelliferans, appear to be widely distributed in the tropical western North Atlantic and their occurrence in the Turks and Caicos was not unexpected. With exception of the five species described from the Pine Cay area (see Kensley & Heard 1991, Schotte & Heard 1991), refer to Kensley & Schotte (1989) for illustrations, keys, diagnoses, and taxonomic and zoogeographic references for the other species reported herein.

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