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On Delphacids of the Komsomolsky Reserve (Khabarovsk Region, USSR)

(Insecta, Homoptera, Auchenorrhyncha, Delphacidae)

With 8 Figures

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There are almost no data on Cicadinea-fauna of Khabarovsk Region of the USSR. The single work containing the list of insects from Amur basin with 20 species of Cicadinea among them is V. MOTSCHULSKY's (1859) article which is out of date now and practically does not reflect fauna diversity of the Region under review; moreover, it does not include any notes on the concrete points of collecting.

All this induces us to publish the results of our study of materials on Cicadinea-insects collected in the Komsomolsky Reserve and some points of Komsomolsk Area in 1973-1974 by V. L. GOLUBEV, former student of the Gorky State University. The report includes the results of investigation of delphacids only.

The main section of the Komsomolsky Reserve, about 320 sq. km., is situated on the right bank of Amur-river opposite the city of Komsomolsk-on-Amur to the north of Pivan' settlement and occupies highlands of Khummi mountain ridge (western spurs of Sikhote-Alin) in Belgo-river basin. The Gur Branch of the Reserve, about 110 sq. km., is situated on the left bank of Gur-river above Tcherval-river mouth on the spurs of Khomi mountain ridge.

Vegetation of the Reserve is very diverse, which is connected with its position in the junction of floristical zones. According to "GEOBOTANICAL MAP OF THE USSR" (1956) the territory of the Reserve occupies northernmost parts of mixed coniferous broad-leaved forests, while to the north and north-east (in Sikhote-Alin) mountain dark coniferous spruce and fir forests prevail. According to B. P. KOLESNIKOV's (1955) scheme of geobotanical subdivision of the Soviet Far East the whole region under discussion is included in Ussuriysk-Amur circuit, Far Eastern (Manchurian) province of pine broad-leaved and oak forests, East Asiatic circle of coniferous broad-leaved forests. The following types of vegetation are shown for the Reserve on the more detailed "Map of vegetation of Amur basin" (1968) published as supplement to book "AMUR TAIGA" (1969):

- A. Boreal vegetation on lowlands, plains and low plateaux;
 - III. Fur-spruce (*Picea ajanensis*, *Abies nephrolepis*) forests;
 - 15. Fur-spruce subtaiga with nemoral elements in cover and undergrowth, sometimes with the addition of broad-leaved species and *Pinus koraiensis*;
 - 16. Larch grassy-undershrub derivative forests in the places of fur-spruce subtaiga;
 - 17. White birch grassy derivative forests in places of fur-spruce subtaiga;
- B. Nemoral vegetation of lowlands, plains and low plateaux;
 - VI. Pine broad-leaved and broad-leaved (*Pinus koraiensis*, *Quercus mongolica*, *Tilia amurensis*, *Betula dahurica*) forests;
 - 21. Pine broad-leaved grassy forests with *Picea ajanensis*.

*) The types of vegetation are marked and numbered as in the legend to the map.

A more detailed essay of natural conditions of the Reserve including vegetation is given by F. R. STILMARK (1969).

The species of delphacids are listed below according to the system accepted in "Annotated check list of Palaearctic Auchenorrhyncha" by J. NAST (1972). To avoid uncertainty in species interpretation, specific names are followed by the references of sources used for identification. Then data on the investigated materials are given. Information on general distribution is mainly adopted from J. NAST's (1972) book which the records published before the end of 1970 are taken into account; more recent information is supplied with special references while new data based on the materials of our collection are marked with exclamation note (!). All materials listed in the paper are kept in the Gorky State University.

Stenocnusus fuscovittatus (STAL, 1858) (= *S. panmlus* VILBASTE, 1968, syn. n.) (VILBASTE, 1968, 1971). Pivan' environs, grassy larch forest, June 3, 1974, 1 male. — Western Europe; Mongolia (DLABOLA, 1967); China: Manchuria; USSR: Estonia, Georgia, Kazakhstan, Siberia, Khabarovsk Region!, Maritime Territory.

