SYNOPSIS OF NEARCTIC ICHNEUMONINAE STENOPNEUSTICAE, WITH PARTICULAR REFERENCE TO THE NORTHEASTERN REGION (HYMENOPTERA). SUPPLEMENT 6

Gerd H. HEINRICH
Dryden, Maine, U.S.A.

Résumé

Description de dix nouvelles espèces, d'une nouvelle sous-espèce d'Ichneumonides (Hyménoptères), ainsi que du sexe femelle de Lycinus temporalis.

Abstract

Description of ten new species and one new subspecies belonging to the nearctic Ichneumoninae (Hymenoptera), and of the female of Lycinus temporalis.

Introduction

This publication represents the 6th supplement to the author's Synopsis of Nearctic Ichneumoninae Stenopneusticæ, with particular reference to the Northeastern Region, which appeared in 7 parts as Supplements 15, 18, 21, 23, 26, 27, and 29 of the Canadian Entomologist (1961-1963). Additional species were since found and described by the author in 5 supplements to the above-mentioned synopsis, all published by Le Naturaliste canadien.¹ This 6th supplement contains 10 further new species and one new subspecies.

Tribe ICHNEUMONINI

Subtribe Ichneumonina

Genus Ichneumon Linnaeus

1. Ichneumon cyanimontis, new species

Holotype:  ♂ , Maine, Mt. Blue, 15.III.1960. CGH II.
Allotype (tentative): ♀, Maine, Mt. Blue, 18.VIII.1960. CGH II.

PREAMBLE

Within the rather narrow group of small species of this genus, 10 mm long or less, this male is distinguished by the combination of uniformly yellow color of face and clypeus, with the uniformly orange-ferruginous color of all coxae and trochanters, and tergites 1-4.

MALE

Head black, with entire face and clypeus, and mandibles except teeth, yellow. Thorax black; collare, apex of pronotal ridge, tegulae, scutellum except basally (or only apex of scutellum), and postscutellum, orange-ferruginous. Tergites 1-4, exceptionally also 5th tergite partially, orange-ferruginous; rest of abdomen black. Legs orange-ferrugi-
nous. Including all coxae and trochanters; the following black; femora III dorsally except base and tibiae III apically more or less extensively; in one specimen coxae III also extensively black, tarsi III extensively infuscated. Flagellum dorsally blackish, ventrally pale orange; scape ventrally yellow. Length 8-10 mm.

Antenna: With 28 segments and with longish-oval, black tyloids on segments 5-10, none of them reaching the base and apex of segments.

Head: Temple profile strongly narrowed behind eyes, with almost-straight outline. Cheek profile strongly narrowed toward mandibles. Malar space about half as long as width of mandible base. Upper tooth of mandible somewhat longer than lower. Cheeks, frons, and occipital region evenly and fairly densely and finely punctured.

Thorax: Mesoscutum markedly longer than wide medially, densely and fairly finely punctured, glossy between punctures. Notauli barely indicated at extreme base. Scutellum laterally carinate at extreme base, slightly convex. Horizontal part of propodeum medially about as long as area postero media, the area superomediala distinctly longer than wide, with costulae nearly in the middle, somewhat narrowed from costulae to area basalis. Spiracles of propodeum elongate-oval, about three times as long as wide.

Legs: Coxae III finely and rather densely punctured, glossy between punctures; femora III moderately stout.

Abdomen: Median field of postpetiole sharply defined, coarsely longitudinally striate, Gastrocoeli about as long as wide apically. Thyridia each nearly as wide as their interspace, the latter coarsely and densely longitudinally rugose punctate; rest of surface of 2nd tergite less coarsely but also very densely rugose punctate, not glossy. Third tergite more finely but also very densely punctured, concolorous between punctures, subopaque.

FEMALE (tentative)

The only known so far, closely related and sympatric female is extremely similar to cervulus Provancher (= terminatus Provancher, female); it differs only by having behind the eyes a more narrowed temple profile with nearly straight outline. This character could represent an individual structural abnormality; additional specimens are needed for confirmation of this hypothesis.

Head black. Thorax black except for red collare, pronotal ridge and base, mesoscutum, tegulae, subalarum, and scutellum. Tergites 1-3 uniformly red, 4-7 black, 6 and 7 extensively reddish tinged, the 7th tergite with apical white mark. Legs I and II including coxae and trochanters uniformly red; legs III red except for black coxae, femora except basally, apex of tibiae; tarsi III blackish infuscated toward apex. Antenna tricolored: scape and segments 1-6 red, 7-10 dorsally white, the following segments black. Length 9 mm.

