

# New records of Darwin Wasps (Hymenoptera, Ichneumonidae) from Norway

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The first Norwegian records of 63 species of Ichneumonidae are presented. The majority of the records are from Nordland, Rogaland and Viken. Species from twelve different subfamilies are presented, but Banchinae, Ichneumoninae, Cryptinae and Anomaloniinae have received extra focus. Of these 63 species, seven are new to Fennoscandia: *Lissonota dormitor* Brock, 2017, *Exetastes illyricus* Strobl, 1904, *Campeletis pectalis* Riedel, 2017, *Cryptus spiralis* Geoffroy, 1788, *Campodorus mediosanguineus* Heinrich, 1950, *Heterischmus coxator* Thomson, 1891 and *Exochus argutus* Tolkanitz, 1993.

Key words: Ichneumonidae, Anomaloniinae, Banchinae, Campopleginae, Cryptinae, Ctenopelmatinae, Ichneumoninae, Metopiinae, Ophioninae, Pimplinae, Phygadeuontinae, Tersilochinae, Tryphoninae, new records, Artsobservasjoner, citizen science.

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## Introduction

In the last couple of decades more than 700 species of Ichneumonidae were added to the Norwegian fauna (Riedel 2019). Until recently this species group has received little focus from most amateur entomologists because of the huge number of species and limited access to functional identification keys. The publication

of «Ichneumonid wasps (Hymenoptera: Ichneumonidae): their Classification and Biology» (Broad *et al.* 2018) provided a tool to sort Ichneumonidae into subfamilies, something which has sparked an increased interest in this species group among amateur entomologists. In this article 63 species of Ichneumonidae are presented as new to the Norwegian fauna.

## Material and methods

Most specimens presented here were collected or identified by one of the authors between 2011 and 2022. A majority of the records are from Nordland, Rogaland and Viken. Most have already been published together with documentation at the citizen science portal «Artsobservasjoner.no», but many have so far been omitted from the checklists as they have not been the subject of scientific publication. Trapping methods include malaise traps, light traps, sweep netting and searches for hibernating individuals under bark. Only records where specimens are kept in collections or sent to experts for identification have been considered for publication. A number of specimens belonging to the subfamily *Ichneumoninae* have also been barcoded, these are kept in the collection at Vitenskapsmuseet in Trondheim. Distributional data are given according to Strand regions (Endrestøl 2021). Identification of species belonging to the subtribe *Ichneumonini* in this article is based primarily on Hilpert (1992) supported by Perkins (1960) and Rasnitsyn & Siytan (1981).

## List of species

Subfamilies are presented in alphabetical order. Data on distribution is from Yu et al. (2016), with more recent updates from Dyntaxa and the Finnish Biodiversity Information Facility (FinBIF).

Subfamily Anomaloniinae

### *Agrypon flexorioides* Schnee, 1989

**Material:** Ø, Hvaler, Asmaløy, Huser (N 59.05785, E 10.93131) sweep net, 1♂ 3 July 2019, leg. Kjell Mjølvsnes, Jostein Austevik, coll. K. Mjølvsnes. Ø, Halden, Fredriksten festning (N 59.11948, E 11.39680) sweep net, 1♂1♀ 9 July 2022, leg. Kjell Mjølvsnes, coll. K. Mjølvsnes.

**Distribution:** Palearctic; Norway, Sweden, Finland.

### *Agrypon minutum* Bridgman & Fitch, 1884

**Material:** OS, Nordre Land, Svea (N 60.94846,

E 10.13057) sweep net, 1♀ 25 July 2012, leg. Gunnar Engan, det. Heinz Schnee, coll. G. Engan.

**Distribution:** Palearctic; Norway, Finland.

### *Habronyx heros* Wesmael, 1849

**Material:** AK, Nesodden, Ommen (N 59.80391, E 10.60919) sweep net, 1♀ 24 August 2013, leg. Ole Lønnve, det. Geir Ørsnes/Gergely Várkonyi, coll. Ole Lønnve. The identification was based in part on Gauld (1976).

**Distribution:** Palearctic; Norway, Sweden, Finland.

### *Erigorgus fibulator* Gravenhorst, 1829

**Material:** RY, Sola, Hellestø (N 58.83913, E 5.56238) sweep net 1♂ 27 May 2021, leg. Kjell Mjølvsnes, coll. K. Mjølvsnes. RY, Klepp, Borestranda (N 58.79568, E 5.55000) sweep net, 1♀ 4 June 2021, leg. Kjell Mjølvsnes, coll. K. Mjølvsnes. RY, Klepp, Borestranda (N 58.79568, E 5.55000) sweep net, 1♀1♂ 15 May 2022, leg. Kjell Mjølvsnes, coll. K. Mjølvsnes.

**Distribution:** Palearctic; Norway, Sweden, Finland.

**Remarks:** Seemingly a rare species with only a few records from North Africa, Jordan, France and the nordic countries. All specimens from Sola and Klepp were collected in open and wind-exposed sanddune areas with many exposed sandflats. Keyed with Penigot (2018), and identification confirmed by the author of the key.

Subfamily Banchinae

### *Lissonota confusa* Rey del Castillo, 1992

**Material:** RY, Hå, Ognasanden (N 58.5134, E 5.79894) sweep net, 1♂ 11 August 2019, leg. Jostein Austevik & Sveinung Larsen, det. Niklas Johnsson, coll. J. Austevik. RY, Hå, Ognasanden (N 58.51316, E 5.79633) sweep net, 2♂♂1♀ 3 August 2022, leg. Gunnar Engan, coll. G. Engan. RY, Sola, Solastranda (N 58.87654, E 5.59996) sweep net, 2♂♂ 4 August 2022, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Lissonota dormitor* Brock, 2017**

**Material:** AK, Vestby, Muggestad (N 59.54473, E 10.73733) sweep net, 1♀ 7 August 2019, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; UK, new to Fennoscandia.

**Remarks:** This species is known from conifer plantations in England and Scotland, and has been reared from *Dioryctria abietella* and *Abies* cones (Brock 2017).

