

The annotated Catalogue of living *Grylloblattida* (insecta)

by
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After catalogue of GURNEY (1948) many articles were published on morphology, biology and systematics of the order *Grylloblattida*. Present catalogue summarizes new data on this interesting group of insects. Literature is cited according to YAMASAKI (1982a), abbreviations „a“, „b“ etc. agrees with place of articles on this bibliography (but CAUDELL, 1927 concern to CRAMPTON, 1927). Bibliography of YAMASAKI is complete and only recently published literature listed below.

In spite of the *Notoptera* CRAMPTON, 1915 is widely used for the order in recent time *Grylloblattida* E. WALKER (nom. trans.) must be preferred by the following aspects. After RASNITSYN (1976; 1980) it is clear that order consist of 3 fossil and recent taxa (*Paraplecoptera* + *Protoperlaria* + *Notoptera* or *Grylloblattodea*). The name *Notoptera* is very suitable because most of the fossil forms are well-winged, but some living orders of insects are apterous (for example *Mallophaga* etc.).

Order *Grylloblattida* general review (distribution, morphology, biology, bibliography):

COMSTOK, 1920: 268; IMMS, 1925: 318-320; CRAMPTON, 1927: 115-135; BRUES and MELANDER, 1932: 47-48; CRAMPTON, 1933: 127-166; WALKER, 1937: 1-10; GURNEY, 1937: 160-161; 1948: 90-98; 1953: 325-326; KAMP, 1953: 61; 1963: 53-68; BEY-BIENKO, 1966: 202-203, FUKUSHIMA, 1969a: 16-19, 1969b: 29-34; KAMP, 1970: 223-230; ASAHINA, 1971: 195-204; YAMASAKI, 1971: 1126; KAMP, 1979: 32-37; ANDO et al., 1979: 1-84; Mc E. KEVAN, 1979: 316-317; RENTZ, 1982: 1-18; NAMKUNG, 1982: 29-42; YAMASAKI, 1982a: 173-181; BROWN, 1982: 351-352; VICKERY and Mc E. KEVAN, 1983: 238-251.

Keys of genera and species: GURNEY, 1937: 160-161; 1953: 325-326; PRAVDIN and STOROZHENKO, 1977: 355-366; VICKERY and Mc E. KEVAN, 1983: 242.

Morphology

Head (with appendices): CRAMPTON, 1917a: 213-217; 1917c: 398-412; 1923: 77-107; 1926: 78-85; 1927: 123-125; WALKER, 1931: 519-522; 1933: 311-333; CRAMPTON, 1933: 133-140; KOYAMA, 1952: 54; FUKUSHIMA, 1967: 330; NAGASHIMA, 1982: 113-119.

Thorax (thoracic and cervical sclerites): CRAMPTON, 1915: 337-350; 1917: 402-404; 1926b: 214-216; 1927: 123-124; 1933: 140-145; WALKER, 1938:

589-600; FUKUSHIMA, 1967: 331; RÄHLE, 1970: 248-330; MATSUDA, 1970: 167-169.

Legs: CRAMPTON, 1927: 124-125; 1933: 145-147; WALKER, 1938: 591-600; FUKUSHIMA, 1967: 331-332.

Abdomen: WALKER, 1919a: 289-292; 1922: 39-41, 55; CRAMPTON, 1927: 125-127, 1933: 147-153; WALKER, 1943: 681-693; MATSUDA, 1976: 191-195; FUKUSHIMA, 1967: 331-332.

External genitalia and terminal segments of male: WALKER, 1922: 39-41, 55; EYER, 1924: 289-290; CRAMPTON, 1927: 126-127; 1933: 148-153; SNODGRASS, 1937: 19-22; WALKER, 1943: 688-693; 1956: 47-48; SNODGRASS, 1957: 20; SCUDDER, 1970: 55-56; MATSUDA, 1976: 192-194.

Ovipositor and terminal segments of female: CRAMPTON, 1917b: 225-237; WALKER, 1919a: 125-126; CRAMPTON, 1933: 126-150; WALKER, 1943: 684-688; MAHOTIN, 1952: 131-132; 1953: 37-41; WALKER, 1956: 48-49; SCUDDER, 1970: 57-58.

