

LIST OF THE ELATERIDAE OF BRITISH COLUMBIA

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Some of the species of the coleopterous family Elateridae, commonly known as wireworms or click beetles, have long been known as important insect pests of agricultural crops. In connection with the research on the life history and control of these economic forms, it is also desirable to learn as much as possible about their distribution, as well as that of related non-economic species. Distribution records are obtained by collecting and publishing the results. There are all too few publications of this sort. The present list has been compiled from a rather extensive list of articles and references to the Coleoptera of British Columbia, brought together by M. H. Hatch, from original descriptions, from revisional publications, and from recent collections made or seen by the author. The earliest list of Elateridae for British Columbia is one of 28 species recorded from Vancouver Island by LeConte in 1869. This was followed by other lists by LeConte and many others until 1927-1928, when G. H. Hardy published two lists, one of species from Garibaldi Park and another of species on Vancouver Island.

The author has been collecting this family in the Pacific Northwest since 1917, as well as receiving considerable material from other entomologists for determination. Many private and semi-official collections have been checked, including the very fine and extensive collection of Gordon Stace-Smith of Creston, B.C. In a short visit to Vancouver Island in June, 1950, the writer collected 17 species of Elateridae adults in two days on the home grounds of his host, Kenneth M. King, at Victoria, as an example of the concentration of species that sometimes occurs under favorable circumstances.

Altogether, there appear to be at least 74 authentically determined species on Vancouver Island alone, of which 19 species have been recorded from the Island only, although they may also occur on the mainland. There are 129 species listed as present on the mainland of British Columbia, 55 of which are also found on the Island. The list here appended includes a total of 150 species of Elateridae for the Province of British Columbia. From the literature and from collections made in adjoining areas, there are probably about 25 more described species that should eventually be recorded as occurring in British Columbia. It is a very large Province and, undoubtedly, many new species are yet to be discovered. This paper is written in the hope that it will provide an incentive for further collecting and the discovery of new species.

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LIST OF ELATERIDAE OF BRITISH COLUMBIA

- * Species occurring on Vancouver Island only.
 - ** Species occurring on the mainland only. Unmarked species occur on both the island and mainland.
- "auct." as used here refers to a name used erroneously by the determiner, in most cases eastern names of species later described as western.

Lepidotus Stephens, 1830*(Lacon* Cast. *Adelocera* auct.)***brevicornis* (LeC.)***obtectus* (Say)profusus (Cand.) (*cavicollis* (LeC.))rorulentus (LeC.) (*prysolepis* auct.)***sparsus* (Cand.)**Alaus** Esch., 1829*melanops* Lec. (*oculatus* auct.)