***Lissonota gracilipes* Thomson, 1877**

**Material:** RY, Sokndal, Ormamyro (N 58.34749, E 6.15471) malaise trap, 1♀ 7–23 July 2021, 1♀ 23 July–21 August 2021, leg. Jarl Birkeland, det. Niklas Johansson, coll. N. Johansson.

**Distribution:** Palearctic; Norway, Sweden, Finland

***Banchus palpalis* Ruthe, 1859**

**Material:** NNV, Flakstad, Austre Nesland (N 68.00732, E 13.29888) sweep net, 1♀ 25 July 2021, leg. Kjell Mjøsnes, coll. K. Mjøsnes.

**Distribution:** Palearctic; Norway, Sweden, Finland

***Exetastes illyricus* Strobl, 1904**

**Material:** AK, Vestby, Brevikbukta (N 59.51072, E 10.68389) sweep net, 1♀ 3 August 2017, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; New to Fennoscandia.

***Exetastes notatus* Holmgren, 1860**

**Material:** Ø, Moss, N of Noretjern (N 59.45163, E 10.71059) sweep net, 1♂ 25 July 2016, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden.

***Glypta monoceros* Gravenhorst, 1829**

**Material:** Ø, Marker, Gjølssjøen (N 59.44057, E 11.68751) sweep net, 1♀ 8 July 2017, leg. Gunnar Engan, coll. G. Engan. Ø, Hvaler, Vesterøy, Sandholmen (N 59.07312, E 10.864), sweep net, 1♂1♀ 25 June 2020, leg. Gunnar Engan, coll. G. Engan. Ø, Råde, Åven (N 59.31733, E 10.73607) sweep net, 2♀♀ 1 July 2020, leg. Gunnar Engan,

coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden.

***Glypta rufata* Bridgman, 1887**

**Material:** RY, Sokndal, Eiketono (N 58.33681, E 6.30228) malaise trap, 1♀ 21 May - 13 June 2020, leg. Jarl Birkeland, det. Jarl Birkeland/Niklas Johansson, coll. J. Birkeland.

**Distribution:** Palearctic; Norway, Sweden, Finland.

Subfamily Campopleginae

***Campoletis pectalis* Riedel, 2017**

**Material:** Ø, Moss, Noretjern (N 59.45083, E 10.70984) sweep net 1♀ 16 May 2019, leg. Gunnar Engan, coll. G. Engan. AK, Vestby, Tørbrekke (N 59.50624, E 10.73826) sweep net 1♀ 25 May 2019, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Known from central Europe including Germany (Riedel 2017). New to Fennoscandia.

Subfamily Cryptinae

***Agrothereutes saturniae* Boie, 1855**

**Material:** RY, Sokndal, Ormamyro (N 58.34749, E 6.15471) malaise trap, 1♀ 23 July–21 August 2021, leg. Jarl Birkeland, det. Martin Schwarz, coll. J. Birkeland. RY, Sokndal, Skittmyr (N 58.34979, E 6.30507) malaise trap, 1♀ 9 August–5 September, leg. Jarl Birkeland, coll. J. Birkeland.

**Distribution:** Palearctic; Norway, Finland

***Cryptus spiralis* Geoffroy, 1788**

**Material:** TEY, Kragerø, Jomfruland, Øytangen (N 58.88143, E 9.61060) sweep net, 3♀♀ 8–9 June 2021, leg. Kjell Mjøsnes, det. Jarl Birkeland, coll. K. Mjøsnes. AAY, Arendal, Spornes (N 58.44453, E 8.85759) sweep net, 1♀ 18 June 2021, leg. Jarl Birkeland, det. Martin Schwarz, coll. J. Birkeland. AAY, Arendal, Brekke (N 58.45125, E 8.86445) sweep net, 1♀ 18 June 2021, leg. Kjell Mjøsnes, det. Jarl Birkeland, coll. K. Mjøsnes.

**Distribution:** Palearctic; New to Fennoscandia.

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***Ischnus agitator* Olivier, 1792** (Figure 1)

**Material:** RY, Sokndal, Skittmyr (N 58.34979, E 6.30507) malaise trap, 1♀ 21 May–13 June 2020, leg. Jarl Birkeland, det. Fons Verheyde/Martin Schwarz/Niklas Johansson, coll. J. Birkeland.

**Distribution:** Palearctic; Norway, Sweden, Denmark.

***Listrognathus obnoxius* Gravenhorst, 1829**

**Material:** VAY, Farsund, Lomsesanden (N 58.06521, E 6.79214) sweep net, 2♂♂ 29 May 2020, leg. Kjell Mjøl̄snes, coll. K. Mjøl̄snes. RY, Hå, Brusand (N 58.53861, E 5.72812) sweep net, 1♂ 31 May 2020, leg. Kjell Mjøl̄snes, coll. K. Mjøl̄snes. RY, Hå, Ognasand (N 58.52050, E 5.78489) sweep net, 1♂ 31 May 2020, leg. Jarl Birkeland, coll. J. Birkeland. RY, Hå, Brusand (N 58.53861, E 5.72812) sweep net, 1♂ 2 June 2020, leg. Kjell Mjøl̄snes, coll. K. Mjøl̄snes. RY, Hå, Ognasanden (N 58.51260, E 5.80092) sweep net, 1♀ 6 June 2020, leg. Kjell Mjøl̄snes, coll. K. Mjøl̄snes. RY, Sola, Solastranda sør (N 58.87756, E 5.59945) sweep net, 1♂ 27 May 2021, leg. Kjell Mjøl̄snes, coll. K. Mjøl̄snes.