The synonymy is ascertained by the analysis of materials from the USSR European part, the Siberia and the Soviet Maritime Territory and by the fact that their comparison with the descriptions and figures of both species published by J. VILBASTE (1968, 1971) does not demonstrate any considerable differences.

Stenocranus hokkaidoensis METCALF, 1943 (VILBASTE, 1968). Near Pivan', herbs with prevalence of sedges, May 31, 1974, 1 male. — Japan: Hokkaido, Honshu, Kyushu; Korean Peninsula; USSR: Maritime Territory, Khabarovsk Region!, Southern Kurile Islands!

Stiroma lenensis EMELJANOV, 1976 (EMELJANOV, 1976). Pivan' environs, Belgo-river coast, July 9, 1974, 1 male. — Mongolia (EMELJANOV, 1977); USSR: Yakutia, Chita!, Magadan! and Khabarovsk! Regions, Maritime Territory!

Achorotile (s.str.) subarctica SCUDDER, 1963 (ANUFRIEV, EMELJANOV, 1980). Near Pivan', July 6, 1974, 1 male. — USA (Alaska), Canada (North-Western Territories, Alberta, British Columbia); Mongolia; USSR: low Enisey, Taimyr Peninsula, Buryatia, Yakutia, Chita, Magadan and Khabarovsk Regions (ANUFRIEV, EMELJANOV, 1980).

Achorotile (*Laccoscyta*) *transbaicalica* KUSNEZOV, 1929 (ANUFRIEV, EMELJANOV, 1980). Pivan' environs, June 4, 1974, 1 male. — Mongolia; USSR: Buryatia, Yakutia, Magadan and Khabarovsk Regions, Maritime Territory, Kurile Islands (Schikotan) (ANUFRIEV, EMELJANOV, 1980).

Unkanodes sapporona (MATSUMURA, 1935) (ISHIHARA, 1949). Gur Branch, July 26, 1974, 1 male. — China: Shansi; Japan: Hokkaido, Honshu, Kyushu; USSR: Maritime Territory, Khabarovsk Region!, Sakhalin and Kurile Islands (ANUFRIEV, 1977); Oriental Region.

Laodelphax striatellus (FALLEN, 1826) (VILBASTE, 1971; OSSIANNILSSON, 1978). Near Pivan', Aug. 6-22, 1973, 8 specimens; Gur Branch, May 31-Aug. 6, 1974, 9 specimens. Among herbs. — Nearby all over the Palaearctic and Oriental Regions.

Sogatella furcifera (HORVATH, 1899) (FENNAH, 1963). Pivan' environs and Gur Branch, Aug. 6—23, 1973, 50 specimens. — North Africa; Southern Europe; Mongolia; China: Manchuria, Shansi; Japan: Hokkaido, Honshu, Kyushu, Shikoku; USSR: Southern Kurile Islands, Sakhalin, Maritime Territory, Khabarovsk Region!; Oriental Region.

Sogatella longifurcifera (ESAKI et ISHIHARA, 1947) (FENNAH, 1968; ISHIHARA, 1949). Gur Branch, Aug. 8, 1973, 1 male. — Mongolia; Japan: Kyushu; China; USSR: Khabarovsk Region!, Maritime Territory; Oriental and Australian Regions.

Hyledelphax elegantulus (BOHEMAN, 1847) (VILBASTE, 1971; OSSIANNILSSON, 1978). Near Pivan', July 6, 1974, 1 male. — North Africa; Europe; Mongolia (DLABOLA, 1967); USSR: European part, Kazakhstan, Altai (VILBASTE, 1965), southern part of Krasnoyarsk Region!, Khabarovsk Region!

