THE TYPE-MATERIAL OF MUSCIDAE, CALLIPHORIDAE, AND SARCOPHAGIDAE DESCRIBED BY N. BARANOV
(Diptera)

Curtis W. Sabrosky, Systematic Entomology Laboratory, Agricultural Research Service, U.S. Department of Agriculture

and


ABSTRACT—An alphabetical catalogue, by family, is given of a total of 7 generic, 39 specific, and 6 infraspecific names proposed by N. Baranov in the dipterous families Muscidae, Calliphoridae, and Sarcophagidae, with an account of all located type-material on which the names are based. Twelve lectotypes are newly designated. The references include a complete bibliography of Baranov's papers on these 3 families.

The type-material of the 156 species-group nominal taxa of the family Tachinidae described by the dipterist Nikola Baranov has recently been dealt with in detail by Sabrosky and Crosskey (1969). The present account summarizes the known type-material of Baranov's nominal taxa in the families Muscidae (1 species), Calliphoridae (1 genus, 6 species2), and Sarcophagidae (6 genera, 32 species, 4 subspecies, and 2 varieties), with notes on two manuscript names that have appeared in print. Twelve lectotypes are newly designated.

The introductory discussion by Sabrosky and Crosskey (1969), notably on the problems of recognition of type-material and the designation of lectotypes, applies to the present paper as well and need not be repeated here. The format is similar, except that because no catalogues are known to be in progress for these families for the regions involved, Baranov's generic names are catalogued, and the zoological status of the species-group taxa is indicated wherever known. Further, the published manuscript names are too few (2 in Sarcophagidae) to warrant treatment in a separate part.

2 Sabrosky and Crosskey (1969) record 5 species, having inadvertently overlooked 1 name.
The entries are generally self-evident, particularly because the study of these families revealed far fewer problems of interpretation than in the Tachinidae. It will be convenient for ready reference to list here the following abbreviations for the type-depositories:

- **BMNH** British Museum (Natural History), London
- **CNC** Canadian National Collection, Ottawa
- **DEI** Deutsches Entomologisches Institut, Eberswalde
- **IZPAN** Instytut Zoologiczny, Polska Akademia Nauk, Warsaw
- **USNM** U. S. National Museum of Natural History, Washington, D. C. (now owner of the Baranov Collection.)

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**Genera Named by N. Baranov**

**Calliphoridae**

*Termitoloemus* Baranov, 1936b:646. Type-species, *T. marshalli* Baranov, by original designation and monotypy.

**Sarcophagidae**


Lopes (1961:70) has synonymized this genus with *Boettcherisca* Rohdendorf, 1937.


*Sarcosolamonia* Baranov, 1938b:173. Type-species, *S. tulagiensis* Baranov, by original designation and monotypy.

Lopes (1967:151) has suggested that this name may apply to a genus that he named *BezzIola* (1958:24).


**Species-Group Taxa Named by N. Baranov**

**Muscidae**

Hennig (1964:974) also stated that the location of the types is unknown. He suggested that it is a possible synonym of *M. simplex* Loew.

**Calliphoridae**

[*Chaetoptiliopsis burmanica* Baranov, 1938c:411. This is a tachinid. It was incorrectly referred to the Calliphoridae by Senior White, Aubertin, and Smart (1940:82)].


**Lucilia pilosa** Baranov, 1926b:176. LECTOTYPE ♂, by present designation, JUGOSLAVIA: Serbia, Golubac, a.[anfangs?] v. 1925 (USNM). Genitalia missing.

Paralectotype: 1 ♂, same data as lectotype (USNM, genitalia missing).

These two males in the Baranov Collection, each with hand-written label "pilosa," and with data exactly as published, are presumed to be the originals.

Zumpt (1956:44, 49) recognized the species tentatively, but suggested that it might be synonymous with *L. pilosiventris* Kramer, 1910.


There is nothing in the original description to suggest that more than one specimen was present, and we therefore accept this as the holotype.

From the description alone, Zumpt (1956:27, 28) placed this in the genus *Onesia* Bobineau-Desvoidy as he restricted it, and this is correct according to the holotype.


