Checklist of the LEPIDOPTERA

OF BRITISH COLUMBIA, CANADA

Entomological Society of British Columbia Occasional Paper No. 3



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Cover photograph: *Epimartyria bimaculella* (Micropterigidae)

Epimartyria bimaculella Davis & Landry, 2012 is a tiny moth (forewing 4.6–5.3 mm long) in the family Micropterigidae, an ancient lineage that retains the ancestral use of functional mandibles. The species was chosen to represent British Columbia Lepidoptera on the cover of the Checklist for several reasons — it is rare and unusual, and in Canada is known only from British Columbia; it is a member of the first family in the list; it was collected by several early resident lepidopterists but only recently described by one of the authors of this list (Jean-François Landry: Davis and Landry 2012) and was photographed by another of the authors (David Holden).

Micropterigid adults are diurnal and feed on fern spores and flower pollen, which they crush with their mandibles. Larvae feed on liverworts. The specimen pictured on the cover flew and perched along a shaded seepage where leafy liverworts grew in a forest of Douglas-fir and Western Redcedar at Belcarra, near Vancouver. Epimartyria bimaculella lives from northwestern Washington into southern BC. Most of the BC specimens are from southwestern coastal forests, although a record from Glacier National Park in the Selkirk Mountains suggests the species also lives in the wet Columbia-region forests. Records are from April to August, with most in June.

Photograph details: by David Holden, Belcarra, BC, 24 May 2009.

Abstract

This list documents 2832 Lepidoptera species reported for the province of British Columbia, Canada. It is based on examination of the major public insect collections in the province and the Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Ontario. Records from relevant literature sources and online databases have also been examined and reliable ones have been included. The entry for each species includes the scientific name, the author and year of publication of the original description, and occurrence status. Taxonomic, distributional and biological notes are provided for selected species, and 134 species are flagged as introduced from outside North America. An additional 27 species which probably occur in British Columbia are included in the list. A list of 322 species erroneously reported from British Columbia in previous works is provided. Introductory sections provide an overview of the order Lepidoptera, review the province's ecozones, and discuss the history of lepidopterology in British Columbia and its current state of knowledge. Each of the 70 families occurring in the province is briefly reviewed, along with information on its distinguishing features, general appearance and biology and diversity. An index of higher taxonomic names, genera, species, and common names is included.

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Part I: Introduction

This list compiles information about all Lepidoptera (butterflies and moths) species known or deemed likely to occur in the province of British Columbia (BC), Canada. We provide notes on biology, taxonomy, nomenclature, distribution, and pertinent literature for selected species. We also include a list of species that have been reported in error from BC, with details on their true identities when known.

This publication owes a huge debt to previous lepidopterists in BC, particularly to E. H. Blackmore and J. R. J. Llewellyn Jones, the early compilers of Lepidoptera species lists in BC. Far from being complete, our list is a further resolution of the incompletely known fauna. Undoubtedly, the present work contains errors and omissions, which we hope will be rectified by future workers.

General Overview of the Lepidoptera

The insect Order Lepidoptera contains the butterflies and moths. As adults, they are distinguished from other insects by the dense covering of overlapping scales on the head, body and appendages, including the two pairs of membranous wings. Wingspans range from about 3 mm to 280 mm. A few species have reduced, non-functional wings; these are usually females, but in some species both sexes are flightless. The scales are coloured and arranged in innumerable patterns, from subtle and cryptic to bright and showy.

Mouthparts are almost always the sucking type. A proboscis formed from the elongate, grooved galeae of the maxillae is usually present. This feeding tube is normally long and coiled under the head when not in use. The most primitive moths use mandibles for eating pollen and have not evolved a proboscis for sucking fluids.

The wings are the most prominent lepidopteran attribute. They are usually covered on both the veins and membrane with two layers of minute, socketted, flattened setae (scales). These normally contain colour pigments, are finely ridged, and usually are hollow and microscopically perforated. Iridescent colours, caused by the refraction of light, are the result of scale structure. Many males have specialised scent scales that help spread pheromones produced by associated glands. Scent scales may be scattered among other scales or are concentrated in patches, tufts or wing folds.

Butterflies usually rest with their wings held together above the body; moths usually hold their wings outstretched against the substrate, overlapped and flat—roof-like—over the body, or rolled around the body.

Lepidopterous larvae are commonly called caterpillars. Usually cylindrical, they have a well-developed head, thorax and a 10-segmented abdomen. The top of the prothorax is usually sclerotised. Three pairs of five-segmented legs are attached to the thorax, and usually five pairs of prolegs (segments 3 to 6 and segment 10) are attached to the abdomen. Prolegs are short and fleshy, and their tips usually have tiny hooks (crochets). In some groups, the thoracic legs and/or prolegs may be reduced or lost.

Silk is spun from modified salivary glands that open under a caterpillar's mouth. The silk is used mainly to make cocoons or other shelters, and aids in transportation. Many larvae pupate in cocoons; others make none. Butterflies usually do not make cocoons; the naked pupa of a butterfly is often called a chrysalis.

About 157 000 species of living Lepidoptera have been described in 134 families (van Nieukerken et al. 2011). At the species level, this is about 17% of the world's known insect fauna. However, estimates suggest that there may be two or three times this number of species in the order. The Lepidoptera comprise the largest lineage of plant-eating organisms, rivalled only by the huge clade of phytophagous beetles. Angiosperm plants are the main hosts. The fossil record of Lepidoptera is sparse and is best represented by amber inclusions and leaf mines in fossil leaves. Although the first-known moth fossils are from the early Jurassic, 190 million years ago, the order largely diversified in the Cretaceous Period and early Tertiary, alongside flowering plants.

Contrary to the popular belief that butterflies and moths are two disparate groups in the Lepidoptera, butterflies represent a small branch emerging from the midst of the phylogenetic tree of all Lepidoptera. They are more closely related to some moths than many moths are to each other. Butterflies are simply a distinctive group of colourful, day-flying Lepidoptera that have been given a name in many languages. Moths, on the other hand, is the catch-all name for the remaining diverse group of "non-butterfly Lepidoptera".

Lepidoptera species use all parts of plants—roots, trunk, bark, branches, twigs, leaves, buds, flowers, fruits, seeds, galls and fallen material. Larvae feeding in concealed situations—wood borers, leaf and bark miners, casebearers, leaf tiers and leaf rollers—usually belong to more primitive families. Exposed feeders, especially those that feed by day, belong to more recent lineages.

Some caterpillars are carnivorous and eat egg masses of other Lepidoptera (some Pyralidae) or spiders (some Oecophoridae). Others kill ant larvae (some Lycaenidae) or scale insects (some Batrachedridae, Oecophoridae, Noctuidae). Still others (Epipyropidae) are ectoparasites on planthoppers and leafhoppers. Some groups—e.g., Tineidae—feed on material of animal origin such as wool and keratin. The family Pyralidae is especially diverse in its diet. In addition to plants and fresh and decaying plant material of all sorts, their foods range from the wax combs of bees to caterpillar spines and processed grains, from scale insects to sloth and bat dung. Among the Crambidae, several hundred species have aquatic larvae that feed on water plants.

Adults feed mainly on nectar and other liquid food such as fermenting tree sap, insect honeydew, and food-rich fluids in mud and dung. Adult moths in the Southeast Asian noctuid genus *Calyptra* have tearing hooks on the proboscis: they suck juice from thick-skinned fruit and blood from mammals. In some lepidopteran groups, adults do not feed.

The natural enemies of Lepidoptera are many and varied. Eggs are parasitised by wasps in the Chalcidoidea and Platygastroidea; larvae are killed by mites, spiders, wasps (especially Vespidae and Sphecidae) and vertebrates (mainly birds). Larvae and pupae are heavily parasitised by nematodes, hymenopterous parasitoids in the Chalcidoidea, Braconidae and Ichneumonidae, and by flies in the Tachinidae. Bacterial and viral diseases

kill huge numbers of Lepidoptera. Adults are preyed on by predaceous plants, insects and spiders, birds, bats, and many other organisms.

To defend against these attacks, members of the order are masters of concealment and deception. Some larvae live in silken cases or webs, others roll or tie leaves and hide in them. Many adults and immatures are amazingly camouflaged as bark, lichen, leaves, and twigs. Some even mimic dangerous vertebrates, such as snakes, using eyespots and other markings. Adult sesiids, especially, can be convincing mimics of stinging wasps. Many larvae and adults sequester distasteful or poisonous chemicals to discourage vertebrate predation. Hundreds of diurnal species, distasteful or otherwise, gain some protection from predators by mimicking poisonous species or by exhibiting bright, warning colours. Most adult moths avoid bird predators by flying at night, but bats pose a serious problem for them. Many groups have tympanal organs that allow moths to hear bat sonar pulses and take evasive actions; some tiger moths emit counter pulses to confuse attacking bats.

The Lepidoptera is a major group of plant-eating organisms and thus is immensely economically important in agriculture, horticulture and forestry. Agricultural pests of grains and vegetables are numerous and include the armyworms and cutworms of the Noctuidae. The list of orchard-crop pests is headed by the tortricid *Cydia pomonella* (Linnaeus), the Codling Moth. Many forest defoliators also exist. Among the most damaging are *Choristoneura fumiferana* (Clemens) (Spruce Budworm) and its western relative *C. freemani* Razowski (Western Spruce Budworm), the geometrid *Lambdina fiscellaria lugubrosa* (Hulst) (Western Hemlock Looper), *Orgyia pseudotsugata* (McDunnough) (Douglas-fir Tussock Moth) and the tent caterpillars of the Lasiocampidae. Several introduced, cosmopolitan moths are serious pests of stored goods in households and warehouses; e.g., the clothes moths of the Tineidae and the meal moths of the Pyralidae.

Lepidoptera species are overwhelmingly herbivorous, but only a few have been used successfully in the biological control of weeds. An example is *Tyria jacobaeae* (Linnaeus), introduced into BC to control Tansy Ragwort.

Many moths and butterflies frequently visit flowers for nectar, and they are probably important pollinators. In some cases, the relationship is so specific that some plant species can be pollinated by only certain moth species; e.g., yucca species and yucca moths of the Prodoxidae.

Ecozones of British Columbia

The most useful summaries of British Columbia's environment are found in Meidinger and Pojar (1991), BC Ministry of Forests and Range (2013), Demarchi (1996), and Cannings and Cannings (2015). The following details are mostly taken from these publications.

Large and diverse, BC is exceptionally variable, physically and biologically. Covering almost 950 000 km², the province spans 11 degrees of latitude and 25 degrees of longitude. The province extends about 1300 km, from the southern tip of Vancouver Island to the northern boundary at 60° N. Along this latitude, the boundary with the Yukon and the Northwest Territories stretches almost 1100 km. Mountains and an island-studded coastline epitomise BC. The region is mostly cool, moist, forested, and mountainous.

Such generalities fail to capture the province's diversity. Wet and dry forests, grasslands, wetlands, scrub, and alpine tundra form complex habitat mosaics across the vast plateaus, valleys and plains. These lie between and among several northwest–southeast-trending mountain ranges. Climates range from semi-arid and Mediterranean to subarctic and alpine. The complex interaction of geology, physiography, climate and glaciations, along with subsequent colonisation by organisms and competition among them, has produced ecosystems that support a tremendous variety of life.

The Pacific Ocean and the mountains shape BC's climates. The ocean acts as a reservoir of heat and moisture. In winter, frontal systems from the North Pacific move eastwards. They encounter successive mountain barriers. These mountains determine the general distribution of precipitation and the balance between oceanic and continental air masses in the province's different regions. British Columbia's wettest climates occur along the coast, especially on the windward slopes of the mountains of Vancouver Island, Haida Gwaii and the mainland coast. As water-laden air climbs the mountains, it drops large quantities of rain and snow, but as the drier air descends over the eastern slopes, it warms by compression.

These high Coast Mountains produce a rain shadow that creates the province's driest climates in the bottoms of Southern Interior valleys, especially the Fraser, Thompson and Okanagan valleys. More moisture is released as the air continues its journey eastwards, ascending ranges such as the

Skeena, Cassiar, Columbia and others before encountering the most massive of the BC mountain barriers, the Rocky Mountains.

The mountains also restrict the westward flow of cold continental Arctic air masses from east of the Rocky Mountains. Except in northeastern BC's Great Plains region, the province has a more moderate winter climate than most of western and central Canada. In summer, the prevailing westerlies weaken, and the climate is controlled by a strong high-pressure centre in the northeast Pacific that greatly reduces the frequency and intensity of Pacific storms.

There have been several major attempts to capture the essence of BC's physical and biological diversity through the identification and mapping of ecosystems, including Munro and Cowan's (1947) biotic-areas concept developed for birds, the detailed botanical biogeoclimatic zone concept (Meidinger and Pojar 1991), and Demarchi's (1996) ecoregion scheme. A useful summary of BC's geological and glacial history is given in Cannings et al. (2011). The wetlands of BC are classified by MacKenzie and Moran (2004). No distribution patterns of Lepidoptera have yet been correlated with the wetland associations defined in this classification, although this has been done for dragonflies (Cannings et al. 2008).

In this Checklist, we use the ecozone treatment for Canada that was published by the Ecological Stratification Working Group (1995). It is allied to the Demarchi scheme. The Ecological Stratification Working Group divides Canada into 15 separate terrestrial ecozones, which are discrete systems resulting from interplay of geologic, landform, soil, vegetation, climatic, water and human factors. There are five ecozones in BC (Fig. 1). They, and the biogeoclimatic zones that each contains, are described below.

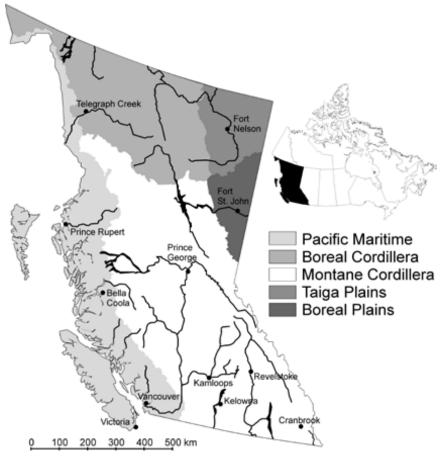


Figure 1. Ecozones of British Columbia (adapted from Ecological Stratification Working Group 1995).

Pacific Maritime Ecozone

The Pacific Maritime Ecozone borders the Pacific Ocean. Two parallel mountain belts (the discontinuous St. Elias–Insular Mountains and the Coast–Cascade Mountains) and a central, mostly submerged coastal trough, form this ecozone. In the west, it includes the coastal islands; the eastern boundary lies along the height of land in the massive Coast Mountains. Covering more than 195 000 km², in BC, the Pacific Maritime Ecozone runs virtually the entire north–south length of the province, from southern Vancouver Island almost to the 60th parallel. To the north, a small piece of Yukon Territory is also included in the ecozone. The Coast Mountains, capped by glaciers at the highest elevations, dominate much of the landscape, rising steeply from the fiords and channels that indent the

coastline. Mount Waddington (4019 m) is the highest point in the ecozone and is the highest mountain completely within BC.

The main biogeoclimatic zone here is the **Coastal Western Hemlock** (CWH) zone, which occurs at low to middle elevations, up to 900 m on windward slopes in the south and mid-coast, and up to 300 m in the north, mostly west of the Coast Mountains. On average, this is the wettest biogeoclimatic zone in BC, and experiences cool summers and mild winters. Mean annual temperature in the zone is about 8° C, with a mean monthly temperature above 10° C for half the year, and a mean temperature of 0.2° C during the coldest month. Mean annual precipitation for the zone as a whole averages about 2230 mm, with less than 15% of the total falling as snow in the south, but up to 50% falling as snow in the north.

Characteristic features are the predominant Western Hemlock (*Tsuga heterophylla* (Raf.) Sarg.) and a sparse herb layer. The most common wetter maritime forests are dominated by mixtures of Western Hemlock, Western Redcedar (*Thuja plicata* Donn ex D. Don), Sitka Spruce (*Picea sitchensis* (Bong.) Carr.), and variable amounts of Yellow-cedar (*Chamaecyparis nootkatensis* (D. Don) Spach.) and Amabilis Fir (*Abies amabilis* (Douglas ex Loudon)), the latter two species being most abundant in wetter areas. This vegetation type features a well-developed shrub layer of ericaceous species, such as Red Huckleberry (*Vaccinium parvifolium* Sm.) and Salal (*Gaultheria shallon* Pursh). Bogs are abundant in much of the hypermaritime landscape, especially on the coastal lowlands.

The other lowland biogeoclimatic zone is the **Coastal Douglas-fir** (CDF) zone, limited to small regions of southeastern Vancouver Island, some islands in the Gulf of Georgia, and a narrow strip of the nearby mainland, where it lies mostly below 150 m elevation. The zone experiences warm, dry summers and mild, wet winters. The mean annual temperature ranges from 9.2 to 10.5° C. Mean annual precipitation varies from about 650 to 1250 mm; only about 5% of this falls as snow.