Paradelphax nigrostriatus (KUSNEZOV, 1929) (= *Muirodelphax litoralis* VILBASTE, 1968) (VILBASTE, 1968). Pivan' environs, June 4-6, 1974, 15 specimens. - Mongolia (EMELJANOV, 1977); USSR: Tuva Autonomous Region (VILBASTE, 1980a), Buryatia, southern part of Krasnoyarsk Region!, Chita!, Amur! and Khabarovsk! Regions, Maritime Territory, Southern Kurile Islands (ANUFRIEV, 1977).

Struebininganella detecta (LINNAVUORI, 1953) (VILBASTE, 1968). Near Pivan' and Selikhin-station, June 6-July 12, 1974, 5 males. - Mongolia (EMELJANOV, 1977); USSR: Yakutia, Khabarovsk Region!, Maritime Territory.

Paradelphacodes paludosa (FLOR, 1861) (ANUFRIEV, 1972; VILBASTE, 1971; OSSIANILSSON, 1978). Pivan' environs, July 7, 1971, 1 male; Selikhin-station, June 12, 1974, 1 male. On sedges. - Europe; Mongolia; Japan: Honshu; USSR: European part, Khabarovsk Region!, Maritime Territory, Southern Sakhalin and Southern Kurile Islands (ANUFRIEV, 1977).

Paradelphacodes orientalis ANUFRIEV, 1972 (ANUFRIEV, 1972). Near Pivan', July 12-23, 1974, 10 specimens. - Mongolia (EMELJANOV, 1977); USSR: Khabarovsk Region!, Maritime Territory (ANUFRIEV, 1972), Southern Kurile Islands!

Criomorpus borealis (J. SAHLBERG, 1871) (ANUFRIEV, 1972; OSSIANILSSON, 1978). Pivan' environs, June 6, 1974, 1 male. — Northern and Middle Europe; Mongolia; USSR: European part, southern part of Krasnoyarsk Region!, Kazakhstan (MITJAEV, 1979), Buryatia, Khabarovsk Region!, Maritime Territory!, Southern Sakhalin and Kurile Islands (ANUFRIEV, 1977), Kamchatka (VILBASTE, 1980b).

Terthronella basalis (MATSUMURA, 1915) (VILBASTE, 1968). Near Pivan', June 27-July 16, 1974, 6 males. - Korean Peninsula; Mongolia (EMELJANOV, 1977); USSR: Kazakhstan (MITJAEV, 1979), southern part of Krasnoyarsk Region!, Chita! and Khabarovsk! Regions, Maritime Territory, Southern Sakhalin and Southern Kurile Islands (ANUFRIEV, 1977).

Javesella dubia (KIRSCHBAUM, 1868) (LEQUESNE, 1960; VILBASTE, 1971; OSSIANILSSON, 1978). Pivan' environs, June 4-28, 1974, 17 specimens. - North Africa; Europe; USSR: European part, Kazakhstan, Uzbekistan, Altai, southern part of Krasnoyarsk Region!, Tuva Autonomous Region (VILBASTE, 1980a), Buryatia!, Khabarovsk Region!, Southern Sakhalin and Southern Kurile Islands (ANUFRIEV, 1977), Kamchatka (VILBASTE, 1980b).

