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ANNOTATED LIST OF SAWFLIES (HYM., SYMPHYTA) FROM KANTON
UNTERWALDEN, CENTRAL SWITZERLAND

Part 3 (with 4 illustrations)

A.D. Liston & Bruno Peter

This paper gives records of sawflies collected by Dr. L. REZBANYAI (Luzern), W. LINSENMAIER (Ebikon), PETER and LISTON and is supplementary to LISTON (1980a, 1981). Specimens collected by the first three gentlemen were determined by PETER, those collected by LISTON were determined by the collector. 55 species have not previously been published as occurring in this canton, 6 also being newly published as Swiss. Additional records of species already noted in LISTON (l.c.) are given.

Dr. REZBANYAI, W. LINSENMAIER and B. PETER have investigated numerous localities not visited by the other collector. While A.D.L. has collected only in July in Unterwalden, the other entomologists have mostly been active in June. Many sawflies are exclusively May and June fliers, and these species had not been encountered by A.D.L. In July 1980, however, many normally spring insects were still to be found. Examples of species found by Dr. REZBANYAI and PETER in June and also by A.D.L. in July 1980 are Zaraea aurulenta (SICHEL), Z. fasciata (L.), Dolerus niger (L.), Empria klugii (STEPHENS), Aglaostigma pinguis (KLUG), Pachyprotasis variegata (FALLÉN) and Macrophya sanguinolenta (GMELIN). Considering these "late" specimens, the absence of arctic-alpine Nematinae at the Trübsee and Haldigrat in July 1980 was both surprising and disappointing. These species tend to be more abundant in late spring at low alpine levels, so one would have expected them to be more numerous in a late season. Obviously, the unusual occurrence of spring sawflies in July, observed only in the lower areas, may not simply be due to delayed emergence, for the temperatures over May and June were not unusually low. The long period of wet weather may have prolonged the life span of the adult insects which had already emerged.

Localities

See "Part I" of this work. Altitudes are now given after each record. At only one locality (Jochpass, above Trübsee, 2209 m) did A.D.L. find no sawflies at all in 1980. This despite reasonably good weather conditions and the fact that south-facing slopes were investigated. At this level large patches of

Salix reticulata L. and *S. herbacea* L. may be found. These were searched and swept for arctic-alpines and galls, but without success.

Previously the name Ende der Welt (near Engelberg) has been used for the area which we hereafter call Horbis.

PAMPHILIIDAE

Cephalcia PANZER

C. arvensis PANZER

1 ♂, Horbis (1100 m), OW, 20.vii.1980 (LISTON), 2 ♂, Haldigrat (2000 m), NW, 23.vii.1980 (LISTON).

Haldigrat specimens were feeding at flowers of *Alchemilla alpina* agg. along with other sawfly species, many of which were apparently lowland vagrants. Some stunted *Picea* do grow just below the ridge however. BURZYŃSKI (1961) gives a list of flowers visited by *Acantholyda erythrocephala* (L.) (Cephalciinae) which includes *Alchemilla*. The range of flowers which *A. erythrocephala* will visit is apparently very wide, far wider than in flower frequenting Tenthredinidae.

Pamphilius LATREILLE

P. aurantiacus (GIRAUD)

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 13.vi.1977 (REZBANYAI). 1 ♀, Niederrickenbach Ahorn (1300 m), NW, 23.vi.1976 (REZBANYAI). 3 leaf-rolls on *Acer platanoides* L., Wiesenberg (1000 m), NW, 20.vii.1980 (LISTON).

P. balteatus (FALLÉN)

1 ♀, 1 ♂, Trübsee (1800 m), NW, 18.vii.1980 (LISTON).

Larva a leaf-roller on *Rosa* species. Across temperate and boreal Palaearctic. Previously recorded in Graubünden (BENSON, 1961a).

P. stramineipes (HARTIG)

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 23.vi.1976 (REZBANYAI).

Larva a leaf-roller on *Rosa* species. European species. Previously recorded in Zürich (STECK, 1893).

P. vafer (L.)

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 23.vi.1976 (REZBANYAI).

MEGALODONTIDAE

Megalodontes LATREILLE

M. klugii (LEACH)

1 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 23.vi.1976 (REZBANYAI).

Larva a web-spinner on Umbelliferae (*Laserpitium*, *Peucedanum*, *Sesili*). Central and Southern Europe and Turkey (BENSON, 1968). Previously re-

corded from Graubünden (BENSON , 1961a), Jura, Bern, Wallis, Zürich (STECK, l. c.).

CEPHIDAE

Cephus LATREILLE

C. pygmeus (L.) (= pygmaeus, missp.)

1 ♂, Lopper (450-800 m), NW, 31.v.1947 (LINSENMAIER).

Recorded by STECK (l. c.) as widespread in the Swiss Plain but scarce in the uplands. Larva bores in stems of Gramineae, particularly cultivated wheat, barley and rye. West Palaearctic, east to South-West Asia and introduced to North America.

ARGIDAE

Arge SCHRANK

A. gracilicornis (KLUG)

1 ♂, Horbis (1100 m), OW, 26.vii.1980 (LISTON). 1 ♂, Dallenwil Buchholz-
bach (460 m), NW, 27.vii.1980 (LISTON).

Larva on Rubus and Rosa. Previously recorded from Zürich (DIETRICH, 1863), Bern (STECK, l. c.). All Europe, Transcaucasia, Siberia, Japan.

CIMBICIDAE (4 species found in subalpine Unterwalden are illustrated)

Corynis THUNBERG

C. obscura (FABRICIUS) (fig. 1, ♂)

1 ♂, Horbis (1100 m), OW, 20.vii.1980 (LISTON). 1 ♀, 1 ♂, Alpboden-
Brisen (1200 m), NW, 23.vii.1980 (LISTON).

Larva on Geranium silvaticum L. Europe, Turkey, Transcaucasia and Siberia. This species has a wider European distribution than other Corynis species, which are concentrated in the south-east. C. obscura reaches Finland (SAARINEN, 1950). Previously from the Jura, Wallis (STECK, l. c.) and Graubünden (BENSON, 1961a). STECK notes that this species has a similar distribution to C. crassicornis (ROSSIUS), but that it reaches higher in the mountains. STECK also records its liking for south-facing localities. Our records, all from south-facing slopes, support his observations. All three specimens were swept from Geranium.

It is interesting to note that Corynis crassicornis (ROSSIUS), recorded as a frequent visitor to Ranunculus flowers by BENSON (1951-58), was recorded by STECK (l. c.) as being common on Geranium flowers. A similar situation exists in Cuneala ZIRNGIEBL, the adults of which are usually, and invariably in C. koehleri, associated with Geranium flowers. There are records of C. longipes (KONOW) collected from Ranunculus flowers, however (BENSON, 1968).

STECK (l. c.) gives May-June as the flight season for this species, so it would seem to be another example of 1980's late group of insects.

Zaraea LEACH

Z. aurulenta (SICHEL) (fig. 2, ♂)

1 ♂ , Niederrickenbach Huetlerentobel (1200 m), NW, 23.vi.1976 (REZ-BANYAI). 2 ♂ , Horbis (1100 m), OW, 20.vii.1980 (LISTON).

