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## A new subgenus of the genus *Colastes* Haliday (Hymenoptera: Braconidae: Exothecinae) for species reared from bracket fungi, with description of two new species from Europe

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A new Holarctic subgenus (*Fungivenator* subgen. nov.) of the genus *Colastes* Haliday, 1833 (Hymenoptera: Braconidae: Exothecinae) is proposed for a group of species that, as far as is known, has its larvae living on hosts in bracket fungi. The type species (*Colastes sandei* sp. nov. from Netherlands, Germany and England) and a second species (*C. fritzeni* sp. nov.) from Finland are described and illustrated. A key to the five known species is included.

**Keywords:** *Colastes*; *Fungivenator*; *Phellinus*; *Fomes*; *Laetiporus*; *Dorcatoma*; *Daedaleopsis*; Netherlands; Germany; England; Finland; Europe; Palaeartic region; Nearctic region; distribution; new subgenus; new species

### Introduction

The small subfamily Exothecinae Foerster, 1862 (Hymenoptera: Braconidae) consists of ectoparasitoids normally developing on leaf-mining (or leaf gall-forming) holometabolous larvae (van Achterberg 1983). Rarely, the host is a stem borer: *Shawiana foveolator* (Thomson 1892) has been reported as host of the sawfly *Blasticotoma filiceti* Klug, 1834 (personal observation. MRS; also literature records of unknown accuracy include this parasitoid). Some species permanently paralyse the host and develop as idiobionts, while others (Shaw 1983) permit the host to feed for a time after attack and are therefore to be categorized as koinobionts. In Europe the subfamily is represented by a closely knit group of species traditionally included in the genera *Colastes* Haliday, 1833, *Xenarcha* Foerster, 1862, and *Shawiana* van Achterberg, 1983 (van Achterberg 1983), which is referred to here as the *Colastes*-complex. In this paper we report two species of which the larvae are living in bracket fungi respectively, in Britain and the Netherlands, and in Finland, which we consider to belong to a new subgenus (*Fungivenator* subgen. nov. with type species: *Colastes sandei* sp. nov.) of the genus *Colastes* Haliday. Three very similar species (of which the Nearctic one is known to live in bracket fungi) are included and all are believed to live on hosts in bracket fungi. The species from Finland was reared in numbers from bracket fungi in which the only plausible co-occurring hosts were *Dorcatoma* species (Coleoptera: Anobiidae). Belokobylskij (1998) and Belokobylskij et al. (2003) recognizes *Xenarcha* and *Shawiana* as subgenera of *Colastes* but the present authors disagree with this. Both are treated as genera because several differences are present. We describe *Fungivenator* as a subgenus rather than a full genus, even given that the biology is rather distinctive, to stress that

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*Fungivenator* is considered to be more closely related to *Colastes* than to both other genera as shown by the limited morphological differences.

The genus *Colastes* Haliday is characterized as follows: the clypeus is convex and distinctly differentiated from the face; the submedial pronope is absent (but rarely shallowly impressed in *C. sandei*), pronotum dorsally often with a more or less crenulate transverse depression anteriorly, which can be more or less open anteriorly; the ovipositor sheath is usually distinctly longer than the first metasomal tergite; the dorsal carinae of the first tergite are often strongly converging and tergite with a median crest or carina medially; the shape and pigmentation of the pterostigma of the male and female are similar (Figures 1A and E).

**Material and methods**

The following abbreviations have been used for the depositories of the studied material: NMS stands for the National Museums of Scotland, Edinburgh, Scotland and RMNH for the Nationaal Natuurhistorisch Museum (Naturalis), Leiden, the Netherlands.

The drawings were made using a Wild M20ED microscope with drawing tube for the rough drawing and an Olympus SZ40 binocular microscope and a fluorescent lamp (e.g., Philips Master PL Electronics 827) for the fine details.

For the recognition of the subfamilies, see van Achterberg (1990, 1993, 1997); for the genera, see van Achterberg (1983) and for the terminology used in this paper, see van Achterberg (1988, 1993).

**Results and descriptions**

**Key to subgenera of the genus *Colastes* Haliday**

- 1. Ventral rim of clypeus thin, protruding beyond level of face and apex of mandible in lateral view (Figures 1L, 2B); posteriorly notauli meeting in a more or less rugose area (Figure 1B); scutellum often finely rugulose medio-posteriorly (Figure 1B); dorsal carina of first metasomal tergite not united medially (Figures 2D, 3E) or united and without a distinct median crest (Figure 1I); parasitoids of larvae in bracket fungi. . . . . *Fungivenator*
- Ventral rim of clypeus thick, at same level as that of face and apex of mandible (Figure 3F); posteriorly notauli variable, if present then meeting in a more or less aciculate or smooth area; scutellum smooth medio-posteriorly; dorsal carinae of first tergite often strongly converging and with a median crest or carina medially; parasitoids of leaf-mining larvae and of larvae in leaf-galls . . . . . *Colastes*

Subgenus *Fungivenator* nov.  
(Figures 1, 2A–C)

*Type species*

*Colastes sandei* sp. nov.

