

New data on the Lepidoptera of Azerbaijan.
Family Pterophoridae Latreille, 1802

Новые данные по Lepidoptera Азербайджана.
Семейство Pterophoridae Latreille, 1802

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КЛЮЧЕВЫЕ СЛОВА: биоразнообразие, фауна, Кавказ, Pterophoridae, пальцекрылки.

ABSTRACT. We present new data on the location of eight Pterophoridae (Lepidoptera) species in Azerbaijan. Three species of Plume Moths, *Agdistis huemeri* Arenberger, 2002, *A. ingens* Christoph, 1887, and *Marasmarcha rhypodactyla* (Staudinger, 1870) are reported for the fauna of Azerbaijan for the first time. A new synonymy has been established: *Agdistis caradjai* Arenberger, 1975 = *Agdistis karabachica* Zagulajev, 1990 **syn.n.** For the fauna of Georgia, *Agdistis huemeri* should be indicated, but not *A. karabachica*.

РЕЗЮМЕ. Мы представляем новые данные о местонахождениях в Азербайджане восьми видов Pterophoridae (Lepidoptera). Три вида пальцекрылок: *Agdistis huemeri* Arenberger, 2002, *A. ingens* Christoph, 1887 и *Marasmarcha rhypodactyla* (Staudinger, 1870) приводятся для фауны Азербайджана впервые. Была установлена новая синонимия: *Agdistis caradjai* Arenberger, 1975 = *Agdistis karabachica* Zagulajev, 1990 **syn.n.** Для фауны Грузии следует указывать *Agdistis huemeri*, а не *A. karabachica*.

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Introduction

Plume moths (Lepidoptera, Pterophoridae) of the Caucasus region have been studied relatively well, the faunistic data on Azerbaijan, Armenia, Dagestan, and South Ossetia have been published [Zaguljaev, 1990; Kovtunovich, 2006; Arenberger, 2013; Ustjuzhanin *et al.*, 2015, 2023; Ustjuzhanin, Kovtunovich, 2018; Nedoshivina *et al.*, 2023; Yakovlev *et al.*, 2023]. For Azerbaijan, 49 Pterophoridae species have been indicated [Ustjuzhanin, Kovtunovich, 2018], and these faunal data are not complete, since in Armenia, which is comparatively smaller in area and less rich in floristic and landscape-climatic diversity, there are 55 known species of this group [Ustjuzhanin *et al.*, 2015]. A short-term Azerbaijan-Russian expedition in 2023 allowed to significantly expand the information about the fauna of Azerbaijan; only for the family Pyraloidea 48 new species were reported [Streltsov *et al.*, 2024]. Other Lepidoptera families are currently being examined. In this publication we present new data on the location of eight Pterophoridae species in Azerbaijan.

Material and methods

The collection methods and map of localities were published before [Streltsov *et al.*, 2024].

List of collecting localities

1. **Azerbaijan**, near Mingechaur, Kura Valley, 40°47'47" N 47°3'12" E, 100 m, 16–17.05.2023, N. Snegovaya, N. Shapoval & R. Yakovlev leg.
2. **Azerbaijan**, Agdash District, Bozdag Ridge, near Turianchai, 40°43'17" N 47°30'11" E, 140 m, 18–19.05.2023, N. Snegovaya, N. Shapoval & R. Yakovlev leg.
3. **Azerbaijan**, Talysh Mts., Masalli District, 25 km SW Masalli, 38°56'53" N 48°28'42" E, 380 m, 21.05.2023, N. Snegovaya, N. Shapoval & R. Yakovlev leg.
4. **Azerbaijan**, near Gobustan, 40°12'42" N 49°12'33" E, 310 m, 22.05.2023, N. Shapoval & R. Yakovlev leg.

Table 1. List of Pterophoridae collected in 2023.

Таблица 1. Список видов Pterophoridae, собранных в 2023 г.