2. Ichneumon craterorum, new species

Holotype: G, Idaho, Craters of the Moon. 10.VII.1965. CGH II.

Allotype: , same data. CGH II.

PREAMBLE

A species of the gracilicornis group, with deep, transverse gastrocoeli with narrow interspace, and with long, slender, bristleshaped flagella in the female. Basic color black, legs predominantly red. The female has head, thorax, and abdomen with restricted red markings.

FEMALE

Black except for red narrow inner orbits, broad longitudinal bands on laterolobes of mesoscutum, dorsal surface of scutellum, tegulae, and tergites 5-7. Legs red except for black coxae and trochanters, apex of femora III, about apical third of tibiae III, and tarsi III; last segments of tarsi I and II infuscated. Antenna black, flagellum with white annulus on segments 10-12. Length 16 mm.

Antenna: Flagellum bristleshaped, long and slender, ventrally flattened and very little widened beyond middle, long and sharply pointed toward apex, with elongate basal segments; the first segment about 5 times as long as wide apically, the 11th approximately square; the widest on flattened side barely 1.5 times as wide as long.

Head: Temple profile distinctly narrowed behind eyes, with straight outline. Cheek profile in frontal view distinctly narrowed toward mandible base, with straight outline. Malar space somewhat longer than width of mandible base. Frons and vertex slightly concave, strongly and densely punctured.

Thorax: Anterior fourth of notauli distinct. Mesoscutum strongly and fairly densely punctured, glossy and finely coarsenice between punctures. Propodeum abbreviated. Area superomediala large, wider than long; area basalis deepened, declivity without clearly defined area postero media, steep, about twice a long as horizontal part medially.

Legs: Coxae III strongly and densely punctured, without scopal. Femora III long and slender.

Abdomen: Postpetiole much wider than long, with sharply defined, longitudinally striate median field, Gastrocoeli with deep, transverse, each about as wide as their interspace. Second tergite wider than long medially, strongly and extremely densely punctured; third tergite about 3 times as wide as long, somewhat less coarsely and beyond middle less densely punctured.

MALE

Head, thorax, and abdomen black except for yellow face, clypeus, and mandibles. Antenna black except ventral side of scape yellow. Femora, tibiae, and tarsi red, except for black apex of tibiae III, and tarsi III blackish infuscated toward apex; coxae, and trochanters I black. Length 18 mm.

Subtribe Amblytelina

Genus SPILCHINEUM Thomson

Spilchineum pygmaeus, new species

Holotype: G, Wisconsin, Jackson Co., 8-15. VII.1975. CGH II.

PREAMBLE

This is the smallest species of the genus known to date, being only 6-8 mm long. It is chromatically similar to bronetus Cresson and subrufus Cresson but differs from the latter in the structure of the mandibles and from the former, in addition to the great difference in size, by having the temple profile much more narrowed behind the eyes, and by the red propodeum and a red first tergite.

FEMALE

Head partially, collare, pronotal ridge, tegulae, subalarum, entire mesoscutum, scutella, almost entire propodeum, and tergites 1-3 ferruginous; rest of thorax and tergites 4-7 black. All coxae and first trochanters, femora II in part, femora III entirely, broad apex of tibiae III, and most of tarsi III black; remainder of legs ferruginous. Antennae ferruginous, flagellum with whitish annulus, black beyond annulus. Length 6 mm.
Antenna: Short, bristle-shaped, not widened beyond middle, not very strongly attenuated toward apex, with 24 segments, the first about 1.5 times as long as wide apically, the 6th square, none wider than longer.

Head: Temple profile distinctly narrowed behind eyes, slightly curved. Cheek profile distinctly narrowed toward mandibles, with almost straight outline. Malar space shorter than width of mandible base. Median field of face distinctly raised, clypeus convex. Mandibles with pointed upper tooth, the lower tooth much shorter than upper. Cheeks in lateral view wide, strongly convex, glossy, with moderately sparse punctuation.

Thorax: Mesoscutum longer than wide, only slightly convex, fairly densely punctured, glossy between punctures. Notauli indicated only at the extreme base. Scutellum flat, punctuation similar to that of mesoscutum. Horizontal part of propodeum finely and densely coriaceous rugose and punctured, subopaque, medially fully as long as declivity. Area supermedia barely separated from area basalis, distinctly longer than wider, nearly parallel-sided. Spiracles of propodeum small, longish-oval. Meso- and metapleura coarsely and fairly densely punctured.

