Всероссийский институт повышения квалификации руководящих работников и специалистов лесного хозяйства
All-Russian Institute of Continuous Education in Forestry

9

Б.М. Мамаев
А.И. Зайцев

Обзор галлиц рода Allarete Pritchard (Diptera, Cecidomyiidae)

Пушкино – Pushkino
1998

УДК 595.771

Печатается по рекомендации кафедры экологии и лесоводства ВИПКЛХ

Мамаев Б.М., Зайцев А.И. Обзор галлиц рода *Allarete* Pritchard (Diptera, Cecidomyiidae). – Публ. Всерос. ин-та повыш. квал. рук. работн. и спец. лесн. хоз-ва, Пушкино, №9: 1-9.

В работе публикуются результаты исследования галлиц рода Allarete Pritch.; приводится определительная таблица палеарктических видов.

Предназначена для диптерологов-систематиков и экологов, изучающих проблемы биоразнообразия.

Опубликована в апреле 1998 г. в переводе на английский язык.

Заявки на приобретение научно-методических публикаций ВИПКЛХ принимаются по адресу:

Библиотека ВИПКЛХ,
Институтская ул., 17
141200, Пушкино
Россия

Library of ARICEF,
Institutskaya str., 17
141200, Pushkino
Russia

A review of gall midges of the genus *Allarete* Pritchard (Diptera, Cecidomyiidae)

Mamaev B.M.[1], Zaitzev A.I.[2]

1 – All-Russian Institute of Continuous Education in Forestry, Pushkino, Moscow Region.

2 – A.N. Severtzov Institute of Ecology and Evolution, Russian Academy of Sciences, Moscow.

Introduction.

Genus *Allarete* with two species – *A. vernalis* (Felt) and *A. barberi* (Felt) was erected by A.E. Pritchard (1951). It was supposed also, that *Lestremia* species, described from Africa by G. Enderlein (1911) belongs to *Allarete: A. africana* (Enderlein).

First palaearctic species of this genus – *A. distincta* Mamaev (fig. 1-3) was described from Uzbekistan (Mamaev, 1963). The second palaearctic species – *A. nigra* Mamaev was described from Kamchatka (Mamaev, 1994); new subgenus *Allaretina* Mamaev was erected for *A. nigra.*

We include in the genus also *Allarete orientalis* (Grover), described from India as species of genus *Lestremia* (Grover, 1963). The second Indian species – *Allarete bharatica* Grover et Bakshi, 1977 was described from Allahabad. Gall midge preserving in British Museum of Natural History, London, Cecid. 14838, Gold Coast, Africa, also belongs to *Allarete.*

Dr. P.P. Zatsepin collected males and females of *Allarete* in 1972 in Somalia (Africa). We identified this species as *A. africana* End. (fig. 4,5).

Two species are new for science.

Genus *Allarete* Pritchard, 1951

Pritchard, 1951: Univ. Calif. Publ. Ent., 8: 250.

Type species: *Lestremia vernalis* Felt, 1908: N.Y. St. Mus., 124: 311.

Eye bridge 2-4 facets wide dorsally; ocelli two. Antennae of male with 2+14 or 2+13 segments; ultimate segment compound or simple. Each flagellar segment

with round basal enlargement and long stem; basal setae in single whorl, median whorl of long setae complete; distal bundle consists of long bristles; sensory spines clustered mainly on distal part of basal enlargement. Antennae of female 2+9-segmented, flagellar segments subglobose with short stem, nearly subsessile; basal enlargement with basal whorl of bristles; sensoriae spine-shaped; terminal segment constricted in distal third. Palpi long, 4-segmented, the 1st segment with sensory bristles.

Wings with *C* ending at the tip of R_5, R_S short, *r-m* obliterated, fork of *M* much longer, than its stem; *C*, *R* and basal part of *M* thick and pigmented. All veins covered with macrotrichiae. Wing membrane covered with micro- and macrotrichiae. Claws simple or with small teeth externally; empodium short and thick.

Postabdomen of male with 9th tergite short, 10th tergite somewhat longer; roots of gonocoxites strongly sclerotized; gonostyles long, slender or thick, sharply narrowed apically; tegmen broad with strong roots; genital rod long and thin, with hyaline cup distally. Ovipositor short, spermathecae unsclerotized.

Allarete (Allarete) turkmenica sp.n.

(Figs. 6-8)

Holotype: male, Turkmenistan, Badkhyz reserve, 1.V.1963, B. Mamaev leg., in Mamaev collection.

Male. Brown, length of wing 2.0 mm, length of body 2.2 mm. Eye bridge 4-facets wide dorsally. Antennae with 2+14 segments, basal enlargement of middle flagellar segments nearly 1.4 times as long as broad, stem distinctly longer than basal enlargement; stem of penultimate segment slightly shorter than basal enlargement, ultimate segment with round apical appendage. Palpi long and thin, 1st palpal segment with sensorial field occupied all its dorsal surface; 3rd palpal segment 5.0-6.0 times as long as thick. Median fork of wing 2.8 times as long as stem. Tarsal claws sickle-shaped. Empodium thick and short. Gonocoxites of male postabdomen thick, gonostyles slender, tapering to apex; tegmen with strongly sclerotized roots directed caudo-laterally; genital rod linear.

