

New species of fungus gnats from Russia and Italy (Diptera: Mycetophilidae)

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New species *Acnemia kurilensis*, *Leia iturupensis* from the Kuril Is., *Acnemia spathulata*, *Neoempheria sakhalinensis*, *N. subproxima* from Sakhalin I. and *Phthinia dallaii* from Italy are described.

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In the material collected by Dr. V. Blagoderov (Paleontological Institute, Moscow), Dr. A. Lelej, Dr. S. Storozhenko (Institute of Biology and Pedology, Vladivostok) and Prof. R. Dallai (Sienna University, Italy) six new species of fungus gnats were found. Types are deposited in the A.N. Severtsov Institute of Ecology and Evolution, Moscow.

Acnemia kurilensis sp. n.

(Figs 1, 4)

Holotype. ♂, Russia, Kuril Is., Ushishir I., 1.VIII.1997 (Lelej & Storozhenko).

Paratypes. Russia, Kuril Is.: ♂, as holotype; ♂, ♀, Onkotan I., 7.VIII.1996 (Lelej).

Description. Male. Head dark brown; clypeus brown, mouthparts and palpi yellow; antennae dark brown; scapus and pedicel yellow; 6th flagellomere 2.5 times as long as wide. Thorax dark brown; mesonotum shining with large yellow humeral spots; mediotergite with brown median and yellow lateral parts. Wing 4.2 mm long, with darkened apical part; membrane with macrotrichia, microtrichia absent; stem of *M* fork as long as *rm*. Legs yellow, middle tibia with 7 *a*, 4-5 *d*, 6 *p*; hind tibia with 9 *a*, 7 *ad*, 10 *d*, 9 *p*. Abdomen shining, black. Genitalia dark brown.

Female. Similar to male. Ovipositor brown.

Comparison. *A. kurilensis* differs from other species of the genus in the darkened apical parts of wing, shape of tergite IX and structure of gonocoxites.

Acnemia spathulata sp. n.

(Figs 2, 3)

Holotype. ♂, Russia, Sakhalin I., Yuzhno-Sakhalinsk Distr., 25.VIII.1991 (Blagoderov).

Paratype. ♂, as holotype.

Description. Male. Head dark brown; clypeus brown; mouthparts and palpi dark brown; antennae dark brown; 6th flagellomere about as long as wide. Thorax brown; mesonotum with three narrow dark brown stripes. Wing length 3 mm; membrane with macrotrichia, microtrichia absent; stem of *M* fork 2.5 times as long as *rm*. Legs yellow; middle tibia with 3-4 *a*, 3 *d*, 3-4 *p*; hind tibia with 6-7 *a*, 10 *d*, 4 *p*. Abdomen dark brown; genitalia brown.

Female unknown.