Although the type lacks hairs on the inner upper surface of the lower calypter, it is apparently referable to *Polleniopsis* Townsend; in series before us there is considerable variation in the number of calytral hairs, and some small specimens have none at all. It greatly resembles *P. totopei* Senior White and *P. pilosa* Townsend, the type-species. We place the species as *Polleniopsis aurescens* (Baranov), new combination.


Paralectotypes: 1 ♀, same data as lectotype, except date 7.xii.1920 (BMNH). 1 ♂, same data as lectotype (USNM), the genitalia on a slide.

Crosskey (1965:64) stated that the species was based on the two syntypes in the BMNH collection, but a third had been retained by Baranov. The species is recognized as distinct in Crosskey's revision.


Paratypes: 2 ♀ (one now headless), same data as holotype (BMNH).

Baranov referred this genus to the calliphorid tribe Bengaliini, although expressing the opinion that it might be much better to erect a special tribe for it. We see no relationship to the Bengaliini. The general facies and chaetotaxy,
the open metathoracic spiracle with reduced lappets, and the small, rounded calypteres agree with the Rhinophorididae, and we suggest that it be referred there. It is indeed a peculiar form, with enormous palpi, deeply excavated face, and strong, erect black bristles on the reduced lappets of the metathoracic spiracle, the bristles in a circular arrangement around the orifice.

**Sarcophagidae**


Baranov later (1938b:174) designated this as type-species of his new genus *Athrysiola*. Lopes (1961:70, 81) synonymized the genus with *Boettcherisca* Rohdendorf but recognized the species as distinct.


This species was referred by Senior White, Aubertin, and Smart (1940:228) to *Sarcophaga* as a distinct species. The name was there preoccupied by *S. formosana* Senior White, 1924, and it was renamed *S. baranoffi* by those authors (loc. cit.).


The slide, with data identical to the published data, is labeled “Blaesoxipha intermedia sp.n. N. Baranoff” and is apparently from the holotype, which has not been located.

*Blaesoxipha kaestneri* [publ. as *Kästneri*] Baranov, 1932:3. Holotype ♂, SU-MATRA: Sockaranda (Dohrn) (IZPAN, Warsaw). Genitalia on slide, not located and presumed lost.

The holotype was recorded by Baranov as the property of the Naturkunde Museum in Stettin (collection partly destroyed, part now in Warshaw), but in poor condition, and the Typus “nur als Canadabalsampreparat der einzelnen Körperteile erhalten.” The moldy and discolored specimen was found in the Baranov collection, with head and thorax complete, abdomen broken, wings badly frayed, and one hind leg present.

The species is recognized as distinct by Senior White, Aubertin, and Smart (1940:229).


Baranov originally based his species on 3 males from Topčider, a.[anfangs?]. ix.1923. In his later paper (1927a) on the Serbian *Blaesoxipha*, he first noted (p. 10) that his material consisted of “1 ♂ (und 2 zweifelhaften)” from Topčider, 3.ix.1923, and later in the same paper (p. 13) that “Der Typus dieser Art” is lost and he could only give a figure of the male genitalia. This is here construed as lectotype designation. The slide of the genitalia, agreeing with the
above data and labeled “Blaesoxipha krameri nov.sp.” was found in the Baranov collection.

Kano, Field, and Shinonaga (1967:14) have synonymized Baranov’s name under Blaesoxipha laticornis (Meigen).


Rohdendorf (1937:109) placed this in synonymy with *Blaesoxipha unicolor* (Villeneuve, 1912).


The specimen from which the slide was made has not been located, and is possibly lost.


The BMNH collection also contains two topotypic males, with same data as holotype.

Lopes (1954:236) has referred this species to the genus *Sarcorohdendorfia* Baranov, 1938.


Paratype: 1 ♂, same data as holotype except date 9.vi.1934 (USNM).

Lopes (1954:236) has referred this species to the genus *Sarcorohdendorfia* Baranov, 1938.


Hennig listed, under this name and without description, four specimens in the DEI collection from Anping in Formosa; the name was never published by Baranov and remains a nomen nudum.


