The genus *Baeosciara* Tuomikoski, 1960, Holarctic in distribution, includes the following species: *B. discolor* (Lengersdorf) (Europe), *B. scotica* (Edwards) (Europe, northern North America), *B. sinuata* (Menzel & Mohrig) (Europe) and *B. pectinata* sp. n. (western Canada). The new species is described, the other species are redescribed or diagnosed. Based on my earlier cladistic analysis of the *Trichosia* group of genera, the original generic rank of *Baeosciara* is restored.

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1. Introduction

Menzel and Mohrig (1997, 2000) proposed a new classification of *Trichosia* Winnertz (type-species *Trichosia splendens* Winnertz) and related groups, including *Baeosciara* Tuomikoski (*Leptosciara pusillima* Frey) and *Mouffetina* Frey (*Plastosciara pulchricornis* Edwards) as subgenera of *Trichosia*. They based the monophyly of their *Trichosia* (s. l.) on the conical, elongated tegmen with oblique apex. The structure of the tegmen is variable even within *Baeosciara*, and the proposed classification was challenged by my cladistic analysis based on 70 morphological characters on adult males (primary data for Vilkamaa [2003]). According to the analysis neither *Baeosciara* nor *Mouffetina* could be classified as subgenera of *Trichosia* as they were placed in a different clade, *Baeosciara* as the sister group of a large clade including *Lestremioides* Frey + *Mouffetina* as the sister group of *Scythropochroa* Enderlein, *Schwenckfeldina* Frey and *Chaetosciara* Frey. Although even this result was not very well supported (by three character state changes) it was based on a strict cladistic analysis and I regard it as a more reliable hypothesis on the phylogeny of the groups in question. Based on this hypothesis I use here *Baeosciara* in its original generic rank. The main aim here is to diagnose the genus and the species included now that more material is available, redefining previous descriptions (Tuomikoski 1960, Menzel & Mohrig 1997, 2000), The three earlier known species are diagnosed or redescribed and a new species, found in British Columbia, Canada, is described. The new material shows that the genus has a Holarctic distribution.

2. Material and methods

For the taxonomic treatment, the specimens were mounted on microscope slides in Euparal, after dehydrating them in absolute ethanol. The morphological terminology follows that used by Hippa and Vilkamaa (1991). The taxonomic study is based on the males only. The material of *Baeosciara* studied is deposited in Zoological Museum, Finnish Museum of Natural History, Helsinki (MZH), Canadian Na-
3. The genus *Baeosciara* Tuomikoski, 1960

3. 1. Description of male

Small or medium-sized Sciaridae, wing length 1.6–2.8 mm.

Head dark brown. Interfacetal hairs long, extending well over the surface of facets. Eye bridge complete, with 3–4 rows of facets. Anterior vertex bare. Prefrons with numerous setae. Clypeus non-setose or with 1 seta. Proboscis normal. Maxillary palp 3-segmented, segments short or normal (*B. scotica*); segment 1 with 2–7 setae, with the sensillae scattered on dorsal surface. Antennal flagellum short, length/width of flagellomere 4 1.10–1.75. Flagellomeres with distinct apical margins, with rather smooth surface, with setae shorter than diameter of segment, with short necks.

Thorax dark brown. Notal setae dark (*B. discolor* and *B. pectinata*) or pale (*B. scotica* and *B. sinuata*). Acrostichal setae extending from anterior to posterior part of scutum, dorsocentral and supra-alar and scutellar setae with mixed strong and weak ones. Episternum 1 with 4–13 setae. Posterior pronotum setose, mediadergite and mesoanepisternum non-setose. Mesokatepisternum high and subtriangular.

Wing fumose brown. Wing length 1.6–2.8 mm, anal lobe moderately developed. Wing veins normal. Wing membrane non-setose, veins M and Cu dorsally setose, hind margin of wing dorsally and ventrally setose. Halter normal, with many rows of dorsal setae.

Legs pale. Legs normal, length of front basitarsosome/length of front tibia 0.45–0.60.

Tibiae with moderately strong spinose setae, modified subapical anteroapical setae of front tibia in patch, not in depression. Tibial spurs 1:2:2, spurs longer than apical width of tibia. Tarsal claws without teeth.

