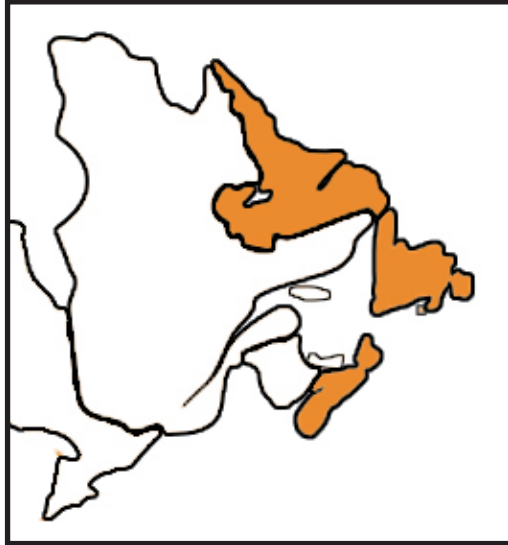


Ichneumonides_clef_SPM.pdf
Clef d'identification des sous-familles d'Ichneumonidés
de St-Pierre et Miquelon
et de Terre-Neuve/Labrador et de Nouvelle-Ecosse



Restriction géographique de l'étude concernée

Ichneumonides_clef_SPM.pdf a été élaborée à partir de plusieurs outils :

- La clef générale d'identification des sous familles d'Ichneumonidés d'Amérique du Nord établie par David Wahl de l'American Entomological Institute disponible en ligne au: http://www.amentinst.org/Subfamily_Key.php
- La liste de tous les Ichneumons d'Amérique du Nord élaborée par Robert W. Carlson en 1979 à travers le « Catalog of Hymenoptera of America North of Mexico » compilation énorme (1198 pages) disponible le site : « Discover Life » au: <http://www.discoverlife.org/proceedings/0000/6/html/Ichneumonidae>
- La liste des ichneumons connus dans l'Archipel jusqu'en 2015 identifiés pour la plupart par le Dr. Barron J.R. mais aussi par le Dr. Bisdee H.E. d'Agriculture Canada à Ottawa.

Plusieurs fichiers se joignent à cette étude et sont nécessaires pour la bonne compréhension de la clef qui se divise en 5 parties

Section_1_Figures.pdf comprend les illustrations de la partie I de la clef

Hymen.north.America.Carlson_NF_NS_Section_1.docx commente les espèces répertoriées pour Terre-neuve/Labrador et de la Nouvelle Ecosse incluses dans la partie I de la clef

Section_2_Figures.pdf et **Hymen.north.America.Carlson_NF_NS_Section_2.docx** accompagne la partie 2 de la clef et ainsi de suite jusqu'à la partie 5

Ichneumon_NF-LA-NS.xlsx liste les espèces de la région Terre-Neuve/Labrador, Nouvelle Ecosse (**388 sp.**)

Ichneumon_SPM.xlsx liste les espèces de l'Archipel recensée jusqu'en 2015 inclu (**40 sp.**)

Clef d'identification



Logo de l'American Entomological Institute source de cette adaptation

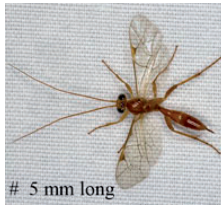
Le chiffre entre parenthèses après le nom des sous-familles indique le nombre d'espèces répertoriées dans les régions traitées.
Les sous-familles en caractères gras sont présentes dans l'Archipel.

Section 1

1. Fore wing with vein 2m-cu spectral or absent; overall venation usually reduced or faint (figs. 1.03 – Mesopleuron with sternaulus at least 0.8x as long as mesopleuron (fig. 1.08). **CRYPTINAE** (a few)
Fore wing with vein 2m-cu tubular, at least in part, and venation complete (fig. 1.07).

1. Venation complete

2 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 needlelike, 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** (22) **Mesochorus** (18)



Mesochorus vittator
19890801
Savoyard ouest
Parasite tordeuse de la Sanguisorbe.
Barron J.R. (1 spec). Col. DA
Photos Web : Mesochorus sp.