Legs: Femora stout and thick. Coxae III finely and very densely punctured.

Abdomen: Median field of postpetiole finely acuminate, the lateral fields punctured. Gastrocoeli distinct, about as long as wide. Tergites 2 and 3 distinctly and densely punctured, very finely coriaceous between punctures, glossy.

Spilichneumon pygmaeus rufescens, new subspecies
Holotype: 9, Ontario, Stittsville, 5-9.VI. 1976, G. Sanborn. CGH II.

Diphus cyanomontis, new species
Holotype: 9, Maine, Mt. Blue, 4-9.VI. 1976, J. J. NR. Heinrich. CGH II.

FEMALE

A slender species, distinctly characterized by almost uniformly black head, thorax, legs, and first abdominal segment, with only anterior sides of tibiae I and dorsal annulus of flagellum white; tergites 2-7 uniformly bright red. Length 12 mm.

Its appearance in the early spring indicates that this female hibernates (as most species of the genus).

Antenna: Flagellum bristle-shaped, long and slender, long and sharply attenuated toward apex, ventrally flattened but not widened beyond middle, the first segment more than 4 times as long as wide apically, in lateral view about the 12th segment square. Black, dorsally white are segments 8-11.

Head: Temple profile not narrowed behind eyes, strongly curved. Frons slightly concave, very densely rugose-punctured. Cheek in lateral view broad, convex, coarsely and fairly densely punctured, glossy between punctures. Median field of face distinctly protruding. Malar space as long as width of mandible base.

Thorax: Mesoscutum convex, longer than wide, very densely punctured. Scutellum less densely punctured, slightly convex. Area posteromedia distinctly longer than horizontal part of propodeum medially. Area supermedia slightly longer than wide, arched in front, Costulae obsolete, lateral carinae of area posteromedia partially indistinct.


Subtribe Craticichneumonina
Genus HOMOTHERUS Heinrich
1. Homotherus nudgei, new species
Holotype: 9, Maine, Strong, 21.VII.1976, J. Nudgei. CGH II.

PREAMBLE

A fairly small species, of black basic color with extensive orange-ferruginous markings on head, thorax, and abdomen. Gastrocoeli fairly deeply impressed, with very narrow interspace. Spiracles of propodeum rather small but distinctly longer than wide. Coxae III with a faint indication of a scopula on interior, apical side Flagellum stout, filiform.

FEMALE

Head mainly black but with frons except antennal cavities and orbits around eyes dark red, median field of face, clypeus, and mandibles orange. Thorax black except for red collar, pronotal ridge and base, tegulae, subalarum, and a continuous, longitudinal band on each side of median lobe of mesoscutum. Abdomen black except for red base of 2nd tergite with gastrocoeli, broad apical bands on tergites 1-3, and narrow apical bands on tergites 4-6; 7th tergite entirely yellowish-red. Femora and coxae predominantly black, coxae I and II and front femora I and II at base and apex pale brownish; all tibiae and tarsi pale brownish except that tibiae III are apically black; basal segments of tarsi III black. Antenna black, with almost complete white annulus on segments 7-12; scape and basal segments ventrally pale brown. Length 7 mm.

Antenna: Filiform, stout, not widened beyond middle, the first segment twice as long as wide, the 4th square.

Head: Temple profile moderately narrowed behind eyes, slightly curved. Cheek profile moderately narrowed toward mandibles. Malar space somewhat longer than width of mandible base. Cheeks in lateral view rather wide, convex, glossy, with moderately dense punctuation. Frons even, not at all concave, opaque, coriaceous, with very fine, moderately dense punctuation. Median field of face protuberant, clypeus convex. Mandibles fairly slender, the upper tooth somewhat longer than the lower.

Thorax: Mesoscutum moderately densely punctured, finely coriaceous between punctures, glossy. Notauli indicated at the base only. Horizontal part of propodeum medially almost as long as steeply sloping area posteromedia. Area superomedia slightly longer than wide, with oblique costulae before middle, coriaceous, impunctate. Metapleura extremely densely, finely punctured, coriaceous between punctures, opaque.

Legs: Femora III moderately stout. Coxae III finely and extremely densely punctured, apically on inner side with indication of a scopula.

