

# A new species of *Ctenochira* Förster, 1855 (Hymenoptera, Ichneumonidae, Tryphoninae)

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Haraldseide, H. 2018. A new species of *Ctenochira* Förster, 1855 (Hymenoptera, Ichneumonidae, Tryphoninae). *Norwegian Journal of Entomology* 65, 26–31.

*Ctenochira magnusi* sp. n. is described and figured based on material collected in Norway and Germany. The new species can be separated from other similar *Ctenochira* Förster, 1855 species by characteristics of the ovipositor sheaths, the inclination and length of the setae of the hypopygium and the reduced pectination of the claws.

Key words: Hymenoptera, Ichneumonidae, Tryphoninae, Tryphonini, *Ctenochira magnusi*, new species, Norway, Germany, Palaearctic Region.

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## Introduction

Arnold Förster (1855) erected the genus *Ctenochira* to accommodate the single species *Ctenochira bisinuata* Förster 1855. *Ctenochira* Förster is known from the Eastern and Western Palaearctic, Nearctic and Oriental Region. The genus contains about 95 species (Yu *et al.* 2012; Kasparyan 2013a) and thus is the largest genus in the tribe Tryphonini. Palaearctic *Ctenochira* have been treated by Kasparyan (1973, 1981, 2013a, 2013b) and Kasparyan and Tolkanitz (1999).

## Material and methods

Four specimens of the new species have been studied, two from Western Norway, and two from the Bavarian National Park in Germany. The Norwegian specimens, including the holotype, were collected in a Malaise trap located in a grassy south-facing sloping meadow about 100 m from the sea and 40 m above sea level (Figure 1). The meadow is dominated by grasses and umbelliferous herbs. Surrounding vegetation

consist of various deciduous trees including *Fraxinus excelsioris*, *Acer platanoides*, *Prunus* and *Salix*.

Some notes on measurements: antennal segments are measured on the longest side; ovipositor sheaths are measured singularly; sometimes the length of the sheaths is difficult to measure due to retraction or protrusion; the shape of the dorsal notch is also sometimes difficult to discern due to overlapping of the sheaths (see figure 4).

Conspecificity of studied material has been confirmed by morphological comparison and molecular sequences (COXI).

The holotype and the German paratypes have been sequenced and the data is available in the Barcode of Life Database ([www.boldsystems.org](http://www.boldsystems.org)). According to the BOLD ID Engine there is 99.54 and 99.55% match between the holotype and German paratypes, the latter forming a cluster (BIN: BOLD:ACG4852) comprising only the German specimens as of May 2018. Nearest cluster (BIN: BOLD:AAU9524 (Distance 5.37%)) contains unidentified specimens from Canada. There are no published records with species



FIGURE 1. Oppsalsneset, Norwegian collecting site. Photo: Eivind Thorsen.

identification in the 99 top matches (>92.95%). GenBank accession number for the holotype is: MH338172. BOLD Sample IDs are included under Type material below.

