

## Critical Check List of the Japanese Species of Collembola

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During these thirty years of my research in the Kyoto University I have engaged in to introduce a new taxonomy in the study of Collembola. For the first few years before the War II my scope was directed to the identification of Japanese species so that the results may be useful to the ecological research in the pedobiological science. Afterwards, being aware of the fact that the conception of species and genera of Collembola is not yet fully established and, therefore, the pure taxonomic studies of soft-ware are necessarily to be done side by side with the efforts of faunistics, which is the hard-ware in nature, I have turned to the taxonomy itself, influenced chiefly by the series of works of late Prof. J. STACH of Poland. Thereafter I have endeavoured to search for the new characters to be utilized in the taxonomy for which the research of chaetotaxy of the body, ventral tube, labrum etc. is an example. At the same time I have paid special attention to the fauna of Japanese caves, as the troglobious collembola furnish us nice examples with respect to the divergence of species in each group.

The time has elapsed very fast and in April, 1977 my research in the Kyoto University is redeemed to make its end. In this last occasion I would like to brush up all the species of Collembola hitherto published from Japan in form of a check list, so that the succeeding researchers may start easily from my present knowledge of the thesis. All in all the content is still very incomplete and it would cover only one half of what is really existing in Japan for whose completion the full engagement of one more generation of a collembolist would be necessary. Thus the list is only a mile-stone.

Study of Japanese Collembola was initiated by FOLSOM, 1897, 1898 at first and then succeeded by the more intensive works of BÖRNER 1909 based on materials collected by H. SAUTER. Regretfully C. BÖRNER has made a report only in a provisional style and we have some difficulty in identifying species described by him. Some of the species established by him are still not recognisable. Afterwards the research was continued by Japanese researchers and in his series of works S. KINOSHITA has made nice reports of Japanese Collembola including such remarkable species as *Akabosia matsudoensis*. His description is very accurate and precise, but as he has written them only in Japanese, the results were known only partly by the European researchers. His works were followed by H. UCHIDA and his schools, the species covered by them are faunistically important, but not always so from the taxonomic point of view.

Hearty thanks are directed to my friends and colleagues, who has supported my long way of studies in various ways both in Japan and in abroad, whose further activities in the field of research I expect from all my heart.

## Key to Families:

1. Body long. Thorax and abdomen clearly segmented.
  - .....Subord. Arthropleona BÖRNER, 1901..... 2
  - Body spherical. Thorax and abdomen obscurely segmented or quite coalescent together. .... Subord. Symphypleona BÖRNER, 1901..... 12
2. Th.I is clearly visible, its tergite with some setae. Integument granulate. Antennae short. .... Superfam. 1 Poduromorpha BÖRNER, 1913..... 3
  - Th.I is regressed and without setae. Integument is practically smooth. Antennae long. .... Superfam. 2 Entomobryomorpha BÖRNER, 1913..... 6
3. Furca well developed, surpassing the ventral tube. Dentes arcuate. Head hypognathous. .... Fam. Poduridae LUBBOCK, 1870, p. 143
  - Furca relatively short or reduced. Dentes straight. Head almost prognathous.
    - ..... 4
4. With pseudocelli. Ant. III-organ is complicated.
  - ..... Fam. Onychiuridae BÖRNER, 1913, p. 150
  - Without pseudocelli. Ant. III-organ normal and simple ..... 5
5. Mandible with molar plate. .... Fam. Hypogastruridae BÖRNER, 1913, p. 144
  - Mandible without molar plate. .... Fam. Neanuridae BÖRNER, 1901, p. 145
    - a: Body without segmental tubercles.
      - ..... Subfam. Pseudachorutinae PALISSA, 1964, p. 145
      - b: Body with segmental tubercles....Subfam. Neanurinae Caroli, 1910, p. 147
6. Antennal segments 4. .... 7
  - Antennal segments 5 or 6. .... Fam. Orchesellidae STACH, 1960 (ut Tribus), p. 161
7. Abd.III and IV subequally long. .... 8
  - Abd.III longer than abd.IV. .... 10
8. Antennal segments not annulate. .... 9
  - Antennal segments annulate. .... Fam. Tomoceridae SCHÄFFER, 1896, p. 157
9. Body without scales. .... Fam. Isotomidae BÖRNER, 1913, p. 152
  - Body with scales. .... Fam. Oncopoduridae BÖRNER, 1906 (ut Subfam.), p. 162
10. Mucro small, with one or two teeth and a basal spine. Antennae normally long
  - ..... Fam. Entomobryidae SCHÄFFER, 1896, p. 159
  - Mucro with various number of teeth and without a basal spine. .... 11
11. Antennae enormously long, with eyes.
  - ..... Fam. Paronellidae BÖRNER, 1906 (ut Subfam.), p. 161
  - Antennae rather short, usually without eyes.
    - ..... Fam. Cyphoderidae BÖRNER, 1913, p. 162
12. Minute species, without eyes. Antennae very short.
  - ..... Fam. Neelidae FOLSOM, 1896, p. 162
  - Large species. Antennae longer than the head.
    - ..... Fam. Sminthuridae LUBBOCK, 1862, p. 163

I. Suborder: **Arthropleona** BÖRNER, 19011. Family **Poduridae** LUBBOCK, 1870

Only one genus and species.

*Podura aquatica* LINNE, 1758: KINOSHITA 1916.....UCHIDA 1950

2. Family **Hypogastruridae** BÖRNER, 1913

- |   |                     |
|---|---------------------|
| 1. PaO. present. Unguiculus present, rarely absent .....      | 3                   |
| PaO. absent. Unguiculus absent .....                          | 2                   |
| 2. Eyes present.....  | <i>Xenylla</i>      |
| Eyes absent .....   | <i>Acherontides</i> |
| 3. Furca absent. Eyes absent .....                            | <i>Willemia</i>     |
| Furca present. Eyes present or reduced .....                  | 4                   |
| 4. PaO. composed of some (ca. 4) elements .....               | 7                   |
| PaO. composed of one circle.....                              | 5                   |
| 5. Anal spines absent .....                                   | 6                   |
| Anal spines present.....                                      | <i>Schoettella</i>  |
| 6. Eyes 8+8, normally developed.....                          | <i>Choreutinula</i> |
| Eyes reduced, 3+3 in Japanese species.....                    | <i>Mesogastrura</i> |
| 7. Eyes not reduced. Dentes usually with 7 dorsal setae.....  | <i>Hypogastrura</i> |
| Eyes reduced. Dentes with reduced number of dorsal setae..... | <i>Schaefferia</i>  |

Genus **Hypogastrura** BOURLET, 1839

For the exact studies of Hypogastruridae the research of the chaetotaxy is inevitable (YOSII, 1956, 1960, 1962, GAMA 1969 CASSAGNAU 1974). The genus may be divided in three subgenera as:

- |  |                               |
|--|-------------------------------|
| 1. Eversible sac between ant.III and IV.....                                     | 2                             |
| No eversible sac of antennae.....  | <i>Hypogastrura</i> (s. str.) |
| 2. Four elements of PaO. subequal and radiating from the center.....             | <i>Ceratophysella</i>         |
| Two posterior elements of PaO. larger and encircling the accessory element ..... | <i>Cyclograna</i>             |

Subg. **Ceratophysella** BÖRNER, 1932

*Hypogastrura (Ceratophysella) ainu* YOSII, 1972.....Hokkaido

*Hypogastrura (Ceratophysella) communis* (FOLSOM, 1897): YOSII 1960, 1962  
.....cosmopolitan

*H. armata* (NICOLET): YOSII, 1940—SCOTT, H. G. 1961

*H.(C.) yuasai* YOSII, 1954

*C. communis f. principalis* YOSII, 1960

*Hypogastrura (Ceratophysella) denisana* YOSII, 1956, 1960.....Japan  
*C. denisi* YOSII, 1954 (homonym)

*Hypogastrura (Ceratophysella) denticulata* BAGNALL, 1941.....cosmopolitan  
*C. communis exilis* YOSII, 1954  
*C. exilis* YOSII, 1956

- Hypogastrura (Ceratophysella) duplicitispinosa* Yosii, 1954.....Japan, Korea, China  
*Hypogastrura (Ceratophysella) fukugakuchiana* Yosii, 1956.....Cave nr. Itoigawa  
*Hypogastrura (Ceratophysella) proserpinae* Yosii, 1956.....Cave in Pref. Iwate  
*Hypogastrura (Ceratophysella) quinqueoculata* Yosii, 1956.....Cave in Pref. Gifu  
*Hypogastrura (Ceratophysella) troglodytes* Yosii, 1956 nom. nov. for *H. troglodites* Yosii  
.....Japanese Caves  
*Hypogastrura (Ceratophysella) yakushimana* Yosii, 1965.....Yakushima, South Kyushu
- Subg. **Cyclograna** Yosii, 1961
- Hypogastrura (Cyclograna) horrida* Yosii, 1940.....Japan, Nepal, North America  
*Hypogastrura (Cyclograna) pilosa* Yosii, 1956.....Japan  
*Hypogastrura (Cyclograna) wrayia* UCHIDA et TAMURA, 1968.....Hokkaido
- Subg. **Hypogastrura** BOURLET, 1839
- Hypogastrura (Hypogastrura) aterrima* Yosii, 1972.....Hokkaido  
*Hypogastrura (Hypogastrura) gracilis* (FOLSOM, 1897): Yosii 1960.....Japan  
*Hypogastrura (Hypogastrura) itaya* KINOSHITA, 1916: Yosii 1960.....Japan  
*Hypogastrura (Hypogastrura) iwamurai* Yosii, 1960.....Japan  
*Hypogastrura (Hypogastrura) japonica* SCOTT, 1961.....species dubiosa  
*Hypogastrura (Hypogastrura) manubrialis* (TULLBERG, 1869); Yosii, 1960, 1964  
.....cosmopolitan
- Hypogastrura yamagata* KINOSHITA, 1916
- Hypogastrura (Hypogastrura) nemoralis* Yosii, 1960.....Japan, Korea  
*Hypogastrura (Hypogastrura) paradoxa* Yosii, 1965.....Japan  
*Hypogastrura (Hypogastrura) reticulata* BÖRNER, 1909: Yosii, 1960.....Japan  
*Hypogastrura (Hypogastrura) theeli* (TULLBERG, 1876): Yosii, 1972  
.....Siberia, Hokkaido, Canada
- Genus **Schoettella** SCHÄFFER, 18996  
*Schoettella ununguiculata* (TULLBERG, 1869): SCOTT 1961.....dubious record
- Genus **Schaefferia** ABSOLON, 1900  
*Schaefferia emucronata decemoculata* STACH, 1939: UCHIDA et TAMURA 1968  
.....Europe, Japan
- Genus **Mesogastrura** BONET, 1930  
*Mesogastrura kuzuensis* Yosii, 1956.....Cave in Pref. Tochigi
- Genus **Choreutinula** PACLT, 1944  
*Choreutinula inermis* (TULLBERG, 1871).....Europe, Japan  
syn. nov. *Beckerella yanoi* KINOSHITA, 1932
- Genus **Xenylla** TULLBERG, 1869  
*Xenylla arenosa* UCHIDA et TAMURA, 1967.....Sea shore of Hokkaido  
*Xenylla brevispina* KINOSHITA, 1916: GAMA 1971.....Japan  
*Xenylla humicola* (FABRICIUS, 1780): Yosii 1954, UCHIDA 1954  
*Xenylla longicauda* FOLSOM, 1897.....species dubia