Abdomen: Postpetiole very densely coriaceous-rugose, with distinct median field, barely glossy. Second tergite also subopaque, very densely and finely coriaceous-rugose and punctured. Third tergite extremely finely coriaceous, with sparse, extremely fine punctuation, glossy.

NOTE

Named in honor of Dr. John Mudge, professor of entomology, University of Maine, who has provided many specimens of Ichneumonominae and so made valuable contributions to the advancement of our knowledge of the parasitic Hymenoptera of Maine.
Genus *VIRGICHNEUMON* Heinrich

**VIRGICHNEUMON INOPINATUS**, new species

*Holotype*: 9, Maine, Dryden, 15-21.VIII.1977, CGH II.

**PREAMBLE**

This species resembles somewhat the genus *Melanicneumon* in general appearance and by chromatic characters, but differs in the structure of the flagellum which is not lanceolate.

**FEMALE**

Antenna black, with dorsal white annulus from the end of segment 6 to 13. Head black, except for short white lines on vertical orbits. Thorax black, except for white scutellum. Tergites 1-3 red, 4-7 black, the 6th and 7th with apical white mark. Legs black except for white on extreme apex of femora I, on the anterior side of tibiae I, and on apical margin of first trochanters I; second trochanters II, ventral side of tibiae II, and the basal half of ventral side of tibiae III, red. Length 10 mm.

Antenna: Flagellum subnervose-shaped, moderately attenuated toward apex and slightly widened beyond middle, the widest segments on flat side nearly 2 times as wide as long; the first segment slightly more than 2 times as long as wide apically; in dorsal view the 9th segment and in lateral view the 7th approximately square.

Head: Temple profile somewhat narrowed behind eyes, with almost straight outline. Cheek profile narrowed toward mandibles. Malar space as long as width of mandible base, concave toward mandibles. Densely and very strongly punctured except for clapsus and lower part of cheek sparsely punctured.

Thorax: Mesoscutum extremely densely punctured, subopaque. Notauli indi-...
tibiae more or less extensively whitish. Abdomen tricolored: ferruginous-orange with basal black bands on tergites 2 or 3 to 5 and with apical white bands on tergites 1-3 or 4 (exceptionally only 1 and 2); 6th tergite with apical white band, 7th with apical white mark. Antenna black; flagellum with white annulus, ventrally brown; scape ventrally white. Length 8-11 mm.

**FEMALE**

Particularly characterized by lack of white marks on abdomen and thorax and by the tendency to show basal black bands on tergites 2 and 3.

Head, thorax, abdomen, and legs almost uniformly ferruginous, with the following parts slightly lighter tinted than the rest: narrow frontal and vertical orbits, scutella, and collar. Broad apex of tibiae III and their extreme base, and the tip of femora III, black. Antenna black; flagellum with dorsal white annulus on segments 7-13; scape ferruginous, sometimes apically infuscated. Length 9-10 mm.

**Antenna:** Laccolate; first segment nearly twice as long as apically wide, 7th segment nearly square, the widest nearly 3 times as wide as long.

**Genus BARICHNEUMON Thomson**

**Barichneumon lowensis,** new species

*Holotype*: 9, Iowa, Earlville, 10.VII.1977, R. Robinson. CGH II.

*Allotype*: 9, same data. CGH II.

*Paratype*: 19, same locality, 22.VII.1977. CGH II.

**PREAMBLE**

In the key to the northeastern American species of the genus Barichneumon (Heinrich, 1972, “Synopsis of Nearctic Ichneumoninae”, 3rd Supplement) this female runs to the species crassipunctatus Heinrich; it differs strongly as a species, however, by the not at all elongate and not downward slanting areae dentinapaeae, stouter flagellar segments, and extensive black markings on the thorax. It differs from the morphologically similar *sphageti* Heinrich by being much larger, and by the absence of black on last tergites and the presence of extensive black markings on thorax and coxae.

**FEMALE**

Head ferruginous; vertical orbits indistinctly and very narrowly yellowish. Thorax ferruginous with white collar, extreme apex of pronotal ridge, and a very small mark on subalarum; sutellum light ferruginous, with indistinctly yellowish apical margin. Black areas are: exterior margin of mesoscutum all around, axillary troughs, pronotum except ridge and base, prosternum, pectus, mesosternum, mark on mesopleura below subalarum, horizontal part of propodeum except for red areae dentinapaeae, entire basal furrow of propodeum, areae coxaeles, and apical part of area posteroomedial. Legs red except for black exterior side of coxae III, apices of femora II and III and of tibiae II and III, and tarsi III infuscated. Abdomen ferruginous. Antenna black; flagellum with dorsal white annulus on segments 7-12; scape ventrally red. Length 8 mm.