Abdomen dark, normal. Hypopygium without intercoxal lobe. Gonocoxite moderately (*B. discolor* and *B. pectinata*) or slightly (*B. scotica* and *B. sinuata*) elongated, with one elongated seta at ventroapical corner. Gonostylus elongate, with group of megasetae on medial-subbasal mesial lobe, *B. discolor* and *B. pectinata* in addition with scattered megasetae on whole mesial side of gonostylus; *B. scotica* with some short stout sub-apical megasetae; gonostylus with 1–5 mesial whiplash-like narrow elongated setae (lacking in *B. scotica*); without apical tooth (present in *B. sinuata*). Tegmen of various form, with sclerotized parameres, apically membraneous (except *B. sinuata* in which tegmen membraneous, apart from laterally strongly sclerotized aedeagal plate). Genital rod well sclerotized. Tergites 9 and 10 normal, sternite 10 with 1–2 setae on each half.

3. 2. Diagnostic characters

The species of *Baeosciara* resemble the species of other groups traditionally placed near *Trichosia* (*Trichosia (s. s.) Lestremioides Frey, Mouffetina, Scythropochroa, Chaetosciara*) which have at least one of the following characters: setose posterior pronotum, setose hind veins of wing and dorsally and ventrally setose hind margin of the wing, sensillae of the first segment of maxillary palp scattered or in indistinct patch on its dorsal surface, the front tibial apex with an anteroapical subapical patch of setae not bordered basally nor distinctly depressed, and in not having an apical tooth, except in one species. *Baeosciara* is similar to *Trichosia* and *Schwenckfeldina* in having sub-apical-apical group of megasetae (except *B. sinuata*) and in having elongated whiplash-like setae mesially on the gonostylus. *Baeosciara* differs from *Trichosia* (s. s.) and is similar to *Lestremioides*, *Mouffetina*, *Scythropochroa*, *Schwenckfeldina* and *Chaetosciara* in having subapical-apical group of megasetae (except *B. sinuata*) and in having elongated whiplash-like setae mesially on the gonostylus (the latter character state lacking in *B. scotica*). *Baeosciara* is distinguished from all above-mentioned groups in having a very short antennal flagellum and maxillary palp and in having a subbasal lobe with megasetae on the gonostylus. *Schwenckfeldina* also has a megasetae-bearing lobe on the gonostylus and a short antennal flagellum but its gonostyler lob is medial, not subbasal, it has a longer maxillary palp with a distinct sensory pit, non-setose hind veins of wing and only the dorsal row of setae on the hind margin of wing.
3. 3. Key to the species of *Baeosciara*

The characters are from a ventral view.

Mesial side of gonostylus impressed, with stout megasetae throughout subbasal-apical part, tegmen laterally angular (Fig. 1) ........................................... 3

Mesial side of gonostylus not impressed, with megasetae only on subbasal lobe or in addition with a few short megasetae subapically, tegmen not angular (Fig. 2) ..... 2

Gonostylus without subapical megasetae, its subbasal lobe with 15–20 megasetae, its mesial side with five whiplash-like elongated setae, apical tooth present (Fig. 2A, B) ................ B. *sinuata* (Menzel & Mohrig)

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Fig. 1. Part of hypopygium (A, C) and gonostylus (B, D), ventral view. — A-B. *Baeosciara discolor* (Lengersdorf) (from Karelia). — C-D. *B. pectinata* sp. n. (holotype). Scale 0.10 mm. 1 = gonostylus, 2 = gonostylar megaseta, 3 = elongated seta, 4 = gonocoxite, 5 = tegmen.
Review of the genus Baeosciara Tuomikoski

— Gonostylus with some short stout subapical megasetae, its subbasal lobe with 2 or 3 megasetae, its mesial side with numerous subequal short setae, without whiplash-like elongated setae, apical tooth absent (Fig. 2C, D)

B. scotica (Edwards)

Subbasal mesial megasetae in group on low basal plate, one whiplash-like seta on apical half-apical third of gonostylus, tegmen broad and laterally smoothly

Fig. 2. Part of hypopygium (A, C) and gonostylus (B, D), ventral view. — A–B. Baeosciara sinuata (Menzel & Mohrig) (from Finland). — C–D. B. scotica (Edwards) (from Finland). Scale 0.10 mm.
angular (Fig. 1A, B) .......... B. discolor (Lengersdorf)
— Subbasal mesial megasetae in row on distinct lobe, one whiplash-like seta on apical fourth of gonostylus, tegmen high and laterally sharply angular (Fig. 1C, D)
B. pectinata sp. n.

