

- USNM U. S. National Museum of Natural History,
Washington, D. C.
ZMAS Zoological Institute, Russian Academy of
Sciences, St. Petersburg
ZMUH Zoological Museum, University of Helsinki,
Finland

Nymphs of 15 Japanese species preserved in 80% ethyl alcohol (HUES) were also observed. Photographs of live material were made with Olympus OM-System (OM-4Ti 35 mm camera with T10 Ringflash, Auto Extension Tube, and either 38 mm or 50 mm macro lenses).

All measurements in the text are given in millimeters. In the synonymic listings, only selected references are cited for each taxon; for detailed synonymic lists, see Carvalho (1958) and Schuh (1995). New distributional records for known species are each indicated by an asterisk (*) after the name of a region.

Checklist of Orthotylini in Japan

- Blepharidopterus* Kolenati, 1845
B. striatus sp. n.
B. ulmicola Kerzhner, 1977
Cyllecoris Hahn, 1834
C. nakanishii Miyamoto, 1965
C. vicarius Kerzhner, 1988
Cyrtorhinus Fieber, 1858
C. caricis (Fallén, 1807)
C. lividipennis Reuter, 1884
Dryophilocoris Reuter, 1875
D. lucidus sp. n.
D. miyamotoi sp. n.
D. saigusai Miyamoto, 1966
Malacocorisella gen. n.
M. endoi sp. n.
Mecomma Fieber, 1858
M. japonica Miyamoto, 1966
Mecommopsis Kerzhner, 1979
M. cruciata Kerzhner, 1979
Orthotylus Fieber, 1858
Subgen. *Kiioorthotylus* Yasunaga, 1993
O. (K.) gotohi Yasunaga, 1993
Subgen. *Melanotrichus* Reuter, 1875
O. (M.) flavosparsus (C. R. Sahlberg, 1841)
O. (M.) parvulus Reuter, 1879
Subgen. *Orthotylus* s. str.
O. (O.) fuscipennis sp. n.
O. (O.) interpositus Schmidt, 1938
O. (O.) japonicus sp. n.
O. (O.) kurilensis Kerzhner, 1997
O. (O.) pallens (Matsumura, 1911)
Subgen. *Pseudorthotylus* Poppius, 1914
O. (P.) bilineatus (Fallén, 1807)
Subgen. *Yamatorthotylus* subgen. n.

- O. (Y.) xanthopoda* sp. n.
Pseudoloxopidea gen. n.
P. pinicola sp. n.
Pseudoloxops Kirkaldy, 1905
P. imperatorius (Distant, 1904)
P. miyamotoi Yasunaga, 1997
P. miyatakei Miyamoto, 1966
P. takaii Yasunaga, 1997
Zanchius Distant, 1904
Z. gigantoculus sp. n.
Z. nakatanii sp. n.
Z. quercicola sp. n.
Z. ryukyuenis sp. n.
Z. takahashii sp. n.
Z. tarasovi Kerzhner, 1988

SYSTEMATIC PART

Tribe Orthotylini Van Duzee, 1916

Judging from the conspicuously variable structures exhibited in the external body and genitalia, it is somewhat difficult to consider the tribe as a monophyletic group. Although Linnavuori (1994) provided rather detailed characters for the tribe, only a few consistent key characters were documented. The most distinctive and reliable feature defining the Orthotylini is the presence of a pair of K-structures in the female genitalia (Schuh 1974). Further world level revision is required to redefine this enormous tribe properly.

The Japanese orthotyline members are primarily recognized by the usually elongate body, and fleshy, apically convergent parempodia between the claws. Most species are associated with certain plants, whereas predation on other insects is frequently observed in laboratory tests as well as in the field.

Orthotylus Fieber

Orthotylus Fieber, 1858: 315, type species: *Cimex nassatus* Fabricius sensu Fieber 1858 (= *Orthotylus marginalis* Reuter, 1883: 380), subsequent designation by Kirkaldy 1906: 127; Schuh 1995: 147.

This is one of the largest genera among the Miridae, with approximately 300 described species worldwide. Only 5 species, *O. (O.) pallens*, *O. (O.) interpositus*, *O. (Kiioorthotylus) gotohi*, *O. (Melanotrichus) flavosparsus* and *O. (Pseudorthotylus) bilineatus*, were previously recorded from Japan (Miyamoto 1969, 1977, Miyamoto & Yasunaga 1989, Todo & Yasunaga 1996, Yasunaga 1993).

Orthotylus appears not to be a monophyletic group, and has not been defined by any consistent diagnostic characters. Some authors (Southwood 1953, Wagner 1952, 1973) proposed several subgenera and species