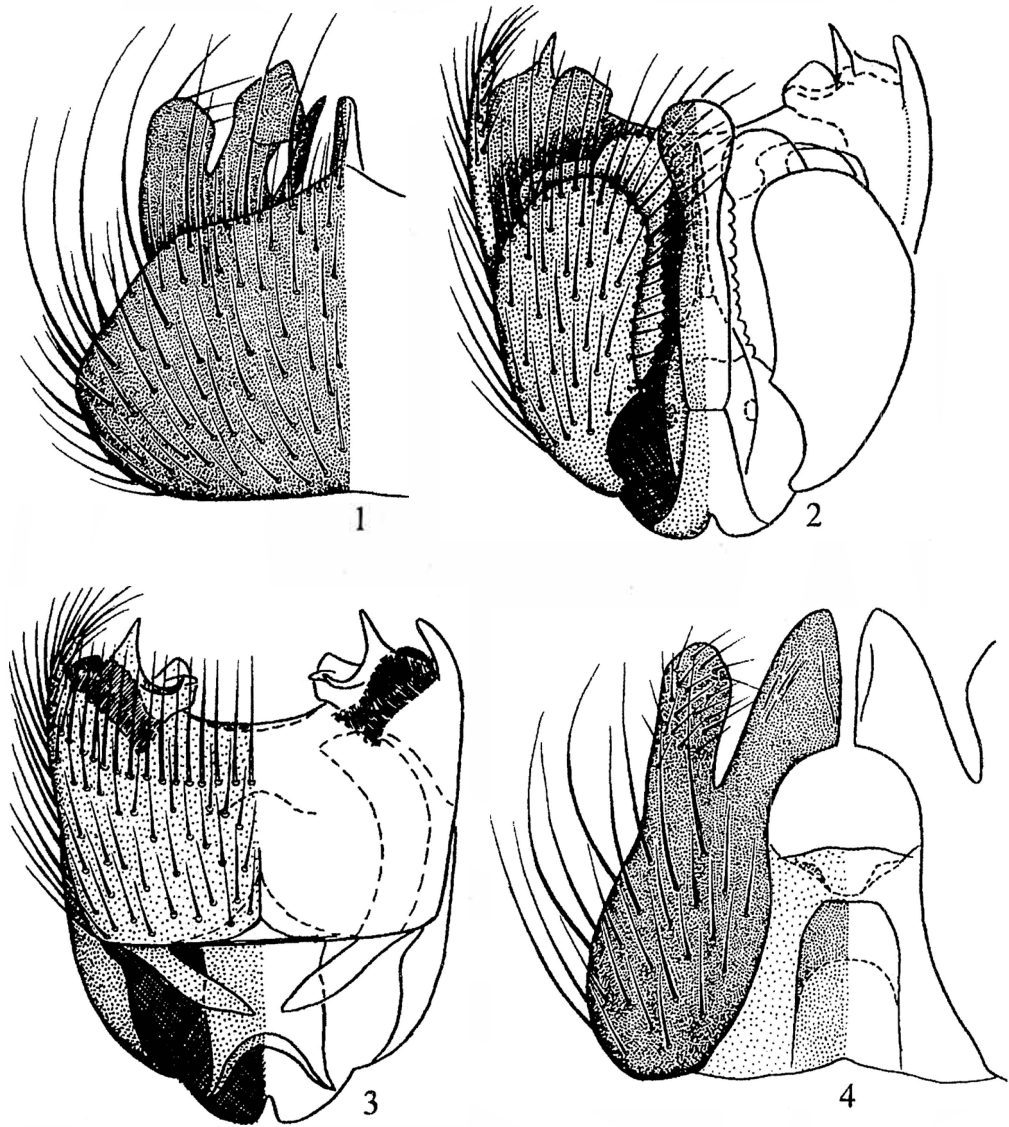
Comparison. *A. spathulata* belongs to the *longipes*-group and distinctly differs from other species in the shape of aedeagus (apical part of aedeagus broad and rounded) and structure of tergite IX (apical board with acute appendages).

Neoempheria sakhalinensis sp. n.

(Figs 5, 6)

Holotype. ♂, Russia, Sakhalin I., Starodubskoe, 2-4.VIII.1991 (Blagoderov).

Description. Male. Head yellow with three dark brown stripes; clypeus yellow; mouthparts and palpi dark brown; antennae dark brown; 6th flagellomere about as long as wide. Thorax yellow; mesonotum with 5 brown stripes; scutellum light brown, with 4 long bristles. Wing 5 mm long, with darkened apical part, brown spots on *R*₄ and *Rs* and faint cloud under *Cu*₁; *C* produced beyond tip of *R*₅, not reaching apex of wing; *Sc* ending in *C* above middle of small cell; small cell 4.5 times as long as wide; subradial fold distinct; base of *Cu* fork before base of stem of *M* fork. Halteres



Figs 1-4. Male genitalia, dorsal (1, 3) and ventral (2, 4) views. 1, 4, *Acnemia kurilensis* sp. n.; 2, 3, *A. spathulata* sp. n.

yellow. Legs yellow. Abdomen yellowish brown; tergites II-V with narrow, apically dilated, brown dorsal stripe; tergite I with narrow brown dorsal stripe; genitalia yellow.

Female unknown.