Genus **Willemia** BÖRNER, 1901*Willemia japonica* YOSHII, 1970.....HonshuGenus **Acherontides** BONET, 1945*Acherontides vivax* YOSHII, 1956.....Caves of Northern Honshu3. Family **Neanuridae** BÖRNER, 19011. Subfamily **Pseudachorutinae** PALISSA, 1964

In this group the buccal apparatus is deforming, the molar plate or the whole mandible is absent. In general this is a degrading tendency and mouth is protruded forming a triangular buccal cone. Together with the characteristic chaetotaxy of the trunk these disjunctional trend of mouth parts must be taken into account. For the small species (*Friesea*, *Micranurida*, *Pseudachorutes* etc.) further researches are necessary.

1. PaO. absent .....	2
PaO. present or absent .....	5
2. With anal spines .....	3
Without anal spines .....	4
3. With unpaired number of anal spines .....	<i>Friesea</i>
With paired number of anal spines .....	<i>Oudemansia</i>
4. Furca well developed, marine species.....	<i>Pseudanurida</i>
Furca reduced or absent, humicolous species.....	<i>Paranura</i>
5. Mandibles absent .....	<i>Brachystomella</i>
Mandibles present .....	6
6. Dentes spoon shaped distally .....	7
Dentes not spoon-shaped.....	8
7. Dentes with two lobate lamellae.....	<i>Odontella</i>
Dentes without lamellae.....	<i>Xenyllodes</i>
8. Segmentes of furca all present .....	9
Furca absent or reduced .....	10
9. Body depressed, with broad paratergites.....	<i>Ceratimeria</i>
Body subcylindrical .....	<i>Pseudachorutes</i>
10. Maxilla complex at apex.....	<i>Anurida</i>
Apex of maxilla styliform.....	11
11. Body surface verrucose with compound granules.....	<i>Grananurida</i>
Body surface normally granulate.....	<i>Micranurida</i>

Genus **Friesea** DALLA TORRE, 1895

The genus may be divided in two subgenera. *Friesea* (s. str.) is very small and abundant in the forest litter. *Conotelsa* is halophilous living among pebbles of the shore.

Furca well developed.....	<i>Conotelsa</i> DENIS, 1925
Furca reduced.....	<i>Friesea</i> (s. str.)

*Friesea* (*Friesea*) *japonica* YOSHII, 1954: YOSHII, 1956, 1972.....Japan

*Friesea (Conotelsa) oshoro* UCHIDA et TAMURA, 1966.....Sea shore of Hokkaido  
*Friesea (Conotelsa) pacifica* YOSII, 1958: UCHIDA et TAMURA 1966.....Sea shore of Japan

Genus **Oudemansia** SCHÖTT, 1893

Halophilous species of the warm region of the world.

*Oudemansia esakii* (KINOSHITA, 1932): YOSII, 1958.....Japan

*Pseudachorutes esakii*: KINOSHITA, 1932; UCHIDA 1954

*Oudemansia subcoerulea* DENIS, 1948: YOSII, 1971.....Japan, Vietnam

*Oudem. hirashimai*: UCHIDA, 1965

Genus **Pseudanurida** SCHÖTT, 1901

This is also a halophilous genus with only one known species.

*Pseudanurida billitonensis* SCHÖTT, 1901: YOSII 1955  
.....Indonesia, Australia, Japan (Ryukyu)

Genus **Paranura** AXELSON, 1902

Sluggish species of the forest in the temperate region.

*Paranura formosana* YOSII, 1965: YOSII 1969.....Formosa, Japan

*Paranura sexpunctata* (AXELSON, 1902): YOSII, 1969, 1972  
.....Europe, Japan, North America

*Paranura s-uenoi* YOSII, 1955.....Ryukyu

Genus **Odontella** SCHÄFFER, 1897

Body hemispherical, gray in colour. Integument is intensely granular. Two anal spines are not homologous with those of others, but correspond to the well developed granule of the integument. Buccal cone is intensely elongate.

*Odontella cornuta* YOSII, 1965.....Japan

*Odontella distincta* YOSII, 1954.....Japan

*Odontella japonica* KINOSHITA, 1932.....species dubia

*Odontella similis* YOSII, 1954; YOSII 1956.....Japan

*Odontella thauma* BÖRNER, 1909.....species inquirenda

*Odontelloides thauma*: STACH, 1949

Genus **Xenyllodes** AXELSON, 1903

Alike to *Odontella* in facies, but distinguished by the furca.

*Xenyllodes armatus* (AXELSON, 1903); UCHIDA et TAMURA, 1968 .....Europe, Japan

Genus **Brachystomella** AGRENN, 1903

The facies is alike to Hypogastruridae, but well defined by the total absence of mandibles.

*Brachystomella hiemalis* YOSII, 1956.....Japan

Genus **Pseudachorutes** TULLBERG, 1871

The genus includes both large and small species, the taxonomy is yet incomplete.

*Pseudachorutes insularis* YOSII, 1965.....Ryukyu

*Pseudachorutes japonicus* KINOSHITA, 1916; YOSII, 1954.....Honshu

*Pseudachorutes longisetis* YOSII, 1961.....Japan

*Pseudachorutes parvulus* BÖRNER, 1901; YOSII, 1954 (f. *infuscata*) ..... Europe, Japan

Genus **Caratrimeria** BÖRNER, 1906

Large species, flat in appearance by the development of paratergites. Often it is abundant on decaying trunk of the tree. Many species in the oriental region.

*Ceratrimeria takaoensis* (KINOSHITA, 1916) ..... Honshu

*Pseudachorutes takaoensis* KINOSHITA, 1916

*Ceratrimeria yasumatsui* (UCHIDA, 1950) ..... Kyushu

*Pseudachorutes yasumatsui* UCHIDA, 1950

Genus **Micranurida** BÖRNER, 1901

Very small species of the forest flour. More species are to be expected from Japan.

*Micranurida papilloides* HAMMER, 1953; YOSII, 1972 ..... Canada, Japan

*Micranurida pygmaea* (BÖRNER, 1901); TAMURA et UCHIDA, 1966, YOSII, 1972

..... holarctic

Genus **Grananurida** YOSII, 1954

Only one species. It is yellowish in living and sluggish under fallen leaves.

*Grananurida tuberculata* YOSII, 1954 ..... Honshu

Genus **Anurida** LABOULBENE, 1865

*Anurida* (s. str.) is not well represented in Japan. But *Aphoromma* lives as troglobiont and differentiated to many species in Japanese caves.

Furcal rest absent ..... *Anurida* (s. str.)

Furcal rest present ..... *Aphoromma* MACGILLIVRAY, 1893

*Anurida* (*Anurida*) *trioculata* KINOSHITA, 1916; UCHIDA 1951, YOSII 1956 ..... Japan

*Anurida* (*Aphoromma*) *assimilis* YOSII, 1956 ..... Kawachi-no-Kaza-Ana, Pref. Shiga

*Anurida* (*Aphoromma*) *assimilis persimilis* YOSII, 1956 ..... Onyu-no-Ana, Pref. Fukui

*Anurida* (*Aphoromma*) *desnuda* YOSII, 1956 ..... Oinu Ana, Pref. Gumma

*Anurida* (*Aphoromma*) *diabolica* YOSII, 1956 ..... Ryomen Iwaya, Pref. Gifu

*Anurida* (*Aphoromma*) *iriei* YOSII, 1970 ..... Rashomon Do, Pref. Okayama

*Anurida* (*Aphoromma*) *nuda* YOSII, 1956 ..... Ryusendo, Pref. Iwate

*Anurida granaria* (NICOLET); UCHIDA 1952

*Anurida* (*Aphoromma*) *okamotoi* YOSII, 1970 ..... Yayamadake Do, Pref. Kumamoto

*Anurida* (*Aphoromma*) *setosa* YOSII, 1956 ..... Kugo Do, Pref. Gifu

*Anurida* (*Aphoromma*) *speobia* YOSII, 1954; YOSII 1956 ..... Shizushi Do, Pref. Kyoto