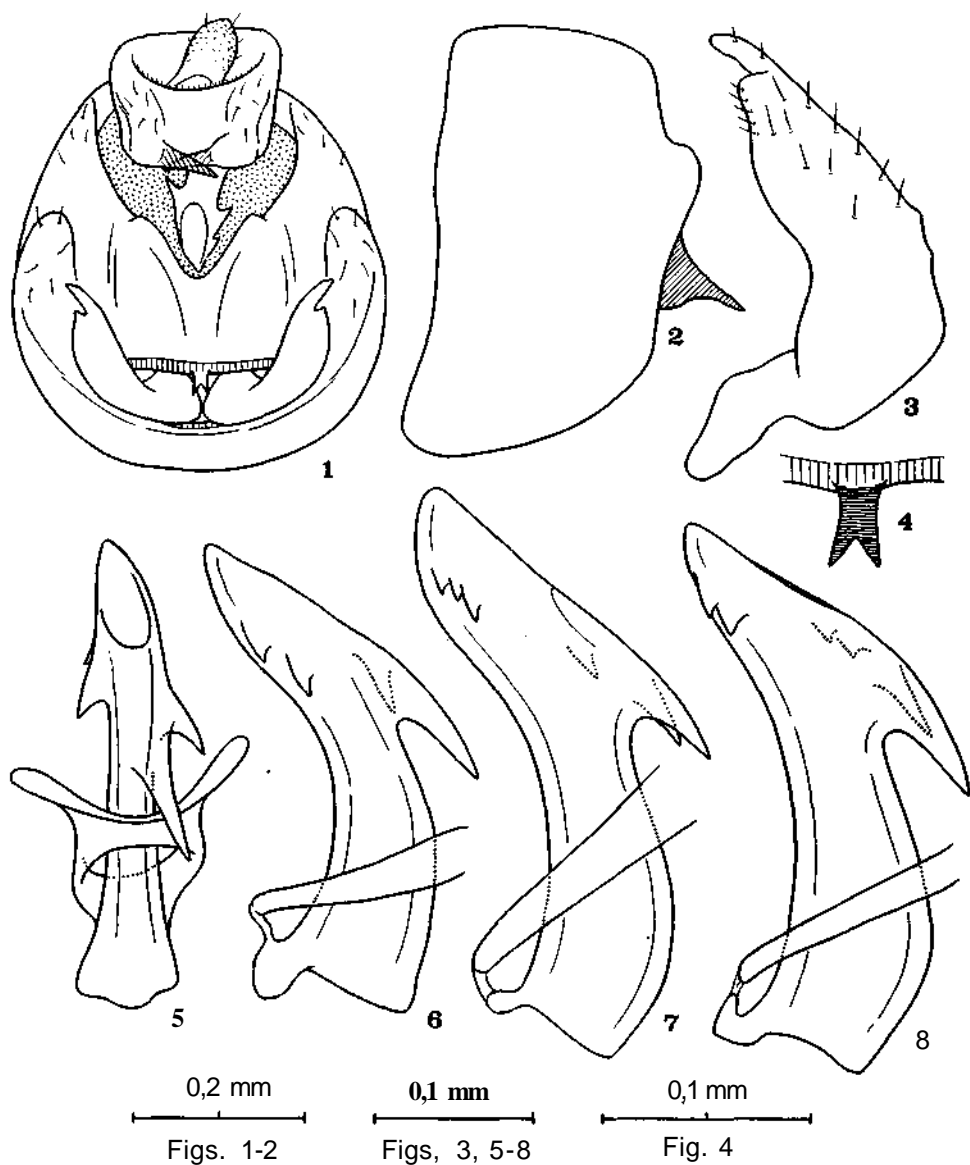
Javesella obscurella (BOHEMAN, 1847) (LEQUESNE, 1960; VILBASTE, 1971; OSSIANILSSON, 1978). Pivan' environs and Gur Branch, July 26-Aug. 6, 1974, 3 males. - Europe; Turkey: Anatolia; Mongolia; Japan: Honshu (MOCHIDA, OKADA, 1971); USSR: European part, Kazakhstan (MITJAEV, 1974), Taimyr Peninsula, southern part of Krasnoyarsk Region!, Tuva Autonomous Region (VILBASTE, 1980a), Buryatia!, Chita! and Khabarovsk! Regions, Chukotka (EMELJANOV, 1972a); Nearctic Region.

