

A new genus and synonymical notes on *Tenthredinoidea*.

By

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When working out a key to all known genera of the superfamily *Tenthredinoidea*, the author happened to observe that *Tenthredopsis nivosa* Kl. (*novograblenovi* Mal.) ♀ had only one closed middle cell in the hind wings, that the subapical tooth of the claws was longer and larger than the end tooth and that the first abdominal segment was undivided. The nervation of the wings and the claw character are quite constant (43 specimens examined). Wondering if the species could not fall within the limits of the genus *Aglaostigma* Kby I asked Mr. Robert B. Benson of the British Museum to have the kindness to examine the type of *Aglaostigma*. His answer made it clear to me that *Aglaostigma eburneiguttata* Kirby from Angara, Siberia, is the same species as my *Tenthredopsis novograblenovi* var. *discolor* (Arkiv för Zool. Stockholm 1931, Bd. 23 A, N:r 8), and by sending him a specimen I enabled him to confirm the synonymy of the two names. By comparing *T. novograblenovi* with the type of *Perineura alpina* Thoms. I had last year found those two to be synonyms, but *alpina* Thoms. is, according to Enslin, a syn. of the older *nivosa* Kl. The synonymy is accordingly as follows:

Aglaostigma nivosa Klug. (*Perineura alpina* Thoms., *Tenthredopsis novograblenovi* Malaise) and var. *eburneiguttata* Kby (*discolor* Mal.).

To separate *Aglaostigma* Kby and *Tenthredopsis* O. Costa, the following key may be used:

1. The subapical tooth of the claws longer and broader than the apical tooth. Hind wings of the ♀ with only one (the second) closed middle cell, which is broader than long, hind wings of the ♂ with marginal nervure. Head behind the eyes rounded, without raised margin (Fig. 1). Middle- and North Europe, Siberia to Kamtchatka. (Genotype: *A. nivosa* Kl. var. *eburneiguttata* Kby).
Genus *Aglaostigma* Kirby.

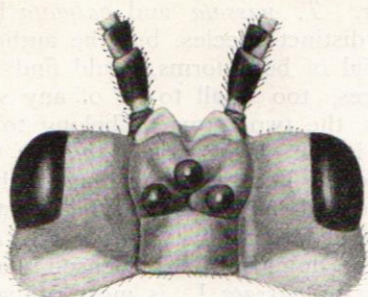


Fig. 1. Head of *Aglaostigma nivosa* Kl. seen from above.

2. The subapical tooth of the claws shorter and smaller than the apical tooth. The hind wings of the ♂ either with marginal nerve, or, as in the ♀, with two long, closed middle cells. Head behind the eyes always with raised, sometimes very sharp, margin (Fig. 2 a, b). Holarctic. (Genotype: *T. tessellata* Kl.).

Genus *Tenthredopsis* O. Costa.

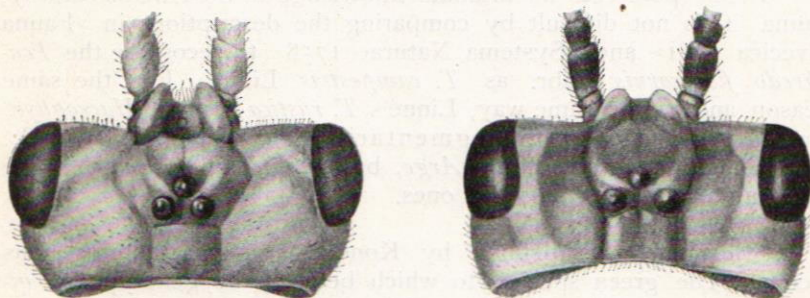
(*Ebolia* O. Costa, *Perineura* auct. nec Htg., *Neopus* Macgill.)

- a) Clypeus in the middle deeply, arcuately emarginated.

Subgenus *Tenthredopsis* O. Costa s. str.

- b) Clypeus truncate or very shallowly subemarginated.

Subgenus *Thomsonia* Konow (*Eutenthredopsis* Enslin).



a.

b.