Hennig listed, under this name and without description, three specimens in the DEI collection from Taihoku in Formosa; the name was never published by Baranov and remains a nomen nudum.


Paralectotypes: 1 ♀, same data as lectotype (USNM). 1 ♂, JAVA: no locality or date (Kalshoven) (USNM, only slide preparation of genitalia and ventral half of abdomen).

Baranov stated “♂ und ♀ in meiner Sammlung” as if only one of each sex was present; however, the slide indicates that at least one additional male existed.

*Kalshovenella petiolata* Baranov, 1941c:404. Holotype ♀, INDONESIA: Lesser Sunda Islands, N. O. Soemba [or Sumba], Kambera [publ. as Kambra], iii.1925 (Dammernan) (USNM). Genitalia in situ.

Baranov recorded four paratype females, from Tulagi, ii.1933, Guadalcanal, Lunga, 9.viii.1933, and Malaita, Su'u, iv.1933 (all, R. J. A. W. Lever), but these have not been located. A female in the BMNH collection "Guadalcanal, Lunga, vii.1932 (R. J. A. W. Lever)" bears Baranov’s label as a new species, but it is not recorded in the original publication and cannot be accepted as a paratype. However, it is possible that it was actually the fourth paratype, if the three published localities and dates were represented by only one specimen each.

The sexes may not be correctly associated. In the females, the propleuron is bare, but in the male type it has some hairs (as in Boettcherisca, although the genitalia are not like those of that genus).


Baranov indicated that all his specimens were collected at Golubac, and that the species was very numerous in May; however, neither specimens nor slides have been located.


Paralectotypes: 2♂, MALAYSIA: Malaya, from nest of mud wasp storing probably *Amyna punctum* larvae (BMNH, USNM), the USNM example very moldy; 2 (sex uncertain), FORMOSA: Shinkwa, 18.viii.1927 (S. Takano) (USNM).

The correct combination is *Amobia auriceps* (Baranov), as already noted by Henning (1941:183).


The species is recognized as distinct, in this same genus, by Lopes (1967:171).


Baranov (1942:632) referred this species to the genus *Asceloctis* Enderlein, 1928, which was placed as a subgenus of *Pierretia* by Rohdendorf (1937), without mention of *ancilloides*.


Paratype: 1♂, same data as holotype (USNM).

Baranov’s description gave no indication of the number of specimens, although he did specify type in the DEI collection. We are presuming that the male in his collection, labeled "basiseta mihi N. Baranoff," is also an original specimen, although it is possible only a topotype that he saw later.

The species is recognized as distinct by Senior White, Aubertin, and Smart (1940:237).


The species was recognized as distinct by Senior White, Aubertin, and Smart (1940:237). However, Lopes (1967:151) has synonymized it with *Bezziola crinita* (Parker, 1917).

In an addendum to the same paper (1931a:115), Baranov synonymized his provisionally proposed name with S. kempi Senior White, having meanwhile received an original example of the latter for study. This synonymy was accepted by Senior White, Aubertin, and Smart (1940:264).

Sarcophaga martellatoides Baranov, 1931a:114, 115. LECTOTYPE ♂, by present designation, CEYLON: [no other locality data], 1930 (W. Horn) (DEI). Genitalia in situ.

Paralectotype: 1 ♂, same data as lectotype (USNM).

The original description gave no indication of the number of specimens for his provisional name, but a male in the Baranov collection, with data identical to the published data and bearing the Baranov handwritten label "Sarcophaga martellatoides [sic] ?sp. nova N. Baranoff," indicates that he had at least two. The genitalia of this male are not extended and could not have been the basis of the figure published by Baranov.

The species is recognized as distinct by Senior White, Aubertin, and Smart (1940:259).


Paralectotypes: 4 ♂, same data as lectotype except for dates 6.x.1927 (two) and 15.x.1927 (two) (USNM). One of the specimens of 6.x. is represented now only by a slide of the genitalia.

Baranov cited five specimens; all are accounted for, though one only by a slide.


