

Dutch Chalcids

by

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VI. Genus *Chrysocharis* Förster

During the last few years three important papers concerning the genus *Chrysocharis* have appeared in which: DELUCCHI (1954a) split up the two genera *Chrysocharis* Först. and *Derostenus* Thoms. into four: *Chrysocharis* Först., *Derostenus* Thoms., *Enaysma* Del., and *Epilampsis* Del., the last one being synonymous with *Kratochviliana* Buk. according to BOUČEK (1961); ERDÖS (1954) retains THOMSON'S classification and confirms this in 1958; GRAHAM (1959), after studying the types, follows DELUCCHI.

Each of the three authors gives a key: ERDÖS to the Hungarian, GRAHAM to the British, and DELUCCHI to all known species. They use different characters and their keys have few species in common. On comparing these keys one is tempted to lump some species (e.g. *polyzo* (Walk.) and *palustris* (Gour)); however, the lack of satisfactory descriptions of WALKER'S species makes this impossible. A single character in a key is insufficient to define a species. Consequently it is not easy to identify the Dutch species with certainty. If there is any doubt concerning the validity of a name I mention this in the list.

I give here an annotated list mainly composed of observations made by Prof. Dr. DE MEYERE (de Mey), Dr. G. BARENDRECHT (Bar) and myself (G).

1st. subgenus: *Chrysocharis* s.str.

Three species up till now, distinguished by the colour of the coxae.
viridicoxis Förster 1 ♀ Amsterd. Waterl. Duinen, 6.VI.1942 (Bar)

1 ♂ Nieuwersluis, 18.VI.1942 (Bar)

The other two species, *melaenis* (Walk.) and *albula* Del., are distinguished by DELUCCHI and GRAHAM in the following way:

	<i>albula</i> Del.	<i>melaenis</i> (Walk.)
Hind coxae 1)	at least distal half white	wholly metallic or white at apex only
Face 2)	reddish	green with golden sheen
Host 3)	<i>Phytomyza xylostei</i> R.D.	<i>Phytomyza angelicae</i> Kltb.
	<i>Phytomyza lappina</i> Gour.	„ <i>aconiti</i> Hd.
	„ <i>calthophila</i> Hg.	„ <i>obs curella</i> Fll.
		„ <i>glechomae</i> Kltb.
		<i>Liriomyza pusilla</i> Mg.

1) Arranging the more than 40 specimens in my collection according to the darkening of the hind coxae I obtained an uninterrupted series from wholly metallic to nearly wholly white. Sometimes these transitions occur in animals reared from one host; DE MEIJERE reared three specimens from *Phytomyza lappina* which are typical *albula* ♀♀. He also got 2 ♀♀ from black pupae in *Lappa*; one of these is doubtfully *albula*, the other is almost certainly *melaenis*. Four specimens from *Phytomyza chaerophylli* are *melaenis*; in two others, however, the

dark colouring reaches only halfway the coxae. Of seven specimens from *Phytomyza populi* five are clearly *albula* but two have their coxae $\frac{3}{4}$ dark.

2) These colour differences occur very often in larger series of one species in this group and are useless as a taxonomic character.

3) There is not any indication of preference for one particular host or habitat as also appears from the following list of hosts.

I am convinced the following names are synonymous:

melaenis (Walker) (= *Chrysocharis albula* Del., new syn.)

Heemstede, 28.VII.1943 1 ♂; Aerdenhout, 5.VII.1943 1 ♂; Heerlen, 3.IX.1933 1 ♀ (Bar); Naarden, 20.VII.1958 1 ♂; Gerendal, 6.VI.1962 1 ♀ (G).