**Distribution:** Palearctic; Norway, Sweden.

***Thrybius praedator* Gravenhorst, 1829**

**Material:** AK, Vestby, Sonskilen (N 59.52934, E 10.68181) sweep net, 1♀ 15 July 2014, leg. Gunnar Engan, coll. G. Engan. AK, Vestby, Sonskilen (N 59.52980, E 10.68130) sweep net, 1♂ 2 August 2017, leg. Gunnar Engan, coll. G. Engan. AK, Vestby, Sonskilen (N 59.52952, E 10.68181) sweep net, 1♂ 9 July 2019, leg. Gunnar Engan, coll. G. Engan. AK, Vestby, Sonskilen (N 59.52934, E 10.68198) sweep net, 2♂♂ 14 July 2019, leg. Gunnar Engan, coll. G. Engan. Ø, Fredrikstad, Hankø, Trosvika (N 59.21266, E 10.76781) sweep net, 1♀ 11 June 2019, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Xylophrurus tumidus* Desvignes, 1856**

**Material:** RY, Sokndal, Birkeland (N 58.35646, E 6.15488) malaise trap, 2♀♀ 20



**FIGURE 1.** *Ischnus agitator* Olivier, 1792. Photo: J. Birkeland.

March–4 October 2018, leg. Jarl Birkeland, coll. J. Birkeland. RY, Sokndal, Birkeland (N 58.35646, E 6.15488) malaise trap, 2♀♀ 12 May–1 June 2019, leg. Jarl Birkeland, coll. J. Birkeland. RY, Sokndal, Skittmyr (N 58.34979, E 6.30507) malaise trap, 1♀ 12–25 May 2019, leg. Jarl Birkeland, coll. J. Birkeland. NSY, Bodø, Vatnlia (N 67.35130, E 14.76809) sweep net, 1♀ 5 June 2021, leg. Geir Ørsnes, det. Gergely Várkonyi/Geir Ørsnes, coll. Vitenskapsmuseet.

**Distribution:** Palearctic; Finland, Germany, UK.

**Remarks:** The separation of *X. tumidus* from similar species is discussed by Vaz (2015) and Paappan (2020).

Subfamily Ctenopelmatinae

***Barytarbes colon* Gravenhorst, 1829**

**Material:** TEI, Tokke, Kraftstasjon Dalen

(N 59.44482, E 8.03213) sweep net, 1♂ 16 July 2020, leg. Jarl Birkeland, det. Gavin Broad, coll. J. Birkeland.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Campodorus mediosanguineus* Heinrich, 1950**

**Material:** RY, Sokndal, Eiketono (N 58.33681, E 6.30228) malaise trap, 1♀ 9 August–5 September 2020, leg. Jarl Birkeland, coll. J. Birkeland. RY, Sandnes, Svanholmen (N 58.88874, E 5.70877) malaise trap, 1♀ 2–15 August 2022, leg. Alf Tore Mjøs, det. Jarl Birkeland/Alf Tore Mjøs, coll. MUST.

**Distribution:** Palearctic; known from Germany. New to Fennoscandia.

Subfamily Ichneumoninae

***Coelichneumon biguttulatus* Kriechbaumer 1875**

**Material:** AK, Nesodden, Flatebybråten (N 59.81227, E 10.62490) sweep net, 1♂ 2 June 2014, leg. Ole-Jørgen Lønnve, det. Geir Ørsnes, coll. O.-J. Lønnve.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Syspasis tauma* Heinrich, 1951**

**Material:** NSY, Fauske, Altersmyra N (N 67.33985, E 15.18875) malaise trap, 1♀ 18 August–1 September 2019, leg. Gunnar M. Kvifte, det. Geir Ørsnes, coll. Vitenskapsmuseet. Barcode, Sample ID BOLD: HymVM330.

**Distribution:** Palearctic; Norway, Sweden, Finland.

**Remarks:** Published as new for Norway in Riedel (2021), but without accurate record data.

***Cratichneumon sicarius* Gravenhorst, 1829**

**Material:** AAY, Grimstad, Sømskilen (N 58.39197, E 8.70300) light trap, 1♀ 11 September 2016, leg. Per Kristian Slagsvold, det. Geir Ørsnes. Ø, Råde, Øvre Hagavei 1 (N 59.32739, E 10.80391) live specimen (F) photographed, leg. Rune Aae, det. Geir Ørsnes. Ø, Halden, Fredriksten (N 59.1206254, E 11.39946) sweep

net, 1♀ 21 June 2022, leg. Kjell Mjøsnes, det. Geir Ørsnes, coll. K. Mjøsnes. RY, Hå, Hølland (N 58.52445, E 5.83518) malaise trap, 1♀ 31 August–17 September 2020, leg. Alf Tore Mjøs, det. Geir Ørsnes, coll. MUST. BV, Ål, Breiehagen (N 60.59097, E 8.45379) light trap 1♀ 13 September 2021, leg. Torgrim Breiehagen, det. Alf Tore Mjøs, coll. MUST. VE, Larvik, Hagtvedt (N 59.13292, E 10.08093) light trap 1♀ 8 October 2022, leg. Jørn Tollefsen, det. Geir Ørsnes. Photo of live specimen.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Ctenichneumon devylderi* Holmgren, 1871**

**Material:** TEI, Tokke, Ravnejuvvegen (N 59.48154, E 7.95795) sweep net, 2♂♂1♀ 9 July 2021, leg. Kjell Mjøsnes, Jarl Birkeland, Even Mjaaland, det. Geir Ørsnes/Niklas Johansson, coll. K. Mjøsnes.

**Distribution:** Palearctic; Norway, Sweden.

***Ctenichneumon messorius* Gravenhorst, 1820**

**Material:** NSY, Bodø, Ausvika (N 67.3363, E 14.49141) sweep net, 1♂ 4 August 2020, leg. Geir Ørsnes, det. Geir Ørsnes, coll. Vitenskapsmuseet. NSY, Bodø, Gravodden, Løp (N 67.33043, E 14.48232) sweep net, 1♂1♀ 6 August 2021, leg. Geir Ørsnes, det. Geir Ørsnes, coll. Vitenskapsmuseet (♀) and G. Ørsnes (♂).

**Distribution:** Palearctic; Norway, Sweden, Finland.

**Remarks:** The identification of the species belonging to the subtribe *Amblytelina* mainly follows Tereshkin (2011), and descriptions of this species and the similar *C. circulator* were consulted (Thomson 1894), as well as photos of type material of *C. circulator* held in the collection in Lund, Sweden.

