

THRIPS LATIAREUS SP. N., A NEW SPECIES FOUND
IN GERMANY AND THE NETHERLANDS
(THYSANOPTERA: THIRIPIDAE)

Vierbergen, G., 2004. *Thrips latiareus* sp. n., a new species found in Germany and The Netherlands (Thysanoptera: Thripidae). – Tijdschrift voor Entomologie 147: 283-287, figs. 1-14. [ISSN 0040-7496]. Published 1 December 2004.

From Germany and the Netherlands *Thrips latiareus* sp. n. is described. The species belongs to a species-group in which both sexes have a yellow body and in which both discal sternal and discal pleural setae are present. An identification key to the species belonging to this group is given for both sexes. The only known host of the probably univoltine *T. latiareus* is *Anthriscus sylvestris*.

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During a yearly field excursion of the Dutch Entomological Society a male of an unknown *Thrips* was found at the Dutch/German border by beating various plant parts of cultivated shrubs of *Berberis* Linnaeus. A few months later two females of the same *Thrips* species were taken from *Anthriscus sylvestris* (L.) Hoffmann in a thrips survey in roadside vegetation about 25 km from the location where the first male was found. In 2003 sampling on both locations from flowering *A. sylvestris* resulted in the collection of more than eight species of Thysanoptera on both locations, including the new species. In 2004 the new thrips was taken from two other locations in the Netherlands from flowering *A. sylvestris*. Probably the species is univoltine, because after flowering the above ground parts die back rapidly.

The presence of high numbers of flower visiting thrips species on *A. sylvestris*, such as *Thrips fuscipennis* Haliday, 1836, *Thrips major* Uzel, 1895 and *Thrips vulgatissimus* Haliday, 1836 may have hampered the detection of the new species in the past. Abbreviations of collections

BMNH Natural History Museum, London, UK
PPS Plant Protection Service, Wageningen, The Netherlands
RMNH Nationaal Natuurhistorisch Museum, Leiden, The Netherlands
SMF Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main, Germany

SYSTEMATIC PART

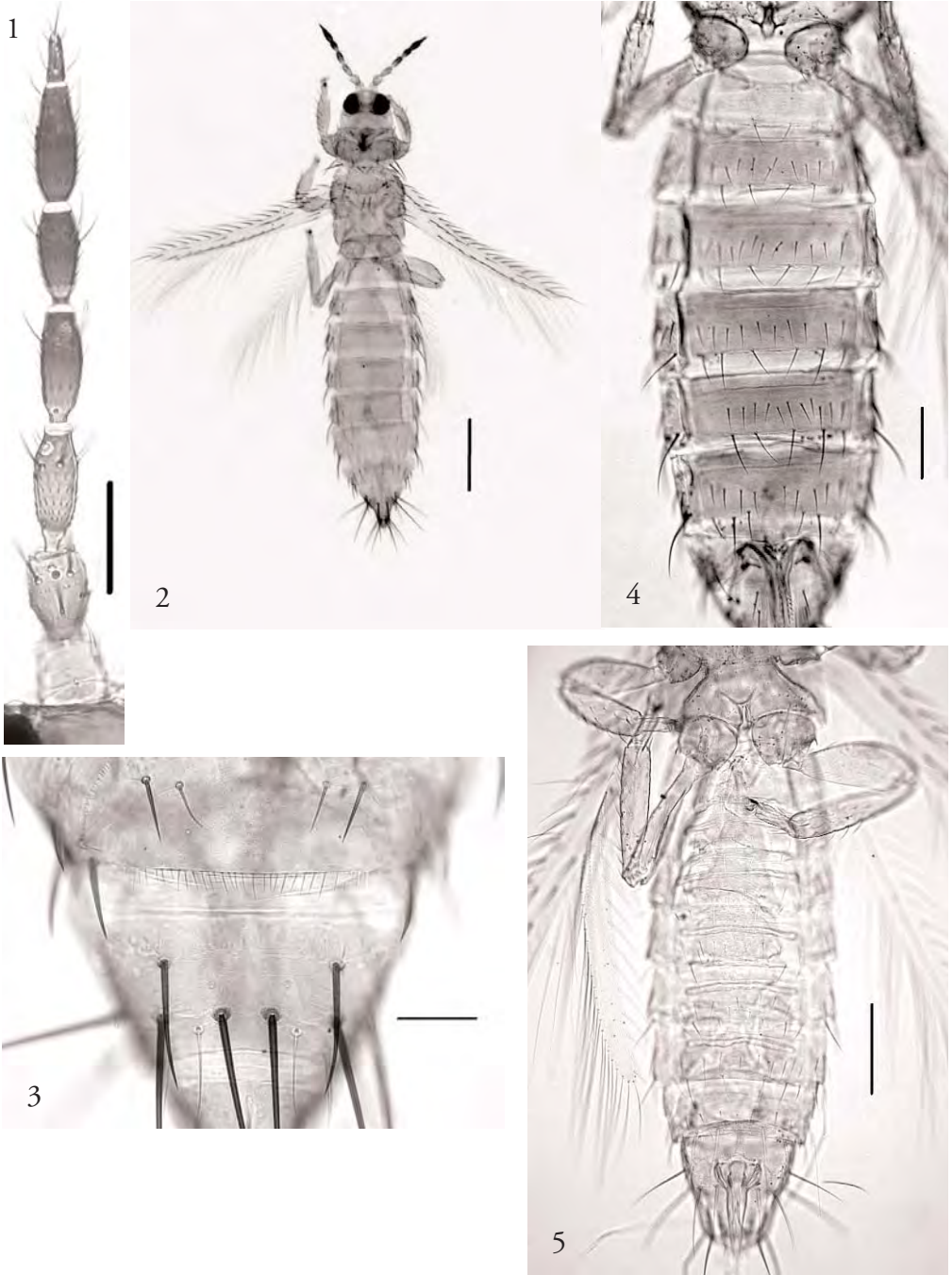
Thrips latiareus sp. n.
(figs. 1-13)

