

# INSECTS OF MICRONESIA

## Scorpionida

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### INTRODUCTION

One species of scorpion is abundant throughout Micronesia; two other species occur occasionally on a few of the larger islands and are, apparently, recently introduced. Other species may, at any time, be introduced into the islands by commerce, but the collections available to me—and these are reasonably comprehensive—contain only three species. No material is available from the Bonins, the Volcanos, Marcus, Wake, Ocean, or Nauru. The following collectors contributed specimens: P. A. Adams, R. H. Baker, Paul Bartsch, Marston Bates, J. W. Beardsley, J. F. G. Clarke, H. S. Dybas, R. J. Goss, J. L. Gressitt, Ellsworth Hagen, ——— Halbert, W. J. Hall, Y. Kondo, N. L. H. Krauss, D. B. Langford, Ira La Rivers, ——— Mecon, J. P. E. Morrison, E. T. Moul, W. L. Necker, G. D. Peterson, R. W. L. Potts, L. P. Schultz, Alexander Spoehr, H. K. Townes, R. L. Usinger, ——— Wells.

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## Distributional List of Micronesian Scorpionida

	MICRONESIAN ISLAND GROUPS										Other Localities	
	N. Mariana	S. Mariana	Caroline							Marshall		Gilbert
			Palau	Yap	Caroline Atolls	Truk	Ponape	Kusaie				
1. <i>Hormurus australasiae</i>	×	×	×	×	×	×	×	×	×	×	China, Australia, New Guinea, Pacific islands east to Salanga	
2. <i>H. caudicula</i>			×								Australia, New Guinea, Moluccas, Solomons, Celebes	
3. <i>Isometrus maculatus</i>			×						×	×	tropicopolitan	

It is interesting to note that only the Palaus harbor all three species and that one species occurs only in the Palaus within Micronesia.

## SYSTEMATICS

The three species dealt with in this paper belong to two families, each family represented by a single genus.

## KEY TO MICRONESIAN FAMILIES OF SCORPIONIDA

1. Sternum more or less pentagonal; tarsi III and IV each with spur on outer side in membrane between last two segments; tip of last tarsal segment truncate, without lateral lobes; vesicle without denticle beneath sting.....**Ischnuridae**
- Sternum elongate, subtriangular; tarsi III and IV each with two spurs, on outer and inner sides, in intersegmental membrane; vesicle with triangular tooth on denticle beneath sting.....**Buthidae**

## FAMILY ISCHNURIDAE

This family—sometimes treated as a subfamily of Scorpionidae, from which it differs in having the last tarsal segment truncate—contains the genus *Hormurus* Thorell, which is represented in Micronesia by two species.

Genus *Hormurus* Thorell

*Hormurus* Thorell, 1876, Ann. Mag. Nat. Hist. IV, 17: 14 (type: *Ischnurus caudicula* L. Koch).

Small to moderate-sized depressed scorpions, with heavy pedipalps, post-abdomen very slender, vesicle usually whitish.

## KEY TO MICRONESIAN SPECIES OF HORMURUS

1. Dorsal keels on caudal segments III and IV end in small spines; caudal segments I, II, and V beneath with rasplike teeth; teeth of comb usually 6 (4-8); size up to 40 mm.....**australasiae**  
 Dorsal keels on caudal segments III and IV without terminal spines; caudal segments I, II, and V beneath mostly smooth; teeth of comb usually 8 (6-12); size up to 90 mm.....**caudicula**

1. *Hormurus australasiae* (Fabricius). (Figure 1, a.)

*Scorpio australasiae* Fabricius, 1775, Syst. Ent., 399 ("in Insulis Oceani pacifici").

*Ischnurus australasiae*, C. Koch, 1838, Arachniden 4: 71, fig. 294.

*Ischnurus complanatus* C. Koch, 1838, Arachniden 4: 73, fig. 295.

*Scorpio cumingi* Gervais, 1844, Ins. Aptères 3: 69.

*Ischnurus pistaceus* Simon, 1877, Soc. Ent. France, Ann. II, 7: 93.

*Hormurus australasiae*, Thorell, 1877, Atti Soc. Ital. 19: 251.

*Buthus brevicaudatus* Rainbow, 1897, Australian Mus., Mem. 3 (5): 107.

Color reddish yellow to reddish brown, the caudal segments and pedipalps darker, legs and vesicle yellowish white. Cephalothorax and fore abdomen shining, lightly strigose. Dorsal furrow of caudal segments narrow or almost lacking, each dorsal carina of second to fourth segments ends in a prominent denticle, denticles of carinae of the third segment stronger than those of the fourth; posterior portion of first caudal segment and all of second beneath set with small anteriorly directed denticles, third and fourth segments beneath with very weak carinae, fifth segment with lateral carinae, the denticles of which are directed posteriorly. Pedipalp finely granulate above, lateral face of hand smooth, finger from as long to half again as long as basal portion of hand, finger lobed in mature males. Teeth in comb 4 to 9, usually 6. Length up to 40 mm.

DISTRIBUTION: From China and Australia through Micronesia and Polynesia to the island of Salanga off the coast of Colombia.

N. MARIANA IS. AGRIHAN: Aug. 1945, Mecon. PAGAN: Sept. 1951, Kondo.

S. MARIANA IS. SAIPAN: Various localities, 1944-1945, Dybas, Hagen. TINIAN: Various localities, 1945, Dybas. AGIGUAN: 1952, Kondo, Peterson. ROTA: 1945, Necker. GUAM: Nov. 1907, Bartsch, 1945, Baker, Dybas, Necker.

PALAU. BABELTHUAP: Various localities, 1946-1952, Dybas, Gressitt, Halbert, Townes. KOROR: Nov. 1947, Dybas. NGERGOI (Garakayo): Aug. 1945, Dybas, Hagen. PELELIU: 1945, Dybas, Hagen, Feb. 1948, Dybas.

YAP. YAP: 1950, Goss. RUMUNG: 1950, Goss.

CAROLINE ATOLLS. ULITHI: Potangeras, 1945, Baker, 1947, Dybas; Mogmog, 1946, Townes, 1952, Krauss. FAIS: 1952, Krauss. NGULU: 1952, Krauss. WOLEAI: Falalais, 1953, Beardsley. FARAULEP: 1952, Krauss. TOBI: 1952, Krauss. IFALUK: 1952, Krauss, 1953, Bates. ELATO: 1952, Krauss.

Color brownish yellow, mottled and spotted with blackish brown, area in front of eye tubercle without black flecks. Body and pedipalps very slender, caudal segments of female about as long, of male often twice as long, as fore abdomen. Cephalothorax and abdomen finely granulate. Carinae of caudal segments composed of rows of granules. Poison vesicle slender, rather elongate, with a double-pointed, flattened tooth beneath sting. Hand of pedipalp long and thin, in female somewhat evidently carinate, in male smooth. Finger from one and a half to twice length of basal portion of hand. Teeth in comb 17 to 19. Length of female up to 45 mm., of male up to 70 mm.

DISTRIBUTION: Throughout the tropics.

PALAU. PELELIU: Jan. 1948, Dybas.

MARSHALL IS. JEMO: In house, 1951, Fosberg. KWAJALEIN: July 1953, Hall, Aug. 1954, "U. S. Navy." ARNO: Ine, Aug. 1950, La Rivers.

GILBERT IS. ONOTOA: Buiartun, July, Aug. 1951, Moul.

*Isometrus maculatus* is almost exclusively a house scorpion; it hides in such places as closets or behind objects attached to walls. Its sting is not dangerous.