Sensilla: SLIFER, 1976: 275-279; PRITCHARD and SCHOLEFIELD, 1978: 208-210; EDWARDS and MANN, 1981: 177-188; EDWARDS and BALL, 1982: 220; McIVER and SUTCLIFFE, 1982: 137-157; BAKER, 1982: 341-344.

Eggs: FORD, 1926: 69-70; CRAMPTON, 1927: 134; 1933: 154; MATSUZAKI et al., 1979: 262-263; 1982: 85; ANDO and NAGASHIMA, 1982: 90-91.

Anatomy

Head: WALKER, 1931: 525-530; GOKAN et al., 1979: 258-271; 1982: 159-172; NAGASIMA, 1982: 119-132.

Thorax: WALKER, 1938: 600-619; MATSUDA, 1970: 167-169.

Legs: WALKER, 1938: 600-619.

Abdomen: FORD, 1923: 207-319; WALKER, 1943: 693-701; MATSUDA, 1976: 191-195.

Organs of digestion: JUDD, 1948: 122-123; WALKER, 1949: 309-344; FUKUSHIMA, 1967: 333.

Heart and accessory structures: NUTTING, 1951: 501-597.

Neural system and its function: RAE and O'FARRELL, 1959: 76-83; FUKUSHIMA, 1967: 333; MORRISSEY and EDWARDS, 1979: 241-250; EDWARDS and MANN, 1981: 177-188.

Male reproductive organs: WALKER, 1943: 688-693; MATSUDA, 1976: 192-194; BACCETTI, 1981: 49-60; 1982: 71-78.

Female reproductive organs: CRAMPTON, 1933: 150-151; MATSUZAKI et al., 1979: 257-263; 1982: 79-85.

Spermatozoon: BACCETTI, 1982: 71-78.

Chromosome: NAKAMURA, 1946: 29-30.

Biology and Ecology

Habitat (general articles): WALKER, 1920: 139; FORD, 1926: 67-68; MILLS and PEPPER, 1937: 270-271; WALKER, 1937: 6-7; HISAUCHI, 1940: 48-50; GURNEY, 1948: 94-95; CHAPMAN, 1953: 39-41; KAMP, 1953: 62-63; FUKUSHIMA, 1965a: 76-79; 1965c: 96-97; 1966b: 36-38; STOROZHENKO, 1979: 18-21; RENTZ, 1982: 12-16; YAMASAKI, 1982c: 13-17.

Influence of temperature: BUCKEL, 1925: 35-36; FORD, 1926: 68; MILLS and PEPPER, 1937: 271-274; WALKER, 1937: 6; EDWARDS and NUTTING, 1950: 33-44; HENSON, 1957a: 637; FUKUSHIMA, 1965b: 34; EDWARDS, 1982: 24-25.

Behaviour: FORD, 1926: 67-68; YANO, 1927: 111; MILLS and PEPPER, 1937: 270-274; CAMPBELL, 1949: 1-5; FUKUSHIMA, 1966a: 33; PRITCHARD and SCHOLEFIELD, 1978: 205-208; NAGASHIMA et al., 1982: 46-47.

Nutrition: FORD, 1926: 68; ASAHINA, 1929: 195; PRITCHARD and SCHOLEFIELD, 1978: 205-208; EDWARDS, 1982: 22-23.

Life history: KENNEDY, 1928: 368; HENSON, 1957b: 149-152; NAGASHIMA et al., 1982: 43-59; VISSCHER et al., 1982: 68.

Copulation: FORD, 1926: 69; NAGASHIMA et al., 1982: 47-49; VISSCHER et al., 1982: 64-67.

Oviposition and number of eggs: FORD, 1926: 69-70; FUKUSHIMA, 1968: 28; NAGASHIMA et al., 1982: 49-51; VISSCHER et al., 1982: 67.

Embryogenesis: FUKUSHIMA, 1969d: 24; ANDO and NAGASHIMA, 1982: 89-95.

Environment and descriptions of larvae: SILVESTRI, 1927: 107-119; WALKER, 1937: 8; FUKUSHIMA, 1966b: 36-38; NAGASHIMA et al., 1982: 52-54; YAMASAKI, 1982b: 97-111.

Rearing techniques: FORD, 1926: 68; 1937: 3-27; FUKUSHIMA, 1965a: 76-79; 1966b: 36-38; NAGASHIMA et al., 1982: 43-44; VISSCHER et al., 1982: 62-63.