Fig. 2. Head seen from above of:

- a. *Tenthredopsis auriculata* Thoms. (from type).
b. " " *nassata* L.

Such a striking colour dimorphism as between *Aglaostigma nivosa* Kl. and its var. *eburneiguttata* Kby is not quite unique. In the genus *Tenthredopsis*, *T. litterata* Geoffroy is known to have a pale var. *concolor* Knw, and *T. nassata* L. is similarly a pale var. of

T. palmata Geoffr. *T. nassata* and *palmata* have hitherto been considered as two distinct species, but the author, after comparing a very big material of both forms, could find nothing but minor sculptural differences, too small to be of any specific value. He therefore considers the two forms to belong to the same species, and as *nassata* L. is the oldest name, *palmata* Geoffr. is a colour variety of that species. For the same reason, the author considers the following species, till now recognised as distinct, as synonyms or colour varieties of *nassata* L.: *sordida* Kl., *inornata* Cam. and *fenestrata* Knw. The opinion of Mr. Benson that *T. coqueberti* Kl. also is a synonym of *nassata* L. is most probably correct. It is probable that several others of the *Tenthredopsis* of Europe also are syn. of *nassata* L.

T. nassata L. var. *palmata* Geoffr. was named *T. campestris* L. by Enslin and earlier authors until Morice examined the *campestris* type and found it to be a *Pamphilius*. In his description of *Tenthredo campestris*, Linné says: »antennis septemnodis» (he did not count scape and pedicellus) and hence we may infer that Morice did not examine the real type but a substitute for it, perhaps changed by Linné himself after the first one was lost. Everybody examining supposed types must always keep well in mind the rule already formulated by C. G. Thomson, viz. that if the characters of a »type» are contradictory to the description, with due consideration paid to the technical possibilities and customs at the time of description, then it is not the type.

If one possesses an intimate knowledge of the Swedish sawfly-fauna it is not difficult by comparing the descriptions in »Fauna Svecica 1761» and »Systema Naturae 1758» to recognise the *Tenthredo flavicornis* Fabr. as *T. campestris* Linné. For the same reason and in the same way, Linné's *T. rustica* is not a *Macrophya*, but *Arge atrata* Forst. (segmentaria Panz.), and *T. rosae* L. not as Morice wants it an *Arge*, but *Athalia* sp? (*rosae*?). The Linnéan names are the valid ones.

Rhogogaster as defined by Konow is a most heterogenous genus. The green species, to which belongs the genotype *R. viridis* L., are hardly to distinguish from the genus *Tenthredo* L. (*Tenthredella* Rhw.) and could at most be regarded as a subgenus of *Tenthredo*, because there are every kind of intermediate links between the two genera and, even the principal character for distinguishing the two, the convergence of the inner eye margins is only a question of gradation and in *R. picta* Kl. different for ♂ and ♀.

The genus *Allantus* Panz., Jur., and also *Sciapteryx* Steph., can only in their extreme forms be distinguished from *Tenthredo*

(Tenthredella). The present author therefore is inclined to consider *Rhogogaster* Knw s. str., *Tenthredo* (Tenthredella), *Allantus* and *Sciapteryx* as a collective genus under the name *Tenthredo* L. s. lat. But as all the above-mentioned genera are very large, some of them containing hundreds of species and several subgenera, described from the whole northern hemisphere, it is more practical to keep the big collective genus divided in smaller ones. The other, not green *Rhogogaster* species have to be divided in two genera, *Laurentia* O. Costa and a new one, *Parallomma* n. gen. The differences between them are summarized in the following key:

1. The lower part of the inner margins of the eyes shallowly, roundly emarginated so that the eyes seem more converging at the lower end than higher up. The anterior margin of the clypeus in the middle deeply, arcuately or subrectangular emarginate, its lateral lobes usually truncate and with more or less sharp pointed and distinct teeth.¹ Supraantennal tubercles always absent. Head strongly shining. End tooth of the claws longer than the subapical one. Colour always light green with black markings. Holarctic. (Genotype *R. viridis* L.).
Genus *Rhogogaster* Konow s. str.
(*Rhogogastera* Knw).
- The inner margin of the eyes straight or rounded, but not emarginate. Clypeus truncate 2
2. The main direction of the inner margins of the eyes, when seen from in front, quite parallel. Hind wings of the ♂ without marginal nervure. Antennae hardly longer than the abdomen, filiform, not compressed. The subapical tooth of the claws so long as and somewhat broader than the end tooth. Head behind not or indistinctly margined. Central Europe. (Genotype: *P. lichtwardti* Knw).
Genus *Parallomma* n. gen.
- The main direction of the inner margins of the eyes faintly but distinctly convergent. The subapical tooth of the claws considerably longer and broader than the end tooth. Holarctic. (Genotype: *L. craveri* A. Costa = *aucupariae* Kl.).
Genus *Laurentia* A. Costa.
(*Homoeoneura* Ashm., *Kincaidia* Macgill.,
Astochus Macgill., ?*Bivena* Macgill.)

¹ *Rhogogaster picta* Kl. and *R. nigropicta* Smith (*nipponica* Rhw.) have the side lobes of the clypeus rarely truncate or toothed, but such specimens do occur, f. inst., in the private coll. of the author, and both are therefore considered to belong to *Rhogogaster* Knw s. str.

In the original description of the genus *Neopus* Macgillivray (Canad. Entom. 46, p. 138, 1914), »the basal plates» are said to be divided. Otherwise the description fits the genus *Tenthredopsis* Costa. Two years later, the same author in a key (Guide to Insects of Connecticut, Hartford, Conn. 1916, p. 80) places the genus *Neopus* in the division: »Basal plates not divided in the middle», and the only species is the genotype. It is quite evident that the genus *Neopus* is founded by mistake and when the author found out his mistake, he tried to force out other characters to save the new name. Mr. Macgillivray has already founded three new genera on abnormal specimens, *Bivena*, *Astochus* and *Kincaidia*. The genus *Bivena* was founded on an abnormal *Perineura americana* Prov. as pointed out by Ashmead already in 1898, when examining the type. A. says about it: »It also bears a superficial resemblance to *P. delta* Prov., but the anal cell in the latter is not contracted, but has a cross-nervure.» I have not been able to find any explanation from Mr. Macgillivray either concerning *Bivena* or *Neopus*, but in 1916 he still keeps the genus *Bivena* alive, but now with *delta* Prov. included. The author takes no notice of criticism and seems to hope that by constant referring to the »new genera», he may induce others to think there must be something in them. The genera *Astochus* and *Kincaidea* were sunk by Rohwer (Proc. Ent. Soc. Wash. 20. 1918, p. 157), but in his »Genotypes of the Sawflies . . . 1911» Rohwer has put *Homoconeura* Ashmead as synonym to *Bivena* Macg. because they both have *Tenthredo delta* Prov. as genotype. Whether Ashmead or Rohwer are right does not matter much as long as *Bivena* Macg. is a synonym, either to *Perineura* Htg or *Laurentia* Costa.

What is said about *Neopus* Macg., applies also to *Leucopelmonus* Macg. In the original description (Guide to Ins. of Conn. 1916, p. 80), although not indicated as such, *Leucopelmonus* is put together with *Rhogogaster* Knw under the subdivision »Basal plates divided at the middle by a longitudinal suture». Nevertheless in the diagnose of the new genus *Leucopelmonus* (Can. Ent. 51, 1919, p. 33—35) Macgillivray says: »Abdomen with the basal plates not divided at middle.» and further »This genus is related to *Tenthredopsis* and *Rhogogaster*, from the former of which it is separated by having the basal plates undivided and from the latter by lacking the free part of R₄, and the transverse part of M₂ in the hind wings of both sexes» (no closed cells). As everybody knows, in *Tenthredopsis* the first abdominal segment (basal plate) is not divided, and as Rohwer has shown, Macgillivray has already in 1914 founded a new genus *Astochus* on a *Rhogogaster* with abnormally not closed cell in the hind wings.

