

FAMILY TENEBRIONIDAE (Darkling beetles)

Y. Bousquet & J.M. Campbell

This family comprises over 1200 species in North America but more than 80% of them are restricted to the southwestern United States. Only 139 species occur within the Canadian and Alaskan borders. Many tenebrionids live in semiarid areas and deserts but in Canada, most species are found in rotten wood, fungi, under logs and stones, and under the bark of dead trees. A number of species, such as *Tenebrio*, *Gnatocerus*, *Tribolium* and *Palorus*, are stored-product pests and some account for the most important ones in the country. Adults and larvae feed on plants or plant material including decaying vegetation, seeds, roots, cereals and their products, and fungi.

The concept of the family used for the checklist is similar to that of the tenebrionoid branch of Doyen and Tschinkel (1982). Adults of all species have paired defensive glands with reservoirs opening between the 7th and 8th sternites. The lagrioid lineage, which is probably the sister group of the tenebrionids, have been given family status; these species lack the defensive glands. While the limits of the family is now fairly stable, its higher classification is still poorly understood. Numerous changes have recently been proposed in the classification of the family (see Doyen and Tschinkel 1982) and more are expected; the alleculids for example are probably polyphyletic in origin. The classification used here has been provided by Aalbu (pers. comm.). There is no recent revision of the Nearctic Tenebrionidae and most genera occurring in Canada have not been revised. Identification is often difficult especially in large groups like *Eleodes*.

AK (2); YK (1); NT (9); BC (74); AB (29); SK (20); MB (31); ON (70); PQ (53); NB (16); NS (14); PE (5); LB (1); NF (5); H (1); I (11)

Subfamily PHRENAPATINAE Tribe Penetini

Genus CLAMORIS des Gozis
Phthora Mulsant

C. americana (Horn) - - - BC - - - - - - - - -

Subfamily TENTYRIINAE Tribe Eurymetopini

Genus STERIPHANUS Casey

S. subopacus (Horn)
alutaceus Casey - - - - ? - - - - - - - - -

Tribe Coniointini

Genus CONIONTIS Eschscholtz
Coelotaxis Horn
Coniointellus Casey
Coniointides Casey
Conisattus Casey

C. ovalis LeConte - - - BC - - - - - - - - -
oblita Casey
okanagani Boddy
paralis Casey
vancouveri Casey

Tribe Coelini

Genus COELUS Eschscholtz
Coelomorpha Casey

C. ciliatus Eschscholtz - - - BC - - - - - - - - -
amplicollis Casey
arenarius Casey

Tribe Bolitophagini

Genus BOLITOTHERUS Candèze
Phellidius LeConte

B. cornutus (Panzer) - - - - - MB ON PQ NB - - - -
bifurcus (Fabricius)

Genus ELEATES Casey

E. depressus (Randall) - - - - - MB ON PQ NB - - - -
tetraopes (Newman)
E. explanatus Casey - - - BC - - - - -

Genus BOLITOPHAGUS Illiger

B. corticola Say - - - - - ON PQ - - - -

Tribe Diaperini

Key to North American genera: Doyen (1984)

Genus ADELINA Dejean
Doliema Pascoe
Schedarosus Reitter

D. plana (Fabricius) - - - - - ON - - - - -
depressa (Erichson)
lecontei (Horn)
scidaria (Reitter)

Genus CYNÆUS LeConte

C. angustus (LeConte) - - - BC AB SK MB ON PQ - - - - -
opacus Champion

Genus GNATOCERUS Thunberg
Cerandria Lucas
Echocerus Horn
Sicinus Champion

(Subgenus GNATOCERUS s.str.)