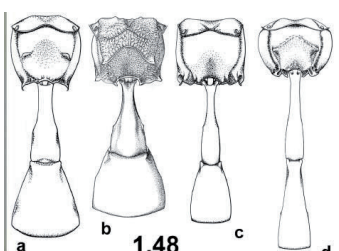
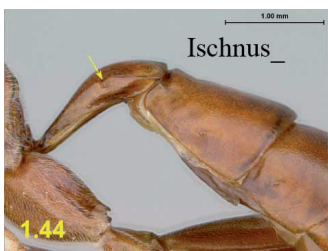
2 Areolet of fore wing present or absent; if present, various shapes (figs. 1.36 – 1.37) but usually not rhombic. Clypeus usually separated from face by distinct groove (figs. 1.38 – 1.40), if groove absent then clypeus and supraclypeal area usually forming strongly convex surface (fig. 1.41). Ovipositor 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

3. 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).

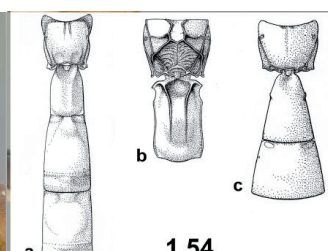
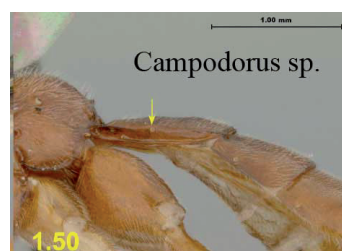
SECTION 2

3. 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).

SECTION 3



Section 2



Section 3

Section 2

1. Metasoma laterally compressed, segments 3 and 4 higher than wide (figs. 2.01 – 2.04), if indistinctly so either tarsal claws conspicuously pectinate (fig. 2.05) or areolet of fore wing often present and petiolate (fig. 2.06). Ovipositor almost always with dorsal subapical notch (fig. 2.07).

2. Areolet of fore wing absent, remaining vein apicad vein 2m-cu by more than 0.4x length of remaining vein (figs. 2.12 – 2.13). (voir plutôt *Nervures_section2_Goulet*)

3. Cell 3Cu of fore wing with adventitious vein originating at 2/1A, and parallel to wing margin (fig. 2.12). Ocelli usually large, with lateral ocelli close to or contiguous with eyes (fig. 2.15). Body color usually pale brownish-orange, rarely black. Ovipositor short, barely extending beyond metasomal apex (with rare exceptions) (fig. 2.16). Cell 1M+1R1 of fore wing often with area below stigma lacking setae (fenestra) (figs. 2.12 & 2.17) and with sclerotized inclusions (fig. 2.17). Tarsal claws usually densely pectinate (fig. 2.18). **OPHIONINAE (3 ?)**



Ophion 19830606 Centre ville.
Det. Larson D. col Musée Arche
Ophion 19910426
Étang Thélot SW. chemin 'Petit Poêle'.
Det. Barron J.R. col DA
Ophion 15081334, Pièges malais 2015
Enicospilus sp 15081004 Pièges malais 2015
Col DTAM

3. Cell 3Cu of fore wing without adventitious vein, or with short one. Ocelli not enlarged, lateral ocelli separated from eyes by at least 0.5x their diameter Otherwise not as above.

ANOMALONINAE (Anomalonini and Ophiopterus)

2. Areolet of fore wing present or absent, if absent then remaining vein basad, opposite, or apicad vein 2m-cu by less than 0.4x length of remaining vein (fig. 2.14). (voir plutôt (*Nervures_section2_Goulet*))

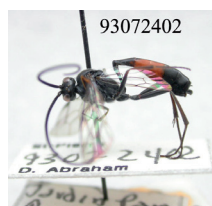
4. Propodeum with coarse reticulate sculpture, without discernable areas (fig. 2.23). Head in dorsal view with lateral ocelli separated from occipital carina by less than their largest diameter and occipital carina approximately level with ocelli (fig. 2.24). Metasoma laterally compressed and almost flattened in dorsal view (fig. 2.04). **ANOMALONINAE (Gravenhorstiini) (6 sp.)**



19920814 Habronyx .
Anse à Pierre prairie bordure forêt
Det. Barron J.Col DA
19940719 Habro.sp.
Mornes Nord ville tourbière à éricacées.
Det. DA.Col DA
15081302 Therion morio
Pièges malais 2015 Det DA Col DTAM

4. Propodeum with regular carinal pattern, or at least with transverse carinae, on smooth/granulate/rugosopunctate surface (fig. 2.25). Head in dorsal view with lateral ocelli usually separated from occipital carina by more than their largest diameter and/or occipital carina below level of ocelli (fig. 2.26). Metasoma laterally compressed but rarely almost flattened (figs. 2.02 – 2.03).