Specimens from Horbis were taken from Umbelliferous inflorescences. Larval foodplant of this species is Lonicera. Restricted to Central European Alps. Previously from Neuchatel, Wallis, Bern (STECK, l.c.) and Graubünden (BENSON, 1961a).

Z. fasciata (L.) (fig. 3, ♀)

2 ♀ , Niederrickenbach Huetlerentobel (1200 m), NW, 23.vi.1976 (REZ-BANYAI). 1 ♀ , Rinderbühl-Stockhütte (1300 m), NW, 22.vii.1980 (LISTON).

Recorded by STECK (l.c.) as common throughout the Swiss plain and foothills. Larva on Lonicera species, Symphoricarpus, Leycesteria, Europe, Transcaucasia, N. Iran, Siberia and Japan.

Abia LEACH (fig. 4, A. candens KONOW ♀)

A. fulgens (ZADDACH)

1 ♀ , Bannalpsee (1600 m), NW, 26.vii.1980 (LISTON).

STECK (l.c.) records fulgens from Engelberg, OW, collected by FREY-GESSNER "14.vii.". The foodplants of this species are not known. Pyrenees, Alps, Carpathians and Caucasus. Subalpine species, previously from Bern (STECK, l.c.) and Graubünden (BENSON, 1961a).

Trichiosoma LEACH

T. lucorum (L.)

1 ♀ , Alpboden-Brisen (1200 m), NW, 23.vii.1980 (LISTON). 1 ♂ , Chlevenalp (1500 m), NW, 25.vii.1980 (LISTON).

Larva on Betula and Salix. Northern and Central Europe, Urals, Siberia, Sakhalin, Japan and China. Recorded from Zürich (DIETRICH, l.c.), Bern and Wallis (STECK, l.c.) and Graubünden (BENSON, 1961a). Normally flies earlier in year.

DIPRIONIDAE

Monoctenus DAHLBOM

M. obscuratus (HARTIG)

1 ♂ , Niederrickenbach Ahorn (1350 m), NW, 9.vi.1978 (PETER).

Larva on Juniperus communis L. Distributed through Scandinavia to the moors of North Germany (HOOP, 1964). Reappears in the Alps at subalpine levels. Previously from Graubünden (BENSON, 1961a) and Wallis (BENSON, 1955). M. obscuratus often occurs with M. juniperi (L.) in Central and Northern Europe, but the former has a more restricted range, not occurring in the British Isles or Southern Europe.

TENTHREDINIDAE

Selandriinae

Selandria LEACH

S. serva (FABRICIUS)

1 ♂, Giswil Hahnenried (470 m), OW, 22. viii. 1976 (REZBANYAI). 1 ♀, 1 ♂, Dallenwil Buchholzbach (460 m), NW, 27. vii. 1980 (LISTON).

Aneugmenus HARTIG

A. temporalis (THOMSON)

1 ♀, Lopper Telliwald, NW, 16. vi. 1974 (LINSENMAIER).

Larva polyphagous on pteridophytes. Temperate Palaearctic. Parthenogenetic species. Previously from Graubünden (BENSON, 1961a).

Strombocerus KONOW

S. denticatulus (FALLÉN)

1 ♂, Trübsee (1800 m), NW, 18. vii. 1980 (LISTON)

Nesoselandria ROHWER

N. morio (F.)

Comments given in LISTON (1980a) under this name refer to Birka cinereipes (F.) and vice versa. New records for N. morio are as follows.

1 ♂, Beckenried Lielibach (480 m), NW, 18. vii. 1980 (LISTON).
1 ♀, Wolfenschiessen (470 m), NW, 19. vii. 1980 (LISTON).
1 ♀, 1 ♂, Horbis (1100 m), OW, 26. vii. 1980 (LISTON).
2 ♀, 1 ♂, Dallenwil (460 m), NW, 27. vii. 1980 (LISTON).
1 ♀, Dallenwil Buchholzbach (460 m), NW, 28. vii. 1980 (LISTON).

Dolerus PANZER

D. aeneus HARTIG

2 ♀, 5 ♂, Chlewen Tannibühl (1580 m), NW, 9. vi. 1978 (PETER).
2 ♂, Chlewen Bärenfallen (1580 m), NW, 9. vi. 1978 (PETER).
1 ♀, Niederrickenbach Ahorn (1350), NW, 9. vi. 1978 (PETER).
1 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 23. vi. 1976 (REZBANYAI).
2 ♀, 8 ♂, Haldigrat Giri (1900 m), NW, 18. vi. 1977 (REZBANYAI).
2 ♀, 1 ♂, Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON).
2 ♂, Rinderbühl-Stockhütte (1300 m), NW, 22. vii. 1980 (LISTON).
1 ♀, Wiesenberg (1000 m), NW, 10. vii. 1980 (LISTON).

D. aericeps THOMSON

1 ♀, 1 ♂, Fräkmüntegg, NW, 17. vii. 1980 (LISTON). 1 ♀, Wirzweli (1100 m), NW, 27. vii. 1980 (LISTON). 1 ♀, Wiesenberg (1000 m), NW, 20. vii. 1980 (LISTON).

D. cothurnatus LEPELETIER

1 ♀, 1 ♂, Wiesenberg (1000 m), NW, 20. vii. 1980 (LISTON).

Larva on Equisetum species. Europe, Transcaucasia and Siberia. Previously from Basel, Bern (STECK, l. c.) and Zürich (DIETRICH, l. c.).

D. niger (L.)

1 ♀, Chlewen Bärenfallen (1580 m), NW, 9. vi. 1978 (PETER).

2 ♀, Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON).

Larva on various Gramineae (Triticum, Secale, Avena and Hordeum). Throughout Central and Northern Europe. Previously from Bern, Zürich, Glarus, Graubünden (STECK, l. c.).

D. nigratus (MUELLER)

1 ♀, Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON).

Larva on Gramineae (Holcus and Poa). All Europe, and Turkey. Previously from Bern, Aargau, Zürich (STECK, l. c.).

D. nitens ZADDACH

1 ♀, Niederrickenbach Ahorn (1350 m), NW, 9. vi. 1978 (PETER).

2 ♀, Haldigrat (2000 m), NW, 23. vii. 1980 (LISTON).

D. sanguinicollis (KLUG)

2 ♀, Haldigrat Giri (1900 m) NW, 18. vi. 1977 (REZBANYAI).

Larva not known, but probably on Gramineae. All Europe. Previously from Zürich (STECK, l. c.).

Loderus KONOW

L. pratorum (FALLÉN)

1 ♀, Niederrickenbach Chollertobel (830 m), NW, 9. vi. 1978 (PETER).

Larva on Equisetum. Circumboreal species. STECK (l. c.) included this species in his list on the basis of a single specimen without data.

Blennocampinae

Athalia LEACH

A. cordata LEPELETIER

3 ♂, Dallenwil (460 m), NW, 27. vii. 1980 (LISTON). 1 ♂, Wiesenberg (1000 m), NW, 20. vii. 1980 (LISTON). 1 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON).

A. liberta (KLUG)

2 ♂, Wiesenberg (1000 m), NW, 20. vii. 1980 (LISTON).