Most modern forests in the CDF have regenerated after logging, and old growth is rare. Douglas-fir is the most common tree species in upland forests. Western Redcedar, Grand Fir (*Abies grandis* (Douglas ex D. Don) Lindley), Arbutus (*Arbutus menziesii* Pursh), Garry Oak (*Quercus garryana* Douglas ex Hook.) and Red Alder (*Alnus rubra* Bong.) are common species. The tree-species composition of forest stands varies considerably

as a result of widespread human disturbance. The Garry Oak meadows and associated ecosystems contain many rare plant species; e.g., Deltoid Balsamroot (*Balsamorhiza deltoidea* Nutt.) and Golden Paintbrush (*Castilleja levisecta* Greenm.).

The subalpine elevations of the coastal mountains fall in the **Mountain Hemlock** (MH) zone, occurring all along the BC coast, from 900 to 1800 m in the south and from 400 to 1000 m in the north. The coastal subalpine climate is characterised by short, cool summers and long, cool, wet winters. Mean annual temperature varies from 0 to 5° C. Mean annual precipitation ranges from 1700 to 5000 mm, of which up to 70% comprises snow. The result is a long-lasting snowpack and a short growing season.

Mountain Hemlock (*Tsuga mertensiana* (Bong.) Carr.), Amabilis Fir and Yellow-cedar are the most common tree species. Lodgepole Pine (*Pinus contorta* Douglas ex Loudon) thrives on very dry sites and Subalpine Fir (*Abies lasiocarpa* (Hook.) Nutt.) and Whitebark Pine (*Pinus albicaulis* Engelm.) grow near timberline. Forests are largely confined to lower elevations in the zone. With increasing elevation, trees grow in patches, forming a mosaic with subalpine heath, meadow and fen vegetation. The predominance of ericaceous shrubs is characteristic of the zone.

The **Alpine Tundra** (AT) zone occurs on high mountains in the ecozone above about 2250 m in the south and above about 1000 m in the north. The AT has recently been split into three zones (MacKenzie 2006): the AT zone that occurs in the mountains of the Pacific Maritime Ecozone is now called the **Coastal Mountain–Heather Alpine** (CMA) zone. Low temperatures during the growing season and a very short frost-free period characterise the harsh alpine climate here. Mean annual temperature usually ranges from –4 to 0° C, and the average temperature remains below 0° C for seven to eleven months. Mean annual precipitation is 700 to 3000 mm; 70 to 80% of this falls as snow. Huge areas at the higher elevations comprise rock, snow and ice.

Although the CMA zone is, by definition, treeless, it supports stunted, shrub-like tree species such as Mountain Hemlock and Whitebark Pine at lower elevations. Important dwarf shrubs include mountain heathers (*Cassiope* spp. and *Phyllodoce* spp.). Herb meadows dominated by broadleaved forbs are also common, especially at middle and lower elevations. They grow on sites with deep soils, in seepage areas, or along alpine streams. Few species of vascular plants have adapted to the extreme

conditions in the highest parts of the alpine zone, and those that have are mostly cushion- or mat-formers. Some mosses, liverworts and numerous lichens persist at the upper limits of vegetation.

Characteristic Lepidoptera species that are more or less restricted in Canada to the Pacific Maritime Ecozone include Sara's Orangetip (Anthocharis sara Lucas) and the underwing moth, Catocala aholibah Strecker, whose caterpillar eats the foliage of Garry Oak. Many other species that are monophagous on plants such as Garry Oak and Arbutus are restricted to the ecoregion. Xanthorhoe clarkeata Ferguson and Mompha nancyae Clarke are globally endemic to Haida Gwaii. Several species and subspecies are considered "species at risk" in the region, including Taylor's Checkerspot (Euphydryas editha taylori (W.H. Edwards)), Johnson's Hairstreak (Callophrys johnsoni (Skinner)), which feeds on mistletoe (Arceuthobium spp.) growing on Western Hemlock; and the Sand-verbena Moth (Copablepharon fuscum Troubridge & Crabo), which inhabits some coastal dune localities. The mild winters of the zone allow many species to fly in the coldest months of the year. The holarctic geometrid *Triphosa haesitata* (Guenée) appears on many mid-winter days in the region, and the introduced Operophtera brumata (Linnaeus) (Winter Moth)—a pest of many trees and shrubs, including Garry Oak and various tree fruits—is active in low temperatures.

The Pacific Maritime Ecozone has an unusually high number of alien Lepidoptera species, many of which were first introduced into North America in the region; e.g., the sphingid *Deilephila elpenor* (Linnaeus), the oecophorid *Oecophora bractella* (Linnaeus), and the tortricids *Acleris variegana* ([Denis & Schiffermüller]) and *Pandemis cerasana* (Hübner). Other species that were introduced first into eastern North America have colonised the West independently, from Eastern Asia, or secondarily, from eastern North America, through the Vancouver area (e.g., *Noctua pronuba* (Linnaeus)). Some have been purposefully introduced as biological control agents; e.g., *Tyria jacobaeae* (Linnaeus), a day-flying tiger moth that feeds on Tansy Ragwort (*Senecio jacobaeae* Linnaeus).

The Lepidoptera of the Pacific Maritime Ecozone have been studied since the early days of entomological activity on Vancouver Island and the adjacent mainland. Early publications include Taylor (1884), Danby (1894) and Harvey (1904). Most other published information is found in subsequent provincial lists and systematic or behavioural studies on specific genera or species (e.g., Blackmore 1927; Hardy 1959; R. Guppy 1956; C. Guppy

1998; Shepard 1977; Miskelly 2009), and much useful information on economically important species has been documented by the Canadian Forest Service (e.g., Duncan 2006), Agriculture and Agri-Food Canada, and other agencies. Beginning in the 1990s, considerable research for conservation purposes has occurred, at least in the southern coastal region (Shepard unpublished report A; COSEWIC 2000, 2003; Miskelly 2004).

Montane Cordillera

The Montane Cordillera Ecozone in BC stretches from the eastern slopes of the Coast and Cascade mountains eastwards to the Rocky Mountains, and from the USA border at 49° N northwards to about 57° N. It also includes the eastern slopes of the Rockies in Alberta and, altogether, covers an area of 473 000 km². It is the largest and most diverse ecozone in BC, with ecosystems ranging from alpine tundra and cold conifer forests to riparian woodland, dry sagebrush steppes, and arid grasslands. The Montane Cordillera Ecozone is mountainous around the edges, especially in the southeast quadrant. Its centre contains an extensive system of plateaus, about 300 km wide and 650 km long, lying at altitudes of 600 to 1200 m. The Fraser River and its major tributaries bisect the southern region; other large rivers, such as the Skeena, which flows west, and the tributaries of the Peace, which flow east, drain relatively smaller areas in the north.

The mountain systems along the eastern parts of the ecozone consist of ranges that trend north—south and are separated by large valleys. There are two main mountain units: the Cassiar—Columbia mountains, with the Rocky Mountain Trench immediately to their east; and the Rocky Mountains on the eastern boundary of the ecozone. The highest mountain elevations generally occur in the south, where summits can reach 3000 m. The highest point is Mt. Robson, at 3954 m. Between latitudes 54° N and 56° N, the mountains are less rugged, and the peaks usually are below 2000 m.

This complex topography produces large differences in temperature and precipitation. Much of the ecozone has an interior continental climate dominated by easterly moving air masses. These produce cool, wet winters and warm, dry summers. In the rain shadow of the Coast Mountains, the Interior Plateau has less than 300 mm mean annual precipitation in some areas. However, in the Selkirk Mountains, precipitation reaches 2500 to 3500 mm, and 1500 to 2500 mm falls in the Rocky Mountains. Most of interior BC is strongly influenced by both continental and maritime air masses, with the latter more prevalent in the south. The southern interior valleys thus

experience warmer winter temperatures than those in the north. The valley bottoms are characterised by hot, dry summers and moderately cold winters with little snowfall. Summer temperatures above 30° C are common. In the South Okanagan, the mean July daily temperature is above 22° C.

The Montane Cordillera Ecozone is vast and variable, and contains 11 biogeoclimatic zones. The **Bunchgrass** (BG) biogeoclimatic zone is confined to lower elevations of the driest and hottest valleys of the southern parts of the ecozone. Bluebunch Wheatgrass (*Pseudoroegneria spicata* (Pursh) A. Löve) is the dominant bunchgrass on undisturbed sites. At lower elevations, Big Sagebrush (*Artemisia tridentata* Nutt.) is common, particularly in overgrazed areas.

The **Ponderosa Pine** (PP) biogeoclimatic zone is confined to a narrow band in the driest and warmest valleys. It usually borders the Bunchgrass Zone. Ponderosa Pine is the dominant tree, but Douglas-fir is common on cooler and moister sites. Where not overgrazed, the understorey includes abundant grasses such as Bluebunch Wheatgrass and Rough Fescue (*Festuca scabrella* Rydb.).

The **Interior Douglas-fir** (IDF) biogeoclimatic zone is the second warmest forest zone of the ecozone. Douglas-fir is the dominant tree. Fires have resulted in even-aged Lodgepole Pine stands at higher elevations in many areas. Ponderosa Pine is the common seral tree at lower elevations. Pinegrass (*Calamagrostis* spp.) dominates the understorey.

The **Engelmann Spruce–Subalpine Fir** (ESSF) biogeoclimatic zone occurs over most of the Montane Cordillera Ecozone's mountains. The climate is severe, with short, cool growing seasons and long, cold winters. At upper elevations, the forest is open parkland, with trees clumped and interspersed with meadow, heath and grassland. Engelmann Spruce (*Picea engelmannii* Parry ex Engelm.), Subalpine Fir and Lodgepole Pine are the dominant trees.

The adjacent Alpine Tundra zone is designated the **Boreal Altai Fescue Alpine** (BAFA) biogeoclimatic zone in the northern Rocky Mountains and along the lee side of the Coast Mountains as far south as the Chilcotin. Vegetation here consists primarily of dwarf willows, grasses, sedges and lichens.

The Interior Mountain-Heather Alpine (IMA) biogeoclimatic zone occupies the Columbia Mountains, the southern Rocky Mountains, and the lee side of the southern Coast Mountains and Cascade Mountains, where it lies above 2500 m in the south and above 1800 m in the north. Vegetation is variable, depending on snow depth, with mountain heather (*Phyllodoce* spp.) typical in the snowier climates, and mountain avens (*Dryas* spp.) typical in the driest climates.

The **Sub-boreal Pine–Spruce** (SBPS) biogeoclimatic zone occurs mostly in the Chilcotin, the high plateau of the west–central region of the Montane Cordillera Ecozone, in the rain shadow of the Coast Mountains. Many even-aged Lodgepole Pine stands characterise the zone, the result of extensive fire history. Pinegrass and Kinnikinnick (*Arctostaphylos uva-ursi* (L.) Spreng.) are also common. These forests and those of the **Sub-boreal Spruce** (SBS) biogeoclimatic zone have been badly damaged by recent Mountain Pine Beetle outbreaks.

The SBS zone occurs in the central plateau, centred around Prince George. Although the climate is severe, winters here are shorter and the growing season longer than in the boreal zones. Hybrid Engelmann–White Spruce and Subalpine Fir are the dominant trees, although extensive stands of Lodgepole Pine grow in the drier parts of the zone.

The **Boreal White and Black Spruce** (BWBS) biogeoclimatic zone occupies the valleys in the extreme northern part of the ecozone; e.g., in the Omineca Mountains. Winters here are long and cold, and growing seasons are short, with the ground remaining frozen for much of the year. Where flat, the landscape is typically a mosaic of Black Spruce (*Picea mariana* (Mill.) Britton, Sterns & Poggenb.), White Spruce (*Picea glauca* (Moench) Voss) and Trembling Aspen (*Populus tremuloides* Michx.) stands.

The **Montane Spruce** (MS) biogeoclimatic zone occurs in the south–central interior of BC at middle elevations, and is most extensive on plateau areas. Winters are cold, and summers are moderately short and warm. Engelmann and hybrid spruce and varying amounts of Subalpine Fir are the characteristic tree species. Because of past wildfires, successional forests of Lodgepole Pine, Douglas-fir and Trembling Aspen are common.

In southeastern BC, the **Interior Cedar–Hemlock** (ICH) biogeoclimatic zone predominates at lower to middle elevations. This is often called the

Interior Wet Belt: winters are cool and wet, and summers are generally warm and dry. Western Hemlock and Western Redcedar are characteristic climax trees, but spruce (White–Engelmann hybrids) and Subalpine Fir are common. Western Larch (*Larix occidentalis* Nutt.), Douglas-fir and Western White Pine are common seral species in the central and southern portions of the zone, and usually occur on mesic and drier sites. The ICH zone also occurs in the farthest reaches of the northwestern part of the Montane Cordillera Ecozone, in the coastal-influenced, central-to-upper Skeena and Nass river drainages. The ESSF is the subalpine zone above the ICH.

The Lepidoptera of the Montane Cordillera in Canada are discussed in some detail by Lafontaine and Troubridge (2011). Characteristic species usually not found in other ecozones in BC include Danaus plexippus (Linnaeus), the Monarch; Papilio multicaudata Kirby, a large swallowtail typical of the southern valleys; Papilio machaon oregonia Edwards, a species of southern grasslands; and Papilio indra Reakirt, primarily a Great Basin montane swallowtail that reaches the northern limits of its range in Manning Provincial Park. Moths include Hypercompe permaculata (Packard), an aridland tiger moth of the Great Plains known in BC only in the Columbia Valley, and Acronicta cyanescens (Hampson), a noctuid that feeds on Ceanothus from BC, south to New Mexico. Most of the threatened and endangered species in the ecozone are Great Basin species that are associated with grasslands in the southern valleys, especially the Okanagan. Much of this habitat has been converted to agriculture or urban environments. Butterflies are better known than moths in this context. Guppy et al. (1994) listed 52 species and subspecies of conservation concern in BC; 17 of these occur in the Montane Cordillera Ecozone (Lafontaine and Troubridge 2011). Species most at risk are probably the Mormon Metalmark (Apodemia mormo (Felder & Felder)), Behr's Hairstreak (Satyrium behrii (Edwards)), the Sagebrush Sooty Hairstreak (Satyrium semiluna Klots), the Grey Copper (Lycaena dione (Scudder)), the Sonoran Skipper (Polites sonora (Scudder)) and the California Hairstreak (Satyrium californica (Edwards)).

The Montane Cordillera Ecozone is now home to many alien Lepidoptera. A significant number of these are agricultural pests—particularly those associated with fruit trees and grapes—that have been introduced into the ecozone, probably with host plants or their fruit. Examples of pests of apples include Codling Moth (*Cydia pomonella* (Linnaeus)) and Apple Clearwing Moth (*Synanthedon myopaeformis* (Borkhausen)).

A notable characteristic of the flora and fauna of the Montane Cordillera Ecozone is the presence of Boreal and Cordilleran species pairs. A Boreal species often ranges across the northern forests of the continent and south into the western mountains for varying distances, frequently meeting a closely related Montane Cordilleran species in central regions of the ecozone. Hybrids often occur where the species overlap. Some Lepidoptera species show this pattern, a result of post-glacial recolonisation of the west. Examples of Boreal—Cordilleran species pairs are the White Admiral (*Limenitis arthemis* (Drury)) and Lorquin's Admiral (*Limenitis lorquini* Boisduval), and the Canadian Tiger Swallowtail (*Papilio canadensis* Rothschild & Jordan) and Western Tiger Swallowtail (*Papilio rutulus* Lucas).

The highly diverse fauna of the ecozone has been well documented. Some of the earliest collectors and compilers include Danby and Green (1893), who worked in the Kootenay and Okanagan regions, among other places, and published an early BC list. Dyar and Cockle documented early material from the Kootenay region (Dyar 1904). Phair (1919) and McDunnough (1927a) collected extensively around Lillooet. Molliet (1947) collected in the North Thompson area, and Buckell in the Shuswap region (Buckell 1947). As in other parts of BC, much useful information on economically important species in the ecozone has been documented by Canadian Forest Service entomologists (e.g., Ross and Evans 1954, 1956a, 1956b, 1957a, 1957b, 1957c, 1958, 1959, 1961, Sugden 1964, 1966, 1968, 1970, and Sugden and Ross 1963). Other reports of studies in the Montane Cordillera include Threatful (1989) in Mount Revelstoke and Glacier national parks, Kondla (1999) in the Pend d'Oreille Valley, and Fischer et al. (unpublished report) in the Chilcotin.