Javesella pellucida (FABRICIUS, 1794) (LEQUESNE, 1960; VILBASTE 1971; OSSIANILSSON, 1978). Pivan' environs, Aug. 8-18, 1973, 7 specimens, June 3-July 26, 1974, 33 specimens. - North Africa; Europe; Mongolia; Japan: Hokkaido, Honshu (MOCHIDA, OKADA, 1971); USSR: European part, Kazakhstan, Kirghizia, Uzbekistan, Altai, Tuva Autonomous Region (VILBASTE, 1980a), Taimyr Peninsula, southern part of Krasnoyarsk Region!, Irkutsk, Chita! and Magadan Regions, Buryatia!, Khabarovsk Region!, Kamchatka, Maritime Territory, Southern Sakhalin (ANUFRIEV, 1977) and Kurile Islands.

Javesella simillima (LINNAVUORI, 1948) (VILBASTE, 1971; OSSIANILSSON, 1978). Near Pivan', June 8-15, 1974, 2 males. - Finland; USSR: Estonia, Taimyr, Khabarovsk Region! and Chukotka!

Ribautodelphax bidentatus ANUFRIEV, 1970 (ANUFRIEV, 1970). Pivan' environs, Aug. 30, 1973, 2 males, June 7-Aug. 4, 1974, 73 specimens. - USSR: Perm' Region!, Tuva Autonomous Region (VILBASTE, 1980a), Chita! and Khabarovsk! Regions, Maritime Territory, Southern Kurile Islands (ANUFRIEV, 1977).

Ribautodelphax flavicans VILBASTE, 1965 (VILBASTE, 1965). Near Pivan' and Selikhin-station, June 7-July 7, 1974, 9 specimens. - Mongolia; USSR: Altai, southern part of



Figs. 1—8 Male genitalia of *Ribantodelphax pusillus* EM.

1: genital segment from behind — 2: the same from the side — 3: style on plane — 4: process of pygophore phragma from behind — 5: penis from above — 6—8: penis from side. Figs. 1—6: paratype from Mongolia (YamatYn-Ama ravine, 20 km. NW of Turgen-Ula peak, Ubsunur Aimak, July 20, 1968, EMELJANOV coll.). Figs. 7-8: specimens from the Komsomolsky Reserve, near Pivan'.

Krasnoyarsk Region!, Chita! and Khabarovsk! Regions, Maritime Territory, Southern Kurile Islands (ANUFRIEV, 1977).;

Ribautodelphax pusillus EMELJANOV, 1972 (Figs. 1-8) (= *R. balgasicus* VILBASTE, 1980, syn. n.) (EMELJANOV, 1972b; VILBASTE, 1980a). Pivan' environs, July 16, 1973, 4 specimens, May 31-July 5, 1974, 287 specimens. - Mongolia (EMELJANOV, 1972b); USSR: Altai (EMELJANOV, 1972b), Tuva Autonomous Region (VILBASTE, 1980a) Chita! and Khabarovsk! Regions.

Male genitalia of Far Eastern specimens have the same structure-pattern as those of specimens from the type localities (from Altai and Mongolia) but Far Eastern ones have larger penis with a somewhat different number and disposition of teeth (compare Figs. 34-37 of EMELJANOV, 1972b, with Figs. 1-8 in this paper). By our opinion, these differences keep within the limits of specific variability; the specimen described and figured by J. VILBASTE (1980a) as *R. balgasicus* obviously keeps within the specific variability too.

Zusammenfassung

ÜBER DELPHACIDEN DES KOMSOMOLSKER SCHUTZGEBIETES (REGION CHABAROVSK, UDSSR)

Eine Liste von 23 Vertretern der Delphacidae des Komsomolsker Schutzgebietes und seiner Umgebung (Region Chabarovsk, UdSSR) mit Angaben zu den Fundorten und zur allgemeinen Verbreitung der Arten wird vorgelegt; die meisten Arten wurden für die Region Chabarovsk das erste Mal nachgewiesen. Die Synonymie von *Stenocranus parvulus* VILB. mit *St. fuscovittatus* (STAL) wird festgestellt. Beschreibung und Abbildungen der männlichen Genitalien von *Ribautodelphax pusillus* EM. werden gegeben und die Synonymie von *R. balgasicus* VILB. mit jener Art wird bewiesen.

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