***Eupalamus lacteator* Gravenhorst, 1829**

**Material:** AK, Vestby, East of Hulvika (N 59.54535, E 10.66236) sweep net, 1♀ 24 July 2022, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Exephanes fulvescens* Vollenhoven, 1875**

(Figure 2)

**Material:** RY, Sokndal, Lindland, Skittmyr (N 58.34979, E 6.30506) sweep net, 1♀ 4 August 2018, leg. Jarl Birkeland, det. Geir Ørsnes/Kees Zwakhals, coll. J. Birkeland. RY, Sokndal, Lindland, Skittmyr (N 58.34979, E 6.30507) malaise trap, 2♀♀ 8 August–5 September 2020, leg. Jarl Birkeland, coll. J. Birkeland. AK, Vestby, Sonskilen (N 59.52961, E 10.68164) sweep net, 1♀ 14 July 2019, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden.

***Hybophorellus injucundus* Wesmael, 1854**

**Material:** NSY, Bodø, Breiva ved Soløyvannet (N 67.29969, E 14.61389) sweep net, 1♂ 3 September 2019, leg. Geir Ørsnes, det. Geir Ørsnes, coll. Vitenskapsmuseet. Barcoded, Sample ID BOLD: HymVM314. NSY, Bodø, Mørkved, Bjørndalslia (N 67.29795, E 14.60145) sweep net, 1♀ 29 August 2020, leg. Geir Ørsnes, det. Geir Ørsnes, coll. Vitenskapsmuseet. Barcoded, sample ID BOLD: HymVM316. NSY, Bodø, Tverlandet

(N 67.27456, E 14.72544) sweep net, 1♂ 24 July 2022, leg. Geir Ørsnes, coll. G. Ørsnes.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Ichneumon alius* Tischbein, 1879** (Figure 3)

**Material:** NSY, Bodø, Vatnvatnet (N 67.35490, E 14.81443) dormant on road, 1♀ 27 April 2019, leg. Geir Ørsnes, det. Geir Ørsnes, coll. Vitenskapsmuseet. NSY, Bodø, Ausvika (N 67.3363, E 14.49141) sweep net 1♂ 28 August 2021, leg. Geir Ørsnes, det. Geir Ørsnes, coll. Vitenskapsmuseet.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Ichneumon emancipatus* Wesmael, 1845**

**Material:** Ø, Moss, Noreødegården (N 59.45827, E 10.70837) sweep net, 1♂ 1 August 2011, leg. Gunnar Engan, det. Joël Valemberg, coll. G. Engan. AAY, Froland, Mykland skytebane (N 58.62854, E 8.36714) sweep net, 1♀ 1 June 2020, leg. Jostein Austevik, det. Geir Ørsnes, coll. J. Austevik.



**FIGURE 2.** *Exephanes fulvescens* Vollenhoven, 1875. Photo: J. Birkeland.



FIGURE 3. *Ichneumon alius* Tischbein, 1879. Photo: G. Ørsnes.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Ichneumon erythromerus* Wesmael, 1857**

**Material:** AK, Vestby, Borgerud (N 59.51543, E 10.77638) sweep net, 1♂ 16 July 2018, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Ichneumon grandicornis* Thomson, 1886**

**Material:** NSY, Bodø, Heggmoen (N 67.35225, E 14.85360) sweep net, 1♂ 13 August 2012, leg. Tomas Husdal, det. Joël Valemberg, specimen sent. NSY, Bodø, Soløyvannet (N 67.31682, E 14.54826) sweep net, 1♀ 31 May 2016, leg. Tomas Husdal & Geir Ørsnes, det. Geir Ørsnes, coll. Vitenskapsmuseet. NSY, Bodø, Mørkved (N 67.29240, E 14.57168) sweep net,

1♀ 28 September 2020, leg. Geir Ørsnes, coll. G. Ørsnes. NSY, Bodø, Ausvika (N 67.3363, E 14.49141) caught by hand, 1♀ 17 August 2021, leg. Geir Ørsnes, coll. G. Ørsnes. NSI, Saltdal, Storjord (N 66.81513, E 15.39941) dormant on wooden fence, 1♀ 18 August 2020, leg. Geir Ørsnes, coll. G. Ørsnes. AK, Vestby, N of Smørbekk (N 59.50788, E 10.71192) sweep net, 1♀ 25 May 2013, leg. Gunnar Engan, det. Geir Ørsnes, coll. G. Engan. AK, Vestby, Hulvika (N 59.54553, E 10.66183) sweep net, 1♂ 31 August 2020, leg. Gunnar Engan, coll. G. Engan. Ø, Aremark, Sørtjern SØ (N 59.18959, E 11.63170) sweep net, 1♀ 8 May 2017, leg. Gunnar Engan, det. Geir Ørsnes, coll. G. Engan. TEI, Tinn, Spjeldsetmyra (N 59.93770, E 9.03520) sweep net, 1♀ 19 May 2018, leg. Ole-Jørgen Lønnve, det. Geir Ørsnes, coll. O.-J. Lønnve. TEI, Tokke, Barskor (N 59.45232, E 8.01226) sweep

net, 1♀ 1 June 2020, leg. Jostein Austevik, det. Geir Ørsnes, coll. J. Austevik. **AAI**, Evje og Hornnes, Arendalsveien (N 58.58686, E 8.07151) sweep net, 1♀ 7 June 2021, leg. Kjell Mjølensnes, det. Geir Ørsnes, coll. K. Mjølensnes. **HOI**, Etne, Hodlestadnuten (N 59.66887, E 6.02881) caught by hand, 1♀ 4 June 2021, leg. Bjarte Aadland, det. Geir Ørsnes, photographed. **SFI**, Lærdal, Moldbakkane (N 61.76076, E 7.52679) sweep net, 1♀ 15 May 2021, leg. Jostein Austevik, det. Geir Ørsnes, coll. J. Austevik.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Ichneumon inops* Holmgren, 1880**