G. cornutus (Fabricius)+ - - - BC - - MB ON PQ - NS - - - -
maxillaris (Palisot de Beauvois)

Genus ALPHITOPHAGUS Stephens
Phyletes Redtenbacher
Phylethus Redtenbacher
Key to North American species: Triplehorn (1965)

A. bifasciatus (Say) - - - - - SK MB ON PQ - - - - -

Genus DIAPERIS O.F.Muller
Key to North American species: Triplehorn (1965)

D. maculata Olivier - - - - - MB ON PQ NB - - - - -
floridana Blatchley

hydactina Fabricius
 hydni Fabricius
 suturalis Chevrolat

Genus NEOMIDA Latreille
 Arrhenoplita Kirby
 Evoplus LeConte
 Hoplocephala Castelnau & Brullé
 Key to North American species: Triplehorn (1965)

N. bicornis (Fabricius)	-	-	-	-	-	-	-	-	ON	PQ	-	NS	-	-	-
cornigera (Fabricius)															
gracilis (Motschulsky)															
virescens (Castelnau & Brullé)															
viridipennis (Fabricius)															
metallica (Palisot de Beauvois)															

Genus PLATYDEMA Castelnau & Brullé
 Histeropsis Chevrolat
 Key to North American species: Triplehorn (1965)

P. americanum (Castelnau & Brullé)	-	-	-	BC	AB	-	MB	ON	PQ	NB	-	-	-	-	-
P. excavatum (Say)	-	-	-	?	-	-	-	ON	?	-	-	-	-	-	-
fraternum Chevrolat															
nigratum Motschulsky															
parvulum Casey															
tuberculatum Castelnau & Brullé															
P. neglectum Triplehorn	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
P. oregonense LeConte	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
P. ruficorne (Sturm)	-	-	-	-	-	-	-	ON	PQ	-	-	-	-	-	-
anale Haldeman															
opaculum Casey															
rufum (Melsheimer)															
rufiventre Castelnau & Brullé															
P. subcostatum Castelnau & Brullé	-	-	-	-	-	-	-	ON	?	-	-	-	-	-	-
clypeatum Haldeman															
oblongulum Motschulsky															
P. teleops Triplehorn	-	-	-	-	-	-	-	ON	PQ	-	-	-	-	-	-

Genus PENTAPHYLLUS Dejean
 Key to North American species: Triplehorn (1965)

P. pallidus LeConte	-	-	-	-	-	-	-	ON	-	-	-	-	-	-	-
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Subfamily HYPOPHLOEINAE
 Tribe Hypophloeini

Genus CORTICEUS Piller & Mitterpacher
 Hypophlaeus Fabricius

C. minor (Wallis)	-	-	-	-	AB	-	-	-	-	-	-	-	-	-	-
C. occidentalis (Wallis)	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
C. parallelus (Melsheimer)	-	-	-	BC	-	-	-	ON	PQ	-	-	-	-	-	-
C. praetermissus (Fall)	-	-	NT	BC	AB	SK	MB	ON	PQ	-	-	-	-	-	NF
C. subopacus (Wallis)	-	-	-	BC	AB	-	MB	ON	-	-	-	-	-	-	-
C. substriatus (LeConte)	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
C. strublei Blaisdell	-	-	-	BC	-	-	-	-	-	-	-	-	-	-	-
C. tenuis (LeConte)	-	-	-	BC	AB	-	-	ON	PQ	NB	-	-	-	-	-

Subfamily OPATRINAE

Genus EMBAPHION Say

E. muricatum Say - - - - AB - - - - -
 concavum LeConte

Tribe Opatrini

Genus EPHALUS LeConte

E. latimanus (LeConte) - - - - - NS - - - -

Genus BLAPSTINUS Dejean
 Aspidius Mulsant & Rey
 Heteropus Castelnau
 Lodinus Mulsant & Rey

B. discolor Horn - - - BC - - - - -
 oregonensis Casey
 B. intermixtus Casey - - - BC - - - - -
 B. metallicus (Fabricius) - - - BC AB SK MB ON PQ - NS - - -
 interruptus (Say)
 luridus Mulsant & Rey
 B. moestus Melsheimer - - - - - ? - - - - -
 B. pratensis LeConte - - - - - ON - - - - -
 B. pulverulentus Mannerheim - - - BC - - - - -
 californicus Motschulsky
 B. substriatus Champion - - NT BC AB SK MB ON PQ - - - - -