host	plant	
<i>Phytomyza chaerophylli</i>	<i>Antbriscus silv.</i>	Amsterdam, 22.IX.1923 1 ♀, 26.IX.1923 1 ♀; Haarlem, 26.IX.1923 1 ♀; Amsterdam, V.1921 and VII.1923 3 ♂♂; Alkmaar, 20.IX.1923 1 ♀
?	<i>Lamium</i>	Amsterdam, 20.IX.1920 1 ♀
<i>Liriomyza amoenus</i>	<i>Sambucus</i>	Amsterdam, ± 8.VI.1920 2 ♀♀;
?	<i>Sambucus</i>	Amsterdam, V.1921 1 ♂ and 3.VI.1921 1 ♀
Agromizide	<i>Glechoma hed.</i>	Amsterdam, 14.VII.1919 1 ♀
?	<i>Caliba palustris</i>	Abcoude, 8.IX.1921 1 ♀
<i>Phytomyza ranunc. albip.</i>	<i>Ranunculus sceleratus</i>	Amsterdam, 8.VII.1920 1 ♀
?	<i>Ranunculus</i>	Amsterdam, III.1920 1 ♀ and IV.1921 1 ♂
<i>Phytomyza lappae</i> (= <i>lappina</i>)	<i>Lappa</i>	Valkenburg, VII.1923 3 ♀♀
black pupae	<i>Lappa</i>	Bloemendaal, ± 10.IX.1920 2 ♀♀
<i>Phytomyza primulae</i>	<i>Primula</i>	Wylre, 8.VIII.1923 1 ♀
?	<i>Eupatorium cann.</i>	Amsterdam, VI.1920 1 ♂
?	<i>Colutea</i>	? V.1921 2 ♀♀
<i>Phytomyza atricornis</i>	<i>Cornus sang.</i>	Valkenburg, 14.VII.1923 2 ♀♀
<i>Phytomyza agromyzina</i>	<i>Cornus sang.</i>	Valkenburg, 20.VIII.1923 1 ♀
?	<i>Centaurea</i> sp.	Amsterdam, not dated 1 ♀
<i>Phytomyza populi</i>	<i>Populus</i>	Castricum, ± 12.VIII.1919 2 ♀♀, 1 ♂
<i>Phytomyza populi</i>	<i>Populus</i>	Den Haag, 12.VIII.1919 1 ♀, 1 ♂; Amsterdam, 11.III.1923 1 ♂, 17.III.1923 1 ♂ (de Mey)

2nd subgenus: *Trichocharis* Del.

Three species are known at present: *chilo* (Walk.), *pilosa* Del. and *pubens* Del. Up till now I have only found *pubens* Del. and a new species.

pubens Delucchi, Driel (O.B.) 27.VII.1963 (v. HEYNSBERGEN); Rijnauwen, 13.VIII.1933 (KRUSEMAN); Heemstede, 28.VII.1943, Amsterd. Waterl. Duinen, 6.VI.1942; Heerlen, 3.IX.1933 (Bar); 's-Graveland, 9.V.1959, 18.V.1959, 24.V.1962 (G).

latifrons n. sp. Some years ago Dr. EVENHUIS at Wageningen drew my attention to two female parasites reared by him from a dipterous leafminer. The mines were collected in apple orchards near Tiel and Oosterbeek. The parasite was a *Chrysocharis* (*Trichocharis*) sp. near *pubens* Del. The only dipterous leafminer in apples