Color-form: EDWARDS, 1958: 49; FUKUSHIMA, 1969c: 7.

Affinities

The affinities of *Grylloblattida* are widely discussed in literature, but according to RASNITSYN (1976: 1980) it is clear what *Grylloblattidae* though *Blattogryllidae* connect with carboniferous-yurassic *Protoblattodea* + *Paraplecoptera* complex (about 28 families).

WALKER, 1914: 96-99; CRAMPTON, 1917b: 225-237; 1919: 47-48; WALKER, 1919a: 271-272; 1922: 58-64; CRAMPTON, 1926a: 83-84; 1926b: 240; 1927: 135; IMMS, 1927a: 57; 1927b: 36-39; SILVESTRI, 1927: 118-119; 1931: 293-294; CRAMPTON, 1933: 156-164; 1935: 97-111; WALKER, 1937: 2-5; 1949: 331-337; SNODGRASS, 1957: 20; BLACKITH and BLACKITH, 1968: 126; KRISTENSEN, 1973: 17-18; KAMP, 1973: 1235-1249; RASNITSYN, 1976: 502; HEMING, 1977: 80; McE-KEVAN, 1977a: 18, 20; RASNITSYN, 1980: 150-154; RENTZ, 1982: 2-3; VICKERY and McE-KEVAN, 1983: 238.

Taxonomy

Order *Grylloblattida* E. WALKER, 1914 (nom. trans. BEY-BIENKO, 1962) (= fossil *Paraplecoptera* + *Protoperlaria* + recent *Notoptera*)

Grylloblattida (pro order) BEY-BIENKO, 1962: 19; 1966: 202; ROHDENDORF, 1977: 20; PRAVDIN and STOROZHENKO, 1977: 352; RASNITSYN, 1980: 150; STOROZHENKO and OLIGER, 1984: 729.

Notoptera (pro order) CRAMPTON, 1915: 347; COMPSTOK, 1920: 268; CAUDELL and KING, 1924: 60; CAUDELL, 1924: 92; KISHIDA, 1929: 104; McE-KEVAN, 1977b: 13; 1979: 316; VICKERY and McE-KEVAN, 1983: 238.

Notoptera (pro suborder *Orthoptera* s. str.) CRAMPTON, 1933: 160; 1935: 110.

Notopterina (pro order) DURDEN, 1969: 1159.

Grylloblattodea (pro order) IMMS, 1925: 318; BRUES and MELANDER, 1932: 47; KAMP, 1953: 61; FUKUSHIMA, 1969a: 16; MATSUDA, 1970: 167; ASAHINA, 1971: 195; KAMP, 1973: 1235; MATSUDA, 1976: 191; NAMKUNG, 1982: 29.

Grylloblattodea (pro suborder *Orthoptera* s. str.) NUTTING, 1951: 512.

Grylloblattodea (pro suborder *Notoptera*) McE-KEVAN, 1977b: 13; VICKERY and McE-KEVAN, 1983: 239.

Grylloblattoidea (pro order) BRUES and MELANDER, 1915: 1, 10, 13; WALKER, 1922: 39.

Grylloblattoidea (pro suborder *Orthoptera*) WALKER, 1919: 289; SILVESTRI, 1927: 119; SNODGRASS, 1937: 19.

Grylloblattidea (pro infraorder *Notoptera*) McE-KEVAN, 1977b: 13; VICKERY and McE-KEVAN, 1983: 239.

Grylloblattoidea (pro order) CRAMPTON, 1917c: 409.

Grylloblattoidea (pro order) CRAMPTON, 1920: 118.

Grylloblattaria (pro order) BRUNER, 1915, 195; JUDD, 1948: 96, 122; WALKER, 1949: 309; 1956: 47; BROWN, 1982: 351.

Grylloblattinae (pro suborder *Orthoptera* s. str.) BEIER, 1955: 31-304; BEIER, 1972: 2-217.

Archiorthoptera (pro order) CRAMPTON, 1933: 160.

Superfamily *Grylloblattoidea* E. WALKER, 1914 (nom. trans. RASNITSYN, 1976) (= fossil *Megakhosaridea*)

RASNITSYN, 1976: 503; McE-KEVAN, 1977b: 13; VICKERY and McE-KEVAN, 1983: 239.