19'. Middle and hind legs with tibial spurs not separated from tarsomere 1 by sclerotized bridge, tibial apex thus with one membranous insertion (fig. 2.42b). Clypeus weakly or not separated from supraclypeal area (figs. 2.33 & 2.45). Supraclypeal area usually completely black. Stigma of fore wing elongate (fig. 2.46). **CAMPOPLEGINAE (most) (34 sp.)**



19910420 *Synetaeris* sp Det. Barron J.R
Ville nord Jardin Parent .Col. Musée
Dusona sp. 1993072402 Det. Barron J.R
Ville N. jardin P. sur Angélique.Col. DA (4)
Diadegma sp Det. Bisdee H.E.Col. Musée
Ville Nord . jardin P. Parasite .Arch.rosana.
Illustr. landcareresearch.co.nz
Hyposoter sp. Det. Bisdee H.E. Col. Musée-
Ville N. jardin P. parasite de .Hydr.furcata.
Illustr. boldsystems.org

1. Metasoma dorsoventrally depressed or cylindrical, segments 3 and 4 wider than high (figs. 2.08 – Tarsal claws usually not pectinate. Areolet, when present, almost never petiolate (figs. 2.59, Ovipositor usually without dorsal subapical notch.

2. Clypeus large, margin with fringe of long parallel setae, notauli long and sharply defined (fig. 2.56). Valve of ovipositor with median membranous region (fig. 2.55). **TRYPHONINAE (Oedemopsini) (2 sp.)**

2. Different

3. Ovipositor short, barely extending beyond metasomal apex (except for *Crypteffigies* and *Rhabdotus*); sheaths rigid (figs. 2.59 - 2.60).

Clypeus often flattened and with clypeal groove absent, apical margin widely truncate or subtruncate and not or only weakly/narrowly impressed (figs. 2.68 - 2.71).

Tergite 2 with thyridia usually well developed and with gastrocoeli (figs. 2.72 -2.75).

Areolet of fore wing present (except for *Epitomus* and *Lusius*).

Vein M+Cu of hind wing with apical 0.5 almost always straight (fig. 2.59 – 2.60) **ICHNEUMONINAE (110)**

PHAEOGENINI (1 sp.)



Phaeogenes maculicornis
1987051501
Anse de Savoyard prairie sous
gazon
det. Barron J.R.
Col DA

PROTICHNEUMONINI (1 sp.)



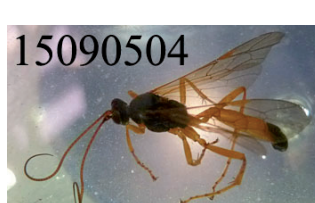
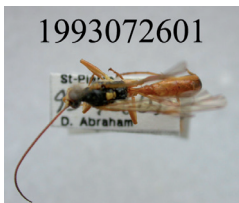
Coelichneumon sp
1990060301
Ville Nord. maison Parents
det. Barron J.R. Col Musée
Photo 3 Bugguide

ICHNEUMONINI (90)

Cratichneumon sp. (3)



Cratichneumon sp1
1991072315
Langlade Gouvernement Anse
det. Barron J.R. Col Musée
1995080101
Ville Nord jardin P. sur Rose.
det. DA. Col DA



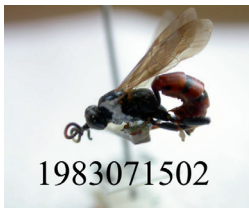
Cratichneumon sp2
1993072601
Ville SW. terrain à Angélique.
det. Barron J.R. Col DA
2015090504
Miquelon Plaines Pièges Malaise
det. DA. Col DTAM

Melanichneumon sp. (3)



Melanichneumon sp
1990080705
Langlade, Tête Pelée tourbière.
det. Barron J.R. Col musée

Pseudamblyteles_(Diphyus) sp1



1983071502



1983091402



20120818

Pseudamblyteles_(Diphyus) sp1
 1983071502 Centre ville.
 det. Barron J.R. Col Musée
 1983091402 Centre ville.
 det. DA. Col DA
 20120818
 Miquelon Maison
 det. DA. Col DA

Pseudamblyteles_(Diphyus) sp2



1993081310



Pseudamblyteles_(Diphyus) sp2
 1993081310
 Langlade Au 'Coin du sable'.
 det. Barron J.R. Col DA

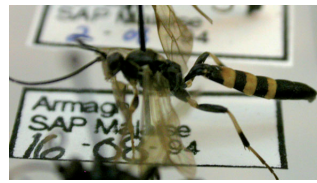


Cedarcreek

Ichneumon sp.



