

An annotated checklist of Thysanoptera (thrips) from the Nordic countries

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This is a checklist of the 143 species of thrips so far found in Sweden. It specifies in which of the 30 Swedish provinces these species were recorded and includes ten species, which are new to Sweden. Listed are also 53 additional species found in Norway, Finland, Denmark and/or Iceland. The checklist thus gives a complete list of 196 species hitherto recorded in the Nordic countries. Remarks regarding records and references to the literature are attached to 60 of the species. The concluding bibliography gives a complete list of works containing published records of Swedish thrips and important international literature.

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The insect order Thysanoptera are small insects with sucking mouthparts. The Swedish species have usually a size of 1 to 3 mm. Some are up to 5 mm (Ahlberg 1926). The order belongs to subdivision Paraneoptera, along with the orders Hemiptera, Phthiraptera and Psocoptera (Gullan & Cranston 2005). Almost 6000 species are known worldwide, in two suborders, Terebrantia and Tubulifera (Mound 2013), which consists of three families (Aeolothripidae, Melanthripidae and Thripidae) and one family (Phlaeothripidae) respectively (Mound 2013).

The species in suborder Terebrantia feed on all kinds of growing vegetation but especially on flowers and foliage with piercing-suck stylets. Species in the suborder Tubulifera are mycophagous and feed on fungal hyphae and spores (Kirk 1996, Mound et. al 1976).

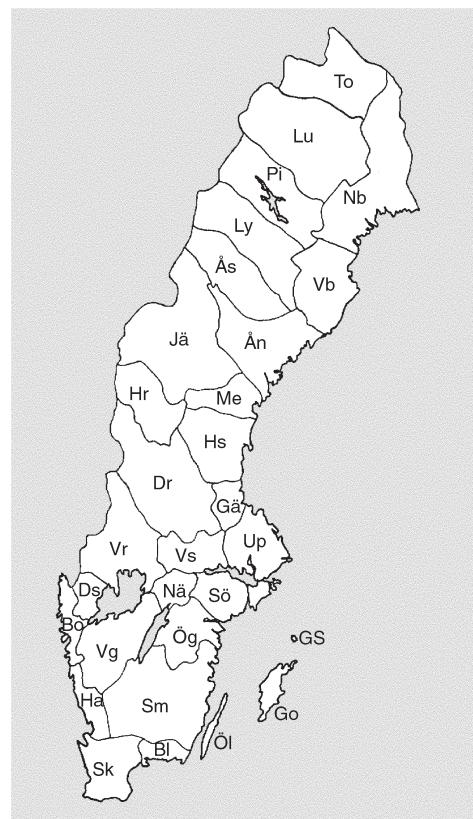
De Geer (1744) published the first paper ever on these insects. He mentioned the species *Physapus fuscus* and *P. arter*. Linnaeus (1746) mentioned thrips (in Greek) and placed this genus at the end of the Hemiptera. Linnaeus (1758) described four species: *Aeolothrips fasciatus*,

Thrips juniperinus, *T. minutissimus* and *T. physapus*. Zetterstedt and Trybom recorded several species in the nineteenth century. Whilst Zetterstedt (1840) identified the following species: *Taeñothrips picipes* and *Hoplothrips fungi*. Trybom (1894, 1895) described four species: *Apterothrips secticornis*, *Aptinothrips stylifer*, *Chirothrips hamatus* and *Frankliniella intonsa*. Trybom (1917) also wrote briefly about 48 more species. Ahlberg (1926) mentioned 69 valid species. If we include the result by Oettingen (1954) and the result from Ahlberg the number of species will be 80. Quick (1977) presented another 18 species new to the Swedish fauna. Vasiliu-Oromulu et al. (2000) presented 12 new species for the fauna of Sweden. Recently Vasiliu-Oromulu et al. (2001) and Kobro (2011) published checklists of the Swedish fauna and the Nordic Thysanoptera, where the number of species in Sweden was 119 and 131 respectively. A bibliography with important international literature and works containing published records of the Nordic fauna complete the checklist (Kobro 2011, Vasiliu-Oromulu et. al 2001). The goal of this checklist was compiling

Figure 1. The faunistic provinces of Sweden.

Sveriges faunaprovinser.

- Sk = Skåne
- Bl = Blekinge
- Ha = Halland
- Sm = Småland
- Öl = Öland
- Go = Gotland
- GS = Gotska Sandön
- Ög = Östergötland
- Vg = Västergötland
- Bo = Bohuslän
- Ds = Dalsland
- Nä = Närke
- Sö = Södermanland
- Up = Uppland
- Vs = Västmanland
- Vr = Värmland
- Dr = Dalarna
- Gä = Gästrikland
- Hs = Hälsingland
- Me = Medelpad
- Hr = Härjedalen
- Jä = Jämtland
- Ån = Ångermanland
- Vb = Västerbotten
- Nb = Norrbotten
- Ås = Åsele lappmark
- Ly = Lycksele lappmark
- Pi = Pite lappmark
- Lu = Lule lappmark
- To = Torne lappmark
- Lpl (Swedish Lapland, used by Ahlberg 1926).



and updating the taxonomic composition and province records of thrips in Sweden. In addition the occurrence of the species in the other Nordic countries completed the checklist but without province records.

Material studied

This checklist has been compiled primarily by examining published records supplemented by investigations of thrips collections at museums in Sweden. I have studied collections at the following museums in Sweden: Lund University (Biology museum), The Museum of Natural History (Gothenburg), Swedish Museum of Natural History (Stockholm) and Museum of Evolution (Uppsala). The main published sources of information of records from non-Swedish countries are from Kobro (2011). The list is also based on investigations of previously published literature

and the collection of the Swedish Malaise Trap Project (SMTP).

Results and discussion

The checklist presented below includes 4 families, 54 genera and 143 species for Sweden. Compared with the neighbouring Nordic countries, this is a somewhat lower number of thrips species than found in Finland (Table 1). As Sweden has a larger range of biogeographic regions, this suggest that there is probably several more species that remains to be recorded in the country.

The number of species per family in Sweden are (figures in brackets are the total numbers from the Nordic countries): Aeolothripidae 2 genera, 11 species (2 genera, 13 species); Melanthripidae 1 genera, 1 species (1 genera, 1 species); Thripidae 37 genera, 87 species (45 gen-

Table 1. The number of families, genera and species number of Thysanoptera in the Nordic countries, Sweden, Norway, Finland and Iceland.

Jämförelser mellan antalet familjer, släkten och arter i Norden, Sverige, Norge, Danmark, Finland och Island.

Region Country/ Region Land	Number of families/ Antal familjer	Number of genera/ Antal släkten	Number of species/ Antal arter
Norden	4	67	196
Sweden	4	54	143
Norway	4	51	140
Denmark	4	46	111
Finland	4	58	147
Iceland	3	7	12

era, 118 species; Phlaeothripidae 14 genera, 45 species (21 genera, 64 species).

Ten species are new to Sweden, *Aeolothrips gloriosus* Bagnall, *Dictyothrips betae* Uzel, *Thrips brevicornis* Priesner, *T. fulvipes* Bagnall, *T. menyanthidis* Bagnall, *Haplothrips minutus* (Uzel), *H. senecionis* Bagnall, *H. utae* Klimt, *H. verbasci* (Osborn) and *Hoplothrips semicaecus* (Uzel). *A. gloriosus* and *H. verbasci* are new to the Nordic fauna as well. In addition Kobro (2003) and Sörensson (2012) collected four new species, *Odontothrips confusus* Priesner, *Holothrips schaubergeri* (Priesner), *Hoplandrothrips bidens* (Bagnall) and *Poecilotriphs albopictus* Uzel.

According to provincial records, the most widely distributed species in Sweden are *Thrips atratus* Haliday, *T. major* Uzel, *T. physapus* L., *T. vulgarissimus* Haliday and *Megathrips lativentris* (Heeger). An important border in Sweden is "Limes Norrlandicus", which divides the country in two zoogeographical zones - the southern Scandinavia fauna region and the northern boreal region. The number of species north of this border is 45, which is 31 % of the total fauna. South of this border there are 133 species, which is 93 %.

