Type Specimens of the Small-Headed Flies (Diptera, Acroceridae) in the Collection of the Zoological Institute of the Russian Academy of Sciences, St. Petersburg

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Abstract—A catalogue of the types (holotypes, paratypes, and a lectotype) of the species of the family Acroceridae described by L.F. Hildebrandt, F.D. Pleske, and E.P. Nartshuk, deposited in the collection of the Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia, is presented. Photographs of the specimens and labels of the holotypes and lectotype are given.

Keywords: Diptera, Acroceridae, holotypes, paratypes, lectotype, paralectotype, Zoological Institute of the Russian Academy of Sciences

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In the present paper, the type specimens of the dipterans belonging to the family Acroceridae, deposited in the collection of the Zoological Institute of the Russian Academy of Sciences in St. Petersburg (ZIN), are considered.

The representatives of the family are medium-sized or large (2.5–20 mm) flies with tiny head and usually large spherical abdomen. In some flies (*Oligoneura* Bigot), the body is bent at a nearly right angle. The coloration is black, frequently with a white or yellow pattern against the black background. The family is distributed worldwide, except for the oceanic islands, and includes about 500 species in 48 genera. Approximately 40 species inhabit the Palaearctic Region, and 20 species mainly belonging to the genera *Acrocera* Meigen and *Ogcodes* Latreille are distributed in Russia (Nartshuk, 1988). The flies are rather rare in nature and, thus, are not numerous in the collections. Fossil representatives of the family are known since the Upper Jurassic. Four fossil genera and four species were described from Baltic amber. The adult flies are either nectarophagous with a long proboscis or do not feed. The larvae are endoparasites of spiders (Araneae) of the families Lycosidae, Theridiidae, and Gnaphosidae. Their development lasts from several months to several years.

The lists given below include all the type specimens of the species from the ZIN collection. The species names are listed in alphabetic order and followed by the quoted labels of the type specimens, their inventory numbers, and current names of the species.

Most of the original labels are written in Russian. The labels cited below are transliterated and translated in English for the holotypes, and only translated for the other specimens.

The photographs were taken with a Canon EOS 800D camera with a MP-E 65 mm objective and clamped and processed by Helicon Focus 6 software.

Species Described by L.F. Hildebrandt

albofimbriatus Hildebrandt, 1930 : 220 (*Cyrtus*) (Fig. 1). Holotype: female, a golden circle, “[provin-tsiya] Sych[uan], r[eka] Fubyankho, Shigait, Shintyan [Shin’-Dyan’-Tszy bliz Kandina, Kitai] (in Cyrillic, = Sichuan Province, Fu-bjan cho River, Shigayts-Shintyan [Shin’-Dyan’-Tszy near Kangding, China]), 1[.]VIII[.]1893 (Potan[in])”, handwritten identification label: “*Cyrtus albofimbriatus* typ Hild[eb]randt[.]” “Holo-typus.” The inventory number is INS_DIP_0000431. The current name is *Paracyrtus albofimbriatus* (Hilde-

Fig. 1. *Cyrtus albofimbriatus* L.F. Hildebrandt, 1930, holotype. Photographs by N.M. Paramonov.

brandt, 1930) (Schlinger, 1972 : 420). The holotype is well preserved.

Species Described by F.D. Pleske

altaica Pleske, 1930 : 171 (*Acrocera*) (Fig. 2). Holotype: male, a golden circle, "Ongudai, Altai, 10.VII.[18]98 (Berezovskii) (in Cyrillic)," handwritten identification label: "*Acr[ocera] altaica* Pl[e]sk[e].

Typus," "Holotypus." The inventory number is INS_DIP_0000432. The date (23[.VII]) is given in the original description in the Gregorian chronology (Nartshuk, 1975 : 512) (data on labels in Julian chronology). The holotype is well preserved.

jacutensis Pleske, 1930 : 165 (*Oncodes*) (Fig. 3). Lectotype (Nartshuk, 1975 : 517): female, a golden circle, "1/2 v[ersty] ot st[antsii] Ugulyakh, Yakutsk[aya]

Fig. 2. *Acrocera altaica* Pleske, 1930, holotype. Photographs by N.M. Paramonov.