Boreal Cordillera

The Boreal Cordillera Ecozone occupies northern BC from about 56° N northwards to the Yukon border and from the crest of the Coast Mountains eastwards to the eastern slopes of the Rocky Mountains. It also extends into the southern Yukon. In BC, the Skeena, Cassiar, Ominica, and northern Rocky mountains are included; these ranges are lower and less rugged than the Coast Mountains and the systems of southeastern BC. Most associated plateaus, such as the Stikine, show well-eroded, moderate relief. Basins, such as the Liard, have low-lying, gentle topography. Major rivers include the Stikine, Dease, and Ketchika; the latter flows north in the Rocky Mountain Trench.

Three main biogeoclimatic zones occur in the Boreal Cordillera Ecozone. At the lowest elevations, the **Boreal White and Black Spruce** (BWBS) zone

occupies the major river and lake valleys, from about 1000 to 1100 m. The majority of the zone lies above 600 m. Forests cover the better-drained sections of the BWBS zone, where mixed Trembling Aspen and White Spruce forests dominate. Relatively open pine-and-lichen forests occur on the driest sites, which are usually on rapidly drained outwash deposits. Mixed pine and Black Spruce stands are common on north-facing sites on moraines or lacustrine soils. Dense Black Spruce and moss communities develop on poorly drained sites. Grassland and scrub communities occur on steep, south-facing slopes above many of the major rivers. Forest fires occur frequently throughout the zone, maintaining most of the forests in various successional stages.

In the mid-elevation **Spruce–Willow–Birch** (SWB) biogeoclimatic zone, winters are long and cold, and summers are brief and cool. Mean annual temperature ranges from -0.7 to -0.3° C; average temperatures usually rise above 10° C for only one month a year. Mean annual precipitation is 460 to 700 mm, with 35 to 60% of this falling as snow. Moist Pacific air produces frequent summer storms; more stable air prevails in winter.

The SWB zone is the most northerly subalpine zone in BC. Here, it occupies the middle elevations of the northern Rocky Mountains, the Cassiar and northernmost Omineca and Skeena mountains, the part of the St. Elias Mountains that extends into the Haines Triangle, and much of the Stikine and Liard plateaus. Elevations of the SWB in northern BC range from 900 to 1700 m. It usually occurs in the subalpine above the BWBS zone over most of its range in northern BC, occupying a position comparable to that of the ESSF zone above the lower-elevation biogeoclimate zones farther south. In the far western edge of the ecozone—on the eastern slopes of the Coast Mountains—the SWB is replaced in some valleys by the **Sub-boreal Spruce** (SBS) zone, and subalpine slopes are in the ESSF zone.

The SWB zone is generally forested with White Spruce and variable amounts of pine and aspen in the valley bottoms and on lower slopes, with Subalpine Fir growing higher on the slopes. Upper elevations of the SWB—which form a scrub–parkland subzone—are dominated by fairly tall deciduous shrubs, mainly Scrub Birch (*Betula glandulosa Michx.*) and several willows. Subalpine grasslands are frequent but not extensive in this zone, especially on steep south-facing slopes: *Festuca altaica* Trin. is typical.

The **Alpine Tundra** biogeoclimatic zone in the Boreal Cordillera Ecozone has been designated since 2006 as the **Boreal Altai Fescue** biogeoclimatic zone. It is extensive on the landscape above 1000 m elevation, and lies above treeline. It is characterised by dwarf willows (especially *Salix reticulata* L. and *S. polaris* Wahlenb.), grasses (especially *Festuca altaica*), sedges, and lichens.

Characteristic butterfly species more or less restricted in BC to the Boreal Cordillera Ecozone are mostly species of the alpine tundra. They include *Parnassius phoebus* (Fabricius), *Pieris angelika* Eitschberger, *Colias hecla* Lefèbvre, *Boloria polaris* (Boisduval), *Erebia rossii* (Curtis), and *E. pawloskii* Ménétriés. *Euchloe naina* Kozhantshikov, *Boloria natazhati* (Gibson), *Erebia mackinleyensis* Gunder, and *Oeneis philipi* Troubridge & Parshall are Beringian species; i.e., they occur mainly in unglaciated regions of the far northwest. *Parnassius eversmanni* Ménétriés and *Papilio machaon alaiska* Scudder are typically northern species with more widespread ranges; the former also lives in some areas of the northern Montane Cordillera Ecozone, and the latter also occurs east of the Rockies in BC. Little is known of the moth fauna in this region.

A few early naturalists made collections in the ecozone; e.g., E. M. Anderson brought back specimens to the Provincial Museum from a trip to Atlin in 1914 (Provincial Museum 1916). However, most records from the ecozone were documented after World War II, when roads such as the Alaska Highway opened up much of the North. At this time, the Northern Insect Survey (Canadian National Collection) made surveys across northern BC, from Atlin to Summit Lake and Fort Nelson (the last locality is in the Taiga Plains Ecozone). Lepidopterists such as C. Guppy, J. Shepard, N. Kondla, J. Troubridge and others have collected in the ecozone, looking especially for seldom-observed northern endemics and Beringian species at places such as Pink Mountain, Stone Mountain, Atlin, and the Haines Road.

Taiga Plains

The Taiga Plains Ecozone is a low-lying region centered on the Mackenzie River and its many tributaries. The Northwest Territories contains about 90% of the Taiga Plains Ecozone; relatively small sections lie in northeastern BC and northern Alberta. In BC, the ecozone is bounded by the Rocky Mountains to the west and the Boreal Plains Ecozone to the south. About 10% of BC lies east of the Rockies, and the Taiga Plains roughly comprises the northern half of this region. The ecozone is a northern extension of the

interior plains that characterise the Prairie provinces. Its typically subdued relief includes broad lowlands and plateaus crossed by numerous rivers, particularly the Liard River and its large tributary, the Fort Nelson River. Extensive wetlands, especially peatlands, are common in the lowland areas. Differences in drainage, precipitation and fire history create complex mosaics of wetlands and forest types.

The subarctic climate is characterised by short, cool summers and long, cold winters. Mean annual temperature is -2.9 to 2° C. Although daily maximum temperatures can be high in mid-summer, monthly averages remain below 0° C for about half the year. Annual precipitation averages between 330 and 570 mm, with 35 to 55% falling as snow. The ground freezes deeply for much of the year, and discontinuous permafrost is common in the northeastern parts of the zone.

The Boreal White and Black Spruce (BWBS) zone is the sole biogeoclimatic zone in BC's Taiga Plains Ecozone. In northeastern BC, this lowland-to-montane zone ranges from about 230 to 1300 m. White Spruce, Trembling Aspen, Lodgepole Pine, Black Spruce, Balsam Poplar (Populus balsamifera L.), Tamarack (Larix laricina (Du Roi) K. Koch), Subalpine Fir and Common Paper Birch (Betula papyrifera Marshall) are the major tree species in forested areas. Forest fires occur frequently, maintaining most of the forests in various successional stages. The poorly drained lowlands are characterised by accumulations of peat that insulate frozen ground, resulting in lenses of permafrost. Black Spruce and occasionally Tamarack are the main trees on organic terrain. On better drained sites at higher elevations, mixed Trembling Aspen-White Spruce forests dominate. The most productive forests—White Spruce and Balsam Poplar—occur on rich alluvial sites, and Tamarack forms pure stands only in minerotrophic fens. Common plant species growing in these fens are Scrub Birch, Swamp Birch (Betula pumila L.), Leatherleaf (Chamaedaphne calyculata (L.) Moench), Sweet Gale (Myrica gale L.), and Labrador Tea (Ledum groenlandicum Oeder).

Butterflies characteristic of BC's Taiga Plans Ecozone are boreal or more widespread species that mainly occur east of the Rocky Mountains. Examples include *Callophrys niphon* (Hübner), whose larvae feed on pines, and *Phyciodes batesii* (Reakirt), a denizen of aspen woodland. *Plebejus optilete* (Knoch) feeds on *Vaccinium* and lives in peatlands at lower elevations; in the Boreal Cordillera, it is also found in higher-elevation meadows. *Papilio machaon* Linnaeus, the Old World Swallowtail,

is widespread in northern BC; it is a typical inhabitant of openings in the boreal forest of the Taiga Plains Ecozone.

Boreal Plains

The Boreal Plains Ecozone consists of low-lying valleys and plains stretching across the northern Great Plains from Manitoba to northeastern BC. It contains much of the huge boreal forests in western Canada. The Saskatchewan, Beaver, Athabasca, Slave and Peace river watersheds drain this region from west to east. In BC, the ecozone occupies the southern half of the region east of the Rocky Mountains, an area largely drained by the Peace River and its tributaries. The region's continental climate is determined by the Rocky Mountains to the west, which block moisture from the Pacific and leave the region vulnerable to Arctic air masses in the winter. General descriptions of climate and vegetation are similar to those of the adjacent Taiga Plains Ecozone (see above), although the BC part of the Boreal Plains Ecozone usually has milder temperatures. Mean annual temperature is about 0.5° C; mean summer temperature is 13° C, and mean winter temperature is –14° C. Mean annual precipitation ranges from 350 to 600 mm.

As in the Taiga Plains Ecozone, the **Boreal White and Black Spruce** (BWBS) zone is the sole biogeoclimatic zone in the BC section of the Boreal Plains Ecozone. In addition to the diverse boreal forest mosaic of the BWBS, with White Spruce and Trembling Aspen typically dominant, distinctive grassland and scrub communities occur in patchwork on steep, south-facing slopes above rivers, most notably the Peace River. Common shrubs include Prickly Rose (*Rosa acicularis* Lindl.), Wood's Rose (*Rosa woodsii* Lindl.), Saskatoon (*Amelanchier alnifolia* Nutt.) and Western Snowberry (*Symphoricarpos occidentalis* Hook.). Herbs and grasses include Pasture Sage (*Artemisia frigida* Willd.), Northern Wormwood (*Artemisia campestris* L.), Western Wheatgrass (*Pascopyrum smithii* (Rydb.) Á. Löve), Junegrass (*Koeleria macrantha* (Ledeb.) Schult.) and Needle-and-Thread Grass (*Hesperostipa comata* (Trin. & Rupr.) Barkworth).

In BC, several butterfly taxa are more or less restricted to the dry habitats of the Peace River Valley. *Papilio machaon pikei* Sperling flies on the dry grassland slopes along the Peace River near the Alberta boundary. Along the south-facing banks of the Peace River, *Satyrium liparops* (LeConte) feeds on *Amelanchier*, and *Hesperia assiniboia* (Lyman) feeds on grasses. *Phyciodes batesii* (Reakirt) is typical of Trembling Aspen woods and associated meadows, and *Oeneis alberta* Elwes flies in bunchgrass grasslands.

The main documentation of the Lepidoptera of the Boreal Plains Ecozone is by Kondla et al. (1994) and Shepard (unpublished report B), who focused on the fauna of the Peace River region.

History and Current State of Lepidoptera Research in British Columbia

The collection and study of BC Lepidoptera has a lengthy history. Hatch (1949) described the early years of entomological research in the Pacific Northwest. Guppy and Shepard (2001) described in detail the history of butterfly research. Short summaries of surveys and systematic studies are given in Cannings et al. (2001) and Cannings and Scudder (2001). We present a brief overview here.

The first known scientific worker on BC Lepidoptera was John Keast Lord, who collected specimens from 1858 to 1862 in his role as Naturalist on the British North American Boundary Commission. His specimens were sent to F. Walker, of the British Museum of Natural History, for description. Other travelers and explorers, including Samuel Scudder in the 1860s, George R. Crotch in the 1870s, and George M. Dawson in the 1880s, collected specimens, primarily butterflies, in the second half of the 1800s.

The first resident lepidopterist was Reverend George W. Taylor (1851–1912), who settled on Vancouver Island in 1882. He collected and published on butterflies and moths and became the leading North American authority on geometrids. In 1887, he was appointed as Honorary Provincial Entomologist by the BC Department of Agriculture. Another important early collector was J. William Cockle, who moved to Kaslo in the 1890s and collected and published extensively.

By 1900, a number of amateur collectors had settled in the province, primarily on Vancouver Island and in the Lower Mainland. These collectors were very active, and some of them formed the Entomological Society of British Columbia (ESBC) in 1902.

In 1903, E. M. Anderson was hired as assistant curator of Natural History at the Provincial Museum of Natural History and Anthropology at Victoria. In 1904, he published the first comprehensive list of BC Lepidoptera (Anderson 1904), with 1128 species. The list was updated and corrected by members of the ESBC in 1906, to include 1061 species (ESBC 1906). Other significant collectors of this time included Ernest Henry Blackmore (1882–1929) of Victoria,

Abdiel William Hanham (1857–1944) and George O. Day (1854–1942) of Duncan, Lindsay Edgar Marmont (1860–1949) of Maillardville (Coquitlam), and Theodor Albert Moillet (1883–1935) of Vavenby. Blackmore, Marmont and Moillet were all avid microlepidoptera collectors.

In 1911, the first professional entomological laboratory was established by Canada's federal government at Agassiz, with Reginald Charles Treherne of the Dominion Entomological Service in charge. Within a few years, entomologists were also stationed at Vernon, where Edward Ronald Buckell (1889–1951) dealt with fruit crops and Ralph Hopping (1868–1941) studied forest insects. In 1919, the University of British Columbia began offering entomology courses; in 1924, George Johnson Spencer (1888–1966) joined the faculty as the university's first dedicated entomologist.

The early period of resident collectors culminated in the publication of a checklist of butterflies and macromoths by Blackmore (1927). By about 1930, many of the first generation of resident collectors had passed away or retired. The subsequent generation was smaller, although work continued in the laboratories and at the University of British Columbia. The most notable worker was James Rushton John Llewellyn Jones (1894-1956), who lived at Mill Bay. He collected extensively on southern Vancouver Island and exchanged specimens and information with many others. In 1951, he compiled and published the next checklist of BC butterflies and macromoths: it included 1585 species and subspecies (Llewellyn Jones 1951). He was active in the ESBC and willed his estate to the society as a permanent publication fund. Richard Guppy (1910-1980) of Wellington, and later Thetis Island, energetically collected on Vancouver Island during this period. George Hardy of the Provincial Museum carefully studied the butterflies and moths of southern Vancouver Island and published many papers on the larval stages and life histories of various species (e.g., Hardy 1957). A history of the entomological activities at the Provincial Museum (called the Royal BC Museum since 1986), including those of Hardy, Anderson and Blackmore, is documented in Cannings (2010).

The second half of the 20th century was a relatively quiet period for BC lepidopterology, although work continued at the University of British Columbia and at the government laboratories at Agassiz, Vernon and Victoria. The work of a small number of dedicated amateurs also continued. In 2001, Crispin Guppy and Jon Shepard published a comprehensive work on the butterflies of BC (Guppy and Shepard 2001). In 2007, Robert Cannings and

Geoff Scudder compiled the first Lepidoptera list to include micromoths in more than a century (Cannings and Scudder 2007).

In the past decade, a small number of workers both professional and amateur have continued to collect and document the province's Lepidoptera. Aided by modern communications, collecting equipment and advances in DNA analysis, they are ushering in the next era of BC Lepidoptera research. The *E-Fauna BC* website (Klinkenberg 2013) contains excellent images of hundreds of BC moth and butterfly species, and is vetted by experts. A new website on Pacific Northwest macromoths recently became available online (Crabo et al. 2015): it provides a huge amount of information, including photographs, biological information and range maps for many macromoth species occurring in the province. As well, the websites of the Moth Photographers Group (2015), and the Biodiversity Institute of Ontario (Ratnasingham and Hebert 2007) contain records, photos and information about many species that occur in BC.

The list we publish here includes 2832 species in 70 families reported in BC (Table 1). Of these, 2761 species are considered "confirmed" in the province, and 71 remain "unconfirmed". The latter are species for which a plausible published record exists, but no vouchers can be found, or they are species represented by specimens in collections for which we have been unable to confirm identities. An additional 27 species are listed as likely to be found in BC; this is far from an exhaustive list of all the species that may yet be found, but it includes some of the likelier ones.

The number of confirmed records includes nine species that are regular migrants and 15 that are strays—none of which complete their life cycle in the province. The list also includes six species that persist in BC only indoors in human environments. Species that have been intercepted in BC in trade goods or luggage from abroad, with no evidence of a wild or breeding population, are not included in the list.

A total of 134 of the listed species are thought to be introduced from outside North America, and another 11 species are suspected introductions. These aliens represent between 4.7% and 5.1% of the known Lepidoptera fauna of the province.

The 2832 species reported here from BC represent 1.80% of the approximately 157 000 world species of Lepidoptera, 22.3% of the approximately

12 700 species known in North America north of Mexico, and 52.9% of the approximately 5350 species known from Canada (GRP, unpublished data). This total is greater than for any other province of Canada, although 2902 species are reported from Quebec (QC) and Labrador combined (Handfield et al. 1997; Handfield 2011), the vast majority of which certainly occur in QC. The fauna of ON may also rival that of BC, although a definitive list has not been published. Adjacent to BC, Alberta (AB) has 2465 reported species (Pohl 2014; Pohl et al. 2010, 2011, 2012, 2013). The Northwest Territories (NT) has 600 (GRP, unpublished data), and Yukon Territory (YT) has 518 (Lafontaine and Wood 1997). A total of 710 species were reported from Alaska (AK) by Ferris et al. (2012). Species lists are not available for the adjacent USA states of Washington (WA), Idaho (ID), and Montana (MT).