93081604



1993081604
 Langlade Au 'Coin du sable'.
 det. Barron J.R. Col DA
 Dernier
 Ichneumon feralis
 Collection Univ. Laval
 En haut Ichneumon annulatorius
 Collection Cedarcreek

Ichne sp1



Ichne sp2



Ichne sp3



Ichne sp4



Ichne sp5



Ichne.sp2
 1983071501
 Centre ville.
 det. Barron J.R. Col Musée
Ichne.sp3
 1982080701
 Belle Rivière 3 Sapins prairie.
 det. Barron J.R. Col Musée

Ichne.sp4
 1990080604
 Gouvernement Belle Rivière
 det. Barron J.R. Col Musée
Ichne.sp5
 1993081307
 Ignachi Goëlette avant route
 det. Barron J.R. Col DA

3. Ovipositor usually extending conspicuously behind metasomal apex by $\geq 0.5x$ length of hind tibia, sheaths flexible (figs. 2.63 – 2.65).

Clypeus various, usually moderately to strongly convex and with apical margin usually convex and impressed, apical margin sometimes with median denticles (figs. 2.76 – 2.78).

Tergite 2 with thyridia usually small or absent, gastrocoeli absent (figs. 2.79 –2.80).

Areolet of fore wing present or absent.

Vein M+Cu of hind wing often strongly arched (figs.2.62 & 2.65).

Anterior margin of propodeum without median denticle. Clypeus various, usually moderately to strongly convex and with apical margin usually convex and impressed (figs. 2.76 – 2.78).

Ovipositor usually extending conspicuously behind metasomal apex by more than 0.5x length of hind tibia, sheath flexible (figs. 2.63 – 2.65). **CRYPTINAE (most) (39)** (Voir aussi « Mesostenini » page 12)



1987052702



1987052702



2015081335



2015081335

Echthrus abdominalis
 1987052702 Miquelon
 Village Terrain de Camping
 det. Barron J.R. Col Musée
Ischnus sp.
 2015081335 Miquelon
 Mirande Forêt (malaise)
 det. DA. Col DTAM

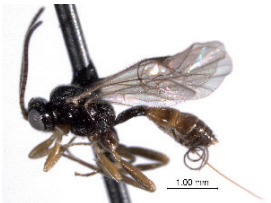
Section 3

1. Apex of middle tibia with one spur.
2. Supraclypeal area with large, flat or concave shield-shaped area bordered by carinae; dorsal margin of supra-clypeal area with projection between antennal sockets (fig. 3.01) **METOPIINAE** (Metopius) (1)
2. Supraclypeal area without shield-shaped area or dorsal projection. **TRYPHONINAE** (Exenterini) (12)
1. Apex of middle tibia with two spurs
3. Clypeus not separated from supraclypeal area by groove, in lateral view forming almost continuous, strongly to weakly convex bulge (figs. 3.02 – 3.05)..
4. Dorsal margin of supra-antennal area produced into triangular process extending between or over bases of antennal sockets (figs. 3.12 – 3.13). **METOPIINAE** (most) (18)



Exochus sp.
 1989080108 Savoyard W. (1spec)
 parasite tordeuse Sanguisorbe
 det. Barron J.R. Col DA
 Illustrations Exochus sp
 photos web

