

New records of horse flies from Norway (Diptera, Tabanidae)

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Detailed records of 242 specimens of horse flies belonging to 20 species are given. The Norwegian distribution of *Hybomitra sexfasciata* (Hine, 1923) and *H. kaurii* Chvála & Lyneborg, 1970 are mapped. *H. kaurii* is distributed as far north as *H. sexfasciata*, to about 70° N. Some nomenclatorial remarks concerning *H. nigricornis* (Zetterstedt, 1842) are given. *Tabanus cordiger* Meigen, 1820 is recorded possibly for the first time from Norway.

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INTRODUCTION

Tabanids collected from localities all over the country during the last three years form the basis of the present study. Detailed records, including EIS square numbers (cfr. Økland 1977), are given for 242 specimens belonging to 20 species. Most specimens have been collected by the author and are deposited in his private collection. Other collectors are mentioned in the text. The site of deposition for specimens deposited elsewhere is given. The following abbreviations have been used: TN = Tore R. Nielsen, private collection; ZMB = Museum of Zoology, Bergen; ZMO = Museum of Zoology, Oslo.

Identification of species and sequence of species treated follow Chvála, Lyneborg & Moucha (1972). As regards previously published records, only the most recent literature has, generally, been taken into consideration.

SYSTEMATIC LIST

CHRYSOPS NIGRIPES Zetterstedt, 1838.

NORDLAND: Nsi: Rana, Grønliå, 5 ♀ ♀ 5 July 1978, EIS 123; Nnv: Lødingen, Kanstad, 4 ♀ ♀ 7 July 1978, EIS 138; TROMS: Tri: Storfjord, Oteren, 5 ♀ ♀ 10 July 1979, I. & T. Nielsen, EIS 155, TN; Lyngen, Larsberg, 6 ♀ ♀ 22 July 1978, EIS 163; FINNMARK: Fn Porsanger, Lakselv, 1 ♀ 26–27 July 1979, I. & T. Nielsen, EIS 174, TN.

The species was described by Zetterstedt (1838: 519) on the basis of a single female specimen captured at Bossekop (Fi: Alta) 8 Aug. 1821. Records from recent times are given by Kauri (1964 : 99) and Davies, Golini & Raastad (1971). The distribution is holarc-

tic. It is not known from Denmark (Chvála, Lyneborg & Moucha 1972).

CHRYSOPS DIVARICATUS Loew, 1858.

BUSKERUD: Bø: Øvre Eiker, Krekling, 1 ♀ 2 Aug. 1977, EIS 27; Flesberg, Hvila, 1 ♀ 27 July 1979, EIS 27; VESTFOLD: VE: Hof, Thorrud, 1 ♀ 28 July 1979, EIS 28.

The species was recorded for the first time from Norway by Andersen & Kauri (1977) from localities in Vestfold (VE). It is an eastern palearctic species and the record from Flesberg (9° 35' E) is apparently the westernmost European record (cfr. Leclercq 1960; 1966: 234). The dot for Denmark in Leclercq (1960: Map 17) is obviously misplaced and ought to be moved to Zealand, the only Danish record being from Hestehave, Hillerød, Zealand (Lyneborg 1960:166).

CHRYSOPS CAECUTIENS (L.)

AUST-AGDER: AAi: Åmli, Sandå, 1 ♀ 28 June 1978, EIS 10; TELEMARK: TEy: Drangedal, Tørnes, 1 ♀ 28 June 1978, EIS 18; NORDTRØNDELAG; NTi: Steinkjer, Gulbergaunet, 4 ♀ ♀ 26 July 1978, EIS 101.

Apparently no records from Norway have been published in this century.