Fig. 3. *Oncodes jacutensis* Pleske, 1930, lectotype. Photographs by N.M. Paramonov.

obl[ast'], pole, 1926 g[od] (in Cyrillic, = 1/2 verst [a Russian unit of distance equal to 1.067 kilometers (0.6629 mile)] from Ugulyakh Station, Yakutsk Province, field, 1926), (Grigori'ev)," handwritten identification label: "*Onc[odes] jacutensis* Pl[e]sk[e]. Typus," handwritten identification label: "Lectotypus *Ogcodes jacutensis* Pleske, design. Nartshuk." The inventory number is INS_DIP_0000435. The current name is *Ogcodes jacutensis* (Pleske, 1930). Paralectotype: female, "Bele, Lake Teletskoe, Tomsk Government (one of the administrative subdivisions of Russia in 1708–1929) 28[.]VI[.][19]09 (Emeljanov)." The holotype is well preserved.

khamensis Pleske, 1930 : 172 (*Acrocera*) (Fig. 4). Holotype: male, a golden circle, "Tibet," "s[elo] Sanka, r[eka] Den-chyu, Kam', bas[sein reki] Goluboi (in Cyrillic, = Sanka Village, Dan Chu River, Kham, the Yangtze River basin), 17.IV.[19]01 (Kozlov)," handwritten identification label: "*Acr[ocera] khamensis* Pl[e]sk[e], typus," "Holotypus." The inventory number is INS_DIP_0000436. The wings of the holotype are damaged.

mongolica Pleske, 1930 : 169 (*Acrocera*) (Fig. 5). Holotype: male, two golden circles, "Bichikte-Mi-

shik-gun [ot urochishcha Bichigt-Ulan-Khada do monastyrya Mishik-Gun, bliz Delger-Khana, Tsentral'nyi aimak], Khalkha, Mong[oliya] (= Bichikte-Mishik-gun, from Bichigt-Ulan-Khad to the monastery of Mishik-Gun, near Delger-Khan, Töv Aimak, Khalkha, Mongolia), 1–7.IX.[1]925 ([P.K.] Kozlov)," handwritten identification label: "*Acr[ocera] mongolica* Pl[e]sk[e], typus," "Holotypus." The inventory number is INS_DIP_0000438. In the original description, the collecting dates of the holotype and paratype were given in the Gregorian chronology. Since the holotype was designated in the description, designation of the same specimen as the lectotype is unnecessary (Nartshuk, 1975 : 512). Paratype: female, "Chelotai-buluk [Chulutain-Bulak], (Nyudun), E of Urga [Ulan-Bator], [Mongolia], 8[.]VIII[.][18]97 (Klements)." The holotype is well preserved.

sordida Pleske, 1930 : 170 (*Acrocera*) (Fig. 6). Holotype: male, a golden circle, "77398," "Kitai (in Cyrillic; = China)," "Przheval'skii (= Przhevalsky)," "Alashan'skie gory, kon[ets] VI – n[achalo] VII[.]1871 (= Alashan Mts., late VI – early VII.1871)," handwritten identification label: "*Acr[ocera] sordida* Pl[e]sk[e], typus," "Holotypus." The inventory number is INS_DIP_0000442. The holotype is well preserved.

Fig. 4. *Acrocera khamensis* Pleske, 1930, holotype. Photographs by N.M. Paramonov.

Fig. 5. *Acrocera mongolica* Pleske, 1930, holotype. Photographs by N.M. Paramonov.

transbaicalica Pleske, 1930 : 172 (*Acrocera*) (Fig. 7). Holotype: male, a golden circle, "Chita, Zabaik[al'e] (= Transbaikalia), 11–18.VI.[1]912 (Gitel'man)," handwritten identification label: "*Acr[ocera] transbaicalica* sp. n. Th. Pleske det." (written by A.A. Stackelberg, not by F.D. Pleske), "Holotypus." The inventory number is INS_DIP_0000445. The holotype is well preserved.

trifasciata Pleske, 1930 : 169 (*Acrocera*) (Fig. 8). Holotype: female, a golden circle, "Shaku [Shakhkukh], yu[zhnyi] skl[on] El'br[El'bursskii] khr[ebet], 8–

10000', Pers[iya] (= Shaku [Shakhkukh], southern slope of the Alborz Mt. Range), 26.VI.[19]14 (Kiritshenko)," handwritten identification label: "*Acr[ocera] trifasciata* Pl[e]sk[e], typus," "Holotypus." The inventory number is INS_DIP_0000446. The apex of the abdomen is cut off; the slide is missing.

Species Described by E.P. Nartshuk

acroventris Nartshuk, 1982 : 413 (*Ogcodes*) (Fig. 9). Holotype: female, [Sakhalin Island], "Yu[zhno]-Sakha-

Fig. 6. *Acrocera sordida* Pleske, 1930, holotype. Photographs by N.M. Paramonov.