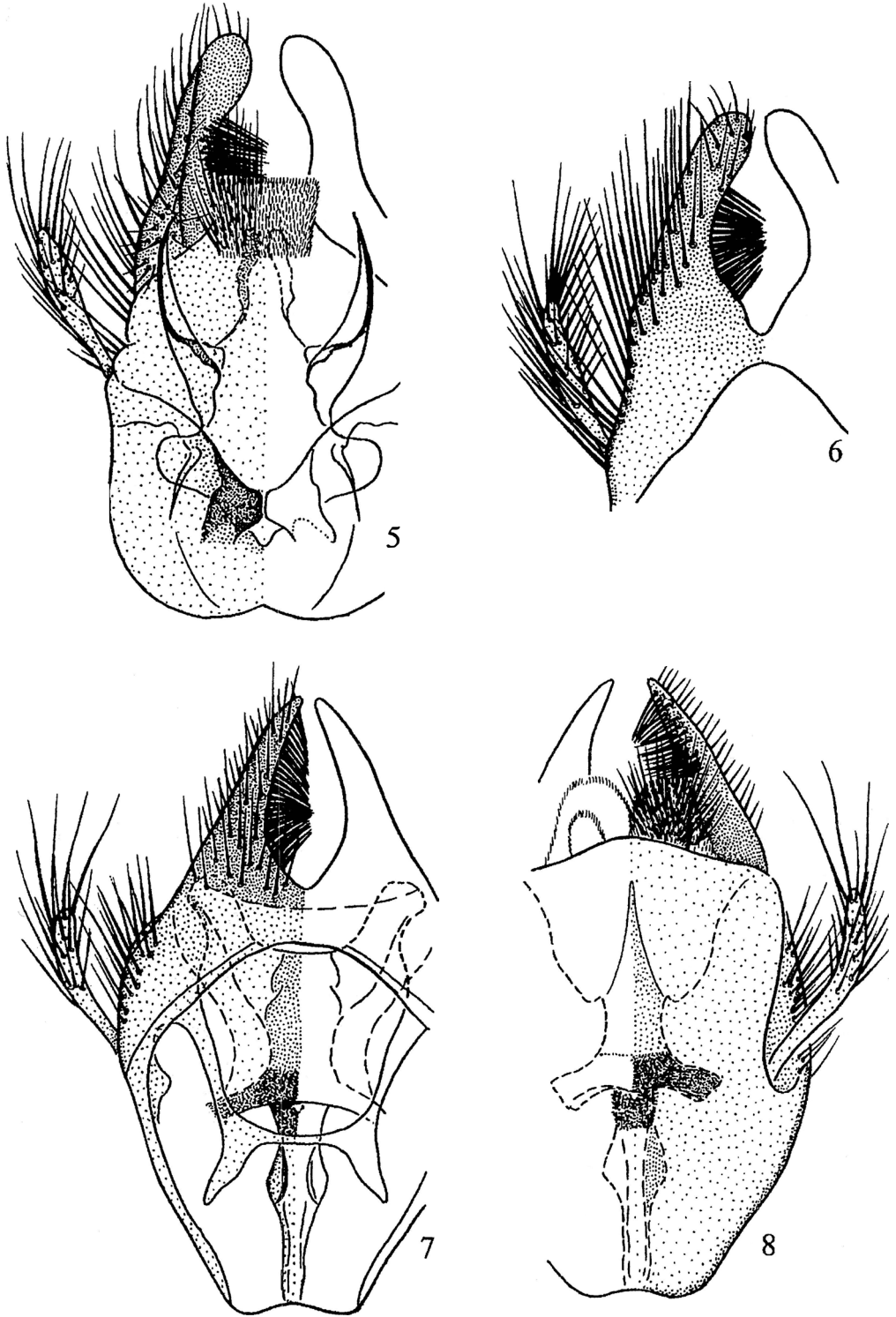
Comparison. *N. sakhalinensis* is allied to *N. tianmuana* Wu & Yang, but differs in the structure of tergite IX.