CHRYSOPS RELICTUS Meigen, 1820

ØSTFOLD: Ø: Fredrikstad, Øra, 1 ♀ 24 June 1979, EIS 20; BUSKERUD: Bø: Flesberg, Belgen, 1 ♀ 27 July 1979, EIS 27; Hvila 3 ♀ ♀ 27 July 1979, EIS 27; Kongsberg, Meheia, 1 ♀ 26 July 1979, EIS 27; TELEMARK: TEy: Drangedal, Tørnes, 1 ♀ 28 June 1978, EIS 18; Nome, Vårbu, 1 ♀ 7 Aug. 1979, EIS 18; TEi: Sauherad, Nordagutu, 5 ♀ ♀ 26 July 1979, Ø. & A & T. & K. Rognes, EIS

18; Hjartdal, Sønlandsvatn, 3 ♀ ♀ 2 Aug. 1977, EIS 26; Kviteseid, Heggveit, 1 ♀ 24 July 1979, EIS 17; ROGALAND: Ry: Bjerkreim, Nedrabø, 2 ♀ ♀ 10 July 1977, EIS 7; Sandnes, Bråstein, 1 ♀ 14 Aug. 1977, Ø. & K. Rognes, EIS 7; MØRE OG ROMSDAL: MRi: Sunndal, Innerdalen, 1 ♀ 28 July 1978, EIS 85; NORDLAND: Nnø: Hamarøy, Innhavet, 1 ♀ 6 July 1978, EIS 134; Nordkil, 1 ♀ 23 July 1978, EIS 138; Nnv: Lødingen, Kanskstad, 4 ♀ ♀ 7 July 1978, EIS 138; TROMS: TRi: Målselv, Rundhaug, 1 ♀ 22 July 1978, EIS 154.

Chrysops relictus has in recent times been recorded by Davies, Colini & Raastad (1971).

HYBOMITRA TARANDINA (L.)

TELEMARK: TEy: Drangedal, Tørnes, 1 ♀ 28 June 1978, EIS 18.

Hybomitra tarandina has been recorded by Davies, Golini & Raastad (1971) in recent times.

HYBOMITRA AURIPILA (Meigen, 1820)

VESTFOLD: VE: Hof, Thorrud, 1 ♀ 28 July 1979, EIS 28; TELEMARK: TEy: Drangedal, Tørnes, 1 ♀ 28 June 1978, EIS 18; NORD-TRØNDELAGE: NTi: Røyrvik, Holmmo, 5 ♀ ♀ 4 July 1978, EIS 108; NORDLAND: Nsi: Grane, Laksfors, 1 ♀ 4 July 1978, EIS 115; Hemnes, Bjerka, 2 ♀ ♀ 5 July 1978, EIS 118; Rana, Grønliia, 29 ♀ ♀ 5 July 1978, EIS 123; Røssvoll, 1 ♀ 5 July 1978, EIS 123; Virvassdalen, 5 ♀ ♀ 24 July 1978, EIS 124; Nnø: Sørfold, Mørsvikbotn, 1 ♀ 6 July 1978, EIS 134; Nnv: Lødingen, Kanstad, 11 ♀ ♀ 7 July 1978, EIS 138; TROMS: TRy: Tromsø, Breivikeidet v/Nyskog, 13 ♀ ♀ 10 July 1978, EIS 163; Finnvikdalen—Kvaløy, 1 ♀ 25 June 1979, I. & T. Nielsen, EIS 162, TN; TRi: Målselv, Andselv, 1 ♀ 12 July 1979, I. & T. Nielsen, EIS 154, TN; Balsfjord, Nordkjösbotn, 1 ♂ 13–14 July 1979, I. & T. Nielsen, EIS 154, TN; Storfjord, Oteren, 1 ♀ 10 July 1979, I. & T. Nielsen, EIS 155, TN; Kåfjord, Djupvik, 1 ♀ 10 July 1978, EIS 163; Nordreisa, Andsjøen—Storslett, 1 ♀ 8 July 1979, I. & T. Nielsen, EIS 164, TN; Rotsundelv, 1 ♀ 22 July 1978, EIS 163; Sandnes, 3 ♀ ♀ 21 July 1978, EIS 164; Storslett, 1 ♀ 9 July 1979, I. & T. Nielsen, EIS 164, TN; Vaddas, 9 ♀ ♀ 10 July 1978, EIS 164; Kvæningen, Burfjorddal, 7 ♀ ♀ 21 July 1978, EIS 172; Gilde-tun—Kvæangsfjell, 2 ♀ ♀ 7 July 1979, I. & T. Nielsen, EIS 172, TN; FINNMARK: Fi: Alta, Gargia, 2 ♀ ♀ 1 July 1979, I. Nielsen, EIS 165, TN; Grønnåsen—Gargia, 2 ♀ ♀ 30 June 1979, I. & T. Nielsen, EIS 165, TN; Øvre Alta, 3 ♀ ♀ 20 July 1978, EIS 173.