***Ctenochira magnusi* sp. n.**

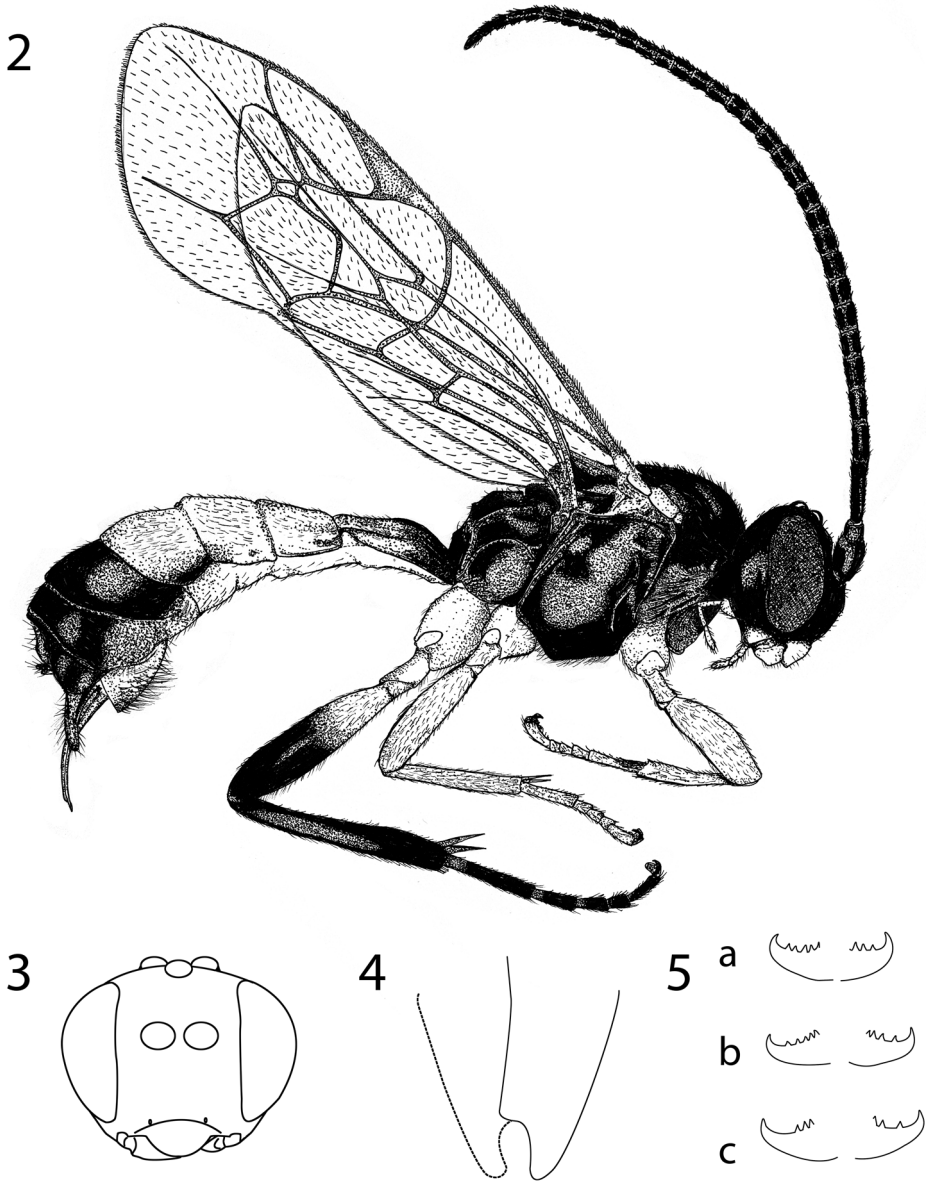
(Figures 2–6)

**Type material:** Holotype: NORWAY: Vindafjord: Oppsalsneset (N59.29479, E5.52589) 40 m asl, June 2016, 1♀ (Malaise Trap). leg. Haraldseide, Håkon & Thorsen, Eivind, coll. Zoologische Staatssammlung Munich (Munich, Germany) (BOLD Sample ID: CollHH1046). Paratypes: 1♀ data same as holotype, kept in the author's collection; GERMANY, Bavaria, Bayerischer Wald National Park, (N48.9509 E13.422) 842 m asl, 20 June 2012, 1♀ (BOLD Sample ID: BIOUG05397-G10), 4 July 2012, 1♀ (BOLD

Sample ID: BIOUG06448-B06), leg. G. Sellmayer, coll. Zoologische Staatssammlung Munich (Munich, Germany).

**Etymology:** The new species is named after my son and field-companion Magnus Haraldseide. Magnus is treated as a modern name. The specific epithet is a male noun in genitive case.

**Diagnosis:** The new species can be separated from other *Ctenochira* taxa by the following combination of characters: Antennae with 30–31 flagellomeres. Head black with yellow spots outside base of mandible; gena unmodified, not excavate; clypeal fovea small. Tegula white. Fore wing with petiolate areolet. Metasoma with tergites 2–3/4 red, impunctate. Coxae red; hind femur at apex and hind tibia predominantly brownish. Claws pectinate, but with few and very small teeth. Propodeum with distinct areas, costulae absent. Setae in apical part of hypopygium long and directed to base of sternite.