Table 1. Diversity of Lepidoptera species in British Columbia by family. Worldwide numbers of species are modified from van Nieukerken et al. (2011); numbers of North American species are from Pohl (unpublished data).

		North				
	World	America	ВС			
				uncon-	total	
family:			confirmed	firmed	reported	expected
Micropterigidae	160	3	2		2	
Eriocraniidae	29	13	1		1	
Hepialidae	630	19	8		8	1
Acanthopteroctetidae	8	4	1		1	
Nepticulidae	850	107	12	2	14	
Opostegidae	200	10	2		2	
Prodoxidae	100	64	14		14	
Incurvariidae	50	5	2		2	
Heliozelidae	120	30	2		2	
Adelidae	300	18	6		6	
Tischeriidae	110	46	3		3	
Psychidae	1350	28	6	1	7	
Tineidae	2300	187	26	1	27	
Bucculatricidae	300	103	12		12	1
Gracillariidae	1850	302	54	4	58	
Yponomeutidae	360	34	14		14	
Ypsolophidae	160	39	11	2	13	
Plutellidae	150	16	6		6	
Glyphipterigidae	535	48	4		4	
Argyresthiidae	150	54	16	3	19	

	World	North America	ВС			
				uncon-	total	
family:			confirmed	firmed	reported	expected
Lyonetiidae	200	15	8		8	
Praydidae	50	3	1		1	
Heliodinidae	70	31	1		1	
Bedelliidae	16	2	1		1	
Douglasiidae	29	9	2		2	
Autostichidae	650	24	3		3	
Oecophoridae	3400	40	12		12	
Depressariidae	2300	196	47		47	
Cosmopterigidae	1730	188	9		9	
Gelechiidae	4700	900	155	7	162	
Elachistidae	830	156	14	1	15	
Coleophoridae	1400	157	38		38	
Batrachedridae	90	25	2	1	3	
Scythrididae	670	44	6		6	
Blastobasidae	430	71	8	1	9	
Momphidae	60	46	11		11	
Pterolonchidae	30	4	1		1	
Lypusidae	150	1	1		1	
Alucitidae	200	3	2		2	
Pterophoridae	1300	157	52	2	54	
Copromorphidae	40	5	2		2	
Carposinidae	283	11	1		1	
Schreckensteiniidae	8	3	2		2	
Epermeniidae	126	12	3		3	
Urodidae	66	2	1		1	
Choreutidae	400	33	11		11	
Tortricidae	10400	1390	427	13	440	1
Cossidae	970	46	4		4	
Sesiidae	1400	133	21	5	26	
Limacodidae	1670	49	1		1	
Thyrididae	940	12	2		2	
Papilionidae	570	40	11		11	
Hesperiidae	4100	300	30		30	
Pieridae	1160	77	28		28	
Riodinidae	1500	29	1		1	
Lycaenidae	5200	160	43		43	3

	World	North America		В	С	
				uncon-	total	
family:			confirmed	firmed	reported	expected
Nymphalidae	6150	225	74	1	75	4
Pyralidae	5900	679	127	5	132	
Crambidae	9650	850	129	2	131	
Drepanidae	660	21	11		11	
Lasiocampidae	1950	35	4		4	
Saturniidae	2350	74	7		7	
Sphingidae	1450	130	23	2	25	1
Uraniidae	700	10	1		1	
Geometridae	23000	1425	358	4	362	6
Notodontidae	3800	139	24	1	25	
Erebidae	24500	960	121	4	125	1
Euteliidae	520	18	1		1	
Nolidae	1700	40	7		7	
Noctuidae	11800	2525	710	9	719	9
(non-BC families)	6029	86	0		0	
Grand Total	157000	12721	2761	71	2832	27

The number of Lepidoptera species known from BC has more than doubled in the past 100 years (Table 2). However, the most active period of collecting was in the early part of the 1900s, and many "new" records are recently recognised species that are represented in older museum material. The previous list (Cannings and Scudder 2007) was based primarily on a list of CNC holdings, augmented by selected taxonomic and faunistic works. The list of butterflies and macromoths by Lafontaine and Troubridge (2011), although not published formally until 2011, was completed in 1998 and thus precedes Cannings and Scudder (2007) in its content. Our list is based on a thorough survey of taxonomic literature from the past 65 years, and on extensive inventory work in the UBC, RBCM, and CFS collections in the province, as well as at the CNC. Pohl and Cannings (2013) describe in more detail the process of compiling and preparing this list. To the best of the authors' knowledge, the records and information presented here was complete and accurate up to the end of June, 2015.

Although the current list of Lepidoptera includes 2832 species, the actual number of species that occur in BC is certainly much higher. The southern half of the province has been studied for more than 100 years, but many

species undoubtedly remain to be discovered there, particularly among the microlepidoptera. The northern regions of the province are poorly known for almost all moths. In particular, the Peace River region of northeastern BC is expected to yield many new provincial records of boreal species.

Table 2. Numbers of species in historical lists and the current list of BC Lepidoptera.

Lepidoptera group	ESBC (1906)*	Blackmore (1927)*	Llewellyn Jones (1951)*	Cannings and Scudder (2007)	current list
micromoths:			(1331)	(2007)	
Gelechiidae	15	_	-	81	162
Tortricidae	83	-	_	331	440
other groups	96	-	_	293	492
micromoths subtotal	194	_	-	705	1094
butterflies	135	229	250	190	188
macromoths:					
Pyralidae, Crambidae	86	-	_	191	263
Geometridae	215	379	425	340	362
Noctuidae (sensu lato)	465	745	825	806	852
other groups	53	81	85	67	73
macromoths subtotal	819	1205	1335	1404	1550
overall total	1148	1434	1585	2299	2832

^{*}Note: Numbers in these columns include all names reported in the lists, including subspecies and varieties.

Format of the Checklist

Sources of Information

The list of species occurring in BC was obtained by compiling data from specimens and from published works. Specimen data were obtained from reliably identified specimens in the following public collections:

BIO – Biodiversity Institute of Ontario, University of Guelph, Guelph, ON CNC – Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Ontario

NFRC – Northern Forestry Centre Research Collection, Canadian Forest Service, Natural Resources Canada, Edmonton, Alberta

NSPM - Nova Scotia Provincial Museum, Halifax, NS

PFC – Natural Resources Canada, Canadian Forest Service, Pacific Forestry Centre Collection, Victoria, BC.

RBCM – Royal British Columbia Museum, Victoria, BC

UASM – University of Alberta, E. H. Strickland Entomological Museum, Edmonton, Alberta

UBC – University of British Columbia, Beaty Biodiversity Museum, Vancouver, BC.

Selected records have been extracted from other public and private collections, as noted. Identities of specimens in the CNC have been determined by CNC lepidopterists, as well as by visiting researchers. Identities of problematic specimens in other collections were confirmed primarily by GRP, although some specimens were sent to other experts. In cases where we have not been able to confirm questionable determinations, we have flagged the records as uncertain. We hope these uncertainties will be cleared up by future workers.

The list also incorporates extensive published records of Lepidoptera in BC. We have extracted records from previous provincial lists by ESBC (1906), Blackmore (1927), Llewellyn Jones (1951), Arnott (1960), Cannings and Scudder (2007), and Lafontaine and Troubridge (2011). Unfortunately, we could not locate a copy of the first published BC Lepidoptera list (Anderson 1904); however, the list by ESBC (1906) is an updated and corrected version of the records presented therein. Our data include records from significant publications of local scope, including Blackmore (1921, 1922a, 1923, 1924), Busck (1904), deWaard et al. (2009, 2010), Duncan (2006), Dyar (1904), Guppy and Shepard (2001), Pyle (2002), Ross (1956), and Taylor (1908a, 1908b), as well as the "Forest Insects of BC" series by Ross and Evans (1954, 1956a, 1956b, 1957a, 1957b, 1957c, 1958, 1959, 1961), Sugden (1964, 1966, 1968, 1970) and Sugden and Ross (1963). We have also extracted records from works of wider geographic scope, including Belton (1988), Powell and Opler (2009) and the "Forest Lepidoptera of Canada" series by McGugan (1958) and Prentice (1962, 1963, 1965). Additionally, we have drawn upon a large dataset of Canadian distribution records extracted from published taxonomic works that deal with North American moths (GRP, unpublished data). That dataset incorporates records from more than 1000 papers, including virtually all pertinent works published after 1950 and many from earlier. Records were also extracted from the Barcode of Life database of BIO (Ratnasingham and Hebert 2007); these were thoroughly vetted to remove unverified and uncertain records.

The Pacific Northwest Moths website (Crabo et al. 2015) was scanned for BC records of species not represented in Canadian collections. Although we do not generally include sources that are not supported by voucher material, we have extracted records from The Lepidopterists' Society Annual Season Summaries, 2002–2014 (Lepidopterists' Society 2015), as well as a few photo records from *E-Fauna BC* (Klinkenberg 2013).

Higher Taxonomy

The classification presented here follows the scheme of van Nieukerken et al. (2011) at the family level and above. For subfamilies, we follow Kristensen (1999), and for tribes, Hodges et al. (1983). Exceptions where newer works supercede the aforementioned are as follows:

- Arrangement of primitive superfamilies and families follows Regier et al. (2015).
- Classification of the Tineoidea follows Regier et al. (2014).
- Removal of the Douglasiidae from Gracillarioidea follows Kawahara et al. (2011);
- Classification of the Yponomeutoidea follows Sohn et al. (2013);
- Classification of the Gelechioidea families follows Heikkilä et al. (2014); subfamilies within Gelechioidea follows Karsholt et al. (2013). Classification of the Gelechiidae below the subfamily level follows Lee et al. (2009);
- Tribal arrangement of the Sesiidae follows Eichlin and Duckworth (1988);
- Classification of the Pterophoridae follows Gielis (2003);
- Classification of the Tortricidae follows Brown (2005);
- Tribal arrangement of the Thyrididae follows Whalley and Heppner (1995);
- Nomenclature of the butterflies follows Pelham (2008);
- Classification of the Crambidae follows Munroe et al. (1995);
- The higher classification of the Geometridae follows Young (2006) and Ferguson (2008), and;
- Classification of the Noctuoidea follows Lafontaine and Schmidt (2010, 2011, 2013).

Deviations from accepted nomenclature are detailed in the notes.

Family-Level Introductory Paragraphs

In the introductory paragraph for each family, we provide a brief summary of the defining features, general appearance and general biological information for the group. The common names of the family and other higher-level taxonomic groups are primarily from Heppner (1998).

We also provide a brief overview of the global and North American diversity of the group. Our use of the term "North America" applies to the portion of the continent north of Mexico; this corresponds roughly to the Nearctic faunal region and equates to the region as treated in most taxonomic works. This information on family diversity comes from Arnett (1993), Cannings and Scudder (2007), Kristensen (1999), and Scoble (1995), as well as from family-level works cited in the individual family treatments.

Species Entries

Species are listed in the order they were presented in the most recently published taxonomic work for the group in question, deferring to the order of Hodges et al. (1983) where no such revisions exist.

Each species entry comprises: a species number, occurrence status if other than "confirmed resident", genus, species, author, and year of description. Species introduced to North America are indicated with an "I" at the far right of the species entry. Notes on the species appear below the species entry, indented and in smaller type.

Species Number

All confirmed and unconfirmed species records are given whole numbers in the list. Species that probably occur in BC are given decimal numbers.

Occurrence Status

Species not considered confirmed residents of BC are indicated as follows:

- H (human-associated) Occurs in BC only indoors or in close association with humans, either as a pest or in culture. No established populations of the species exist outside of human situations. Species known only from interceptions on foreign goods and at ports of entry are excluded from the list.
- M (migrant) Regularly collected in the wild in BC, but the entire life cycle is not completed here. This category includes species that

- naturally migrate regularly into BC, such as the Monarch (*Danaus plexippus* (Linnaeus)).
- P (probable occurrence) Not yet reported from BC, but the species likely occurs here, based on records from adjacent areas and suitable habitat being present in BC. These species are given a decimal number in the list.
- S (stray) Occasionally collected in the wild in BC, but with no evidence of established breeding populations in the wild, nor part of a regular migration.
- U (unconfirmed or uncertain) Records that are plausible, but voucher specimens either cannot be located or their identity has not been confirmed.

Scientific Name, Author and Date of Original Description

The valid or accepted scientific name of each species is presented in italics, followed by the author and date of the published description (the taxonomic authority). Throughout this list, we have distinguished taxonomic authorities from literature references as follows:

- For a taxonomic authority, the date of description is separated from the author's name by a comma and a space;
- For references to the literature, the year of publication is separated from the author name by a space alone, or the year is enclosed in parentheses if the author's name forms an integral part of the sentence structure.

In taxonomic authorities, parentheses (round brackets) around the author and date indicate that the species was described in a genus other than that in which it is currently placed. Square brackets around the author and/or date indicate attributed authorship and/or publication date that is different from that stated in the work itself.

Introduced Species

Species thought to be introduced to North America are indicated with an "I" at the far right of the species name; native North American species that have been introduced to BC are indicated with a lowercase "i".

Notes

These entries beneath species names include selected pertinent information on taxonomy, nomenclature, and status of the species in BC. If

occurrence of the species in BC is uncertain, probable, or has been reported erroneously, the note presents those details. We also list the region of origin, if known, for introduced species.

The assignment and delimitation of subspecies is often uncertain and highly contentious, particularly for butterflies. Rather than passing judgment on the merits of such names, we simply list all the valid subspecific names that, as far as we know, have been applied to BC populations in published works.

Common names are given for a few conspicuous species with an accepted frequently used common name. Common names of moths come primarily from the official Canadian list of common names (Entomological Society of Canada Common Names Committee 2007). Following Pohl et al. (2010), common names of animals and plant species are capitalised to distinguish them from common names that refer collectively to several species; e.g., to distinguish the Diamondback Moth, *Plutella xylostella* (Linnaeus), from species of moths in the family Plutellidae, which are collectively referred to as "diamondback moths").

We have not listed the synonyms of BC Lepidoptera species. However, some commonly used or very recently used synonyms are mentioned in the notes under selected species. Most synonyms can be found in Poole (1995).

Excluded Taxa

The "Excluded Taxa" section lists 322 species that have been reported in a published source as occurring in BC, but are rejected herein because they are deemed by the authors to have not ever occurred naturally or to have not become established here. These species are not considered part of the BC fauna in any of the tables in the current list. Some of these records are based on errors or misidentifications, and many are due to changes in taxonomic status that resulted in valid species names that no longer apply to BC populations. Details of such reports and taxonomic changes are given in the text accompanying each species entry in the excluded species list.

Abbreviations Used in the List

Besides the abbreviations defined above in the section entitled "Occurrence Status", we use the standard two-letter postal abbreviation for the provinces of Canada and the states of the United States of America (USA). We also use the collection acronyms listed above, and the initials of the authors of this work.

Part II: The Checklist

Section 1: Micromoths

Superfamily Micropterigoidea

1. Family Micropterigidae (mandibulate moths)

Mandibulate moths are very small moths with large and functional mandibles that have well-developed articulation on the head capsule. Their wings are narrow and lanceolate, held roof-like over the body when at rest; the upper surface of the wings is often covered with iridescent scale patches. Adult moths are usually diurnal and are attracted to flowers and feed on pollen, which they crush with their mandibles. Larvae feed on moss and liverworts, and can occur in soil.

Worldwide, 160 species of micropterigids exist, as well as many undescribed species. Three species are known in North America; two occur in BC. The family was recently revised, and a new BC species described, by Davis and Landry (2012).

0001 Epimartyria auricrinella Walsingham, 1898

This species is known in BC from a specimen in the NSPM, collected at Prince George BC by B. and G. Wright on 9 July 1984. A second specimen was collected in 2015 near 100 Mile house by DH.

0002 Epimartyria bimaculella Davis & Landry, 2012 This species is illustrated on the cover of this publication.

Superfamily Eriocranioidea

2. Family Eriocraniidae (sparkling archaic sun moths)

Eriocraniid moths are very small, often with iridescent wings that are covered with long, hairlike scales, and are usually held like a tent over the body when at rest. This group can be distinguished from most other moths

by its vestigial mandibles. Adults are diurnal, and most species fly early in the spring. Larvae are leaf-blotch miners.

Twenty-nine species of eriocraniids are known worldwide, 13 of which occur in North America. Only one species is known from BC. The family was revised by Davis (1978).