_Baeosciara discolor_ (Lengersdorf, 1928) comb. n. (Fig. 1)

_Baeosciara pusillima_ Tuomikoski, 1960
_Trichosia (Baeosciara) discolor_, Menzel & Mohrig 1997


**Description of male.** Head. Eye bridge with 3–4 rows of facets. Prefrons with 14–19 setae. Antennal flagellum short, flagellomeres with short pale setosity, with short necks, length/width of flagellomere 4 1.10–1.35. Maxillary palp short, with three segments, segment 1 with 2 setae, sensillae scattered on dorsal side.

Thorax darkish brown. Episternum 1 with 6–10 setae. Dorsal margin of katepisternum slightly angulate. Pleural pit just at anterior part of margin.

Wing hyaline. Length 1.7 mm. Anal lobe well developed. c/w 0.65–0.80, R1/R 0.95–1.05. bM nonsetose or with 1 dorsal seta, r-m, stM, M1, M2, Cu1 and Cu2 with dorsal setae. Hind margin with dorsal and ventral setae.

Legs pale brown. Front tibia with some ventral and posterodorsal spinose setae. Length of front basitarsonere/length of front tibia 0.45–0.50. Front tibia subapically with anteroapical patch of setae.

Abdomen pale brown. Hypopygium (Fig. 1A, B). Sternite 9 with 1 (rarely 2) seta in each half. Female. See Menzel and Mohrig (1997).

Discussion. Menzel and Mohrig (1997) synonymized _Baeosciara pusillima_ (Frey) with _B. discolor_ (Lengersdorf), the type material of which consists of one female only. For further discussion, see under _B. pectinata._
sinuata in having stout megasetae on the apical half of the gonostylus, in having an angular tegmen, and in being distinctly smaller. Baeosciara pectinata differs from B. discolor e.g. by having the subbasal megasetae of its gonostylus longer and in a row on a distinct lobe, by having the mesial whiplash-like seta more apically on the gonostylus and by having its aedeagus more acuminate and with more acuminate lateral shoulders (Fig. 1).

Baeosciara scotica (Edwards) comb. n. (Fig. 2C, D)

Sciara scotica Edwards, 1925:536.
Trichosia scotica, Tuomikoski, 1960
Trichosia (Baeosciara) scotica, Menzel & Mohrig, 1997


Description of male. Head. Eye bridge with 3–4 rows of facets. Prefrons with 6–16 setae, clypeus non-setose or with 1 seta. Antennal flagellum short, flagellomeres with short pale setosity, with short necks, length/width of flagellomere 4 1.50–1.75. Maxillary palp with three segments, segment 1 with 3–4 setae, sensillae scattered on dorsal side.


Wing hyalineous. Length 2.5–2.7 mm. Anal lobe well developed. c/w 0.45, R1/R 1.40–1.60. bM nonsetose or with a few dorsal setae, r-m, stM, M1, M2, Cu1 and Cu2 with dorsal setae. Hind margin with dorsal and ventral setae.

Baeosciara sinuata (Menzel & Mohrig) comb. n. (Fig. 2A, B)

Trichosia (Baeosciara) sinuata Menzel & Mohrig, 1997:38.


Diagnosis. Medium-sized, wing length 2.0–2.8 mm. Thorax and abdomen brown. Wing veins M and Cu with dorsal setae, hind margin of wing with dorsal and ventral setae. Genital rod and lateral parts of tegmen strongly sclerotized. Gonostylus with apical tooth, with 15–20 slender mesial megasetae on distinct medial-subbasal lobe, and with five whiplash-like setae.

Discussion. Superficially, *B. sinuata* resembles those species of *Dolichosciara* Tuomikoski and *Prosciara* Frey which have a medial-subbasal group of slender megasetae on their gonostylus (see Vilkamaa & Hippa 1996, Vilkamaa 2000). *Baeosciara sinuata* can easily be distinguished by having e.g. much shorter antennal flagellomeres and their necks, short maxillary palp, shorter legs with short front basitarsomere, and by having subapical anteroapical modified setae on the front tibia in a group, not in a comb as they are in the species of *Prosciara* and *Dolichosciara*, and by having whiplash-like setae and the apical tooth on the gonostylus (see Vilkamaa & Komonen 2001). For differences between *B. sinuata* and *B. scotica*, see under the latter.

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References


