

## Pseudoscorpions from the Northern Mariana Islands, Micronesia

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**Abstract** Five pseudoscorpion species have been recorded from the northern Mariana Islands. *Tyrannochthonius chamarro*, *Tyrannochthonius* sp. (Chthoniidae), *Beierolpium oceanicum* (Olpiidae), *Smeringochernes guamensis*, and *Nesidiochernes carolinensis* (Chernetidae). These are the records from the northern Marianas for the first time, and this composition of the species is similar to that on the southern Mariana Islands and further south in the tropical Pacific.

**Key words:** Pseudoscorpions, northern Mariana Islands.

Thirteen species of pseudoscorpions have hitherto been recorded from the southern Mariana Islands (Beier, 1957), but there has been no record from the northern Marianas. During a biological expedition to the northern Mariana Islands in 1992, 38 specimens of pseudoscorpions were collected by Mr. Taiji Kurozumi and Dr. Sinya Miyano of the Natural History Museum and Institute, Chiba, and are reported here. The author expresses his sincere thanks to Mr. Kurozumi for the opportunity of examining the specimens.

### Materials and Methods

The litter-dwelling specimens were extracted using Tullgren funnels and then collected by direct searching. Other specimens were collected by directly picking up from the substratum in the field, and in such case, collection methods are not particularly indicated in the following list. The specimens were preserved in 70% alcohol and are deposited in the Natural History Museum and Institute, Chiba. See Kurozumi (1994) for detailed information on sampling sites of each island.

### List of the Pseudoscorpions

#### Family Chthoniidae

1. *Tyrannochthonius chamarro* Chamberlin, 1947  
*Specimens examined.* 1-♂ and 1-tritonymph,

PAGAN, west coast, alt. 55 m, P-1, by Tullgren, 24 May 1992, T. Kurozumi leg.

*Distribution.* This species was previously collected from the southern Marianas (Saipan, Tinian and Guam), Palau, and Truk Islands (Beier, 1932, 1957; Chamberlin, 1947; Harvey, 1990).

#### 2. *Tyrannochthonius* sp.

*Specimens examined.* 1-♂, GUGUAN, south west peak, alt. 220 m, G-2, by Tullgren, 17 May 1992, T. Kurozumi leg.; 1-tritonymph, PAGAN, south west coast, alt. 10 m, P-3, by Tullgren, 25 May 1992, T. Kurozumi leg.; 1-tritonymph and 1-protonymph, AGRIHAN, north west coast, alt. 10 m, Ag-3, by Tullgren, 29 May 1992, T. Kurozumi leg.

*Remarks.* The adult specimen of this species was immature and, therefore, can not be identified.

#### Family Olpiidae

#### 3. *Beierolpium oceanicum* (With, 1907)

*Specimens examined.* 1-♀, SARIGAN, east slope, alt. 270 m, 15 May 1992, S. Miyano leg.; 1-♂, 2-♀, GUGUAN, southwest valley, alt. 60 m, G-1, by Tullgren, 17 May 1992, T. Kurozumi leg.; 1-♀ and 2-tritonymphs, GUGUAN, south east peak, alt. 200 m, G-2, by Tullgren, 17 May 1992, T. Kurozumi leg.; 1-deutonymph, PAGAN, west coast, alt. 55 m, P-1, by Tullgren, 24 May 1992, T. Kurozumi leg.; 1-♀, PAGAN, south west slope, alt. 225 m, 25 May 1992, T.

Kurozumi leg.; 5-protonymphs, PAGAN, south west coast, alt. 10 m, P-3, by Tullgren, 25 May 1992, T. Kurozumi leg.; 1-♀ and 1-tritonymphs, MAUG, ridge of west Island, alt. 105 m, M-2, by hand sorting and by Tullgren, T. Kurozumi leg.

*Distribution.* This species is widely distributed in tropical and subtropical Pacific Islands such as Caroline, Okinawa, Krakatau, Mariana, Marshall, Samoa and Juvalu (Beier, 1932, 1957, 1960; Chamberlin, 1947; Harvey, 1988, 1990; Heurtault, 1976; Kästner, 1927; Morikawa, 1960).

#### Family Chernetidae

##### 4. *Smeringochernes guamensis* Beier, 1957

*Specimens examined.* 1-♂ and 1-tritonymph, GUGUAN, south west valley, alt. 60 m, 17 May 1992, T. Kurozumi leg.; 2-♀ and 1-tritonymph, GUGUAN, south west peak, alt. 220 m, G-2, by Tullgren, 17 May 1992, T. Kurozumi leg.; 2-♀ and 3-deutonymphs, PAGAN, south west coast, alt. 10 m, P-3, by Tullgren, 25 May 1992, T. Kurozumi leg.; 2-♂ and 2-♀, AGRIHAN, north west slope, alt. 200 m, Ag-2, by Tullgren, 29 May 1992, T. Kurozumi leg.; 1-♀, AGRIHAN, north west coast, alt. 10 m, Ag-3, by Tullgren, 29 May 1992, T. Kurozumi leg.

*Distribution.* This species was originally described from among specimens collected on the Saipan and Guam Islands (Beier, 1957), and has also been reported from the Caroline Islands and Papua New Guinea (Beier, 1965).

##### 5. *Nesidiochernes carolinensis dybasi* Beier, 1957

*Specimen examined.* 1-♀, SARIGAN, central area, alt. 300 m, 15 May 1992, T. Kurozumi leg.

*Distribution.* The only previous record was that of the type material collected from Saipan (Beier, 1957).

#### Discussion

It is clear from the above-mentioned list that all of the species collected from the Northern Mariana Islands were also recorded previously in the southern Marianas and further south to the Caroline and Truck Islands, indicating a close relationship in the pseudoscorpion fauna between the northern Marianas and other southern islands in the tropical Pacific. In con-

trast, the pseudoscorpion fauna of the Ogasawara Islands, located north of the northern Marianas, consists of species of the families Cheiridiidae and Atemnidae, as well as genera of the Cherenitidae, different from those of the northern Marianas such as *Haplochernes* (Beier, 1957) and *Metagoniochernes* (Sato, 1991) and, therefore, apparently different from those of the Mariana Islands.

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