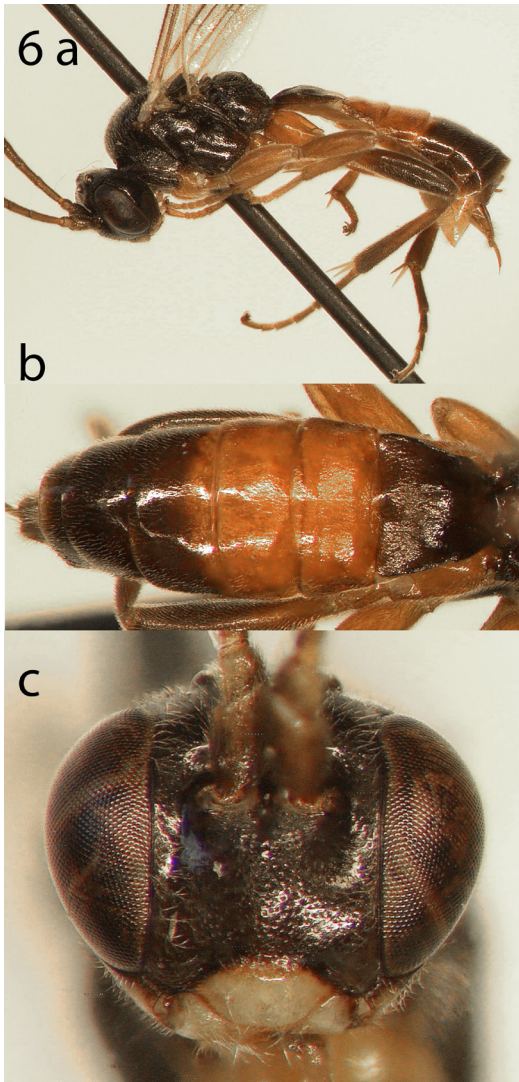


**FIGURES 2–5.** *Ctenochira magnusi* sp. n. 1. Habitus. 2. Head in frontal view. 3. Ovipositor sheaths in dorsal view. 4. Claws (a) fore, (b) mid, (c) hind.

**Description:** Female: Fore wing 4.8–5 mm long. Antennal flagellum (excluding anellus) with 30 (German specimens) – 31 (Norwegian specimens) segments, spindle shaped. First flagellomere 3.7–4 times, fifth 1.5–1.6 times and eighth about 1.2 times as long as broad. Sensilla

commencing from distal part of segment 3.

Head (Figure 3 & 6c) shining, coriaceous only below antennal sockets and along genal sulci. Face weakly convex in profile, coarsely punctate medially, frons and frontal orbits punctate, becoming less so towards anterior ocellus, vertex



**FIGURE 6.** *Ctenochira magnusi* sp. n.: (a) habitus; (b) metasoma in dorsal view; (c) head in frontal view. Photos: Matthias Riedel.

and rest of head very sparsely and shallowly punctate to impunctate. Antennal scrobes relatively shallow, glabrous. Rims unmodified. Clypeus flat in profile, twice as broad as long, well separated from face, punctate dorsally and anteromedially along extreme margin. Mandibles with scattered punctures. Clypeal foveae not enlarged and without setae. Malar space 0.5–0.6 times as long as basal width of mandible. Oral

fossa slightly narrower than face at middle. Oral carina behind mandible about 0.4 as long as basal width of mandible and almost as high as occipital carina. Gena normal, not excavate.

Thorax shining. Pronotum laterally glabrous or with scattered punctures in upper half, with longitudinal striae in lower half. Epomia distinct. Mesopleuron with shallow punctures. Punctures most dense in ventral half, separated by about 1.5–2 times their diameter. Upper and posteroventral part of mesopleuron along mesopleural suture almost impunctate. Speculum large and glabrous. Metapleuron with irregular rugosity and scattered weak punctures. Mesoscutum with regular shallow punctures, notauli barely or not at all impressed. Scutellum without lateral carinae and irregularly punctate. Propodeum shining and glabrous with some superficial rugosity. Areas distinct with strong carinae, but costulae absent, basal area and areola confluent. Petiolar area with a median longitudinal carina. (One German specimen is more coarsely sculptured; punctures of mesopleuron are deep and regular anteriorly in upper half to subtegular ridge; irregular widely spaced punctures leaving speculum glabrous only above mesopleural fovea. Propodeum with scattered superficial punctures.)

