

Two new gall midges associated with reed (*Phragmites communis* Trin.) in the Netherlands

by

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In this paper I describe two new gall midges, the former of which causes galls on reed and the latter proved to be predaceous in its larval stage.

Giraudiella incurvans n.sp. (Diptera, Itonididae)

The galls with larvae and pupae of this midge were received on August 3rd, 1952, from Mr. W. D. J. TUINZING. They were collected near Winterswijk in the province of Guelderland.

The midges started emerging on August 8th and continued until August 18th, 1952.

I could identify them with FELT's "Key to Gall Midges (a resumé of Studies I—VII, Itonididae)", Bull. N.Y. St. Mus., no. 257, 3—239, (1925), and KIEFFER's "Diptera, Fam. Cecidomyiidae," Genera Insectorum, fasc. 152 (1913), as to be a *Giraudiella*-species.

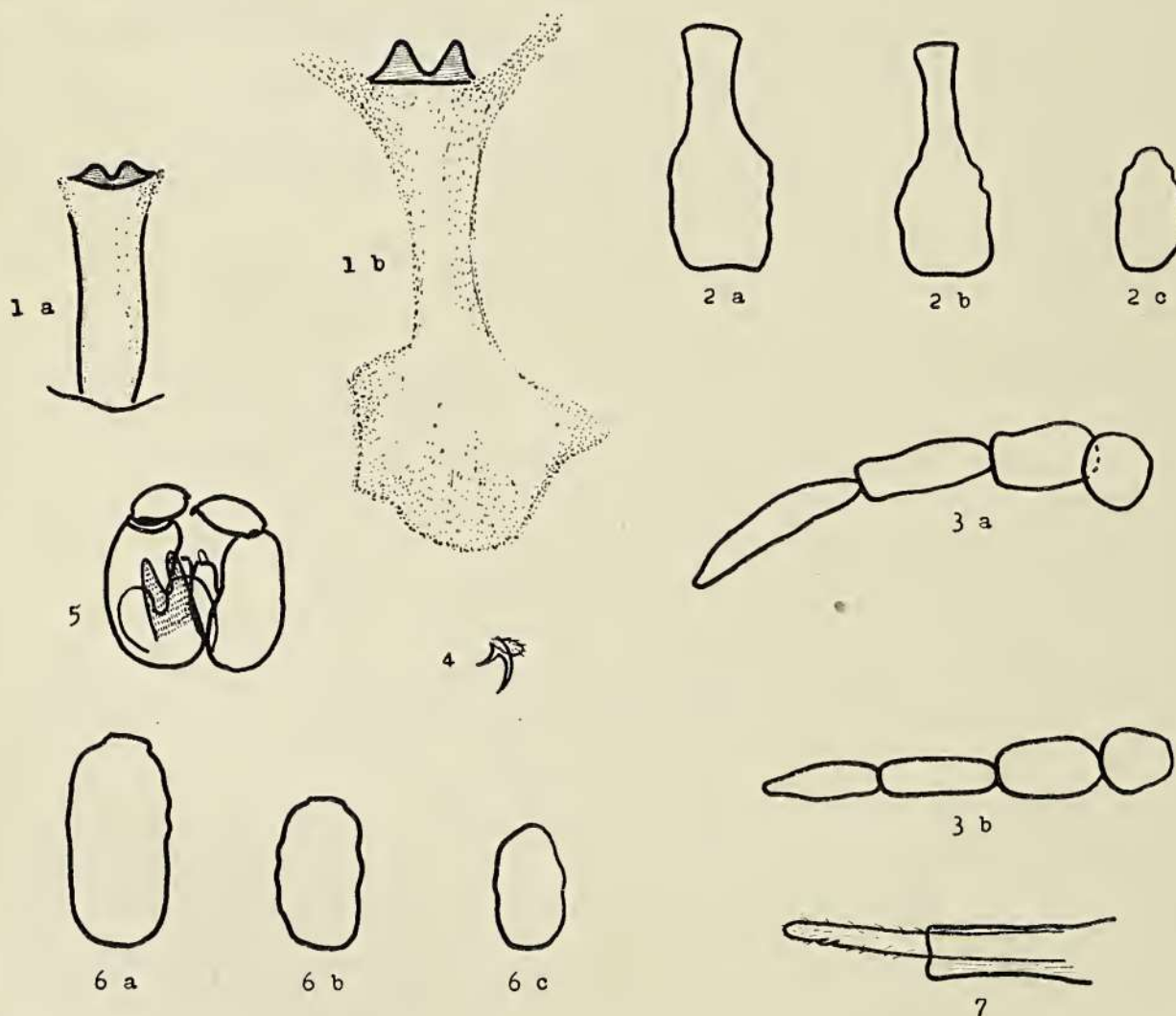


Fig. 1. a: breast-bone of larva of *Giraudiella incurvans* sp.n.; b: breast-bone of *Giraudiella inclusa* Frfld. Fig. 2. flagellar segments of *Giraudiella incurvans* sp.n. ♂; a: 3rd segment; b: 10th segment; c: 17th segment. Fig. 3. a: palp segments of *Giraudiella incurvans* sp.n. ♂; b: palp segments of *Giraudiella inclusa* Frfld. ♂. Fig. 4. claw of *Giraudiella incurvans* sp.n. Fig. 5. male genitalia of *Giraudiella incurvans* sp.n. Fig. 6. flagellar segments of *Giraudiella incurvans* sp.n. ♀, a: 3rd segment; b: 10th segment; c: 18th segment. Fig. 7. ovipositor of *Giraudiella incurvans* sp.n. ♀.

Only one species of this genus was known, viz. *inclusa* Frfld., but it may be distinguished from this species by having different characteristics as regards morphology and biology.

The larvae are dark orange in colour and possess a distinct breast-bone (fig. 1). They pupate in the galls.

A description of both sexes reads as follows :