*Etymology*

From “fungis” (Latin for “fungus”) and “venator” (Latin for “hunter”), because the females search for fungi in which to hunt hosts. Gender: masculine.

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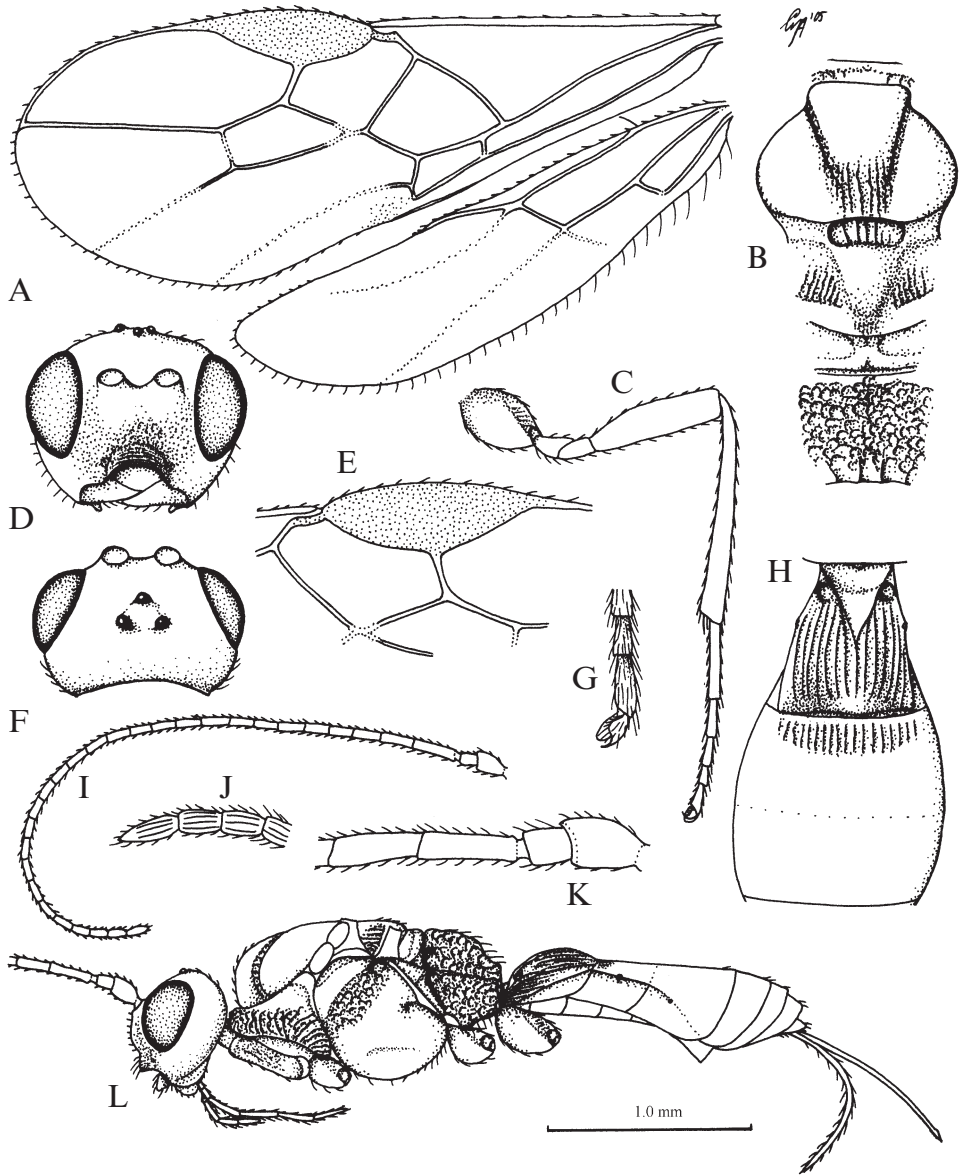


Figure 1. *Colastes (Fungivenator) sandei*, holotype, female. (A) Wings; (B) mesosoma, dorsal aspect; (C) hind leg; (D) head, anterior aspect; (E) detail of vein r of forewing; (F) head, dorsal aspect; (G) inner hind claw; (H) first-third metasomal tergites, dorsal aspect; (I) antenna; (J) apex of antenna; (K) base of antenna; (L) habitus, lateral aspect. Scales:  $1.0 \times$  scale bar (A, C, I, L);  $1.5 \times$  (B, D–F, M);  $2.5 \times$  (G, J, K).