Genus GONOCEPHALUM Chevrolat

G. bilineatum Walker+ - - - BC - - - - -
 latifrons LeConte

Tribe Ulomini

Genus ULOMA Latreille

U. impressa Melsheimer - - - - - ON - - - - -
 U. longula LeConte - - - BC - - - - -

Tribe Helopini

Genus TARPELA Bates
 Lamperos Allard

T. micans (Fabricius) - - - - - ON PQ - - - - -

Genus HELOPS Fabricius

H. californicus Mannerheim - - - BC - - - - -
 H. convexulus LeConte - - - BC - - - - -
 montanus LeConte
 H. pernitens LeConte - - - BC - - - - -
 H. punctipennis LeConte - - - BC - - - - -
 punctatus Gemminger
 H. regulus Blaisdell - - - BC - - - - -

Subfamily TENEBRIONINAE
Tribe Triboliini

Genus TRIBOLIUM MacLeay
Margus Dejean
Key to species: Hinton (1948)

(Subgenus TRIBOLIUM s.str.)

T. audax Halstead	-	-	-	BC	AB	SK	MB	ON	PQ	-	-	-	-	-
T. castaneum (Herbst)(+)	-	-	-	BC	AB	SK	MB	ON	PQ	-	-	PE	-	-
ferrugineum (Dejean)														
T. confusum Jacquelin du Val(+)	-	-	-	BC	-	SK	MB	ON	PQ	-	-	-	-	NF
T. destructor Uyttenboogaart+	-	-	-	BC	AB	SK	MB	ON	PQ	-	NS	PE	-	NF
T. madens (Charpentier)+	-	-	-	-	-	-	-	-	-	NB	NS	-	-	-

(Subgenus APHANOTUS LeConte)

T. brevicorne (LeConte)	-	-	-	BC	-	-	-	-	-	-	-	-	-	-
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Genus BIUS Mulsant

B. estriatus (LeConte)	-	-	-	BC	-	-	-	-	-	-	-	-	-	-
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Genus PALORUS Mulsant
Key to species: Halstead (1967)

(Subgenus PALORUS s.str.)

P. ratzeburgii (Wissman)+	-	-	-	BC	-	-	-	ON	PQ	-	NS	-	-	-
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(Subgenus CIRCOMUS Fleischer)

P. subdepressus (Wollaston)+	-	-	-	-	-	-	MB	-	-	-	-	-	-	-
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Genus LATHETICUS Waterhouse

L. oryzae Waterhouse+	-	-	-	-	-	-	-	-	PQ	NB	-	-	-	-
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Tribe Tenebrionini

Genus ALPHITOBIUS Stephens

A. diaperinus (Panzer)+	-	-	-	BC	AB	SK	MB	ON	PQ	NB	NS	PE	-	NF
A. laevigatus Fabricius+	-	-	-	BC	-	-	-	ON	-	-	-	-	-	-
piceus (Olivier)														
picipes (Panzer)														

Genus METACLISA Jacquelin du Val

M. marginalis Horn	-	-	-	BC	-	-	-	-	-	-	-	-	-	-
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Genus CENTRONOPUS Solier
Menechides Motschulsky
Pyres Champion
Scotobates Rye

Key to New World species: Spilman (1962)

C. calcaratus (Fabricius)	-	-	-	-	-	-	-	-	ON	PQ	-	NS	-	-	-
aeneus (DeGeer)															
carolinensis (Palisot de Beauvois)															
reflexus (Say)															

Genus TENEBRIO Linné

T. molitor Linné+	-	-	-	BC	AB	SK	MB	ON	PQ	NB	NS	-	-	-
laticollis Stephens														
T. obscurus Fabricius+	-	-	-	BC	AB	-	-	ON	PQ	-	-	PE	-	NF
poliens Casey														

Genus NEATUS LeConte

N. tenebriodes (Palisot de Beauvois)	-	-	-	BC	-	-	MB	ON	PQ	-	-	-	-	-
badius (Say)														

Genus IDIOBATES Casey

D. castaneus (Knoch)	-	-	-	-	-	-	-	ON	-	-	-	-	-	-
interstitialis (Say)														

Tribe Amarygmini

Genus MERACANTHA Kirby
Falacer Castelnau

M. contracta (Palisot de Beauvois)	-	-	-	-	-	-	-	ON	-	-	-	-	-	-
canadensis Kirby														
cuprea (Castelnau)														
inflata (Solier)														
?rugosa (Castelnau)														
?tumida (Melsheimer)														