Eleven species in the checklist are without province records. This is according to Kobro (2011). Kobro got from zur Strassen personal comments, one typewritten report from 1995 and undated handwritten notes on the Swedish species.

The checklist

Provincial records in Sweden (SE) are abbreviated according to Fauna Entomologica Scandinavica (Fig. 1) and the Nordic countries are abbreviated as follows: Norway (NO), Denmark (DK), Finland (SF) and Iceland (IC). The nomenclature follows Mound (2010). Asterisks (*) denote indoor species.

AEOLOTHRIPIPDAE

Aeolothrips Haliday 1836

1. *albicinctus* Haliday 1836 – SE: Sk, Öl, Sö, Up, Vr, (Lpl Ahlberg); – NO; DK; SF.
2. *astutus* Priesner 1926 – SE: Sö; – DK.
3. *ericae* Bagnall 1920 – SE: Sk, Ha, Sm, Ög, Vg, Bo, Sö, Up, Vs, Dr, Vr, Hr, Jä; – NO; SF.
4. *fasciatus* (Linnaeus 1758) – SE: Sk, Ha, Sm, Öl, Go, GS, Ög, Vg, Bo, Sö, Up, Vs, Hr, Nb; – NO; DK; SF.
5. *gloriosus* Bagnall 1914 (Fig. 2). – SE: Sk.
6. *intermedius* Bagnall 1934 – SE: Sk, Sm, Ög, Sö, Vr; – NO; DK; SF.
7. *manteli* Titschack 1962 – NO.
8. *melaleucus* (Bagnall 1934) – SE: Sk, Öl, Ög, Sö, Up, Vr; – NO; SF.
9. *propinquus* Bagnall 1924 – SE: Sk, Sö, Jä; – DK.
10. *versicolor* Uzel 1895 – SE: Sk, Öl, Up; – NO; DK; SF.
11. *vittatus* Haliday 1836 – SE: Sk, Ög, Sö, Up, Vr, Vb, Nb; – NO; DK; SF.

Rhipidothrips Uzel 1895

12. *brunneus* Williams 1913 – SF.
13. *niveipennis* O.M. Reuter 1899 – SE: Up; – NO; SF.

MELANTHRIPIPDAE

Melanthrips Haliday 1836

14. *fuscus* (Sulzer 1776) – SE: Sk, Ög, Sö, Up; – DK.

THRIPIDAE – PANCHAETOTHripINAE

Heliothrips Haliday 1836

15. * *haemorrhoidalis* (Bouché 1833) – SE: Sk, Sm, Sö, Up; – NO; DK; SF.

Hercinothrips Bagnall 1932

16. * *bicinctus* (Bagnall 1919) – NO; DK.
17. * *femoralis* (Reuter 1891) – SE: Sk, Up, Vb; – NO; DK; SF.

Parthenothrips Uzel 1895

18. * *dracaenae* (Heeger 1854) – SE: Sk, Sm, Bo, Up, Vr; – NO; DK; SF; IC.

THRIPIDAE – DENDROTHripINAE

Dendrothrips Uzel 1895

19. *degeeri* Uzel 1895 – SE: Sk, Öl, Ds, Sö, Up; – NO; SF.



Figure 2. *Aelothrips glorusus*. The species is new to Scandinavia. It was collected in Sk. (Scania), Sandhammaren on *Calluna*. The species is known from Mediterranean area between the Azores and Turkey. Also recorded from Britain. Photo C. Rasmussen.

Arten är ny för Skandinavien. Den påträffades i Skåne, Sandhammaren, på ljung (*Calluna*). Utbredningen är känd från Medelhavsområdet mellan Azorerna och Turkiet. Den är även insamlad i England.

20. *ornatus* (Jablonowski 1894) – SE; – NO; SF.
21. *saltatrix* Uzel 1895 – SE: Ds, Vr; – NO; SF.

THRIPIDAE – SERICOTHRIPIPINAЕ

Neohydatothrips John 1929

22. *abnormis* (Karny 1910) – NO; SF.
23. *gracilicornis* (Williams 1916) – SE: Sk, Öl, Ög, Vg, Vr, Sö, Vb, To; – NO; SF.

Sericothrips Haliday 1836

24. *bicornis* (Karny 1910) – SE: Öl, Sö, Up; – DK; – SF.
25. *staphylinus* Haliday 1836 – SE: Sm, Öl, Ög, Bo, Sö, Up, Hs; – DK.

THRIPIDAE – THRIPINAE

Anaphothrips Uzel 1895

26. *badius* (Williams 1913) – SE: Up, Vr; – NO; DK.
27. *gracillimus* Priesner 1923 – SF.
28. *obscurus* (Müller 1776) – SE: Sk, Sm, Öl, Ög, Vg, Bo, Sö, Up, Vs, Vr, Dr; – NO; DK; SF.

Apterothrips Bagnall 1908

29. *secticornis* (Trybom 1896) – SE: Hr, Jä; – NO; SF; IC.

Aptinothrips Haliday 1836

30. *elegans* Priesner 1924 – SE: Sö; – NO; DK; SF.
31. *rufus* Haliday 1836 – SE: Sk, Ha, Sm, Öl, Bo, Sö, Up, Dr, Nb; – NO; DK; SF; IC.



Figure 3. *Dictyothrips betae*. New to Sweden. An old finding from Sk (Scania), Höör, 1943 on *Polygonum (Fallopia convolvulus)*. Recorded from Denmark, Finland and many European countries. Photo C. Fägerström.

Ny art för Sverige. Fyndet är av gammalt datum från Skåne, Höör, 1943. Den insamlades på åkerbinda (*Polygonum (Fallopia) convolvulus*). Tidigare känd från Danmark, Finland och många Europeiska länder.

32. *stylifer* Trybom 1894 – SE: Sk, Sm, Sö, Up, Vs, Vr, Hr, Jä, To; – NO; DK; SF; IC.

Aurantothrips Bhatti 1978

33. * *orchidaceus* (Bagnall 1909) – SE; – NO; DK.

Baliothrips Uzel 1895

34. *dispar* (Haliday 1836) – SE: Vr, Jä; – NO; DK; SF.
35. *kroli* (Schille 1911) – SE: Sk, Up; – NO; DK; SF.

Belothrips Haliday 1836

36. *acuminatus* Haliday 1836 – SE: Sk, Sm, Öl, Ög, Sö, Up; – NO; DK; SF.
37. *morio* O.M. Reuter 1899 – SE: Sö, Up, Vr; – SF.

Bolacothrips Uzel 1895

38. *jordani* Uzel 1895 – DK; SF.

Bradinothrips Hood 1954

39. *musae* (Hood 1956) – SE.

Ceratothrips Reuter 1899

40. *ericae* (Haliday 1836) – SE: Sk, Ha, Sm, Go, Ds, Vr, Sö, Up, Dr, Me, Vb, To; – NO; DK; SF; IC.

Chaetanaphothrips Priesner 1925

41. * *orchidii* (Houlton 1907) – SE; – NO; DK; SF.

Chirothrips Haliday 1836

42. *ambulans* Bagnall 1832 – SF.
43. *hamatus* Trybom 1895 – SE: Ög, Bo, Up, Vr; – NO; DK; SF.

44. *manicatus* Haliday 1836 – SE: Sk, Sm, Öl, Go, Ög, Bo, Sö, Up, Vr, Dr, Hs, Lu; – NO; DK; SF.
 45. *pallidicornis* Priesner 1925. – SF.

Ctenothrips Franklin 1907

46. *distinctus* (Uzel 1895) – SE: Sk, Sö, Up; – NO; SF.

Dictyothrips Uzel 1895

47. *betae* Uzel (Fig. 3). 1895 – SE: Sk; – DK; SF.

Drepanothrips Uzel 1895

48. *reuteri* Uzel 1895 – SE: Vr; – NO; DK; SF.

Echinothrips Moulton 1911

49. * *americanus* Morgan 1913 – SE; – NO; SF.

Firmothrips Schliephake 1972

50. *firmus* (Uzel 1895) – SE: Sk, Vr; – NO; SF.

Frankliniella Karny 1910

51. *intonsa* (Trybom 1895) – SE: Sk, Sm, Öl, Go, Ög, Sö, Up, Vs, Vr, Dr, Vb; – NO; DK; SF.