The papers of Macgillivray were apparently never intended to be used in any other way than bound in a nice cover for show in the library, and it is best not to pay any consideration to these new names of his. With very few exceptions all his publications on sawflies are among the poorest that have gone to print in that field during recent years, and science had surely been able to bear the loss if most of his work had never been published.

The genus *Zalagium* Rohwer (Proc. U. S. Nat. Mus. 43, p. 216, 1912) is separated from *Lagium* Knw by the following characters: »Eyes closer together at the clypeus than the length of the eye; shorter malar space, long clypeus and labrum; different punctuation and (?)aulation of head, and the different genitalia of male . . .». Separated from *Macrophya* by: »the long antennae, which are flattened and constricted at the joints; the occiput not being carinated; and the normal hind coxae.» On page 213 he says: »The Japanese species of the genus (*Lagium*) form a distinct group, but are congeneric with the type of the genus (*Lagium* Knw)».

Careful measurement under a Leitz binocular (with microscale and enlarging 46X) has given the following measurements. (The first number being the length between the eyes at the clypeus, the second one the maximal length of the eye):

Lagium atroviolaceum Nort. ♂ (Illinois) = 64 : 63; ♀ (N. Jersey) = 68 : 60.

Lagium nigropectus Kby (Japan) ♂ = 60 : 65; ♀ = 78 : 78.

The Japanese ♂ has »shorter» malar space, »long» clypeus and labrum and the eyes nearly 10% closer together than in the ♀ and is consequently a *Zalagium* whereas the ♀ remains in the genus *Lagium*. *L. nigropectus* Kby has carinated occiput but not *L. platycerus* Marl. and *Macrophya rohweri* Fors. *M. tenuicornis* Rhw. and *maculicornis* Cam. have long and flattened antennae. The genus *Zalagium* Rohwer must therefore be sunk as a synonym of the older *Lagium* Knw. It is possible that the author felt his new genus could only apply to one sex because he did not choose *Z. cinctulum* North. of which both sexes are known, but *Z. clypeatum* Rhw., a species of which only a single male is known, as genotype for *Zalagium*.

It is possible that the Japanese *L. platycerus* Marl. and *L. nigropectus* Kby may be distinguished from the American species by the shorter hind coxae. In none of 8 Japanese specimens of both species (♂ and ♀) the hind femora reach the apex of the abdomen, but the available American material is too limited to decide if this character is constant. In that case a new name for the Japanese group must be chosen, and I venture to propose the name *Lagidium* new subgenus.

In the Can. Entom. 42 Febr. 1910 p. 50 Rohwer has brought together four genera belonging to *Emphytinae*: *Cockerellonis*, *Prototaxonus*, *Epitaxonus* and *Hemitaxonus* as closely related. A year later (Proc. Ent. Soc. Wash. XIII p. 224) he places *Hemitaxonus* and *Eriocampidea* amongst the *Selandrini*, and *Prototaxonus* to *Strongylogasterini*. Macgillivray (H. Men. of Conn., Hartford 1916, p. 45) has referred *Hemitaxonus* and *Epitaxonus* to the *Emphytinae* and Ashmead himself refers *Eriocampidea* to *Selandrini* and *Hemitaxonus* to *Strongylogasterini*.

The key given in Can. Ent. 42 p. 50 separates the gen. *Cockerellonis* from the other genera on account of the simple claws and the emarginated clypeus. In the original description of *Hemitaxonus*, Ashmead describes the claws as simple and the clypeus as truncate or at the most subemarginated. The European species *mixtus* Thoms. nec Klug (strutiopteridis Fors.¹) has emarginated clypeus and simple claws, and is considered by Enslin to be a true *Hemitaxonus*, and Rohwer himself confirms this point of view by describing in the same year the same species as a new *Hemitaxonus* from Japan. It is evident that in the gen. *Hemitaxonus* the claws may be simple or have a minute subapical tooth and the clypeus may be truncate or emarginate, characters that usually are not quite constant and therefore considered to have only a specific, not a generic value. If the third transverse cubitus being oblique or straight is the only character, that remains this also has only specific value and *Prototaxonus* Rohw. is a synonym of the older *Hemitaxonus*. That *Epitaxonus* also is a synonym, Rohwer has already (Proc. U. S. Nat. Mus. 41 1911 p. 397) pointed out. When the claw-character has no importance, rests as the only difference between *Cockerellonis* and *Hemitaxonus* the cross-vein of the lanceolate cell, that is either perpendicular or slightly oblique, a difference too small to have even specific character. In the »Genotypes of the sawflies p. 109», Rohwer shows that *Eriocampidea* and *Cockerellonis* are isogenotypic and as *Eriocampidea* Ashm. is the oldest name it must be used.