Male. Length about 2.5 mm. Antennae 2 + 17, 1st and 2nd flagellar segment fused, each flagellar segment bead-like, provided with long stout setae and a distinct neck. The neck of the 3rd flagellar segment about $2\frac{1}{2}$ times as long as broad, the neck of the 10th flagellar segment about $3\frac{1}{2}$ times as long as broad and the 17th segment about $3\frac{1}{2}$ times as long as broad at its base (fig. 2). Palpi: 4 segments, 2nd segment about 3 times as long as broad, 3rd segment $2\frac{1}{2}$ to 3 times as long as broad, 4th segment 5 times as long as broad and about $1\frac{1}{2}$ times as long as 3rd segment (fig. 3). Face yellowish brown. Thorax ochreous brown. Wings hyaline; the third vein unites with the costa before the apex of the wing, the cubitus is forked and the veins are not distinctly scaled. Legs dark yellowish brown, claws all toothed and slightly longer than empodium (fig. 4). Abdomen brownish red with dark transverse bands. Genitalia: basal clasp segment provided with a ventral appendage; distal clasp segment shorter, elliptical and toothed at the tip; dorsal plate with deep emargination, lobes broadly rounded; ventral plate also with deep emargination, lobes elongated; style stout and about as long as the lamellae (fig. 5).

Holotype: Cecid. 353 (in the author's collection).

Female. Length about 3.5 mm. Antennae 2 + 18, 1st and 2nd flagellar segments fused, each flagellar segment consisting of a cylindrical node with a distinct short neck, except the terminal segment; 3rd flagellar segment $1\frac{1}{2}$ or 2 times as long as broad, 10th flagellar segment $1\frac{1}{2}$ or 2 times as long as broad and the 18th segment about 2 times as long as broad (fig. 6). Thorax dark red. Abdomen also dark red with black transverse bands. The ovipositor is pocket-shaped and very extensible (fig. 7). Otherwise about as in male.