*Diagnosis*

Antenna of female with 20–31 segments, third segment 4–5 times as long as wide (Figures 1K, 2B); occipital carina narrowly reduced medio-dorsally and remaining far from hypostomal carina ventrally (Figure 2B); clypeus convex, distinctly

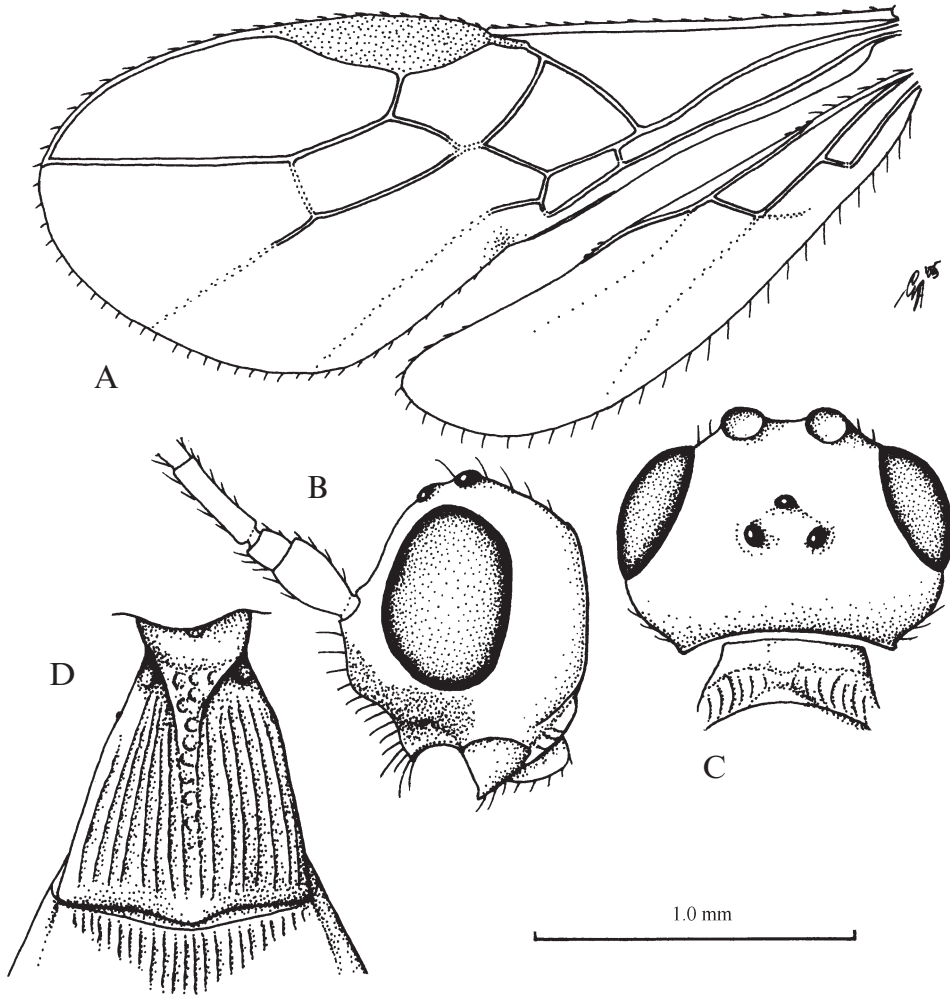


Figure 2. *Colastes (Fungivenator) aciculatus*, holotype, female. (A) Wings; (B) head, lateral aspect; (C) head, dorsal aspect; (D) first metasomal tergite, dorsal aspect. Scales:  $1.0\times$  scale bar (A);  $1.8\times$  (B–D).

differentiated from face (Figures 1D, 2B); ventral rim of clypeus thin, protruding beyond level of face and apex of mandible in lateral view (Figures 1L, 2B); hypoclypeal depression deep and rather large (Figure 1D); orbits reddish-brown or brown dorsally; pronope absent or small (but distinct in one of the paratypes of *C. sandei* from Monks Wood), pronotum dorsally often with a more or less crenulate transverse depression anteriorly, which can be open anteriorly; mesoscutum glabrous and strongly shiny, but densely setose (except posteriorly) in *C. fritzeni*; notauli finely crenulate, posteriorly notauli not strongly converging and ending in a broad more or less rugose area (Figure 1B); scutellum often finely rugulose medio-posteriorly (Figure 1B); propodeum coarsely reticulate, at most anteriorly narrowly smooth; vein r shorter than width of pterostigma (Figures 1A, 1E, 2A, 3A); shape and pigmentation of pterostigma of male similar to pterostigma of female