0003 Eriocrania semipurpurella (Stephens, 1834) BC populations are subspecies pacifica Davis.

Superfamily Hepialoidea

3. Family Hepialidae (ghost moths)

Ghost moths are medium-sized to very large and bronze or ash-grey, with wingspans in North American species ranging from 25 to 100 mm. Adult moths are fast flying, and are diurnal, crepuscular or nocturnal. Some species form mating swarms, called leks, with oscillatory flight. Eggs are small and are produced in abundance and broadcast over the ground by flying females. Larvae bore into stems or roots, or tunnel in the ground.

Worldwide, about 630 species of ghost moths are known. Of the 19 species that occur in North America, eight are reported from BC (another species is expected here). Nielsen et al. (2000) provided a global catalogue and bibliography.

0003.1 P Gazoryctra hyperboreus (Möschler, 1862)

This species was reported in error from BC by ESBC (1906); an old specimen from Duncan in the RBCM has been redetermined as *G. matthewi* (Edwards). Although no BC records are currently known, this species is known from boreal habitat in AB and likely occurs in BC's Peace River region.

	AB and likely occurs in BC's Peace River region.
0004	Gazoryctra confusus (Edwards, [1885])
0005	Gazoryctra roseicaput (Neumögen & Dyar, 1893)
0006	Gazoryctra mathewi (Edwards, 1874)
0007	Gazoryctra novigannus (Barnes & Benjamin, [1926])
8000	Phymatopus behrensii (Stretch, 1872)
0009	Phymatopus californicus (Boisduval, 1868)
0010	Sthenopis argenteomaculatus (Harris, 1841)
	Confirmed records from Atlin, BC, exist of this otherwise eastern species.
0011	Sthenopis purpurascens (Packard, 1863)
	Includes <i>Gorgopis quadriguttatus</i> Grote, a recent synonym (Nielsen et al. 2000).

Superfamily Neopseustoidea

4. Family Acanthopteroctetidae

These are very small moths that resemble caddisflies, but may be brightly marked. They can be separated from most other moths by the vestigial mandibles, and from the Eriocraniidae by the absence of ocelli. Little is known of the biology of this group; one CA species is a leafminer on *Ceanothus* spp. (Rhamnaceae).

Eight species of acanthopteroctetids are known worldwide; four of these occur in North America. One species is known from BC. The family was revised by Davis (1978).

O012 Acanthopteroctetes aurulenta Davis, 1984
This species was discovered at Sparrow Grasslands in the Okanagan Valley recently by DH.

Superfamily Nepticuloidea

5. Family Nepticulidae (pygmy eye-cap moths)

Nepticulids are extremely small moths, with wingspans typically reaching 3 to 5 mm. The wings are slender and lanceolate, usually with predominantly dark coloration. The head has erect seta-like scales; the vertex is rough; the antennal scape is enlarged and covers the eye. Females have a short, non-piercing ovipositor. Nepticulid larvae are normally leafminers, but can occur in woody twigs, fruit or galls. Hosts are usually members of the Betulaceae, Fagaceae, Rhamnaceae, Rosaceae or Salicaceae. Most nepticulid species are highly host specific.

Worldwide, about 850 species have been described, with many more remaining to be discovered. So far, 107 species have been reported in North America; 14 of these are known in BC. The Canadian Nepticulidae were revised by Wilkinson and Scoble (1979), although some parts of their work have been superceded by newer works.

Subfamily Nepticulinae

Tribe Nepticulini

0013 Stigmella corylifoliella (Clemens, 1861)

0014 U Stigmella ostryaefoliella (Clemens, 1861)

Reported from BC by Forbes (1923), but no voucher specimens are known in Canadian collections.

O015 Stigmella macrocarpae (Freeman, 1967) British Columbia records from Garry Oak are probably an undescribed species, but they are filed under this name (an eastern North American species that feeds on oaks) pending taxonomic clarification (E. van Nieukerken, personal commu-

but they are filed under this name (an eastern North American species that feeds on oaks) pending taxonomic clarification (E. van Nieukerken, personal communication). This taxon was listed by Cannings and Scudder (2007) under the name *latifasciella* (Chambers), a synonym.

0016 U Stigmella diffasciae (Braun, 1910)

Reported from Victoria by Blackmore (1924), although no BC vouchers are known in Canadian collections.

0017 Stigmella rhoifoliella (Braun, 1912)

Collected at Vaseux Lake, reared from poison ivy in 1988 by E. van Nieukerken (personal communication).

- 0018 Stigmella stigmaciella Wilkinson & Scoble, 1979
- 0019 Stigmella crataegifoliella (Clemens, 1861)
- 0020 Stigmella pomivorella (Packard, 1870)
- 0021 Stigmella populetorum (Frey & Boll, 1878)
- 0022 Stigmella alba Wilkinson & Scoble, 1979

Tribe Trifurculini

0023 Ectoedemia canutus Wilkinson & Scoble, 1979

This recent record for western North America was collected 29 April 2007 at Vancouver by J. deWaard.

- 0024 Ectoedemia marmaropa (Braun, 1925)
- 0025 Ectoedemia canadensis (Braun, 1914)
- 0026 Ectoedemia sericopeza (Zeller, 1839)

An introduced species collected in the Vancouver area in 2010 by DH.

6. Family Opostegidae (white eye-cap moths)

Opostegids are very small, with wingspans typically reaching 6 to 12 mm. The wings are slender, lanceolate and predominantly white. The head has erect seta-like scales; the vertex is rough; the antennal scape is enlarged and covers the eye. Larvae are leafminers.

Almost 200 species of Opostegidae are known worldwide, with many undescribed species expected to be found. Ten species are known from North America, two of which are known from BC. Davis and Stonis (2007) published a monograph of the New World fauna.

Subfamily Opostegoidinae

0027 Opostegoides scioterma (Meyrick, 1920)

Subfamily Oposteginae

0028 Pseudopostega cretea (Meyrick, 1920)

Superfamily Adeloidea

7. Family Prodoxidae (yucca moths and allies)

Prodoxids are small moths, with wingspans between 10 and 30 mm. Their head vestiture is usually rough, with dense seta-like scales. The adults are usually diurnal and often have white or golden wings. Females have an elongate, compressed ovipositor.

Larvae are endophagous, boring into fruit, leaves or shoots. None are case bearers. They overwinter as larvae, with the last-instar larvae in some cases diapausing for many years.

Worldwide, about 100 species of Prodoxidae exist, with most occurring in the Nearctic region. Sixty-four species have been recorded from North America, 14 of which have been reported from BC. The species of *Tegeticula* (not present in BC) are the well-known yucca moths, which have a well-studied interdependent relationship with yucca plants.

Subfamily Lamproniinae

	/ Drodovingo	
0034	Lampronia sublustris Braun, 1925	
0033	Lampronia aenescens (Walsingham, 1888)	
0032	Lampronia taylorella (Kearfott, 1907)	
0031	Lampronia corticella (Linnaeus, 1758)	I
0030	Lampronia capitella (Clerck, 1759)	
0029	Lampronia oregonella Walsingham, 1880	

0034	Lamproma subiusuis braun, 1923
Subfamil	y Prodoxinae
0035	Greya punctiferella (Walsingham, 1888)
0036	Greya piperella (Busck, 1904)
0037	Greya obscuromaculata (Braun, 1921)
0038	Greya politella (Walsingham, 1888)
0039	Greya enchrysa Davis & Pellmyr, 1992
0040	Greya variabilis Davis & Pellmyr, 1992
0041	Greya variata (Braun, 1921)
0042	Greya subalba Braun, 1921

8. Family Incurvariidae (leafcutter moths)

Leafcutter moths are very small, with wingspans between 6 and 10 mm. Their forewings are usually iridescent. They have a scaled proboscis, and females have a piercing ovipositor. Larvae are leafminers in the early instar stages; later, they construct cases using silk and cut pieces of leaf, from which they skeletonize leaves.

Approximately 50 species of leafcutter moths are known worldwide. Five species are known from North America, two of which occur in BC. The family has not been revised for many years, but one of the species that occurs in BC was treated by Pohl et al. (2015).

0043 Paraclemensia acerifoliella (Fitch, 1854)

Historical records of this species in BC by Busck (1904) and others were long thought to be erroneous, but its' presence in BC was confirmed by Pohl et al. (2015).

0044 *Phylloporia bistrigella* (Haworth, 1828)

Known in BC from a single specimen collected at Revelstoke National Park, by BIO.

9. Family Heliozelidae (shield-bearer moths)

Heliozelids are extremely small moths, with wingspans usually under 8 mm. The head has a vertex that is typically smooth, with broad, laminate, iridescent scales directed downward over the smooth frons; the antennae are shorter than the wings, with the scape entirely covered by iridescent scales. The wings are held roof-like at rest. Females have an elongated, piercing ovipositor.

Adults are diurnal, and fly in sunshine near the host. All larvae except the last instar are leafminers. They construct a flat, oval case by cutting sections from the upper and lower epidermis of the mine, and join these together with silk, forming a lenticular-shaped case. The case gives these moths their common name. Hosts are usually woody trees or shrubs.

Worldwide, about 120 species are known, with 30 species reported from North America. Two species are recorded from BC.

Antispila freemani Lafontaine, 1973Coptodisca arbutiella Busck, 1904

10. Family Adelidae (fairy moths)

Fairy moths are very small moths, with wingspans up to 14 mm. The antennae are usually much longer than the forewing, but are short in the genus *Cauchas*. Forewings are slender and often metallic with transverse white stripes. Females have a long, piercing ovipositor.

Males of many species swarm near host plants. Eggs are inserted singly into plant tissue. The first-instar larvae of adelids may mine leaves of the

host; later-instar larvae are case bearers and feed on the lower or fallen leaves of the host.

Worldwide, about 300 species of fairy moths are described. Of the 18 species recorded in North America, six occur in BC.

Subfamily Adelinae

0047	Cauchas cockerelli (Busck, 1915)
0048	Cauchas simpliciella (Walsingham, 1880)
0049	Nemophora bellela (Walker, 1863)
0050	Adela septentrionella Walsingham, 1880
0051	Adela trigrapha Zeller, 1876
0052	Adela purpurea Walker, 1863

Superfamily Tischerioidea

11. Family Tischeriidae (trumpet leafminer moths)

Most tischeriids are extremely small, with 5- to 9-mm wingspans. The head has a smooth frons; the vertex is somewhat rough with slender or broad scales that are directed forwards; the antennal scape has a prominent tuft of slender scales projecting over the eye. Forewings are lanceolate and generally unicoloured. Females have a short, non-piercing ovipositor. The larvae are leafminers, forming either trumpet-shaped or blotch mines in leaves of deciduous trees and shrubs.

There are about 110 known species of tischeriids worldwide; 46 species are reported from North America, three of which are recorded from BC. The North American species were revised by Braun (1972).

0053	Astrotischeria occidentalis (Braun, 1972)
0054	Coptotriche malifoliella (Clemens, 1860)
0055	Coptotriche splendida (Braun, 1972)

Superfamily Tineoidea

12. Family Psychidae (bagworm moths)

Bagworm moths are very small to small moths, with wingspans from 8 to 25 mm. Males are fully winged; some females are winged, but many are brachypterous, apterous or wormlike, with all body appendages vestigial or absent. Some species exist only as parthenogenetic females, and are best recognized by the larval cases.

Larvae of psychids are leaf or lichen feeders and form portable bags or cases made of pieces of twigs, leaves or other material, which they carry around with them as they feed. Bags or cases are usually open at both ends, the top opening being used for feeding and the lower for waste discharge. Pupation takes place within the larval bags or cases. Males leave the bag on emergence, departing from the lower end, but females spend all or most of their lives within. Males, if present, fertilise the female in the bag, through one end of the case.

Worldwide, 1350 species of psychids are known, with 85% occurring in the Old World. Of the 28 species known from North America, seven have been reported from BC. Davis (1964) revised the North American species.

Subfamily Naryciinae

0056	Dahlica triquetrella (Hübner, 1812)	I
0057	Dahlica lichenella (Linnaeus, 1761)	I

This introduced species is known from the Vancouver area. Identification was confirmed by P. Hättenschwiller.

Subfamily Taleporiinae

0058 U Taleporia walshella (Clemens, 1862)

This species was reported from BC, based on material in PFC. That material could not be located by GRP in 2010, but there is no reason to doubt that this species occurs in BC: it is known from Jasper National Park in AB, very close to the BC border.

Subfamily Psychinae

0059 Psyche casta (Pallas, 1767)

This introduced Palaearctic species was collected recently in the Vancouver area by DH and by J. deWaard.

0060 Hyaloscotes fragmentella Edwards, 1877

0061 Hyaloscotes pithopoera (Dyar, 1923)

Subfamily Oiketicinae

0062 Apterona helicoidella (Vallot, 1827)

This European species was abundant around Osoyoos beginning in about 2002, but apparenty disappeared about 2008 (GGES, unpublished data). However, it was abundant near Merritt in 2009.

13. Family Tineidae (fungus moths and clothes moths)

Tineid moths are very small to medium sized, most with wingspans of 8 to 14 mm. The wings are usually dull and brownish in colour, and typically are moderately broad and generally subovate in shape. The head has erect piliform scales. Adults move with a characteristic scuttling run. Most tineid larvae are fungivorous, some feed on detritus, and a few are pests of stored

food products or fabrics, feeding on wool, fur and feathers. Many tineid larvae build portable cases, from which they feed.

Worldwide, about 2300 species of tineids occur; 187 are known from North America. Twenty-seven of these have been reported from BC. Little taxonomic work has been done on the family in the past 100 years, other than the higher-level taxonomic work of Regier et al. (2014).

Amydria curvistrigella Dietz, 1905

Tinea columbariella Wocke, 1877

Tinea niveocapitella Chambers, 1875

Tinea irrepta Braun, 1926

Subfamily Acrolophinae

0063

0071

0072 0073

Subfam	ily Nemapogoninae
0064	Triaxomera parasitella (Hübner, 1796)
	This introduced European species was discovered in North America on the Lowe
	Mainland by DH in 2011.
0065	Nemapogon acapnopennella (Clemens, 1863)
0066	Nemapogon auropulvella (Chambers, 1873)
0067	Nemapogon cloacella (Haworth, 1828)
	Recently discovered in North America by Landry et al. (2013).
0068	Nemapogon granella (Linnaeus, 1758)
	The European Grain Moth, introduced from the Palaearctic (Lafontaine and
	Troubridge 2011).
0069	Nemapogon tylodes (Meyrick, 1919)
	Recent BC record collected near Hazelton by deWaard (2010).
0070	Nemapogon variatella (Clemens, 1859)
	Western Canadian material is probably a new species near N. variatella, but they
	are provisionally listed here.
Subfam	ily Tingingo

	Known in BC from a specimen in the UBC collection, collected at Saanichton or
	1 June 1922 by J. G. Colville.
0074	Tinea pellionella (Linnaeus, 1758)
	This Palaearctic species is known as the Casemaking Clothes Moth.
0075	Niditinea fuscella (Linnaeus, 1758)
0076	Niditinea orleansella (Chambers, 1873)
	Recent BC record collected near Hazelton by deWaard (2010).
0077	Trichophaga tapetzella (Linnaeus, 1758)
	The Carpet Moth, introduced from the Palaearctic (Lafontaine and Troubridge
	2011).
0078	Monopis crocicapitella (Clemens, 1859)
0079	Monopis laevigella ([Denis & Schiffermüller], 1775)
0800	Monopis weaverella (Clemens, 1859)

0081	Monopis dorsistrigella (Clemens, 1859)	
	Collected recently in BC by DH.	
0082	Monopis spilotella Tengström, 1848	
0083	Elatobia carbonella (Dietz, 1905)	
	British Columbia material in the CNC has been labelled with unpublished script names by D. R. Davis.	manu-
0084	Elatobia montelliella (Schantz, 1951)	
0085	Tineola bisselliella (Hummel, 1823) This Palaearctic species is known as the Webbing Clothes Moth.	I

Subfamily Scardiinae

0086	Morophagoides burkerella (Busck, [1904])
0087	Scardia anatomella (Grote, 1881)

0088 Amorophaga cryptophori (Clarke, 1940)

Subfamily unassigned

0089 U Homosetia costisignella (Clemens, 1863) Uncertain record from deWaard et al. (2009).

Superfamily Gracillarioidea

14. Family Bucculatricidae

These are extremely small to very small moths, with wingspans of 4 to 11 mm. The head is usually elongate, with the vertex usually large and bearing an erect tuft of piliform scales. Most species have larvae in which the first two instars are leafminers, and the third instar emerges to feed externally on leaves. The fourth-instar larva constructs a flattened moulting cocoon under the leaf used by the third instar. The fifth-instar larva, before pupation, constructs a silken, longitudinally ribbed cocoon, which is typical for the family.