Family *Grylloblattidae* E. WALKER, 1914.

WALKER, 1914: 93; COMSTOK, 1920: 268; CAUDELL and KING, 1924: 60; HANDLIRSCH, 1925: 445, 457-458; HEBARD, 1930: 381; SILVESTRI, 1931: 294; BRUES and MELANDER, 1932: 48; LAMEERE, 1935: 287-290; GURNEY, 1937: 159; CHOPARD, 1938: 35-380; GURNEY, 1948: 86; CHOPARD, 1949: 232-235; GURNEY, 1953: 325; BRUES et al., 1954: 94; GURNEY, 1961: 67; FUKUSHIMA, 1969a: 16; ASAHINA, 1971: 195; RASNITSYN, 1976: 502; McE-KEVAN, 1977b: 13; VICKERY and McE-KEVAN, 1983: 239.

Subfamily *Grylloblattinae* E. WALKER, 1914 (nom. trans. VICKERY et McE-KEVAN, 1983).

Grylloblattinae VICKERY and McE-KEVAN, 1983: 240, 241.

Galloisianinae VICKERY et McE-KEVAN, 1983: 240, syn. n. (The form of pronotum of some *Galloisiana* and *Grylloblattina* are similar with *Grylloblatta*, but the degrees of reduction of eyes and pulvilli of tarsi are not sufficient for erecting a subfamily).

1. Genus *Grylloblatta* E. WALKER, 1914.

WALKER, 1914: 93. Type species: *Grylloblatta campodeiformis* E. WALKER, by original designation.

SILVESTRI, 1927: 112 (part.); GURNEY, 1937: 160, 164; 1948: 86-95, 97; KAMP, 1963: 53; FUKUSHIMA, 1969a: 16; ASAHINA, 1971: 196, 201; KAMP, 1979: 27; RENTZ, 1982: 1; VICKERY and McE-KEVAN, 1983: 241.

11 species in North America (U.S.A. and Canada).

1. *Grylloblatta barberi* CAUDELL, 1924

CAUDELL, 1924b: 369 (Holotype: ♂ (larvae), U.S.A., California, Plumas County, North Fork of the Feather River at the junction of Butt Creek, in U.S. Nat. Mus., N 27265, Washington).

WALKER, 1937: 9; GURNEY, 1937: 160; 1948: 90, 98, fig. 11; 1953: 326, 330; KAMP, 1953: 61; 1963: 55, 65, figs. 1-7 (Plesiotype, ♀, in U.S. Nat. Mus., Washington); 1970: 225, fig. 1; RENTZ, 1982: 5, 7, 10.

Grylloblatta campodeiformis: CAUDELL, 1923a: 148-150; 1923b: 261.
Distribution. U.S.A.: California (Plumas County).

2. *Grylloblatta bifratrilecta* GURNEY, 1953.

GURNEY, 1953: 325, 328-330, figs. 4, 7, 15 (Holotype: ♂, U.S.A., California, Sonora Paß (about 8600-10000 foot), in U.S. Nat. Mus., Washington, N 61132, allotype, ♀, 2 miles W. Sonora Paß, in U.S. Nat. Mus.) KAMP, 1963: 65, fig. 43; 1970: 225, fig. 1; RENTZ, 1982: 5, 7, 10.
Distribution. U.S.A.: California (Tuolumne County).

3. *Grylloblatta campodeiformis* E. WALKER, 1914.

WALKER, 1914: 94, pl. IX, figs. 1-7. (Holotype: ♀, Canada, Sulphur Mountain, Banff (6500 foot) in R.O.M., Toronto).
WALKER, 1919b: 131, pl. XIII, figs. 1-7, pl. IX, figs. 8-15 (♂, larvae); COMSTOK, 1920: 268; CAUDELL, 1924b: 370; CAUDELL and KING, 1924: 58, figs. 4,5; EYER, 1924: 289 (Australia, mistake); BUCKELL, 1925: 35-36; FORD, 1926: 66; IMMS, 1927: 57; SILVESTRI, 1927: 119, figs. XII (1-3); HEBARD, 1930: 381; SILVESTRI, 1931: 292-293, figs. 1-3; STRANDT, 1937: 38-39, fig. 7; MILLS and PEPPER, 1937: 269; WALKER, 1937: 8; GREGSON, 1938: 63-64; 1939: 29-30; SPENSER, 1945: 20 (part.); PLETSH, 1947: 17-20; GURNEY, 1948: 90, 97-98, figs. 3, 8-11, text-figs. A, C, D; SPENCER, 1952: 36; KAMP, 1953: 61; 1963: 65, fig. 43; VICKERY et al., 1974: 5; SLIFER, 1976: 275; PRITCHARD and SCHOLEFIELD, 1978: 205.

