

Orthocentrinae (Hymenoptera, Ichneumonidae) species new to the fauna of Norway

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Humala, A.E. 2015. Orthocentrinae (Hymenoptera, Ichneumonidae) species new to the fauna of Norway. *Norwegian Journal of Entomology* 62, 1–8.

The present paper contains new distributional records for 33 species of parasitoid wasps of the subfamily Orthocentrinae (Hymenoptera, Ichneumonidae) previously not recorded in Norway, 5 species are reported from the Nordic countries for the first time.

Key words: Hymenoptera, Ichneumonidae, Orthocentrinae, ichneumon wasps, fauna, Norway, Nordic countries, new records.

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Introduction

The family Ichneumonidae (Hymenoptera) is still insufficiently known in Norway in spite of significant progress made during the last twenty years (Kopelke 1994, Riedel & Berg 1997, Riedel *et al.* 2000, Horstmann 2004, Riedel *et al.* 2005, Riedel & Hansen 2007, Kasparyan & Kopelke 2009, 2010, Hansen *et al.* 2010, Riedel & Hansen 2012, 2013, Humala & Reshchikov 2012a, 2014, Reshchikov 2013, etc.) allowing to enrich considerably the Norwegian check-list of ichneumon wasps. Due to the great diversity and difficult determination of many species within this family of parasitic wasps, our knowledge of many taxa in the group remains insufficient. Although about 1700 species of Ichneumonidae are already known from Norway so far (Humala & Reshchikov 2012b, Riedel & Hansen 2012), the species composition of certain groups is still far from completely known. In 2010, The Norwegian Biodiversity Information Centre has supported a project focused on further study of ichneumon

wasps – it allowed us to obtain new data on the Norwegian fauna of the family. Most of the material has already been published (Humala & Reshchikov 2014), while the subfamily Orthocentrinae is treated here.

The Orthocentrinae are a moderately large subfamily, comprising approximately 500 described species classified in 30 extant genera (Yu & Horstmann 2012), 23 genera are present in Norway. It is one of the least known group among ichneumon wasps, and as noticed by Broad (2010), many Orthocentrinae genera are in need of modern revisions.

In this paper, the new faunistic data are provided: 33 orthocentrine species are recorded for the first time in Norway; five of these species are new to the Nordic countries. Nine new species from genera *Aniseres* Förster, 1871, *Neurateles* Ratzeburg, 1848, *Orthocentrus* Gravenhorst, 1829, *Plectiscus* Gravenhorst, 1829, and *Stenomacrus* Förster, 1869 were discovered, the descriptions will be published separately, using additional materials.

Material and methods

The material for the present study was mainly collected in summer 2011 in southern part of the country (South of 64° N). Most of the specimens have been collected by Malaise traps, yellow pan traps and sweep-netting. Some additional materials from Oslo Museum of Natural History, Trondheim Museum of Natural History and Archaeology (Vitenskapsmuseet), and University Museum of Bergen were used as well. The abbreviated names of depositories are noted in brackets.

Several keys were used for determination of ichneumon wasps (Rossem 1987; Dasch 1992; Horstmann 1994; Humala 2007, 2010). To ensure reliable identification of the genera for which modern revisions are lacking, the type material from The Swedish Museum of Natural History (Stockholm, Sweden), Zoological Institute (Lund, Sweden), and Zoological Institute RAS (St. Petersburg, Russia) was examined.

The genera and species are listed in alphabetic order according to the recent Catalogue of World Ichneumonidae (Yu *et al.* 2012) as well as the distribution data with minor changes. The distribution data for the Nordic countries are provided in detail. The division of Norway in geographical regions ("The Strand-system") is mentioned according to Økland (1981), its abbreviations are given in bold.

The following abbreviations have been used in the text: AF = A. Fjedlså, AH = Andrei Humala, AR = Alexey Reshchikov, EHE = Erik Heibo, ERI = Eirik Rindal, ET = Eva Tilseth, GSØ = Geir Søli, JOS = J.O. Solem, KAA = Kaare Aagaard, LAA = Leif Aarvik, LOH = Lars Ove Hansen, MT = Malaise trap, NTNU = Trondheim Museum of Natural History and Archaeology (Vitenskapsmuseet), ØGM = Øivind Gammelmo, TH = T. Hoffstad, YPT = yellow pan trap, ZMUB = University Museum of Bergen, and NHMO = Oslo Museum of Natural History.