Worldwide, about 300 species of bucculatricids exist, most of which occur in the Nearctic. One genus, *Bucculatrix*, with 103 species, is known from North America; 12 species are recorded from BC, and another is expected here. Braun (1963) revised the North American species.

0090	Bucculatrix eurotiella Walsingham, 1907
0091	Bucculatrix divisa Braun, 1925
0092	Bucculatrix salutatoria Braun, 1925
0093	Bucculatrix arnicella Braun, 1925
0094	Bucculatrix tridenticola Braun, 1963
0095	Bucculatrix seorsa Braun, 1963
0096	Bucculatrix angustisquamella Braun, 1925
0097	Bucculatrix columbiana Braun, 1963

0098	Bucculatrix zophopasta Braun, 1963
0099	Bucculatrix canadensisella Chambers, 1875
0100	Bucculatrix ainsliella Murtfeldt, 1905
0101	Bucculatrix pomifoliella Clemens, 1860
0101.1 P	Bucculatrix frigida Deschka, 1992
	This species was described from Jasper, and likely occurs in adjacent BC.

15. Family Gracillariidae (leafblotch miner moths)

Gracillariids are extremely small to small moths, with wingspans of 4 to 21 mm. The head is usually smooth scaled; the antennae are filiform and are about as long as the forewings. The wings are slender to lanceolate, with a broad fringe; the cilia are longer than the width of the hind wing; the forewings are often brightly coloured.

Larvae are leaf, bark or fruit miners, with a hypermetamorphosis. Larvae typically form blotch mines on leaves, hence the common name. Early larval instars are flattened sap feeders, while later instars feed on leaf parenchyma. Most are strongly host specific. Pupation takes place in the mines.

Worldwide, about 1850 species of gracillariids are known; 302 species are known from North America, and 58 species have been reported from BC. There are no comprehensive taxonomic works on the group, but De Prins and De Prins (2005) published a world species catalogue.

Subfamil	y Gracillariinae
0102	Caloptilia acerifoliella (Chambers, 1875)
0103	Caloptilia agrifoliella Opler, 1971
0104	Caloptilia alnicolella (Chambers, 1875)
0105	Caloptilia alnivorella (Chambers, 1875)
0106	Caloptilia burgessiella (Zeller, 1873)
0107 U	Caloptilia coroniella (Clemens, 1864)
	This species is known in BC only from some old specimens in the PFC collection that were reared from <i>Populus tremuloides</i> and determined as "Caloptilia nr. coroniella". The host plant is correct, and there is no reason to doubt the record, as the species is known from adjacent AB. However, the determination requires confirmation.
0108	Caloptilia invariabilis (Braun, 1927)
0109	Caloptilia melanocarpae (Braun, 1925)
0110	Caloptilia murtfeldtella (Busck, 1904)
0111	Caloptilia pulchella (Chambers, 1875)
0112	Caloptilia rhoifoliella (Chambers, 1876)

0113		Caloptilia sanguinella (Beutenmüller, 1888)
0114		Caloptilia serotinella (Ely, 1910)
0115		Caloptilia stigmatella (Fabricius, 1781)
0116		Caloptilia strictella (Walker, 1864)
0117		Caloptilia suberinella (Tengström, 1848)
		Recently discovered in North America by Landry et al. (2013).
0118		Gracillaria syringella (Fabricius, 1794)
		This species, known as the Lilac Leaf Miner, was introduced from Europe. It was first found in North America in ON in 1923 and in WA in 1927.
0119		Micrurapteryx salicifoliella (Chambers, 1872)
0120	U	Parectopa albicostella Braun, 1925
		This taxon is probably conspecific with <i>P. occulta</i> Braun, but it is listed separately pending taxonomic work.
0121		Parectopa occulta Braun, 1922
0122		Callisto denticulella (Thunberg, 1794)
0123		Parornix alta (Braun, 1925)
0124		Parornix arbutifoliella (Dietz, 1907)
0125		Parornix betulae (Stainton, 1854)
		Recently discovered in North America by Landry et al. (2013).
0126		Parornix conspicuella (Dietz, 1907)
0127		Parornix spiraeifoliella (Braun, 1918)
0128		Acrocercops astericola (Frey & Boll, 1873)
0100		Recent BC record collected near Hazelton and Sicamous by deWaard (2010).
0129		Acrocercops pnosmodiella (Busck, 1902)
0130		Marmara arbutiella Busck, [1904]
0131		Marmara oregonensis Fitzgerald, 1975
	mil	y Lithocolletinae
0132		Protolithocolletis lathyri Braun, 1929
0122		Recent BC record collected near Hazelton by deWaard (2010).
0133	U	Phyllonorycter alnicolella (Walsingham, 1889) Identity of specimens in the PFC collection requires confirmation.
0134		Phyllonorycter apicinigrella (Braun, 1908)
0135		Phyllonorycter apparella (Herrich-Schäffer, 1855)
0133		This species has often been misidentified as <i>P. salicifoliella</i> (Chambers) (Davis and Deschka 2001).
0136		Phyllonorycter arbutusella (Braun, 1908)
0137		Phyllonorycter basistrigella (Clemens, 1859)
0138		Phyllonorycter blancardella (Fabricius, 1781)
0139		Phyllonorycter elmaella Doganlar & Mutuura, 1980
0140		Phyllonorycter erugatus Davis & Deschka, 2001
0141		Phyllonorycter fitchella (Clemens, 1860)

0142	U	Phyllonorycter fragilella (Frey & Boll, 1878)	
		This species was reported from BC by Blackmore (1924), and is represented the UBC collection by an old voucher specimen. However, its identity requ	iires
O1.42		confirmation. This species is otherwise not known in western North America.	
0143		Phyllonorycter incanella (Walsingham, 1889)	
0144		Phyllonorycter ledella (Walsingham, 1889)	
0145		Phyllonorycter maestingella (Müller, 1764)	1?
0146		Recently discovered in North America by Landry et al. (2013). Phyllonorycter martiella (Braun, 1908)	
0147		Phyllonorycter mespilella (Hübner, [1805])	ı
0148		Phyllonorycter nipigon (Freeman, 1970)	
00		This species has often been misidentified as <i>P. salicifoliella</i> (Chambers) (Davis Deschka 2001).	and
0149		Phyllonorycter salicifoliella (Chambers, 1875)	
		Most records of this species on <i>Populus</i> are misidentified <i>P. apparella</i> (Herr Schäffer), <i>P. nipigon</i> (Freeman), and perhaps other species (Davis and Desc 2001). British Columbia specimens require verification.	
0150		Phyllonorycter scudderella (Frey & Boll, 1873)	
0151		Macrosaccus robiniella (Clemens, 1859)	
0152		Cameraria agrifoliella (Braun, 1908)	
		Recent BC record collected near Hazelton by deWaard (2010).	
0153		Cameraria gaultheriella (Walsingham, 1889)	
0154		Cameraria guttifinitella (Clemens, 1859)	
		Collected at Vaseux Lake, reared from poison ivy in 1988 by E. van Nieuker (unpublished data).	ken
0155		Cameraria hamadryadella (Clemens, 1859)	
0156		Cameraria lobatiella Opler & Davis, 1981	
0157		Cameraria nemoris (Walsingham, 1889)	
		Collected recently by DH on Hornby Island.	
0158		Cameraria pentekes Opler & Davis, 1981	
Subfa	mil	y Phyllocnistinae	

Phyllocnistis populiella Chambers, 1875 0159

Superfamily Yponomeutoidea

16. Family Yponomeutidae (ermine moths and allies)

Yponomeutids are small moths, with rather narrow, often brightly coloured wings. Wingspans range from 5 to 30 mm. No morphological characters unequivocally define this family. Larvae have diverse feeding habits, including as leafminers and leaf tiers.

As currently delimited, the family Yponomeutidae contains about 360 named species worldwide; 34 species are known in North America. The group, as well as the superfamily Yponomeutoidea, was redefined recently, following molecular analyses by Sohn et al. (2013). Fourteen species are recorded in BC; many of these have been introduced.

Subfamily Yponomeutinae

Tribe Yponomeutini

0160	Ocnerostoma piniariella Zeller, 1847	ı
	The European Needle Miner. This species was introduced from Europe, an	ıd was
	first found in North America in NY in 1882 and in BC in 1922.	
0161	Swammerdamia caesiella (Hübner, 1796)	1?
	Origin of this species is uncertain: it may have been introduced from Eurasi	ia.
0162	Swammerdamia pyrella (Villers, 1789)	I
0163	Swammerdamia beirnei Doganlar, 1979	
0164	Paraswammerdamia lutarea (Haworth, 1828)	I
0165	Paraswammerdamia albicapitella (Scharfenberg, 1805)	I
	Introduced from Europe; first found in North America in BC in 2006, b identified until 2013 (Landry et al. 2013).	ut not
0166	Paraswammerdamia nebulella (Goeze, 1783)	I
0167	Yponomeuta cagnagella (Hübner, 1813)	I
0168	Yponomeuta padella (Linnaeus, 1758)	I
	The Ermine Moth; introduced from Europe.	
0169	Yponomeuta malinellus Zeller, 1838	I
0170	Zelleria haimbachi Busck, 1915	
0171	Zelleria pyri Clarke, 1942	
	A recent collection in BC by DH and L. Humble, reared from ash (Fraxinus	sp.).
0172	Euhyponomeutoides gracilariella (Busck, 1904)	
Subfam	nily Saridoscelinae	
0173	Eucalantica polita (Walsingham, 1881)	

17. Family Ypsolophidae (sickle-winged moths)

Ypsolophids are small moths, with no metallic markings and, in some *Ypsolopha* species, the wings are hooked at the tip. *Ypsolopha* larvae live in open webs on the leaves of plants.

The family Ypsolophidae is a small family with about 160 known species, primarily from the temperate Northern Hemisphere; 39 species live in North America. Thirteen species have been reported from BC.

Subfamily Ypsolophinae

0174	Euceratia castella Walsingham, 1881
0175	Euceratia securella Walsingham, 1881
0176	Ypsolopha canariella (Walsingham, 1881

0177 Ypsolopha cervella (Walsingham, 1881) 0178 *Ypsolopha dentella* (Fabricius, 1775) I 0179 Ypsolopha dentiferella (Walsingham, 1881) 0180 *Ypsolopha dorsimaculella* (Kearfott, 1907) Ypsolopha falciferella (Walsingham, 1881) 0181 Ypsolopha rubrella (Dyar, 1902) 0182 Ypsolopha senex (Walsingham, 1889) 0183 0184 U Ypsolopha schwarziella (Busck, 1903) Reported from BC by Blackmore (1923), and represented by old specimens in the UBC collection; however, the determination requires verification. It is otherwise unknown in Canada. 0185 U Ypsolopha sublucella (Walsingham, 1881) Reported from BC by ESBC (1906), but no vouchers are known. The species is otherwise unknown in Canada. 0186 Ypsolopha walsinghamiella (Busck, 1903)

18. Family Plutellidae (diamondback moths)

Plutellid moths have wingspans of about 10 to 50 mm (under 30 mm in our fauna); the forewings are often brightly patterned, but normally are not metallic. Larvae are solitary leaf-rollers or live in loose webs and skeletonise leaves; most pupate in a characteristic, open-mesh cocoon. Adult moths hold their antennae forward when at rest. *Plutella*, a cosmopolitan genus with more than 40 species, feeds largely on plants of the mustard family; the Diamondback Moth, *P. xylostella* (Linnaeus), is a worldwide pest and one of the few micro-moths that migrates long distances.

The family Plutellidae is worldwide but small, with about 150 known species. Sixteen species occur in North America, six of which are recorded in BC. The genus *Plutella* was split into several genera by Baraniak (2007), but that classification has not been widely adopted and we do not follow it here.

0187	Plutella armoraciae Busck, 1912
	This species is known in BC from several old records in the CNC. As well, it has
	recently been collected and barcoded from Kelowna and Merritt by DH.
0188	Plutella vanella Walsingham, 1881
0189	Plutella xylostella (Linnaeus, 1758)
	The Diamondback Moth, an important pest of canola and other crucifers. Most
	individuals found in Canada arrive each spring on winds from the south, but some
	likely overwinter, particularly in warmer regions.
0190	Plutella porrectella (Linnaeus, 1758)
0191	Rhigognostis interrupta (Walsingham, 1881)
0192	Rhigognostis poulella (Busck, 1904)

19. Family Glyphipterigidae (sedge moths)

Sedge moths have wingspans ranging from 4 to 30 mm, but most are very small, with wingspans of about 10 mm. The adults are frequently strikingly marked, usually with transverse bands or lines, and often with metallic marks. The forewing is often rather square tipped or even concave, and is broader than the hind wing. Larvae bore in stems and leaves, mainly in monocots such as grasses, rushes, sedges and arums.

The family Glyphipterigidae contains about 535 described species, and the worldwide genus *Glyphipterix* contains about two-thirds of them. In North America, 48 species are known, four of which have been recorded from BC. North American members of the family were revised by Heppner (1985).

Subfamily Glyphipteriginae

	/ /1 1 0
0193	Glyphipterix bifasciata (Walsingham, 1881)
0194	Glyphipterix haworthana (Stephens, 1834)
0195	Glyphipterix sistes Heppner, 1985
0196	Diploschizia impigritella (Clemens, 1863)

20. Family Argyresthiidae (needleminer moths)

Argyresthiid moths are extremely small to very small, with narrow, usually golden wings that span about 5 to 15 mm. The group is defined by details of the genitalia. The larvae are bud, fruit, leaf and twig miners. This family has often been placed as a subfamily within the Yponomeutidae.

The family Argyresthiidae includes about 150 species worldwide, all in the genus *Argyresthia*. There are 54 species known in North America, 19 of which have been reported from BC.

0197	Argyresthia abies Freeman, 1972
0198	Argyresthia columbia Freeman, 1972
0199	Argyresthia conjugella Zeller, 1839
	The Apple Fruit Moth, introduced from Europe in 1897 (Covell 1984).
0200	Argyresthia cupressella Walsingham, 1890
	The Cypress Tip Moth. Originally from CA, this species has spread northwards to
	BC in recent years.
0201	Argyresthia flexilis Freeman, 1960
0202	Argyresthia freyella Walsingham, 1890
0203	Argyresthia goedartella (Linnaeus, 1758)
0204	Argyresthia laricella Kearfott, 1908

0205	U	Argyresthia mesocausta Meyrick, 1913
		Reported from BC by Blackmore (1924). There are old voucher specimens in the UBC collection, but their identity requires verification; this species is otherwise unknown in Canada.
0206		Argyresthia monochromella Busck, 1921
0207		Argyresthia oreasella Clemens, 1860
0208	U	Argyresthia pallidella Braun, 1918
		Represented in BC by old voucher specimens in the UBC collection, but their identity requires verification, as this species is otherwise unknown in Canada.
0209	U	Argyresthia pedmontella Chambers, 1877
		Reported from BC by Blackmore (1924), and represented by old voucher specimens in the UBC collection. However, their identity requires verification, as this species is otherwise unknown in Canada.
0210		Argyresthia picea Freeman, 1972
0211		Argyresthia pruniella (Clerck, 1759)
0212		Argyresthia pseudotsuga Freeman, 1972
0213		Argyresthia pygmaeella (Hübner, [1813])
0214		Argyresthia quadristrigella Zeller, 1873
		Reported from BC by Blackmore (1924), and represented by old voucher specimens in the UBC collection.
0215		Argyresthia tsuga Freeman, 1972

21. Family Lyonetiidae

Lyonetiids are extremely small moths, usually with wingspans of 5 to 10 mm. The face is smooth scaled, and the base of the antenna forms an eye cap. The wings are very narrow, with reduced venation. The larvae are leaf, and occasionally twig, miners, almost always in dicot families.

The family Lyonetiidae is cosmopolitan and consists of about 200 described species. There are 15 named species in North America; eight of these are recorded from BC. The group requires taxonomic work.

Subfamily Lyonetiinae

0210	Lyonella Candida Brauff, 1916	
0217	Lyonetia saliciella Busck, 1904	
0218	Lyonetia prunifoliella (Hübner, 1796)	
0219	Lyonetia pulverulentella Zeller, 1839	
Subfamily Cemiostominae		
0220	Paraleucoptera albella (Chambers, 1871)	
0221	Leucoptera laburnella (Stainton, 1851)	
0222	Leucoptera pachystimella Busck, 1904	
0223	Leucoptera spartifoliella (Hübner, [1813])	

22. Family Praydidae

Praydids are very small moths, with approximately 10- to 15-mm wingspans that are relatively broad and variously marked. This group was recently split from the Yponomeutidae, and are defined by details of the male and female genitalia.

The family Praydidae contains about 50 species worldwide, mostly in the Old World. Three species are known from North America, one of which has been recently collected in BC.