Type-material. – Holotype ♀: NETHERLANDS: Drenthe, Nieuw-Amsterdam (UTM 32U LD567410), on *Anthriscus sylvestris*, 11.ix.2001, B. Heerink (deposited in RMNH). – Paratypes: ♀ (damaged), same collection data as holotype (PPS); 1♂, GERMANY: Niedersachsen, Rütenbrock (UTM 32U LD7259), on *Berberis*, 16.vi.2001, G. Vierbergen (PPS); 11♀, 6♂, same data, but on *A. sylvestris*, 26.v.2003, G. Vierbergen (BMNH and RMNH: both ♀ and ♂; SMF: 2♀, 2♂; PPS: 7♀, 2♂); 4♀, 3♂, NETHERLANDS: Nieuw-Amsterdam (UTM 32U LD567410), on *A. sylvestris*, 26.v.2003, G. Vierbergen (PPS).

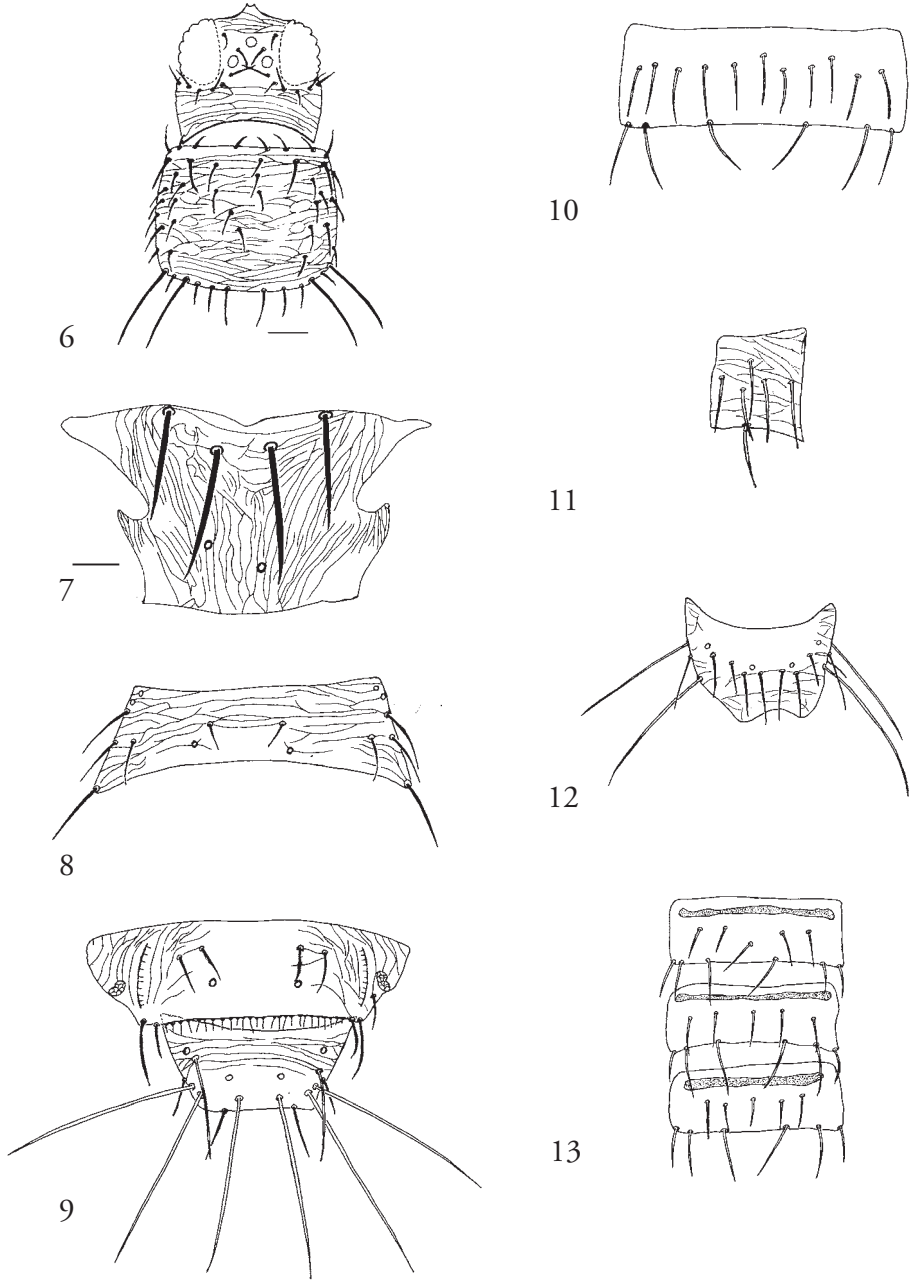
Other material studied. – GERMANY: 4 larvae II(♀)Rütenbrock (UTM 32U LD7259), on *A. sylvestris*, 26.v.2003, G. Vierbergen. – NETHERLANDS: 3 larvae II (2♀, 1♂), Nieuw-Amsterdam (UTM 32U LD567410), on *A. sylvestris*, 26.v.2003, G. Vierbergen; 8♀, Bathmen (UTM 32U LC144916), *A. sylvestris*, 5.v.2004, G. Vierbergen; 2♀, Ede (UTM 31U FT829660), *A. sylvestris*, 13.v.2004, G. Vierbergen (all PPS).

Male and female

Colouration. – Body yellow; legs slightly paler than body; forewings very pale yellow; antennal segment I pale yellow, II yellow, III brownish yellow, IV brownish yellow with brown apex, V dark brown, except



