

Arnoldiola margaritae sp. n. (Cecidomyiidae, Diptera) from
Poland

Arnoldiola margaritae sp. n. (Cecidomyiidae, Diptera) z Polski

BY

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The new species *Arnoldiola margaritae* has been found in emergence traps containing forest soil in the forest reservation Las Piwnicki, near Toruń. Among the 1766 specimens of *Cecidomyiidae* caught by this method there were 4 ♂ and 7 ♀ of the new species in 10 traps (out of a total of 49). The emergence period was short: 9-23. V. The forest surface under study belongs to *Pino-Quercetum* KOZŁ. and *Quercu-Carpinetum* Tx. associations. Around all the emergence traps where this species was caught were: *Quercus robur* L., *Q. petraea* LIEBL. (= *sessilis* EHRH.), *Pinus silvestris* L. and *Carpinus betulus* L.

Arnoldiola STRAND belongs to the subtribe *Macrolabina* of the tribe *Oligotrophini*. *Arnoldiola* is characterized by the lack of sexual dimorphism in the antennae and by having male genitalia of the *Dasyneura* ROND. type. In all previously known species of this genus the antenna has 2 + 10-13 segments. *Arnoldiola margaritae* sp. n., in contrast, possesses only 2 + 5 segmented antenna.

Arnoldiola margaritae sp. n.

Body length: 1.1-1.2 mm in male (without genitalia), 1.1-1.8 mm in female (without ovipositor).

Colour: body yellow, thorax with darker mesonotum and lateral plates. Antenna, male genitalia and head darker.

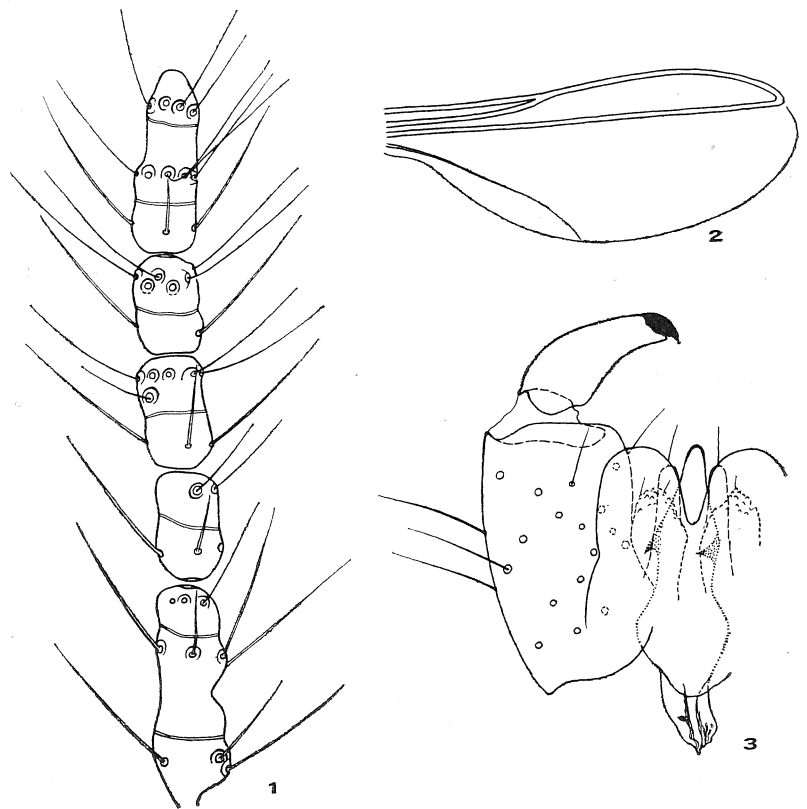
Antenna (Fig. 1): short, only about 1.2 time longer than height

of eye, 2 + 5 segments in both sexes, without stems. Width of flagellomeres 23–25 μ , length:

	absolute	relative
1.	65.6–72.2 μ	2.0–2.1
2.	34.4–37.7 μ	1.1–1.2
3.	34.4–37.7 μ	1.1–1.2
4.	32.8–36.8 μ	1.0
5.	50.8–57.4 μ	1.6–1.8

Flagellomere 1 long, with intersegmental constrictions. Flagellomeres 1 and 5 with two ring-shaped sensoria, 2–4 with only one.

Palpus: 4-segmented.



1-3. *Arnoldiola margaritae* sp. n. 1 - flagellum, 2 - wing, 3 - male genitalia (dorsal view)

Legs: with scales, all tarsal claws toothed. Empodium as long as claw. Second tarsal segment longer than first:

	♂	♀
fore leg	3.0–3.5	2.8–3.2 times
middle leg	3.6–4.2	3.1–3.8 times
hind leg	4.4–5.6	4.0–5.3 times

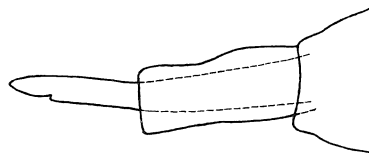
Wing (Fig. 2): length: 1.2–1.3 mm, and 3 times longer than width in male; 1.3–1.5 mm and 2.6 times longer than width in female. R_5 vein straight, reaching C before tip of wing. R_1 about one-third length of wing. Cu_1 conspicuous at origin, vanishing towards end. Rs and M_{3+4} absent.

Male genitalia (Fig. 3): type *Dasyneura*, slightly broader than high. Basimere projection with verrucose tip. Telomere about 3 times longer than width, with black tooth and setae on distal part.

IX and X tergums with deep incisions. X tergum narrow, projections with long hair, shorter than IX tergum. Aedeagus longer than basimere, with two enlargements projecting posteriorly.

Ovipositor (Fig. 4): short, broad and protrusible.

Material examined. Holotype: male, Las Piwnicki, district Toruń, 23. V. 1973, grąd, 2eH4, emergence trap, No. prep. 151, leg. R. SZADZIEWSKI. Paratypes: 3 ♂ and 7 ♀, all with same data as holotype. No.



4. *Arnoldiola margaritae* sp. n. — ovipositor

prep. 152–160, coll. 16 and 23. V. 1973 from various traps. Holotype and paratypes are in my own collection.

STRESZCZENIE

Praca zawiera opis imagines nowego gatunku *Arnoldiola margaritae* sp. n. Gatunek ten wykazuje specyficzną budowę czułka, który posiada tylko 5-członową wić.

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