Fig. 7. *Acrocera transbaicalica* Pleske, 1930, holotype. Photographs by N.M. Paramonov.

linsk, okr[estnosti] (= environments of the city of Yuzhnosakhalinsk), 19.VII.[1]955 (Violovich),” handwritten identification label: “Holotypus *Ogcodes acroventris* Nartshuk.” The inventory number is INS_DIP_0000430. The legs are partly missing.

asiaticus Nartshuk, 1975 : 514 (*Ogcodes*) (Fig. 10). It was described as a subspecies *O. zonatus asiaticus* Nartshuk, 1975. Holotype: male, “Mongoliya, Gobi-Alt[aiskii] aimak, 12 km YuZ Tsogta (= Mongolia,

Gobialtay Aimak, 12 km SW of Tsogt), 15.VII.[1]970 (Nartshuk),” “pr (= preparation). № 20186,” handwritten identification label: “Holotypus *Ogcodes zonatus asiaticus* Nartshuk.” The inventory number is INS_DIP_0000433. A microvial with the genitalia preparation in glycerol with the same number is deposited in the collection of the Diptera Department. Paratypes: 3 males and 1 female, same locality; 1 male, “Kamen’-Rybolov, Lake Khanka, Yuzhno-Ussuriisk Territory, 27[.]VII[.]19[.]08 (Cherskii),” a microvial with the geni-

Fig. 8. *Acrocera trifasciata* Pleske, 1930, holotype. Photographs by N.M. Paramonov.

Fig. 9. *Ogcodesacroventris* Nartshuk, 1982, holotype. Photographs by N.M. Paramonov.

talia is pinned under the specimen; 1 male, "Astrabad' [Gorgan], Persia [Iran], 2.V.[.][19]14 (Kiritshenko);" 1 male, "Astrabad, Persia, 22.IV.[.][19]14 (Kiritshenko);" 2 males, "Astrabad, Persia, 26.IV.[.][19]14 (Kiritshenko);" a microvial with the genitalia is pinned under one specimen; 1 male, "Mongolia, between Ulukhem and Urgailyk Village, 10–11.VI.[19]14 (Tomashinskii)," actually, the collecting locality is in the Republic of Tuva, Russia; 1 male, "Mongolia, Uvs Aimak, Lake Uvs, 50 km E of Ulangom, 6.VIII.[1]970

(Nartshuk);" 1 male, "Mongolia, Hovd Aimak, Nariin-Bulak Spring, Ikh-Khavtgiin-Nuru Mt. Range, 24.VII.[1]970 (Nartshuk)," "pr[eparat] (= microvial with the genitalia) № 20183;" 1 male, "Mongolia, Gobialtay Aimak, Adzh-Bogdo Mt. Range, 40 km NNE of Altai, 19.VII.[1]970 (Nartshuk)," "pr[eparat] № 20181;" 1 male, "Mongolia, Gobialtay Aimak, Adzh-Bogdo Mt. Range, 40 km NNE of Altai, 19.VII.[1]970 (Zaitsev)," "pr[eparat] № 20184;" 1 male, [Bayan-Hongor Aimak] "Tuin-gol River middle course, Khalkha area, Mon-

Fig. 10. *Ogcodes zonatus asiaticus* Nartshuk, 1975, holotype. Photographs by N.M. Paramonov.

Fig. 11. *Acrocera (Acrocerina) bucharica* Nartshuk, 1982, holotype. Photographs by N.M. Paramonov.

Fig. 12. *Ogcodes merens* Nartshuk, 1982, holotype. Photographs by N.M. Paramonov.

golia, 28[.]VII[.][19]26 (Kiritshenko),” “pr[eparat] № 20183;” 1 male, “Mongolia, Bayan-Hongor Aimak, 80 km WSW of Bayan-Hongor, 10.VII.[1]970 (Emeljanov);” 1 male, “Zavchan-Niederung ca 20 km Žargalan, 47°20'N 95°48'E, 1450 m, 22–24.VI.1964,” deposited in Museum für Naturkunde der Humboldt-Universität, Berlin, Germany. The current name is *Ogcodes asiaticus* Nartshuk (Nartshuk, 1982). The holotype is well preserved.

bucharica Nartshuk, 1982 : 412 (*Acrocera* (*Acrocerina*)) (Fig. 11). Holotype: female, “Bukhara bor.-occ.,

Jargak, pr. Chatyrtshy [Yargak bliz Khatyrchi, Samarkandskaya obl.] (in Cyrillic, = Yargak near Khatyrchi, Samarkand Province), 10.VIII.[1]928 (Zimin),” handwritten identification label: “Holotypus *Acrocera bucharica* Nartshuk.” The inventory number is INS_DIP_0000434. The current name is *Acrocera bucharica* Nartshuk (Nartshuk, 1982). The holotype is well preserved.

merens Nartshuk, 1982 : 414 (*Ogcodes*) (Fig. 12). Holotype: male, “Simonovo, Amur[skaya] obl[ast'], 75 km W Svobodnogo (in Cyrillic, = Simonovo,

Fig. 13. *Acrocera obnubila* Nartshuk, 1979, holotype. Photographs by N.M. Paramonov.

Fig. 14. *Ogcodes ottuc* Nartshuk, 1982, holotype. Photographs by N.M. Paramonov.