Female unknown.

Allarete (Allaretina) kirghizica sp.n.

(Figs. 9,10)

Holotype: male, Kirghizstan, Sary-Chelek reserve, 11.V.1965, Mamaev leg., in Mamaev collection.

Male. Light brown, smaller than *A. nigra* Mam. Length of wing 1.4 mm, length of body 1.5 mm. Eye bridge 1 facet wide dorsally. Antennae with 2+13 segments, terminal segment simple; stem of middle flagellar segments slightly longer than basal enlargement, stem of penultimate segment 0.5 as long as basal enlargement. Palpi much shorter , than in *A. nigra*, 1st palpal segment with small sensorial field; 4th segment 1.8 times as long as 3rd. Tarsal claws sickle-shaped. Empodium much shorter than claw.

Gonocoxites of male postabdomen with large round basal lobe; gonostyles uniformly thick, sharply narrowed apically, without spine; tegmen triangular; genital rod long, linear.

Female unknown.

Key to Palaearctic species (males).

1(4) Antennae with 2+13 segments, ultimate segment compound (penultimate segment lacking stem) or simple. Gonostyles thick (subg. *Allaretina* Mam.).

2(3) Eye bridge one facet broad. Antennae with simple ultimate segment. Gonostyles without apical spine (fig. 10)..... *A. kirghizica* sp.n.

3(2) Eye bridge 2-3 facets broad. Antennae with compound ultimate segment. Gonostyles with apical spine..... *A. nigra* Mam.

4(1) Antennae with 2+14 segments, penultimate segment with long stem. Gonostyles slender, elongated, tapering to apex (subg. *Allarete* Pritch.).

5(6) Eye bridge 4 facets wide. Fork of M_1 and M_2 2.8 times as long as its stem (fig. 8)..... *A. turkmenica* sp.n.

6(5) Eye bridge 2-3 facets wide. Fork of M_1 and M_2 2.3 times as long as its stem (fig. 3)..... *A. distincta* Mam.

Discussion.

Genus *Allarete* at present consists of 2 subgenera with 4 Palaearctic, 2 Nearctic, 2 African and 2 Indian species. Subgenus *Allaretina* looks like independent genus with 2 species.

Genus *Mangogrostix* Mam. with one species was erected by B.M. Mamaev (1985) for Indian species, described by P. Grover (1963) as *Gongromastix orientalis* Grover. *Mangogrostix orientalis* (Grover) is similar to *Allarete* (segments of male antennae with one whorl of long setae), but ocelli absent and palpi 3-segmented (Grover, 1963). *Neolestremia boerhaviae* Mani, having 3-segmented palpi, was based on a single female (Mani, 1934). Similar female from Florida (U.S.A.)with ocelli.

The problem of discussion might be morphology of male postabdomen of type species of the genus *Allarete.* According to A.E. Prithard (1951) in the monotype (male) of *A. vernalis* (type species of *Allarete*), the tegmen is subquadrate, twice as long as broad. Other specimen investigated by A. Pritchard and referred to *A. vernalis* with tegmen elongated, tapering to apex. It is not excluded, that these two specimens belong to different species.

Acknowledgement.

Authors are very grateful to Dr. P. Zatsepin for series of gall midges belonging to *Allarete.*

Bibliography.

Enderlein, G. 1911. Die phyletischen Beziehungen der Lycoriiden (Sciariden) zu den Fungivoriden (Mycetophiliden) and Itonididen (Cecidomyiiden) und ihre systematische Gliederung. – Arch. Naturgesch., 77, Bd.1, Suppl. 3: 116-201.

Grover, P. 1963. Studies on Indian gall-midges X: Five notable genera of the subfamily Lestremiinae. – Marcellia, 31, fasc. 2: 108-141.

Grover, P., Bakshi, M. 1977-1978. On the study of one new genus and thirty-one new species of gall midges (Cecidomyiidae: Diptera) from India. – Cecidologia Indica, 12 and 13, N 1,2 and 3: 5 – 206.

Mamaev, B.M. 1963. Gall midges of the USSR.5. New species of the tribes *Lestremiini, Micromiini, Porricondylini* (Itonididae, Diptera) from Middle Asia. – Uzbek. Biol. Zh., 2: 70-77. (in Russian).

Mamaev, B.M. 1985. New gall midges and Sciarid species (Diptera, Cecidomyiidae, Sciaridae) from the USSR. – Vestn. Zool. (Kiev), 3: 24-30 (in Russian).

Mamaev, B.M. 1994. A contribution to the gall midges fauna of Kamchatka (Diptera, Cecidomyiidae), with description of new species. – Vestn. Zool. (Kiev), 2: 28-32 (in Russian).

Mani, M.S. 1934. Studies on Indian Itonididae (Cecidomyiidae: Diptera). – Rec. Ind. Mus., 36: 371-451.

Pritchard, A.E. 1951. The North American gall midges of the tribe *Lestremiini;* Itonididae (Cecidomyiidae), Diptera. – Univ. Calif. Publ. Ent., 8: 239-275.