52. *nigriventris* (Uzel 1895) – SF.

53. * *occidentalis* (Pergande 1895); – SE: Sk; – NO; DK; SF.

54. *pallida* (Uzel 1895) – SE: Sk, Sm, Up, Vs, Hä; – NO; DK; SF.

55. * *schultzei* (Trybom 1910) – DK.

56. *tenuicornis* (Uzel 1895) – SE: Sk, Sm, Öl, Ög, Bo, Ds, Sö, Up, Vr, Dr, Hr, Nb, Ly; – NO; DK; SF.

Hemianaphothrips Priesner 1925

57. *articulosus* Priesner 1925 – NO; DK.

Iridothrips Priesner 1940

58. *iridis* (Watson 1924) (Fig. 4) – SE: Sk; – NO; DK; SF.

Kakothrips Williams 1914

59. *pisivorus* (Westwood 1880) – SE: Sk, Ög, Bo, Sö, Up, Hs. – NO; DK; SF.

Leucothrips Reuter 1904

60. * *nigripennis* Reuter 1904 – SE; – DK; SF.

Limothrips Haliday 1836

61. * *angulicornis* Jablonowski 1894 – SE: Up; – SF.

62. *cerealium* Haliday 1836 – SE: Sk, Bl, Ha, Sm, Öl, Go, Ög, Bo, Sö, Up, Vb, To; – NO; DK; SF.

63. *denticornis* Haliday 1836 – SE: Sk, Sm, Öl, Go, Ög, Vg, Bo, Nä, Sö, Up, Vs, Vr, Jä; – NO; DK; SF.

Mycterothrips Trybom 1910

64. *annulicornis* (Uzel 1895) – SF.

65. *consociatus* (Targioni-Tozzetti 1887) – SE: Vr, Ds, Up, Dr; – SF.

66. *latus* (Bagnall 1912) – SE: Sk, Öl, Sö, Up, Vr, Jä, Vb, Ly, Lu, To; – NO; DK; SF.

67. *salicis* (Reuter 1879) – SE: Sm, Öl, Ds, Sö, Up, Vr; – NO; DK; SF.



Figure 4. *Iridothrips iridis*. Only collected in Sk. (Scania) on *Iris pseudacorus*. Photo: C. Rasmussen.

Endast fynd från Skåne på svärdslilja (*Iris pseudacorus*).

Odontothrips Amyot & Serville 1843

68. *biuncus* John 1921 – SE: Öl, Vr, Ds, Lu, To; – NO; DK; SF.

69. *confusus* Priesner 1926 – SE: Öl

70. *intermedius* (Uzel 1895) – SE: Sö, Up, Vr; – NO; DK; SF.

71. *loti* (Haliday 1852) – SE: Sk, Öl, Up, Vr; – NO; DK; SF.

72. *phaleratus* (Haliday 1836) – SE: Sk, Bl, Sö, Up, Vr, Dr; – NO; DK; SF.

73. *ulicis* (Haliday 1836) – SE: Sk, Bl, Sm, Go, Ög, Bo, Up, Vs, Sö, Up.

Oxythrips Uzel 1895

74. *ajugae* Uzel 1895 – SE: Sk, Ög, Vg, Sö, Up, Vr, Dr, Vb, Lu, To; – NO; DK; SF.



Figure 5. *Thrips brevicornis*. New to Sweden. Recently found on Öland, Ismantorp, 2014. A common species in Europe on many flowering plants. Photo C. Fägerström.

Ny art för landet. Nyligen, 2014, insamlad på Öland, Ismantorp. Arten är vanlig i Europa. Den lever på många blommande växter.

75. *bicolor* (Reuter 1879) – SE: Sk, Ha, Sm, Go, Ög, Ds, Sö, Up, Vr, Dr, Vb, Nb, Lu; – NO; DK; SF.

76. *ulmifoliorum* (Haliday 1836) – SE: Sö, Up; – NO; SF.

Pezothrips Karny 1907

77. *frontalis* (Uzel 1895); – NO; SF.

Platythrips Uzel 1895

78. *tunicatus* (Haliday 1852) – SE: Sö, Up; – DK; – SF.

Prosopothrips Uzel 1895

79. *vejdovskyi* Uzel 1895 – NO; SF.

Pteridothrips Priesner 1938

80.* *pteridicola* (Karny 1914) – SE: Sk.

Raphidothrips Uzel 1895

81. *longistylous* Uzel 1895 – SE: Sk; – NO – DK; – SF.

***Rubiothrips* Schliephake 1975**

82. *ferrugineus* (Uzel 1895) – SE: Vr; – SF.

83. *silvarum* (Priesner 1920) – SE: Sk; – NO; DK; SF.

84. *validus* (Karny 1910) – SE: Sö, Vr.

***Scirtothrips* Shull 1909**

85. * *longipennis* (Bagnall 1909) – SE: Ha; – NO; DK; SF.

***Scolothrips* Hinds 1902**

86. *longicornis* Priesner 1926 – SF.

87. *uzeli* (Schille 1911) – SE: Up; – NO

***Selenothrips* Karny 1911**

88. * *rubrocincta* Giard 1901 – NO.

***Stenothrips* Uzel 1895**

89. *graminum* Uzel 1895 – SE: Sk, Ög, Sö, Up; – NO; DK; SF.

***Taeniothrips* Amyot & Serville 1843**

90. *inconsequens* (Uzel 1895) – SE: Sk, Öl, Go, Ög, Bo, Vg, Sö, Up, Lu; – NO; – DK; – SF; – IC.

91. *picipes* (Zetterstedt 1828) – SE: Sk, Sm, Öl, Go, Ög, Bo, Sö, Up, Vs, Vr, Dr, Jä, Vb; – NO; DK; SF; IC.

***Theilopedothrips* zur Strassen 1995**

92. *pilosus* (Uzel 1895) – SF.

***Thrips* Linnaeus 1758**

93. *alni* Uzel 1895 – SE: Sm, Up, Vr; – SF.

94. *albopilosus* Uzel 1895 – SF.

95. *angusticeps* Uzel 1895 – SE: Sk, Öl, Ög, Up; – DK; – SF.

96. *atratus* Haliday 1836 – SE: Sk, Ha, Sm, Öl, Go, Ög, Vg, Up, Vs, Bo, Sö, Vr, Dr, Hs, Hr, Ån, Vb, Nb, Ly, Lu; – NO; DK; SF; IC.

97. *brevicornis* Priesner (Fig. 5). 1920. – SE: Öl; – NO; SF.

98. *calcaratus* Uzel 1895 – NO; DK; SF.

99. *conferticornis* Priesner 1922 – NO; SF.

100. *difficilis* Priesner 1920 – DK.

101. *dilatatus* Uzel 1895 – SE: Up, Vr; – NO; DK; SF.

102. *discolor* Haliday 1836 – SE: Sk, Up, Sö; – NO; DK; SF.

103. *flavus* Schrank 1776 – SE: Sm, Ög, Sö, Up, Vr, Dr; – NO; DK; SF.

104. *fulvipes* Bagnall 1923 (Fig. 6). – SE: Sk; – NO; DK.

105. *funebris* Bagnall 1924 – NO.

106. *fuscipennis* Haliday 1836 – SE: Sk, Ha, Sm, Öl, Ög, Bo, Ds, Sö, Up, Vr; – NO; DK; SF.

107. *juniperinus* Linnaeus 1758 – SE; – NO.

108. *klapaleki* Uzel 1895 – SF.

109. *linariae* (Priesner 1964) – SE; – NO.

110. *major* Uzel 1895 – SE: Sk, Bl, Ha, Sm, Öl, Ög, Bo, Ds, Sö, Up, Vs, Vr, Dr, Hs, Hr, Ån, Vb, Nb, Lu, To; – NO; DK; SF.



Figure 6. *Thrips fulvipes*. New to Sweden. An old finding from Sk. (Scania), Fogdaröd, 1943 on *Mercurialis perennis*. Widespread in Europe. Photo C. Rasmussen.

Ny art för Sverige. Ett gammalt fynd från Skåne, Fogdaröd, 1943, på skogsbingel, *Mercurialis perennis*. Vanlig i Europa.