Species list

Aniseres sp. A

Material: OS, Søndre Land: Dokka, Elve-

delta, [EIS 45], 60.8025° N, 10.1295° E, 143 m, deciduous forest, MT, 1♀ 23.VI–17.VIII.2011; 2♀♀ 17.VIII–13.X.2011; **ON**, Gausdal: Veslefjellet, [EIS 53], 61.1462° N, 09.7061° E, 1060 m, birch forest, MT, 1♀ 18.VIII–13.X.2011, all leg. AH & AR (NHMO).

Distribution: Palaearctic.

Aperileptus obscurus Humala, 2007

Material: OS, Nordre Land: Dokka, Lands Museum, [EIS 45], 60.8365° N, 10.0775° E, 172 m, 1♂ 25.VI.2011, leg. AR, voucher for DNA bar-coding AH071 (NHMO).

Distribution: Palaearctic; NW Russia (Karelia). New to Nordic countries.

Batakomacrus caudatus (Holmgren, 1858)

Material: **NTI**, Lierne: Nordli, Skograudberget, [EIS 108], MT, 1♀ 7.VIII–25.IX.2008, leg. GSØ & ERI (NHMO); **AK**, Ullensaker: Randbygrenda [EIS 37] 2♀♀ 26.VIII.1995, leg. Sand (NHMO); **SFI**, Luster: Jostedal, Øyatrondi [EIS 60], MT, 1♀ 12.VII–12.IX.2006, leg. LAA, ERI, GSØ (NHMO); **Ø**, Hvaler: Kjerkøy, Ørekroken, [EIS 12], MT, 1♀ 22.VI–16.VII.2003, leg. LOH (NHMO); **HOY**, Os: Mobergsvika, [EIS 31], 60.17° N, 05.45° E, 2♀♀ 03.VIII.1980, leg. AF (ZMBN); **HOY**, Os: Lunden, Lundetræ, [EIS 31], 60.18° N, 05.47° E, 1♀ IX–X.1975, leg. AF (ZMBN); **AK**, Follo: Ås, Rustadmåsan [EIS 28], 59.6635° N, 10.8211° E, MT, 2♀♀ 15.VII–16.VIII.2011, leg. S.A. Jenseg, voucher for DNA bar-coding AH030 (NHMO).

Distribution: Palaearctic; Sweden, Finland, Lithuania, NW Russia.

Remark: The species was incorrectly reported for Norway by R. Jussila (1973) because of misidentification of the single male specimen, so this record is new for the country.

Batakomacrus karelicus Humala, 2010

Material: **NTI**, Høylandet: Tverråa, [EIS 107], MT, 1♀ 01.VII.1986, leg. KAA (NTNU).

Distribution: Palaearctic; NW Russia (Karelia). New to Nordic countries.

Batakomacrus subarcticus Humala, 2010

Material: **HEN**, Stor-Elvdal: Solbakken, [EIS

63], MT, 1♀ 17.VI.1986, leg. JOS (NTNU).

Distribution: Palaearctic; NW Russia (Karelia, Murmansk Prov.). New to Nordic countries.

Batakomacrus sylvicola Humala, 2010

Material: AAY, Lillesand: Vestre Grimevann lake, [EIS 6], 58.3231° N, 08.3359° E, oak forest, MT, 1♀ 29.VI–23.VIII.2011, leg. AH & AR, voucher for DNA bar-coding AH058 (NHMO).

Distribution: Palaearctic; NW Russia (Karelia). New to Nordic countries.