*Anurida* (*Aphoromma*) *vicaria* YOSII, 1956 ..... Hakuba Do, Pref. Fukui

## 2. Subfamily Neanurinae CAROLI, 1910

Phylogenetic interpretation of Neanurinae is confusing. It is easy to separate them in *Protanura* and *Neanura* after the structure of mouth parts, but it is the artificial classification, as even in a compact group of *Morulina* both types of mouth parts are present (*M. gigantea* vs. *M. gilvipunctata*). Besides the red-species of Asia have various types of mouth parts although they might be nearly related to each other. Following con-

ception is the effort to make the system more rational and intelligible. One other problem is the interpretation of the genus *Lobella* BÖRNER, 1906 with the type species *L. sauteri* BÖRNER, which is very poorly described and its identification is the matter of great difficulty. Once I have identified it to one species from Nara (YOSII, 1956), but this species is very rare and, besides, it does not coincide with BÖRNER's description of mouth parts, that the maxillae are alike to *Anurida* with many lamellae, so that it is hardly imaginable to be conspecific with BÖRNER's type specimen if it is still present. As there are many species of *Lobella* with the head of maxilla in form of *Anurida* and with three pairs of segmental tubercles on abd. V, I retain the genus *Lobella* to the group related to *L. similis* YOSII, 1954 and *L. sauteri* BÖRNER as species inquirenda. *Yosialina* SALMON, 1964 becomes the junior synonym of *Lobella*. From many taxa established by me *Melanura* YOSII, 1954 is a synonym of *Neanura* (s. str.), *Lobellina* YOSII, 1956 and *Coecoloba* YOSII, 1956 would be a subgenus of *Lobella*, while *Yuukianura* YOSII, 1955 would be a special group within *Lobella* (s. str.) not to be separated from other groups. Almost all of *Neanurinae* are humicolous, but some are halophilous or cavernicolous in Japan.

- |   |                                     |
|---|-------------------------------------|
| 1. PaO present, rosette-form.....   | <i>Morulina</i>                     |
| PaO not present.....  | 2                                   |
| 2. Segmental tubercles with areolar reticulum of the integument. Colour usually grey..... | <i>Neanura</i>                      |
| Segmental tubercles without areolar reticulum, colour red to white.....                   | 3                                   |
| 3. Mandible fringed and flagellate. Maxilla styliform and deeply bifid.....               | <i>Crossodonthina</i>               |
| Mandible and maxilla not as above .....   | 4                                   |
| 4. Mandible tridentate, maxilla styliform .....   | 5                                   |
| Mandible pluridentite, maxilla with lamellae .....  | 6                                   |
| 5. Segmental tubercles warty and verrucose.....   | <i>Vitronura</i>                    |
| Segmental tubercles granulate evenly.....   | <i>Propeanura</i>                   |
| 6. Maxilla complicate apically and with some fringed lamellae .....                       | 7                                   |
| Maxilla minutely bidentate apically and with trace of thin lamellae .....                 | <i>Lobella</i> ( <i>Lobellina</i> ) |
| 7. Eyes absent, white cave species.....   | <i>Labella</i> ( <i>Coecoloba</i> ) |
| Eyes present.....   | <i>Lobella</i> ( <i>Lobella</i> )   |

#### Genus **Morulina** BÖRNER, 1906

- Morulina gigantea* (TULLBERG, 1876): UCHIDA 1950, YOSII 1954, 1958, 1972  
.....Siberia, Japan

*Neanura gigantea* TULLBERG, 1876: UCHIDA 1937

- Morulina gilvipunctata* (UCHIDA, 1938): YOSII 1958.....Honshu (Tohoku)  
    *Neanura gilvipunctata* UCHIDA, 1938

#### Genus **Neanura** NACGILLIVRAY, 1893

- Neanura abietis* YOSII, 1969, 1972.....Japan  
*Neanura ezomontana* YOSII, 1972.....Hokkaido

- Neanura fodinarum* YOSII, 1956.....Japanese Caves  
*Neanura frigida* YOSII, 1969.....Japan  
*Neanura iriomotensis* YOSII, 1965.....Ryukyu  
*Neanura okinawana* YOSII, 1965.....Okinawa  
*Neanura ornata* FOLSOM, 1902: H. G. SCOTT, 1961.....dubious record  
*Neanura piceae* YOSII, 1969.....Japan  
*Neanura sanctisebastiani* (YOSII, 1954): YOSII 1965.....Honshu  
*Metanura sanctisebastiani* YOSII, 1954

#### Genus **Crossodonthina** YOSII, 1954

- Crossodonthina appendiculata* YOSII, 1956.....Japan  
*Crossodonthina koreana* YOSII et LEE, 1963: YOSII 1964.....Korea, Japan  
*Crossodonthina nipponica* YOSII, 1954.....Japan

#### Genus **Vitronura** YOSII, 1969

- Vitronura mandarina* (YOSII, 1954): YOSII 1956, 1969.....Japan  
*Neanura mandarina* YOSII, 1954  
*Vitronura parvituberculata* (YOSII, 1965): YOSII 1969.....Tanegashima  
*Bilobella parvituberculata* YOSII, 1965  
*Vitronura pygmaea* (YOSII, 1954): YOSII 1969.....Japan, Formosa, Malaya  
*Matanura pygmaea* YOSII, 1954

#### Genus **Propeanura** YOSII, 1956

- Propeanura ieti* YOSII, 1966.....Japan, Nepal  
*Lobella* (*Propeanura*) *ieti* YOSII, 1969  
*Propeanura pterothrix* (BÖRNER, 1909).....Japan  
*Achorutes pterothrix* BÖRNER, 1909  
*Neanura pterothrix*: YOSII 1956

#### Genus **Lobella** BÖRNER, 1906

##### Subg. **Lobellina** YOSII, 1956

- Lobella* (*Lobellina*) *cavicola* (YOSII, 1956).....Cave in Pref. Kochi  
*Yuukanura cavicola* YOSII, 1956  
*Lobella* (*Lobellina*) *decipiens* YOSII, 1965 .....South Kyushu  
*Lobella* (*Lobella*) *decipiens* YOSII, 1965  
*Lobella* (*Lobellina*) *kitazawai* YOSII, 1965 .....Middle Honshu  
*Lobella* (*Lobellina*) *mizunashiana* YOSII, 1956.....Cave in Pref. Fukuoka  
*Lobella* (*Lobella*) *mizunashiana* YOSII, 1956  
*Lobella* (*Lobellina*) *roseola* YOSII, 1954.....Japan  
*Lobella* (*Lobellina*) *roseola*: YOSII 1954, 1956, 1969  
*Lobella* (*Lobellina*) *stachi* YOSII, 1956.....Japan  
*Lobella* (*Lobella*) *stachi* YOSII, 1956  
*Lobella* (*Lobellina*) sp.....Japan  
*Lobella sauteri* nec BÖRNER; YOSII 1956

Subgenus **Coecoloba** YOSII, 1956

- Lobella (Coecoloba) hidana* (YOSII, 1956).....Cave of Pref. Gifu  
*Coecoloba hidana* YOSII, 1956
- Lobella (Coecoloba) kurasawana* (YOSII, 1956).....Cave of Pref. Tokyo  
*Coecoloba kurasawana* YOSII, 1956
- Lobella (Coecoloba) lobella* (YOSII) 1954.....Cave of Pref. Kyoto  
*Protanura lobella* YOSII, 1954  
*Coecoloba lobella*: YOSII, 1956
- Lobella (Coecoloba) odai* (YOSII, 1956) .....Cave of Pref. Gifu  
*Coecoloba odai* YOSII, 1956
- Lobella (Coecoloba) wakasana* (YOSII, 1956).....Cave of Pref. Fukui  
*Coecoloba wakasana* YOSII, 1956

Subgenus **Lobella** (s. str.)

- Lobella (Lobella) aphorurooides* (YOSII, 1953).....Japan, Malaya  
*Protanura aphorurooides* YOSII, 1953, SCOTT 1961  
*Yuukianura aphorurooides*: YOSII 1955
- Lobella (Lobella) halophila* (YOSII, 1955).....Shore in Ryukyu  
*Yuukianura halophila* YOSII, 1955  
*Lobella halophila*: YOSII 1971
- Lobella (Lobella) nomurai* (YOSII, 1956).....Cave in Pref. Oita  
*Yuukianura nomurai* YOSII, 1956
- Lobella (Lobella) pacifica* YOSII, 1971 .....Sea shore of South Japan
- Lobella (Lobella) sauteri* BÖRNER, 1906.....species inquirenda
- Lobella (Lobella) similis* YOSII, 1954.....Japan  
 YOSII 1954, 1956
- Lobella (Lobella) uozumii* YOSII, 1956.....Cave in Pref. Kochi  
 Dubious Neanurid species  
*Achorutes japonicus* BÖRNER, 1909  
*Neanura pseudornata* SCOTT, 1961  
*Achorutes roseus* (GERVAIS)  
 BÖRNER, 1909, UCHIDA 1951, b  
*Neanura takaoensis* KINOSHITA, 1932

4. Family **Onychiuridae** BÖRNER, 1913

The Family is well represented in Japan. For the genus *Onychiurus* and *Tullbergia* of the *Mesaphorura* group further researches are to be made.

1. Body coloured, with well developed furca ..... 2  
 Body white, furca reduced ..... 3
2. With compound type of PaO.....*Lophognathella*  
 Without PaO, or it is not much different from integumentary granules ..... *Homaloprotus*
3. Body slender, two bulbs of ant.II-organ are bowed to each other.....*Tullbergia*  
 Body large, two bulbs of ant.III-organ are small and erected.....*Onychiurus*

Genus **Lophognathella** BÖRNER, 1908*Lophognathella choreutes* BÖRNER, 1908: YOSII, 1958, .....Japan, North AmericaGenus **Homaloproctus** BÖRNER, 1909*Homaloproctus sauteri* BÖRNER, 1909: UCHIDA, 1953, YOSII 1958, SALMON 1959, .....JapanGenus **Tullbergia** LUBBOCK, 1876*Tullbergia (Mesaphorura) krausbaueri* BÖRNER, 1901: YOSII, 1965, UCHIDA et TAMURA 1968, .....Cosmopolitan  
Identity with *Mesaphorura yosii* RUSEK, 1967, 1971 must be inspected.Genus **Oncychiurus** GERVAIS, 1841Japanese species of *Oncychiurus* are not yet sufficiently investigated. As the taxonomy of the genus is in dispute it is provisionally divided in following groups.