Allotype: Cecid. 354; paratypes: Cecid. 355, 356: (in my collection).

The galls caused by this midge, can easily be distinguished from those of *G. inclusa* Frfld. as they are not found in the stems but in the growing

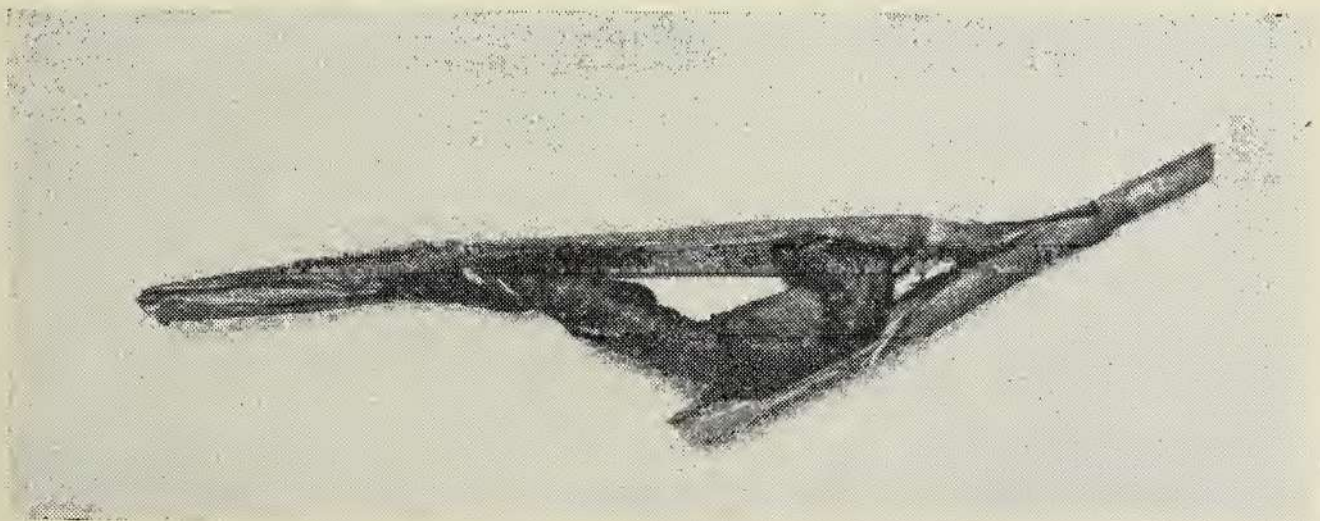


Fig. 8. gall of *Giraudiella incurvans* sp.n. on reed.

(foto I.P.O)

shoots. The larvae of *G. inclusa* live separated in small, grain-shaped galls; the larvae of *G. incurvans* sp.n. deform the growing shoots; these shoots look swollen and curved, become brown and black and die off when the larvae are full-grown (fig. 8).

Lestodiplosis gracilis n.sp. (Diptera, Itonididae)

The larvae, which are bright red, lived in company with those of *Giraudiella incurvans* sp.n. on which they are predaceous. They do not possess a breastbone and pupated in the galls as well as in the soil.

The midges started emerging on August 15th and continued until August 25th, 1952.