**Material:** NSY, Bodø, Fenæs (N 67.28683, E 14.63348) sweep net, 1♂ 12 August 2017, leg. Geir

Ørsnes, coll. Vitenskapsmuseet. Barcoded, sample ID BOLD: HymVM282. **NSY**, Bodø, Ausvika (N 67.33598, E 14.49587) sweep net, 2♂♂ 10 August 2018, leg. Geir Ørsnes, coll. Vitenskapsmuseet. Barcoded, sample ID BOLD: HymVM307/308. **NSY**, Bodø, Ausvika (N 67.33598, E 14.49587) sweep net, 1♀ 6 September 2018, leg. Geir Ørsnes, coll. G. Ørsnes. Barcoded, sample ID BOLD: HymVM306. **NSY**, Bodø, Ausvika (N 67.33525, E 14.48885) sweep net, 1♂ 6 August 2021, leg. Geir Ørsnes, coll. G. Ørsnes.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Ichneumon magistratus* Hilpert, 1992** (Figure 4)

**Material:** NSY, Bodø, Soløyvatnet, (N 67.31559, E 14.54161) sweep net, 1♀ 22 August



**FIGURE 4.** *Ichneumon magistratus* Hilpert, 1992. Photo: G. Ørsnes.



2005, leg. Tomas Husdal, det. Geir Ørsnes, coll. T. Husdal. **NSY**, Bodø, Soløyvannet (N 67.29942, E 14.59498) hibernating under loose bark on the rotten birch (*Betula*), 1♀ 13 April 2016, leg. Geir Ørsnes, coll. G. Ørsnes. **NSY**, Bodø, Mørkved (N 67.27750, E 14.57733) hibernating under loose bark on the rotten birch (*Betula*), 28 February 2014, det. Geir Ørsnes/Matthias Riedel, coll. Vitenskapsmuseet. **NSY**, Bodø, Mørkved (N 67.2780, E 14.5684) sweep net, 1♀ 2 September 2015, leg. Geir Ørsnes, coll. G. Ørsnes. **NSY**, Bodø, Mørkved (N 67.27750, E 14.57733) dormant, 3♀ 15 April 2017, leg. Geir Ørsnes, coll. G. Ørsnes. **NSY**, Bodø, Bertnes (N 67.27905, E 14.59106) dormant, 1♀ 28 March 2014, leg. Geir Ørsnes, coll. Vitenskapsmuseet. Barcoded, sample ID BOLD: HymVM234. **NSY**, Bodø, Ausvika (N 67.33598, E 14.49587) sweep net, 1♀ 28 August 2018, leg. Geir Ørsnes, coll. G. Ørsnes.

**Distribution:** Palearctic; Norway, Sweden.

#### *Ichneumon nebulosae* Hinz, 1975

**Material:** **AK**, Nesodden, Blåbærstien (N 59.85231, E 10.66978) sweep net, 1♀ 8 June 2015, leg. Ole-Jørgen Lønnve, det. Geir Ørsnes, coll. Biofokus. **AK**, Ås, Pollen nord (N 59.74728, E 10.75755) sweep net, 1♀ 6 April 2017, leg. Ole-Jørgen Lønnve, det. Geir Ørsnes, coll. O. Lønnve.

**Distribution:** Palearctic; Norway, Sweden.

#### *Ichneumon pseudocaloscelis* Heinrich, 1949

(Figure 5)

**Material:** **NSY**, Bodø, Mørkved, Skagen (N 67.27803, E 14.56848) sweep net, 2♂♂ 29 July 2014, leg. Geir Ørsnes, barcoded, coll. Vitenskapsmuseet. **NSY**, Bodø, Mørkved, Skagen (N 67.27803, E 14.56848) sweep net, 1♂ 2 August 2014, leg. Geir Ørsnes, barcoded, coll. Vitenskapsmuseet. **NSY**, Bodø, Mørkved, Kalvhagosen (N 67.27750, E 14.57733) sweep net, 1♂ 29 July 2014, leg. Geir Ørsnes, barcoded, coll. Vitenskapsmuseet. **NSY**, Bodø, Mørkved, Bjørndalslia (N 67.29367, E 14.59519) sweep net, 1♀ 25 August 2020, leg. Geir Ørsnes, coll. G. Ørsnes. **NSY**, Bodø, Mørkved, Bjørndalslia (N 67.29367, E 14.59519) sweep net, 1♂ 29 August 2020, leg. Geir Ørsnes, coll. G. Ørsnes. **NSY**,

Bodø, Fenes (N 67.28683, E 14.63348) sweep net, 1♂ 12 August 2016, leg. Geir Ørsnes, coll. G. Ørsnes. **NSY**, Bodø, Ausvika (N 67.33598, E 14.49587) sweep net, 1♀ 24 August 2020, leg. Geir Ørsnes, barcoded, coll. Vitenskapsmuseet. **NSY**, Bodø, Ausvika, Storausodden (N 67.33525, E 14.48885) sweep net, 1♀ 24 August 2020, leg. Geir Ørsnes, barcoded, coll. Vitenskapsmuseet.

**Distribution:** Palearctic; Norway, Finland.

#### *Vulgichneumon bimaculatus* Schrank, 1776

**Material:** **RY**, Sokndal, Skittmyr (N 58.34979, E 6.30507) malaise trap, 1♀ 9 August–5 September 2020, leg. Jarl Birkeland, det. Jarl Birkeland/Niklas Johansson, coll. J. Birkeland.

**Distribution:** Palearctic; Norway, Sweden, Finland.

#### *Diadromus peterseni* Habermehl, 1923

**Material:** **NSY**, Gildeskål, Brømneset (N 67.17273, E 14.22983) sweep net, 1♀ 10 June 2012, leg. Tomas Husdal, det. Joël Valemberg (specimen sent).

**Distribution:** Palearctic; Norway, Sweden, Denmark.

#### *Dicaelotus parvulus* Gravenhorst, 1829

**Material:** **NSY**, Bodø, Gravsanden (N 67.32990, E 14.48432) sweep net, 1♂ 5 September 2013, leg. Tomas Husdal, det. Joël Valemberg.