1. PaO. very small, composed of a few number of elements... **affinis-group** (*Oligaphorura*)  
PaO. large, composed of many elements ..... 2
2. Elements of PaO. simple ..... 3  
Elements of PaO. compound ..... 4
3. Elements arranged parallel to the axis of the organ... **sibiricus-group** (*Hymenaphorura*)  
Elements arranged radially..... **armatus-group** (*Protaphorura*)
4. Bulbs of ant.III-organ smooth..... **fimetarius-group** (*Oncychiurus* s. str.)  
Bulbs of ant.III-organ granulate..... **ramosus-group** (*Paronychiurus*)

**affinis-group***Oncychiurus schoetti* (LIE-PETTERSEN, 1896): UCHIDA et TAMURA 1966, .....dubious record  
*Oncychiurus tottabetsuensis* YOSII, 1972, .....Hokkaido**sibiricus-group***Oncychiurus sibiricus* (TULLBERG, 1876): YOSII 1956, .....Europe, Siberia, Japan  
*Oncychiurus watanabei* MATSUMOTO 1929: YOSII 1954**armatus-group**

- Oncychiurus granulatus* BÖRNER, 1909: YOSII 1972, .....Japan  
*Oncychiurus ishikawai* YOSII, 1956, .....cave species  
*Oncychiurus longisensillatus* YOSII, 1969, .....Honshu  
*Oncychiurus longisensillatus nutak* YOSII, 1972, .....Hokkaido  
*Oncychiurus matsumotoi* KINOSHITA, 1929, .....species inquirenda  
*Oncychiurus octopunctatus* (TULLBERG, 1976): UCHIDA et TAMURA 1967, YOSII 1972  
..... Hokkaido  
*Oncychiurus okafujii* YOSII, 1967, .....Honshu  
*Oncychiurus orthacanthus* HANDSCHIN, q920, .....dubious record  
*Oncychiurus pseudarmatus teres* YOSII, 1956, .....Honshu  
*Oncychiurus pseudarmatus yagii* KINOSHITA, 1923: YOSII, 1954, .....Honshu  
*Oncychiurus yagii* KINOSHITA, 1923  
*Oncychiurus tomuraushensis* (YOSII, 1940): YOSII 1972, .....Hokkaido  
*Tullbergia tomuraushensis* YOSII, 1940

- Onychiurus uenoi* YOSII, 1954: YOSII 1956.....Japan, Korea  
*Onychiurus yodai* YOSII, 1966: YOSII 1969.....Japan, Nepal

**fimetarius-group**

- Onychiurus folsomi* (SCHÄFFER, 1900): YOSII 1953, 1956.....Japan, China  
*Aphorura inermis* TULLBERG, 1872: FOLSOM 1899  
*Onychiurus sinensis* STACH, 1954  
*Onychiurus formosanus* DENIS, 1929: YOSII 1956.....Formosa, Japan  
*Onychiurus izuruensis* YOSII, 1956, 1966.....Japan, Korea

**ramosus-group**

- Onychiurus conjungens* BÖRNER, 1909: SAMSON 1959, UCHIDA et TAMURA 1968  
.....species inquirenda  
*Onychiurus flavescens* KINOSHITA, 1916: YOSII 1954, 1956.....Japan, Korea  
*Onychiurus imadatei* YOSII, 1956.....Honshu (Mt. Ibuki)  
*Onychiurus japonicus* YOSII, 1967: YOSII 1972.....Japan  
*Onychiurus ramosus* FOLSOM, 1917: SCOTT 1959 .....dubious record

5. Family **Isotomidae** BÖRNER, 1913

1. Integument granulate or reticulate.....Anurophorinae BÖRNER, 1901  
Integument smooth ..... 2
2. Dentes short, dorsally smooth, granulate or with very few annulation. Manubrium ventrally without or with very few number of setae  
.....Proisotominae STACH, 1947  
Dentes long, dorsally with many crenulations. Manubrial ventral setae numerous  
.....Isotominae SCHÄFFER, 1896

1. Subfamily **Anurophorinae** BÖRNER, 1901

1. With anal spines..... 2  
Without anal spines ..... 4
2. With four anal spines, Integument reticulate.....*Tetracanthella*  
With two anal spines ..... 3
3. Abd.V and VI ankylosed.....*Uzelia*  
Abd.V and VI separated.....*Anurophorouzelia*
4. Furca quite absent ..... 5  
Furca present.....*Coloburella*
5. Eyes 8+8 .....*Anurophorus*  
Eyes reduced .....*Pseudanurophorus*

Genus **Tetracanthella** SCHÖTT, 1891

- Tetracanthella sylvatica* YOSII, 1939.....Japan

Genus **Uzelia** ABSOLON, 1901

- Uzelia setifera japonica* YOSII, 1961.....Japan

Genus **Anuroporouzelia** STACH, 1947

- Anuroporouzelia rara* (YOSII, 1939): STACH 1947.....Species inquirenda  
*Uzelia rara* YOSII, 1939

Genus **Anuroporus** NICOLET, 1841

- Anuroporus laricis* NICOLET, 1841: YOSII 1961, UCHIDA 1969.....Japan, Europe  
(f. *clavipila* STACH included)

Genus **Pseudanuroporus** STACH, 1922

- Pseudanuroporus binoculatus* KSENEMAN, 1934: YOSII 1969.....Europe, Japan

Genus **Coloburella** LATZEL, 1917

- Coloburella japonica* YOSII, 1965.....Honshu

2. Subfamily **Proisotominae** STACH, 1947

- |  |                      |
|--|----------------------|
| 1. Abd.IV, V and IV ankylosed .....                      | 2                    |
| Abd.IV is not ankylosed .....                            | 3                    |
| 2. Mucro falciform. Eyes and PaO absent .....            | <i>Folsomina</i>     |
| Mucro bidentate. PaO. present .....                      | <i>Folsomia</i>      |
| 3. Manubrium without ventral setae.....                  | 4                    |
| Manubrium with some ventral setae .....                  | 6                    |
| 4. Mouth parts strongly modified. Sea shore species..... | <i>Archisotoma</i>   |
| Mouth parts not modified .....                           | 5                    |
| 5. Dentes without distal bulb.....                       | <i>Ballistura</i>    |
| Dentes with distal bulb .....                            | <i>Appendisotoma</i> |
| 6. Body very elongate. Furca very short.....             | <i>Dagamaea</i>      |
| Body normal. Furca elongate .....                        | 7                    |
| 7. PaO absent. Ant. IV with ca. 6 blunt sensillae.....   | <i>Isotomiella</i>   |
| PaO present.....   | 8                    |
| 8. PaO is composed of 4 elements in a circle.....        | <i>Microisotoma</i>  |
| PaO is simple .....                                      | 9                    |
| 9. Abd.V and VI totally fused.....                       | <i>Cryptopygus</i>   |
| Abd.V and VI independent or incompletely fused.....      | <i>Proisotoma</i>    |

Genus **Folsomina** DENIS, 1931

- Folsomina onychiurina* DENIS, 1931: YOSII 1965.....cosmopolitan

Genus **Folsomia** WILLEM, 1902

- Folsomia candida* WILLEM, 1902: YOSII 1953, 1956.....cosmopolitan

*Folsomia dubia* KINOSHITA, 1917: KINOSHITA, 1932

*Folsomia fontis* YOSII, 1953

- Folsomia decemoculata* STACH, 1946: H. G. SCOTT 1959.....dubious record

- Folsomia diplophthalma* (AXELSON, 1902): YOSII 1939.....holarctic

- Folsomia fimetaria* (LINNE, 1758): YOSII 1939, 1956.....holarctic

- Folsomia hasegawai* YOSII, 1959.....Japan

- Folsomia hidakana* UCHIDA et TAMURA, 1968.....Hokkaido  
*Folsomia inoculata* STACH, 1947: YOSII 1972.....palearctic  
*Folsomia ezoensis* YOSII, 1965  
*Folsomia nakajimai* YOSII, 1959.....Japan, Tonga-Is  
*Folsomia octoculata* HANDSCHIN, 1925: YOSII 1939, 1954, 1956, 1972, H. G. SCOTT 1959  
.....Java, Nepal, Japan  
*Folsomia uenoea* UCHIDA, 1943  
*Folsomia quadrioculata* (TULLBERG, 1871): YOSII 1939, 1956, 1972, UCHIDA et SUMA 1973  
.....holarctic  
*Folsomia regularis* HAMMER, 1953: YOSII 1969.....Japan, Canada  
*Folsomia ozeana* YOSII, 1954
- Genus **Archisotoma** LINNANIEMI, 1912  
*Archisotoma tokiokai* YOSII, 1971 .....Japanese Coast  
*Archisotoma utinomii* YOSII, 1971 .....Japanese Coast  
 Probably identical with *Archisotoma interstitialis* DELAMARE, 1953
- Genus **Appendisotoma** STACH, 1947  
*Appendisotoma mitra* UCHIDA et TAMURA, 1968.....Hokkaido
- Genus **Ballistura** BORNER, 1906  
*Ballistura lamelligera* (BÖRNER, 1909).....species inquirenda  
*Proisotoma lamelligera* BORNER, 1909  
*Ballistura stricta* (YOSII, 1939).....Japan  
*Proisotoma stricta* YOSII, 1939  
*Ballistura takeshitai* (KINOSHITA, 1916): .....Japan  
*Proisotoma takeshitai* KINOSHITA, 1916: KINOSHITA 1932, YOSII 1939  
*Ballistura yosii* STACH, 1947.....Japan  
*Ballistura schoetti* (DALLA TORRE): YOSII 1939
- Genus **Dagamaea** YOSII, 1965  
*Dagamaea japonica* YOSII, 1965 .....Japan  
 Probably to be renamed as *Dagamaea tenuis* (FOLSON, 1937)
- Genus **Micrisotoma** BELLINGER, 1952  
*Micrisotoma achromata* BELLINGER, 1952.....USA, Japan
- Genus **Isotomiella** BAGNALL, 1939  
*Isotomiella minor* (SCHÄFFER, 1900): YOSII 1939, 1959, 1972.....cosmopolitan
- Genus **Cryptopygus** WILLEM, 1901  
*Cryptopygus thermophilus* (AXELSON, 1900).....cosmopolitan  
*Isotomina thermophila* (AXELSON): UCHIDA et TAMURA 1967
- Genus **Proisotoma** BÖRNER, 1901  
*Proisotoma alba* YOSII, 1939.....Japan  
*Proisotoma minima* ABSOLON, 1901: YOSII 1956.....holarctic