Entypoma robustum Förster, 1871

Material: NTI, Høylandet: Tverrråa, [EIS 107], 340 m, MT, 1♂ 9.VII.1986, 2♀♀1♂ 23.VII.1986, 1♀ 30.VII.1986, 1♀2♂♂ 13.VIII.1986, 1♀ 3.IX.1986; Skiftesåa, [EIS 107], 200 m, MT, 1♂ 6.VIII.1986, 2♂♂ 2.VII.1987, 1♀ 15.VII.1987, 1♀1♂ 22.VII.1987, 2♀♀ 29.VII.1987, 2♀♀ 5.VIII.1987, 3♀♀ 13.VIII.1987, 1♀1♂ 19.VIII.1987, 1♀ 10.IX.1987, all leg. KAA; ON, Dovre: Dovre Rondane National park, Skranglehaugen (P1), [EIS 71], 61.9819° N, 09.8045° E, 1117 m, MT, 1♂ 28.VII–4.VIII.2008, leg. TH; STI, Trondheim: Gjeddvatnet, [EIS 92], MT 4, 1♂ 11.IX.2010, leg. ET (All NTNU).

Distribution: Holarctic; Sweden, Finland, Lithuania, NW Russia (Murmansk Prov.).

Eusterinx (Holomeristus) fennoscandica

Humala, 2008

Material: NTI, Lierne: Nordli, Skograudberget, [EIS 108], 407 m, MT, 1♂ 7.VIII–25.IX.2008, leg. GSØ & ERI (NHMO); ON, Dovre: Dovre Rondane National park, Skranglehaugen (P1) 1117 m, [EIS 71], MT, 61.9819° N, 09.8045° E, 1♀ 24–31.VIII.2008, leg. TH (NTNU).

Distribution: Palaearctic; Sweden, Finland, NW Russia (Karelia).

Eusterinx (Holomeristus) tenuicincta

(Förster, 1871)

Material: SFI, Luster: Jostedalen, Fåberstølsgrandane, [EIS 60], MT, 1♂ 12.VII–12.IX.2006, leg. ØGM, ERI & GSØ (NHMO); HOY, Bergen: Helleneset, [EIS 31], 60.4333° N, 05.2833° E, 1♀ 13.VI.1980, leg. AF (ZMBN); ON, Dovre: Atnaelva, Dørålsæter nedre, [EIS 71], MT, 1♀

26.VII.1986, leg. JOS (NTNU); ON, Gausdal: Ormtjernkampen, Størløgeret, [EIS 53], 61.136° N, 09.718° E, 990 m, 1♀ 25.VI.2011, leg. AR, voucher for DNA bar-coding AH063 (NHMO); OS, Nordre Land: Dokka, Lands Museum, [EIS 45], 60.8365° N, 10.0775° E, 172 m, 2♂♂ 23.VI.2011, leg. AR (NHMO).

Distribution: Holarctic; Sweden, Finland, NW Russia (Karelia).

Remark: The species was previously reported from Norway by R. Jussila (1973) resulting from the misidentification of the male of *Eusterinx (Trestis) trichops* (Thomson, 1888), so this record is new for the country.

Eusterinx (Ischyracis) bispinosa (Strobl, 1901)

Material: HOI, Eidfjord: Rjoto, lok. D VII, [EIS 33], 880 m, 1♂ 22.VII.1967, leg. J. Rønhovde; (ZMBN, Hym. 5629); NTI, Høylandet: Skiftesåa, [EIS 107], 200 m, MT, 1♀ 5.VIII.1987, leg. KAA (NTNU); STI, Oppdal, Kongsvoll, Blesbekken, [EIS 79], 1♂ 28.VII.1981, leg. JOS (NTNU, No 70277); ON Gausdal: Kittilbu, Hitta, [EIS 54], 61.1713° N, 09.9623° E, 807 m, YPT, 1♀ 25.VI.2011, leg. AR, voucher for DNA bar-coding AH070 (NHMO).

Distribution: Holarctic; Sweden, Finland, NW Russia (Karelia).

Remark: The single specimen of this species (ZMBN, Hym. 5629) was misidentified by R. Jussila as *Blapticus (=Gnathochorisis) flavipes* Förster, 1871 (Jussila 1973), so the species should be excluded from the list of Norwegian Ichneumonidae, while *E. bispinosa* is reported here for the first time from Norway.

Eusterinx (Trestis) trifasciata (Ashmead, 1899)

Material: NTI, Høylandet: Skiftesåa, [EIS 107], 64.38° N, 12.07° E, 200 m, MT, 1♀ 15.VII.1987; NTI, Høylandet: Skiftesåa, [EIS 107], MT, 1♂ 9.VII.1986; ON, Dovre: Dovre Rondane National park, Atnaelva, Dovreskogen, Dørålsæter, [EIS 71], 61.59° N, 09.48° E, 1040 m, MT, 1♀ 22.VII.1987, all leg. KAA (NTNU); STI, Oppdal: Stropla, [EIS 79], 1♂ 19.VII.1982, leg. JOS (NTNU, No 73602).