Figs. 1–5. *Thrips latiareus* sp. n. – 1, Left antenna of female (bar 50 μ m); 2, Female in microscopic slide (bar 200 μ m); 3, Abdominal tergite IX of female (bar 50 μ m); 4, Abdomen (ventral) of female (bar 100 μ m); 5, Abdomen (ventral) of male (bar 100 μ m).



Figs. 6–13. *Thrips latiareus* sp. n. – 6, Head and pronotum, female (bar 50 μ m); 7, Metanotum, female (bar 20 μ m); 8, Abdominal tergite II, female; 9, Abdominal tergite VIII and IX, female; 10, Abdominal sternite V, female; 11, Abdominal pleurotergite IV, female; 12, Abdominal tergite IX, male; 13, Abdominal sternites V–VII, male.

brownish yellow basal half, VI dark brown, except brownish yellow basal third, VII dark brown; most body setae brown, abdominal sternites II-VIII with yellow setae, except the brown posteromarginals of the female.

Female

Morphology. – Body length 1210 μm . Antenna 7 segmented (fig. 1): length/width segment I 33/30 μm , segment II \pm 36/26 μm , segment III \pm 46/21 μm , segment IV 49/19 μm , segment V 43/19 μm , segment VI 54/19 μm , segment VII 21/8 μm .