3. Subfamily **Isotominae** SCHÄFFER, 1986,

1. PaO at the basis of antennae, far remote from the eye-field (In Japanese species mouth part is modified)..... *Cephalotoma*  
 PaO is placed near the eye-field ..... 2
2. Dentes dorsally granulate throughout ..... 3  
 Dentes dorsally crenulate ..... 4
3. Dentes with a stout apical spine ..... *Agrenia*  
 Dentes without apical spine ..... *Granisotoma*
4. With anal spines ..... *Spinisotoma*  
 Without anal spines ..... 5
5. Ant.III with some 15–20 sensillae. Unguis with filiform appendices anteriorly ..... *Axelsonia*
6. With ciliate setae sensuales. Manubrium and dentes with many sort setae dorsally ..... *Isotomurus*  
 Without such s.s. Manubrium and dentes dorsally with dewernumber of sterong setae ..... 7
7. Unguis with prominent dorsal teeth in form of wings or prostheca ..... *Pteronychella*  
 Unguis not as above ..... 8
8. Ventral side of manubrium has a group of strong spiny setae near the distal end ..... *Isotoma*  
 Ventral side of manubrium not as above ..... 9
9. Middle tibiotarsus with two feathered setae ..... *Halisotoma*  
 Middle tibiotarsus not as above ..... *Desoria*

Genus **Cephalotoma** BAGNALL, 1949

*Cephalotoma ursi* YOSII, 1972 ..... Hokkaido

Genus **Agrenia** BÖRNER, 1906

*Agrenia bidenticulata* (TULLBERG, 1876): YOSII 1938, UCHIDA et SUMA 1973  
 ..... holarctic

Genus **Granisotoma** STACH, 1947

*Granisotoma kisoana* (YOSII, 1939): YOSII 1965 ..... Honshu, Cryophilous  
*Isotoma kisoana* YOSII, 1965

*Granisotoma sadoana* YOSII, 1965 ..... Honshu, Cryophilous

Genus **Spinisotoma** STACH, 1296

*Spinisotoma pectinata* STACH, 1926: UCHIDA et TAMURA, 1967  
 ..... Now believed to be an ecomorphosis of *Desoria* sp.

Genus **Axelsonia** BÖRNER, 1906

*Axelsonia nitida* (FOLSOM, 1899): YOSII 1966 ..... Japan, India, halophilous  
*Axelsonia littoralis* (MONIEZ): YOSII 1955  
 syn. nov.: *Isotoma* (*Isotoma*) *pteromucronata* UCHIDA, 1965

Genus **Isotomurus** BÖRNER, 1903

- Isotomurus balteatus* (REUTER, 1876): BÖRNER, 1909, YOSII 1939, YOSII et LEE 1963 ..... holarctic  
*Isotomurus infuscatus* YOSII, 1963 ..... Japan  
*Isotomurus palustris fuciculus* (REUTER): YOSII 1955  
*Isotomurus palustris* (MÜLLER, 1776): UCHIDA 1943 ..... dubious record  
*Isotomurus prasinus* (REUTER, 1891): YOSII 1954 ..... holarctic  
*Isotomurus palustris* f. *prasinus* (REUTER): YOSII 1954  
*Isotomurus punctiferus* YOSII, 1963 ..... Japan, Pakistan  
*Isotomurus takahashii* (YOSII, 1940): YOSII 1963 ..... Japan, Formosa  
*Isotomurus alticulus japonicus* YOSII, 1956  
*Isotoma takahashii* YOSII, 1940

Genus **Pteronychella** BÖRNER, 1909

- Pteronychella babai* YOSII, 1939 ..... Honshu  
*Pteronychella ezoensis* YOSII, 1965 ..... Hokkaido  
*Pteronychella perpulchra* BÖRNER, 1909: YOSII 1939 ..... Honshu, Shikoku  
*Pteronychella spathiosa* UCHIDA et TAMURA, 1968 ..... Hokkaido

Genus **Halisoloma** BAGNALL, 1949

- Halisoloma maritima* (TULLBERG, 1871) ..... Japan, Europe; halophilous  
 syn. nov.: *Isotoma pacifica* YOSII, 1971  
 H. G. SCOTT's record of this species in 1959 is dubious.

Genus **Desoria** NICOLET, 1841

- Desoria albella* (PACKARD, 1873): YOSII 1954 ..... holarctic  
*Desoria arborea* (LINNE, 1785): UCHIDA, 1969 ..... holarctic  
*Desoria dichaeta* (YOSII, 1969) ..... Honshu  
*Isotoma dichaeta* YOSII, 1969  
*Desoria gracillisia* (BÖRNER, 1909) ..... Japan  
*Isotoma gracillisia* BÖRNER, 1909: YOSII 1939  
*Desoria hyonosenensis* (YOSII, 1939) ..... Japan  
*Isotoma hyonosensis* YOSII, 1939  
*Desoria japonica* (YOSII, 1939): YOSII 1954 ..... species dubia  
*Isotoma japonica* YOSII, 1939  
*Desoria negishina* (BORNER, 1909) ..... species inquirenda  
*Isotoma negishina* BÖRNER, 1909  
*Desoria notabilis* (SCHAFFER, 1896) ..... cosmopolitan  
*Isotoma notabilis* (SCHAFFER 1896): YOSII 1969, 1972  
*Desoria occulta* (BORNER, 1909) ..... Japan  
*Isotoma occulta* BÖRNER, 1909: YOSII 1939  
*Desoria olivacea* (TULLBERG, 1871) ..... dubious record  
*Isotoma olivacea* TULLBERG: YOSII 1954  
*Desoria sensibilis* (TULLBERG, 1872): ..... cosmopolitan  
*Pseudisotoma sensibilis* (TULLBERG): YOSII 1963, 1965, UCHIDA et SUMA 1973

- Desoria trispinata* (MACGILLIVRAY, 1896): UCHIDA 1943, 1954, YOSII 1955 ..... Holarctic  
*Desoria yukinomi* (YOSII, 1939)..... Honshu, cryophilous  
*Isotoma yukinomi* YOSII, 1939: YOSII 1963
- Genus **Isotoma** BÖURLET, 1839
- Isotoma carpenteri* BÖRNER, 1909: YOSII 1939, 1963..... Japan  
*Isotoma nishihirai* YOSII, 1965..... Okinawa  
*Isotoma ohtanii* YOSII, 1972..... Hokkaido  
*Isotoma pinnata* BÖRNER, 1909: YOSII 1939, 1963..... Japan  
*Isotoma pinnata* v. *alba* H. UCHIDA, 1943.....  
*Isotoma pinnata* v. *coracina* BÖRNER, 1909 .....  
*Isotoma pinnata* v. *fasciata* BÖRNER, 1909: UCHIDA 1943.....  
*Isotoma pinnata* v. *melanocephala* BÖRNER, 1909: UCHIDA 1943.....  
*Isotoma pinnata* v. *v-album* BÖRNER, 1909.....  
*Isotoma virgata* YOSII, 1963..... Yakushima  
*Isotoma viridis* BOURLET, 1839: YOSII 1940, 1954, UCHIDA 1943 ..... holarctic

### 5. Family **Tomoceridae** SCHÄFFER, 1896

In Japan the Family is richly represented and relatively well investigated.