(Figures 1A, 1E); vein 1-SR of forewing and vein 1-M of hind wing medium-sized (Figures 1A, 2A); vein r of forewing usually distinctly oblique and from basal 0.3–0.5 of pterostigma (Figures 1A, 1E, 2A, 3A); first subdiscal cell of forewing robust (Figures 1A, 2A); dorsal carina of first metasomal tergite not united medially (Figure 2D) or united and without distinct median crest (Figure 1H); second metasomal tergite distinctly striate basally; second and third tergites about of equal length and second tergite less transverse than third tergite (Figure 1H); fourth and fifth tergites smooth (Figure 1L); fifth tergite narrowed posteriorly; ovipositor slender (Figure 1L); length of ovipositor sheath 0.3–0.5 times as long as forewing and 2–4 times as long as first tergite.

*Biology*

Host unknown, but reared from bracket fungi; considering the biology of other species of the genus *Colastes* likely to be an idiobiont ectoparasitoid of holometabolous larvae in the bracket fungi, with strong circumstantial evidence for one species to be a parasitoid of *Dorcatoma* species (Coleoptera: Anobiidae).

*Distribution*

Holarctic, five species.

**Key to species of the subgenus *Fungivenator* nov.**

1. Length of ovipositor sheath about 0.5 times forewing; pterostigma elongate ((Figure 3A); middle lobe of mesoscutum and scutellum densely setose; hind femur micro-sculptured and rather robust (Figure 3D); outer side of hind coxa rugulose; mesosternum with widely crenulate and deep sulcus medially and sublaterally superficially crenulate; Finland . . . . . *fritzeni*
  - Length of ovipositor sheath 0.3–0.4 times forewing; pterostigma robust ((Figures 1A, 2A); middle lobe of mesoscutum and scutellum glabrous; hind femur largely smooth and more slender (Figure 1C); outer side of hind coxa at least partly smooth; mesosternum with narrowly crenulate and rather deep sulcus medially and sublaterally smooth . . . . . 2
2. First metasomal tergite more finely, densely and very regularly striate, tergite evenly strongly convex; length of ovipositor sheath about 0.4 times forewing; antenna with 28–31 segments; Nearctic. . . . . *polypori*
  - First tergite more coarsely, less densely and rather irregularly striate or rugose (Figures 1H, 2D), tergite more or less flattened medially; length of ovipositor sheath about 0.3 times forewing; antenna with 21–30 segments; Palaearctic . . . . . 3
3. Vein 3-SR of forewing 0.9–1.0 times as long as vein 2-SR (Figure 1A); basally vein r of forewing somewhat wider than vein 2-SR (Figures 1A, 1E); pterostigma distinctly triangular (Figure 1A); West Palaearctic . . . . . *sandei*
  - Vein 3-SR of forewing 1.3–1.5 times as long as vein 2-SR (Figure 2A); basally vein r of forewing slender, about as wide as vein 2-SR (Figure 2A); pterostigma elliptical (Figure 2A); Central and East Palaearctic. . . . . 4
4. Ventral half of face rugulose; first subdiscal cell of forewing weakly narrowed basally; vein 3-SR of forewing about 1.3 times as long as vein 2-SR . . . . . *effectus*

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- Ventral half of face densely coriaceous; first subdiscal cell of forewing strongly narrowed basally (Figure 2A); vein 3-SR of forewing about 1.5 times as long as vein 2-SR (Figure 2A) . . . . . *aciculatus*

***Colastes aciculatus* Tobias, 1986**  
(Figures 2A–D)

*Colastes aciculatus* Tobias (in Belokobylskij and Tobias) 1986, p. 58 (translation: p. 94).

*Biology*

Unknown.

*Distribution*

South Russia (Krasnodar Kray).

***Colastes effectus* (Papp, 1972)**

*Exotheclus effectus* Papp 1972, pp. 323–325, Figures 1–3.

*Rhysipolis effectus*; Papp 1975, p. 421.

*Colastes effectus*; Shenefelt 1975, p. 1119.

*Xenarcha effecta*; van Achterberg 1983, pp. 349–350.

*Colastes (Shawiana) effectus*; Belokobylskij 1990, p. 37; 1994, pp. 71–72.