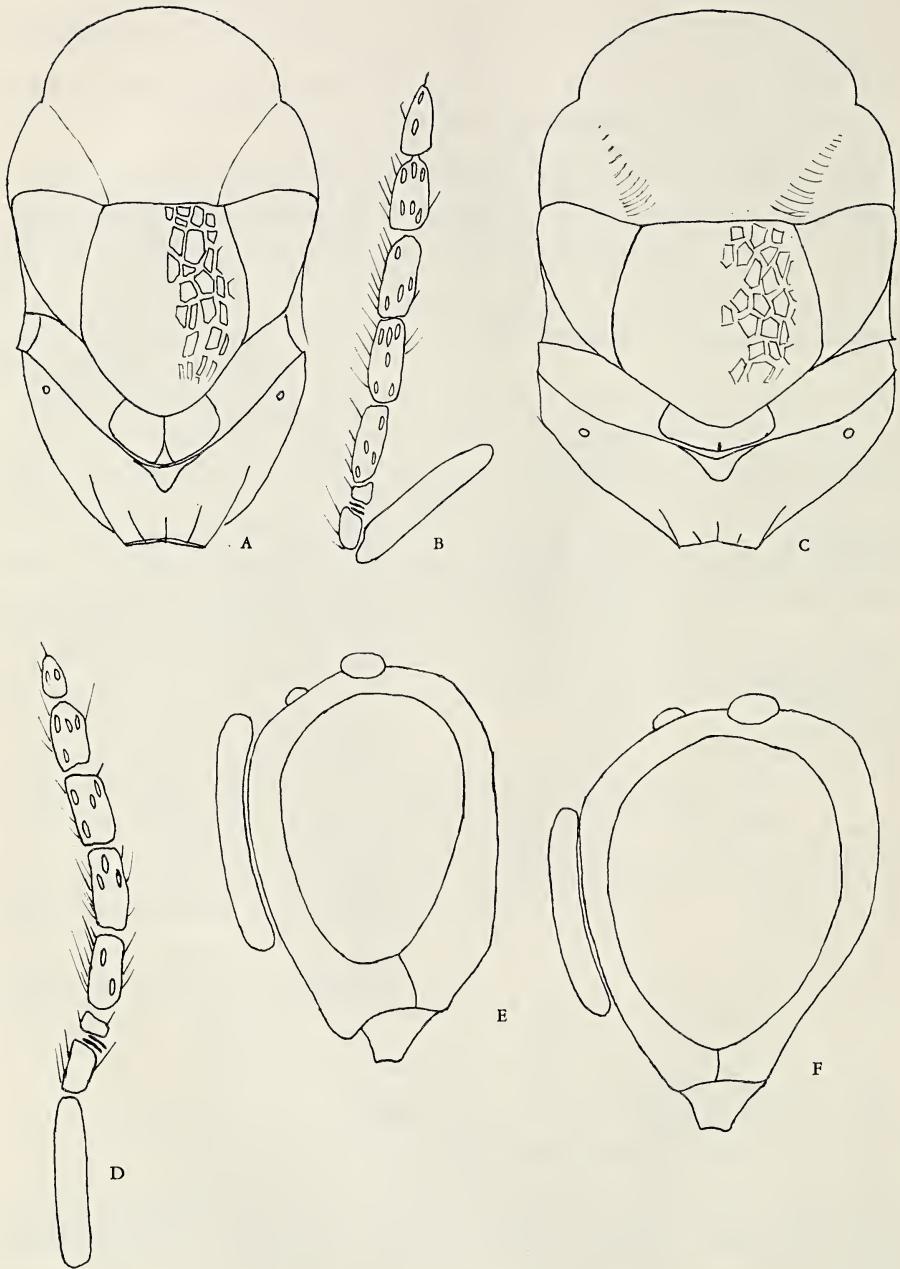


Fig. 1. *Chrysocharis pubens* Del. A. thorax; B. antenna; E. head with scopus.
Chrysocharis latifrons nov. sp. C. thorax; D. antenna; F. head with scopus.

known to me is *Phytomyza heringiana* Hd. and in an attempt to obtain more material of the chalcid I collected 49 *Phytomyza* mines in 's-Graveland in a well kept orchard and 16 in Oud Loosdrecht from apples which had neither been sprayed nor pruned. Two species of parasites emerged from the pupae: *Chrysocharis pubicornis* (Zett.) and the new species, both in rather low percentages. In 's-Graveland 20% of the pupae was parasitized by *pubicornis* and 10% by the new species. In Oud Loosdrecht the percentages were 0% and 8% resp.

Here I give a description of the new species which is distinguished from the other species of *Trichocharis* by its host preference and, morphologically, by the short last antennal segment, the narrow metascutellum, the closed speculum postbasale, and by the long distance between the top of the scapus and the anterior ocellus.