The genus *Senoclidea* Rohwer, founded on two single males from Java, is in my opinion a synonyme of *Nesotomostethus* Rohwer, although the authors say that it — »has the antennae and metapleurae different» — (in what way?). Scapus and pedicellus are of the same shape, the third joint is longer than the fourth (Marlatt adds even »considerably»). In *Senoclidea* the antennae are »thickening apically» and in *Nesotomostethus* cylindrical, too small a difference to have more than specific value. The only description given of the metapleurae of *Senoclidea* is »metepimeron smaller

¹ New synonymy based on the study of Thomson's type.

than the metepisternum», and it fits as well *Nesotomostethus*. To his new genus *Senoclidea*, Rohwer adds *Monophadnus decorus* Knw which is an error, because that species has the claws lobed basally and cleft apically. It belongs to *Zasenoclia* Rohwer. The insufficient description of the claws in the generic description: »tarsal claws robust, cleft apically» explains why later authors as Forsius and probably also Takeuchi misunderstood the genus *Senoclidia* Rhw. A careful reading of the description of *S. amala* Rhw. (the genotype of *Senoclidea*), *Parazarca* Ashmead in Rohwer's redescription, and of the genus *Zasenoclia* Rhw. shows that the author means that the claws are not lobed basally but with two subapical teeth.

As genotype of *Prostromboceros* Rohwer 1912 is given *Stromboceros melanopterus* Rhw., which is also the type of *Eustromboceros* Rohwer oct. 1911, but the description of *Str. melanopterus* does not fit the generic description of *Prostromboceros* but is contradictory to it, and therefore *Str. melanopterus* cannot be the type of *Prostromboceros*. The type of *Prostromboceros* is *Str. (Eustromboceros) leucostomus* Rhw. The very poorly »described» genus *Neoanapeptamena* Strand (Arch. f. Naturgeschichte, Suppl. 2, p. 143, Septemb. 1911), which name is not given in the Zool. Record, seems to me, chiefly on account of the oblique basal vein, with some hesitation to be the same genus as *Prostromboceros* Rhw. 1912, reducing the latter name to a synonym.

I have the undescribed ♂ of *Neoanapeptamena leucostoma* Rhw. together with the ♀ from Mexico in my private collection. This ♂ has the 3:rd, 4:th and 5:th abdominal segment red, but is otherwise like the ♀. Rohwer does not mention the hairless, differently coloured sensory organs on the under side of the four last and in the apex of the fifth antennal joints in both sexes. Such organs are to be found in different tropical genera as *Waldheimia* Brullé, *Nesotaxonus* Rhw., *Beleses* Cam., *Abeleses* Ensl., Indian *Xenapates* Cam. and others. I propose the name »Antennal organs» for them.

Rohwer (Proc. U. S. Nat. Mus. 41, p. 399; 1911) states without explaining the reasons that the genotype of *Aomodictium* Ashmead (*A. abnormis* Prov.) is an *Ametastegia* O. Costa. I have not seen this species but through the kindness of Robert B. Benson of the British Museum I have examined a specimen of *Aphilodyctium rubriceps* Cress. ♀ (Det. Ross 1930), which species I consider to be an *Ametastegia* too. It is true that it differs somewhat from the palaeartic members of that genus, but the differences are limited to characters known as variable and to have only specific, not generic value. The emargination of the clypeus f. i. is somewhat deeper and the cross-nervure of the lanceolate cell more oblique in *rubriceps* than in the palaeartic species. The statement of

Ashmead about *Aphilodyctium* »... the malar space ... distinct, as long as or longer than the pedicel.» is a mistake, the malar space is in *rubriceps* distinctly shorter than the pedicellus, about as long as the diameter of an ocellus and exactly of the same length as in an palaeartic *Ametastegia* of the same size.