Fore wing with areolet present, weakly to clearly petiolate (areolet partly open in one specimen from Germany). 1cu-a (nervulus) opposite RS&M (basal vein) to slightly postfurcal. Hind wing with nervellus intercepted in lower 0.2–0.3.

Fore femur 3 times as long as broad. Tarsi of fore and mid legs somewhat shortened. Fore leg with second tarsomere 1.3–1.4, third 1–1.3 and fourth tarsomere 0.6–1 times as long as broad. Hind femur 3.7–4 times as long as broad. Claws with very small teeth (Figures 5 a–c).

Metasoma shining, impunctate. First tergite about as long as broad, dorsal carinae strong, reaching about half length of segment, postpetiole rugose with superficial longitudinal striation. Second tergite transverse, 2–2.2 times as broad as long, with a transverse depression. Rugosity of metasoma diminishing towards apical segments. Ovipositor sheaths 2.2–2.5 times as long as broad, dorsal notch prominent, 0.6–0.7 of maximum

width of sheath (Figure 4). Hypopygium apically with setae directed forward (to base of sternite), setae 2.8–3.4 times as long as width of cerci (longest in Norwegian specimens).

Coloration (Figure 6): antennae brown, lighter ventrally; pedicel yellowish brown ventrally; head black; clypeus yellow, narrowly darkened dorsally; palps and mandibles except for teeth yellow; spots outside base of mandibles yellow.

Mesosoma black. Pronotum, propleuron, mesopleuron and metapleuron with a reddish tinge ventrally and in their hind corners. This redness is less conspicuous in German specimens.

First tergite black to brownish black with red hind margin medially and reddish tinge below dorsolateral carina and dorsally on postpetiole. Second and third tergite red, fourth varying from red only basally to completely red. Fifth to seventh tergites blackish dorsally, reddish yellow ventrolaterally. Ovipositor sheaths and cercus reddish brown. Sternites and hypopygium reddish yellow. In one German specimen darkening of apical tergites almost lacking.

Tegula and humeral plate of fore wing white. Wings hyaline to slightly fuscous. Veins light brown, pterostigma brown, lighter basally.

Legs including coxae yellowish red. Hind femur gradually darkened from base to apex. Hind tibia and tarsus darkened, reddish brown, tarsal segments 1–3 pale at extreme base, spurs yellow.

Male: unknown

Host: unknown

## Discussion

The new species belongs to the *bisinuata*-group as described by Kasparyan (1973).

*Ctenochira magnusi* sp.n. appears to be close to the Eastern Palearctic species *Ctenochira inversa* Kasparyan, 1972 in the inclination of the setae of the hypopygium, the presence of an areolet in the fore wing, the reduced pectination of the claws, long ovipositor sheaths and a similar colour pattern, but differs from *C. inversa* in having the setae of the hypopygium considerably longer, ovipositor sheath wider, coloration of hind tibia darker, and complete (but sparse) pectination

of the claws.

Following Townes & Townes' (1949) treatment of Nearctic species, none seem notably close to the new species. In the key it halts at couplet 19 and does not fit any of their descriptions of known Nearctic species.

When using available keys for the Palearctic fauna (Kasparyan 1973, 1981, 2013b) the new species is most easily confused with *Ctenochira inversa* Kasparyan, 1972 and *Ctenochira pastoralis* (Gravenhorst, 1829). Both can be excluded based on characters stated in the diagnosis.

*C. magnusi* sp.n. is so far known only from coastal Norway and one mountainous location in Southern Germany, it is likely to have a boreo-montane distribution in Europe.

**Acknowledgements.** I am indebted to the following persons: John Kevin Moulton (University of Tennessee, Knoxville, United States) for doing the COXI sequencing, Stefan Schmidt and Erich Diller (Zoologische Staatssammlung München, Germany) for loan of German specimens, Andrey Ivanovich Khalaim (Zoological Institute, Russian Academy of Sciences, St.Petersburg, Russia) for information on specimens held at the Zoological Institute, Russian Academy of Sciences and Dmitri Kasparyan (Zoological Institute, Russian Academy of Sciences, St.Petersburg, Russia) and Matthias Riedel (Zoologische Staatssammlung München, Germany) for comments and corrections to the manuscript. I also wish to thank the anonymous referee(s) for comment that helped improve the manuscript.

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Received: 6 February 2018

Accepted: 29 March 2018