Figure 7. *Thrips menyanthidis*. New to Sweden. One find from Sweden in Dalarna, Orsa, 1983, on *Menyanthes trifoliata*. In many European countries. Photo C. Rasmussen.

Ny art för Sverige. Ett fynd från Dalarna, Orsa, 1983, på vattenklöver, *Menyanthes trifoliata*. Påträffad i många europeiska länder.

- 111. *mancosetosus* Priesner 1964 – DK.
 - 112. *menyanthidis* Bagnall 1923 (Fig. 7). – SE: Dr; – NO; SF.
 - 113. *minutissimus* Linnaeus 1758 – SE: Sk, Ha, Sm, Öl, Ög, Bo, Sö, Up; – NO; DK; SF.
 - 114. *montanatus* Priesner 1920 – NO; DK; SF.
 - 115. * *nigropilosus* Uzel 1895 – SE: Sk, Öl, Vg, Sö, Up; – NO; DK; SF.
 - 116. *origani* Priesner 1926 – NO.
 - 117. * *palmi* Karny 1925 ; – SE; – NO; DK; SF.
 - 118. *palustris* Reuter 1899 – NO.
 - 119. *physapus* Linnaeus 1758; – SE: Sk, Bl, Sm, Öl, Ög, Vg, Bo, Sö, Up, Vs, Vr, Me, Hr, Vb, Nb, Lu; – NO ; – DK; – SF.
 - 120. *pini* (Uzel 1895) – SE: Sk, Ha, Sm, Bo, Sö, Up, Vr, Dr, Vb, Nb, Lu; – NO; DK; SF; IC.
 - 121. *praetermissus* Priesner 1920 – SF.
 - 122. *robustus* Priesner 1920 – SF.
 - 123. *roepkei* Doecsen 1953 – NO.
 - 124. *sambuci* Heeger 1854 – DK; – SF.
 - 125. * *simplex* (Morison 1930) – SE; – NO.
 - 126. *tabaci* Lindeman 1889 – SE: Sk, Sm, Öl, Go, Ög, Vg, Bo, Sö, Up, Vs, Dr, Vr, Hr Vb, Nb; – NO; DK; SF; IC.
 - 127. *trehernei* Priesner 1927. – SE: Sk, Sm, Öl, Ög, Sö, Vr; – NO; DK; SF; IC.
 - 128. *urticae* Frabicius 1781 – DK; – SF.
 - 129. *validus* Uzel 1895 – SE: Sk, Bo, Sö, Up, Vs, Vr, Dr; – NO; DK; SF.
 - 130. *viminalis* Uzel 1895 – SE: Bo, Up, Vr, Dr; – NO; SF.
 - 131. *vulgatissimus* Haliday 1836 – SE: Sk, Öl, Ha, Sm, Ög, Vg, Bo, Sö, Up, Vs, Vr, Dr, Hs, Hr, Vb, Nb, Ly, Lu, To; – NO; DK; SF; IC.
- Tmetothrips** Amyot & Serville 1843
- 132. *subapterus* (Haliday 1843) – NO; SF.
- PHLAEOTHRIPIDAE – IDOLOTHRIPINAE**
- Bacillothrips** Buffa 1908
- 133. *nobilis* (Bagnall 1909) – DK; – SF.
- Bolothrips** Priesner 1926
- 134. *bicolor* Heeger 1852 – SE: Up; – NO.
 - 135. *dentipes* (Reuter 1880) – SE: Sk, Sm, Öl, Ög, Bo, Sö, Up, Lu; – NO; DK; SF.
 - 136. *icarus* (Uzel 1895) – SE: Go, GS, Up; – NO; DK; SF.
- Cryptothrips** Uzel 1895
- 137. *nigripes* (Reuter 1880) – SE: Sk, Sm, Öl, Sö, Up, Vs, Vr, Dr, Lu; – NO; DK; SF.
- Megathrips** Targioni-Tozzetti 1881
- 138. *lativentris* (Heeger 1852) – SE: Sk, Bl, Sm, Öl, Go, GS, Ög, Vg, Bo, Ds, Nä Sö, Up, Vr, Dr, GÄ, Hs, Me, Hr, JÄ, Än, Nb, Ly, Pi, Lu, To; – NO; DK; SF.



Figure 8. *Haplothrips minutus*. New to Sweden. Collected from two provinces, Sk. (Scania) and Sö. Probably living on dead twigs. Recorded from western and central Europe. Photo C. Rasmussen.

Ny art för Sverige. Insamlad i Skåne och Södermanland. Den lever förmögeligen på döda grenar. Påträffad i Väst- och Centraleuropa.

PHLAEOTHRIPIDAE – PHLAEOTHRIPINAE
Acanthothrips Uzel 1895

139. *nodicornis* (Reuter 1880) – SE: Sm, Bo Sö, Up, Vs, Vr, Dr.; – NO; DK; SF.

Brachythrips Reuter 1899

140. *flavicornis* Reuter 1899 – SF.

Cephalothrips Uzel 1895

141. *monilicornis* (Reuter 1880) – SE: Sk, Öl, Sm, Sö, Up, Vr; – NO; DK; SF.

Eurytrichothrips Priesner 1920

142. *affinis* (Reuter 1899) – SF.

Haplothrips Amyot & Serville 1843

143. *acanthoscelis* (Karny 1910) – SE: Sk; – NO; DK; SF.

144. *aculeatus* (Fabricius 1803) – SE: Sk, Bl, Sm, Öl, Go, Ög, Vg, Bo, Up, Sö; – NO; DK; SF; IC.

145. *alpester* Priesner 1914 – SE: Sk, Öl, Vg, Vr, Ly; – NO; SF.

146. *alpicola* Priesner 1950 – NO.

147. *angusticornis* Priesner 1921 – SE: Sk, Ög, Up, Vr; – DK; – SF.

148. *distinguendus* (Uzel 1895) – SE: Sk, Sm, Vg, Up; – NO; DK; SF.

149. *hukkineni* Priesner 1939 – SE: Sk, Sm, Öl, Go, Sö, Up, Vr; – NO.
150. *jasionis* Priesner 1950 – DK.
151. *juncorum* Bagnall 1913 – DK.
152. *kurdjumovi* Karny 1913 – NO; SF.
153. *leucanthemi* (Schrantz 1781) – SE: Sk, Sm, Öl, Bo, Ds, Nä, Sö, Up, Vr, Lu, To; – NO; DK; SF.
154. *minutus* (Uzel 1895) (Fig. 8). – SE: Sk, Sö; – NO; DK.
155. *niger* (Osborn 1883) – SE: Sk, Öl, Ög, Sö, Up, Vr, Jä, Vb, Lu, To; – NO; DK; SF.
156. *phyllophilus* Priesner 1914 – NO.
157. *propinquus* Bagnall 1933 – SE: Sk, Sö, Up Vr, Gä, Hs, Jä, Lu; – NO; SF.
158. *senecionis* Bagnall 1932 (Fig. 9). – SE: Öl; – NO.
159. *setiger* Priesner 1921 – SE: Sk; – NO; DK.
160. *setigeriformis* Fábian 1938 – NO; SF.
161. *statices* (Haliday 1836) – SE: Sk, Bl, Ha, Sm, Öl, Ög, Bo, Hs, Hr, Up, Jä, Ån, Nb, Lu; – NO; DK.
162. *subtilissimus* (Haliday 1852) – SE: Sk, Sö, Up; – NO; DK; SF.
163. *tritici* (Kurdjumov 1912) – SE; – NO; SF.
164. *utae* Klimt 1970 (Fig. 10). – SE: Sm; – NO.
165. *verbasci* (Osborn 1896) – SE: Sk.
166. *vulleti* Priesner 1920 – DK.
- Hindsiothrips*** Stannard 1958
167. *bonessi* (Titschack 1955) – DK.
168. *oettingeri* Priesner 1939 – SF.
- Holothrips*** Karny 1911
169. *schaubergeri* (Priesner 1920) – SE: Sö; – NO.
- Hoplandrothrips*** Hood 1912
170. *bidens* (Bagnall 1910) – SE: Sk, Öl, Up; – NO; SF.
171. *williamsianus* Priesner 1923 – SE: Vr; – NO.
- Hoplothrips*** Amyot & Serville 1843
172. *carpathicus* Pelikán 1961 – SE: Sk, Ds, Sö, Up, Vr; – NO; SF.
173. *corticis* (De Geer 1773) – SE: Sk, Bl, Öl, Go, GS, Sm, Ög, Bo, Sö, Up, Vb; – NO; DK; SF.
174. *fungi* (Zetterstedt 1828) – SE: Bl, Up; – NO; DK; SF.
175. *grisescens* (Priesner 1924) – SF.
176. *longisetis* (Bagnall 1910) – SE: Sk, Ds, Vr; – NO; SF.
177. *pallicornis* Crawford 1939 – SF.
178. *pedicularius* (Haliday 1836) – SE: Sk, Sm, Sö, Up, Vr, Dr, Hs; – NO; ; – DK; – SF.
179. *polysticti* (Morison 1949) – SE: Sk, Vr, Dr, Vb; – SF.
180. *semicaecus* (Uzel 1895) (Fig. 11) – SE: Sk, Up; – NO; DK.
181. *ulmi* (Fabricius 1781) – SE: Sk, Bl, Sm, Öl, GS, Bo, Ds, Sö, Up, Vs, Vr, Dr; – NO; DK; SF.