A. rosae (L.)

1 ♀, 6 ♂, Giswil Hahnenried (470 m), OW, 22. viii. 1976 (REZBANYAI).

1 ♀, Niederrickenbach (1350 m), NW, 23. vii. 1980 (LISTON).

Monostegia O. COSTA

M. abdominalis (F.) (= luteola KLUG)

1 ♀, Kernwald Gerzensee, OW, 21. vi. 1974 (LINSENMAIER).

Larva on *Lysimachia*, *Anagallis arvensis* and *Glaux maritima*. Europe, Asia Minor, Caucasus, Siberia and introduced to North America. Previously from Bern, Aargau and Zürich (STECK, l. c.).

Empria LEPELETIER

E. klugii (STEPHENS) (= carbonaria KONOW)

1 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 13.vi.1977 (REZBANYAI). 1 ♂, Rinderbühl-Stockhütte (1300 m), NW, 22.vii.1980 (LISTON).

Larva on *Geum rivale* L. Europe, Turkey and Transcaucasia. Previously from the Jura, Bern, Thurgau, Basel (STECK, l. c.) and Graubünden (BENSON, 1961a).

E. liturata (GMELIN)

1 ♂, Haldigrat Giri (1900 m), NW, 18.vii.1977 (REZBANYAI).

Larva on *Fragaria*, *Rubus* and *Geum*, Temperate Palaeartic. Previously from Basel, Bern, Aargau, Zürich, Graubünden (STECK, l. c.) and Wallis (BENSON, 1955).

E. parvula (KONOW)

1 ♀, Horbis (1100 m), OW, 20.vii.1980 (LISTON).

Larva not known. Northern and Central Europe. Possibly scarcer at the northern edge of its range (cf. BENSON, 1951-58: 88). New for Switzerland. Further localities: 3 ♀, 6 ♂, Uetliberg (470-800 m), ZH, 4.v.1973 (PETER). 1 ♂, Baar Heiligchrüz (500 m), ZG, 26.iv.1978 (PETER). 1 ♀, Baar Inwil, Neuguet (540 m), ZG, 6.v.1978 (PETER).

Ametastegia A. COSTA

A. glabrata (FALLÉN)

1 ♂, Horbis (1100 m), OW, 20.vii.1980 (LISTON). 1 ♂, Rinderbühl-Stockhütte (1300 m), NW, 22.vii.1980 (LISTON).

Allantus PANZER

A. calceatus (KLUG)

1 ♂, Buchholzbach (460 m), NW, 27.vii.1980 (LISTON).

Larva on *Alchemilla vulgaris* L., *Sanguisorba officinalis* L., *Filipendula*, *Fragaria*, *Rosa* and *Rubus*. Europe and Transcaucasia. Previously from Genf, Bern, St. Gallen (STECK, l. c.).

A. truncatus (KLUG)

1 ♀, Horbis (1100 m), OW, 20.vii.1980 (LISTON).

Larva on *Filipendula ulmaria* (L.) Maxim, *Potentilla erecta* (L.) Rünsch., *Sanguisorba officinalis* L., *Rosa*, *Fragaria vesca* L. and *Betula*. Temperate Palaeartic. Previously from Graubünden (BENSON, 1961a), Bern, Zürich and Basel (STECK, l. c.).

Eutomostethus ENSLIN

E. luteiventris (KLUG) (= fuscipennis FALLÉN)

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 13.vi.1977 (REZBANYAI).

Larva feeds in *Juncus effusus* L. All Europe, Transcaucasia and North America. Previously from Bern, Aargau, Zürich, Tessin and Basel (STECK, l.c.).

E. punctatus (KONOW)

2 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 13.vi.1977 (REZBANYAI).

Larva on *Carex paniculata* L. Central and Southern Europe, Siberia and Northern China. Not previously recorded from Switzerland. Further localities: 1 ♂, Uetliberg Oberholz (790 m), ZH, 15.vi.1973 (PETER). 1 ♂, Steinhausen, Steinhauser Wald (480 m), ZG, 9.vi.1976 (PETER). 3 ♂, Hasle Balmoos (970 m), LU, 30.v.1977 (REZBANYAI).

Monophadnus HARTIG

M. pallescens (GMELIN)

1 ♀, Niederrickenbach Chollertobel (830 m), NW, 9.vi.1978 (PETER).

Larva on *Ranunculus*. Holarctic species. Recorded from Genf, Bern, Aargau, Zürich (STECK, l.c.), Graubünden (BENSON, 1961a).

Paracharactus MAC GILLIVRAY

P. hyalinus (KONOW)

1 ♂, Chlewen Bärenfallen (1580 m), 9.vi.1978 (PETER).

Larva of this species unknown, but SMITH (1969) notes that the Nearctic species may feed on Gramineae and *Carex*. Smith introduces important, and justified, taxonomic changes in the generic classification of the Blenno-campinae. P. hyalinus is an alpine species of Central Europe and the Apennine Mountains of Italy (BENSON, 1958b). Recorded from Tessin, Obwalden (STECK, l.c. "Melchalp VII."), Wallis (BENSON, 1955) and Graubünden (BENSON, 1961a).

Stethomostus BENSON

S. fuliginosus (SCHRANK)

1 ♂, Dallenwil Buchholzbach (460 m), NW, 28.vii.1980 (LISTON).

Larva on *Ranunculus*. Europe, Turkey, Caucasus, Siberia, Japan and North America. Previously from Waadtland, Bern, Aargau and Zürich (STECK, l.c.).

Phymatocera DAHLBOM

P. aterrima (KLUG)

1 ♂, Niederrickenbach Ahorn (1300 m), NW, 23.vii.1976 (REZBANYAI).

1 ♀, Alpboden-Brisen (1200 m), NW, 13.vi.1977 (REZBANYAI). 1 ♀, Rinderbühl-Stockhütte (1300 m), NW, 22.vii.1980 (LISTON).

Larva on *Polygonatum*. This insect has a large, soft body and is characteri-

stically unwilling to fly. All Europe, and Caucasus. Previously from Basel, Bern, Aargau, Zürich and Wallis (STECK, l. c.).

Blennocampa HARTIG

B. pusilla (KLUG)

Leaf-rolls on Rosa, Wiesenberg (1000 m), NW, 10. vii. 1980 (LISTON).

Claremontia ROHWER

C. tenuicornis (KLUG)

3 ♂, Haldigrat Giri (1900 m), NW, 18. vi. 1977 (REZBANYAI). 1 ♂, Chlewen Tannibühl (1580 m), NW, 9. vi. 1978 (PETER). 1 ♀, Niederrickenbach Ahorn (1350 m), NW, 9. vi. 1978 (PETER). 1 ♀, Trübsee (1800 m), NW, 18. vii. 1980 (LISTON). 1 ♀, Haldigrat (2000 m), NW, 23. vii. 1980 (LISTON).

Monophadnoides ASHMEAD

M. geniculatus (HARTIG)

1 ♀, Chlewenalp (1500 m), NW, 25. vii. 1980 (LISTON). 1 ♀, Trübsee (1800m), NW, 18. vii. 1980 (LISTON).