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- Drasterius** Esch., 1829 (*Aeolus* auct.)
 debilis Lec.
 **dorsalis (Say) (*mellillus* (Say), *comis* (LeC.))
- Limonius** Esch., 1829 (*Pheletes* Kies.)
 **aeger LeC.
 *bicolor Van D.
 canus Lec. (*discoideus* LeC.)
 *californicus (Mann.)
 (*occidentalis* LeC.)
 consimilis Walk. (*nitidicollis* LeC.)
 **crotchi Horn
 *humidus Lane
 infuscatus Mots.
 nitidulus Horn
 **pectoralis LeC.
 **rufihumeralis Lane
 **seminudus Van D.
 subauratus LeC.
 **venablesi Wick.
- Elathous** Reitt., 1890
 nebulosus (Van D.)
- Athous** Esch., 1829
 *imitans Fall
 nigropilis Mots.
 pallidipennis Mann.
 rufiventris (Esch.)
 (*ferruginosus* (Esch.))
 scissus LeC.
 vittiger LeC.
- Ctenicera** Latr., 1829 (*Corymbites* Latr.,
Ludius Esch.)
 aereipennis (Kby.)
 angularis (LeC.)
 angusticollis (Mann.) (*fraterna* (LeC.),
spectabilis (Mann.))
 **bipunctata (Brown)
 bombycina (Germ.) (*fallax* auct.)
 callida (Brown) (*inflatus* auct.)
 **carbo (LeC.)
 columbiana (Brown) (*propola* auct.,
furcifer auct., *nubilis* auct.)
 comes (Brown)
 **conjungens (LeC.)
 **crestonensis (Brown)
 **festiva (LeC.) (*cruciatus* auct., *pulcher*
 auct.)
 *diversicolor (Esch.) (*rotundicollis* auct.)
 **funerea (Brown) (*semivittatus* auct.,
fuscus auct.)
 *furtivua (LeC.) (*monticola* auct.)
 **glaucia (Germ.) (*inflatus* auct.)
 hoppingi (Van D.)
 **kendalli (Kby.) (*aeneicollis* auct.)
 **laricis (Brown)
 *lateralis (LeC.)
 lobata (Esch.) (*caricina* (Germ.), *telum*
 (LeC.), *varsalis* auct.)
 **lutescens (Fall)
 **maura (LeC.)
 **mendax (LeC.)
 **moerens (LeC.)
 **montana (Brown)
 **morula (LeC.)
 nebraskensis (Bland.)
 *nigricans (Fall)
 **nigricollis (Bland.) (*vernalis* auct.)
 **ochreipennis (LeC.)
 *opacula (LeC.)
- **protracta (LeC.)
 **pruinina (Horn) (*noxia* (Hysl.))
 pudica (Brown) (*hieroglyphicus* auct.)
 **pygmaea (Van D.)
 resplendens (Esch.)
 **rupestris (Germ.)
 sagitticollis (Esch.) (*insidiosa* auct.)
 **semimetallica (Walk.)
 **silvatica (Van D.)
 **stricklandi (Brown)
 suckleyi (LeC.)
 **triundulata (Rand.)
 *uliginosa (Van D.)
 **umbricola (Esch.) (*rudis* (mots.))
 umbripennis (LeC.) (*gracilor* (LeC.))
 **vidua (Brown)
 **volitans (Esch.)
 weidti (Angell)
- Eanus** LeC., 1861 (*Paranomus* Kies.)
 **albertanus Brown
 **decoratus (Mann.)
 granicollis Van D.
 striatipennis Brown
- Hemicrepidius** Germ., 1839 (*Asaphes* Kby.)
 morio (LeC.) (*dilatocollis* auct.)
 oregonus (LeC.)
 *tumescens (LeC.)
- Hypolithus** Esch. 1829 (*Cryptohypnus* Esch.,
Hypnoidus Dillw. pars.)
 **bicolor Esch. (*lucidulus* (Mann.))
 funebris (Cand.) (*planatus* auct.)
 **glacialis (Van D.) (*grandicollis* auct.)
 **hyperboreus (Gyll.)
 **impressicollis (Mann.) (*abbreviatus* auct.)
 **nocturnus Esch.
 **squalidus (LeC.)
- Negastris** Thom., 1859 (*Cryptohypnus* Esch.,
Hypnoidus Dillw. pars.)
 caurinus (Horn)
 **gentilis (LeC.)
 **manki (Fall)
 *musculus (Esch.)
 **ornatus (LeC.)
 **pectoralis (Say)
 **striatulus (LeC.)
 **tumescens (LeC.)
- Dalopius** Esch., 1829 (*Dolopius* auct.)
 **assellus Brown
 *corvinus Brown
 **fucatus Brown
 **gartrelli Brown
 **insolens Brown
 insulanus Brown (*lateralis* auct.)
 **maritimus Brown
 spretus Brown
 **suspectus Brown
 tristis Brown
- Sericus** Esch., 1829 (*Sericosomus* auct.)
 incongruus (LeC.) (*brunneus* auct.)
- Agriotes** Esch., 1829
 **apicalis LeC.
 **cridlei Van D.
 ferrugineipennis LeC. (*fucosus* auct.)
 *lineatus (L.)
 *obscurus (L.)
 *opaculus LeC.
 sparsus LeC.
 **tardus Brown
 theveneti Horn

Agriotella Brown, 1933 (*Betarmon* auct.)

- *columbiana Brown
- occidentalis Brown

Ampedus Dej., 1833 (*Elater* Esch., nec Linn.)

- **apicatus (Say)
- **behrensi (Horn) (*cordifer* auct.)
- bimaculatus (Van D.)
- **brevis (Van D.)
- carbonicolor (Esch.)
- columbiana Brown (*varipilis* auct., *cordifer* auct.)
- **hoppingi (Van D.)
- **moerens (LeC.)
- nigrinus (Hbst.) (*antbracinus* auct.)
- oregonus (Schffr.)
- phoenicopterus (Germ.)
- **pullus (Germ.)
- rhodopus (LeC.)

**ursinus (Van D.)

Megapenthes Kies., 1858

- caprella (LeC.)
- **nigriventris LeC.
- **stigmaticus (LeC.)
- tartareus LeC.

Melanotus Esch., 1829

- oregonensis (LeC.)

Cardiophorus Esch., 1829

- **fenestratus LeC.
- *latiusculus Esch.
- *longior LeC. (*longulus* err.)
- **mimeticus Horn (*edwardsi* auct.)
- **pubescens Bl.
- tenebrosus LeC. (*amplicollis* auct.)
- **tumidicollis LeC.

Horistonotus Cand., 1860

- **sufflatus (LeC.)

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THE EFFECT OF CERTAIN INSECTICIDES ON THE GERMINATION AND GROWTH OF ONIONS

I. INSECTICIDES APPLIED TO THE SOIL¹

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Introduction: The onion maggot, *Hylemya antiqua* (Meig.), has for many years caused serious damage to onion crops throughout the interior of British Columbia. In 1950, insecticide trials

were undertaken at the Kamloops laboratory to provide a more satisfactory and less expensive control for this pest than the commonly used calomel seed-treatment. As an extensive review of the literature revealed that practically no work had been done on the phytotoxicity of the

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