Grylloblatta campestris (lapsus calami): BEAMER, 1933: 236.
Divided into 3 subspecies.

3a. *Grylloblatta campodeiformis campodeiformis* E. WALKER, 1914.

GURNEY, 1937: 160; 1953: 325, 331, figs. 2, 3, 8, 9, 13; HENSON, 1957b: 149-152; CORNER, 1960: 49; GURNEY, 1961: 72; KAMP, 1970: 225, fig. 1; 1979: 27-28, figs. 19-28; RENTZ, 1982: 5, 6; VICKERY and McE-KEVAN, 1983: 242, figs. 80a, b, 82. (See also under *Grylloblatta campodeiformis*).
Distribution. Canada: S.E. British Columbia, S.W. Alberta; U.S.A.: N. Idaho, W. Washington.

3b. *Grylloblatta campodeiformis athapaska* KAMP, 1979.

KAMP, 1979: 27, figs. 1-9. (Holotype: ♂, Canada, British Columbia, Stone Provincial Park, Summit Lake, Mt. St. Paul, in Canadian National Collection, Ottawa; allotype: ♀, same locality and disposition).
RENTZ, 1982: 5, 12; VICKERY and McE-KEVAN, 1983: 242, 247.
Distribution. Canada: N.W. British Columbia.

3c. *Grylloblatta campodeiformis nahanni* KAMP, 1979.

KAMP, 1979: 28, figs. 10-18 (Holotype: ♂, Canada, British Columbia, Cassiar, Cassiar Mountain Range, Mt. McDane (1647 m), in Canadian National Collection, Ottawa; allotype: ♀, same locality (Limestone Peak, 1830 m), in University of British Columbia).

RENTZ, 1982: 5, 12; VICKERY and McE-KEVAN, 1983: 242, 248.

Distribution. Canada: N.E. British Columbia.

4. *Grylloblatta chandleri* KAMP, 1963.

KAMP, 1963: 57, figs. 8-22. (Holotype: ♂, U.S.A., California, Lassen County, Eagle Lake (5180 foot), in American Mus. Nat. Hist., New York; allotype: ♀, same locality, in U.S. Nat. Mus., Washington).

KAMP, 1970: 225, fig. 1; RENTZ, 1982: 5, 7, 10.

Grylloblatta sp.: KAMP, 1953: 61-62.

Distribution. U.S.A.: California (Lassen County).

5. *Grylloblatta chirurgica* GURNEY, 1961

GURNEY, 1961: 69, figs. 1-7. (Holotype: ♂, U.S.A., Washington, Skamania County, Ape Cave (1900 foot), in U.S. Nat. Mus., Washington, N 65377; allotype: ♀, some localities and dispositions).

KAMP, 1963: 65, fig. 43; 1970: 225, fig. 1; RENTZ, 1982: 5, 10.

Distribution. U.S.A.: S. Washington.

6. *Grylloblatta gurneyi* KAMP, 1963.

KAMP, 1963: 62, figs. 23-42. (Holotype: ♂, U.S.A., California, Modoc County, Merrill Ice Cave (4700 foot), in U.S. Nat. Mus., Washington; allotype: ♀, some localities and dispositions).

KAMP, 1970: 225, fig. 1; RENTZ, 1982: 5, 7, 10.

Distribution. U.S.A.: California (Modoc County).

7. *Grylloblatta occidentalis* SILVESTRI, 1931.

SILVESTRI, 1931: 293, figs. 1-3. (Pro var. *Grylloblatta campodeiformis*; holotype: ♂ (larvae), U.S.A., Washington, Mt. Baker (4200-5000 foot), presumably in Agricultural Zoology Laboratory, Portici, Italy or lost).

