

**KEY TO THE SUBFAMILIES OF NORTH & CENTRAL AMERICAN ICHNEUMONIDAE:  
SECTION 1**

David B. Wahl  
American Entomological Institute  
3005 SW 56<sup>th</sup> Avenue  
Gainesville, FL 32608-5047  
*aei@aei.cfcocxmail.com*

1. Wings vestigial or absent (figs. 1.01 – 1.02).  
(Wing reduction or absence occurs in members of several subfamilies (Cryptinae, Ichneumoninae, Orthocentrinae, and Xoridinae), but most of these species belong to *Gelis* (Cryptinae: Phygadeuontini); they are not keyed further.)
- 1'. Wings normal. ....2
- 2(1). Fore wing with vein 2m-cu spectral or absent; overall venation usually reduced or faint (figs. 1.03 – 1.06).  
.....3
- 2'. Fore wing with vein 2m-cu tubular, at least in part, **and** venation complete (fig. 1.07).  
.....6
- 3(2). Mesopleuron with sternaulus at least 0.8x as long as mesopleuron (fig. 1.08).  
.....**CRYPTINAE** (very few)
- 3'. Mesopleuron with sternaulus short (less than 0.5x as long as mesopleuron) or absent.  
.....4
- 4(3). Metasomal segment 1 with length about equal to apical width in dorsal view (fig. 1.09). Metasoma dorsoventrally depressed; T3-4 wider than high (fig. 1.10). Inner margins of eyes parallel ventrally (fig. 1.11). T2 with transverse groove near posterior margin (fig. 1.09).  
.....**NEORHACODINAE**
- 4'. Metasomal segment 1 at least 2.5x as long as apical width in dorsal view (figs. 1.12 – 1.13). Metasoma weakly to strongly laterally compressed (figs. 1.12 – 1.13). Inner margins of eyes convergent ventrally (fig. 1.14). T2 with or without transverse groove.  
.....5
- 5(4). Fore wing with vein M tubular and pigmented, appearing to originate from cell 2R1 (fig. 1.03). Hind femur not expanded apically. Fore leg with tarsomere 1 longer than total length of remaining tarsomeres (fig. 1.15). Eye without distinct setae. Antenna with 11 flagellomeres.  
.....**HYBRIZONTINAE**
- 5'. Fore wing with vein M spectral, not originating from cell 2R1 (fig. 1.05). Hind femur expanded subapically (fig. 1.16). Fore leg with tarsomere 1 about as long as total length of remaining tarsomeres. Eye with long setae (fig. 1.17). Antenna with 15-26 flagellomeres.  
.....**ANOMALONINAE** (*Ophonellus*)
- 6(2). Ovipositor weakly curved downward, tapering from base to apex to very sharp point, and with sparse weak denticles on ventral valve (fig. 1.18). Apical margin of clypeus with small median tooth (fig. 1.20). Propodeum without transverse carinae (fig. 1.19).  
.....female **COLLYRIINAE**
- 6'. Ovipositor without above combination of characters; denticles, when present, occurring only near apex of ventral valve (fig. 1.21). Apical margin of clypeus with two medial teeth, one tooth, or no teeth. Propodeum usually with transverse carinae (fig. 1.22).  
.....7

- 7(6). Flagellum flattened and widened medially, with flagellomeres 9-12 angularly produced (fig. 1.23).  
.....male **EUCEROTINAE**
- 7'. Flagellum not flattened or widened medially (female Eucerotinae do have slight flagellar widening, but are dealt with in later couplet).  
.....8
- 8(7). Antenna with 12-13 flagellomeres. Labrum projecting conspicuously below clypeal margin, with very shallow to moderately deep median notch (figs. 1.24 – 1.25) **and** metasomal segment 1 in dorsal view subpetiolate or petiolate, spiracle usually barely behind middle but occasionally near posterior margin (figs. 1.26 – 1.27).  
.....**ADELOGNATHINAE**
- 8'. Antenna with more than 13 flagellomeres. Labrum usually not projecting conspicuously below clypeal margin (exceptions include Labeninae (fig. 1.28) and Ichneumoninae (fig. 1.29), latter having clypeus wide and flattened, with apical margin truncate or almost truncate) and without median notch. Metasomal segment 1 variable.  
.....9
- 9(8). Areolet of fore wing large and rhombic (diamond-shaped), usually not petiolate (fig. 1.30). Clypeus not separated from supraclypeal area by distinct groove (fig. 1.31). Ovipositor long and needle-like, sheaths long and rigid (figs. 1.32 – 1.33). Hypopygium large and triangular in lateral view, not or barely extending beyond metasomal apex (figs. 1.32 – 1.33). Gonoforceps of male produced as elongate process (fig. 1.34). Metasomal segment 1 with spiracle near or just behind middle, glymmae large and deep (fig. 1.35).  
.....**MESOCHORINAE**
- 9'. Areolet of fore wing present or absent; if present, various shapes (figs. 1.36 – 1.37) but usually not rhombic. Clypeus usually separated from face by distinct groove (figs. 1.38 – 1.40), if groove absent then clypeus and supraclypeal area usually forming strongly convex surface (fig. 1.41). Ovipositor almost always stouter, often with dorsal subapical notch or apical denticles; sheaths often curved. Hypopygium usually inconspicuous; if large and triangular then sometimes with apex extended as elongate point (figs. 1.42 – 1.43). Gonoforceps of male very rarely produced as elongate process, apex usually triangular or convex. Metasomal segment 1 various  
.....10
- 10(9). Spiracle of metasomal segment 1 posterad midpoint (figs. 1.44-1.47). Metasomal segment 1 in dorsal view often anteriorly slender and cylindrical, and posteriorly widened. (fig. 1.48).  
.....11 (**SECTION 2**)
- 10'. Spiracle of metasomal segment 1 at or anterad midpoint (figs. 1.49 – 1.53). Metasomal segment 1 in dorsal view usually uniformly wide (figs. 1.54a-b), or gradually widened posteriorly (figs. 1.54c & 1.55).  
.....32 (**SECTION 3**)