4. Dorsal margin of supra-antennal area simple, not produced as triangular process above or between antennal sockets. Mandible small and slender, with one to two teeth (ventral tooth, when present, much smaller than dorsal tooth) (fig. 3.14). Small, usually delicate species, fore wing 1.7-4.7 mm Anterior transverse carina of propodeum absent (fig. 3.16). **ORTHOCENTRINAE** (Orthocentrus) (4)
3. Clypeus separated from supraclypeal area by more or less distinct groove (groove may be weak medially but is present laterally) (figs. 3.06 – 3.08), or, if rarely groove absent, then supraclypeal area rather flat (fig. 3.09).
5. Dorsal tooth of mandible wide, divided by weak notch or impression, thus mandible apparently 3-toothed (fig. 3.19). T1 in dorsal view rectangular and not distinctly narrowed basally (fig. 3.20). Hind wing with vein 1/Cu about as long as vein cu-a (fig. 3.21a). Ovipositor not extending beyond metasomal apex. Rather small species (fore wing about 3.0-8.0 mm long) with transverse head. **DIPLAZONTINAE** (23)
5. Different
6. Female hypopygium in lateral view very large and triangular, folded along midline, elongated and projecting beyond metasomal apex (figs. 3.28 – 3.29). Ovipositor long (\geq metasomal length) and without dorsal subapical notch. **ACAENITINAE** (females) (5)
6. Female hypopygium smaller and shorter, not conspicuously projecting beyond metasomal apex. Ovipositor length variable, sometimes with dorsal subapical notch.
7. Labrum conspicuously exposed below apical margin of clypeus (fig. 3.35) and vein 2/Cu of hind wing absent (fig. 3.36) and mesopleuron with foveate groove (may be weak) extending from anterior margin to middle coxa (fig. 3.37). Mesoscutum with vertical carina on each side anterad notaulus (fig. 3.38) **ORTHOPELMATINAE** (2)



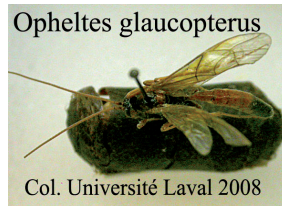
1. Orthopelma occidntal
 1980060102
2. Orthopelma ovale
 1980060101
 Savoyard
 Rond.Point élevage. galles Framboisier.
 det. Barron J.R. Col DA
 photos web

7. Different
8. Ovipositor long and needle-like, sheaths long and rigid (fig. 3.39). Gonoforceps of male produced as elongate process (fig. 3.40). Ocelli large, with lateral ocelli close to or contiguous with eyes (fig.3.41). **MESOCHORINAE** (Cidaphus) (1)

8. Ovipositor shorter often with subapical notch; Gonoforceps not produced, ocelli small

9. Apex of fore tibia with dorsal tooth (figs. 3.42 – 3.44) and vein 2m-cu of fore wing without strong median angulation. Clypeus often wide and short, with apical margin rounded or blunt (as in figs. 3.45–3.47)

CTENOPELMATINAE (11) *Opheltes* (1) *Protarchus* (0) *Campodorus* (0) *Mesoleptidea* (0)



Opheltes sp.
1991072301 10 et 11
L. Fond Anse Gouvernement fougères
Det. Barron J.R. Col Musée et DA
revu en 2014 M. Le Cap col DA
Le seul « Opheltes » en Amer Nord est
Opheltes glaucopterus var. *amer. barberi*
et ne lui ressemble pas....



Protarchus magnus
90081509 Det. Barron J.R. Col. Agr.Can.
L. Fond Anse Gouvernement prairie
Campodorus sp.
1993120 Ville N. jardin P. sur Rose.
Det. Barron J.R. Col. DA
Mesoleptidea sp.
1993072706, 07 P. Morne du nord
éricacés
Det. Barron J.R. Col. DA (photo web)

9. Apex of fore tibia without dorsal tooth unless vein 2m-cu with strong median angulation (fig. 3.48). Clypeus various, often with apical margin thin and sharp. **Section IV** => Femelles **Section V** => Mâles

Récapitulation (vous avez du travaillé beaucoup pour en arriver là (-))

Fore wing with vein 2m-cu tubular, at least in part, and venation complete (fig. 1.07). (from rypinae (few))

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 (from Mesochorinae) (Mesochorius)

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).

Apex of middle tibia with two spurs (from *Metopius* et TRYPHONINAE (Exenterini),

Clypeus separated from supraclypeal area by more or less distinct groove (groove may be weak medially but is present laterally) (figs. 3.06 – 3.08), or, if rarely groove absent, then supraclypeal area rather flat (fig. 3.09).

Dorsal tooth of mandible not subdivided, thus with one or two teeth,

or if dorsal tooth rarely more or less divided then T1 in dorsal view narrowed basally (fig. 3.22)

and hind wing with vein 1/Cu $\leq 0.4x$ length vein cu-a (usually much less) (fig. 3.21b). Otherwise not as above. (from DIPLAZONTINAE)

Female hypopygium not very large and triangular (comme figs. 3.28 – 3.29) not conspicuously projecting beyond metasomal apex.