♀ : green with purple reflections in antennal grooves and a brassy sheen on occiput. Back of thorax somewhat bluish. Last abdominal segments bronzy. Antennae black except for scapus which is yellowish white. Legs white, flavous near tarsi, sometimes light brown; last tarsal segment black. Pro- and mesocoxae more or less darkened, metacoxae concolorous with the thorax. Head transverse frontally (5 : 3.5), face very finely reticulated, frons smooth, with one hairline along inner ocular orbit. Frons divided into a vertical part and a more or less horizontal one by the arms of the frontal fork which are visible as sharp margins. Occiput smooth except for the part between ocelli which is reticulated as the face, hind margin sharp. Ocelli large, placed in a triangle of about 90°, POL : OOL = 2 : 1. As seen from above the distance between anterior ocellus and frontal fork is subequal to that between anterior ocellus and hind margin of occiput (9 : 10). Antennal scape reaching frontal fork, apex distinctly remote from anterior ocellus; first three funicle segments of about equal length, last two shorter. Thorax longer than broad (60 : 43), mesoscutum and scutellum rather coarsely reticulate, apex and sides of scutellum smooth, axillae very finely reticulate. Midlobe of mesoscutum as long as scutellum which is nearly quadrate; metascutellum narrow (6 : 1) and smooth with median carina. Shape of propodeum saddle-like in lateral view, as seen from above about half as long as scutellum (22 : 10), smooth with one or two short keels in the middle of the posterior end and ending in a sharp margin. Plicae well developed in posterior half, callus with 6—8 hairs. Pleurae smooth except for the mesepisternum which is a little reticulate. Wings somewhat truncate at apex, not densely haired. Speculum postbasale closed. Petiolus longer than broad (19 : 9) with sharply edged sides in the posterior half. Gaster longer than broad (55 : 35).

Length: 1.65—1.95 mm.

♂ : unknown.

Biology: parasitic in pupae of *Phytomyza heringiana* Hd.

Holotype: Oud Loosdrecht 16.V.1964, in my collection.

Paratypes: 2 ♀ ♀ from Oud Loosdrecht (9.V.1964 and 16.V.1964), 4 ♀ ♀ 's-Graveland (3 and 4.VI.1964, and IX.1963), 1 ♀ Tiel 28.VIII.1962 (leg. H. H. EVENHUIS), in my collection.

3rd. subgenus: *Oxycharis* Del.

Nine species up till now, five of which are represented by Dutch specimens in my collection. Though GRAHAM (1959) used the name *amyite* (Walk.) in his key (couplet 26), its position is not clear in respect to the related species *seingata* Del., *filicornis* Thoms., *brevis* Del. and *seiuncta* Del. Therefore I cannot use the name *amyite* (Walk.).

naenia (Walk.) Naarden, 26.VI.1964 (S. v. HEYNSBERGEN); Amsterd. Waterl. Duinen, 3.VI.1933, Heerlen, 31.VIII.1933, Breukelen, 6.VII.1943 (Bar); 's-Graveland, 12.V.1956, 15.V.1964, 9.X.1963, Ankeveen, 28.VII.1963, 23.V.1964, Geulhem, 18.X.1963, Amstelveen, 24.VII.1955 (G).

host	plant	
?	<i>Ranunculus</i>	Amsterdam, 5 ♀♀, 2 ♂♂ 8-17.V.1921
<i>Phytomyza chaerophylli</i>	<i>Anthriscus silv.</i>	Amsterdam, 2 ♀♀, 8 ♂♂ VII.1923
<i>Liriomyza taraxaci</i>	<i>Taraxacum off.</i>	Amsterdam, 1 ♀, 1 ♂ VII.1922
?	<i>Trifolium</i>	Amsterdam, 1 ♀ ± 14.V.1921
yellow pupa	<i>Sonchus</i>	Amsterdam, 1 ♀ VII.1920
?	<i>Cytisus pod.</i>	Amsterdam, 1 ♀ 6.V.1921
<i>Liriomyza congesta</i>	<i>Vicia cracca</i>	Linschoten, 1 ♀, 1 ♂ VIII.1922 *
<i>Agromyza demeyerei</i>	<i>Potentilla anserina</i>	Haarlem, 1 ♀ 12.V.1920 (de Mey)
<i>Phytomyza anthr. dauciv.</i>	<i>Daucus carota</i>	Hilversum, 1 ♂ 27.VIII.1963
<i>Phytobia labiatarum</i>	?	's-Graveland, 1 ♀ 3.VI.1964 (G)

