

## FAMILY LEIODIDAE (Small scavenger beetles)

S. Peck

One hundred and twenty-four species of Leiodidae are known from Canada and Alaska. What are grouped here have been placed under many family names, but all share the derived (but difficult to see) character of a (usually) nearly enclosed gutter ringing the antennal articulation on the dorsal face of segments 7 and 9-10, or 8-10 in 11-segmented antennae and 7-9 in 10-segmented antennae, with internal sensory vesicles in some segments. The higher classification here employs five subfamilies and follows recent advances reported by Lawrence (1982a), Lawrence and Newton (1982), and Newton (1984).

Members of Leiodidae are, for the most part, scavengers, both as larvae and adults, feeding on various decaying organic materials in usually moist forest or field habitats. The two biggest subfamilies are the Leiodinae and Cholevinae. The Leiodinae (= Anisotomidae, Agathidiidae), also called the round fungus beetles, are often globose and compact in body shape and many species are capable of contracting into a ball-like form. Some species are specialized for digging in soil where they feed on certain subterranean fungi; some are specialized predators of slime molds; and others feed on soft fungi or are more generally saprophagous (Wheeler 1984). The feeding habits of both adult and larval Coloninae (= Colonidae) are not known. The Cholevinae (= Catopidae, Leptodiridae), also called the small carrion beetles, are more elliptical in body shape and feed on carrion or dung, and some species are specialized occupants of ant nests, caves (but not in Canada), or the nests and burrows of vertebrates. The Leptininae (= Leptinidae), or mammal nest beetles and beaver beetles, are nest scavengers and ectoparasites on small mammal hosts or on beavers.

Collecting Leiodidae must usually concentrate on the particular habits or habitats of the genera or species sought. Many can be taken in baited pitfall traps; by sifting and Berlese extraction of litter or fungi; by sweeping forest vegetation on still, warm, and humid evenings; or by use of large-area flight intercept traps.

The leiodid fauna of Canada and Alaska is only partly known. Reviews and revisions of several genera have recently been made and others are being prepared. No single publication treats the entire fauna but a generic review of the North American fauna is available (Peck 1989). The largest faunal works (Hatch 1933, 1957; Jeannel 1936) are no longer completely reliable. Distributions and bionomics of the species are usually incompletely known, and many species in the northern United States may eventually be found in southern Canada.

AK (36); YK (18); NT (16); BC (82); AB (39); SK (18); MB (24); ON (52); PQ (49); NB (19); NS (15); LB (7); NF (7); H (4); I (1)

### Subfamily LEIODINAE Tribe Hydnobiini

#### Genus HYDNOBIUS Schmidt

H. contortus Hatch	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
H. crestonensis Hatch	-	-	-	BC	AB	-	-	-	-	-	-	-	-	-	-
H. femoratus Hatch	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
H. longulus LeConte	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
longidens LeConte															
H. luggeri Hatch	AK	-	-	-	-	-	-	-	-	-	-	-	-	-	-
H. matthewsii Crotch	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
H. obtusus LeConte	-	-	-	-	-	SK	-	-	-	-	-	-	-	-	-
H. pumilus LeConte	-	-	-	-	-	-	-	ON	PQ	-	-	-	-	-	-
kiseri Hatch															
latidens LeConte															
H. simulator W.J.Brown	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
H. stacesmithi Hatch	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
H. strigilatus Horn	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
H. substriatus LeConte	-	-	-	-	AB	-	-	-	PQ	-	NS	-	-	-	-
curvidens LeConte															
H. validus W.J.Brown	-	-	-	-	-	-	-	-	PQ	-	-	-	-	-	-

#### Genus TRIARTHRON Markel

T. lecontei Horn - - - BC - - - - - - - - -  
 cedonulli Schaufuss

Tribe Leiodini

Genus ANOGDUS LeConte

A. mirabilis Hatch - - - BC - - - - - - - - -

Genus LIONOTHUS W.J.Brown

L. ulkei W.J.Brown - - - - - - - ON PQ - - - - -

Genus CAENOCYRTA W.J.Brown

C. picipennis (LeConte) - - - BC - - - ON PQ - - - - -

Genus CYRTUSA Erichson

C. luggeri (Hatch) - - - BC AB SK MB ON PQ NB - - - -

Genus ECARINOSPHAERULA Hatch

E. ecarinata (Horn) - - - BC - - - - - - - - -

Genus ISOPLASTUS Horn

I. fossor Horn - - - - - - - ON PQ - - - - -

Genus LEIODES Latreille

Key to North American species: Baranowski (1989)

L. assimilis (LeConte) AK YK NT BC AB SK MB ON PQ NB NS - LB NF  
 L. bradorata W.J.Brown - - - - - - - PQ - - - - -  
 L. canadensis (W.J.Brown) - - - - - SK MB - - - - -  
 L. collaris (LeConte) AK YK - BC AB - MB ON PQ NB - - LB NF  
 L. conferta (LeConte) - - - - - - - ON PQ - - - - -  
 L. curvata (Mannerheim) AK - - BC AB - - - - - - -  
 morula LeConte  
 L. difficilis (Horn) - - - - AB - - - - - - -  
 L. dilatata Hatch - - - BC - - - - - - - - -  
 L. grossa Hatch - - - BC AB - - - - - - - - -  
 L. impersonata W.J.Brown - - - - - - - ON PQ NB NS - - -  
 L. lateritia (Mannerheim) AK - - BC - - - - - - - - -  
 L. lostine (Hatch) - - - BC AB - - - - - - - - -  
 L. merkeliana (Horn) - - NT BC - - - - - - - - -  
 L. paludicola (Crotch) - - - BC - - - - - - - - -  
 L. puncticollis (C.G.Thomson) AK YK - BC AB SK MB ON PQ - - - - -  
 L. punctostriata Kirby AK YK NT BC AB - MB ON PQ NB NS - LB NF