1. Dentes without large outer setae..... 2  
 Dentes with large outer setae proximally..... 4
2. Trochanteral organ well represented. Eyes absent..... *Lethemurus*  
 Trochanteral organ reduced..... 3
3. Mucro with one dorsal lamella. Dentes proximally with scaly appendix  
 ..... *Pogonognathellus*  
 Mucro with two dorsal lamellae. Dentes without scaly appendix..... *Tomocerus*
4. Trochanteral organ both on trochanter and femur..... *Plutomurus*  
 Trochanteral organ developed on femur..... *Aphaenomurus*

#### Genus **Pogonognathellus** PACLT, 1944

- Pogonognathellus beckeri* (BÖRNER, 1909): YOSII 1946, 1967..... Honsho  
*Pog. flavescens* (TULLBERG): YOSII 1954, 1956  
*Pogonognathellus borealis* YOSII, 1967..... Hokkaido  
*Tomocerus flavescens* var. *arcticus* SCHÖTT: YOSII 1940

#### Genus **Tomocerus** NICOLET, 1842

The genus may be split to some subgenera as follows:

1. Outer basal tooth of mucro absent..... *Monodontocerus*  
 Outer basal tooth of mucro present..... 2
2. Outer basal tooth of mucro with a toothlet..... *Tomocerus* (s. str.)  
 Outer basal tooth of mucro without toothlet..... *Tomocerina*

- Tomocerus (Monodontocerus) modificatus* (YOSII, 1955), YOSII 1967..... Japan  
*Monod. modificatus*: YOSII 1955, 1956  
*Mond. mod. satsumensis* YOSII, 1956

- Tomocerus (Tomocerina) aokii* YOSII, 1972.....Hokkaido  
*Tomocerus (Tomocerina) lamelliferus* MILLS: UCHIDA et TAMURA 1968.....dubious record  
*Tomocerus (Tomocerina) liliputianus* YOSII, 1967.....Japan  
*Tomocerus (Tomocerina) varius* FOLSOM, 1899.....Japan  
     *Tomocerus minutus* TULLBERG: YOSII 1954, 1956  
*Tomocerus (Tomoceus) asahinai* YOSII, 1954: YOSII 1967.....Japan, Korea  
*Tomocerus (Tomocerus) cuspidatus* BÖRNER, 1909: YOSII 1967.....Japan  
     *Tomocerus kumei* YOSII, 1954  
     *Tomocerus uenoi* YOSII, 1954  
*Tomocerus (Tomocerus) ishibashii* YOSII, 1954: YOSII 1967.....Japan, Korea  
     syn. nov. *Tomocerus katoi* UCHIDA, 1969  
*Tomocerus (Tomocerus) jesonicus* YOSII, 1967.....Hokkaido  
     syn. ? *Tomocerus jezoensis* MATSUMURA et ISHIDA, 1931  
     *Tomocerus vulgaris jesonicus* YOSII, 1940, nomen nudum  
     syn. nov. *Tomocerus vulgaris* var. *kurilensis* UCHIDA, 1965  
*Tomocerus (Tomocerus) kinoshitai* YOSII, 1954: YOSII 1967.....Japan, Siberia  
     *Tom. kinos. dentiferus* YOSII, 1956  
*Tomocerus (Tomocerus) minor* LUBBOCK: UCHIDA 1954.....dubious record  
*Tomocerus ocreatus* DENIS, 1948: YOSII 1967.....Vietnam, Japan, Formosa  
     *Tomocerus kawamurai* YOSII, 1954  
     *Tom. kawamurai* f. *depicta* YOSII, 1955  
     *Tom. ochreatus* f. *kawamurai* YOSII, 1956  
*Tomocerus (Tomocerus) punctatus* YOSII, 1967.....Japan  
*Tomocerus sibiricus* AXELSON: UCHIDA 1969.....dubious record  
*Tomocerus (Tomocerus) violaceus* YOSII, 1956: YOSII, 1963, 1967.....Japan  
*Tomocerus (Tomocerus) viridis* YOSII, 1967.....Japan  
*Tomocerus (Tomocerus) vulgaris* (TULLBERG, 1971): UCHIDA, .....dubious record
- Genus **Aphaenomurus** YOSII, 1956  
*Aphaenomurus interpositus* YOSII, 1954.....Japan, Korea  
     *Aphaenomurus vicinus* YOSII, 1966  
*Aphaenomurus interpositus denticulatus* YOSII, 1956.....Japan
- Genus **Plutomurus** YOSII, 1956  
*Plutomurus edaphicus* YOSII, 1967 .....Japan  
*Plutomurus ehimensis* YOSII, 1956, 1967.....Cave in Shikoku  
     *Plutom. suzukaensis ehimensis* YOSII, 1956  
*Plutomurus gul* (YOSII, 1966).....Cave in Korea and Kyushu  
*Plutomurus kawasawai* YOSII, 1956, 1967.....Cave in Shikoku  
     *Plutom. yamatensis kawasawai* YOSII, 1956  
*Plutomurus kawasawai kyushuensis* YOSII, 1956: YOSII 1967.....Cave in Kyushu  
     *Plutom. yamatensis kyushuensis* YOSII, 1956  
*Plutomurus marmorarius* YOSII, 1967.....Cave in Pref. Okayama  
*Plutomurus riugadoensis* (YOSII, 1939) .....Japan  
     *Tritomurus riugadoensis* YOSII, 1939

- Plutomurus riugadoensis*: YOSII 1956, 1967  
*Tritomurus ishikawai* UCHIDA, 1940
- Plutomurus suzukaensis* (YOSII, 1939): YOSII 1956, 1967.....Cave in Japan  
*Tritomurus suzukaensis*: YOSII, 1939  
*Plutomurus suzukaensis ohminensis* YOSII, 1956  
*Plutomurus suzukaensis naikaiensis* YOSII, 1956
- Plutomurus yamatensis* YOSII, 1956: YOSII 1967 .....Caves of Pref. Nara
- Genus **Lethemurus** YOSII, 1970  
*Lethemurus finitimus* YOSII, 1970.....Cave in Hokkaido

#### 6. Family **Entomobryidae** SCHÄFFER, 1896

The Family is not yet fully investigated with respect to Japanese species. So the genus *Entomobrya* and *Homidia* must be reviewed with respect to their taxonomic characters. Further the genus *Lepidocyrtus* and *Pseudosinella* are quite uninspected. They must be reviewed after the new scope of GISIN et GAMA (1969, 1970, 1972 etc.).

- |  |                       |
|--|-----------------------|
| 1. Body without scales .....                             | 2                     |
| Body with scales .....                                   | 4                     |
| 2. Eyes reduced, with strong dorsal teeth of unguis..... | <i>Sinella</i>        |
| Eyes not reduced, unguis normal .....                    | 3                     |
| 3. Dentes with many spines.....                          | <i>Homidia</i>        |
| Dentes without spines .....                              | <i>Entomobrya</i>     |
| 4. Body scales coloured and with striae .....            | 5                     |
| Body scales hyaline and with faint ciliation .....       | 8                     |
| 5. Scales pointed and fusiform .....                     | 6                     |
| Scales rounded and oval .....                            | 7                     |
| 6. Scales of segmental margins elongate.....             | <i>Janetschekbrya</i> |
| Scales uniform all over.....                             | <i>Willowsia</i>      |
| 7. Mucro falcate.....                                    | <i>Seira</i>          |
| Mucro bidentate.....                                     | <i>Lepidosira</i>     |
| 8. Eyes 8+8.....   | <i>Lepidocyrtus</i>   |
| Eyes reduced, 0+0 to 6+6.....                            | <i>Pseudosinella</i>  |

#### Genus **Sinella** BROOK, 1882

The genus is to be divided in two subgenera.

- |   |                         |
|---|-------------------------|
| Dentes dorsally only with ciliate setae.....  | <i>Sinella</i> (s.str.) |
| Dentes dorsally with some smooth spiny setae.....   | <i>Coecobrya</i>        |
| <i>Sinella</i> ( <i>Sinella</i> ) <i>curviseta</i> BROOK, 1882: YOSII, 1942, 1956, UCHIDA 1954 .....    | holarctic               |
| <i>Sinella</i> ( <i>Sinella</i> ) <i>stalagmitorum</i> YOSII, 1954.....                                 | Cave in Honshu          |
| <i>Sinella</i> ( <i>Sinella</i> ) <i>straminea</i> (FOLSOM, 1899): .....                                | Japan, China            |
| <i>Sinella</i> ( <i>Sinella</i> ) <i>umesaoi</i> YOSII, 1940: YOSII 1954, 1955, 1956, UCHIDA 1954 ..... | Japan, Korea            |
| <i>Sinella decemoculata</i> UCHIDA, 1940  |                         |

- Sinella (Coecobrya) akiyoshiana* YOSII, 1956: YOSII 1965.....Cave in Pref. Yamaguchi  
*Sinella (Coecobrya) arcuata* YOSII, 1955: YOSII 1971.....Caves in Honshu  
*Sinella (Coecobrya) cf. coeca* SCHÖTT, 1896: YOSII 1956.....Species non determinata  
*Sinella (Coecobrya) dubiosa* YOSII, 1956: YOSII 1966 .....Japan, Korea  
*Sinella (Coecobrya) ishikawai* YOSII, 1956: YOSII 1964.....Caves of Shikoku  
*Sinella (Coecobrya) spinidentata* YOSII, 1942: YOSII 1956, 1966.....Japan  
*Sinella hoefti* var. *spinidentata* YOSII, 1942  
*Sinella (Coecobrya) subquadrioculata* YOSII, 1956.....Cave in Honshu  
*Sinella (Coecobrya) tibiotarsalis* YOSII, 1964.....Caves of Kyushu

#### Gebus **Entomobrya** RONDANI, 1861

- Entomobrya aino* (MATSUMURA et ISHIDA, 1931): YOSII 1954, STACH 1964  
..... Japan, China  
*Seira aino* MATSUMURA et ISHIDA, 1931  
*Entomobrya amethystina* BÖRNER, 1909.....species inquirenda  
*Entomobrya arborea* (TULLBERG, 1871): BÖRNER, 1909.....dubious record  
*Entomobrya corticalis* var. *affinis* BÖRNER, 1909.....dubious record  
*Entomobrya japonica* UCHIDA, 1954.....species inquirenda  
*Entomobrya multifasciata* f. *japonica* UCHIDA, 1954: STACH 1963  
*Entomobrya nivalis* LINNE, 1758: UCHIDA 1954.....dubious record  
*Entomobrya ozeana* YOSII, 1954.....species inquirenda  
*Entomobrya proxima* FOLSOM, 1924: YOSII 1965.....Java, Japan  
*Entomobrya pulcherrima* YOSII, 1942: YOSII 1956, YOSII et LEE 1963 .....Japan, Korea  
*Entomobrya sapporensis* (MATSUMURA et ISHIDA, 1931).....species dubiosa  
*Entomobrya stenonyx* BÖRNER, 1909.....species inquirenda  
*Entomobrya striatella* BÖRNER, 1909: YOSII 1942, YOSII et LEE 1963 .....Japan, Korea  
*Entomobrya thalassicola* YOSII, 1965.....Japan, halophilous  
*Entomobrya tokunagai* YOSII, 1942.....Japan  
*Entomobrya villosa* BÖRNER, 1909.....species inquirenda  
*Entomobrya villosa* var. *leucodesmia* BÖRNER, 1909 .....Japan  
*Entomobrya villosa* var. *nigrita* BÖRNER, 1909 .....Japan