*) probably another (new?) species: the sculpture of the thorax is much more coarse than in the other specimens.

clinius (Walk.) Driel (O.B.), 6.VI.1964 (S. v. HEYNSBERGEN)

filicornis Thoms (? = *amyite* (Walk.))

host	plant	
?	<i>Trifolium</i>	Laag Soeren, 1 ♀ 23.VII.1926
?	<i>Humulus</i>	Haarlem, 1 ♀ VI.1919
?	<i>Lamium</i>	Amsterdam, 1 ♀ V.1921
Agromizide	<i>Melandrium</i>	Amsterdam, 1 ♀ 5.IX.1919
?	<i>Melandrium</i>	Amsterdam, 1 ♀ 6.VI.1921
<i>Phytomyza aquilegiae</i>	<i>Aquilegia</i>	Linschoten, 1 ♀ ?
?	<i>Stachys silv.</i>	Den Haag, 3 ♀♀ 19.IX-1.X.1919
?	<i>Anthriscus silv.</i>	Bloemendaal, 1 ♂ IV.1921 (de Mey)

4th. subgenus: *Xenocharis* Del.

14 species up till now.

pubicornis (Zett.). Collected in many places throughout the Netherlands by Dr. G. BARENDRECHT, Mr. S. v. HEYNSBERGEN and myself from 26.VI-9.X.

Reared by DE MEYERE from the following plants without mentioning the host (June-Sept.): *Senecio jacobaea*, *Artemisia vulgaris*, *Eupatorium cannabinum*, *Sonchus* sp., *Papaver* sp., *Arctium* sp., *Carduus* sp., *Valeriana officinalis*, *Centaurea* sp., *Chrysanthemum* sp., *Reichardtia*, grass.

host	plant	
Agromyzide	<i>Pyrethrum</i>	Amsterdam, 1 ♂ 13.VII.1919 4 ♂ ♂ VI.1920
<i>Phytomyza ilicis</i>	<i>Ilex</i>	Amsterdam, 1 ♀ 2.V.1922 (?) 1 ♀ V.1920 (de Mey) 's-Graveland, 11 ♀ ♀ 26.IV.-31.VI 4 ♂ ♂ 3-12.V
<i>Napomyza xylostei</i>	<i>Symphoricarpus</i>	's-Graveland, 8 ♀ ♀ 10.VII-9.VIII 15 ♂ ♂ 23.VII-14.VIII (G)
<i>Phytomyza atricornis</i>	<i>Phacelia</i>	Amsterdam, 2 ♂ ♂ ± 18.VIII.1919
„ <i>vinabae</i>	<i>Populus</i>	Den Haag, 4 ♀ ♀ VIII.1919
„ <i>populi</i>	<i>Populus</i>	Den Haag, 1 ♀ 12.VIII.1919
„ <i>periclyonii</i>	<i>Symphoricarpus</i>	Putten, 2 ♀ ♀ VII.1923 (de Mey)
„ <i>beringiana</i>	<i>Malus</i>	's-Graveland, 5 ♀ ♀ 25.III.-4.IV 3 ♂ ♂ 27.III.-4.IV

phryne (Walk.)

host	plant	
<i>Lithocolletis emberizaep.</i>	?	Amsterdam, 1942 (D. PIET) Nijmegen, 24.III.1942 (F. SMIT)
	<i>Symphoricarpus</i>	's-Graveland, 9.VIII.1963
<i>Lithocolletis lautella</i>	<i>Quercus</i>	's-Graveland, 15.VIII.1963 and IX.1963 Geulhem, IX.1963
<i>Lithocolletis schreberella</i>	<i>Ulmus</i>	's-Graveland, 10-18.VIII.1963
<i>Lithocolletis quercifoliella</i>	<i>Quercus</i>	's-Graveland, 31.VII and 3.VIII.1963 Geulhem, 16.V.1964
<i>Lithocolletis sorbi</i>	<i>Sorbus</i>	's-Graveland, 12.VIII.1963 (G)
<i>Stigmella marginicolella</i>	?	Amsterdam, 8.IV.1943 (Vári)

liriomyzae Del.