Andersson (1975) has resolved some confusion, as far as Scandinavia is concerned, in the monograph of Chvála, Lyneborg & Moucha (1972) regarding this species and *H. aterrima* (Meigen). From 1907 the name *aterri-*

mus Meigen has been used for *H. auripila* in Scandinavia. Recent records are published by Davies (1954), Kauri (1964), Leclercq (1966) and Davies, Golini & Raastad (1971).

HYBOMITRA BOREALIS (Fabricius, 1781)

AUST-AGDER: AAi: Åmli, Sandå, 3 ♀ ♀ 28 June 1978, EIS 10; NORD-TRØNDELAGE: NTi: Grong, Heia, 1 ♀ 3 July 1978, EIS 102.

Hybomitra borealis has been recorded by Ringdahl (1951: 119, as *Tabanus lapponicus* Wahlberg), Kauri (1968: 63, as *Hybomitra lapponica* (Wahlberg)) and Davies, Golini & Raastad (1971) in recent times.

HYBOMITRA SEXFASCIATA (Hine, 1923)

TROMS: TRi: Nordreisa, Storslett, 1 ♀ 9 July 1979, I. & T. Nielsen, EIS 164, TN; FINNMARK: Fi: Karasjok, Halddenjargga, 3 ♀ ♀ 19 July 1978, EIS 166.

Hybomitra sexfasciata has previously been reported by Kauri (1951: 103, as *Tabanus borealis anderi* ssp.n.) from the following localities: Norvegia, 1 ♀, Zetterstedt; TRy: Tromsø, Tromsø 1 ♀, Ardø, EIS 162; TRi: Kvæningen, Sørstraumen, 4 ♀ ♀, Ardø, EIS 164; Finnmark, 1 ♀, Zetterstedt; Fi: Alta, Bossekop, 2 ♀ ♀, Zetterstedt, EIS 173; Fø: Sør-Varanger, ?loc., 1 ♀, Schøyen, EIS 169?. No further Norwegian localities are given by Kauri (1958, 1968).

The distribution of *H. sexfasciata* in Norway is shown in Fig. 1 A.

HYBOMITRA KAURII Chvála & Lyneborg, 1970

AUST-AGDER: AAi: Åmli, Sandå, 1 ♀ 28 June 1978, EIS 10; NORDLAND: Nsi: Grane, Laksfors, 1 ♀ 4 July 1978, EIS 115; Hemnes, Bjerka, 1 ♀ 5 July 1978, EIS 118; Nnv: Lødingen, Kanskstad, 1 ♀ 7 July 1978, EIS 138; TROMS: TRy: Tromsø, Breivikeidet v/Nyskog, 1 ♂ 10 July 1978, EIS 163; TRi: Kvæningen, Burfjorddal, 1 ♀ 21 July 1978, EIS 172, (69° 55' N).

Recent records of *Hybomitra kaurii* are reported by Davies (1954, as *H. borealis* Loew) from Nsy: Meløy, Holandsfjorden v/Engabreen, EIS 122; by Kauri (1958: 97, as *H. borealis* Loew) from TRi: Kvæningen, Sørstraumen, EIS 164, (one of the four specimens caught by Ardø and originally determined by Kauri (1951) as *Tabanus borealis anderi*, see above under *Hybomitra sexfasciata* (Hine, 1923)); and by Davies, Golini & Raastad (1971) from HEN: Rendalen, Renådalen seter, EIS 64. The records from Norway in Leclercq (1966: 103, as *H. bore-*