(Subgenus CURVIMANON Fleischer)

*C. bidentatum* (C.R.Sahlberg)\* - - - BC AB - - ON PQ NB - - - NF

(Subgenus COLON s.str.)

*C. femorale* Hatch - - - BC - - - - - - - - -

*C. serripoides* Hatch - - - BC - - - - - - - - -

*C. tibiale* Hatch - - - BC - - - - - - - - -

(Subgenus MYLOECHUS Latreille)

*C. aedeagosum* Hatch - - - BC - - - - - - - - -

*C. celatum* Horn - - - BC - - - - - - - - -

*C. clavatum* Mannerheim AK - - BC - - - - - - - - -

*C. complicatum* Hatch - - - BC - - - - - - - - -

*C. dentatum* LeConte - - - - - - - - PQ - - - - -

*C. discretum* Hatch - - - BC - - - - - - - - -

*C. elongatum* Notman - - - - - - - - ON - - - - -

*C. inerme* Mannerheim AK - - BC - - - - - - - - -

*C. kincaidi* Hatch - - - BC - - - - - - - - -

*C. magnicolle* Mannerheim AK - NT BC AB - MB ON PQ NB - - LB NF

*C. nevadense* Horn - - - BC - - - - - - - - -

*C. pribilof* Hatch AK - - - - - - - - - - - - -

*C. pusillum* Horn - YK - - - - - - - - PQ - - - - -

Subfamily CHOLEVINAE

Tribe Ptomaphagini

Genus PTOMAPHAGUS Illiger

Key to North American species: Peck (1973)

*P. brevior* Jeannel - - - - - - - - ON PQ - - - - -

*P. nevadicus* Horn - - - BC AB - MB - - - - - - -

*densus* Hatch

*piperi* Hatch

*thomomysi* Hatch

Tribe Nemadini

Genus NEMADUS C.G.Thomson

*N. brachyderus* (LeConte) - - - - - - - - ON - - NS - - -

*N. decipiens* (Horn) - - - BC - - - - - - - - -

*N. gracilicornis* Fall - - - - - - MB - - - - - - -

*N. parasitus* (LeConte) - - - - - - MB ON PQ - - - - -

*N. pusio* (LeConte) - - - BC - - - - - - - - -

Tribe Cholevini

Genus CATOPS Paykull

<i>C. alpinus</i> sitkanus Jeannel	AK YK NT BC - - - - - - - - -
<i>C. alsiosus</i> (Horn)*	AK YK NT BC AB - MB ON PQ NB NS - LB -
<i>C. americanus</i> Hatch	AK YK NT BC AB SK MB ON PQ NB NS - - -
<i>clavicornis</i> LeConte	
<i>C. basilaris</i> Say	AK YK NT BC AB SK MB ON PQ NB NS - LB NF
<i>cadaverinus</i> Mannerheim	
<i>spencianus</i> (Kirby)	
<i>C. egenus</i> (Horn)	AK YK NT BC AB SK - ON - - - - - -
<i>C. graciosus</i> (Blanchard)	- - - BC AB - - ON PQ - NS - - -
<i>C. luridipennis</i> Mannerheim*	AK YK NT BC AB SK MB ON PQ - - - - -
<i>brunnipennis</i> Mannerheim	
<i>C. mathersi</i> Hatch	- YK - BC AB - - - - - - - - -
<i>C. simplex</i> Say	AK - - BC AB SK - ON PQ NB NS - LB NF

Genus SCIODREPOIDES Hatch  
Sciodrepa C.G.Thomson

<i>S. fumatus</i> terminans (LeConte)	AK - NT BC AB SK MB ON PQ NB NS - - -
<i>S. watsoni</i> hornianus (Blanchard)	- - - BC AB SK MB ON PQ - - - - NF

Genus CATOPTRICHUS Murray

<i>C. frankenhaeuseri</i> (Mannerheim)	AK - - BC - - - - - - - - -
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Genus PRIONOCHAETA Horn

<i>P. opaca</i> (Say)	- - - - - - - ON PQ - NS - - -
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Subfamily LEPTININAE

Genus LEPTINILLUS Horn

<i>L. validus</i> (Horn)	AK YK NT BC AB SK - ON PQ NB - - - -
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Genus PLATYPSYLLUS Ritsema  
Platypsillus Westwood

<i>P. castoris</i> Ritsema*	AK - - BC AB - - ON PQ - - - - -
<i>castorinus</i> Westwood	

Genus LEPTINUS P.W.J.Muller  
Key to North American species: Peck (1982)

<i>L. occidentamericanus</i> Peck	AK YK - BC - - - - - - - - -
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