Sarcophaga problematica Baranov, 1941c:389, 396, 401. Holotype ♂, FORMOSA: Kosempo [publ. as Kankau], 23.i.1908 (H. Sauter) (USNM). Genitalia on a slide, not located; head and abdomen missing.

Paratypes [publ. as plesiotypes]: 1 ♂, FORMOSA: [no other data] (H. Sauter) (USNM). 2 ♀, FORMOSA: Koshun, Kankau, 22.vi.1912 (abdomen missing) and viii.1912 (H. Sauter) (USNM).

Baranov twice (1941c:396, 401) stated that the type was from Kankau, and at the second point that the date of the "Holotypus" was 23.i.1908, and further that the type was the slide preparation of the male genitalia, "vom einer durch Anthrenus völlig zerstörten Sarcophaga." The Baranov collection contained a partially destroyed male with the identical date, and with Baranov's handwritten label as "Typus" of problematica, but from Kosempo. The locality is written in a fine handwriting between the printed lines "Formosa" and "H. Sauter S.". By quick or careless reading this might have been interpreted as Kankau. Such discrepancies are not uncommon. The coincidence of specific date and condition of the specimen (even though not literally "völlig" destroyed) leads us to believe that the specimen before us is the true type. The slide has not been located.

We interpret Baranov's plesiotypes as paratypes upon which part of the original description was based. Some characters in the description of the male, for example, could only have come from the male plesiotype.
Before Baranov’s description appeared, Hennig (1941:186) published the name as “Sarcophaga problematica” Baranoff (in litt.),” recording a specimen from “Kankau, ix.” in the DEI collection, without description. It is a nomen nudum there, and the name dates from Baranov (1941c).


Paratype: 1 ♂, same data as holotype (USNM).

The original description does not specify the number of specimens, though stating that the “Typus” is in the DEI collection (recorded by Hennig, 1941:186). The male of identical data in the Baranov collection is labeled “pros-ballina mihi” and not Baranov’s usual “sp.n.” for type material, but some inconsistency has been observed, and we accept it as a paratype. The Baranov collection also has a female of the same data, and likewise labeled “mihi,” but no female is described or mentioned and accordingly we do not consider it a paratype.

The description was headed *prosballina*, but figure 3 of the male genitalia is captioned *prosballina*. There are thus two alternative spellings in the original publication. The specimens are labeled with the second spelling, and this is obviously the appropriate one because Baranov noted that the specimen belonged to *Prosballiia* of Enderlein’s classification. Senior White, Aubertin, and Smart (1940:239) adopted the spelling *prosballina* but did not mention the other, nor did Hennig (1941:186), who cited the species in error as *prosalliina*. As the first revisers who have mentioned both spellings, we choose to select the obviously more appropriate spelling *prosballina*.

The species was recognized as distinct by Senior White, Aubertin, Smart (1940).


This name is a junior primary homonym of *Sarcophaga angustifrons* Aldrich, 1916. It has not been renamed, to our knowledge, but we leave that to some future appropriate revision when the need for a name can be properly considered in the light of possible synonymy.

*Sarcophaga pseudararix* Baranov, 1925a:6, 9. LECTOTYPE ♂, by present designation, JUGOSLAVIA: Serbia, Topčider near Belgrade, 14.x. [publ. as ix.] 1923 (USNM). Genitalia *in situ*.

Paratype: 1 ♂, same data as lectotype except date 7.ix.1923 (USNM).

Both specimens have below the locality label a small card with “pseudararx Typus” (second word in red ink) on the under side; these are clearly the two males mentioned by Baranov. The paratype lacks genitalia and no slide has been found for it.


Paratotypes: 1 ♂, same data as lectotype except date 27.iv.1924 (USNM). 9 ♂, Serbia, Golubac, 18. (seven), 21., and 26.v.1928 (USNM).

This accounts for all of the type-series except four males, Golubac, 18.v.1928. All available males have the genitalia *in situ*.

Earlier, Baranov (1929:144, 148) had mentioned “serbica mihi” in discussing
species-groups in the genus *Sarcophaga*, but not in any way that makes the name available from that paper.