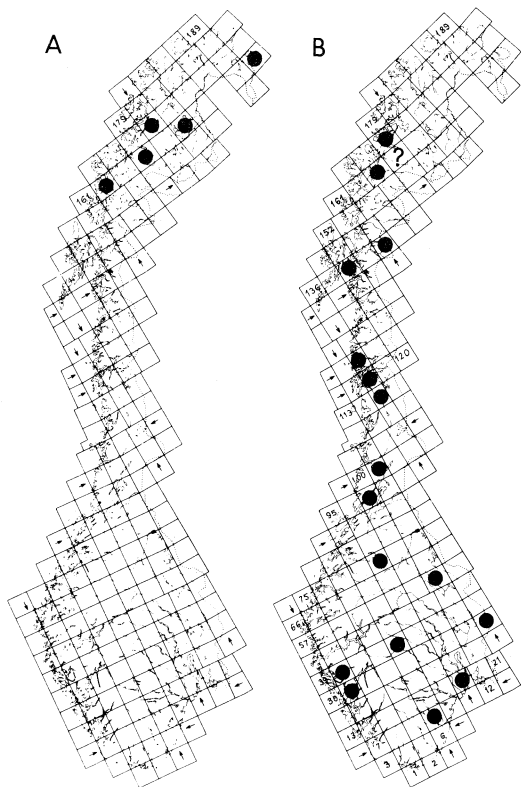


Fig. 1. Distribution in Norway of A) *Hybomitra sexfasciata* (Hine, 1923) (*Tabanus borealis anderi* Kauri, 1951) and B) *Hybomitra kaurii* Chvála & Lyneborg, 1970 (*borealis* auctt. nec Fabricius, 1781). Records from Kauri (1951, 1958, and in litt. 17 Sept. 1979), Davies (1954), Davies, Golini & Raastad (1971), and records published in the present paper. ? = single specimen from TRi: Kvænangen, Sørstraumen (Kauri 1958: 97, as *H. borealis* Meigen).

lis Meigen) («Tromsø, Finmark») probably refer to localities reported by Kauri (1951, 1964) concerning specimens of *H. sexfasciata*, which species Leclercq does not recognize as distinct from *H. kaurii*. Kauri (in litt. 17 Sept. 1979) reports material in the possession of ZMB from localities in the following provinces: Hedmark (HEs), Buskerud (Bv), Vestfold (VE), Hordaland (HOi, HOy), Sør-Trøndelag (STi, STy), Nord-Trøndelag (NTi) and Nordland (Nnø). The localities are situated in the following EIS squares: EIS 19, 31, 38, 40, 43, 79, 97, 101, 140.

The distribution of *H. kaurii* in Norway is shown in Fig. 1 B. It is distributed as far north as *H. sexfasciata*, both to about 70° N.

HYBOMITRA NIGRICORNIS (Zetterstedt 1842: 112)

HORDALAND: HOi: Odda, Grytingstøl, 800 m above sea level, (Valldalen), 1 ♂ 22 July 1979, EIS 24.

Records of this species from recent times are published by Davies (1954) and Kauri (1968). Zetterstedt described his *Tabanus alpinus* (synonym to *nigricornis* Zetterstedt according to Chvála, Lyneborg & Moucha 1972) partly from a male specimen captured «in Raschstind insulae Schiervoe Nordlandiae» (TRY: Skjervøy, Skjervøy?) 27 July 1821 (Zetterstedt 1838: 516). Both Leclercq (1966: 14) and Chvála, Lyneborg & Moucha (1972: 209), however, make it appear that it was originally described in Diptera Scandinaviae (Zetterstedt 1842: 116) rather than in Insecta Lapponica (Zetterstedt 1838), although the description was only repeated there in an abbreviated form. Even though antedating *nigricornis*, *alpinus* cannot be used for naming the present taxon since *Tabanus alpinus* Zetterstedt, 1838 is a junior primary homonym to *Tabanus alpinus* Scopoli, 1763 (*Silvius alpinus*) (cfr. Chvála, Lyneborg & Moucha 1972: 152).