Grylloblatta campodeiformis var. *occidentalis*: BEAMER, 1933: 334; WALKER, 1937: 8-9.

Grylloblatta campodeiformis occidentalis: SILVESTRI, 1934: 18; GURNEY, 1937: 160, fig. 1 (brief description of imago ♂ and ♀ in key); 1948: 90 (part.), 98, figs. 4, 11, text-fig. B; 1953: 235, fig. 8a; KAMP, 1953: 61; 1963: 65, fig. 43; 1970: 225, fig. 1; RENTZ, 1982: 5, 10, 12.

Grylloblatta occidentalis: VICKERY and McE-KEVAN, 1983: 242, 250.

Distribution. U.S.A.: N. Washington (Mt. Baker and Hanagan Peak).

8. *Grylloblatta rothi* GURNEY, 1953.

GURNEY, 1953: 326, figs. 1, 5, 6, 10-12, 14, 16. (Holotype: ♂, U.S.A., Oregon, Happy Valley on Century Drive, about 15-20 miles S. Three Sisters (6450 foot), in U.S. Nat. Mus., Washington, N 61656; allotype: ♀, Oregon, Crater Lake).

KAMP, 1963: 65, fig. 43; RENTZ, 1982: 5, 7, 10.

Grylloblatta campodeiformis: ELSEA, 1937: 57.

Grylloblatta sp.: GURNEY, 1948: 90, fig. 11.

Grylloblatta roth (lapsus calami): KAMP, 1970: 225, fig. 1.

Distribution. U.S.A.: S. Oregon.

9. *Grylloblatta scudderi* KAMP, 1979.

KAMP, 1979: 30, figs. 28-36. (Holotype: ♂, Canada, British Columbia, Garibaldi Provincial Park, Whistler Mountain (1951 m), in Canadian National Collection, Ottawa; allotype: ♀, some localities in Entomol. Mus. University of British Columbia).

RENTZ, 1982: 5, 10; VICKERY and McE-KEVAN, 1983: 242, 248.

Grylloblatta campodeiformis occidentalis: GURNEY, 1948: 90 (part.).

Distribution. Canada: S.W. British Columbia.

10. *Grylloblatta sculleni* GURNEY, 1937.

GURNEY, 1937: 161, 164, figs. 7-11. (Holotype: ♀, U.S.A., Oregon, Cascade Mountain, Three Sisters, Scott Camp (6600 foot), in U.S. Nat. Mus., Washington, N 52017).

GURNEY, 1948: 90, 98, fig. 11; 1953: 326, 330-331; KAMP, 1953: 61;

GURNEY, 1961: 72; KAMP, 1963: 57, 65, figs. 8, 9, 43; 1970: 225, fig. 1;

RENTZ, 1982: 5, 7, 10.

Distribution. U.S.A.: Oregon.

11. *Grylloblatta washoe* GURNEY, 1961.

GURNEY, 1961: 68, figs. 10-17. (Holotype: ♂, U.S.A., California, Eldorado County, Echo Summit on 4 miles S. Meyers, in American Mus. Nat. Hist., New York).

KAMP, 1963: 65, fig. 43; 1970: 225, fig. 1; RENTZ, 1982: 5, 10.

Distribution. U.S.A.: California (Eldorado County).

Populations of *Grylloblatta insertae sedis*.

There are 4 populations in U.S.A.: California, Idaho, Oregon and Washington (GURNEY, 1953: 330; 1961: 73; KAMP, 1963: 65; EDWARDS, 1982: 19) and 4 in Canada: British Columbia (VICKERY and McE-KEVAN, 1983: 250-251) known only by immature specimens and in all probability may be a new species.

2. Genus *Grylloblattina* BEY-BIENKO, 1951.

BEY-BIENKO, 1951: 507. Type species: *Grylloblattina djakonovi* BEY-BIENKO by original designation.

GURNEY, 1953: 331; ASAHINA, 1971: 202; RENTZ, 1982: 1.

1 species in USSR (Primorje).

1. *Grylloblattina djakonovi* BEY-BIENKO, 1951.

BEY-BIENKO, 1951: 507, figs. 1 (1-3), 2. (Holotype: ♀, USSR, Primorje, Island Petrov in Kievka Bay about 20 km W. Priobrashiniye, lost).