Figure 9. *Haplothrips senecionis*. New to Sweden. Recently, 2014, collected from Öland, Gårdby sandhed. Lives on *Senecio jacobaea*. Rare in Norway. In Europe only from Britain, France and Holland. Photo C. Fägerström.

Ny art för Sverige. Nyligen, 2014, insamlad på Öland, Gårdby sandhed. Lever i blommor av stårds, *Senecio jacobaea*. Enligt Norska uppgifter är den sällsynt. Arten är endast känd från England, Frankrike och Holland.



Figure 10. *Haplothrips utae*. New to Sweden. Only find from Småland, 1973, on *Arrhenatherum elatius*. Collected in Norway on *Aster tripolium* and *Juncus*. Recorded only from Germany and Hungary. Photo C. Fägerström.

Ny art för Sverige. Nytt fynd finns endast från Småland, 1973, på knylhavre, *Arrhenatherum elatius*. Insamlad i Norge på strandaster (*Aster tripolium*) och tåg (*Juncus*). Den är endast känd från Tyskland och Ungern.

182. *unicolor* (Vuillet 1914) – SE: Sö; – NO; SF.

Karnyothrips Watson 1923

183. *melaleucus* (Bagnall 1811) – NO; DK.

Liothrips Uzel 1895

184. *austriacus* (Karny 1909) – SE: Vr.

185. *setinodis* (Reuter 1880) – SE: Ha, Up; – NO; DK; SF.

186. *vaneckeai* Priesner 1920 – NO; DK; SF.

Liophloeothrips Priesner 1919

187. *glaber* Priesner 1919 – SF.

188. *hungaricus* Priesner 1924 – SF.

Lispothrips O.M. Reuter 1899

189. *crassipes* (Jabonowski 1894) – SE: Sm; – SF.

Phlaeothrips Haliday 1836

190. *annulipes* Reuter 1880 – SE: Sk, Bo, Sö, Up, Vs, Vr, Vb; – NO; DK; SF.

191. *bispinosus* Preisner 1919 – SE: Vr; – NO; DK; SF.

192. *coriaceus* Haliday 1836 – SE: Sk, Bl, Ha, Sm., Go, Bo, Sö, Vs, Vb; – NO; DK; SF.

193. *denticauda* Priesner 1914 – SE: Sk, Vr; – NO; SF.

Poecilothrips Uzel 1895

194. *albopictus* Uzel 1895 – SE: Sk, Vr.

Treherniella Watson 1924

195. *inferna* (Priesner 1922) – SF.

Xylaphloethrips Priesner 1925

196. *fuliginosus* (Schille 1911) – SE: Sm, Ds, Vr, Dr, Lu, To; – NO; DK; SF.

Remarks

Remarks on the Swedish species above include all new, old and the few available provincial records. The indoor species are excluded (numbers refer to the figures in the checklist).

2. *A. astustus*. Only from Sö, on *Anchusa officinalis*, 3.07 1977 (leg. Ouick) Vasiliu-Oromulu et. al (2000).

5. *A. gloriosus*. New to Sweden. One find from Sk, Ystad, Sandhammaren, 17.07 1997



Figure 11. *Hoplothrips semicaucus*. New to Sweden. Collected in Sk. (Scania), Borgeby, 1944, under bark of *Cytisus* and Uppland, Uppsala, 1986. Widespread in Europe on dead wood. Photo C. Rasmussen.

Ny art för Sverige. Insamlad i Skåne, Borgeby, 1944, under bark av harris (*Cytisus*) och i Uppland, Uppsala, Stadsskogen, 1986. Allmän utbredning i Europa på död ved.

on *Calluna* (Vasiliu-Oromulu). The species is known from Mediterranean area between the Azores and Turkey. Also recorded from Britain (Mound et. al 1976). See Gertsson (2015 b). It is often found on flowers of *Fraxinus ornatus*, *Olea europaea*, *Phillyrea* species and *Sambucus nigra* (zur Strassen 2003).

9. *A. propinquus*. Finds from Sö, Eskilstuna 03.07 1977 on *Anchusa officinalis* (leg. Quick); Jä, Åre, Storlien, Högfjällshotellet 14.07 1976 on *Achillea millefolium* (leg. Quick) (Vasiliu-Oromulu et.al (2000, 2001).

10. *A. versicolor*. Sk, Ystad, Sandhamaren on *Calluna* (17.07 1997, Vasiliu-Oromulu), Öl, Mörbylånga, Jordtorpsåsen (02.07 2014) and Up (Ahlberg 1926). See Gertsson (2015 a, b).

13. *R. niveipennis*. Up, Stockholm, Experimentalfältet, 19.5 1919. Collected by sweepnet in *Phleum* sp., *Alopecurus* sp. etc. First mentioned by Ahlberg (1926).

20. *D. ornatus*. According to Kobro (2011).

21. *D. saltatrix*. From Ds, Åmål, Edsleskog,

Bräcke ängar 22-24.09 1997 and 30.10 1998 on tall stumps of birch and aspen (Kobro & Nittérus 1999). A single female was found on the trunk of a *Salix* tree, Vr, Hagfors, Geijersholm, 25.09 1973 (Quick 1977).

24. *S. bicornis*. Collected on *Lotus corniculatus*, Sö, 06.06. 1979 (Vasiliu-Oromulu et.al (2000). Recently found in Up, 26.08-09.09 2003 (malaisetrap) and Öl, Borgholm, Jordtorp 29.11 2013 and Ismantorp 02.07 2014. See Gertsson (2015 a).

26. *A. badius*. Up, Norrtälje, Estuna 11-17.06 1964; Vr, Hagfors, Gustaf Adolf, V. Gällsjön, 14.08 1974 on flowering *Carex* and *Hagfors*, Uddeholmshyttan, 25.08 1974 on *Phragmites* (Quick 1977).

29. *A. secticornis*. First mentioned by Ahlberg (1926) as the genus *Anaphothrips*. Old findings from Hr (1901) and Jä (1920), Åre, Storlien on *Carex*. A Holarctic species (zur Strassen 2003).

30. *A. elegans*. One find from Sö, 27.05 1979 on *Alopochen pratensis* (leg. Quick) (Vasiliu-Oromulu et.al (2000).

34. *B. dispar*. Find from Vr, Hagfors, Ekhärad, Gällsjön, 15.07 1973 on *Carex* (leg. Quick). First mentioned by Ahlberg (1926) from Jä, on *Carex*.

35. *B. kroli*. First mentioned by Ahlberg (1926) as *Euchaetothrips ingens* Priesner. From Sk and Up on *Glyceria*.

37. *B. morio*. From Sö and Up on grass (Ahlberg 1926). Collected in Vr, Hagfors, Gustaf Adolf, Geijersholm, 13.06 1973 on *Saxifraga granulata* (leg. Quick).

39. *B. musae*. According to Kobro (2011).