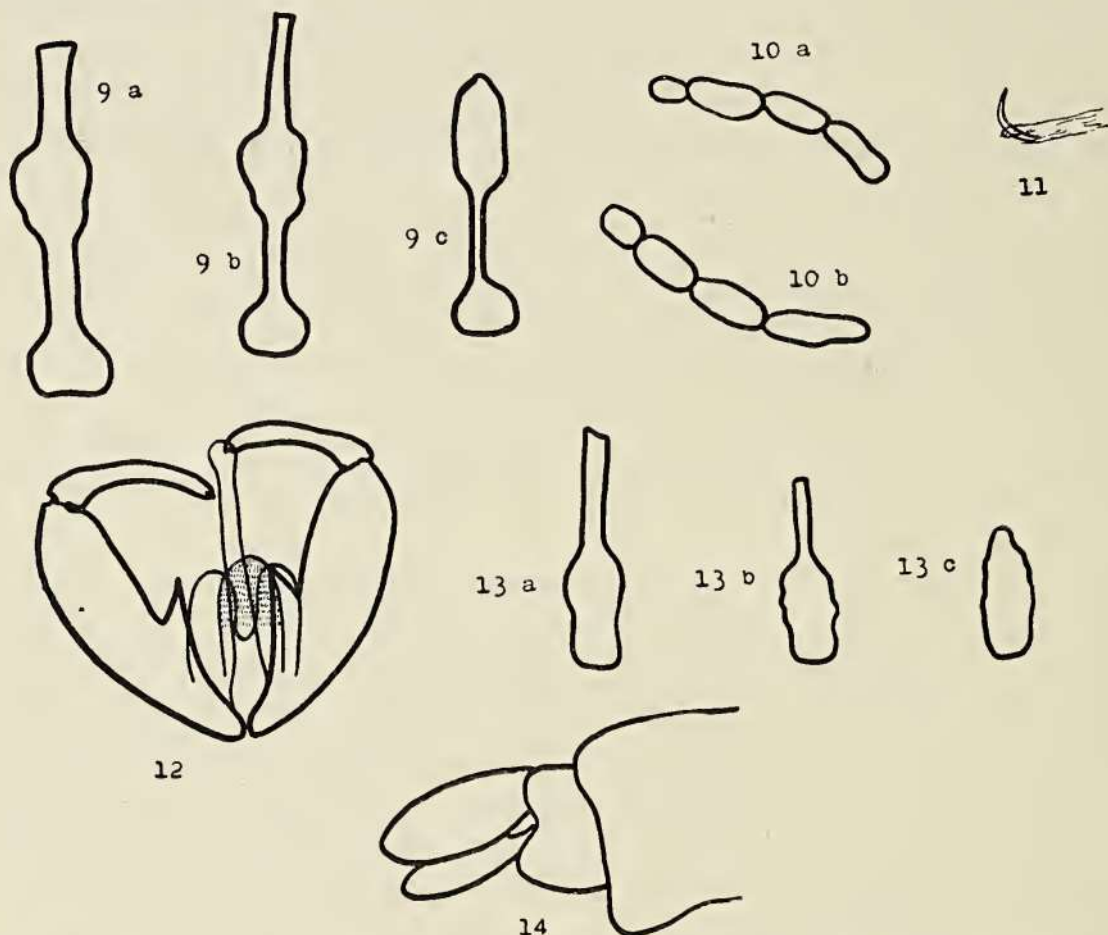


Fig. 9. flagellar segments of *Lestodiplosis gracilis* sp.n. ♂, a: 3rd segment; b: 10th segment; c: 12th segment. Fig. 10. a: palp segments of *Lestodiplosis gracilis* sp.n. ♂, b: palp segments of *Lestodiplosis gracilis* sp.n. ♀. Fig. 11. claw of *Lestodiplosis gracilis* sp.n. Fig. 12. male genitalia of *Lestodiplosis gracilis* sp.n. Fig. 13. flagellar segments of *Lestodiplosis gracilis* sp.n. ♀, a: 3rd segment; b: 10th segment; c: 12th segment. Fig. 14. ovipositor of *Lestodiplosis gracilis* sp.n. ♀.