GURNEY, 1953: 331; ASAHINA, 1971: 202; PRAVDIN and STOROZHENKO, 1977: 353.

Distribution. USSR: Primorje (Island Petrov).

3. Genus *Galliosiana* CAUDELL, 1924.

CAUDELL, 1924a: 92 (nom. n. pro *Galliosia* CAUDELL et KING, preoccupied by HUSTACHE, 1920 in *Coleoptera*). Type species: *Galloisia nipponensis* CAUDELL et KING by original designation.

GURNEY, 1937: 160-161; 1948: 86-90, 98: FUKUSHIMA, 1969a: 16;

ASAHINA, 1971: 202; PRAVDIN and STOROZHENKO, 1977: 355;

RENTZ, 1982: 1; NAMKUNG, 1982: 32.

Galloisia CAUDELL et KING, 1924: 53.

Grylloblatta: SILVESTRI, 1927: 112 (part.).

2 subgenera, 10 species in Japan, S. Korea and USSR: Siberia (Altai) and Primorje.

3a. Subgenus *Galloisiana* CAUDELL, 1924.

Literature and type species see under genus.

1. *Galloisiana (Galloisiana) kiyosawai* ASAHINA, 1959.

ASAHINA, 1959: 250, figs. 3a, d. (Holotype: ♀, Central Japan, prefecture Gifu, Hirayu-onsen, in Tokyo Metropolitan University, Japan).

GURNEY, 1961: 75; FUKUSHIMA, 1969b: 16-18, figs. C (1-3) (♂): PRAVDIN and STOROZHENKO, 1977: 376.

Distribution. Central Japan: prefectures Nagano, Gifu and Chichibu.

2. *Galloisiana (Galloisiana) kosuensis* NAMKUNG, 1974.

Namkung, 1974b: 91, figs. 1-8 (Holotype: ♂, Korea, 480 km S.E. Seoul, Chung-cheong-buk-do, Danyong-gun, Kosudong-gul Cave at Kosu-ri in Daegang-myeon, in coll. NAMKUNG, Seoul; allotype: ♀, some localities and dispositions).

Namkung, 1982: 38-41, fig. 4.

Distribution. S. Korea: province Chung-cheong-buk-do.

3. *Galloisiana (Galloisiana) kurentzovi* PRAVDIN et STOROZHENKO, 1977 PRAVDIN et STOROZHENKO, 1977: 353, figs. 1-9. (Holotype: ♀, USSR, Primorje, National Park Kedrovaja Pad, in Zool. Institute USSR Acad. Sci., Leningrad; allotype: ♂, Mt. Krinitshnaja about 80 km N.E. Vladivostok, some disposition).

STOROZHENKO, 1979: 18-20; STOROZHENKO and OLEGER, 1984: 729.

Distribution. USSR: S. Primorje.

4. *Galloisiana (Galloisiana) nipponensis* (CAUDELL et KING, 1924).

CAUDELL et KING, 1924: 54, figs. 1-3. (*Galloisia*, holotype: ♂, Central Japan, Chuzenji near Nikko, in U.S. Nat. Mus., Washington, N 26848).

Galliosiana nipponensis: CAUDELL, 1924a: 92; SILVESTRI, 1927: 107-112; figs. I (1-13), II (1-8), III (1-4); KISHIDA, 1929: 104-108; MATSUMURA, 1931: 1373; ASAHINA and ASAHINA, 1933: 630; WALKER, 1937: 9; GURNEY, 1937: 160, figs. 2-6; 1948: 95-96, figs. 1, 2, 5-7 (♀); ASAHINA, 1959: 250, figs. 1a-d; GURNEY, 1961: 74-75; FUKUSHIMA, 1969b: 16-18, figs. A (1-3); PRAVDIN and STOROZHENKO, 1977: 356; NAGASHIMA, 1982: 52; YAMASAKI, 1982c: 13; 1982d: 333.

Galloisidea (sic.) *nipponensis*: SHIRAKI, 1932: 2038.

Distribution. Central Japan.

5. *Galloisiana (Galloisiana) pravdini* STOROZHENKO et OLIGER, 1984.