46. *C. distinctus*. Sk, Höganäs, Kullaberg, Ransvik, 22.09 1973 on *Convallaria majalis* (leg. Danielsson). From Sö according to Ahlberg (1926). Finds from Up, Stockholm, Experimentalfältet 26.06 1926 and Uppsala, Ultuna 02.08 1944 on *C. majalis* (leg. Ahlberg).

47. *D. betae*. New to Sweden. Sk, Höör, 05.07 1943 on *Polygonum (Fallopia) convolvulus*. Mentioned as *Anaphothrips omissus* Preissner (leg. E. Wahlgren). Recorded from Denmark, Finland and many European countries (zur Strassen 2003). See Gertsson (2015 b).

48. *D. reuteri* Collected in Vr, Hagfors, Geijersholm, 29.09 1973 among tufts of *Carex* (Quick 1977).

50. **F. firmus.** First mentioned by Quick (1977) as genus *Taeniothrips*. From Sk, Höör 22.06 1943 on *Vicia cracca* (leg. Wahlgren). Collected in Vr from *Hagfors*, Norra Råda, Sjögränd, 09.09 1974 on flowering *Potentilla erecta*, Geijersholm 15.06 1974 on flowering *Vicia cracca*, 20.07 on flowering *Alopecurus pratensis* and 20.06 1975 on shrub of *Rhamnus frangula* (leg. Quick).

58. **I. iridis.** One finding from Sk, Lomma, Löddesnäs, on *Iris pseudacorus*, 23.08. 1999 (Vasiliu-Oromulu 2000). I refound the species in Sk, Simrishamn, Ö. Vemmerlöv, Stockeboda gård, 12.08 2014 (Gertsson 2015 b).

69. **O. confusus.** Malaisetrap in Öland, Mörbylånga, Skogsby (Kalkstad), meadow with bushes, 25.6-13.7 2003 (Kobro 2011).

70. **O. intermedius.** First mentioned by Ahlberg (1926) from Sö on *Vicia orobus*. Up, Uppsala, Börje, Hässelby 09.05 1973; Vr, *Hagfors*, Gustaf Adolf, Geijersholm 10.06 1975 on *Orobus tuberosus* (leg. Quick).

76. **O. ulmifoliorum.** According to Ahlberg (1926) find from Up on different trees. From Sö, Tyresta, Åva Spirudden 28.03-12.05 2004, malaisetrap in mixed coastal oak forest.

78. **P. tunicatus.** According to Ahlberg (1926) finds from Sö and Up on Poaceae.

81. **R. longistylous.** One find from Sk, on *Orchis maculata* (leg. Cederholm), Höganäs, Kullaberg 10.06 1954 (Vasiliu-Oromulu et.al 2000). See Gertsson (2015 b).

82. **R. ferrugineus.** Only from Vr, *Hagfors*, Gustaf Adolf, Geijersholm 22.6 1975 on *Galium uliginosum*. Described as *Anaphothrips* (Quick 1977).

83. **R. silvarum.** Only from Sk, Kristianstad, Åhus, Ö. Åspet, 9.7. 1952 (leg. Ardö).

84. **R. validus.** From Vr, *Hagfors*, Gustaf Adolf, Geijersholmsdammarna 22.6 1975 on *Galium palustre*; Sö, Eskilstuna, Ärla, Lund 26.06 1976 on *G. palustre* Described as *Anaphothrips* (Quick 1977).

87. **S. uzeli.** One find from Up, Stockholm, Miles Garden on *Juniperus communis* (Vasiliu-Oromulu et.al 2000).

93. **T. alni.** Sm, Kalmar, Svinö 11.09 1986; Up, Uppsala, Marielund 08.05 1975; Vr, *Hagfors*, Lakheden 19.07 1973 on *Alnus incana* and *Hordeum distichon*; Gustav Adolf, 500 m SW of

V. Gällsjön 13.06 1974 on *Alnus incana*; *Forshaga*, Övre Ullerud 07.08 1974 on flowering *Hypericum maculatum*; *Hagfors*, Gustav Adolf, Geijersholm 19.09 1975 on *Alnus incana* (Quick 1977).

97. **T. brevicornis.** New to Sweden. Öl, Borg-holm, Ismantorp, 2.07. 2014 (leg. C. Hansson). Common in Europe (zur Strassen 2003). See Gertsson (2015 a).

101. **T. dilatatus.** According to Ahlberg (1946) finds from Up on Scrophulariaceae. Latest find from Vr, *Hagfors*, Gustaf Adolf, 25.09 1973 on grass; Ekshärad, Ulvån, Malta 30.06 1975 on *Pedicularis palustris* (leg. Quick).

104. **T. fulvipes** New to Sweden. Sk, Höör, Fogdaröd, 06.07 1944 on *Mercurialis perennis* (leg. E. Wahlgren). Widespread in Europe (zur Strassen 2003).

107. **T. juniperinus.** Only mentioned by Linnaeus (1758). Find from Stockholm. According to Vasiliu-Oromulu et.al (2001).

109. **T. linariae.** According to Kobro (2011).

112. **T. menyanthidis.** One find from Dr, Orsa, Tersängsmyren, v. Enån, 31.07. 1983 (leg. Sjörs) on *Menyanthes trifoliata*. New to Sweden. In many European countries (zur Strassen 2003). See Gertsson (2015 c).

134. **B. bicolor.** Up, Uppsala, Nåsten, S. Håga 1970.

136. **B. icarus.** Up, on litter and moss (Ahlberg 1926). Go (no locality); GS, on *Fraxinus* 04.07 1952 (leg. Nyholm) (Oettingen 1954).

138. **M. lativentris.** The most common species during the faunistic research program, 1921-1981, in Sweden from the Museum of Natural History, Gothenburg (Proschwitz & Andersson 1997). See Gertsson (2014).

143. **H. acanthoscelis.** From Sk, Trelleborg, Beddinge, 03.08. 1952 (leg. Ardö-Persson) (Oettingen 1954) and in window trap, Limhamn, limestone quarry, 13.04-13.06 2009 (leg. M. Molander). In Norway a rare species according to Kobro (2003). Distributed in Europe and Siberia in dry grass habitats (Schliephake & Klimt 1979).

147. **H. angusticornis.** See Oettingen (1954) and Vasiliu-Oromulu et.al 2001.

154. **H. minutus.** New to Sweden. Sk, Klippan, Skärälid, 06.08-08.09 2004, *Deschampsia flexuosa* beech forest (malaisetrap). Sö, Stock-

holm, Skarpnäck, 09.08-04.10 2003 (window trap on oak, leg. B. Wiklund). Recorded from western and central Europe (Mound et.al 1976).

158. ***H. senecionis***. New to Sweden. Öl, Mörbylånga, Gårdby sandstäpp, 05.07 2014. In flowers of *Senecio jacobaea*. Rare in Norway (Kobro 2003). In Europe only from Britain, France and Holland (Fauna Europaea 2013). See Gertsson (2015 a).

159. ***H. setiger***. One find from Sk (Vasiliu-Oromulu et.al 2000).

162. ***H. subtilissimus***. Sk, Klippan, Skärälid, 11.07-03.08 2004 (malaisetrap in *Deschampsia flexuosa* beech forest). Sö, Stockholm, Skarpnäck, 13.07-04.10 1983 (windowtrap on oak, leg. B. Wiklund). An old finding from Up., Experimentalfältet, 15.08 1951, on *Artemisia* (Oettingen 1954). See Gertsson (2015 b).

164. ***H. utae***. New to Sweden. Collected in Sm, Torsås, Bergkvara, 30.05 1973 on *Arrhenatherum elatius* (leg. R. Danielsson). Collected in Norway on *Aster tripolium* and *Juncus* (Kobro 2003). Recorded from central Europe (Schliephake & Klimt 1979).

165. ***H. verbasci***. New to the Nordic countries. Collected in Sk., Limhamn, in a limestone quarry by the city of Malmö in the southernmost Sweden, 13.04-13.06 2009, yellow colour pan trap (leg. Molander). Schliephake & Klimt (1979) described the species as *Neoheegeria verbasci* (Osborn). Recorded from Europe, Asia, North Africa and North America on *Verbascum* species (Schliephake & Klimt 1979).