*Colastes (Xenarcha) effectus*; Belokobylskij 1998, p. 154.

*Biology*

Unknown.

*Distribution*

China (Liaoning); Japan; Korea; Russia (Primorye Kray, Sakhalin Oblast, Ulyanovsk Oblast).

***Colastes fritzeni* sp. nov.**  
(Figures 3A–E)

*Holotype*, female, length of body 3.3 mm and of forewing 3.2 mm.

*Description*

*Head.* Antenna with 26 segments, third antennal segment 1.4 times fourth segment, length of third, fourth and penultimate segments 4.8, 3.3 and 2.0 times their width, respectively (Figures 3B, C); length of maxillary palp 1.2 times height of head; length of eye in dorsal view 1.9 times temple; OOL: diameter of ocellus: POL=7:3:5; vertex smooth and conspicuously setose; frons smooth and with a shallow median groove anteriorly; face transversely rugulose medially (except dorsally) and rugulose-granulate laterally; malar space only granulate; clypeus with some transverse striae

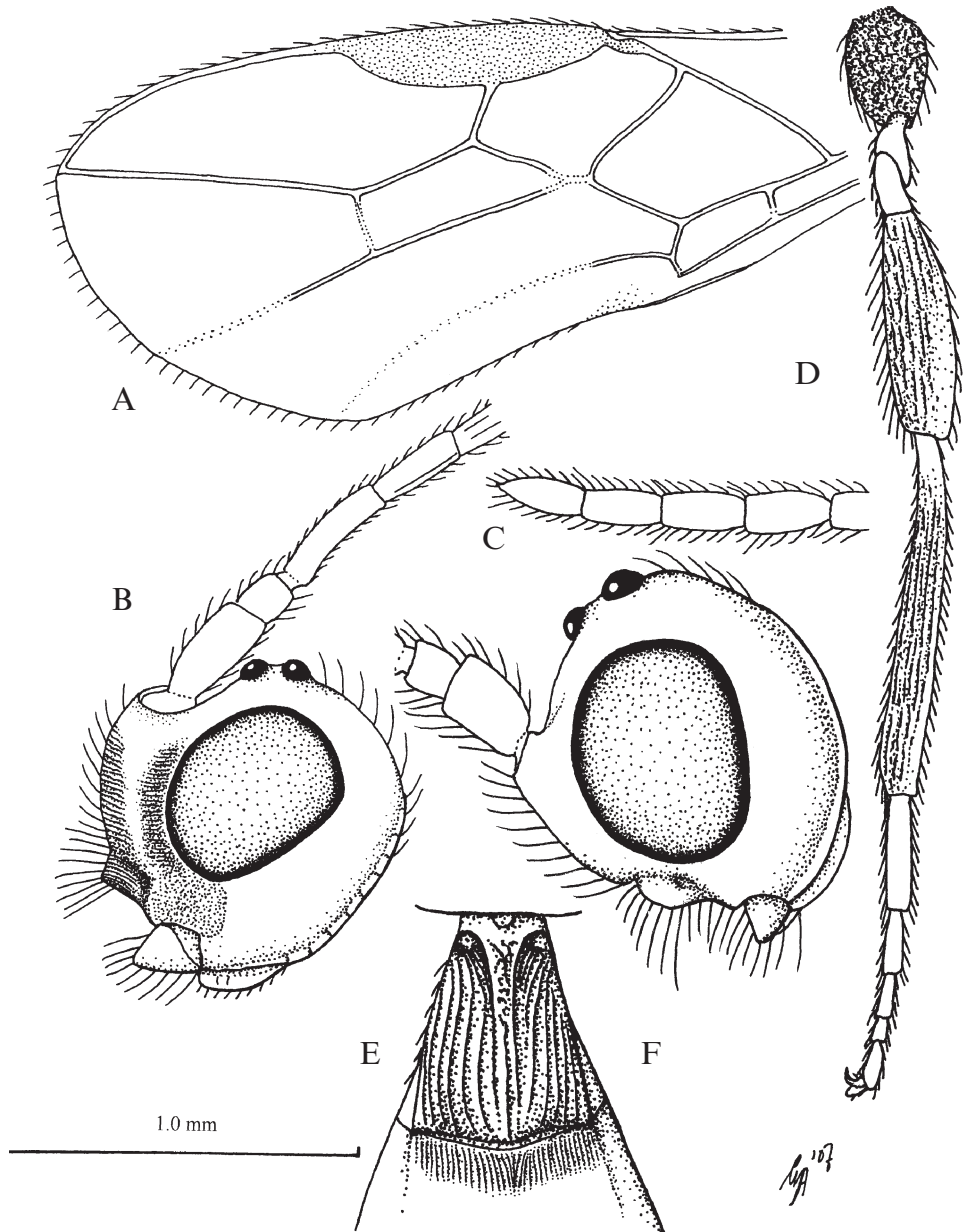


Figure 3. (A–E) *Colastes (Fungivenator) fritzeni*, holotype, female; (F) *Colastes (Colastes) braconius* Haliday, Belgium, near Antwerp, female. (A) Part of forewing; (B, F) head, lateral aspect; (C) apex of antenna; (D) hind leg; (E) first metasomal tergite, dorsal aspect. Scales:  $1.0\times$  scale bar (A);  $1.5\times$  (B);  $1.9\times$  (C);  $1.1\times$  (D);  $1.3\times$  (E);  $2.0\times$  (F).

and rugulae; hypoclypeal depression half as wide as face; ventral part of occipital carina visible in anterior view of head; length of malar space 1.3 times basal width of mandible; occipital flange rather wide (Figure 3B); malar suture obsolete; mandible distinctly twisted apically and with convex striate outer side.



*Mesosoma.* Length of mesosoma 1.6 times its height; pronope absent except for an indistinct sculptured depression; side of pronotum smooth dorsally, with a triangular depression and remainder coarsely rugose; mesosternum with a widely crenulate and deep median sulcus and sublaterally superficially crenulate (but smooth posteriorly); mesopleuron smooth, but densely vermiculate-rugose antero-dorsally; precoxal sulcus absent; metapleuron vermiculate-rugose; notauli complete, rather wide and coarsely crenulate, medio-dorsally with coarse rugae; middle lobe and anteriorly lateral lobes of mesoscutum densely setose; scutellar sulcus wide and deep, with some distinct carinae; scutellum weakly convex, setose and largely smooth, but distinctly rugose medio-posteriorly; surface of propodeum coarsely rugose-reticulate, with an irregular median carina but without an areola posteriorly.