***Neoempheria subproxima* sp. n.**

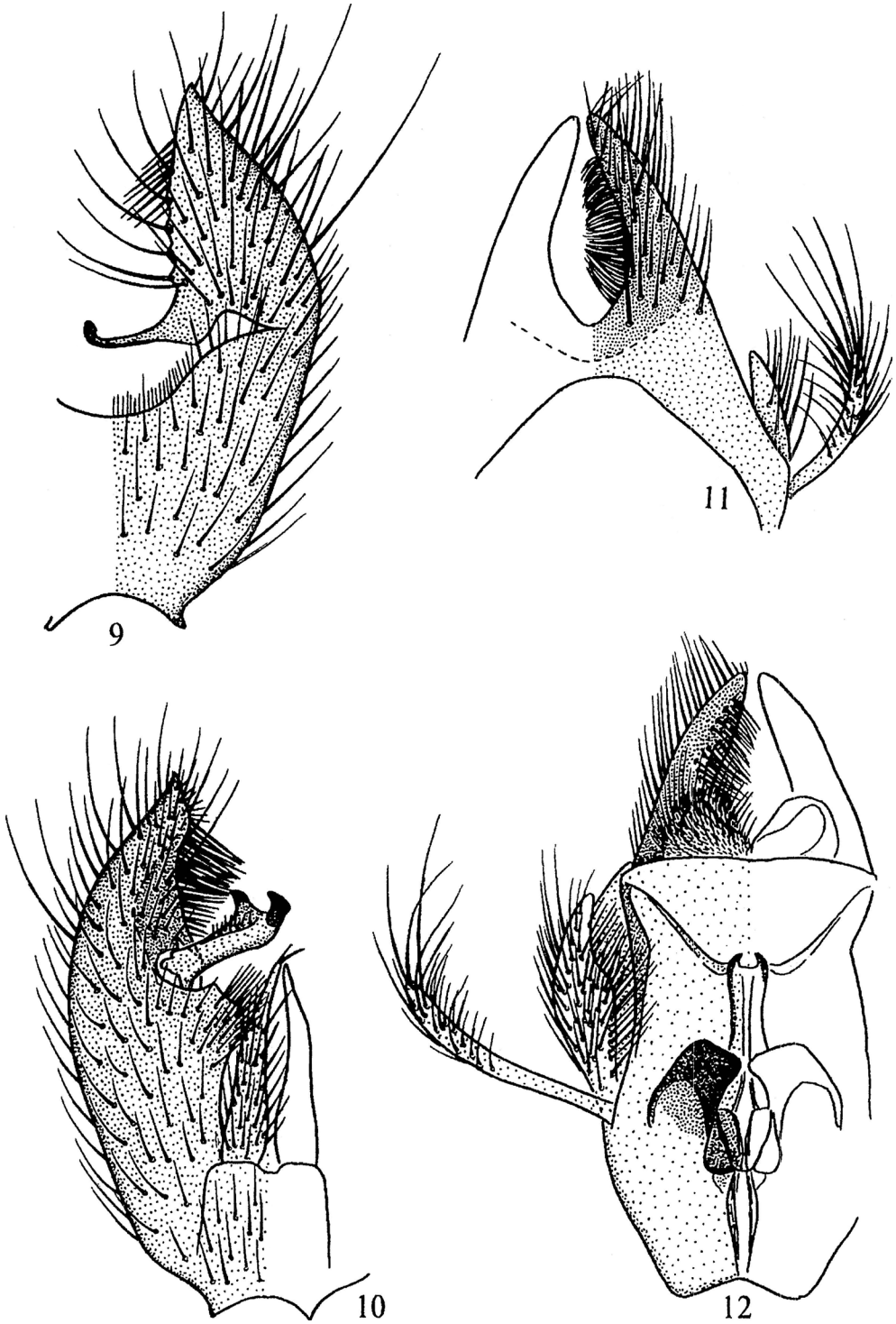
(Figs 7, 8)

Holotype. ♂, Russia, Sakhalin I., Yuzhno-Sakhalinsk Distr., 25.VIII.1991 (Blagoderov).

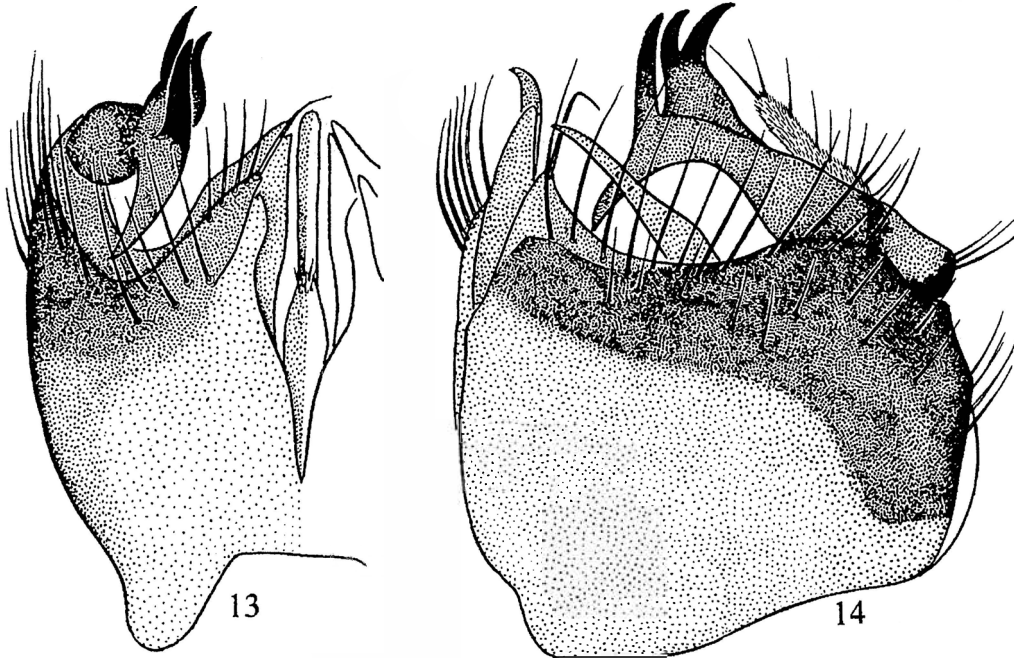
Description. Male. Head yellow with three dark brown stripes; clypeus yellow; mouthparts and palpi dark brown; antennae dark brown;