HYBOMITRA LURIDA (Fallén, 1817)

ROGALAND: Ry: Sandnes, Selvikvåg, 1 ♀ 4 June 1978, A. B. Larsen, EIS 7; NORD-TRØNDELAGE: NTi: Grong, Heia, 1 ♀ 3 July 1978, EIS 102; NORDLAND: Nnv: Lødingen, Kanstad, 1 ♀ 7 July 1978, EIS 138; FINNMARK: Fi: Kautokeino, Mieron, 2 ♀♀ 19 July 1978, EIS 157; Karasjok, Halddenjargga, 1 ♀ 19 July 1978, EIS 166.

Records from recent times are published by Ringdahl (1954), Kauri (1964: 105) and Davies, Golini & Raastad (1971).

HYBOMITRA NITIDIFRONS (Szilady, 1914) subsp. *conformis* Chvála & Moucha, 1971

AUST-AGDER: AAI: Åmli, Sandå, 2 ♀♀ 28 June 1978, EIS 10; FINNMARK: Fi: Kautokeino, Mieron, 5 ♀♀ 19 July 1978 EIS 157; Karasjok, Halddenjargga, 4 ♀♀ 19 July 1978, EIS 166.

This species was first recorded from Norway by Ringdahl (1954: 46). Since then it has been reported by Kauri (1964: 105; 1968: 63) and Davies, Golini & Raastad (1971). All these records have been published under the name *H. conformis* Frey.

HYBOMITRA LUNDBECKI (Lyneborg, 1959)

FINNMARK: Fi: Kautokeino, Mieron, 1 ♀ 19 July 1978, EIS 157; Karasjok, Halddenjargga, 2 ♀ ♀ 19 July 1978, EIS 166; Fø: Sør-Varanger, Vaggatem, 1 ♀ 15 July 1978, EIS 160.

Recently recorded by Kauri (1968) and Davies, Golini & Raastad (1971). All the new records are well north of Maunu and Karesuando, Torne Lappmark, Sweden, the hitherto northernmost published records from Scandinavia (Kauri 1964: 107; Chvála, Lyneborg & Moucha 1972: 222), the one from Halddenjargga being farthest to the north (69° 27' N).

HYBOMITRA MONTANA (Meigen, 1820)

ROGALAND: Ry: Bjerkreim, Ørdsalen, 5 ♀ ♀ 10 July 1977, EIS 8; 1 ♀ 10 July 1977, EIS 8, ZMB; AUST-AGDER: AAi: Åmli, Sandå, 2 ♀ ♀ 28 June 1978, EIS 10; NORDLAND: Nnø: Hamarøy, Ulsvåg, 1 ♀ 7 July 1978, EIS 138; Nnv: Lødingen, Kanstad, 4 ♀ ♀ 7 July 1978, EIS 138; TROMS: TRi: Kåfjord, Djupvik, 1 ♀ 10 July 1978, EIS 163, ZMB; Lyngen, Larsberg, 1 ♀ 22 July 1978, EIS 163; 2 ♀ ♀ 22 July 1978, EIS 163, ZMB; FINNMARK: Fi: Alta, Bossekop—Alta, 1 ♂ 5 July 1979, I. & T. Nielsen, EIS 173, TN.

Hybomitra montana has previously been recorded by Kauri (1968) and Davies, Golini & Raastad (1971). Ringdahl (1951: 120, as *Tabanus montanus flaviceps* Zetterstedt) reports it from «Norge». He probably refers to the single female specimen captured by Zetterstedt at «Oestre Næs» (NTi: Verdalen) 8 July 1840 (Zetterstedt 1842: 111), on the basis of which he described the species *Tabanus flaviceps*, now considered a synonym to *H. montana* (Chvála, Lyneborg & Moucha 1972: 224).

HYBOMITRA MUEHLFELDI (Brauer, 1880)

(Brauer, 1880) AUST-AGDER: AAi: Åmli, Sandå, 2 ♀ ♀ 28 June 1978, EIS 10.