*Wings.* Forewing: r slightly widened and 0.9 times width of pterostigma; pterostigma elongate (Figure 3A);  $r:3-SR:SR1=10:24:52$ ;  $1-CU1:2-CU1=1:2$ ;  $2-SR:3-SR:r-m=17:24:11$ ; m-cu antefurcal and converging to 1-M posteriorly; cu-a short and first subdiscal cell strongly widened apically (Figure 3A); CU1b much shorter than vein 3-CU1. Hind wing: m-cu present, antefurcal;  $M+CU:1-M:1r-m=19:22:10$ .

*Legs.* Hind coxa densely rugose laterally and dorsally; hind femur densely and long setose and largely rugose, except postero-laterally (Figure 3D); hind tibia densely setose and striate except dorsally; tarsal claws simple, setose, but with some short bristles basally; fore tarsus as long as tibia, tibia with a row of bristly setae; length of femur, tibia and basitarsus of hind leg 3.4, 8.6 and 5.6 times their width, respectively; hind tibial spurs 0.20 and 0.15 times as long as hind basitarsus.

*Metasoma.* Length of first tergite 1.2 times its apical width, its surface strongly longitudinally striate (Figure 3E), its dorsal carinae remain separated; dorsope medium-sized; laterope absent, with glymma slightly impressed and crenulate; second tergite smooth but widely finely striate basally; ovipositor straight; length of ovipositor sheath 0.48 times as long as forewing (and 3.4 times as long as first tergite).

*Colour.* Black; scapus (but dorsally darkened), pedicellus largely and annellus yellowish-brown; antennal sockets, small lateral patch of frons and metasoma ventrally more or less dark brown; remainder of antenna and pterostigma dark brown; palpi, tegulae, seventh and eighth metasomal tergites and legs pale yellowish, but apical third of hind tibia and most of hind tarsus infuscate; parastigma and veins rather dark brown; wing membrane subhyaline.

#### *Variation*

Length of body 2.6–3.9 mm (female) or 1.6–2.9 mm (male), and of forewing 2.7–3.7 mm (female) or 1.7–2.9 mm (male); antenna of female with 25 (3), 26 (2) or 28 (2) segments, of male with 20 (1), 21 (2), 23 (2), 24 (4), 27 (2) or 28 (1) segments; shape of pterostigma of male similar to that of female; small males tend to have the hind leg (and to a lesser degree fore and middle legs) largely dark brown, especially hind coxa and tibia and their sculpture is less developed; vein 3-SR of forewing 1.4–2.0 times as long as vein 2-SR; length of ovipositor sheath 0.48–0.52 times as long as forewing.