169. ***H. schaubergeri***. One find, Sö, Hänge, Tyresta, 1999 (leg. Viklund). According to Kobro (2011).

170. ***H. bidens***. Sk, Lund, Dalby Söderskog, 07.05-15.08 2008 (Sörensson 2012); Öl, Borgholm, Ismantorp 02.07 2014 (leg. Hansson). Up, Älvkarleby, Marma military shooting range, 12.08-26.08 2003, dry meadow with birch. Swedish Malaise Trap Project. See Gertsson (2015 b).

171. ***H. williamsianus***. Finds from Vr. Hagfors, Gustaf Adolf, Geijersholm Dam 04.08 1974 and 19. 06 1976 on *Betula* trees (Quick 1977).

174. ***H. fungi*** Metioned as *H. pini* from Up, Ekerö, Eldgarn 1. 8 1953 (Oettingen 1954). Bl, Karlshamn, Gö, 20.02 1987, on dead *Tilia cor-*

data (leg. R. Baranowski).

176. ***H. longisetis***. Sk, Lund, Dalby Söderskog 07.05-15.8 2008 (windowtrap) (leg. Sörensson). Ds, Åmål, Edsleskog, Bräcke ängar 22-24.09 1997 and 30.10 1998 on tall stumps of birch and aspen. Vr, Årjäng, Bryngelsdal 30.10 1998 on tall stumps of birch and aspen (Kobro & Nittérus 1999).

180. ***H. semicaecus***. New to Sweden. Sk, Kävlinge, Borgeby 09.05 1944 (leg. Kemner), under bark of *Cytisus* and Up, Uppsala, Stadsskogen, 20.05. 1986. Widespread in Europe. On dead wood of Angiosperms (Mound et. al 1976). See Gertsson (2015 b).

182. ***H. unicolor***. From Sö, Eskilstuna, Husby-Rekarne on fungus *Lenzites sepiaria* on dead *Picea abies* (leg. Quick) (zur Strassen 1994).

184. ***L. austriacus***. Collected in Vr, Kristinehamn on *Chamaenerium angustifolium* and *Sambucus racemosa* (Quick 1977).

185. ***L. setinodis***. Finds from Up, Östhammar, Österskär, on *Epilbium angustifolium*, 23.07 1922 (see Ahlberg 1926) and Ha, Laholm, Mästocka, heather heath, 15.07-20-08 2003. (malaisetrap).

189. ***L. crassipes***. Mentioned as *Zygothrips* by Tullgren (1917) and Ahlberg (1926).

191. ***P. bispinosus***. First mentioned by Vasiliu-Oromulu, zur Strassen & Larsson from Vr (Vasiliu- Oromulu et.al 2000).

193. ***P. denticauda***. Quick (1977) collected the species in Vr, Hagfors, Gustaf Adolf, Geijersholm 01.09 1975 on dead branches of *Populus* and *Betula*.

194. ***P. albopictus***. Find from Sk, Lund, Dalby Söderskog 07.05-15.08 2008, windowtrap (leg. Sörensson) (Gertsson 2015 b).

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Bibliography

- Ahlberg, O. 1918. Beiträge zur Deutung der Zetterdtschen Thrips-arten. – Ent. Tidskr. 39: 140-142.
- Ahlberg, O. 1920. Zur Kenntnis der Schwedischen Thysanopteren. – Ark f. Zool. 13 (17). Stockholm.
- Ahlberg, O. 1921. Zur Identitätsfrage von *Tricothrips pini* Halld. – Ent. Tidskr. 42: 107-111.
- Ahlberg, O. 1922. Växthustripsarna. – Medd. No. 233. Centr. Anst. Ent. Avd. 38
- Ahlberg, O. 1924. Über die Biologie und Entwicklung des *Euchaetothrips ingens* Priesner. – Ent. Tidskr. 45: 1-6.
- Ahlberg, O. 1925 a. Über die Biologie und die Entwicklungsstadien des *Liothrips setinodis* Reut. – Ent. Tidskr. 46: 146-151.
- Ahlberg, O. 1925 b. Bemerkung über neue oder seltene schwedische Thysanopteren nebst Verzeichnis der schwedischen Arten. – Ent. Tidskr. 46: 152-156.
- Ahlberg, O. 1926. Tripsar. Thysanoptera. Svensk insektsfauna. 6. Stockholm.
- Ahlberg, O. 1932. Årtripsen (*Kakothrips robustus*). – Medd. fr. Centr. Ent. Avd. 63.
- Bagnall, R. S. 1911. Description of three new Skandinavien Thysanoptera (Tubulifera). – Entomol. Month. Mag. 22: 60-63.
- Cederholm, L. 1963. Ecological studies on Thysanoptera. – Opusc. ent. Suppl. XXII.
- Collins, D.W. 2010. Thysanoptera of Great Britain: A revised and updated checklist. – Zootaxa 2412: 21-41.
- De Geer, C. 1744. Beskrifning på en Insekt af ett nytt Släkte (Genus), kallas Physapus. – Kongl. Sweneska Wetenskaps Akademiens Handlingar för monaderna januar, februari och mars. Vol. V, 1-9.
- Fauna Europaea version 2.6.2, <http://www.faunaeur.org> (29.08.2013)
- Gullan, P.J. & Cranston, P.J. 2005. The Insects. An outline of entomology. 3rd edition. Blackwell.
- Gertsson, C.-A. 2014. Tripsarter i museets markfaunainventering. – Aromia 3: 4-5. Västsvenska entomologklubben.
- Gertsson, C.-A. 2015 a (in press). Nya intressanta tripsfynd från Öland. – Lucanus
- Gertsson, C.-A. 2015 b (in press). Tripsar i Skåne. – FaZett
- Gertsson, C.-A. 2015 c (in press). Ny tripsart, *Thrips myanthidis* Bagnall, för landet funnen i Dalarna. – Inoncellia.
- Hansson, C. 1998. Betydelsen av tillskapade gran-högstubbar för skalbaggs- (Coleoptera) och tripsfaunan (Thysanoptera). – Examensarbete i entomologi, Institutionen för entomologi, SLU, Uppsala.
- Kettunen, J. 2008. Check-list of Finnish Thysanoptera. <http://users.utu.fi/veirinne/tyoryhma>.
- Kettunen, J., Kobro, S. & Martikainen, P. 2005. Thrips (Thysanoptera) from dead aspen (*Populus tremula*) trees in Eastern Finland. – Entomologica Fennica 16: 246-250.
- Kirk, W.D.J. 1996. Thrips. – Naturalists' Handbooks 25.
- Kobro, S. 1996. Notes on thrips (Thysanoptera) in Iceland. – Fauna norv. Ser. B 43: 95-97.
- Kobro, S. 2000. Data base of the thrips (Thysanoptera) collection of the Norwegian Crop research Institute. Poster. – XXV Nordic-Baltic congress of Entomology: 36-37.
- Kobro, S. 2001. *Hoplothrips polystici* (Thysanoptera) on the wood-rotting polypore *Trichaptum abietinum* infesting dead *Picea abies* in Norway. – Entomol. Fennica 12: 15-21.
- Kobro, S. 2002. Distinguishing the second-stage larvae of two *Oxythrips* species (Thysanoptera). – Norw. J. Entomol. 49: 19-22.
- Kobro, S. 2003. On the Norwegian trips fauna (Thysanoptera). – Norw. J. Entomol. 50: 17-32.
- Kobro, S. 2005. The first record of a male of *Aeolothrips manteli* Titschack (Thysanoptera) and some characters of the Norwegian species of the genus. – Norw. J. Entomol. 52: 65-68.
- Kobro, S. 2007. Sampling *Phlaeothrips annulipes* O.M. Reuter (Thysanoptera: Tubulifera) from its habitat, dead birch branches. – Acta Phytopathologica et Entomologica Hungarica 42: 353-360.
- Kobro, S. 2011. Checklist of Nordic Thysanoptera – Norw. J. Entomol. 58: 20-26. Kobro, S. 2013. Norske Insektabeller 19. Trips (Thysanoptera). Norsk Entomologisk Forening.
- Kobro, S. & Nittérus, K. 1999. Tripsar (Thysanoptera) i döda björkar. – Ent. Tidskr. 120 (3): 93-98.
- Kobro, S. & Solheim, H. 2000. *Hoplothrips carpathicus* Pelikán 1961 in Norway. Poster. – 7th International Symposium on Thysanoptera, Reggio Calabria, Italy.
- Kobro, S. & Rafoss, T. 2001. Diagnostic characters of the larvae of some *Hoplothrips* species (Thysanoptera: Tubulifera) in Norway. – Eur. J. Entomol. 98: 53-546.
- Kobro, S. & Rafoss, T. 2006. Identification of adult males and females of *Hoplothrips* species (Thysanoptera: Tubulifera) known from Norway, and some deductions on their life history. – Entomol. Fennica 17: 184-192.
- Larsson, H. 1995. Trips i stråsäd. – Faktablad om växtskydd. Jordbruk 73 J. Swedish University of Agricultural Sciences, Alnarp.
- Larsson, H. 2005. Aphids and Thrips: The Dynamics and Bio-Economics of Cereal Pests. Doctoral Thesis No. 2005:119. Faculty of Landscape Planning, Horticulture and Agricultural Science. Swedish University of Agricultural Sciences, Alnarp.
- Linnaeus, C. v. 1746. Cum differentiis specierum, synonymis autorum Nominibus incolarum, locis habitacionum, descriptionibus insectorum. – Fauna Svecicae sistens Animalia Sveciae Regni: Qvadrupedia, Aves, Amphibia, Pisces, Insecta, Vermes, distributa per classes ordines, genera Species. Stockholmiae, XXIV + 411 pp. + 2 pls.