Explanation to figures.

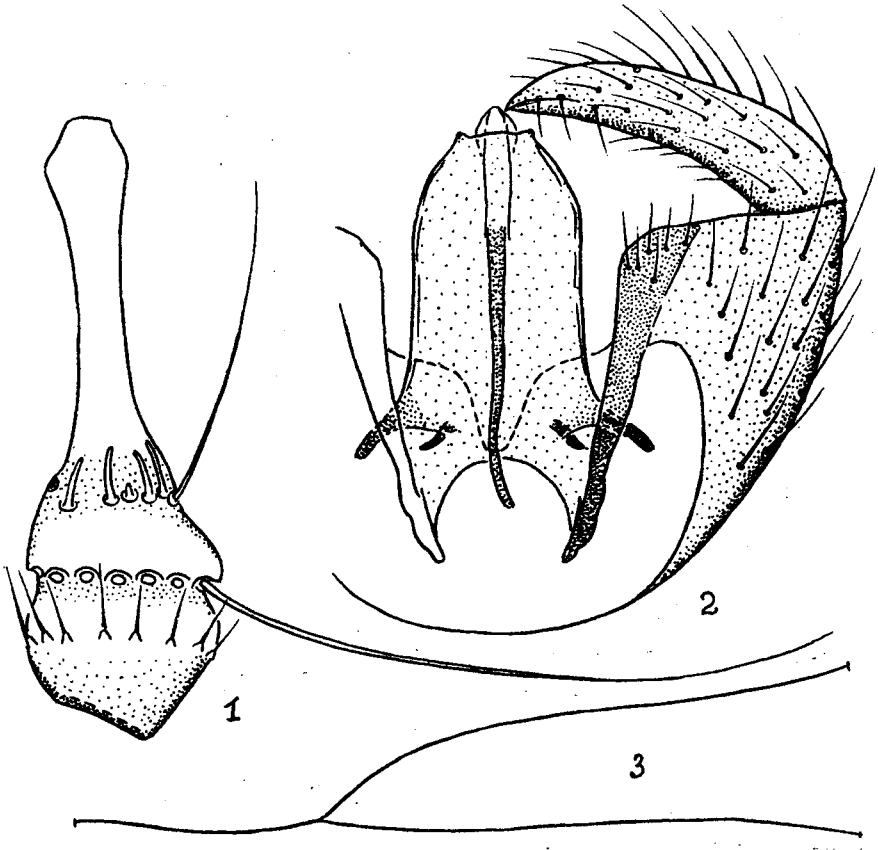
1-3 – *Allarete distincta* Mam.;

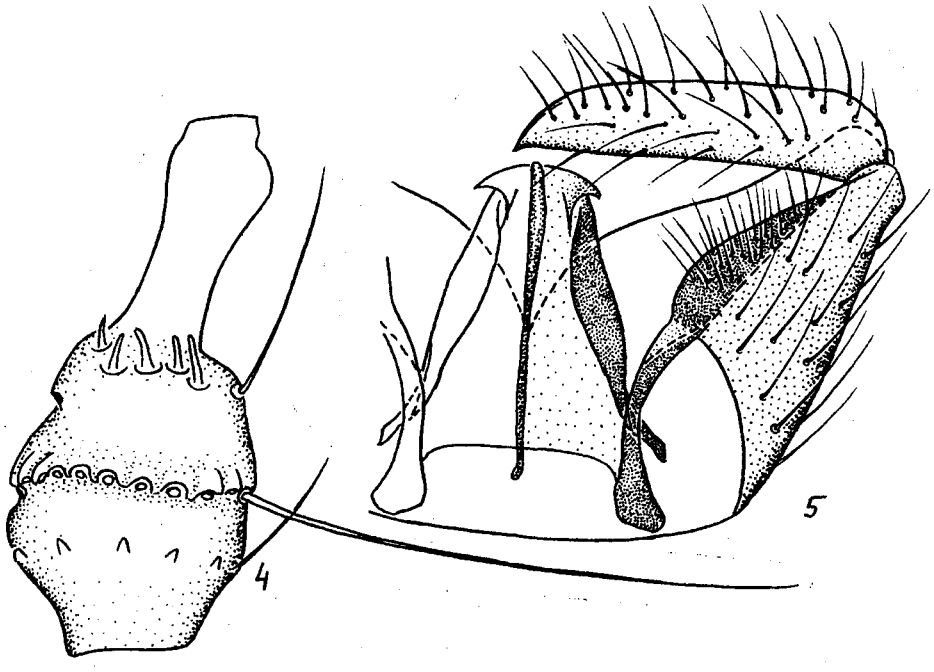
4-5 – *A. africana* End. (?);

6-8 – *A. turkmenica* sp.n.;

9-10 – *A. kirghizica* sp.n.

1, 4, 6, 9 – middle flagellar segment of male; 2, 5, 7, 10 – male postabdomen; 3, 8 – median veins (M_1, M_2) with stem (M_1+M_2).


1
2
3


4
5

7
8
9

10
9