**Distribution:** Palearctic; Norway, Sweden.

#### *Herpestomus brunnicornis* Gravenhorst, 1829

**Material:** **Ø**, Moss, Kambo (N 59.47755, E 10.69989) sweep net, 1♀ 29 April 2011, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden, Finland.

#### *Heterischnus coxator* Thomson, 1891

**Material:** **TEI**, Tokke, Barskor (N 59.42833, E 8.08164) sweep net, 1♀ 11 July 2021, leg. Jarl Birkeland, det. Erich Diller, coll. J. Birkeland.

**Distribution:** Palearctic; known from Germany and France. New to Fennoscandia.

#### *Phaeogenes curator* Thunberg, 1824.

**Material:** **NSY**, Bodø, Gravsanden (N



**FIGURE 5.** *Ichneumon pseudocaloscelis* Heinrich, 1949. Photo: G. Ørsnes.

67.32990, E 14.48432) sweep net, 1♂ 3 August 2013, leg. Tomas Husdal, det. Joël Valemberg. NSY, Bodø, Gravsanden (Nm67.32990, E 14.48432) sweep net, 1♂ 5 September 2013, leg. Tomas Husdal, det. Joël Valemberg.

**Distribution:** Palearctic, Norway, Sweden.

***Tycherus socialis* Ratzeburg, 1852**

**Material:** TRY, Tromsø, Lyfjorddalen, Rundkollen (N 69.77487, E 18.82455) sweep net, 1♀ 15 July 2012, leg. Tomas Husdal, det. Joël Valemberg (specimen sent). NNØ, Sørfold, Kobbvatnet (N 67.63318, E 15.96419) sweep net

1♂ 2 August 2013, leg. Tomas Husdal, det. Joël Valemberg.

**Distribution:** Palearctic; Norway, Sweden, Finland.

Subfamily Metopiinae

***Exochus argutus* Tolkantz, 1993**

**Material:** AK, Vestby, Krokstrand (N 59.56641, E 10.65498) sweep net, 1♂ 28 July 2016, leg. Gunnar Engan, coll. G. Engan. Keyed with Tolkantz (2007).

**Distribution:** Palearctic; known from Russia, new to Fennoscandia.

Subfamily Ophioninae

***Enicospilus cerebrator* Aubert, 1966**

**Material:** TEI, Seljord, Heggeneset (N 59.44058, E 8.78291) light trap, 1♂ 5 June 2021, leg. Jostein Austevik, Sveinung Larsen & Even Mjaaland, det. Niklas Johansson, coll. J. Austevik. Ø, Hvaler, Vikerkilen (N 59.04084, E 10.94640) light trap, 1♀ 22 July 2022, leg. Kjell Mjølunes, coll. K. Mjølunes.

**Distribution:** Palearctic; Norway, Sweden.

***Enicospilus inflexus* Ratzeburg, 1844**

**Material:** RY, Hå, Ognasanden (N 58.5134, E 5.79894) light trap, 2♀♀ 16 June 2017, leg. Jostein Austevik & Sveinung Larsen, coll. MUST. RY, Hå, Brusand (N 58.53748, E 5.75268) light trap 1♀ 9 June 2018, leg. Jostein Austevik & Sveinung Larsen, coll. Naturhistorisk Museum. RY, Utsira, Tednevik (N 59.30810, E 4.90379) light trap, 1♀ 24 July 2018, leg. Jostein Austevik & Truls Wexhal Andersen, coll. J. Austevik. RY, Karmøy, Blikshavn (N 59.20760, E 5.31568) light trap, 1 specimen 13 July 2019, leg. Arnt Kvinnesland, det. Jan Ove Sagerøy, photographed. RY, Sokndal, Birkeland (N 58.35646, E 6.15487) light trap, 1♀ 23 July 2019, leg. Jarl Birkeland, coll. J. Birkeland. RY, Utsira, Merkeskogene (N 59.30895, E 4.87466) light trap, 1♀ 25 July 2019, leg. Sveinung Larsen, photographed.

**Distribution:** Palearctic; Norway, Sweden, Finland, Denmark.

**Remarks:** A number of records of *E. inflexus*, that were entered by experienced recorders, were omitted from this summary because no documentation was uploaded.

***Enicospilus myricae* Broad & Shaw, 2016**

**Material:** VAY, Farsund, Husebysanden (N 58.06870, E 6.78198) light trap, 1♀ 3 July 2021, leg. Kjell Mjølunes, Jostein Austevik, Even Mjaaland & Sveinung Larsen, coll. K. Mjølunes. AK, Ullensaker, Trandum leir (N 60.21050, E 11.13258) light trap, 1♀ 20 July 2022, leg. Kjell Mjølunes, coll. K. Mjølunes.

**Distribution:** Palearctic; Norway, Sweden.

***Enicospilus rependius* Holmgren, 1860**

**Material:** AK, Ullensaker, Trandum leir (N 60.21050, E 11.13258) light trap, 1♀ 8 July 2022, leg. Kjell Mjølunes & Even Mjaaland, coll. K. Mjølunes.

**Distribution:** Palearctic; Norway, Sweden.

***Enicospilus ryrholmi* Johansson, 2018**

**Material:** AK, Vestby, Nedre Ramme (N 59.60617, E 10.65401) sweep net, 1♀ 24 June 2021, leg. Gunnar Engan, coll. G. Engan. AK, Ullensaker, Trandum leir (N 60.21050, E 11.13258) light trap, 1♀ 20 July 2022, leg. Kjell Mjølunes, coll. K. Mjølunes. TY, Drangedal, Vefall (N 58.99911, E 9.21042) sweep net, 1♀ 12 July 2021, leg. Morgan Amundsen, coll. M. Amundsen.

**Distribution:** Palearctic; known only from Scandinavia.

**Remarks:** The genus *Enicospilus* was revised from a Scandinavian perspective by Johansson (2018a). These are mainly nocturnal species, and all records except *E. ryrholmi* are from light traps.