Distribution: Holarctic; Sweden, Finland, NW Russia (Karelia).

Helictes fabularis Rossem, 1987

Material: **NTI**, Høylandet: Skiftesåa; bred inn, 200 m, [EIS 107], MT, 1♂ 17.IX.1987, leg. KAA; Høylandet: Tverråa, [EIS 107], MT, 1♀ 9.VII.1986, leg. KAA; Tverråa, 340 m, [EIS 107], MT, 1♀ 1.VII.1986, leg. KAA; **HEN**, Stor-Elvdal: Solbakken, [EIS 63], 380 m, 61.7461° N, 10.7462° E, MT, 1♀ 30.V–9.VI.2008, leg. E. Stur; **HEN**, Stor-Elvdal: Solbakken, [EIS 63], MT, 2♀♀ 17.VI.1986, leg. JOS (All NTNU).

Distribution: Palaearctic; Sweden, Finland, NW Russia (Karelia).

Hemiphanes flavipes Förster, 1871

Material: **VE**, Larvik: Farris, Vemansås, [EIS 19], 125 m, MT, 1♀ 20.VII–30.VIII.1993, leg. LOH & ERI; **AK**, Ullensaker: Sessvollmoen, Aurtjernet W., [EIS 37], 200 m, MT, 1♀2♂♂ 26.VI–25.VIII.2008, leg. LOH; **BØ**, Kongsberg: Skollenborg, Labro (E.), [EIS 27], 120 m, MT, 4♂♂ 2.VIII–28.IX.2008, leg. LOH; **AK**, Follo: Ås, Rustadmåsan [EIS 28], 59.6635° N, 10.8211° E, MT, 1♀ 15.VII–16.VIII.2011, leg. S.A. Jenseg, voucher for DNA bar-coding AH028 (all NHMO).

Distribution: Palaearctic; Sweden, Finland, NW Russia (Karelia).

Remark: Previous record of this species (Strand 1913) is referred to the erroneously identified *Hemiphanes erratum* Humala, 2007 already recorded from Norway (Hansen *et al.* 2010).

Neurateles compressus (Thomson, 1887)

Material: **VAY**, Farsund: Listeid Nature Reserve, [EIS 1], 58.1338° N, 06.7189° E, 72 m, oak forest, MT, 1♀ 1.VII–24.VIII.2011, leg. AH & AR (NHMO); **HOY**, Os: Lyse Kloster, [EIS 31], 60.23° N, 05.402° E, 1♀ 29.VIII.2011, leg. AR (NHMO); **SFI**, Luster: Jostedalen, Fåberstølsgrandane, [EIS 60], MT, 3♀♀ 12.VII–12.IX.2006, leg. ØGM, ERI & GSØ (NHMO); **HOY**, Herland: Osterøy, [EIS 40], 1♀ 1–6.VII.1972, leg. T. Andersen (ZMBN); **HOY**, Herland: Osterøy: Haus, Kleppe, [EIS 40], 60.46° N, 05.49° E, 1♀ 18.VI.1971, leg. T. Andersen (ZMBN); **HOY**, Herland: Osterøy, Låsstad, [EIS 40], 60.517° N, 05.533° E, 1♀ 18.V.1980, leg. AF (ZMBN); **HOY**, Bergen: Kyrkjetangen, [EIS