Ovipositor length variable, sometimes with dorsal subapical notch. (from ACAENITINAE (females))

Labrum not or only slightly exposed below apical margin of clypeus or vein 2/Cu of hind wing present and mesopleuron without foveate groove. Mesoscutum without vertical carinae. (from ORTHOPELMATINAE)

Ovipositor long and needle-like, usually with dorsal subapical notch; sheaths often curved.

Gonoforceps of male not produced as elongate process, apex triangular or convex.

Ocelli rarely enlarged, lateral ocelli usually separated from eyes by at least 0.5x their diameter or greater (from *Cidaphus*)

Apex of fore tibia without dorsal tooth unless vein 2m-cu with strong median angulation (fig. 3.48).

Clypeus various, often with apical margin thin and sharp. (from CTENOPELMATINAE)

Ovipositor short to long, usually prominent. **Section 4** => Femelles **Section 5** => Mâles

Section 4 (Femelles)

1. Ovipositor with dorsal subapical notch, ventral apical margin smooth or with very inconspicuous teeth (NOTE: ovipositor sheaths may have to be separated from ovipositor to see notch) (figs. 4.01 – 4.02).

2. T2-5 with submedian pair of deep oblique grooves (fig. 4.04). **BANCHINAE** (Glyptini) (1)

2. No grooves

3. Hypopygium enlarged and with median apical notch (figs. 4.05 – 4.07). Submetapleural carina of metapleuron widened anteriorly into flange (figs. 4.08 – 4.09). Median longitudinal carinae of propodeum absent, indistinct, or absent posteriorly (figs. 4.10). Vein 2m-cu of fore wing usually with one bulla (fig. 4.11). Malar space without distinct subocular groove. **BANCHINAE (most)** (6)



Lissonota sp.
1985091806 et 07
P. Savoyard
Chez Dugué en fauchant les cypéracés.
Det. Bisdee H.E. Col DA

3. Hypopygium not enlarged and without median apical notch (fig. 4.12). Submetapleural carina of metapleuron not widened anteriorly (fig. 4.13). Median longitudinal carinae of propodeum usually present. Vein 2m-cu of fore wing usually with two bullae (fig. 4.14). Malar space usually with distinct subocular groove (fig. 4.15). **ORTHOCENTRINAE (II)** (2)

1. Ovipositor without dorsal subapical notch or with weak notch surmounting raised dorsal apical node, ventral apical margin usually with conspicuous teeth (fig. 4.03).

4. Clypeus usually strongly convex, apical margin usually convex (fig. 4.20). Malar space usually \geq basal mandibular width, usually with distinct subocular groove (fig. 4.21). Mandibles usually narrow and elongate (as in fig. 4.15). Head in anterior view strongly tapering ventrally, eyes prominent (fig. 4.20). Ovipositor cylindrical and delicate (as in fig. 4.02), not strongly tapering to needle-like point (as in fig. 4.22). Body delicate, metasoma weakly sclerotized and often collapsed in dried specimens (figs. 4.23 – 4.24). **ORTHOCENTRINAE (II)** (2)

4. Characters not as above, if similar (some Pimplinae) then malar space usually very short ($<$ basal mandibular width - fig. 4.25) and ovipositor as in fig. 4.22.

5. Mesoscutum covered with sharp transverse ridges (figs. 4.31 – 4.32).

T2 without anterolateral grooves. Apex of T8 ending in truncate polished horn (fig. 4.35). **RHYSSINAE (6)**



Rhyssa crevieri
1987081401 Miquelon Village Centre
Det. Barron J.R. Col Musée
1994081330 Langlade Anse au Soldat
Det. DA. Col DA
Megarhyssa nortoni
1980072701 L. Gouvernement Fond Anse
Det DA col Musée

5. Mesoscutum without transverse ridges, or with ridges only on median lobe.

6. Epicnemial carina absent (fig.4.36). Dorsal 0.5 of gena with weak to strong denticles (absent in a few species of Poemenia) (figs. 4.37 – 4.39). Pronotum with epomia absent and with sharply raised ridge close to and more or less in parallel with anterior pronotal margin (fig. 4.39) **POEMENIINAE (Tribe NEOXORIDINI)**(2)

6. Epicnemial carina almost always present (figs. 4.40 – 4.41). Dorsal half of gena without denticles (figs. 4.40 – 4.41). Pronotum with epomia usually present and with anterior pronotal margin low and more or less rounded (figs. 4.40 – 4.41).