Parna BENSON (now contains a second species (TOGASHI, 1980))

P. tenella (Klug)

2 leaf-mines in Tilia, Dallenwil, Buchholzbach (460 m), NW, 28. vii. 1980 (LISTON).

Larva mines the leaves of several Tilia species. Throughout Europe. All the Swiss mines that I have seen are of the form illustrated by HERING (1957, fig. 685b). Sometimes, however, the larva mines from near the base of the leaf and cuts through the supporting side ribs, causing the leaf to lose support and roll under itself. The latter type of mine is usually larger. What the significance of the size difference is, is not yet known. LISTON has also collected leaf-mines of Parna at Teufengraben (Solothurn), 16. vii. 1980 and Zofingen (Aargau), 16. vii. 1980.

Tenthredininae

Eriocampa HARTIG

E. ovata ovata (L.)

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 13. vi. 1977 (REZBANYAI).

Larva on Alnus and occasionally Rhamnus. Typical subspecies found throughout Europe and introduced to North America. Also in Eastern Turkey, but elsewhere in that country it is replaced by ssp. nitens BENSON. E. peineae ZIRNGIEBL from Iran may also be a subspecies of ovata. STECK (l. c.) states that this species is widely distributed in Switzerland.

Siobla CAMERON (= Encarsioneura KONOW)

S. sturmi (KLUG)

2 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 13.vi.1977 (REZBANYAI). 1 ♂, Niederrickenbach Ahorn (1300 m), NW, 23.vi.1976 (REZBANYAI).

The foodplant, *Impatiens noli-tangere* L., is abundant in the forest along the course of the Buchholzbach and its feeder streams from 460 m to just below the tree line. Central and Northern Europe, replaced in the far north by *Siobla ruficornis* CAMERON. Previously from Bern (STECK, l.c.)

Aglaostigma KIRBY

A. discolor (KLUG) (= insignis (KLUG))

1 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 13.vi.1977 (REZBANYAI).

Biology unknown. Central Europe. Previously from Glarus (STECK, l.c.)

A. fulvipes (SCOPOLI)

1 ♀, Niederrickenbach Chollertobel (830 m), NW, 9.vi.1978 (PETER).

A. pinguis (KLUG)

2 ♀, 1 ♂, Haldigrat Giri (1900 m), NW, 13./18.vi.1977 (REZBANYAI).

1 ♀, Alpboden-Brisen (1200 m), NW, 18.vi.1977 (REZBANYAI). 2 ♂, Chlewen Bärenfallen (1580 m), NW, 9.vi.1978 (PETER). 1 ♂, Trübsee (1800 m), NW, 18.vii.1980 (LISTON). 1 ♂, Haldigrat (2000 m), NW, 23.vii.1980 (LISTON).

Larva unknown. Endemic Central European subalpine species. Last specimen noted above was taken from *Alchemilla alpina* flower (see under *Cephalicia arvensis*). Previously from Graubünden (BENSON, 1961a) and Wallis (BENSON, 1955). This species is superficially similar to *Eopsis beaumonti* BENSON, 1959, but can be distinguished on the venational character given in BENSON's description. *E. beaumonti* is also a montane species, found only in Switzerland.

Tenthredopsis A. COSTA

T. friesei KONOW

1 ♂, Niederrickenbach Chollertobel (830 m), NW, 9.vi.1978 (PETER).

Larva on Gramineae (*Holcus*, *Calamagrostis*). Central and Northern Europe. BENSON (1951-58: v) synonymised *friesei* with *T. nassata* (L.). WEIFFENBACH (1968: 43) maintained this species as distinct. In any case, as pointed out by WEIFFENBACH, *friesei* is clearly more closely related to *litterata* in both morphology and colouration than to *nassata*. New to Switzerland. Also found at the following localities: 5 ♀, 23 ♂, Uetliberg (430-790), ZH, 22.v.-2.vii.1973 (PETER). 1 ♀, Illnau (500 m), ZH, 1.vi.1974 (SAUTER). 1 ♀, Meggen Wagenmoos (600 m), LU, 14.vi.1976 (REZBANYAI). 2 ♀, Hasle Balmoos (970 m), LU, 11.vii.1978 (REZBANYAI). 1 ♀, Luzern Obergütsch (550 m), LU, 30.vi.1978 (REZBANYAI).

T. nassata (L.)

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 23.vi.1976 (REZBANYAI). 1 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 13.vi.1976 (REZBANYAI).

3 ♀, 1 ♂, Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON). 2 ♀, 1 ♂, Chlewenalp (1500 m), NW, 25. vii. 1980 (LISTON). 1 ♀, 1 ♂, Horbis (1100 m), OW, 26. vii. 1980 (LISTON). 1 ♂, Rinderbühl-Stockhütte (1300 m), NW, 22. vii. 1980 (LISTON).

All the females from Fräkmüntegg were of the form scutellaris (F.), sometimes given specific status. We cannot agree^{with} this opinion, the colour variety scutellaris (F.) falls well within the range of variation of this extremely variable species. Colour forms paralleling scutellaris also occur in T. literata GEOFFROY, and in both species intermediate forms occur.

T. sordida (KLUG)

1 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 23. vi. 1976 (REZBANYAI). 1 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 1 ♂, Rinderbühl-Stockhütte (1300 m), NW, 23. vii. 1980 (LISTON).

Rhogogaster KONOW

R. picta (KLUG)

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 13. vi. 1977 (REZBANYAI).

R. punctulata (KLUG)

3 ♀, Trübsee (1800 m), NW, 5. viii. 1977 (REZBANYAI). 1 ♀, Haldigrat (2000 m), NW, 23. vii. 1980 (LISTON). 1 ♀, Trübsee (1800 m), NW, 18. vii. 1980 (LISTON). 2 ♀, Wolfenschiessen (470 m), NW, 28. vii. 1980 (LISTON). 1 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 1 ♀, Bannalpsee (1600 m), NW, 26. vii. 1980 (LISTON). 1 ♂, Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON).

Once again, the abundance of this species during July 1980 appears to have been caused by the wet spring, for though it flies into late summer, R. punctulata is commonest in spring. The record from Wolfenschiessen is remarkable, for the species is normally associated with subalpine and boreal habitats.

R. viridis (L.)

1 ♀, Alpboden-Brisen (1200 m), NW, 13. vi. 1977 (REZBANYAI). 1 ♀, Niederrickenbach Chdlertobel (830 m), NW, 9. vi. 1978 (PETER). 1 ♀, Firnalpeli (1100 m), OW, 19. vii. 1980 (LISTON).

R. chlorosoma (BENSON)

1 ♀, Wirzweli (1100 m), NW, 27. vii. 1980 (LISTON).