Figs 5-8. Male genitalia, ventral (5, 8) and dorsal (6, 7) views. 5, 6, *Neoempheria sakhalinensis* sp. n.; 7, 8, *N. subproxima* sp. n.



Figs 9-12. Male genitalia, ventral (9, 12) and dorsal (10, 11) views. **9, 10,** *Phthinia dallaii* sp. n.; **11, 12,** *Neoempheria proxima* Winn.



Figs 13, 14. *Leia iturupensis* sp. n., male genitalia: 13, ventral view; 14, dorsal view.

6th flagellomere about as long as wide. Thorax yellow; mesonotum with 5 broad stripes; scutellum brown, with 4 long bristles. Wing 5.2 mm long, with darkened apical part and faint clouds on *Rs* and *R4*; *C* produced beyond tip of *R5*, not reaching apex of wing; *Sc* ending in *C* above middle of small cell; small cell 4 times as long as wide; subradial fold distinct; base of *Cu* fork before base of stem of *M* fork. Halteres yellow. Legs yellow. Abdomen yellow; tergites II-V with narrow, apically dilated, brown dorsal stripe; genitalia yellow.

Female unknown.

Comparison. *N. subproxima* is close to *N. proxima* (Winn.) (Figs 11, 12), differing in the shape of the aedeagus and structure of the gonostylus.

***Phthinia dallai* sp. n.**
(Figs 9, 10)

Holotype. ♂, Italy, Sienna, 13.VII.1994 (R. Dallai).

Description. Male. Head brown; mouthparts yellow; basal segment of palpi brown; rest segments yellow; antennae brown, with short pubescence; scapus and pedicel yellow; 5th flagellar segment about 4 times as long as wide.

Thorax light brown; mesonotum with yellow humeral area. Wings faintly yellowish; *C* extended 0.25 distance from *R5* to *M1*; *Sc* ending in *C* just before *Rs*; *rm* 1.5 times as long as stem of *M* fork. Halteres yellow. Legs yellow; fore basitarsus 1.5 times as long as fore tibia. Abdomen yellow; genitalia light brown.

Female unknown.

Comparison. *P. dallai* is close to *P. hircanica* A. Zaitzev and *P. ostroverchovae* A. Zaitzev, from which it is distinguished in the shape of the apical part of gonocoxite and structure of the median appendage of gonocoxite on ventral surface.

***Leia iturupensis* sp. n.**
(Figs 13, 14)

Holotype. ♂, Russia, Kuril Is., Iturup I., 30.VII.1997 (Lelej & Storozhenko).

Description. Male. Head dark brown; clypeus, mouthparts and palpi yellow; antennae dark brown; scapus, pedicel and basal flagellar segment yellow; 6th flagellomere about 1.2 times as long as wide. Thorax yellow with brown spots; scutellum yellow with brown basal part. Wing 4.6 mm long, transparent, with-

out dark spots; *rm* 1.5 times as long as stem of *M* fork. Halteres yellow. Legs yellow; hind femur with dark apical part; middle tibia with 4 *a*, 1 *ad*, 5 *d*, 7 *p*, 5 *v*, 2 *av*; hind tibia with 8 *a*, 4 long and 13 short *d*, 8 *p*, 9 *v*. Abdomen two-coloured; tergite I brown; tergites II-VI yellow with broad brown apical bands. Genitalia yellowish brown.

Female unknown.

Comparison. *L. iturupensis* is allied to *L. subfasciata* (Meig.), *L. crucigera* Zett. and *L. umbrosa* Caspers. The new species seems to be characterized quite well by the structure of the gonostylus, which has 4 apical branches.

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