31], 60.317° N, 05.295° E, 1♂ 19.V.1980, leg. AF (ZMBN); **HOY**, Os: Lunden, Lundetræ, [EIS 31], 60.18° N, 05.47° E, IX–X.1975, 1♂, leg. AF (ZMBN); **HOI**, Voss: Mjølfjell, [EIS 41], 60.68° N, 06.83° E, 1♀ 13.VII–6.VIII.1985, leg. L. Greve (ZMBN); **NTI**, Høylandet: Tverråa, [EIS 107], 340 m, MT, 1♀ 20.VIII.1986, 1♀, leg. KAA (NTNU); **ON**, Dovre: Dovre Rondane National park, Skranglehaugen (P1), [EIS 71], 61.9819° N, 09.8045° E; 1117 m, MT, 1♀ 28.VII–4.VIII.2008, leg. TH (NTNU); **ON**, Gausdal: Veslefjellet, [EIS 53], 61.1462° N, 09.7061° E, 1060 m, birch forest, MT, 1♀ 18.VIII–13.X.2011, leg. AH & AR (NHMO); **OS**, Søndre Land: Dokka, Elvedelta, [EIS 45], 60.8025° N, 10.1295° E, 143 m, deciduous forest, MT, 4♀♀ 17.VIII–13.X.2011, leg. AH & AR (NHMO); **BØ**, Nedre Eiker: Mjøndalen, Ryggkollen (W) [EIS 28], 16 m, MT, sandy pine-forest, 1♀ 3.VIII–28.IX.2008, leg. LOH (NHMO); **AK**, Ås: lake Årungen, [EIS 28], 59.6820° N, 10.7504° E, 89 m, MT, 1♀ 19.V–4.VI.2011, leg. S.A. Jenseg, voucher for DNA bar-coding AH080 (NHMO).

Distribution: Palaearctic; Sweden, Finland, Lithuania, NW Russia.

Neurateles sp. A

Material: **NTI**, Høylandet: Skiftesåa, [EIS 107], MT, 1♀ 25.VI.1986, leg. KAA (NTNU).

Distribution: Palaearctic.

Neurateles sp. B

Material: **STY**, Åfjord: Skjerva Nature Reserve, [EIS 97], 63.9376° N, 10.2759° E, 115 m, spruce rain forest, MT, 1♀ 8.VII–3.IX.2011, leg. AH & AR (NHMO).

Distribution: Palaearctic.

Orthocentrus macrocerus Strobl, 1903

Material: **SFI**, Luster: Jostedalen, Fåberstølsgrandane, [EIS 60], MT, 1♂ 12.VII–12.IX.2006, leg. ØGM, ERI & GSØ (NHMO).

Distribution: Palaearctic; Lithuania.

Orthocentrus radialis Thomson, 1897

Material: **BØ**, Nedre Eiker: Mjøndalen, Ryggkollen (W) [EIS 28], 16 m, MT, sandy pine-forest, 3♀♀ 3.VIII–28.IX.2008, leg. LOH (NHMO).

Distribution: Palaearctic; Sweden, Lithuania.

***Orthocentrus* sp. A**

Material: OS, Søndre Land: Dokka, Elvedelta, [EIS 45], 60.8025° N, 10.1295° E, 143 m, deciduous forest, MT, 1♀ 17.VIII–13.X.2011, leg. AH & AR (NHMO)

Distribution: Palaearctic.

Plectiscidea (Plectiscidea) aquilonia

Humala, 2008

Material: OS, Søndre Land: Dokka, Elvedelta, [EIS 45], 60.8025° N, 10.1295° E, 143 m, deciduous forest, MT, 1♀ 17.VIII–13.X.2011; ON, Gausdal: Veslefjellet, [EIS 53], 61.1462° N, 09.7061° E, 1060 m, birch forest, MT, 1♀ 18.VIII–13.X.2011; ON, Gausdal: Ormtjernkampen NP, Storlægeret, [EIS 53] 61.1356° N, 09.7182° E, 990 m, birch forest, MT, 1♀1♂ 18.VIII–13.X.2011; ON, Gausdal: Ormtjernkampen mt., [EIS 53], 61.1869° N, 09.8279° E, 992 m, spruce forest, MT, 1♂ 19.VIII–20.X.2011, all leg. AH & AR (NHMO).

Distribution: Palaearctic; Finland, NW Russia (Karelia).

Plectiscidea (Plectiscidea) crassicornis

Förster, 1868

Material: ON, Dovre: Rondane National park, Atnaelva, Dovreskogen, Dørålsæter nedre, [EIS 71], 61.59° N, 09.48° E, 1040 m, MT, 1♀ 15.VIII.1987; leg. KAA (NTNU).

Distribution: Palaearctic; Sweden, Finland, NW Russia (Karelia).