Tenthredo LINNÉ

T. acerrima BENSON

2 ♀, Haldigrat Giri (1900 m), NW, 22. vi. 1976 (REZBANYAI). 1 ♀, Haldigrat Giri (1900 m), NW, 12. vii. 1976 (REZBANYAI). 1 ♀, Alpboden-Brisen (1200 m), NW, 4. viii. 1976 (REZBANYAI). 2 ♀, Niederrickenbach Ahorn (1300 m), NW, 16. vii. 1979 (REZBANYAI). 2 ♀, Giswil Hahnenried (470 m), OW, 22. viii. 1976 (REZBANYAI). 1 ♀, Lungern Turren (1550 m), OW, 22. viii. 1976 (REZBANYAI). 1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 13. vi. 1977 (REZBANYAI). 1 ♀, Alpboden-Brisen (1200 m), NW, 18. vi. 1977 (REZBANYAI). 1 ♀, Trübsee

(1800 m), NW, 5.viii.1977 (REZBANYAI). 2 ♀, Niederrickenbach (1350 m), NW, 9.vi.1978 (PETER). 2 ♀, Horbis (1100 m), OW, 20.vii.1980 (LISTON). 1 ♀, Trübsee (1800 m), NW, 18.vii.1980 (LISTON). 1 ♀, Rinderbühl-Stockhütte (1300 m), NW, 23.vii.1980 (LISTON). 1 ♀, Niederrickenbach (1350 m), NW, 23.vii.1980 (LISTON). 3 ♀, Chlewenalp (1500 m), NW, 25.vii.1980 (LISTON). 1 ♀, Bannalpsee (1600 m), NW, 26.vii.1980 (LISTON). 3 ♀, Wiesenberg (1000 m), NW, 20.vii.1980 (LISTON). 2 ♀, Herrenrüti (1000 m), OW, 17.vii.1980 on blooms of *Saxifraga paniculata* MILLER and *Ranunculus nemorosus* L. (LISTON).

T. albicornis F.

1 ♀, 1 ♂, Niederrickenbach Ahorn and Chlewen Bärenfallen (1340-1560 m), NW, 16.vii.1976 (REZBANYAI). 1 ♀, Rinderbühl-Stockhütte (1300 m), NW, 23.vii.1980 (LISTON).

T. aegra (ENSLIN)

1 ♀, Horbis (1100 m), OW, 20.vii.1980 (LISTON). 1 ♀, Chlewenalp (1500 m), NW, 25.vii.1980 (LISTON). 1 ♀, Fräkmüntegg (1450 m), NW, 17.vii.1980 (LISTON).

This form has been treated as a subspecies of arcuata FOERSTER, and as a separate species. LISTON agrees with neither of these treatments: an explanation of its probable conspecificity with T. algoviensis ENSLIN is in press. Scarcer in 1980 than in previous years, but this is not surprising in an alpine species.

T. algoviensis ENSLIN

1 ♀, Niederrickenbach Ahorn (1300 m), NW, 23.vii.1976 (REZBANYAI). 1 ♀, Haldigrat Giri (1900 m), NW, 12.vii.1976 (REZBANYAI). 3 ♀, Horbis (1100 m), OW, 20.vii.1980 (LISTON).

T. arcuata FOERSTER

1 ♀, 4 ♂, Niederrickenbach Ahorn (1300 m), NW, 23.vi.1976 (REZBANYAI). 1 ♀, 4 ♂, Haldigrat Giri (1900 m), NW, 22.vi.1976 (REZBANYAI). 3 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 23./30.vi.1976 (REZBANYAI). 1 ♂, Niederrickenbach Bergplanggen (1560 m), NW, 16.vii.1976 (REZBANYAI). 3 ♀, 1 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 13.vi.1977 (REZBANYAI). 2 ♀, 2 ♂, Alpboden-Brisen (1200 m), NW, 18.vi.1977 (REZBANYAI). 4 ♀, Trübsee (1800 m), NW, 5.viii.1977 (REZBANYAI). 2 ♀, Horbis (1100 m), OW, 20.vii.1980 (LISTON). 1 ♀, Rinderbühl-Stockhütte (1300 m), NW, 23.vii.1980 (LISTON).

T. atra L.

2 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 23.vi.1976 (REZBANYAI). 1 ♀, Alpboden-Brisen (1200 m), NW, 18.vi.1977 (REZBANYAI). 1 ♀, Haldigrat Giri (1900 m), NW, 1.vii.1976 (REZBANYAI). 1 ♀, Herrenrüti (1000 m), OW, 17.vii.1980 (LISTON). 1 ♀, Bannalpsee (1600 m), NW, 26.vii.1980 (LISTON).

T. balteata KLUG

1 ♂, Niederrickenbach Ahorn (1300 m), NW, 23.vi.1976 (REZBANYAI). 1 ♀, Haldigrat Giri (1900 m), NW, 18.vi.1977 (REZBANYAI). 1 ♀, Fräkmüntegg (1450 m), NW, 17.vii.1980 (LISTON). 1 ♀, Rinderbühl-Stockhütte (1300 m), NW, 23.vii.1980 (LISTON).

T. campestris L. (= flava PODA)

1 ♂ , Niederrickenbach Huetlerentobel (1200 m), NW, 23. vi. 1976 (REZBANYAI).

Larva on *Aegopodium podagraria* L. Common in Central European lowlands, but north to Finland (SAARINEN, l. c.) and south to Macedonia (HELLÉN, 1967). Throughout the Swiss Middleland, probably scarce in the mountains (STECK, l. c.).

T. cunyi KONOW

2 ♂ , Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 1 ♀ , Rinderbühl-Stockhütte (1300 m), NW, 23. vii. 1980 (LISTON).

Biology undescribed. A species of subalpine forest. Central European Alps and outlying upland areas to the north and west: Baden-Württemberg (STRITT, 1952), Vosges. Presence in Siberia (Baikal region) confirmed (VERSHUTSKIJ, 1966). Usually said to be a scarce species. In Switzerland previously from Wallis (BERLAND, 1947). Further unpublished records: 1 ♀ , Vättis Pardätsche (950 m), SG, 14. vii. 1973 (PETER). 3 ♂ , Lötschental, Wiler (1400 m), VS, 8. vii. 1975 (PETER). 1 ♀ , Hasliberg, Hochfluh Gadmerwäldli (1500 m), BE, 12. viii. 1976 (REZBANYAI). 1 ♀ , Altdorf-West, Gitschital Boden (1300 m), UR, 15. viii. 1978 (REZBANYAI). 1 ♀ , 1 ♂ , Altdorf-West, Gitschenberg (1400 m), UR, 18. viii. 1978 (REZBANYAI).

T. livida L.

1 ♀ , Niederrickenbach Huetlerentobel (1200 m), NW, 30. vi. 1976 (REZBANYAI). 2 ♀ , Horbis (1100 m), OW, 26. vi. 1980 (LISTON).

T. maculata maculata GEOFFROY

1 ♂ , Lopper, NW, 31. v. 1947 (LINSENMAIER). 1 ♀ , Dallenwil Buchholzbach (460 m), NW, 27. vii. 1980 (LISTON).

T. mandibularis F.

1 ♀ , Niederrickenbach Huetlerentobel (1200 m), NW, 13. vi. 1977 (REZBANYAI). 1 ♂ , Niederrickenbach Chollertobel (830 m), NW, 9. vi. 1978 (PETER). 1 ♀ , Dallenwil Buchholzbach (460 m), NW, 27. vii. 1980 (LISTON).

Larva on *Petasites* and *Tussilago*. Central Europe and Caucasus. Previously from Bern and Basel (STECK, l. c.).