Subfamily ALLECULINAE
Tribe Alleculini

Genus HYMENORUS Mulsant
Hymenophorus Mulsant
Key to North American species: Fall (1931)

H. caurinus Fall	-	-	-	BC	-	-	-	-	-	-	-	-	-	-
H. discretus Casey	-	-	-	-	-	-	-	ON	-	-	-	-	-	-
H. megops Hatch	-	-	-	BC	-	-	-	-	-	-	-	-	-	-
H. molestus Fall	-	-	-	-	-	-	-	ON	PQ	NB	-	-	-	-
H. niger (Melsheimer)	-	-	-	-	-	-	-	ON	PQ	NB	-	-	-	-
H. obesus Casey	-	-	-	-	-	-	-	ON	PQ	-	-	-	-	-
H. picipennis Casey	-	-	-	-	-	-	-	ON	PQ	-	-	-	-	-
H. pilosus (Melsheimer)	-	-	-	-	-	-	-	ON	-	-	-	-	-	-
H. sinuatus Fall	-	-	-	BC	-	-	-	-	-	-	-	-	-	-

Tribe Gonoderini

Genus ISOMIRA Mulsant
Tedinus Casey
Key to Eastern North American species: Marshall (1970)

M. procera Casey - - - BC - - - - - - - - -
 angusta Hatch
 caseyi Hatch
 crassulipes Casey
 downei Hatch
 malkini Hatch
 nevadensis Casey

Genus HYMENOCHARA Campbell
 Key to species: Campbell (1978d)

H. rufipes (LeConte) - - - - - - - ON - - - - -

Subfamily COELOMETOPINAE
 Tribe Coelometopini

Genus MERINUS LeConte

M. laevis (Olivier) - - - - - - - ON - - - - -

Genus XYLOPINUS LeConte
 Taenobates Motschulsky

X. aenescens LeConte - - - - - - - - PQ - - - - -
 X. saperdioides (Olivier) - - - - - - - ON PQ - - - - -
 anthracinus (Knoch)
 calcaratus (Palisot de Beauvois)
 rufipes (Say)
 spinipes (Fabricius)

Genus HAPLANDRUS LeConte

H. concolor LeConte - - - - - - MB ON PQ - - - - -
 H. fulvipes (Herbst) - - - - - - ON PQ - - - - -
 femoratus (Fabricius)

Genus COELOCNEMIS Mannerheim
 Key to species: Doyen (1973)

C. californica Mannerheim - - - BC AB - - - - - - - - -
 barretti Blaisdell
 basalis Casey
 colombiana Casey
 dilaticollis Mannerheim
 idahoensis Casey
 ovipennis Casey
 rauca Casey
 rugosa Linnell
 spaldingi Casey
 utensis Casey

Genus IPHTHIMINUS Spilman

I. opacus (LeConte) - - - - - SK MB ON PQ NB NS - - -
 I. salebrosus (Casey) - - - BC - - - - - - - - -
 I. serratus (Mannerheim) - - - BC AB - - - - - - - - -
 servator (Walker)
 servilis (Walker)
 subligatus (Walker)

Genus ALOBATES Motschulsky

A. pennsylvanicus (DeGeer) - - - - - MB ON PQ - - - - -
chrysops (Herbst)
inermis (Mannerheim)
sublaevis (Palisot de Beauvois)

Genus UPIS Fabricius

U. ceramboides (Linné)* AK YK NT BC AB SK MB ON PQ NB - PE - -
reticulata (Say)
variolosa (DeGeer)

Tribe Strongyliini

Genus STRONGYLIIUM Kirby

Reminius Casey
Stenochia Kirby

Key to North American species: Triplehorn & Spilman (1973)

S. tenuicolle (Say) - - - - - ON PQ - - - - -