Remark: The species was incorrectly reported from Norway by R. Jussila (1973) because of misidentification of the single male specimen, so this record is new for the country.

Plectiscidea (Plectiscidea) fuscifemur

Humala, 2008

Material: STI, Selbu: Rotla, [EIS 93], MT, 1♀ 27.VII.1986, leg. [Unreadable handwritten name](NTNU, No 72413); STY, Kjerringtjønn [EIS 97], 176 m, MT 1, 1♂ 08.X.2010, leg. ET (NTNU); HEN, Stor-Elvdal: Solbakken, [EIS 63], 380 m, 61.7461° N, 10.7462° E, MT, 1♀ 30.V–09.VI.2008, leg. E. Stur (NTNU); ON, Gausdal:

Ormtjernkampen mt., [EIS 53], 61.1869° N, 09.8279° E, 992 m, spruce forest, MT, 1♂ 19.VIII–20.X.2011, leg. AH & AR (NHMO); OS, Søndre Land, Dokka: Odnes, [EIS 45], 60.7978° N, 10.1731° E, 150 m, YPT, 1♂ 17–18.VIII.2011, leg. AH, AR & Guzman, voucher for DNA barcoding AH081 (NHMO).

Distribution: Palaearctic; Finland, NW Russia (Karelia).

Plectiscidea (Plectiscidea) zonata

(Gravenhorst, 1829)

Material: NTI, Høylandet: Tverråa, [EIS 107], MT, 1♀ 9.VII.1986, leg. KAA (NTNU); HOI, Ullensvang, Veivann omr., [EIS 32], 1150 m, lok. C 29, 1♀ 16.VII.1968, leg. A. Fjellberg et al. (ZMBN); SFI, Luster: Bargarden Nature Reserve, [EIS 60], 61.4486° N, 07.4851° E, 119 m, oak forest, MT, 1♀ 7.VII–31.VIII.2011, leg. AH & AR (NHMO).

Distribution: Palaearctic; Sweden, Finland, Latvia, Lithuania, NW Russia.

***Plectiscus* sp. A**

Material: AAY, Lillesand: Froholt, [EIS 6], 58.3261° N, 08.3043° E, 53 m, oak forest, MT, 1♀ 30.VI–23.VIII.2011, leg. AH & AR; ON, Gausdal: Ormtjernkampen mt., [EIS 53], 61.1869° N, 09.8279° E, 992 m, spruce forest, MT, 1♀ 19.VIII–20.X.2011, leg. AH & AR; RY, Tysvær: Nedstrand, Tunganeset, [EIS 14], 59.34° N, 05.88° E, 1♀ 5.VII.2011, leg. AH; VAY, Farsund: Listeid Nature Reserve, Eitland, [EIS 1], 58.13° N, 06.72° E, 50–150 m, 1♀ 1.VII.2011, leg. AH (All NHMO).

Distribution: Palaearctic.

***Plectiscus* sp. B**

Material: SFI, Luster: Jostedalen, Fåberstølsgrandane, [EIS 60], MT, 1♀ 12.VII–12.IX.2006, leg. ØGM, ERI & GSØ (NHMO).

Distribution: Palaearctic.

Proeliator proprius Rossem, 1982

Material: NTI, Lierne: Nordli, Kvernaunet [EIS 108], MT, 2♀ 6.VIII–24.IX.2008, leg. LAA, ERI & GSØ; OS, Søndre Land, Dokka: Odnes, [EIS 45], 60.7978° N, 10.1731° E, 150

m, YPT, 1♀ 17–18.VIII.2011, leg. AH, AR & Guzman, voucher for DNA bar-coding AH052; **ON**, Gausdal: Veslefjellet, [EIS 53], 61.1462° N, 09.7061° E, 1060 m, birch forest, MT, 1♀ 18.VIII–13.X.2011, leg. AH & AR; **ON**, Gausdal: Ormtjernkampen NP, Storlægeret, [EIS 53], 61.1356° N, 09.7182° E, 990 m, birch forest, MT, 2♀♀ 18.VIII–13.X.2011, leg. AH & AR; **ON**, Gausdal: Ormtjernkampen mt., [EIS 53], 61.1869° N, 09.8279° E, 992 m, spruce forest, MT, 1♀ 19.VIII–20.X.2011, leg. AH & AR (All NHMO).