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I

0224 Prays fraxinella (Bjerkander, 1784)

23. Family Heliodinidae

Heliodinids are very small moths, with metallic markings on the forewings and a wingspan of about 8 to 15 mm. The head is completely covered in smooth scales; males often have thickened antennae. Larvae of most species are leafminers or stem and fruit borers.

About 70 species of heliodinids are known worldwide. There are 31 species known from North America, one of which occurs in BC.

0225 Aetole extraneella (Walsingham, 1881)

24. Family Bedelliidae

The Bedelliidae are very small grey moths, with elongate wings spanning 10 mm or less. They are defined by several wing and larval characteristics. The larvae mine the leaves of plants in the families Poaceae, Liliaceae, Urticaceae and Convolvulaceae. Young larvae make a linear mine, and later instars create blotch mines.

The family Bedelliidae contains 16 species, all in the genus *Bedellia*, in all regions except the Neotropical. Only two species occur in North America; one of these occurs in BC.

0226 Bedellia somnulentella (Zeller, 1847)

Superfamily unassigned

25. Family Douglasiidae

Douglasiidae are very small moths, with wingspans of 8 to 12 mm. The forewings are bicoloured, and hind wings are narrow. These moths have

short, drooping palps, and the head is covered with a smooth layer of scales. Larvae are stem borers and flower-petiole miners of Rosaceae and other plants.

Twenty-nine species of Douglasiidae are known worldwide—all but one from the Holarctic. Nine species are known from North America, two of which are recorded from BC. Gaedike (1990) revised the Nearctic species (in German); the descriptions and genitalia illustrations therein are inadequate to make reliable determinations.

0227 Tinagma obscurofasciella (Chambers, 1881)

0228 Tinagma giganteum Braun, 1921

Superfamily Gelechioidea

26. Family Autostichidae

Autostichids are very small to small moths, with wingspans of 10 to 20 mm and relatively broad wings. The adults superficially resemble oecophorids or gelechiids, and are not easily distinguished from other gelechioid groups. As currently defined (Heikkilä et al. 2014), the Autostichidae comprise a diverse group of several subfamilies that had previously been placed in their own families or in the Elachistidae, Oecophoridae and Blastobasidae. Larvae of species in this family are poorly known, but most Glyphidocerinae are saprophagous.

As presently defined, approximately 650 species of autostichids are known worldwide; 24 are known from North America, and three occur in BC.

Subfamily Oegoconiinae

0229 Oegoconia novimundi (Busck, 1915)

North American populations have often been reported under the name *O. quad-ripuncta* (Haworth), a Palaearctic species (Landry et al. 2013).

Subfamily Symmocinae

0230 Gerdana caritella Busck, 1908

Subfamily Glyphidocerinae

O231 Glyphidocera septentrionella Busck, 1904
Described from Kaslo, BC by Dyar (1904).

27. Family Oecophoridae

Most Oecophorids are small to medium-sized, broad-winged moths with long, upcurved palps. Most characters are extremely variable, and many

groups have recently been moved to other families in the Gelechioidea, including the speciose group Depressariidae now treated as a separate family (Heikkilä et al. 2014).

Larvae of many oecophorid species feed on fungi and detritus in leaf litter and bark; some tie leaves or make cases from twigs or bits of leaves. Some have become pests of stored food and household goods.

The family Oecophoridae is distributed nearly worldwide, with approximately 3400 described species. The family is especially well represented in Australia and South America. Forty species are known from North America; 12 of these have been reported from BC. Most species currently placed in the family were treated in revisions by Clarke (1941) and Hodges (1974).

Subfamily Oecophorinae

0232	Decantha boreasella (Chambers, 1873)	
	Listed by Cannings and Scudder (2007) as D. borkhausenii (Zeller), a Palaearctic	С
	name.	
0233	Decantha tistra Hodges, 1974	
	Known in BC from three specimens in the UASM.	
0234	Decantha stonda Hodges, 1974	
0235	Batia lunaris (Haworth, 1828)	I
	Introduced from Europe to western North America (Hodges 1974).	
0236	Brymblia quadrimaculella (Chambers, 1875)	
0237	Denisia haydenella (Chambers, 1877)	
0238	Polix coloradella (Walsingham, 1888)	
0239	Hofmannophila pseudospretella (Stainton, 1849)	I
	The Brown House Moth, introduced from Europe.	
0240	Endrosis sarcitrella (Linnaeus, 1758)	I
	The White-shouldered House Moth, introduced from Europe.	
0241	Eido trimaculella (Fitch, 1856)	
0242	Oecophora bractella (Linnaeus, 1758)	I
	Introduced from Europe, discovered recently in the BC Lower Mainland by DH.	
C 1 C '1	ni d	

Subfamily Pleurotinae

0243 Pleurota albastrigulella (Kearfott, 1907)

28. Family Depressariidae (flat moths)

Flat moths are small moths, with wingspans of about 10 to 25 mm and upturned palps. The group is united by abdominal and pupal features. The wings are broad; the hind wings are often broadly fringed, and the head

is usually smooth scaled. Some recent classifications place this group as a subfamily of the Elachistidae.

Larvae of Depressariinae are leaf tiers, stem borers and seed feeders of many plant families. Species of Ethmiinae mainly feed beneath light webbing on Boraginaceae and Hydrophyllaceae.

The Depressariidae are distributed worldwide, with about 2300 described species. There are 196 species known in North America; 47 of these have been reported from BC. The Depressariinae were revised by Hodges (1974); the Ethmiinae were revised by Powell (1973), and most Stenomatinae were revised by Duckworth (1964).

Subfamily Depressariinae

0244	Agonopterix gelidella (Busck, 1908)
0245	Agonopterix conterminella (Zeller, 1839)
	Recently discovered in North America by Landry et al. (2013).
0246	Agonopterix nubiferella (Walsingham, 1881)
0247	Agonopterix oregonensis Clarke, 1941
0248	Agonopterix clarkei (Keifer, 1936)
0249	Agonopterix fusciterminella Clarke, 1941
0250	Agonopterix sabulella (Walsingham, 1881)
0251	Agonopterix alstroemeriana (Clerck, 1759)
0252	Agonopterix rosaciliella (Busck, 1904)
0253	Agonopterix canadensis (Busck, 1902)
0254	Agonopterix arnicella (Walsingham, 1881)
0255	Agonopterix flavicomella (Engel, 1907)
	Clarke's (1941) record is not mentioned by Hodges (1974), who considers <i>A. flavicomella</i> to be an eastern species ranging only as far west as MB. However, it was reported from BC by Cannings and Scudder (2007) based on a specimen from BC in the CNC.
0256	Agonopterix thelmae Clarke, 1941
0257	Agonopterix argillacea (Walsingham, 1881)
0258	Agonopterix antennariella Clarke, 1941
0259	Agonopterix nervosa (Haworth, 1811)
	Introduced from Europe to southern Vancouver Island between 1915 and 1920; it was redescribed from Victoria, under the synonyms <i>Agonopterix blackmori</i> Busck and <i>Depressaria dryadoxena</i> Meyrick.
0260	Agonopterix posticella (Walsingham, 1881)
0261	Agonopterix arenella ([Denis & Schiffermüller], 1775) Introduced from Europe, first collected in North America is southern ON in 2005.
0262	Depressariodes capella (Busck 1904)

0264	Depressariodes sordidella (Clarke, 1941)
0265	Depressariodes nivalis (Braun, 1921)
0266	Depressariodes ciniflonella (Lienig & Zeller, 1846)
0267	Depressariodes fulva (Walsingham, 1882)
0268	Bibarrambla allenella (Walsingham, 1882)
0269	Semioscopis packardella (Clemens, 1863)
0270	Semioscopis merriccella Dyar, 1902
0271	Semioscopis inornata Walsingham, 1882
0272	Semioscopis megamicrella Dyar, 1902
0273	Semioscopis aurorella Dyar, 1902
0274	Semioscopis mcdunnoughi Clarke, 1941
	Until recently, this species was known globally only from the type from Bellingham, WA, and two specimens from Coquitlam, BC, all collected before 1941. However, E. Avis collected four specimens at Port Alberni, BC, in 2011.
0275	Depressaria artemisiae Nickerl, 1864
0276	Depressaria pastinacella (Duponchel, 1838)
	This species is known as the Parsnip Webworm. It was introduced from Europe and first detected in North America in ON in 1869, and in Victoria, BC, in 1927. By 1938, it was a pest of parsnip seed in Armstrong, BC. Larvae feed on seed heads of a variety of native umbellifers, such as <i>Heracleum lanatum</i> Mischaux and species of <i>Angelica</i> .
0277	Depressaria daucella ([Denis & Schiffermüller], 1775)
0278	Depressaria alienella Busck, 1904
0279	Depressaria artemisiella McDunnough, 1927
0280	Depressaria togata Walsingham, 1889
0281	Depressaria angustati Clarke, 1941
0282	Nites atrocapitella (McDunnough, 1944)
0283	Nites betulella (Busck, 1902)
Subfamil	y Ethmiinae
0284	Pyramidobela quinquecristata (Braun, 1921)
0285	Ethmia coquillettella Busck, 1907
	In Powell (1973), the BC records are not illustrated on the map, but they are men-
0286	tioned in the text (Oliver; Keremeos).
0287	Ethmia albistrigella (Walsingham, 1880) Ethmia monticola (Walsingham, 1880)
0288	<u> </u>
	Ethmia marmorea (Walsingham, 1888)
0289	y Stenomatinae Antaeotricha manzanitae Keifer, 1937
	,
0290	y unassigned Carcina guercana (Fabricius, 1775)
0230	Carcina quercana (Fabricius, 1775) Introduced from Europe to Victoria, BC, in 1920 (Blackmore 1921; Hodges 1974).

Depressariodes umbraticostella (Walsingham, 1881)

29. Family Cosmopterigidae (cosmet moths)

Cosmopterigid moths are very small to small moths, with 8- to 20-mm wingspans and smooth-scaled heads. The forewing is narrow and often pointed. The larvae feed in mines in leaves or bark, bore in stems, roots and seeds, make galls, scavenge dead organic matter, or parasitise homopterans.

The family Cosmopterigidae is distributed worldwide and contains almost 1730 described species; 188 species are recorded for North America. The family is mainly southern in the Nearctic. Only nine species have been reported from BC. The family was revised by Hodges (1978).

Subfamily Chrysopeleiinae

	0291	Walshia	miscecolorella	(Chambers,	1875)
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Sorhagenia nimbosa (Braun, 1915)

Subfam	nily	y Cosmopteriginae	
0293		Cosmopterix molybdina Hodges, 1962	1?
		Introduced? Collected recently in BC by DH.	
0294		Cosmopterix montisella Chambers, 1875	
		Known in BC from two specimens collected at Langford by the CFS Forest Ins	ect
		amd Disease Survey and deposited at PFC.	
0295		Cosmopterix abdita (Hodges, 1962)	
0296		Cosmopterix fernaldella Walsingham, 1882	
0297	S	Eteobalea intermediella (Riedl, 1966)	I
		Released in BC for biocontrol; it may not be established.	
0298	S	Eteobalea serratella (Treitschke, 1833)	I
		Released in BC for biocontrol; it may not be established.	
0299		Limnaecia phragmitella Stainton, 1851	

30. Family Gelechiidae

Gelechiid moths, in North America at least, are very small to small moths, with wingspans of 6 to 25 mm, and are usually brown or grey. The forewing is often narrowly rounded or pointed at the apex, and the hind wing usually has a prolonged tip and a concave margin behind.

Gelechiid larvae roll or mine leaves, bore in stems and roots, produce galls, or feed on seed heads or dried seeds in more than 80 plant families. Some are economically important pests.

The family Gelechiidae is cosmopolitan and diverse, with about 4700 described species. About 900 species are known in North America; 162

of these have been reported in BC. Significant taxonomic works have been published on the Dichomeridinae (Hodges 1986) and on the genus *Chionodes* (Hodges 1999b). The family is generally poorly known, and many species await discovery and description. A checklist of North American species was published by Lee et al. (2009). The higher-level taxonomy of the group has been the subject of several recent studies; the scheme employed here follows Karsholt et al. (2013) and Heikkilä et al. (2014).

Subfa	ımil	y Anacampsinae
Tribe	Che	elariini
0300		Anarsia lineatella Zeller, 1839
		Introduced from Asia.
Tribe	And	acampsini
0301		Battaristis concinnusella (Chambers, 1877)
0000		This species name has often been misspelled as "concinusella".
0302		Battaristis nigratomella (Clemens, 1863)
0303		Anacampsis conclusella (Walker, 1864)
0304		Anacampsis fragariella Busck, 1904
0305		Anacampsis innocuella (Zeller, 1873)
0306		Anacampsis niveopulvella (Chambers, 1875)
Subfa	mil	y Dichomeridinae
0307		Helcystogramma fernaldella (Busck, 1903)
0308		Helcystogramma casca (Braun, 1925)
0309		Helcystogramma badia (Braun, 1921)
0310		Helcystogramma melanocarpa (Meyrick, 1929)
0311		Dichomeris ligulella Hübner, 1818
0312		Dichomeris marginella (Fabricius, 1781)
		Introduced from Palaearctic; first found in North America in NY in 1910 and in
0040		BC near Victoria in 1934.
0313		Dichomeris stipendiaria (Braun, 1925)
0314		Dichomeris bilobella (Zeller, 1873)
0315	U	Dichomeris purpureofusca (Walsingham, 1882)
0216		Uncertain BC record in Hodges (1986).
0316	U	Dichomeris simpliciella (Busck, 1904)
		Uncertain BC record in Hodges (1986), but there is no reason to doubt that the species occurs here: it was described from Pullman, WA.
0317		Dichomeris gnoma Hodges, 1986
0318		Dichomeris levisella (Fyles, 1904)
0319		Dichomeris leuconotella (Busck, 1904)
0320		Dichomeris offula Hodges, 1986
0520		Dictioniens onala Houses, 1900

Subfa	mil	y Apatetrinae
Tribe	Apa	atetrini
0321		Chrysoesthia drurella (Fabricius, 1775)
0322		Chrysoesthia lingulacella (Clemens, 1860)
Tribe	Pex	ricopiini
0323		Sitotroga cerealella (Olivier, 1789)
Subfa	mil	y Anomologinae
0324		Metzneria lappella (Linnaeus, 1758)
0325		Metzneria paucipunctella Zeller, 1839
		European species released for biocontrol of knapweed (<i>Centaurea</i> spp.) (Weeder et al. 2002). This species may not be established.
0326		Isophrictis trimaculella (Chambers, 1874)
0327		Monochroa fragariae (Busck, 1919)
0328		Monochroa harrisonella (Busck, 1904)
0329		Monochroa placidella (Zeller, 1874)
0330		Enchrysa dissectella Zeller, 1873
0331		Aristotelia devexella Braun, 1925
0332		Aristotelia fungivorella (Clemens, 1864)
0333		Aristotelia isopelta Meyrick, 1929
		Reported by Cannings and Scudder (2007) under the name A. nigrobasiella Clarke,
0334		now a synonym. Aristotelia roseosuffusella (Clemens, 1860)
0335		Aristotelia rubidella (Clemens, 1860)
0336		Bryotropha plantariella (Tengström, 1848)
0337		Bryotropha gemella Rutten & Karsholt, 2004
0337		This widespread and common species was first collected in BC near Hazelton by deWaard (2010).
0338		Bryotropha similis (Stainton, 1854)
0339		Bryotropha hodgesi Rutten & Karsholt, 2004
Subfa	mil	y Gelechiinae
Tribe	Liti	ni
0340		Agnippe prunifoliella (Chambers, 1873)
0341		Recurvaria nanella ([Denis & Schiffermüller], 1775)
		Introduced from Europe; first found in North America in the 1700s (Gillespie and Gillespie 1982).
0342	U	Coleotechnites apicitripunctella (Clemens, 1860)
02.42		Uncertain BC record by Duncan (2006).
0343		Coleotechnites atrupictella (Dietz, 1900)
0344 0345		Coleotechnites blastovora (McLeod, 1962)
		Coleotechnites canusella (Freeman, 1957) Coleotechnites coniferella (Kearfott, 1907)
0346	U	Uncertain record by deWaard et al. (2009).