Rohdendorf (1937:291) recognized it as a distinct species in the genus *Sarcophaga* s.str.


Paratype: 1 ♂, same data as lectotype except date 25.v.1930 (USNM).


The exact number of specimens was not stated, but all published localities and dates are accounted for. Baranov stated that the “Typus” was in the collection of P. Novak in Split, but apparently it was retained in his own collection, quite likely by later arrangement.


Paratype: 1 ♂, JUGOSLAVIA: Bosnia, Dariva (USNM). Genitalia in situ.

Baranov specified the type locality as Krapina, but without designating a “Typus” or indicating the number of specimens from Krapina. The available male from that locality may indeed be the only one, but to preclude further uncertainty we designate it as lectotype.

This is a junior primary homonym of *Sarcophaga rohdendorfi* Salem, 1936, but we leave renaming to appropriate future revision.


Baranov’s handwritten label reads “unisetosa,” but the name was published as *uniseta*.

This name was overlooked by Kano, Field, and Shinonaga (1967) in their work on the Sarcophagidae of Japan. The aedeagus on the slide is not in good position for comparison with the figures of those authors and with a determined specimen kindly sent by Dr. Kano, but the species appears to be the same as *Pierretia fieldi* (Kano, 1962).


The genitalia are in situ on the Tulagi specimen. This male is pinned above a female which is apparently of the same species, and the two may have been taken in copula, but Baranov described only the male sex.

The abdomen is missing from the specimen and no slide of the genitalia has been found.


Parallectotype: 1 ♂, same data as lectotype, and glued on the same card (BMNH).

*Setulia* (Miltogrammidium) *rufiventris* Baranov, 1938c:414. LECTOTYPE ♀, by present designation, INDIA: Pusa, 10.v.1924, parasitic (BMNH). The lectotype lacks the abdomen, and no slide preparation has been located.

Parallectotype: 1 ♂, same data as lectotype (USNM). This specimen was labeled “Paratypus” by Baranov. Genitalia *in situ*; head missing.

The lectotype is labeled “Miltogrumma rufiventris sp.n.” in Baranov’s writing, but without his name on the label.


**References**

The references that follow contain a complete bibliography of Baranov’s papers that deal with Muscidae, Calliphoridae, and Sarcophagidae. A bibliography of his papers on Tachinidae appears in Sabrosky and Crosskey (1969). There is a slight duplication of papers between the two bibliographies because Baranov included calliphorids and sarcophagids in the family Tachinidae.

**Baranov, N.** 1925a. Nove vrste insekata pronadjene u srbiji (Neue Dipteren aus Serbien). Letopis poljoprivredne, ogledne i kontrolne stanice u Topčideru, No. 1:1–11 [In Serbian and German].


1925c. *Blaesoxipha lineata* Fall. parasite du *Dociostaurus maroccanus* Thumb. La Défense des Plantes, 2:130–138. [In Russian, title in French].


1926b. Prilog poznavanju srpskih Tachina (Beitrag zur Kenntnis der serbschen Tachiniden). Letopis poljoprivredne, ogledne i kontrolne stanice u Topčideru, No. 1:153–184. [In Serbian and German].


1939b. Dubrista kao legla muha u selu Mraclin [Dung heaps as breeding places of flies in the village of Mraclin]. Vet. Arh. 9:280–287. [In Croatian with summary in German].

1939c. Sarcophaga pagensis sp.n. Vet. Arh. 9:618–622. [In Croatian and German].


1941c. Drugi prilog posazivanju roda Sarcophaga (s.l.). (Zweiter Beitrag zur Kenntnis der Gattung Sarcophaga (s.l.)). Vet. Arh. 11:361-404. [In Croatian and German].


1943a. Calliphoridae Nezavisne Države Hrvatske. [Calliphoridae of the independent state of Croatia]. Vet. Arh. 13:45-87. [In Croatian with German abstract].


Rohdendorf, B. B. 1937. Fam. Sarcophagidae. Fauna SSSR, Diptera, 19, no. 1, 501 pp., Leningrad. [In Russian and German, the title pages in French and Russian].