Distribution: Palaearctic; Sweden, Finland, NW Russia.

Stenomacrus binotatus (Holmgren, 1858)

Material: **SFI** Luster: Jostedal, Fåberstølsgrandane, [EIS 60], MT, 1♀ 12.VII–12.IX.2006, leg. ØGM, ERI & GSØ; **NTI**, Lierne: Nordli, Skograudberget, [EIS 108], 407 m, MT, 2♀♀ 7.VIII–25.IX.2008, leg. GSØ & ERI; **STY**, Åfjord: Skjerva Nature Reserve, [EIS 97], 63.9435° N, 10.2725° E, 42 m, birch forest, MT, 1♀ 9.VII–3.IX.2011, leg. AH & AR (all NHMO).

Distribution: Palaearctic; Sweden, Lithuania.

Stenomacrus celer (Holmgren, 1858)

Material: **SFI**, Luster: Jostedal, Fåberstølsgrandane, [EIS 60], MT, 1♀1♂ 12.VII–12.IX.2006, leg. ØGM, ERI & GSØ; **STY**, Åfjord: Skjerva Nature Reserve, [EIS 97], 63.9435° N, 10.2729° E, 42 m, birch forest, MT, 1♀ 9.VII–3.IX.2011, leg. AH & AR; **STY**, Bjugn: Hildremvatnet Nature Reserve, [EIS 97], 63.8151° N, 10.0343° E, 132 m, spruce rain forest, MT, 2♀♀ 9.VII–3.IX.2011, leg. AH & AR (All NHMO); **AAV**, Lillesand: Froholt, [EIS 6], 58.3261° N, 08.3043° E, 53 m, oak forest, MT, 2♀♀ 30.VI–23.VIII.2011, leg. AH & AR (NHMO); **AAV**, Lillesand: Vestre Grimevann lake, [EIS 6], 58.3231° N, 08.3359° E, oak forest, MT, 1♂ 29.VI–23.VIII.2011, leg. AH & AR (NHMO); **VAY**, Farsund: Listeid Nature Reserve, [EIS 1], 58.1338° N, 06.7189° E, 72 m, oak forest, MT, 1♂ 1.VII–24.VIII.2011, leg. AH & AR (NHMO); **RY**, Tysvær: Nedstrand, Tunganaset, [EIS 14], 59.3384° N, 05.8765° E, sea shore, MT, 1♀ 5.VII–27.VIII.2011, leg. AH & AR (NHMO);

RY, Tysvær: Silgjerd, Åsen, [EIS 14], 59.3357° N, 05.7271° E, 50 m, oak forest, MT, 1♀ 5.VII–27.VIII.2011, leg. AH & AR (NHMO); **HEN**, Stor-Elvdal: Atnaelva, Solbakken, [EIS 63], MT, 1♂ 2.VII.1986, leg. JOS (NTNU); **NTI**, Høylandet: Skiftesåa, [EIS 107], MT, 1♀ 2.VII.1987, leg. KAA (NTNU).

Distribution: Palaearctic; Sweden, Finland, Lithuania, NW Russia (Karelia).

Stenomacrus sp. A

Material: **STY**, Åfjord: Skjerva Nature Reserve, [EIS 97], 63.9435° N, 10.2725° E, 42 m, birch forest, MT, 2♀♀ 9.VII–3.IX.2011, leg. AH & AR (NHMO); **STY**, Åfjord: Skjerva Nature Reserve, [EIS 97], 63.9431° N, 10.2715° E, 109 m, spruce rain forest, MT, 1♀ 9.VII–3.IX.2011, leg. AH & AR (NHMO); **NTI**, Lierne: Nordli, Kvernaunet, [EIS 108], MT, 2♀♀ 6.VIII–24.IX.2008, leg. LAA, ERI & GSØ (NHMO).

Distribution: Palaearctic.

Stenomacrus sp. B

Material: **HOY**, Herland: Osterøy, Bysheimsvann, [EIS 40], 1♀ 21.VIII.1982, leg. AF (ZMBN).

Distribution: Palaearctic.