- 1 ♀ reared from *Vicia cracca*, Linschoten, 4.VIII.1922 (de Mey)
1 ♀ Heerlen, 9.VIII.1933 (Bar)

palustris (Gour.) (1851)

Syn.: ? *Entedon polyzo* Walk (1839)

Chrysocharis depressa Delucchi (1954), new syn.

„ *plana* Delucchi (1954), new syn.

I cannot find any difference between *depressa* Del. and *palustris* (Gour.). *Chrysocharis plana* Del. is separated by DELUCCHI (1954) from *depressa* and *punctifacies* by: (1) the shape of the abdomen, (2) the shape of the petiolus and (3) the color of the scapus.

ad 1. The shape of the abdomen is of no use in these small insects and can vary considerably as can be seen in series of reared animals.

ad 2. I have reared specimens from *Phytobia iraeos* collected in 's-Graveland with the petiolus ranging from quadrate, nearly trapezoid, until 1½ times as broad as long as figured by DELUCCHI in 1954, p. 296, Abb. 18 (*plana*).

ad 3. The color of the scapus is nearly always dark except for the basal half which is white. I have three specimens with a scapus which is nearly wholly dark as in *plana* Del., however, the petiolus in these specimens is quadrate with parallel for- and hind margins and the abdomen is round.

host	plant	
<i>Phytobia iraeos</i>	<i>Iris pseudacoris</i>	Ankeveen, 3 ♀♀ and 5 ♂♂ 18-19-VII.1963 's-Graveland, 11 ♀♀ and 2 ♂♂ 8.VIII-28.VIII.1963 's-Graveland, 1 ♀ 18.VII.1964 Ankeveen, 1 ♀ 18.VII.1964 (G)
?	<i>Iris pseudacoris</i>	Amsterdam, 3 ♀♀ 1.VI.1920
<i>Dizyomyza morosa</i> ¹⁾	<i>Iris pseudacoris</i>	Amsterdam, 1 ♀ 24.I.1924
<i>Dizyomyza morosa</i> ¹⁾	<i>Iris pseudacoris</i>	Abcoude, 1 ♀ 3.VI.1921
<i>Dizyomyza atra</i>	<i>Phragmites</i>	Kortenhoef, 1 ♀ 11.II.1923
?	<i>Phragmites</i>	Kortenhoef, 1 ♀ 1922
<i>Phytobia atra</i>	<i>Phragmites</i>	Amsterdam, 1 ♀ ± 26.VII.1925
<i>Agromyza nigripes</i>	<i>Phragmites</i>	Amsterdam, 1 ♀ spring 1923
?	grass	Haarlem, 1 ♀ 1.VIII.1922 (de Mey)

¹⁾ probably misidentification.

Swept specimens from: Gulpen-Slenaken, 31.VII.1933 (Bar); Ankeveen, 5.VII.1964 1 ♀, 1.IX.1964 1 ♂; 's-Graveland, 13.VI.1964 1 ♀; Gerendal, 19.X.1963 2 ♀♀; Epen (ZL.), 20.X.1963, 1 ♀; Texel (Cocksdoorp), 5.VI.1959 1 ♀.

Postscriptum

After having finished the manuscript I saw Dr. GRAHAM's additions and corrections to his valuable work of 1959 in *Trans. Soc. Brit. Ent.* 15, (9), 1963.

I note two important changes of view in this publication:

1. *Kratochviliana* Buk. is treated as a subgenus of *Chrysocharis* Foerst. s.l.
2. *Chrysocharis viridicoxis* Foerst. is synonymous with *melaenis* (Walk.), though the latter is now the only species in the subgenus *Chrysocharis* s.str. (as used by DELUCCHI in 1954b).

An important datum was sent to me by Drs. K. W. R. ZWART at Wageningen. He reared *Chrysocharis clinius* Walk. from *Haplodiplosis equestris* in *Triticum repens*.

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Ankeveen, G. Graaf Schimmelpenninckhof 2.

Ruil. Wie ruilt een goede „Ter Haar-Keer” voor een complete Cat. Ned. Macrolep., of in elk geval voor een serie, waarin de eerste 7 delen zitten?

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