**Antenna:** Flagellum bristle-shaped, moderately attenuated toward apex; in dorsal view first segment about twice as long as wide apically, 6th segment square.

Head: Temple profile slightly narrowed behind eyes and slightly curved. Cheek profile moderately narrowed toward mandibles. Malar space about as long as width of mandible base. Clypeus convex. Cheeks densely, hairs very densely punctured.

**Thorax:** Mesoscutum densely punctured, glossy between punctures. Sutellum flat. Area posteroedia slightly longer than propodeum part medially. Area superomedial longer than wide, narrowed from costulae to area basalis. Area dentinapaeae only slightly slanting toward declivity, carina dentinapaeae external and carina metaepiintapaeae, in lateral view of propodeum, diverging toward exterior carina of area posteroedia.

Legs: Femora III not very stout, in lateral view nearly 5 times as long as wide medially.

Abdomen: Apical part of median field of postpetiole not very strongly defined. Castrococci superficial and very small, transverse. Tergites 2 and 3 very densely punctured.

**MALE**

Extremely similar in the color pattern to *sphageti*, but much larger in size and differing by the predominantly black mesosternum, with only the anterior, outer part between sternauli and mesopleura whitish.

Head black except for white face, clypeus, mandibles, broad orbits around eyes, widened over almost entire width of cheeks; malar space and posterior margin of cheeks black. Thorax black except for mesopleura and metapleurae which are more or less extensively ferruginous; white areas: collar, pronotal ridge and base, apical part of prosternum, subalarum, tegulae, scutellum, post-scutellum, areae posteroepiintapaeae, and a mark on anterior, outer part of mesosternum. Legs red except for white coxae and trochanters I and II, and black marks on dorsal side of all first trochanters. Coxae III extensively on ventral side, apex of femora III and of tibiae III, and tarsi III. Abdomen ferruginous. Antenna black, flagellum ventrally brown, scape ventrally white. Length 10 mm.

**Tribe PLATYLABINI**

**Genus CYCLOLABUS** Heinrich

**Cyclolabus robinsoni,** new species

*Holotype*: 9, Iowa, Earlville, 4.VII.1977, leg. R. Robinson. CGH II.

*Paratype*: 9, same locality and collector, 10.VII.1977. CGH II.

**PREAMBLE**

Distinctly characterized chromatically by pale orange color of the entire abdomen, propodeum, and parts of thorax; in structure by short but distinct, tooth-like projections of the area dentinapaeae.
Head: Ocellar triangle distinctly raised. Head in dorsal view strongly transverse; temple profile moderately narrowed behind eyes, slightly curved. Malar space shorter than width of mandible base.

Thorax: Notauli very pronounced, reaching beyond middle of mesoscutum, strongly deepened at base. Mesoscutum coriaceous, with dense, fine punctuation, subopaque. Scutellum slightly raised above postscutellum, with high lateral carinae. Area superomedia short and very wide, nearly 5 times as wide as long. Areas dentiparae with distinct, though short, toothlike projections.

Abdomen: Gastrocoeli about as wide as long laterally, each somewhat wider than their interspace. Second tergite very densely and strongly rugose-punctate, the third tergite likewise densely but less coarsely rugose-punctate, both subopaque.

NOTE

Named in honor of Dr. Robert Robinson, professor of entomology, University of Maine, who has provided a comprehensive collection of Ichneumoninae from the State of Iowa, thus contributing to the advancement of our knowledge of the parasitic Hymenoptera of that state.

Genus *Linycus* Cameron

*Linycus temporalis* Heinrich

Naturaliste canadien, 1971, 98, p. 1024, c.

Holotype: male, Maine, Mt. Blue, 8.VI.1960, CGH II.

Neotype: female, same locality, 8.VII.1978. Present designation. CGH II.

The female agrees in color with the male. In contrast to the female of the closely related sympatric species *exhortator thoracicus* Cresson, only tergites 4-7 are black and the apical margins of tergites 5-7 are only very narrowly lined with white.

Temple profile in vertical view, as in male, also slightly less narrowed behind eyes than in *exhortator thoracicus*.

Reference