Stenomacrus sp. C

Material: **STY**, Åfjord: Skjerva Nature Reserve, [EIS 97], 63.9435° N, 10.2725° E, 42 m, birch forest, MT, 2♀♀4♂♂ 9.VII–3.IX.2011, leg. AH & AR (NHMO); **STI**, Trondheim: Kjerringtjønnen, [EIS 97], MT1, 1♀ 11.IX.2010, leg. ET (NTNU); **SFI**, Luster: Jostedal, Fåbergstølsgrandane, [EIS 60], MT, 4♀♀1♂ 12.VII–12.IX.2006, leg. ØGM, ERI & GSØ (NHMO).

Distribution: Palaearctic.

Symplecis clipeator (Lundsbeck, 1897)

Material: **STI**, Oppdal: Kongsvoll, Blesbekken, [EIS 79], MT, 1♂ 19.VI.1980, leg. JOS (NTNU, No 66129).

Distribution: Holarctic; NW Russia. New to Nordic countries.

Symplecis leucostoma Förster, 1871

Material: **STI**, Oppdal: Kongsvoll, Bles-

bekken, [EIS 79], MT, 1♂ 19.VI.1980 (No 66123); 1♂ 10.VII.1980 (No 66095); 1♀ 17.VII.1980 (No 67543); 1♂ 04.VIII.1981 (No 70315); 2♂♂ 24.VII.1980 (No 66796, 66803); 1♀ 31.VII.1980 (No 67712); 2♀♀ 31.VII.1982 (No 70774, 70775); **STI**, Oppdal: Raubekken, [EIS 79], 900 m, 1♂ 24.VII.1980 (No 66638); all leg. JOS (NTNU); **AK**, Ullensaker: Sessvollmoen W. [EIS 37], 204 m, MT, 1♀ 26.VI–25.VIII.2008, leg. LOH (NHMO); **SFI**, Luster: Jostedal, Fåbergstølsgrandane, [EIS 60], MT, 1♀2♂♂ 12.VII–12.IX.2006, leg. ØGM, ERI & GSØ (NHMO); **RY**, Rogaland: Tysvær, Nedstrand, Tunganeset, [EIS 14], 59.3384° N, 05.8765° E, sea shore, MT, 1♂ 5.VII–27.VIII.2011, leg. AH & AR (NHMO); **RY**, Rogaland: Tysvær, Nedstrand, Tunganeset, [EIS 14], 59.34° N, 05.88° E, 1♂ 5.VII.2011, leg. AH (NHMO); **SFI**, Luster: Bargarden Nature Reserve, [EIS 60], 61.4486° N, 07.4851° E, 119 m, oak forest, MT, 1♀2♂♂ 7.VII–31.VIII.2011, leg. AH & AR (NHMO); **ON**, Gausdal: Ormjernkampen, [EIS 53], 61.135° N, 09.717° E, 970 m, 4♀♀37♂♂, 25.VI.2011, leg. AR, voucher for DNA bar-coding AH061 (NHMO).

Distribution: Palaearctic: Finland, NW Russia (Karelia).

Acknowledgments. The present study was funded by The Norwegian Biodiversity Information Centre (Artsdatabanken) (project No 70184219 “Filling the blanks: a quest for overlooked Norwegian species in poorly known insect taxa: Hymenoptera: Ichneumonidae”, headed by Dr. Vladimir Gusarov (Natural History Museum, Oslo)). For the collecting and loan of Orthocentrinae material, I am thanking to all the curators who generously donated their material for this study: Dr. Torbjørn Ekrem (Trondheim Museum of Natural History and Archaeology – Vitenskapsmuseet), Dr. Steffen Roth (The Natural History Collections of Bergen Museum) and Mr. Lars Ove Hansen (Natural History Museum, Oslo). I am very grateful to Finn Audun Grøndahl (Dokka, Lands Museum) who kindly helped us during the field work in Oppland. Mr. Alexey Reshchikov (Russia), Ms. Synne Arnesen Jensen (NMBU, Ås), and Ms. Dolores Lucía Guzman Herrador (University of Granada, Spain) are thanked for their assistance in field work and preliminarily material sorting. Finally, the author thanks anonymous reviewers for their help during review of the manuscript.

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Received: 12 August 2014

Accepted: 12 December 2014