T. mesomelas L.

2 ♀ , 6 ♂ , Niederrickenbach Huetlerentobel (1200 m), NW, 23. vi. 1976 (REZBANYAI). 1 ♂ , Niederrickenbach Huetlerentobel (1200 m), NW, 30. vi. 1976 (REZBANYAI). 3 ♀ , Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 2 ♀ , 3 ♂ , Rinderbühl-Stockhütte (1300 m), NW, 22. vii. 1980 (LISTON). 1 ♀ , Chlewenalp (1500 m), NW, 25. vii. 1980 (LISTON). 1 ♀ , 1 ♂ , Bannalp (1600 m), NW, 26. vii. 1980 (LISTON).

LINDQVIST (1965) illustrates differences between the saw of this species and the closely related obsoleta and mioceras.

T. mioceras ENSLIN

1 ♂ , Trübsee (1800 m), NW, 5. viii. 1977 (REZBANYAI).

T. obsoleta KLUG

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 23. vi. 1976 (REZBANYAI). 2 ♀, Alpboden-Brisen to Haldigrat (1200-1900 m), NW, 18. vi. 1977 (REZBANYAI). 6 ♀, 4 ♂, Trübsee (1800 m), NW, 5. viii. 1977 (REZBANYAI). 2 ♀; Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON). 1 ♀, Haldigrat (2000 m), NW, 23. vii. 1980 (LISTON). 1 ♀, Bannalpsee (1600 m), NW, 25. vii. 1980 (LISTON).

Now also known from Siberia (VERSHUTSKIJ, l. c.)

T. olivacea KLUG

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 23. vi. 1976 (REZBANYAI). 1 ♂, Niederrickenbach Huetlerentobel (1200 m), NW, 13. vi. 1977 (REZBANYAI). 4 ♀, 4 ♂, Trübsee (1800 m), NW, 5. viii. 1977 (REZBANYAI). 2 ♀, Chlewen Tannibühl (1580 m), NW, 9. vi. 1978 (PETER). 1 ♂, Niederrickenbach Ahorn (1350 m), NW, 9. vi. 1978 (PETER). 2 ♀, Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON). 1 ♀, Herrenrüti (1100 m), NW, 17. vii. 1980 (LISTON). 1 ♀, Chlewenalp (1500 m), NW, 25. vii. 1980 (LISTON).

T. schaefferi f. perkinsi MORICE

2 ♀, Beckenried Lielibach (470 m), NW, 18. vii. 1980 (LISTON). 1 ♀, Herrenrüti (1000 m), OW, 17. vii. 1980 (LISTON). 2 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 1 ♀, Rinderbühl-Stockhütte (1300 m), NW, 22. vii. 1980 (LISTON).

T. solitaria SCOPOLI (= coryli PANZER)

1 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 1 ♀, Haldigrat (2000 m), NW, 23. vii. 1980 (LISTON).

Larva on *Euphorbia cyparissia* L. All Europe. Specimen from Horbis was feeding at umbellifer, that from Haldigrat was on the extremely productive patch of *Alchemilla alpina*. Previously from Zürich (DIETRICH, l. c.), Wallis, Bern (STECK, l. c.) and Graubünden (BENSON, 1961a).

T. velox F.

7 ♀, 8 ♂, Trübsee (1800 m), NW, 5. viii. 1977 (REZBANYAI). 1 ♀, Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON). 4 ♀, 1 ♂, Rinderbühl-Stockhütte (1300 m), NW, 22. vii. 1980 (LISTON). 1 ♂, Haldigrat (2000 m), NW, 23. vii. 1980 (LISTON). 2 ♀, 3 ♂, Chlewenalp (1500 m), NW, 25. vii. 1980 (LISTON). 2 ♀, 2 ♂, Bannalpsee (1600 m), NW, 25. vii. 1980 (LISTON).

T. vespa RETZIUS

1 ♀, Beckenried Lielibach (470 m), NW, 18. vii. 1980 (LISTON). 1 ♂, Dallenwil, bank of Aa (460 m), NW, 27. vii. 1980 (LISTON).

Cuneala ZIRNGIEBL

C. koehleri (KLUG)

1 ♀, 3 ♂, Niederrickenbach Ahorn (1300 m), NW, 23. vi. 1976 (REZBANYAI). 3 ♀, 1 ♂, Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 1 ♀, Niederrickenbach (1350 m), NW, 23. vii. 1980 (LISTON). 1 ♀, Bannalpsee (1600 m), NW, 25. vii. 1980 (LISTON).

This subalpine species occurs throughout the Central Alps and in the South European mountains, but also in the Polish Carpathians (HUFLEJT, 1976), as a scarcity in the Southern Thüringen uplands (MUCHE, 1968) and apparently also in the Netherlands (OOSTSTROOM, 1976).

Pachyprotasis HARTIG

P. rapae (L.)

1 ♂, Haldigrat Giri (1900 m), NW, 18. vi. 1977 (REZBANYAI). 2 ♀, Niederrickenbach Ahorn (1350 m), NW, 9. vi. 1978 (PETER). 1 ♀, Niederrickenbach Chollertobel (830 m), NW, 9. vi. 1978 (PETER). 1 ♀, Niederrickenbach Chollertobel (830 m), NW, 9. vi. 1978 (PETER). 1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 23. vi. 1979 (REZBANYAI). 1 ♀, Wolfenschiessen (470 m), NW, 19. vii. 1980 (LISTON). 1 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 1 ♂, Wiesenberg (1000 m), NW, 20. vii. 1980 (LISTON). 1 ♀, 1 ♂, Rinderbühl-Stockhütte (1300 m), NW, 22. vii. 1980 (LISTON). 2 ♀, Haldigrat (2000 m), NW, 23. vii. 1980 (LISTON). 1 ♀, Niederrickenbach (1350 m), NW, 23. vii. 1980 (LISTON).

P. variegata (FALLÉN)

1 ♂, Chlewen Bärenfallen (1580 m), NW, 9. vi. 1978 (PETER). 1 ♀, Horbis (1100 m), OW, 26. vii. 1980 (LISTON). 1 ♀, Wolfenschiessen (470 m), NW, 27. vii. 1980 (LISTON).

Larva on *Solanum tuberosum* L., *Digitalis lutea* L. and *D. purpurea* L. All Europe, North Africa, Caucasus, Asia Minor and Siberia. Previously from Bern, Aargau, Wallis, Graubünden (STECK, l. c.).

Macrophya DAHLBOM

M. albicincta (SCHRANK)

1 ♂, Niederrickenbach Bärenfallen (1580 m), NW, 9. vi. 1978 (PETER). 1 ♀, Firnalpeli (1100 m), OW, 19. vii. 1980 (LISTON). 1 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 1 ♀, 1 ♂, Rinderbühl-Stockhütte (1350 m), NW, 22. vii. 1980 (LISTON).

M. duodecim-punctata (L.)

2 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON).

Larva on Gramineae and *Carex*. Most of Europe, Caucasus, Asia Minor, Siberia and Japan. Both STECK (l. c.) and DIETRICH (l. c.) state that this is a common and generally distributed insect in Switzerland.