In my opinion *Aphilodyctium* Ashm. 1898 is another syn. of *Ametastegia* O. Costa 1882.

Herbert H. Ross has (Can. Ent. LXIV p. 41, 1932) created a new genus, *Lycaotella*, on characters having at the most specific, but not generic value.

As the main character the relative length of the 2:nd and 3:rd cubital cells is given. The two cells are said to be »about equal» in *Lycaota*, and »distinctly longer» in *Lycaotella*, but the explanatory drawings reveal the fact that the measure »about equal» of Mr. Ross has an unexpected range of variation. A measurement of the respective cells on the drawings gives for *Lycaota* the figures 8,1 mm for the 2:nd cubital cell, and 11,6 mm for the 3:rd, that is roughly estimated = $\frac{2}{3}$ where they are supposed to be about equal, and for *Lycaotella* the cells are respectively 6,7 and 9,5 mm. In both cases the maximal length of the cells (between the two lower corners) is given.

The stout hind tarsi of the ♀ of *Lycaotella* are most probably related to the oviposition in some hard and slippery plant, where it is difficult to keep the footing when inserting the saw (f. i. buds of *Symphoricarpos*). As the ♂ does not have the stout tarsi, it is a sexual character which should not be used to found a genus on.

The direction and the relative length of the veins near the borders of the wings are in sawflies subject to considerable variation. A genus founded on such characters is worthless, and in this case to separate two species from a genus of three (*Lycaota*), leaving only the genotype, must be considered superfluous.

In my opinion *Lycaotella* Ross is a synonyme of the older *Lycaota* Knw.

I regret to say that I have myself described a new genus *Pontopristia* based on the main character of the saw-sheath being long and threefurcated and, most important, directed straight upwards, perpendicularly to the main direction of the abdomen. To my excuse must be said that I had five species in many specimens and later found three more, all separated by this character from the multiform and very critical genus *Pontania* Knw, but as this difference exists only in the ♀ I do not think it advisable to retain *Pontopristia* as a genus but rather as a subgenus of *Pontania* Knw. In the manuscript *P. suavis* Ruthe var. n. *fusca* (Mal.) was given as genotype, but in printing the »var. *fusca*» was omitted. Being

at that time abroad on a scientific expedition to Kamtchatka, I could not correct the mistake in time, but take this occasion to point it out.

The only difference given between the genus *Hypargyricus* Macgillivray 1908 and *Periclista* Konow 1886 is that the third joint of the antennae is in *Hypargyricus* »subequal» with the fourth and in *Periclista* a little longer. If there were many species in the genus, this character could be used conveniently to separate a subgenus, but as this is not the case and the sole character is a variable one, I consider the genus *Hypargyricus* Macgill. to be a synonym of the older *Periclista* Knw.

It is still less legitimate to separate the genus *Neopareophora* Macgill. from *Rhadinoceraea* Knw only because the claws are simple, while in *Rhadinoceraea* they are simple or have a small subapical tooth, a character proved not to be constant. The genus *Neopareophora* Macgill. therefore, must be sunk.

Exactly the same that is said about *Neopareophora* and *Rhadinoceraea* is valid for *Aphymatocera* Sato and *Phymatoceroopsis* Rohwer. The last name is the oldest one.

The *Selandria rudis* Norton which Macgillivray adds to his new genus *Paracharactus* has the malar space longer than half the diameter of an ocellus, the claws have a very minute subapical tooth and the third antennal joint is shorter than the fourth. Until it is proved that the genotype *Paracharactus obscuratus* Macgill. has not a shorter malar space, I consider *Paracharactus* Macgill. an other synonym of *Rhadinoceraea* Knw, and if it is really shorter, then it ought to be considered a subgenus of *Monophadnus* Htg with the short third antennal joint as chief character.