#### Genus **Homidia** BÖRNER, 1906

- Homidia chrysotricha* YOSII, 1942.....species dubia  
*Homidia fujiyamai* UCHIDA, 1954.....species inquirenda  
*Homidia munda* YOSII, 1956.....Japan  
*Homidia nigrocephala* UCHIDA, 1943.....Japan, Formosa  
*Homidia nipponica* YOSII, 1942.....species dubia  
*Homidia sauteri* (BÖRNER, 1909): YOSII 1942, 1954, 1955.....Japan  
*Homidia sauteri* var. *allospila* BÖRNER, 1909 .....Japan  
*Homidia sauteri* var. *depicta* BÖRNER, 1909: YOSII 1954, 1964 .....Japan  
*Homidia sauteri* f. *sinensis* DENIS, 1928: YOSII 1954.....China, Japan  
*Homidia socia* DENIS, 1928: YOSII 1942, 1955.....China, Japan

Genus **Willowsia** SHOEBOOTHAM, 1917

*Willowsia bimaculata* (BÖRNER, 1909): YOSII 1942, 1954, 1964, UCHIDA 1969 ..... Japan,  
Identity with *W. nigromaculata* LUBB. must be discussed.

*Willowsia formosana* (DENIS, 1929): YOSII 1942..... Formosa, Japan  
*Willowsia japonica* (FOLSOM, 1897): YOSII 1942, 1955..... Japan

Identity with *W. platani* (NIC.) must be discussed.

*Willowsia platani* (NICOLET, 1841): UCHIDA 1969..... Japan

Genus **Janetschekbrya** YOSII, 1971

*Janetschekbrya yamashitai* (UCHIDA, 1969) comb. nov..... Honshu  
*Willowsia yamashitai* UCHIDA, 1969

Genus **Seira** LUBBOCK, 1869

*Seira indica* (IMMS, 1912): YOSII et ASHRAF, 1965..... India, Japan  
*Lepidocyrtinus taeniatus* YOSII, 1955

*Seira iricolor* YOSII et ASHRAF, 1964: YOSII 1965..... Pakistan, Philippine, Japan

Genus **Lepidosira** SCHÖTT, 1925

*Lepidosira gigantea* (BÖRNER, 1909) ..... Japan  
*Lepidosira gibbosa* (DENIS, 1924)..... Japan  
*Lepidosira nilghiri* (DENIS, 1936): YOSII 1955..... Japan, India

Genus **Lepidocyrtus** BOURLET, 1839

*Lepidocyrtus curvicollis* BOURLET, 1839: YOSII 1954, 1956..... dubious record  
*Lepidocyrtus cyanus* TULLBERG, 1871: YOSII 1942..... Europe, Japan  
*Lepidocyrtus lignorum* (FABRICIUS, 1775): YOSII 1969..... Europe, Japan  
*Lepidocyrtus vicarius* BÖRNER, 1906..... species dubious

Genus **Pseudosinella** SCHÄFFER, 1897

*Pseudosinella pseudolanuginosa* (YOSII, 1942)..... species inquirenda  
*Lepidocyrtus pseudolanuginosus* YOSII, 1942

*Pseudosinella duodecimocellata* HANDSCHIN, 1928: YOSII 1954  
*Pseudosinella octopunctata* BÖRNER, 1901: YOSII 1942..... dubious record  
*Pseudosinella petterseni* BÖRNER, 1901: YOSII 1953..... dubious record

7. Family **Orchesellidae** STACH, 1960 (ut Subfamily)

In Japan only one species and a dubious form is present.

*Orchesellides sinensis* (DENIS, 1929): YOSII 1942..... Japan, China  
*Cavernobryta shobuensis* YOSII, 1956

..... species et genera inquirenda from the Cave Shobudo in Pref. Kochi

8. Family **Paronellidae**, BÖRNER, 1906 (ut Subfamily)

1. Dentes with dorsal crenulation ..... *Akabosia*  
Dentes without dorsal crenulation..... 2
2. Mucro bidentate, not scaled..... *Salina*  
Mucro multidentate, body scaled..... *Callyntrura*

Genus **Akabosia** KINOSHITA, 1919

- Akabosia matsudoensis* KINOSHITA, 1919: YOSII 1954, 1956.....Japan  
*Salinella kinoshitai* UCHIDA, 1943

Genus **Salina** MACGILLIVRAY, 1894

- Salina affinis* (FOLSOM, 1899).....Japan  
*Salina affinis* var. *concolor* BÖRNER, 1909  
*Salina celebensis* SCHÄFFER, 1898: YOSII 1954  
*Salina pallidus* var. *punctatus* UCHIDA, 1943  
*Salina bicincta* (BÖRNER, 1909).....Japan  
*Cremastocephalus janomei* MATSUMURA et ISHIDA, 1931  
*Salina speciosa* (KINOSHITA, 1917).....Japan  
*Cremastocephalus ebiformis* MATSUMURA et ISHIDA, 1931

Genus **Callyntrura** BÖRNER, 1906

- Callyntrura japonica* (KINOSHITA, 1917).....Japan  
*Paronella japonica* KINOSHITA, 1917  
*Handschinphysa japonica* (KINOSHITA): YOSII 1954  
*Handschinphysa lineata* (PARONA, 1892): YOSII, 1956  
*Callyntrura vestita* (HANDSCHIN, 1925): UCHIDA 1954.....dubious record

9. Family **Cyphoderidae**, BÖRNER, 1913

- Cyphoderus hozawai* KINOSHITA, 1917: UCHIDA 1940.....Japan, termitophilous  
Referable to the genus *Serroderus* DELAMARE, 1948  
*Cyphoderus javanus* BÖRNER, 1906: YOSII 1964.....Japan  
*Cyphoderus assimilis* BÖRNER, 1914: YOSII 1953

10. Family **Oncopoduridae**, BÖRNER, 1906 (ut Subfamily)

- Ant.IV with a falcate seta.....*Harlowmillsia*  
Ant.IV without such seta, but with a row of blunt sensillae.....*Oncopodura*

Genus **Harlowmillsia** BONET, 1944

- Harlowmillsia ocellata* (MILLS, 1937): YOSII 1965.....North America, Japan

Genus **Oncopodura** CARL et LEBEDINSKY, 1905

- Oncopodura crassicornis* SHOEBOOTHAM, 1911: YOSII 1970.....holarctic  
*Oncopodura japonica* YOSII 1956 .....Cave in Pref. Tochigi  
*Oncopodura kuramaensis* (YOSII, 1938).....species inquirenda  
*Cyphoderellopsis kuramaensis* YOSII, 1938  
*Oncopodura kuramotoi* YOSII, 1964.....Cave in Okinawa  
*Oncopodura puncteola* YOSII, 1956.....Cave in Pref. Tochigi

II. Suborder **Symplypleona** BÖRNER, 190111. Family **Neelidae** FOLSOM, 1896

All members of the family are very minute, to be found only in Berlese collection

- Ant.III and IV confluent and with thick secondary setae. White.....*Megalothorax*  
 Ant.III and IV separated. gray or dark in colour.....*Neelides*

Genus **Megalothorax** WILLEM, 1900

*Megalothorax minimus* WILLEM, 1900: YOSII 1954.....cosmopolitan

Genus **Neelides** CAROLI, 1912

*Neelides minutus* (FOLSOM, 1901): .....holarctic  
*Neelides folsomi* CAROLI, 1912: YOSII 1965  
*Neelus minutus* FOLSOM, 1901: UCHIDA et TAMURA, 1968

12. Family **Sminthuridae** LUBBOCK, 1870

Key to Subfamilies:

1. Female without anal appendix. Antennae of male converted to the clasping organ.  
     Distal tube of colophore not elongate. Tibiotarsal organ present.....Sminthuridinae  
     Femlae with anal appendage. Antennae of male not modified. .... 2
2. Ant.IV very short, much shorter than ant.III.....Dicyrtominae  
     Ant.IV subequal or longer than ant.III ..... 3
3. Dentes with spines.....Arrhopalitini of Katianninae  
     Dentes without spines..... 4
4. Tenaculum with basal appendage. Distal tube of colophore smooth  
         .....Katiannini of Katianninae  
     Tenaculum without basal appendage ..... 5
5. Distal tube of colophore smooth. Ant.IV not subdivided. With a pair of  
         interocular tubercles .....Vesicephalinae  
     Distal tube of colophore tuberculate. Ant.IV subdivided ..... 6
6. Ant.III without strong setae on its distal half.....Bourletiellinae  
     Ant.III with strong setae on its distal half.....Sminthurinae

1. Subfam. **Sminthuridinae** BÖRNER, 1900

- Mucro with broad lamellate margins.....*Sminthurides*  
 Mucro without lamellae.....*Sphaeridia*

Genus **Sminthurides** BÖRNER, 1900

Almost all species are aquatic, living on the water surface. Some exotic forms are on the sea shore.

- Sminthurides aquaticus* (BOURLET, 1842): UCHIDA 1937, YOSII 1954 .....cosmopolitan  
*Sminthurides biwae* YOSII, 1970.....Honshu  
*Sminthurides malmgreni* (TULLBERG, 1876): YOSII 1970.....holarctic  
*Sminthurides potamobius* YOSII, 1970.....Honshu

Genus **Sphaeridia** LINNANIEMI, 1912

Small brownish species, usually terrestrial. In Japan the genus is not yet well investigated.