Fig. 15. *Ogcodes pamiricus* Nartshuk, 1982, holotype. Photographs by N.M. Paramonov.

Amurskaya Province, 75 km W of Svobodnoe), 22.VII. [1]959 (Zinovi'ev)," "ass[otsiatsiya] 27. veinikovo-oskov[yi] lug (in Cyrillic, = association 27, reedgrass-sedge meadow)," handwritten identification label: "Holotypus *Ogcodes merens* Nartshuk." The inventory number is INS_DIP_0000437. The abdomen is cut off; a

microvial with the genitalia is pinned under the specimen. The holotype is well preserved.

obnubila Nartshuk, 1979 : 425 (*Acrocera*) (Fig. 13). Holotype: male, "Kalga, Chit[inskaya] obl[ast']", poima, po ivam (= Kalga, Chita Province, flood plain, on wil-

Fig. 16. *Asopsebius tadzhicorum* Nartshuk, 1982, holotype. Photographs by N.M. Paramonov.

lows), 14.VII.[19]75 (V. Richter),” handwritten identification label: “Holotypus *Acrocera obnubila* Nartshuk.” The inventory number is INS_DIP_0000439. Paratype: male, “Kozlovo, Chita Province, black-birch forest edge, 17[.]VII[.]19]75 (V. Richter).” The holotype is well preserved.

ottuc Nartshuk, 1982 : 415 (*Ogcodes*) (Fig. 14). Holotype: male, [Kirgiziya (= Kyrgyzstan)] “Ottuk, 1630 m, yuzh[ny] ber[eg] [oz.] Issyk-Kul’ (in Cyrillic, = Ottuk, 1630 m, southern shore of Lake Issyk-Kul), 14[.]VIII[.]19]69 (Nartshuk),” “pustynnye sklony (= desert slopes),” handwritten identification label: “Holotypus *Ogcodes ottuc* Nartshuk.” The inventory number is INS_DIP_0000440. Paratype: male, same locality. The holotype is well preserved.

pamiricus Nartshuk, 1982 : 414 (*Ogcodes*) (Fig. 15). Holotype: male, [Tadzhikistan (= Tajikistan)] “k[ishlak] Putup, d[olina] Pyandzha, Yu. Pamir (= Putup Village, Pyandzh River valley, Southern Pamir), 2600 m, 1.VIII.[1]964 (Zaitsev),” handwritten identification label: “Holotypus *Ogcodes pamiricus* Nartshuk.” The inventory number is INS_DIP_0000441. Paratype: male, same locality. The holotype is well preserved.

tadzhicorum Nartshuk, 1982 : 411 (*Asopsebius*) (Fig. 16). Holotype: female, [Tadzhikistan (= Tajikistan)] “Gafil’abad, v[e]rk[h]ov’e] r[eki] Luchob (= Gafil’abad, upper course of the Luchob River), 2500 m, [1]940 (Gussakovskii),” “15.VIII.[1]940,” handwritten identification label: “Holotypus *Asopsebius tadzhicorum* Nartshuk.” The inventory number is INS_DIP_0000443. Paratypes [Tajikistan]: 1 female, “Gafil’abad, upper course of the Luchob River, 2500 m, [1]940 (Gussakovskii),” “23.VIII.[1]940;” 1 female, “Kvak, 2000 m, 35 km N Stalinabad [= Dushanbe], 17[.]VIII[.]19]37 (Gussakovskii);” 1 female, “Kondara Gorge, 1100 m, Varzob River valley, Tajikistan, 17.IX.[19]37 (Gussakovskii).” The holotype is well preserved.

tarsalis Nartshuk, 1975 : 513 (*Acrocera*) (Fig. 17). Holotype: male, “Mongoliya, Tsentral’nyi aimak, sev[ernyi] skl[on] Bogdo-ula bliz Ulan-Batora (= Mongolia, Töv Aimak, northern slope of Bogdo-Ula near Ulan-Bator), 29.VI.[1]967 (Kerzhner),” “prep[arat] № 20190,” handwritten identification label: “Holotypus *Acrocera tarsalis* Nartshuk.” The inventory number is INS_DIP_0000444. A microvial with the number 20190 containing the genitalia in glycerol is deposited in the collection of slides of the Diptera Department. In the

Fig. 17. *Acrocera tarsalis* Nartshuk, 1975, holotype. Photographs by N.M. Paramonov.

original description, the date 27.VI was erroneously given (Nartshuk, 1975 : 513). The holotype is well preserved.

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COMPLIANCE WITH ETHICAL STANDARDS

The authors declare that they have no conflict of interest. All the applicable international, national, and institutional guidelines for the care and use of animals were followed. All the procedures performed in studies involving animals were in accordance with the ethical standards of the institution or practice at which the studies were conducted.

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