Subfamily Pimplinae

***Polysphincta boops* Tschek, 1869**

**Material:** TEI, Tokke, Barskor (N 59.42833, E 8.08164) sweep net, 1♀ 6 July 2019, leg. Jarl Birkeland & Kjell Mjølunes, coll. J. Birkeland. RY, Sokndal, Rekedal (N 58.34361, E 6.26585) malaise trap, 1♀ 5 September–10 October 2020, leg. Jarl Birkeland, coll. J. Birkeland. RY, Sokndal, Skittmyr (N 58.35048, E 6.30549) malaise trap, 1♀ 19 September–9 October 2020, leg. Jarl Birkeland, det. Alf Tore Mjøs, coll. MUST.

**Distribution:** Palearctic; Norway, Sweden, Finland, Denmark.

***Theronia atalantae* Poda, 1761**

**Material:** AAY, Gjerstad, Stigfjell (N 58.86376, E 9.05423) sweep net, 1♀ 28 June 2022, leg. Morgan Amundsen & Morten Mjelde, det. Jarl Birkeland, coll. M. Amundsen.

**Distribution:** Palearctic; Norway, Sweden, Finland.

***Tromatobia forsiusi* Hellén, 1915**

**Material:** RI, Gjesdal, Månafossen (N 58.857N, E 6.382) sweep net, 1♀ 10 June 2019, leg. Niklas Johansson, coll. N. Johansson. **RY**, Sokndal, Eiketono (N 58.33681, E 6.30228) malaise trap, 1♀ 21 May–13 June 2020, leg. Jarl Birkeland, coll. J. Birkeland. **RY**, Klepp, Ergavatnet (N 58.73403, E 5.55078) sweep net, 1♀ 6 August 2021, leg. Kjell Mjølunes, coll. K. Mjølunes.

**Distribution:** Palearctic; Norway, Sweden, Finland.

Subfamily Phygadeuontinae

***Bathythrix formosa* Desvignes, 1903**

**Material:** AK, Vestby, S of Tørbrekke (N 59.50270, E 10.73693) sweep net, 1♀ 23 June 2021, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden, Finland.

**Remarks:** This species keys to *B. fragilis* in Sawoniewicz (1980), the separating characters are given in Horstmann (1998).

***Chirotica decorator* Tosquinet, 1860**

**Material:** RY, Sokndal, Vardafjell (N 58.3583, E 6.1505) malaise trap, 1♀ 11 June–27 July 2022, leg. Jarl Birkeland, det. Martin Schwarz, coll. J. Birkeland.

**Distribution:** Palearctic; Norway, Finland.

Subfamily Tersilochinae

***Tersilochus lapponicus* Hellén, 1958**

**Material:** AK, Vestby, Laksa (N 59.52477, E 10.67) sweep net, 1♀ 11 May 2020, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden, Finland.

**Remarks:** Keyed with Horstmann (1971).

Subfamily Tryphoninae

***Netelia dilatata* Thomson, 1888**

**Material:** VAY, Farsund, Lomsesanden (N 58.06521, E 6.79214) sweep net, 1♀ 29 May 2020, leg. Kjell Mjølunes, coll. K. Mjølunes.

**VAY**, Farsund, Lomsesanden (N 58.06521, E 6.79214) light trap, 2♀♀ 3 July 2021, leg. Kjell Mjølunes, Jostein Austevik, Even Mjaaland & Sveinung Larsen, coll. K. Mjølunes. **VAY**, Farsund, Lomsesanden (N 58.06521, E 6.79214) sweep net, 1♂ 4 June 2022, leg. Kjell Mjølunes & Jarl Birkeland, coll. K. Mjølunes. **VAY**, Farsund, Lomsesanden (N 58.06521, E 6.79214) light trap, 1♂ 4 June 2022, leg. Kjell Mjølunes, Jarl Birkeland & Even Mjaaland, coll. K. Mjølunes. **VAY**, Farsund, Lomsesanden (N 58.06577, E 6.79243) light trap, 2♂♂1♀ 4 June 2022, leg. Jarl Birkeland & Arjen Leendertse, coll. J. Birkeland. **VAY**, Farsund, Lomsesanden (N 58.06614, E 6.79336) light trap, 1♂ 11 June 2022, leg. Jostein Austevik & Geir Svaba Birkeland, coll. J. Austevik. **VAY**, Farsund, Husebysanden, (N 58.06866, E 6.78092) light trap, 1♀ 11 June 2022, leg. Jostein Austevik & Even Mjaaland, coll. J. Austevik. **VAY**, Farsund, Husebysanden, (N 58.06901, E 6.77963) light trap, 1♀ 18 July 2022, leg. Kjell Mjølunes, coll. K. Mjølunes. **VAY**, Farsund, Røyrtjønn (N 58.06951, E 6.79045) sweep net, 1♀ 4 June 2022, leg. Kjell Mjølunes & Jarl Birkeland, coll. K. Mjølunes.

**Distribution:** Palearctic; Norway, Sweden.

***Netelia inedita* Kokujev, 1899**

**Material:** RY, Klepp, Revtingen OS (N 58.76181, E 5.50807) light trap, 1♂ 26 September 2017, leg. Alf Tore Mjøs, det. Gavin Broad, coll. MUST. **RY**, Hå, Nærbø (N 58.66193, E 5.65118) light trap, 1♂ 22 June 2020, leg. Leif Bjørn Lunde, det. Alf Tore Mjøs, coll. MUST. **RY**, Hå, Nærbø (N 58.66193, E 5.65118) light trap, 1♂ 5 July 2020, leg. Leif Bjørn Lunde, det. Alf Tore Mjøs, coll. MUST. **RY**, Hå, Nærbø (N 58.66193, E 5.65118) light trap, 5 records of 7 individuals 11 July–3 October 2020, leg. Leif Bjørn Lunde, det. Alf Tore Mjøs, coll. MUST. **VAY**, Farsund, Lomsesanden (58.06521, E 6.79214) light trap, 1♂ 30 August 2021, leg. Kjell Mjølunes, Geir Svaba Birkeland & Even Mjaaland, coll. K. Mjølunes.