Species	Locality			
	1	2	3	4
<i>Agdistis caradjai</i> Arenberger, 1975 = <i>Agdistis karabachica</i> Zagulajev, 1990 syn.n.	–	–	–	+
<i>Agdistis frankeniae</i> (Zeller, 1847)	–	–	–	+
* <i>Agdistis huemeri</i> Arenberger, 2002	+	+	–	–
* <i>Agdistis ingens</i> Christoph, 1887	–	–	–	+
<i>Amblyptilia acanthadactyla</i> (Hübner, [1813])	–	+	–	–
* <i>Marasmarcha rhypodactyla</i> (Staudinger, 1870)	–	+	–	–
<i>Pselnophorus poggei</i> (Mann, 1862)	–	–	+	–
<i>Emmeline monodactyla</i> (Linnaeus, 1758)	–	–	+	–

Standard designations: + collected, – not collected, *new for Azerbaijan.

Results

Faunistic and systematic notes

Agdistis caradjai Arenberger, 1975

Fig. 1.

The species was described on a single male from “Russia: Kasikoparan” [now: Turkey (Kazikkiran [Kazikkoparan]), 40°02'N, 43°26'E, Tuzluca, Kars Province, northeastern Anatolia] [Arenberger, 1975]. The female of this rare species was subsequently described on one specimen from Iran (Shāhrud, Kālpush, Semnān prov.) [Alipanah, Ustjuzhanin, 2007: 178–179, fig. 1]. Zagulajev [1990: 112–113, fig. 7] on two females from “Helendrf.” (Helendorf, later Khanlar, now Goygol, north-western Azerbaijan, 40°35'N 46°18'E) described *Agdistis karabachica* Zagulajev, 1990.

In May 2023, in the vicinity of Gobustan, a series of one species of the genus *Agdistis* Hübner, 1825 was collected. Examining the genital morphology of both sexes, we established that the male genitals corresponded to *A. caradjai*, and the female genitals were analogous to the described female from Iran [Alipanah, Ustjuzhanin, 2007] and to the holotype of *A. karabachica*, which means that the latter is a younger synonym to *A. caradjai*. Thus, we established the new synonymy: *Agdistis caradjai* Arenberger, 1975 = *Agdistis karabachica* Zagulajev, 1990 **syn.n.**

Agdistis huemeri Arenberger, 2002

Figs 2, 4.

Additionally, it should be noted that K. Nupponen [2022: 61–62] first reported *A. karabachica* for the fauna of Georgia, accompanying his findings with an image of the male genitalia [Nupponen, 2022: 72, fig. 10]. However, the definition of Nupponen is wrong, as the morphological characters of the depicted specimen completely correspond to the characters of *Agdistis huemeri* Arenberger, 2002 (Figs 2–3) (Type locality: Iran, Khorassan, NP Golestan, Dasht) [Arenberger, 2002: 608–610]. Thus, for the fauna of Georgia, *A. huemeri*, but not *A. karabachica* or *A. caradjai* should be indicated in the future.



Figs 1–4. Genitalia of *Agdistis* (all from Azerbaijan): 1 — *A. caradjai*, female, near Gobustan (CUK); 2 — *A. huemeri*, female, near Mingechaur, Kura Valley (CUK); 3 — *A. ingens*, female, near Gobustan (CUK); 4 — *A. huemeri*, male, near Mingechaur, Kura Valley (CUK).

Рис. 1–4. Гениталии *Agdistis* из Азербайджана: 1 — *A. caradjai*, самка, окр. Гобустана (СУК); 2 — *A. huemeri*, самка, окр. Мингечаура, дол. р. Кура (СУК); 3 — *A. ingens*, самка, окр. Гобустана (СУК); 4 — *A. huemeri*, самец, окр. Мингечаура, дол. р. Кура (СУК).

****Agdistis ingens* Christoph, 1887**
Fig. 3.

Previously reported for dry territories of temperate Eurasia from the southern Volga region to Mongolia and China. Indicated for south-east of European part of Russia, Dagestan, Turkmenistan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Afghanistan, Mongolia, China (Gansu) [Christoph, 1887; Arenberger, 1995, 1999; Li, Hao, Wang, 2003; Gielis, 2003; Ustjuzhanin, Kovtunovich, 2016; Nupponen, 2022]. Reported for the first time for the fauna of Azerbaijan and Transcaucasia.

Competing interests

The authors declare no competing interests.

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