One male with the same data as the holotype is excluded because it is extremely small (forewing 1.3 mm), antenna with 18 segments, mesoscutum with few setae and first subdiscal cell of forewing narrow and subparallel-sided.

### Biology

Several times reared from bracket fungi in which *Dorcatoma* species were breeding in the apparent absence of other possible hosts.

### Distribution

Finland.

### Material examined

Holotype female: “Finland: Ta: Valkeakoski, S of Lotilanjärvi. 61.26°N/24.00°E, ex *Phellinus ignarius* (s.l.)/*Betula* with *Dorcatoma punctulata*, coll. 8 April 2006, em. April–June [20]06 (indoors), N. R. Fritzén & I. Österblad” (NMS). Paratypes (6 females+14 males): 2 females+7 males, same data as holotype (NMS, RMNH); 1 female, id., but ex *Phellinus tremulae*/*Populus tremulus* with *Dorcatoma lomnickii* and *D. dresdensis* (NMS); 1 female, id., but with *D. punctulata* and *Cis alni* (NMS); 2 males, id., but ex *Phellinus ignarius* (s.l.)/*Betula* with *Dorcatoma dresdensis* (NMS, RMNH); 1 male, id., but ex *Phellinus pini* on *Pinus* sp. (NMS); 1 female+4 males: “Finland: Om: Lohtaja, Korteperänräme. 63.91°N/23.47°E, [ex] *Phellinus ignarius* (s.l.)/*Betula* with *Dorcatoma dresdensis*, coll. February 2006, em. ca April [20]06 (indoors), N. R. Fritzén” (NMS, RMNH); 1 female, “Finland: Oa: Korsholm, Jungsund. 63.18°N/21.58°E, [ex] *Fomes fomentarius* with *Dorcatoma dresdensis*, [coll.] 2006, Ika Österblad” (NMS).

### Note

It is a pleasure to name this species after one of the collectors of the holotype, Mr N. R. Fritzén (Sund), who reared important series of Braconidae from bracket fungi in Finland.

### *Colastes polypori* Mason, 1968

*Colastes polypori* Mason 1968, p. 715; Shenefelt 1975, p. 1122.

### Biology

Reared from the bracket fungus *Piptoporus betulinus* (Bulliard) Karsten.

### Distribution

Canada (Manitoba, Quebec); U.S.A. (Wisconsin).

### *Colastes sandei* sp. nov.

(Figures 1A–L)

*Holotype*, female, length of body 3.4 mm and of forewing 3.5 mm.

*Description*

*Head.* Antenna with 30 segments, third antennal segment 1.2 times fourth segment, length of third, fourth and penultimate segments 4.0, 3.0 and 1.6 times their width, respectively (Figures 1I–K); length of maxillary palp 1.3 times height of head; length of eye in dorsal view 1.9 times temple (Figure 1F); OOL:diameter of ocellus:POL=6:3:5; face rugulose ventro-medially and weakly granulate laterally; clypeus with some striae; frons and vertex smooth; hypoclypeal depression about half as wide as face (Figure 1F); ventral part of occipital carina visible in anterior view of head; length of malar space 1.4 times basal width of mandible; occipital flange rather wide (Figure 1L); malar suture indistinct; mandible rather twisted apically and with convex outer side.

*Mesosoma.* Length of mesosoma 1.6 times its height; pronope absent; side of pronotum smooth dorsally and remainder rugose; mesosternum with a narrowly crenulate and rather deep sulcus and sublaterally smooth; mesopleuron smooth but densely reticulate-rugose antero-dorsally; precoxal sulcus absent except for a shallow depression; metapleuron reticulate; notauli complete, rather wide (Figure 1B); mesoscutum with some setae near notauli; scutellar sulcus wide and deep, with some distinct carinae (Figure 1B); scutellum weakly convex, setose and smooth anteriorly and medially, rugulose posteriorly; surface of propodeum coarsely reticulate, but less so posteriorly, without a median carina anteriorly or an areola posteriorly (Figure 1B).

*Wings.* Forewing: r slightly widened and its length 0.7 times width of pterostigma; pterostigma triangular (Figure 1A); r:3-SR:SR1=8:14:41; 1-CU1:2-CU1=4:13; 2-SR:3-SR:r-m=14:14:8; m-cu antefurcal and converging to 1-M posteriorly; cu-a short and first subdiscal cell strongly widened apically (Figure 1A); CU1b much shorter than vein 3-CU1. Hind wing: m-cu present (Figure 1A); M+CU:1-M=23:17.