*Sphaeridia tunicata* YOSII, 1954.....Japan

2. Subfam. **Katianninae** BÖRNER, 1913

- |                                  |                     |
|----------------------------------|---------------------|
| Dentes with spiny setae.....     | <i>Arrhopalites</i> |
| Dentes without spiny setae ..... | <i>Sminthurinus</i> |

Genus **Arrhopalites** BÖRNER, 1913

In Japan there are many species. The majority of them are terrestrial, but others are troglobionts.

- |   |                         |
|---|-------------------------|
| <i>Arrhopalites alticulus</i> YOSII, 1970.....                    | Honshu                  |
| <i>Arrhopalites antrobius</i> YOSII, 1954: YOSII, 1956, 1967..... | Cave in Pref. Yamaguchi |
| <i>Arrhopalites habei</i> YOSII, 1956: YOSII 1967.....            | Honshu                  |
| <i>Arrhopalites binoculatus</i> (BÖRNER, 1901): YOSII 1954, 1955  |                         |
| <i>Arrhopalites japonicus</i> YOSII, 1956.....                    | Honshu                  |
| <i>Arrhopalites minutus</i> YOSII, 1970.....                      | Honshu                  |
| <i>Arrhopalites octacanthus</i> YOSII, 1970.....                  | Honshu                  |
| <i>Arrhopalites uenoi</i> YOSII, 1956.....                        | Caves in Pref. Iwate    |

Genus **Sminthurinus** BÖRNER, 1901

Terrestrial species abundant in forest litter, but not yet well investigated.

- |  |               |
|--|---------------|
| <i>Sminthurinus aureus</i> (LUBBOCK, 1862): UCHIDA 1952, 1954, 1957..... | Europe, Japan |
| <i>Sminthurinus igniceps</i> (REUTER, 1881): YOSII 1970.....             | Japan         |
| <i>Sminthurinus modestus</i> YOSII, 1970.....                            | Japan         |
| <i>Sminthurinus pallescens</i> YOSII, 1970.....                          | Japan         |
| <i>Sminthurinus speciosus</i> YOSII, 1970.....                           | Japan         |
| <i>Sminthurnius trinotatus</i> (AXELSON, 1905): YOSII 1970.....          | Japan         |
| <i>Sminthurnius fenestratus</i> BÖRNER, 1909: UCHIDA 1952                |               |

3. Subfam. **Bourletiellinae** BÖRNNER, 1913

- |   |                           |
|---|---------------------------|
| 1. Unguiculus of fore leg is different from that of other legs..... | <i>Heterosminthurus</i>   |
| Unguiculus of all legs subequal.....                                | 2                         |
| 2. Male dorsally with a crasping organ.....                         | <i>Bourletiella</i>       |
| Male without dorsal crasping organ.....                             | <i>Deuterostomnthurus</i> |

Genus **Heterosminthurus** STACH, 1955

*Heterosminthurus insignis* (REUTER, 1876): YOSII 1954

..... Dubious record, probably *H. undulans* YOSII et LEE, 1963

*Heterosminthurus nymphes* YOSII, 1970.....Honshu

*Heterosminthurus pirika* YOSII, 1972.....Hokkaido

Genus **Bourletiella** BANKS, 1899

*Bourletiella hortensis* (FITCH, 1863): YOSII 1954, UCHIDA 1955 .....cosmopolitan

*Sminthurus pruinosis*: MATSUMURA et ISHIDA 1931

*Bourletiella pruinosa*: FOLSOM 1899; KINOSHITA 1932, UCHIDA 1940, KINOSHITA et UCHIDA, 1950

Genus **Deuterosminthurus** BÖRNER, 1901

- Deuterosminthurus bicinctus* (KOCH, 1840): OKU et UCHIDA 1965.....holarctic  
*Deuterosminthurus ezoensis* YOSII, 1972.....Hokkaido  
*Deuterosminthurus okinawanus* YOSII, 1965.....Okinawa

4. Subfam. **Sminthurinae** BÖRNER, 1913

1. Antennae enormously long.....*Temeritas*  
 Antennae not very long..... 2
2. Postantennal seta present.....*Sminthurus*  
 Postantennal seta absent ..... 3
3. Prothorax with a digitate vesicle.....*Lipothrix*  
 Prothorax without digitate vesicle, antennae normally long.....*Sphyrotheca*

Genus **Temeritas** DELAMARE et MASSOUD, 1963

- Temeritas summelongicornis* (UCHIDA, 1965) comb. nov.....Ryukyu  
*Sminthurus summelongicornis* UCHIDA, 1965

Genus **Sphyrotheca** BÖRNER, 1906

- Sphyrotheca multifasciata* (REUTER, 1878): BÖRNER 1909, YOSII 1954, UCHIDA 1957  
.....Japan, Europe (introduced)  
*v. ornata* BÖRNER, 1909 and *v. pallidinota* BÖRNER, 1909 are included.

Genus **Lipothrix** BÖRNER, 1906

- Lipothrix mirabilis* YOSII, 1965.....Japan

Genus **Sminthurus** LATREILLE, 1802-3

- Sminthurus daisetsuzanus* UCHIDA, 1957.....Hokkaido  
*Sminthurus melanotonus* UCHIDA, 1938: YOSII 1956.....Japan  
*Sminthurus sensibilis* BÖRNER, 1909.....Japan  
*Sminthurus serrulatus* BÖRNER, 1909: YOSII 1970.....Japan  
*var. trimaculata* BÖRNER, 1909 is included  
*Sminthurus viridis* (LINNE, 1758): UCHIDA, 1954, YOSII 1972 .....cosmopolitan  
*v. annulata* FOLSOM, 1899 and *v. irrorata* (REUTER, 1900) are included: UCHIDA  
1954, 1957

5. Subfam. **Vesicephalinae** RICHARDS, 1968

Only one genus and species is known from Japan.

Genus **Papirinus** YOSII, 1954

- Papirinus prodigiosus* YOSII, 1954: YOSII 1970.....Japan

6. Subfam. **Dicyrtominae** BÖRNER, 1906

1. Two modified setae of hind tibiotarsus blunt ..... 2  
 Two modified setae of hind tibiotarsus are feathered ..... 3
2. Unguis with tunica.....*Dicyrtomina*

- Unguis without tunica..... *Dicyrtoma*  
 3. Abdomen with a dorsal organ..... *Papiriooides*  
 Abdomen without dorsal organ..... *Ptenothrix*

Genus **Dicyrtoma** BOURLET, 1842

- Dicyrtoma chlorops* (TULLBERG) var. *pallens* BÖRNER, 1909..... species inquirenda  
*Dicyrtoma fusca* (LUCAS) in YOSII 1940 is *Ptenothrix* sp.

Genus **Dicyrtomina** BÖRNER, 1903

- Dicyrtomina leptothrix* BÖRNER, 1909: YOSII 1959, 1965..... Japan, cryophilous  
*Dicyrtomina rufescens* (REUTER) f. *nivalis* UCHIDA, 1933  
*Dicyrtomina tsugarensis* (UCHIDA, 1952): YOSII 1970..... Honshu  
*Gibberathrix tsugarensis* UCHIDA, 1952  
*Dicyrtomina* (*Calvatomina*) *yaeyamensis* YOSII, 1965..... Ryukyu

Genus **Ptenothrix** BÖRNER, 1906

- Ptenothrix atra* (LINNE, 1758): YOSII 1949, UCHIDA 1952 ..... dubious records  
*Ptenothrix corynephora* BÖRNER, 1909: YOSII 1954, YOSII et LEE 1963 ..... Japan  
 v. *cincta* BÖRNER, 1909, var. *sellata* BÖRNER, 1909 and f. *shibanaii* YOSII, 1955 are included.  
*Ptenothrix denticulata* (FOLSOM, 1899): UCHIDA 1954, YOSII 1956, 1965 ..... Japan  
*Papirius denticulatus* FOLSOM, 1899  
 v. *catenata* BÖRNER, 1909 is included.  
*Ptenothrix higashihirajii* YOSII, 1965..... Okinawa  
*Ptenothrix iriomotensis* UCHIDA, 1965..... Ryukyu  
*Ptenothrix janthina* BÖRNER, 1909: YOSII et LEE 1963 ..... Japan  
*Pt. setosa* (KRAUSB.) var. *janthina* BÖRNER, 1909  
*Ptenothrix lactea* UCHIDA, 1953 ..... Honshu  
*Ptenothrix maculosa* (SCHÖTT, 1891): MATSUMURA et ISHIDA 1931 ..... dubious record  
*Ptenothrix marmorata* (PACKARD, 1873): UCHIDA 1954 ..... dubious record  
*Ptenothrix ryohei* UCHIDA, 1953 ..... Honshu  
*Ptenothrix tateyamana* UCHIDA, 1958 ..... Honshu  
*Ptenothrix tokarensis* YOSII, 1965 ..... Ryukyu  
*Ptenothrix tricycla* UCHIDA, 1953 ..... Honshu  
*Ptenothrix tsutsuii* YOSII, 1955: YOSII 1965 ..... Ryukyu  
*Ptenothrix vinnula* UCHIDA, 1957 ..... Hokkaido  
*Ptenothrix vittata* (FOLSOM, 1896): YOSII et LEE 1963 ..... Japan (introduced), USA, Australia  
*Ptehothrix yakushima* YOSII, 1965 ..... Ryukyu  
*Pt. setosa* f. *principalis*: BÖRNER 1909 and *Pt. s.* var. *picata* BÖRNER 1909 are included in *Pt. janthina* BÖRNER, 1909

Genus **Papiriooides** FOLSOM, 1924

- Papiriooides jacobsoni* FOLSOM, 1924: YOSII et LEE 1963 ..... Japan, Java  
*Papiriooides uenoi* UCHIDA, 1966 ..... Honshu

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