M. montana (SCOPOLI) (= rustica L.)

1 ♀, Wiesenberg (1000 m), NW, 20. vii. 1980 (LISTON).

Larva on *Rubus* and *Alnus*. Europe, N. Africa, Turkey, Caucasus, Asia Minor. Common throughout Switzerland. In the Alps, this species flies till mid-August.

M. sanguinolenta (GMELIN) (= quadrimaculata FABRICIUS)

1 ♂, Niederrickenbach Ahorn (1350 m), NW, 9. vi. 1978 (PETER). 1 ♀, Haldigrat (2000 m), NW, 23. vii. 1980 (LISTON).

Latter specimen from flowers of *Alchemilla alpina*. Larva on *Galeopsis*, *Senecio* and *Veronica*, Europe, Turkey, Transcaucasia, Siberia and Japan

Previously from Bern, Zürich, Wallis, Tessin (STECK, l. c.) and Graubünden (BENSON, 1961a).

Nematinae

Priophorus DAHLBOM

P. pallipes (LEPELETIER) (= padi auct.)

1 ♀, Alp-Gschwänd (1250 m), NW, 17. vii. 1980 (LISTON). 1 ♀, Horbis (1100 m), OW, 26. vii. 1980 (LISTON).

Larva highly polyphagous: particularly on Rosaceae (Crataegus, Fragaria, Laurus, Prunus, Pyrus, Sorbus and Dasiphora) but also on Corylus, Alnus and Betula. Europe, Caucasus, Siberia, Japan and North America. In Switzerland it has been recorded from Zürich and Basel (STECK, l. c.)

P. ulmi (L.) (= laevifrons BENSON)

1 ♂, Niederrickenbach Chollertobel (830 m), NW, 9. vi. 1978 (PETER).

Confusion has arisen over the correct names for the two European Priophorus feeding on Ulmus. BENSON (1961b) synonymised laevifrons with ulmi, and recalled the name rufipes (LEPELETIER) from synonymy for the species that he had previously referred to as ulmi (L.) (this misidentification can be traced back to KONOW). Some authors seem to have misinterpreted BENSON's synonymy: MUCHE (1967-70, p. 182) recognises only one species. The true P. ulmi is known from England, Ireland, Holland (OOSTSTROOM, 1976), Scandinavia and Czechoslovakia (BENEŠ, 1962). Outside Europe it is known from Turkey and Transcaucasia. A record from Tadshikistan (MUCHE, 1979) is doubtful. New for Switzerland. Further unpublished localities: 1 ♀, Birmensdorf Ob. Reppischtal (480 m), ZH, 15. iv. 1974 (PETER). 1 ♀, Baar, Inwil Rain (500 m), ZG, 12. v. 1977 (PETER).

Dineura DAHLBOM

D. stilata (KLUG) (= sulcata KONOW)

1 ♀, Alp-Gschwänd (1250 m), NW, 17. vii. 1980 (LISTON).

This specimen was swept from Salix purpurea L. No Crataegus, the food-plant for this species given by LORENZ & KRAUS (1957), occurs naturally in Unterwalden. LISTON (1980b) found the closely related Dineura testaceipes (KLUG) associated with Salix atrocineria in Scotland. All Europe. Previously found in Wallis (STECK, l. c.)

Pristiphora LATREILLE

P. breadalbanensis (CAMERON)

1 ♂, Chlewen Tannibühl (1580 m), NW, 9. vi. 1978 (PETER).

Biology unknown. Arctic-alpine species. Central and Northern Europe. Previously from Graubünden (BENSON, 1961a).

P. compressa (HARTIG)

1 ♂, Haldigrat (2000 m), NW, 23. vii. 1980 (LISTON).

There is a possibility of confusion between this species and the recently

described P. pseudodecipiens BENEŠ & KRÍSTEK, 1976. This specimen came from Alchemilla alpina.

P. leucopodia (HARTIG)

1 ♀, Niederrickenbach Ahorn (1350 m), NW, 9. vi. 1978 (PETER).

Larva on Picea. Northern and Central Europe, North Russia. Placed in Pachynematus by BENSON (eg. BENSON, 1958b). Most other authors place it in Pristiphora. Previously from Zürich (STECK, l. c.) and Graubünden (BENSON, 1961a).

P. pallidiventris (FALLÉN)

1 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 2 ♀, Chlewenalp (1500 m), NW, 25. vii. 1980 (LISTON).

BENSON (1966) placed denudata KONOW as a subspecies of pallidiventris. MUCHE (1974) followed him, but WONG (1977) drew attention to differences in the structure of the saws of the two forms and reinstated them as separate species for this reason. We follow WONG in treating them as separate species, though for different reasons. We disagree with the idea that subspecies cannot differ slightly in morphology of the genitalia (as is the case in some Lepidoptera). P. denudata and pallidiventris do not fit the traditional idea of subspecies well. They occur together over much of Western Europe. In our experience they are separated only locally by habitat requirements possibly resulting from their larval foodplant associations. Pallidiventris feeds on various low-growing Rosaceae, while denudata may be associated with Sorbus aucuparia (LISTON, 1980c). Though occasional specimens with apparently intermediate characters do occur, we hold that these two forms are best treated as "biological species", at least for the present.

P. thalictri thalictri KRIECHBAUMER

1 ♂, Trübsee (1800 m), NW, 18. vii. 1980 (LISTON).

Larva on Thalictrum. Throughout Europe. Ssp. fuscata BENSON (with red legs) has a broken distribution in North-West Europe. Ssp. thalictri KRIECHB. (black-legged) occurs across Eurasia. New for Switzerland. A further locality: 1 ♂, Lötschental, Wiler (1400 m), VS, 26. vii. 1976 (PETER).

Euura NEWMAN

E. mucronata (HARTIG)

Gall on Salix cinerea L., Dallenwil by the Aa (460 m), NW, 19. vii. 1980 (LISTON).

Phyllocolpa BENSON

P. leucosticta (HARTIG)

1 ♀, Niederrickenbach Ahorn (1350 m), NW, 9. vi. 1978 (PETER).

Larva a leaf-roller on rough-leaved Salix species (cinerea and its relatives). North and Central Europe, Turkey, Transcaucasus and Siberia. Previously from Aargau (STECK, l. c.).

Pontania O. COSTA

P. bridgmannii (CAMERON)

Galls on *Salix cinerea* at following localities: Herrenrüti (1000 m), OW, 17. vii. 1980 (LISTON). Trübsee (1800 m), NW, 18. vii. 1980 (LISTON). Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON). Wiesenberg (1000 m), NW, 20. vii. 1980 (LISTON). Alpboden-Brisen (1200 m), NW, 23. vii. 1980 (LISTON). Chlewenalp (1500 m), NW, 25. vii. 1980 (LISTON).

P. dolichura (THOMSON)

Galls on *Salix purpurea* at Alp-Gschwänd (1250 m), NW, 17. vii. 1980 (LISTON).

P. vesicator (BREMI)

Galls on *Salix purpurea* at Alp-Gschwänd (1250 m), NW, 17. vii. 1980 (LISTON).

Galls which I had found previously were at a low altitude in the Wolfenschies-sen valley. All Europe and in Siberia (VERSHUTSKIJ, l. c.).