7. Glymmae of T1 present (figs. 4.42 – 4.43).

8. Clypeus with apical margin with fringe of long parallel setae and without median notch; clypeus usually weakly but evenly convex (figs. 4.47 – 4.48). Tarsal claws ranging from simple to pectinate, without large basal tooth (fig. 4.49). T2-4 without large punctures (punctures $\leq 12\mu$) or pairs of tubercles (except in *Ne-liopisthus*, which has ventral valve of ovipositor with median membranous region, as in fig. 2.55). Eggs sometimes attached to ovipositor by stalk (fig. 4.50). **TRYPHONINAE (most) (20)**



<p>Netelia sp. 1993081204 L. Gouvernement Fond Anses Det. Barron J.R. Col DA 1994072001 P. Ville Morne du Nord Det. DA. Col DA 20040804 St Pierre Photo Patrick Boez</p>

8. Apical margin of clypeus without fringe of long parallel setae and often with median notch (appearing bilobed); clypeus usually with basal ± 0.5 convex and with remainder weakly concave and thinned (figs. 4.51 – 4.52). Tarsal claws not pectinate, often with large basal tooth or lobe (fig. 4.53). T2-4 often with large punctures (24-48 μ in diameter) and/or pairs of tubercles (figs. 4.54 – 4.55). Eggs never attached to ovipositor. **PIMPLINAE (39)**



<p>Pimpla pedalis 1995070902 P. tourbière Pain de sucre Det. DA. Col DA (pas musée ???)</p> <p>Pimpla tenuicornis 1991072316 L. Gouvernement fond Anse Det. Barron J.R Col. DA (pas musée ???)</p> <p>Iseropus stercorator_orygiae 2015061501 M. Mirande sur cocon Orgya Det DA Col DA (12)</p>
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7. Glymmae of T1 absent (figs. 4.44 – 4.46).

9. Sternaulus of mesopleuron present, extending to at least middle of mesopleuron, usually reaching middle coxa (fig. 4.64). **CRYPTINAE (some) (Voir fin de la Section II)**

9. Sternaulus of mesopleuron indistinct, absent, or less than 0.5x as long as mesopleuron.

10. Possessing one of the following character sets:

a. Mesosoma flattened and elongate (fig. 4.72; normal mesosoma shown in fig. 4.73).

b. Supra-antennal area with strong median apophysis (fig. 4.74).

c. Hind femur with strong median ventral tooth (fig. 4.75).

d. Apex of mandible unidentate; flagellum curved or elbowed subapically, with one, two, or series of peg-like setae at curve or elbow (figs. 4.76 – 4.77) **XORIDINAE (5)**

10. Not possessing above characters. **CRYPTINAE (few) (Voir fin de la Section II)**

Section 5 (Mâles)