Head broader than long (fig. 6), ocellar setae III \pm 30 μm , posterolaterad of anterior ocellus, situated outside ocellar triangle, postocular setae I 32 μm , setae III 28–30 μm , setae V 21–26 μm .

Pronotum (fig. 6), l/w 161/178 μm ; very slightly transversely reticulated, except posterior fifth distinctly reticulated, size of discal setae rather variable, the medial are the shortest: 21 μm , a pair of setae close to anterior margin longest discals: 37 μm , posteroangular setae relatively long, outer pair 82 μm , inner pair 85 μm , three pairs of posteromarginal setae, with the inner pair 35–37 μm .

Metanotum irregularly longitudinally reticulate (fig. 7), the metanotum of the holotype with one campaniform sensillum, paratypes with two sensilla, which are farther apart from each other than median setae, median setae posterior of anterior margin about half the distance from the distance between their bases.

Forewing with three distal setae on fore vein, hind vein with 10–12 setae in a row (fig. 2).

Abdominal tergite II with three lateromarginal setae (fig. 8), tergite VIII with posteromarginal comb complete and regular (fig. 3, 9), its longest hairs about 13 μm long, tergite IX with two pairs of campaniform sensilla (fig. 9) and rather long B setae: B1=128 μm , B2=146 μm , B3=135 μm , tergite I–VIII with sculpture lines reaching median setae, sternites II–VIII with an irregular row of rather long discal setae, which are about 35 μm long, sternite III with 7, IV with 9, V with 11 (fig. 4, 10), VI with 13 and VII with 12 discal setae, sternite VII with B1 setae on posterior margin, pleurotergites III–VII with up to six discal setae (fig. 11).

Male

Morphology. – Body length: 1005 μm , setation mostly equal to female, but setae smaller in size. Antenna 7 segmented: l/w segment I 21/28 μm , segment II 39/26 μm , segment III 52/19 μm , segment IV 43/18 μm , segment V 37/17 μm , segment VI 48/18 μm , segment VII 17/8 μm .

Pronotum l/w 161/178 μm , size of discal setae rather variable, the medial the shortest: 18 μm , a pair of setae close to anterior margin longest discals: 29 μm , posteroangular setae: outer pair about 52 μm , in-

ner pair 57 μm , three pairs of posteromarginal setae, with the inner pair 25 μm .

Metanotum with campaniform sensilla present, forewing fore vein with three distal and hind vein with 9–10 setae.

Abdominal tergite VIII with posteromarginal comb complete, but irregular, its longest hairs 10 μm , tergite IX with two pairs of campaniform sensilla and with B1 setae almost in line with B2 setae (fig. 12), D1 setae situated anteriolateral to B1 and B2 setae, sternite III, V, VII and VIII with eight discal setae, sternite IV and V with six, sternite III–VII each with a broad transversely elongated glandular area (width >100 μm) almost as wide as the sternite (fig. 5, 13), the areas narrow with its width distally about 12 μm and medially about 8 μm .

Etymology

The name given to the new species is derived from the Latin 'latus' = broad and 'area' = area or field. In male *Thrips* the glandular areas almost as wide as the sternites is unusual.

Comparison with other yellow *Thrips*

Thrips latiareus differs from all other known species of the genus with both sexes having a yellow body, discal sternal and discal pleural setae. *T. conferticornis* Priesner, 1922, *T. pillichii* Priesner, 1924 and *T. praetermissus* Priesner, 1920 (syn. *T. montivagus* Priesner, 1923; Zur Strassen, 2000) lack metanotal sensilla, the major discal setae are absent on the pronotum, pleurotergites have at most two-three discal setae and most body setae are yellow; the males have the sternal glandular areas less than a third of the width of the sternum (Zur Strassen 2003, in litt.). *T. trybomi* (Karny, 1908) has eight antennal segments. *T. austellus* Mound, 1978 and *T. coprosmae* Mound, 1978 both have the fore vein of the forewing with a complete row of setae. *T. imaginis* Bagnall, 1926 lacks the posteromarginal comb medially on abdominal tergite VIII. *T. apicatus* Priesner, 1934 has abdominal tergite II with four lateromarginal setae, pronotum with major discal setae absent and in the female abdominal segment X is darkened and in the male the sternal glandular areas are less than half the width of the sternum. *T. microchaetus* Karny, 1920 has also abdominal tergite II with four lateromarginal setae and is characterized by numerous discal setae in four irregular rows on abdominal sternites III–VII. In the key of *Thrips* in Zur Strassen, 2003 the new species runs to couplet 14, where it is mentioned the length of pronotal posteromarginal setae is 34–75 μm . In *T. latiareus* these setae are longer (about 85 μm). *T. trybomi* differs e.g. in the number of the antennal segments, the longer antenna (312–314 μm , *T. latiareus*: 265–282 μm) and the irregularly spaced discal setae on abdominal sternite VII.