A description of both sexes reads as follows:

Male. Length about $1\frac{1}{2}$ mm. Antennae $2 + 12$, 1st and 2nd flagellar segments fused, each flagellar segment consisting of a basal subglobular node, with one ring of circumfila and one of long stout setae, and a distal elongated node with two rings of circumfila, one basal, the other distal, and a distal ring of long stout setae; the two nodes separated by a distinct stem and each, except the 12th, with a distinct neck; stem of 3rd flagellar segment $2\frac{1}{2}$ times as long as broad, stem of 10th flagellar segment $3\frac{1}{2}$ times as long as broad and the stem of the 12th flagellar segment $7\frac{1}{2}$ times as long as broad (fig. 9). Palpi: 4 segments, 1st segment $1\frac{1}{2}$ times as long as broad, 2nd segment 2 or $2\frac{1}{2}$ times as long as broad, 3rd segment 2 times as long as broad, 4th segment 3 times as

long as broad and as long as 3rd segment (fig. 10). Face : dark yellow. Thorax ochreous. Wings hyaline, third vein reaching costa just beyond the tip of the wing. Legs ochreous, tibiae and tarsi darker, claws all simple, slightly longer than empodium (fig. 11). Abdomen bright orange-red with a dark spot and tranverse bands. Genitalia : basal clasp segment long with a distinct basal triangular sharp process on inner surface ; distal clasp segment swollen at base, glabrous, slightly curved ; dorsal plate with deep emargination, lobes broadly rounded ; ventral plate complete, broadly rounded ; style long (fig. 12).

Holotype : Cecid. 374 ; paratypes : Cecid. 375—385 (in my collection).

F e m a l e. Length about 2 mm. Antennae : 2 + 12, 1st and 2nd flagellar segments fused, each flagellar segment elongated cylindrical, slightly constricted at centre, each bearing a distinct neck, except the terminal segment ; the neck of the 3rd flagellar segment 5 times as long as broad, neck of the 10th flagellar segment 7 times as long as broad and the 12th flagellar segment $3\frac{1}{2}$ times as long as broad at its base (fig. 13). Palpi : 4 segments, 1st segment about $1\frac{1}{2}$ times as long as broad, 2nd segment 2 times as long as broad, 3rd segment 2 or $2\frac{1}{2}$ times as long as broad, 4th segment $3\frac{1}{2}$ or 4 times as long as broad and longer than the 3rd (fig. 10). Wings spotted. Ovipositor lamelliform, lobes elliptical (fig. 14). Otherwise about as in male.

Allotype : Cecid. 386 ; paratypes : Cecid. 387—395 (in my collection).

Amsterdam, Entomologisch Laboratorium van het I.P.O., September 1952.

Araschnia levana L. Naar aanleiding van Uw artikel over de verbreiding van *Araschnia levana* L. in Ent. Ber. 14 : 216 (1953), kan ik U nog enige mededelingen doen over deze vlinder.

Op 4.V.1952 zag ik een vers ex. te Bolnes in het park van „Het Huis ten Donck”.

In de laatste week van Augustus 1952 vond ik in de Roozendaalse- en Beekhuizerbossen bij Velp een groot aantal „rupsennesten”. Bijna bij iedere groep brandnetels, die een beetje open stond, vond ik rupsen. Als ik zeg, dat we zonder goed zoeken een dertig nesten vonden, overdrijf ik zeker niet. Daarbij komt dan nog het feit, dat de „nesten” van kleine rupsjes zeer makkelijk over het hoofd gezien worden omdat ze aan de onderzijde der bladeren hangen, en de diertjes lang zoveel niet spinnen als bijv. *Aglais urticae*. Toch nam ik slechts één imago waar n.l. op 30.VIII, een vers mannetje. Ik nam een flink aantal rupsen mee en kweekte ze buiten, in zo natuurlijk mogelijke omgeving. Geen enkele pop leverde een ex. van de derde generatie.

In 1951 vond ik op dezelfde plaats na lang zoeken slechts één nest rupsen (24.VIII). Vóór half September was de familie (25 stuks) verpopt en op 25 September kwamen er twee vlinders uit. In September was het toen wel veel warmer weer geweest.

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