1. Vein 2m-cu of fore wing with one bulla (may be wide or narrow) (fig. 5.01).
2. Glymmae of T1 absent (fig. 5.05) **CRYPTINAE** (Voir fin de la Section 2)
2. Glymmae of T1 present (figs. 5.06 – 5.07, 5.09).
3. Apical margin of clypeus with fringe of long parallel setae (fig. 5.08). Submetapleural carina of metapleuron not widened anteriorly into flange (fig. 5.06). Propodeal carinae various. T2-4 without submedian pair of deep oblique grooves. **TRYPHONINAE** (some) (Voir Section 4)
3. Apical margin of clypeus without fringe of setae. Submetapleural carina of metapleuron widened anteriorly into flange (fig. 5.09). Propodeum often without median longitudinal carina (fig. 5.10a-b), if median longitudinal carina present (fig. 5.10c) then T2-4 with submedian pair of deep oblique grooves (figs 5.10c & 5.11). **BANCHINAE (most) (6)** (Voir Section 4)
1. Vein 2m-cu of fore wing with two bullae (with section of nebulous (pigmented) vein separating bullae) (figs. 5.02 – 5.04). ([Examination of 2m-cu requires some care, as the length of nebulous vein separating two bullae can be quite short (figs. 5.03 – 5.04)])
4. Mesoscutum covered with sharp transverse ridges (figs. 5.12 – 5.13) **RHYSSINAE (6)** (Voir Section 4)
4. Mesoscutum without transverse ridges, or with ridges only on median lobe.
5. 74. Dorsal 0.5 of gena with weak to strong denticles (absent in a few species of *Poemenia*) (figs. 5.15 – 5.16). Epicnemial carina of mesopleuron absent (figs. 5.16 – 5.17) **POEMENIINAE (2)** (Voir Section 4)
5. Dorsal 0.5 of gena without denticles (figs. 5.18 – 5.19). Epicnemial carina usually present (figs. 5.18 – 5.19)
6. Apical margin of clypeus with fringe of long parallel setae (figs. 5.20 – 5.21). Glymmae of T1 sometimes deep and meeting almost at midline (figs. 5.22 – 5.24) **TRYPHONINAE (most) (20)** (Voir Section 4)
6. Apical margin of clypeus without fringe of setae. Glymmae of T1 various, but not deep and meeting almost at midline
7. Tarsal claws pectinate, at least basally (fig. 5.25). Apical margin of clypeus convex, without median notch (not bilobate) or tooth. **BANCHINAE** (some) (Voir Section 4)
7. Tarsal claws not pectinate. Clypeus with apical margin various, sometimes with median notch (figs. 5.59 – 5.60) or tooth.
8. Fore and middle tarsal claws with small subapical tooth, apex of claws apparently bifid (fig. 5.26). Apex of clypeus with preapical ridge, thus appearing thickened (fig. 5.27). **ACAENITINAE** (all except *Coleocentrus*) (1) (Voir Section II)
8. Fore and middle tarsal claws without small subapical tooth, apex of claws simple. Clypeal apex various but not appearing thickened.
9. Clypeus usually strongly convex, apical margin usually convex (figs. 5.32 – 5.33). Malar space usually \geq basal mandibular width and with distinct subocular groove (figs. 5.32 – 5.33) Mandibles usually narrow and elongate (as in fig. 5.32). Eyes sometimes ventrally convergent (fig. 5.34). Body delicate, metasoma weakly sclerotized and often collapsed in dried specimens (figs. 5.35 – 5.36) **ORTHOCENTRINAE (part) (2) (4)**
9. Characters not as above: clypeus usually flat, subocular groove absent, mandibles robust. Eyes rarely ventrally convergent.

10. Apical margin of clypeus with median tooth (figs. 5.46 – 5.47) and hind wing with vein 1/Cu \leq 0.3 as long as vein cu-a (fig. 5.48). Posterior transverse carina of propodeum present (at least laterally, but usually complete) (fig. 5.49). Areolet of fore wing present (fig. 5.48a). T2-3 with anterolateral grooves (fig. 5.47). ACAENITINAE (Coleocentrus) (4) (Voir Section 2)

10. Apical margin of clypeus usually without tooth; if tooth present, then vein 1/Cu of hind wing $>$ length of vein cu-a.

11. Glymmae of T1 present (figs. 5.51 – 5.52) **PIMPLINAE (39)** (Voir Section 4)

11. Glymmae of T1 absent. (figs. 5.53 – 5.55).

12. Sternaulus of mesopleuron present, extending to at least middle of mesopleuron, usually reaching middle coxa (fig. 5.63) CRYPTINAE (some)

12. Sternaulus of mesopleuron indistinct, absent, or less than 0.5x as long as mesopleuron.

13. Possessing one of the following character sets:

a. Mesosoma flattened and elongate (fig. 5.73; normal mesosoma shown in fig. 5.74); apex of mandible bidentate.

b. Supra-antennal area with strong median apophysis (figs. 5.74 – 5.75).

c. Hind femur with strong median ventral tooth (fig. 5.76).

d. Apex of mandible unidentate (fig. 5.77); epomia strong and reaching dorsal pronotal margin, sometimes projecting dorsally as tooth (figs. 5.78 – 5.79; usual xoridine epomia shown in fig. 5.80) XORIDINAE (5) (Voir Section 4)

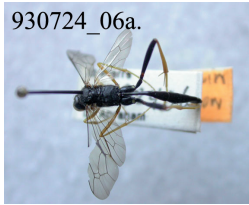
12. Not possessing above characters. CRYPTINAE (a few)

FIN

Addenda

sur quelques spécimens SPM en collection

Suite de la page 5 **CRYPTINAE** (CRYPTINI=MESOSTENINI)



Mesostenini

1993072406

1993072602

St Pierre Jardin Parent Sur Angelica .

Det. Barron J.R. Col. DA

Il s'agit probablement d'une erreur

4 spec de **Dusona sp.** ont été récoltés à la même date (19930726) et au même endroit