*Legs.* Hind coxa partly finely striate postero-dorsally and more or less rugose in front of this; hind femur rather densely setose and largely smooth; tarsal claws simple, setose, but with some short bristles basally (Figure 1G); fore tarsus 1.45 times longer than tibia; length of femur, tibia and basitarsus of hind leg 3.6, 10.6 and 6.7 times their width, respectively; hind tibial spurs 0.30 and 0.25 times as long as hind basitarsus.

*Metasoma.* Length of first tergite 1.1 times its apical width, its surface strongly longitudinally striate (Figure 1H), its dorsal carinae meeting near middle of tergite; dorsope medium-sized (Figure 1H); no distinct laterope; second tergite smooth but narrowly striate basally; ovipositor slightly curved downwards; length of ovipositor sheath 0.29 times as long as forewing (and nearly twice as long as first tergite; Figure 1L).

*Colour.* Black; scapus (but apically slightly darkened), pedicellus apically, annellus, palpi, tegulae and legs pale yellowish; clypeus, malar space partly, orbita dorsally

and posteriorly, propleuron, mesopleuron antero-dorsally, second and third tergites laterally, fourth-seventh tergites partly laterally and complete sixth tergite yellowish-brown; remainder of second tergite and of antenna, ovipositor sheath and mesopleuron partly posteriorly dark brown; pterostigma, parastigma and veins rather dark brown; wing membrane slightly infusate.

#### *Distribution*

England, the Netherlands.

#### *Variation*

Hind coxa dorsally striate to densely rugose; mesoscutum with 3–6 longitudinal rugae medio-posteriorly; hind tarsus may be more or less infusate; side of pronotum may be rugose dorsally; lateral mesoscutal lobes sometimes with a few setae laterally; precoxal sulcus absent or as a shallow coriaceous depression; propodeum may be less coarsely reticulate anteriorly than posteriorly and with a vaguely indicated median carina. One female from Monks Wood has clypeus, orbita (except for a small patch dorsally), mesosoma (except side of pronotum ventrally) and metasoma dorsally black or dark brown. The other female from Monks Wood is typically coloured except for the yellowish third to fifth antennal segments. The male is very similar to the female: length of forewing 3.0 mm, and of body 3.1 mm; antenna of male with 30 segments; shape of pterostigma similar to that of female; vein r 0.65 times as long as width of pterostigma; vein 3-SR of forewing 0.9 times as long as vein 2-SR; mesoscutum less rugose medio-posteriorly; median carina of propodeum weakly developed anteriorly; first tergite less convex than that of female; second tergite largely longitudinally striate. The female paratypes have the antenna with 24 (1), 25 (1) or 27 (1) segments and length of forewing 2.4–3.0 mm and of body 2.2–3.1 mm, length of malar space of 1.2–1.4 times basal width of mandible, and length of ovipositor sheath 0.27–0.33 times as long as forewing.

In addition, a small male (length of forewing 1.8 mm) was examined from Germany which may belong to another species: (RMNH), “Germany, Bugsteinfurt (Münster), vi.1996, e.l. ex zwam [=fungus] op beuk [=*Fagus sylvaticus* Linnaeus]. J.C. van de Sande”. The body is largely dark brown, the second submarginal cell of forewing is comparatively narrow, the femora and tarsi are somewhat infusate, the face is smooth, the antenna with 21 segments, the notauli are narrow and the temple is subparallel-sided behind the eyes.

#### *Material examined*

Holotype female: “Netherlands: GE, Ede, Station, 25 May 1996, e. l[arva] nr. 960202, ex zwavelzwam [=*Laetiporus sulphureus* (Bull.) Murrill] op *Prunus avium* [Linnaeus], J. C. van de Sande” (RMNH). Paratypes (6 females+1 male): 1 male, with same data as holotype (RMNH); 1 female: “[England], Windsor Great Park, Berks., SV 9772, ex aged bracket fungus, poss[ibly] *Meripilus giganteus*, coll. August [19]86, em. August [19]86, H. Mendel” (NMS); 2 females, “[England], Monks Wood, Hants., TL 202805, Mal. trap, 13–25 July [20]05, G. Broad” (NMS); 3 females: “Netherlands: GE, Wageningen, reared from old bracket-fungus *Daedaleopsis confragosa* on *Sorbus* sp., 10 August 2007, L. Moraal, RMNH’07” (RMNH).

*Note*

It is a pleasure to name this species after the collector of the holotype, Mr J. C. P. M. van de Sande (Amsterdam), who reared important series of Braconidae from bracket fungi in the Netherlands and Germany.

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