- Linnaeus, C.v. 1758 . Insecta Hemiptera. Thrips. - Systema nat. (Ed. 10) 1: 457. 1789. Insecta Hemiptera Thrips. 2222-2223. Lundberg, J. 1966. Zooecidier från Västergötland II. Opusc. Ent. XXXI: 136-137.
- Maltbæk, J. 1932. Frynsevinger. Danmarks fauna 37.
- Mound, L.A. 2013. Order Thysanoptera Haliday, 1836. – In: Zhang, Z.-Q. (ed.) Animal Biodiversity: An outline of Higher-level Classification and Survey of Taxonomic Richness. Addenda 2013. – Zootaxa 3703: 1-82.
- Mound, L.A. & Kirby, G. 2005.. Thysanoptera. An identification guide. 2nd ed. CAB International.
- Mound, L.A. & Morris, D.C. 2007. The insect Order Thysanoptera: Classification versus Systematics. In: Zhang, Z.-Q. & Shear, W.A. (Eds) (2007) Linnaeus Tercentenary: Progress in Invertebrate Taxonomy. – Zootaxa 1668: 1-766.
- Mound, L.A., Morison, G.D., Pitkin, B.R. & Palmer, J.M. 1976. Thysanoptera. Handbooks for the identification of British Insects, Vol. I, Part 11.
- Oettingen, H. v. 1954. Beitrag zur Thysanopterenfauna Schwedens. – Ent. Tidskr. 75: 134-150.
- Olsen, A.J. & Midtgård, F. 1996. Malaise trap collections of thrips from the islands Håøya and Ostøya in Oslofjorden, South Norway (Thysanoptera, Insecta). – Fauna nor. Ser B 43: 63-68.
- Priesner H. 1964. Ordnung Thysanoptera (Fransenflügler, Thripse), in Franz H. Bestimmungsbücher zur Bodenfauna Europas 2: 1-242. Akademie-Verlag.
- Qwick, U. 1977. New records and notes on the Swedish Thrips fauna (Thysanoptera). – Ent. Tidskr. 98: 127-131.
- Schliephake, G. & Klimt, K. 1979. Thysanoptera, Fransenflügler. Die Tierwelt Deutschlands. Teil 66. Gustav Fisher Verlag, Jena.
- Selnes, D. 1988. *Frankliniella iridis* Watson (*Iridothrips iridis* Watson) (Thysanoptera). Ny art för Norge. – Fauna norv. Ser. B 35: 45.
- Silfverberg, H. 2012. Changes 2006-2010 in the list of Finnish insects. – Entomologica Fennica 23: 18-41.
- Sörensson, M. 2012. Pilotinventering av den saproxyliska insektsfaunan i Dalby Söderskog 2008. Länsstyrelsen i Skåne. Miljöavdelningen.
- ThripsWiki – providing information on the World's thrips. Available from: thrips.info/wiki/ (accessed 10 June 2015).
- Trybom, F. 1895. Iakttagelser om vissa blåsfottingars (Physapodes) uppträdande i gräsens blomställningar jämte några drag ur släktet *Phloeothrips* utvecklingshistoria. – Ent. Tidskr. 16:157-194.
- Trybom, F. 1896. Physapodnotiser. – Ent. Tidskr. 17: 87-104.
- Tullgren, A. 1917. D:r Filip Tryboms efterlämnade faunistiska anteckningar om svenska Thysanoptera. – Ent. Tidskr. 38: 33-61.
- Thunes, K.H. et al. 2004. The arthropod community of Scots pine (*Pinus sylvestris*) canopies in Norway. – Entomol. Fennica 15: 65-90.
- Vasiliu-Oromulu, L. 2000. *Iridothrips* is actually a valid genus (ord. Thysanoptera: Thripidae). – Entomol. Rom. 5: 69-71.
- Vasiliu-Oromulu, L., zur Strassen, R. & Larsson, H. 2000. New Thrips species (Cl. Insecta: Ord. Thysanoptera) for the fauna of Sweden. – Rev. Roum. Biol. – Biol. Anim., Tome 45: 125-135.
- Vasiliu-Oromulu, L., zur Strassen, R. & Larsson, H. 2001. The systematic revision of thysanoptera species from the Swedish fauna and their geographical distribution. – Entomol. Rom. 6: 93-101.
- Wahlgren, E. 1944. Über *Taeniothrips firmus* Uzel (*Physoporus basicornis* E. Reut.). – Opusc. Ent. IX: 11-14.
- Wahlgren, E. 1945. Gallbildande Thysanoptera. – Opusc. Ent. X: 119-126.
- von Proschwitz, T. & Andersson, G. 1997. Databas för landlevande mollusker, tusenfotingar och gräsuggor. Museum of Natural History, Gothenburg. ThripsWiki (2015).
- Zetterstedt, J. W. 1840. Insecta Lapponica.
- zur Strassen, R. 1976. Fransenflügler (Thysanoptera) im Gebiet von Messaure in der schwedischen Lappmark. – Ent. Tidskr. 97: 1-2.
- zur Strassen, R. 1994. On some fungivorous phlaeothripid Thysanoptera (Insecta) from Germany and Sweden. – CFS (Courier Forschungsinstitut Senckenberg) 178: 115-119.
- zur Strassen, R. 2003. Die Terebranten Thysanopteren Europas und des Mittelmeer-Gebietes. Goecke & Evers, Keltern.

Svensk sammanfattning

Efter att ha gått igenom de större museernas samlingsar av tripsar presenteras här en checklista på de arter som hittills påträffast i landet. Den baseras på de fynd dom gjorts i samlingarna samt på publicerade källor. Listan visar även de landskap som arterna hittats i samt om de förekommer i Danmark, Norge, Finland och Island. I listan redovisas också ett antal arter som ej har hittats i Sverige men påträffast i något av våra grannländer.

Den svenska tripsfaunan omfattar hittills 143 påträffade arter. Tio arter som är nya för Sverige presenteras, varav två arter också är nya för de Nordiska länderna.

Totalt har 196 arter noterats i de fem nordiska länderna. 53 av dessa arter är ej funna i Sverige. Bland de nordiska länderna har flest arter noterats för Finland (147 st). Eftersom Finland till skillnad från Sverige nästan helt saknar den nemorala regionen visar detta att det bör finnas åtskilliga tripsarter i vårt land som vi ännu ej har upptäckts.

Kommentarer till arter som är sällsynta eller endast påträffats på ett fåtal lokaler och /eller är av äldre datum presenteras. I den avslutande bibliografin finns viktig internationell tripslitteratur samt litteratur från de ovan nämnda länderna medtagna.