The species was recorded for the first time from Norway by Andersen & Kauri (1977) from localities in Vestfold (VE).

HYBOMITRA BIMACULATA (Macquart, 1826)

AUST-AGDER: AAi: Åmli, Sandå, 3 ♀ ♀ 28 June 1978, EIS 10.

The species has been reported from Vestfold (VE) and Østfold (Ø) by Kauri (1968).

ATYLOTUS FULVUS (Meigen, 1820)

AUST-AGDER: AAi: Åmli, Sandå, 1 ♀ 28 June 1978, EIS 10.

Atylotus fulvus is not listed from Norway by Chvála, Lyneborg & Moucha (1972: 23), but in the text it is reported from «all Scandinavian countries» (*ibid.*: 272). It has previously been reported by Siebke (1877: 3, as *Tabanus fulvus* Meigen) from «Christianiam» (AK: Oslo) (cfr. also Schøyen 1889: 4), by Bidentkap (1892: 227, as *T. fulvus*) from Vestfold (VE), and by Leclercq (1966: 129) from «Norvège». It is known in Sweden from Skåne to Lule Lappmark (Kauri 1954, 1964).

In ZMO is a male specimen from «Kr.ania» (AK: Oslo) (Esmark leg.) (ZMO no. 6150) determined as *Tabanus fulvus* Meigen. The head is lost, but the specimen certainly does not belong to that species.

TABANUS CORDIGER (Meigen, 1820)

TELEMARK: TEi: Sauherad, Nordagutu, 1 ♀ 26 July 1979, K. & A. & Ø. & T. Rognes, EIS 18.

Tabanus cordiger is not listed by Chvála, Lyneborg & Moucha (1972: 25) from Norway, neither by Kauri (1978). Siebke (1877: 1, as *Tabanus latifrons* Zetterstedt and *T. atricornis* Meigen) reports both female and male specimens from localities in the South Eastern part of the country.

TABANUS BROMIUS L.

AKERSHUS: AK: Bærum, Øverland, 1 ♀ 23 June 1979, EIS 28.

Tabanus bromius has in recent times been recorded from Telemark (TEi: Bø, Bø) by Davies, Golini & Raastad (1971: 115).

HAEMATOPOTA PLUVIALIS (L.)

TELEMARK: TEy: Nome, Vårbu, 2 ♀ ♀ 7 Aug. 1979, EIS 18; TEi: Sauherad, Nordagutu, 1 ♀ 26 July 1979, K. & A. & Ø. & T. Rognes, EIS 18; AUST-AGDER: AAi: Åmli, Sandå, 1 ♀ 28 June 1978, EIS 10; ROGALAND: Ry: Bjerkreim, Nedrabø, 1 ♀ 10 July 1977, EIS 7; Ørdsalen, 1 ♀ 10 July 1977, EIS 8; Sandnes, Lura, 1 ♂ 19 July 1979, EIS 7; Stavanger, Krossberg, 1 ♀ 11 July 1977, EIS 7; NORD-TRØNDELAG: NTi: Levanger, Hammer, 1 ♀ 3 July 1978, EIS 98; Steinkjer, Gulbergaunet, 1 ♀ 26 July 1978, EIS 101; NORDLAND: Nsi: Rana, Virvassdalen 1 ♀ 24 July 1978, EIS 124; Nnv: Lødingen, Kanstad, 1 ♀ 7 July 1978, EIS 138; Andøy, Andenes, 1 ♀ 7 July 1978, EIS 152; TROMS: TRi: Målselv, Takelvdal, 1 ♀ 12 July 1979, I. & T. Nielsen, EIS 154, TN; Storfjord, Oteren, 1 ♀ 10 July 1979, I. & T. Nielsen, EIS 155, TN.

Judging from the list of provincial records from Norway given by Lyneborg & Chvála (1970: 35), the above records from Telemark, Aust-Agder and Nord-Trøndelag are new. Recent records have been published by Davies (1954), Kauri (1964) and Davies, Golini & Raastad (1971).

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