STOROZHENKO et OLIGER, 1984: 279, figs. 1-7 (Holotype: ♂, USSR, Altai, 100 km S.E. Gorno-Altai, in Zool. Institute USSR Acad. Sci., Leningrad; allotype: ♀, some locality and disposition).

Distribution. USSR: Altai.

6. *Galloisiana (Galloisiana) yasai* ASAHINA, 1959.

ASAHINA, 1959: 249, figs. 2a-d. (Holotype: ♂, Japan, prefecture Nagano, Tokudo-toge, in Tokyo Metropolitan University, Japan; allotype: ♀, prefecture Nagano, Shimajima-dani, some dispositions).

GURNEY, 1961: 75; FUKUSHIMA, 1969b: 16-18, figs. B (1-3).

Galloisiana yusai (sic!): PRAVDIN and STOROZHENKO, 1977: 355.

Distribution. Central Japan: prefectures Nagano, Gumma, Niigata and Chichibu.

7. *Galloisiana (Galloisiana) yezoensis* ASAHINA, 1961.

ASAHINA, 1961: 85, figs. 1-6. (Holotype: ♀, Japan, Hokkaido, Mt. Daisei-tsu, Miyozaki-toge near Yukomanbetsu, in Tokyo Metropolitan University, Japan).

FUKUSHIMA, 1969b: 16; PRAVDIN and STOROZHENKO, 1977: 355.

Distribution. Japan: Hokkaido.

3b. Subgenus *Ishiana* SILVESTRI, 1927.

SILVESTRI, 1927: 113 (pro subgenus *Grylloblatta*). Type species *Grylloblatta (Ishiana) notabilis* SILVESTRI, by original designation.

GURNEY, 1937: 160 (pro subgenus *Galloisiana*); 1948: 90; FUKUSHIMA, 1969a: 16; PRAVDIN and STOROZHENKO, 1977: 355.

8. *Galloisiana (Ishiana) biryongensis* NAMKUNG, 1974.

NAMKUNG, 1974a: 1-7, figs. 1-16. (Holotype: ♂, Korea, 500 km N.E. Seoul, Kangweon-do Province, Biryong-don-gul Cave at Biryong-dong of Yongtanri in Teongseon-myeon of Jengseon-gun, in coll. NAMKUNG; allotype: ♀, some localities and dispositions).

NAMKUNG, 1982: 34-38, figs. 2, 3.

Distribution. S. Korea: province Kangweon-do.

9. *Galloisiana (Ishiana) chujoi* GURNEY, 1961.

GURNEY, 1961: 73, figs. 18, 19; (Holotype: ♀, Japan, Kagawa prefecture, Island Megi-shima, Oninoiwaya Cave, in U.S. Nat. Mus., Washington, N 65378).

PRAVDIN and STOROZHENKO, 1977: 355.

Galloisiana sp.: Chujo, 1958: 1-7.

Distribution. Japan: prefecture Kagawa (island Megi-shima).

10. *Galloisiana (Ishiana) notabilis* (SILVESTRI, 1927).

SILVESTRI, 1927: 113-118, figs. IX, X (1-11), XI (1-4), XII (1-4). (*Grylloblatta (Ishiana)*, holotype: ♂ (larvae), Japan, Island Kyushu at Michion near Nagasaki, presumably in Agricultural Zoology Laboratory, Portici, Italy or lost).

Galloisiana (Ishiana) notabilis: GURNEY, 1937: 160; WALKER, 1937: 9; GURNEY, 1948: 96, 98; 1961: 74; PRAVDIN and STOROZHENKO, 1977: 355.

Galloisiana sp.: KAWASAWA, 1950: 1-2.

Distribution. Japan: island Kyushu.

Populations of *Galloisiana incertae sedis*.

There are about 25 populations in S.Korea (NAMKUNG, 1982: 30-32) and 3-4 in Japan (KAWASAWA, 1950: 1-2; FUKUSHIMA, 1969b: 18) known only by immature species mentioned and some of them may be new species.

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This excellent catalogus on the present *Grylloblattida* will in its arrangement be a great help to all who are working with them or intend to study them. Exact references to the books and journals in which the mentioned publications are published you find in T. YAMASAKI: 1982 in „Biology of the *Notoptera*“ (edited by HIROSHI ANDO) Kashigo-insatsu Co. Ltd., Nagano, Japan.

Kurt HARZ

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