Key to *Thrips* with yellow adults having both discal sternal and discal pleural setae

1. Forewing with a complete row of setae on fore vein 2
 - Forewing with a gap, usually between 7 basal and 3 distal setae, or forewing incomplete 3
2. Metanotal campaniform sensilla absent, foretarsi with an apical claw *T. coprosmae* [Phytophagous on *Coprosma robusta* Raoul; New Zealand.]
 - Metanotal campaniform sensilla present, foretarsi without an apical claw; male unknown *T. austellus* [Possibly associated with flowers of *Clematis* Linnaeus; New Zealand.]
3. Eight antennal segments (stylus divided) *T. trybomi* [Floricolous; polyphagous; mountainous regions of Central and Eastern Europe.]
 - Seven antennal segments (stylus undivided) 4
4. Both the metanotal campaniform sensilla and (usually) in the female the anterior sensilla on abdominal tergite IX absent; pleurotergites with maximally 3 discal setae 5
 - Both the metanotal campaniform sensilla and the anterior sensilla on abdominal tergite IX present; pleurotergites with up to 8 discal setae 7
5. Antennal segments V and VI brown, female with incomplete or complete forewing and abdominal sternites III-VII with discal setae in a single row; in the brachypterous male abdominal sternite VIII with discal setae present and sternite VIII with glandular area *T. conferticornis* [Probably phytophagous; Central, Eastern and Northern Europe.]
 - Antennal segments V and VI basally yellow; female with abdominal sternites III-VII with 2 irregular rows of discal setae; in the male abdominal sternite VIII with discal setae present or absent and sternite VIII without glandular area 6
6. Body completely yellow or abdomen brownish yellow or brown and/or thorax often brownish yellow; female abdominal tergite IX with B1 55-80 µm long; male abdominal sternites III-VII with discal setae lateral of area porosae, sternite VIII with discal setae present *T. pillichii* [Phytophagous on Asteraceae; Western, Central and Southern Europe, Iran.]
 - Body completely yellow; female abdominal tergite IX with B1 100-122 µm long; male abdominal sternites III-VII with discal setae lateral and caudad of area porosae, sternite VIII with discal setae absent *T. praetermissus* [Phytophagous on Apiaceae and Compositae; Central and Eastern Europe, Mongolia.]

7. Abdominal tergite VIII with posteromarginal comb absent medially; pronotum with 4 or 5 pairs of posteromarginal setae; abdominal tergite II with 3 lateromarginal setae *T. imaginis* [Floricolous; polyphagous; pest species on pome fruits and grapes; Australia, New Caledonia, New Zealand, Papua New Guinea and some Pacific islands.]
 - Abdominal tergite VIII with posteromarginal comb complete; pronotum with usually 3 pairs of posteromarginal setae; abdominal tergite II with 3 or 4 lateromarginal setae 8
8. Abdominal tergite II with 3 lateromarginal setae (fig. 5); major discal pronotal setae present (fig. 2); abdominal sternites III-VII with a single row of discal setae (fig. 8); male with sternal glandular areas almost the width of the sternum (fig. 12, 13) *T. latiareus* sp. n. [Floricolous; Western Germany, Eastern Netherlands.]
 - Abdominal tergite II with 4 lateromarginal setae; abdominal sternites III-VII with 2 or 4 rows of discal setae; male with sternal glandular areas less than half the width of the sternum 9
9. Major discal pronotal setae absent; pleurotergites with up to 6 discal setae; abdominal sternites III-VII with 2 irregular rows of discal setae *T. apicatus* [Floricolous; Southeast-Asia.]
 - Major discal pronotal setae present; pleurotergites with up to 8 discal setae; abdominal sternites III-VII with 4 irregular rows of discal setae; male unknown *T. microchaetus* [Floricolous; Morocco, Egypt, Sudan, Kenya, Israel, Yemen.]

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