**Distribution:** Palearctic; Norway, Denmark.

***Netelia melanura* Thomson, 1888**

**Material:** Ø, Moss, Kambo (N 59.47216, E 10.69635) plucked by hand, 1♀ 4 September

2011, leg. Gunnar Engan, coll. Vitenskapsmuseet. Ø, Moss, Kambo (N 59.47796, E 10.69946) sweep net, 1♀ 14 September 2012, leg. Gunnar Engan, coll. G. Engan. Ø, Moss, Gamle Vålervei, Vanem (N 59.45333, E 10.74170) visiting flowers, 1♂ 14 June 2022, leg. Morten Nilsen, det. Alf Tore Mjøs, photographed. AK, Vestby, east of Stjernåsen (N 59.55110, E 10.65847) sweep net, 1♂ 12 June 2018, leg. Gunnar Engan, coll. G. Engan. AK, Vestby, Bjørnstad (N 59.58949, E 10.69774) sweep net, 1♀ 2 July 2019, leg. Gunnar Engan, coll. G. Engan. AK, Vestby, east of Stjernåsen (N 59.55075, E 10.65811) sweep net, 1♂ 17 September 2019, leg. Gunnar Engan, coll. G. Engan. AK, Vestby, Stamnes (N 59.54190, E 10.68261) sweep net, 1♀ 22 September 2019, leg. Gunnar Engan, coll. G. Engan. AK, Vestby, Sonskilen (N 59.52971, E 10.68439) sweep net, 1♂ 13 June 2022, leg. Gunnar Engan, coll. G. Engan. AK, Oslo, Colletthaven (N 59.92666, E 10.69497) to light, 1♀ 30 September 2020, leg. Trine Brevig, det. Bojan Radeka, photographed. VE, Horten, Borrevannet nature reserve (N 59.41775, E 10.43770) light trap, 1♀ 4 August 2018, leg. Jostein Austevik, coll. J. Austevik. OS, Ringsaker, Nedre Vien (N 60.72914, E 11.01130) light trap, 1♂ 13 September 2022, leg. Terje Syversen, det. Alf Tore Mjøs, photographed. OS, Ringsaker, Kvalstua (N 60.71581, E 10.99405) light trap, 1♀ 3 October 2022, leg. Terje Syversen, photographed. OS, Ringsaker, Eegstuen (N 60.73456, E 10.98637) light trap, 1♀ 6 October 2022, leg. Terje Syversen, det. Alf Tore Mjøs, photographed.

**Distribution:** Palearctic; Norway, Sweden, Finland, Denmark.

### *Phytodietus basalis* Kasparyan, 1993.

**Material:** Ø, Råde, Åven (N 59.31831, E 10.73665) sweep net, 1♂ 15 June 2021, leg. Gunnar Engan, coll. G. Engan.

**Distribution:** Palearctic; Norway, Sweden.

**Remarks:** Keyed with Kasparyan (1993), pictures sent D.R. Kasparyan for confirmation. The species was reported new to Sweden by Johansson (2018b).

### *Eclytus difficilis* Kasparyan, 1977

**Material:** BV, Ål, Breiehagen (N 60.59103, E 8.45244) light trap, 3♀♀ 15–30 September, 6♀♀ 1–15 October 2022, leg. Torgrim Breiehagen, det. Alf Tore Mjøs, coll. MUST.

**Distribution:** Holarctic; Scotland, Norway, Sweden.

### *Ctenochira annulata* Holmgren, 1857 (Figure 6)

**Material:** RY, Sokndal, Rekedal (N 58.34361, E 6.26585) sweep net, 1♀ 18 July 2019, leg. Jarl Birkeland, det. Hilco Meijer, coll. J. Birkeland.

**Distribution:** Palearctic; Norway, Sweden, Finland.

### *Otoblastus luteomarginatus* Gravenhorst, 1829

**Material:** RY, Sokndal, Kvam (N 58.3419, E 6.2722) malaise trap, 1♀ 21 August–2 October, leg. Jarl Birkeland, det. Matthias Riedel, coll. J. Birkeland.

**Distribution:** Palearctic; Norway, Sweden, Finland.

## Discussion

Most records considered for this publication were records already published in the citizen science species reporting portal «Artsobservasjoner.no». Only well-documented records with (usually multiple) pictures have been considered. Most of these have been recorded or identified by one of the authors, and/or identified or verified by international experts.

Most authors of various national checklists will only accept records of species that has gone through a scientific publication. This is not the case with records posted in Artsobservasjoner.no, and records from this citizen science portal need to be verified and preferably published before any species is admitted onto formal checklists. It has been a very time-consuming process to screen all records and compare with published data, and we strongly recommend some sort of “tag” or other system that will make it easier to extract any such potentially new occurrences from the database. While working with this set of records we have had access to a draft checklist by M. Riedel, which



FIGURE 6. *Ctenochira annulata* Holmgren, 1857 Photo: J. Birkeland.

has been a great help.

«Artsobservasjoner.no» is an important source of records that should not be ignored. The number of dedicated and skilled amateur recorders of Ichneumonidae is growing, no doubt inspired by the publication by Broad et al. (2018), and «Artsobservasjoner.no» serves an important function as an internet portal for collecting records. «Artsobservasjoner.no» is run by the Norwegian Biodiversity Information Centre (Artsdatabanken), in cooperation with the various non-governmental organizations such as The Norwegian Biodiversity Network (SABIMA) and the Norwegian Entomological Society.

As of today, the Biodiversity Information Centre has given priority to redlist species when validating records at “Artsobservasjoner.no”. So far, no redlist of Norwegian Ichneumonidae has been established. Given the large number of species and limited information about occurrences, we don’t expect such initiatives any time soon. Still, we expect an increase in reports detailing records of Ichneumonidae also on citizen science portals such as “Artsobservasjoner.no”, and the identification challenges presented by this family will produce a high percentage of false records without increased focus on the validation process. Also, the practice around validation of single records needs to change. Once a validator approves a record, the record is «locked» in the database and cannot be edited by the reporter. While working with species groups where the identification literature in many cases must be considered to be in its «juvenile stages», most observers will no doubt need to go back and reevaluate own records at times.

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