## Figures

The American Entomological Institute photograph voucher code for an individual specimen follows the species name. For example, '0137-03' is the third photograph taken of voucher specimen 137. All specimens are in the American Entomological Institute collection unless otherwise noted. Line drawings are from *Memoirs of the American Entomological Institute* 11, 12, 13, and 17 unless otherwise noted.

- Fig. 1.01 - *Agrothereutes abbreviator*  
Fig. 1.02 - *Gelis* sp.  
Fig. 1.03 - *Hybrizon* sp. 0881-02  
Fig. 1.04 - *Neorhacodes* sp.  
Fig. 1.05 - *Ophionellus virginiensis*  
Fig. 1.06 - *Anurotropus minutus*  
Fig. 1.07 - wing of species of Cryptinae  
Fig. 1.08 - *Anurotropus minutus*  
Fig. 1.09 - *Neorhacodes* sp.  
Fig. 1.10 - *Neorhacodes* sp. 0109-01  
Fig. 1.11 - *Neorhacodes* sp.  
Fig. 1.12 - *Hybrizon* sp. 0894-01  
Fig. 1.13 - *Ophionellus texanus* 0895-01  
Fig. 1.14 - *Ophionellus virginiensis*  
Fig. 1.15 - *Hybrizon* sp. (unpublished Wahl illustration)  
Fig. 1.16 - *Ophionellus* sp. near *foutsii* 0883-01  
Fig. 1.17 - *Ophionellus bridwelli* 0882-01  
Fig. 1.18 - *Collyria coxator* 0152-01  
Fig. 1.19 - *Collyria coxator* 0885-01  
Fig. 1.20 - *Collyria coxator*  
Fig. 1.21a - *Agrothereutes abbreviator*  
Fig. 1.21b - *Lanugo schlingerii*  
Fig. 1.21c - *Listrognathus bicolor*  
Fig. 1.22 - *Ischnoceros filicornis*  
Fig. 1.23 - *Euceros* n. sp. 0893-01  
Fig. 1.24 - *Adelognathus dorsalis* 0886-01  
Fig. 1.25 - *Adelognathus pallipes* 0888-01  
Fig. 1.26 - *Adelognathus pallipes* 0888-02  
Fig. 1.27 - *Adelognathus dorsalis* 0887-01  
Fig. 1.28 - *Grotea anguina*  
Fig. 1.29 - *Cratichneumon pseudanisotae* 0909-02  
Fig. 1.30 - *Mesochorus* sp. 0889-01  
Fig. 1.31 - *Mesochorus* sp. 0889-02  
Fig. 1.32 - *Mesochorus* sp. 0890-01  
Fig. 1.33 - *Astiphromma strenuum* 0891-01  
Fig. 1.34 - *Astiphromma coronale* 0892-01  
Fig. 1.35 - *Mesochorus* sp. 0889-03  
Fig. 1.36a - *Loxodocus palloranus*  
Fig. 1.36b - *Earobia minor*  
Fig. 1.36c - *Leptixys deserti*  
Fig. 1.37a - *Kerrichia nipponica*  
Fig. 1.37b - *Scirtetes krieckbaumeri*  
Fig. 1.37c - *Apolophus magellanicus*  
Fig. 1.38 - *Phaeogenes walshiae*  
Fig. 1.39 - *Cteniscus* sp.  
Fig. 1.40 - *Exenterus* sp.  
Fig. 1.41 - *Orthocentrus* sp.  
Fig. 1.42 - *Coleocentrus occidentalis* 0137-02  
Fig. 1.43 - *Mesoclistus cushmani* 0143-02  
Fig. 1.44 - *Ischnus sparsus*  
Fig. 1.45 - *Therion longipes*  
Fig. 1.46 - *Hyposoter* sp. 0006-02  
Fig. 1.47 - *Probles* sp.  
Fig. 1.48a - *Acerastes pertinax*.  
Fig. 1.48b - *Buathra striaticollis*  
Fig. 1.48c - *Joppidium rubriceps*  
Fig. 1.48d - *Polycyrtidea pertinax*  
Fig. 1.49 - *Diradops bethueni*  
Fig. 1.50 - *Campodorus* sp.  
Fig. 1.51 - *Liotryphon coracinus*  
Fig. 1.52 - *Phytodietus* sp.  
Fig. 1.53 - *Oxytorus corniger*  
Fig. 1.54a - *Ephialtes* sp.  
Fig. 1.54b - *Smicroplectrus takomae*  
Fig. 1.54c - *Arenetra pilosella*  
Fig. 1.55a - *Stethoncus arcticus*  
Fig. 1.55b - *Seleucus cuneiformis*

Key and images © American Entomological Institute, following Attribution-NonCommercial 2.5 license (CC BY-NC 2.5) (link: <http://creativecommons.org/licenses/by-nc/2.5/>). Please cite this work as: **Genera Ichneumonorum Nearcticae**. 2015 (and updates). Version: 2015.08.17. <http://www.amentinst.org/GIN/>.