Nematus PANZER

N. capreae (L.) (= miliaris PANZER)

1 ♂, Fräkmüntegg (1450 m), NW, 17. vii. 1980 (LISTON).

From *Salix purpurea*. Larva on *Salix* and *Populus*. Throughout Europe (south and east to Bulgaria), Asia Minor, and Siberia. ZINNERT (1969: 189) records capreae from the Jura and Berner Oberland, STECK (l. c.) gives records from Zürich, Wallis, Graubünden and Tessin.

N. incompletus FOERSTER

1 ♀, Melchtal, St. Niklausen (800 m), OW, 17. vii. 1973 (LINSENMAIER).

Larva on *Lathyrus*. All Europe, Caucasus. In Switzerland previously recorded, without locality details, by KONOW (1890) as pulchellus (CAMERON). ENSLIN described var. tessinensis from the Tessin. This form was treated as a subspecies of incompletus by MUCHE (1974). Further records: 1 ♀, Uetliberg, Landikon (550 m), ZH, 27. vii. 1973 (PETER). 1 ♀, Uetliberg, Landikon (550 m), ZH, 20. iv. 1974 (PETER). 1 ♀, Baar Bachtalen (500 m), ZG, 8. v. 1976 (PETER). 1 ♂, Gettnau Ruessgraben (570 m), LU, 6. viii. 1977 (PETER).

N. myosotidis (F.)

2 ♂, Horbis (1100 m), OW, 20. vii. 1980 (LISTON).

N. pavidus LEPELETIER

1 ♂, from *Salix*, Wolfenschies-sen Dörfli (470 m), NW, 28. vii. 1980 (LISTON).

Larva on *Salix*, *Populus* and *Alnus*. All Europe. Previously known from Wal-lis (STECK, l. c.), Swiss Jura and the Berner Oberland (ZINNERT, 1969).

N. viridescens CAMERON (= poecilonotus auctt.)

1 ♀, Niederrickenbach Huetlerentobel (1200 m), 13. vi. 1977 (REZBANYAI).

Larva on *Betula* and ? *Salix*. Northern and Central Europe. Not previously recorded in Switzerland.

Pachynematus KONOW

P. apicalis (HARTIG)

1 ♀, Firnalpeli (1100 m), OW, 19. vii. 1980 (LISTON).

A further record: Uetliberg, Zürich (630 m), 10. v. 1973 (PETER). This indicates that apicalis is not exclusively a subalpine species, as was suggested by LISTON (1981).

P. obductus (HARTIG)

1 ♀, Horbis (1100 m), OW, 20. vii. 1980 (LISTON). 1 ♂, Trübsee (1800 m), NW, 18. vii. 1980 (LISTON).

Males of this normally parthenogenetic species are exceedingly rare (BENSON, 1951-58). It can easily be recognised by the distinctive form of the flange on the 8th abdominal tergite. In colouration it differs from the female only in its entirely dark sternites.

P. scutellatus (HARTIG)

1 ♀, Niderrickenbach Huetlerentobel (1200 m), NW, 23. vi. 1976 (REZBANYAI).

Larva on Picea and Abies. Central and Northern Europe, and Siberia. Sometimes a pest. Has been introduced to areas of Europe outside its natural range. Recorded from Graubünden (BENSON, 1961a), Bern, Zürich and Wallis (STECK, l. c.).

P. vagus (FABRICIUS)

1 ♀, Niederrickenbach Huetlerentobel (1200 m), NW, 23. vi. 1976 (REZBANYAI).

Larva on Carex and Salix. Extensive Holarctic distribution. Previously found in Graubünden (BENSON, 1961a). STECK (l. c.) also records Graubünden, and Zug.

Information supplementary to LISTON (1981)
(the following notes are made by B. PETER)

Nematus oligospilus FOERSTER

Further Swiss localities: 1 ♂, Uetliberg, Landikon (550 m), ZH, 15. viii. 1973 (PETER). 1 ♂, Baar, Lorentobel Langmoos (470 m), ZG, 9. viii. 1977 (PETER). 1 ♂, Raten Salen (1100 m), ZG, 18. vii. 1977 (PETER). 1 ♂, Zuoz Auwald (1670 m), GR, 21. vii. 1976 (SAUTER). Dr. REZBANYAI has found 7 ♀, 5 ♂, at Sempach Vogelwarte (505 m), LU, 4. viii. - 3. ix. 1977 at light.

N. viridis STEPHENS

This species was found at light in Ebikon Luzernerstr. (420), LU, 29. vi. 1973 (LINSENMAIER). Also: 1 ♀, Buchrain Schiltwald (420 m), LU, 30. v. 1976 (LINSENMAIER). 1 ♀, Hochdorf Siedereiteich (465 m), LU, 26. viii. 1979 (REZBANYAI) at light.

Pachynematus extensicornis (NORTON)

PETER has found one male of this species in the Lötschental, Wiler Tennera-Schlucht (1565 m), VS, 19. vii. 1976.

P. laevigatus (ZADDACH)

We do not agree with MUCHE's (1974) synonymy of this species with P. clitellatus. According to LINDQVIST (1976), P. calcicola BENSON is a junior

synonym of laevigatus. PETER has found this species in Löttschental (Wallis), Tennera-Schlucht, 1565 m , 19. vii. 1976.

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Summary

As the result of collecting in Unterwalden by various entomologists over the past few years, a further 55 species are added to the recorded sawfly fauna of the Kanton as covered previously in this journal. Of these species, 6 are also new records for Switzerland. These are: Empria parvula (KONOW), Eutomostethus punctatus (KONOW), Tenthredopsis friesei KONOW, Priophorus ulmi (L.), Pristiphora thalictri thalictri KRIECHBAUMER and Nematus viridescens CAMERON. Loderus pratorum (FALLEN), and Nematus incompletus FOERSTER, previously of doubtful Swiss status, are confirmed. Additional records of species already noted from Unterwalden are given.

Zusammenfassung

Die Zusammenarbeit von Dr. L. REZBANYAI, W. LINSENMAIER und den Autoren hat eine Erweiterung der bisherigen Artenliste ermöglicht. Zu der schon aufgezeichneten Blattwespenbevölkerung des Kantons Unterwalden, über die man in dieser Zeitschrift schon berichtet hat, kann man 55 weitere Blattwespenarten hinzufügen. Unter diesen Arten gibt es 6, die neu für die Schweiz sind, und zwar Empria parvula (KONOW), Eutomostethus punctatus (KONOW), Tenthredopsis friesei KONOW, Priophorus ulmi (L.), Pristiphora thalictri thalictri (KRIECHBAUMER) und Nematus viridescens (CAMERON). Ergänzende Auskünfte über die in Unterwalden schon gefundenen Arten werden auch gegeben.

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Legend to the figures of page 52: Some Cimbicidae. Lengths 9-12 mm.

Fig. 1: *Corynis obscura* (F.), ♂ .

Fig. 2: *Zaraea aurulenta* (SICHEL), ♂ .

Fig. 3: *Zaraea fasciata* (L.), ♀ .

Fig. 4: *Abia candens* KONOW, ♀ .

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