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0382	Chionodes sabinianae Powell, 1959
0383	Chionodes periculella (Busck, 1910)
0384	Chionodes salicella Sattler, 1967
0385	Chionodes obscurusella (Chambers, 1872)
0386	Chionodes acerella Sattler, 1967
0387	Chionodes metoecus Hodges, 1999
0388	Chionodes occidentella (Chambers, 1875)
0389	Chionodes mediofuscella (Clemens, 1863)
0390	Chionodes terminimaculella (Kearfott, 1908)
0391	Chionodes trichostola (Meyrick, 1923)
0392	Chionodes restio Hodges, 1999
0393	Chionodes pinax Hodges, 1999
0394	Chionodes pseudofondella (Busck, 1908)
0395	Chionodes petalumensis Clarke, 1947
0396	Chionodes lugubrella (Fabricius, 1794)
0397	Chionodes ceanothiella (Busck, 1904)
0398	Chionodes chlorocephala (Meyrick, 1932)
0399	Chionodes retiniella (Barnes & Busck, 1920)
0400	Chionodes grandis Clarke, 1947
0401	Chionodes dolo Hodges, 1999
0402	Chionodes praeclarella (Herrich-Schäffer, 1854)
0403	Chionodes psiloptera (Barnes & Busck, 1920)
0404	Chionodes agriodes (Meyrick, 1927)
0405	Chionodes occlusa (Braun, 1925)
0406	Chionodes boreas Hodges, 1999
0407	Chionodes viduella (Fabricius, 1794)
0408	Chionodes continuella (Zeller, 1839)
0409	Chionodes sattleri Hodges, 1999
0410	Chionodes fictor Hodges, 1999
	Recent BC record collected near Hazelton by deWaard (2010).
0411	Chionodes histon Hodges, 1999
0412	Chionodes lictor Hodges, 1999
0413	Chionodes praecia Hodges, 1999
0414	Chionodes nigrobarbata (Braun, 1925)
0415	Chionodes praetor Hodges, 1999
0416	Chionodes braunella (Keifer, 1931)
0417	Chionodes permacta (Braun, 1925)
0418	Filatima abactella (Clarke, 1932)
0419	Filatima albicostella Clarke, 1942
0420	Filatima aulaea (Clarke, 1932)

0421	Filatima demissae (Keifer, 1931)
0422	Filatima epulatrix Hodges, 1969
0423	Filatima vaccinii Clarke, 1947
0424	Filatima xanthuris (Meyrick, 1927)
0425	Aroga websteri Clarke, 1942
Tribe Gno	orimoschemini
0426	Gnorimoschema albangulatum Braun, 1926
0427	Gnorimoschema assimile Povolný, 2003
0428	Gnorimoschema bacchariselloides Povolný & Powell, 2001
0429	Gnorimoschema brachiatum Povolný, 1998
0430	Gnorimoschema contrarium Braun, 1921
0431	Gnorimoschema dudiella Busck, 1903
0432	Gnorimoschema foliatum Povolný, 2003
0433	Gnorimoschema gallaeasterella (Kellicott, 1878)
0434	Gnorimoschema gallaesolidaginis (Riley, 1869)
0435	Gnorimoschema lateritium Povolný, 2003
0436	Gnorimoschema ligulatum Povolný, 1998
0437	Gnorimoschema nanulum Povolný, 1998
0438	Gnorimoschema octomaculella (Chambers, 1875)
0439	Gnorimoschema pedmontella (Chambers, 1877)
0440	Gnorimoschema septentrionella Fyles, 1911
0441	Gnorimoschema sheperdiae Priest, 2014
0442	Gnorimoschema signatum Povolný, 2003
0443	Gnorimoschema subterraneum Busck, 1911
0444 U	Gnorimoschema triocellella (Chambers, 1877)
	Historical records of this species in western Canada are uncertain.
0445	Phthorimaea operculella (Zeller, 1873)
	This pest, known as the Potato Tuberworm, was introduced from Australia and found in CA by 1856. It was a minor problem in coastal BC in the 1950s and 1960s, but subsequently has not been reported in the province.
0446	Scrobipalpula henshawiella (Busck, 1903)
0447	Scrobipalpula lutescella (Clarke, 1934)
0448	Scrobipalpula manierreorum Priest, 2014
0449	Scrobipalpula psilella (Herrich-Schäffer, 1853)
0450	Scrobipalpula radiatella (Busck, 1904)
0451	Scrobipalpa atriplicella (von Röslerstamm, 1839)
0452	Scrobipalpa macromaculata (Braun, 1925)
0453	Caryocolum cassella (Walker, 1864)
0454	Caryocolum marmorea (Haworth, 1828)
0455	Caryocolum nearcticum Huemer, 1988
0456	Caryocolum proxima (Haworth, 1828)

U Caryocolum pullatella (Tengström, 1848)
 Reported by deWaard (2010) from near Hazelton; determination is uncertain.
 Scrobipalpopsis arnicella (Clarke, 1942)
 Scrobipalpopsis interposita Povolný & Powell, 2001
 Scrobipalpopsis petrella (Busck, 1915)
 Scrobipalpopsis tetradymiella (Busck, 1903)

31. Family Elachistidae (grass moths)

Elachistids are extremely small to small moths, with wingspans of about 6 to 15 mm and upturned palps. The group is united by abdominal and pupal features. The wings are narrow; the hind wings are often broadly fringed, and the head is usually smooth scaled.

Larvae of Elachistinae are leafminers, mostly of monocots such as grasses, sedges and rushes. Larvae of Agonoxeninae are borers or miners on a variety of plant families.

The Elachistidae are distributed worldwide, with about 830 described species. There are 156 species known in North America; 15 of these have been reported from BC. Most North American species of the subfamily Elachistinae have been revised recently by Kaila (1995a, 1995b, 1996, 1997, 1999a, 1999b).

Subfamily Elachistinae

0462		Perittia cygnodiella (Busck, 1921)
0463		Annettenia eremonoma (Braun, 1948)
0464		Elachista subalbidella Schläger, 1847
0465		Elachista aurocristata Braun, 1921
0466		Elachista hololeuca Braun, 1948
0467		Elachista lamina Braun, 1948
0468		Elachista apina Kaila, 1997
0469		Elachista epimicta Braun, 1948
0470	U	Elachista dagnirella Kaila, 1999
		This species was reported from across western North America by Powell and Opler (2009), from YT and AK to WA, SD and CA. British Columbia was not specifically mentioned, but it almost certainly occurs there.
0471		Elachista morwenella Kaila, 1999
0472		Elachista cana Braun, 1920
0473		Elachista amrodella Kaila, 1999

Subfamily Agonoxeninae

Tribe Blastodacnini

0474	Chrysoclista cambiella (Busck, 1915)
0475	Chrysoclista villella (Busck, 1904)
0476	Chrysoclista linneella (Clerck, 1759)

32. Family Coleophoridae (casebearer moths)

Coleophorid moths are very small to small moths that usually have narrow, strongly pointed wings that span less than 20 mm. Most species have pale yellow, golden, or metallic-green forewings.

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Most coleophorid larvae are leafminers in the first instar, then build cases out of silk, excrement, pieces of leaves or other plant parts. These cases are usually cryptic and resemble bits of rolled leaf, buds, seeds, twigs, thorns or bird droppings. Many larvae feed between the upper and lower surfaces of leaves without fully exiting their cases; others feed on seeds or flowers.

The family Coleophoridae ranges worldwide and contains about 1400 species. In North America, the family has 157 described species, all in the genus *Coleophora*. The group is poorly known, and probably hundreds more species await description. Thirty-eight species have been reported in BC. Baldizzone et al. (2006) published a world catalogue of the family.

0477	Coleophora multipulvella Chambers, 1878
	This species has historically been referred to as C. malivorella Riley, a synonym
	(Baldizzone et al. 2006).
0478	Coleophora sacramenta Heinrich, 1914
0479	Coleophora elaeagnisella Kearfott, 1908
0480	Coleophora rosaefoliella Clemens, 1864
0481	Coleophora vancouverensis McDunnough, 1944
0482	Coleophora annulicola Braun, 1925
0483	Coleophora wyethiae Walsingham, 1882
0484	Coleophora pruniella Clemens, 1861
0485	Coleophora cretaticostella Clemens, 1860
0486	Coleophora rupestrella McDunnough, 1955
	Known in BC from a single specimen in the PFC collection, collected at Langford and determined by D. Wright.
0487	Coleophora accordella Walsingham, 1882
0488	Coleophora kearfottella Barnes & Busck, 1920
0489	Coleophora cornella Walsingham, 1882

0.400	Calaanhana alaifaliaa Danaada 1034
0490	Coleophora alnifoliae Barasch, 1934 Recent BC record collected near Hazelton by deWaard (2010).
0491	Coleophora glaucella Walsingham, 1882
0431	Recent BC record collected near Hazelton by deWaard (2010).
0492	Coleophora spinella (Schrank, 1802)
0493	Coleophora serratella (Linnaeus, 1761)
0493	Introduced from Europe; first found in North America in ON in 1885.
0494	Coleophora irroratella Walsingham, 1882
0495	Coleophora laricella (Hübner, [1817])
0433	Known as the Larch Casebearer, this species was introduced from Europe. It was
	first detected in North America in MA in 1886; it was recorded in BC in 1966.
0496	Coleophora rosaevorella McDunnough, 1946
0497	Coleophora acutipennella Walsingham, 1882
0498	Coleophora seminella McDunnough, 1946
0499	Coleophora simulans McDunnough, 1961
0500	Coleophora duplicis Braun, 1921
0501	Coleophora intermediella McDunnough, 1940
0502	Coleophora sparsipulvella Chambers, 1875
	Recent BC record collected near Hazelton by deWaard (2010).
0503	Coleophora atriplicis Meyrick, 1928
	Recently discovered in North America by Landry et al. (2013).
0504	Coleophora sparsiatomella McDunnough, 1941
0505	Coleophora cratipennella Clemens, 1864
0506	Coleophora brunneipennis Braun, 1921
0507	Coleophora bidentella McDunnough, 1941
0508	Coleophora glaucicolella Wood, 1892
0509	Coleophora maritella McDunnough, 1941
0510	Coleophora mayrella (Hübner, [1813])
	Introduced from Europe in 1897 (Covell 1984).
0511	Coleophora trifolii (Curtis, 1832)
0512	Coleophora deauratella Lienig & Zeller, 1846
	This introduced species was collected recently in the Vancouver area by both DH
	and J. deWaard.
0513	Coleophora klimeschiella Toll, 1952
	Recent BC record from the Sicamous area by deWaard (2010).
0514	Coleophora granulatella Zeller, 1849
	Recently discovered in North America by Landry et al. (2013).

33. Family Batrachedridae

Previously placed in the Coleophoridae, batrachedrids are very small moths; in Canada, they are mostly grey-brown, with narrow wings spanning 7 to 17 mm.

Batrachedrid larvae feed on a wide variety of plant material, from fern sporangia to *Juncus* seeds. Some prey on scale insects. Canadian species live on aspen catkins and as inquilines in the galls of *Pontania* sawfly larvae on willow leaves.

A small but worldwide family, the Batrachedridae has about 90 named species, with 25 species known from North America. Three species are recorded in BC. The New World species were revised by Hodges (1966).

- 0515 Batrachedra praeangusta (Haworth, 1828)
- 0516 U Batrachedra striolata Zeller, 1875

The recent BC record collected near Hazelton by deWaard (2010) is based on an uncertain DNA barcode determination.

0517 Batrachedra curvilineella (Chambers, 1872)

This species was erroneously listed by Hodges (1983) in both *Batrachedra* and the elachistid genus *Blastodacna*.

34. Family Scythrididae (teardrop moths)

Scythridids are defined mainly by characters of the larva and the adult genitalia. North American species are generally very small and are teardrop shaped, with dark, narrow wings spanning 10 to 18 mm. Larvae feed externally on buds, flowerheads and leaves, or mine inside leaves. Many scythridids, especially northern and montane species, fly in the daytime.

There are about 670 species of scythridids known around the world. In North America, the family is poorly known, with 44 described species, but the true diversity is probably much higher. Six species have been reported from BC. Landry (1991) revised the known North American fauna.

0518	Scythris eboracensis (Zeller, 1855)
0519	Scythris inspersella (Hübner, [1817])
0520	Scythris noricella Zeller, 1843
0521	Scythris immaculatella Chambers, 1875
0522	Scythris trivinctella (Zeller, 1873)
0523	Landryia impositella (Zeller, 1855)

35. Family Blastobasidae

Blastobasids are very small to small narrow-winged moths, with 8- to 15-mm wingspans and upturned palps. They are defined by obscure wing and larval characteristics. The wings of most species are grey with black

marks. Larvae of most species are scavengers; a few feed on living plants or are opportunistic predators.

The family Blastobasidae comprises about 430 described species and is particularly diverse in the New World. A total of 71 species are known from North America; nine species have been reported from BC. The family requires taxonomic work. The last comprehensive work was by Dietz (1910); Adamski and Hodges (1996) published a nomenclature review and a checklist for the North American species.

Subfamily Holcocerinae

0524	Asaphocrita aphidiella (Walsingham, 1907)
0525	Asaphocrita irenica (Walsingham, 1907)
0526	Holcocera chalcofrontella Clemens, 1863
0527	Holcocera concolor Adamski & Maier, 2003
0528	Holcocera immaculella McDunnough, 1930

Subfamily Blastobasinae

- 0529 U Blastobasis glandulella (Riley, 1871)
 British Columbia record is based on material in the PFC collection that is not identified with certainty.
- 0530 Hypatopa simplicella (Dietz, 1910)
- 0531 *Hypatopa titanella* McDunnough, 1961
 This taxon may be conspecific with the European *H. binotella* Thunberg.
- 0532 Pigritia murtfeldtella (Chambers, 1874)

36. Family Momphidae

This group of very small to small moths is defined by characters of the genitalia. They are narrow-winged, with wingspans of 6 to 18 mm. Many species have black wings with transverse white marks. The larvae eat buds, seeds and flowers, or are stem borers or gall makers. Many species feed on the plant family Onagraceae.

There are 60 described species of Momphidae worldwide, mostly in the genus *Mompha*. Forty-six species are known from North America, 11 of which have been recorded from BC.

Mompha circumscriptella (Zeller, 1873)
 Mompha conturbatella (Hübner, [1819])
 This Old World name is provisionally applied to specimens from western Canada, pending taxonomic review.
 Mompha deceptella (Braun, 1921)

0536	Mompha eloisella (Clemens, 1860)
0537	Mompha idaei (Zeller, 1839)
	This species is often referred to as M. tricristatella (Chambers), a synonym.
0538	Mompha murtfeldtella (Chambers, 1875)
	Reported from BC by Blackmore (1924) and known in BC from specimens in the UBC collection.
0539	Mompha raschkiella (Zeller, 1839)
	This holarctic or possibly introduced species was discovered recently in North America (Pohl et al. 2010). It is known in BC from a specimen photographed by S. Gilmore at Lantzville, on 18 June 2013 (Klinkenberg 2013). Its identity was confirmed by GRP.
0540	Mompha sturnipennella (Treitschke, 1833)
0541	Mompha sexstrigella (Braun, 1921)
	Recent BC record near Hazelton by deWaard (2010).
0542	Mompha nancyae Clarke, 1990
	This species is endemic to Haida Gwaii.
0543	Mompha unifasciella (Chambers, 1876)

37. Family Pterolonchidae

This small group of very small moths has recently been split from the Coleophoridae (Hodges 1999a). It is defined primarily by obscure structural details and wing venation.

About 30 species of Pterolonchidae are known worldwide. Four pterolonchids are known from North America, one of which has been introduced to BC.

Subfamily Pterolonchinae

O544 Pterolonche inspersa Staudinger, 1859
Introduced from Europe for biocontrol of knapweed (Centaurea spp.).

38. Family Lypusidae

As a family, lypusid moths are difficult to recognise without dissection of the genitalia and other structures. The wings are rather broad and rounded, and the ocelli, when present, are far from the eyes. Unlike in some related families, the tops of the abdominal segments of adults lack spiny setae. In larvae, the hind tibia and tarsus are swollen. Larvae feed on a range of plant families, from Betulaceae to Rosaceae and Ericaceae.

The family Lypusidae is a Palaearctic group that has recently been given family status, containing about 150 species. In older literature, the Chimabachinae was usually placed within the Oecophoridae, and the Lypusinae were

associated with the Tineoidea. One species has been introduced to North America, in BC's Lower Mainland. It was treated by Hodges (1974).

Subfamily Chimabachinae

0545 Cheimophila salicella (Hübner, 1796)

- 1

This pest is known as the Blueberry Leafroller. It was introduced from Europe to the BC Lower Mainland in 1955; in North America, it remains restricted to that region (Hodges 1974).

Superfamily Alucitoidea

39. Family Alucitidae (many-plumed moths)

Alucitids are very small moths that have characteristic, deeply divided wing membranes: the forewing has six narrow, scale-edged feather-like lobes, and the hind wings may be six- or seven-plumed. A few tropical species have wings that are only partly or hardly divided.

Alucitid larvae are concealed feeders: they bore in flowers, buds, shoots and fruits, or make galls. Host plants include Caprifoliaceae, Rubiaceae and Asteraceae. The larvae of all three North American species feed on members of the honeysuckle family (Caprifoliaceae). Adults are nocturnal or crepuscular, and often hibernate in sheds and basements.

Over 200 species of Alucitidae are known worldwide, but only three species are known in North America. Two of these have been recorded from BC. For many years, all North American *Alucita* were considered to be *A. hexadactyla* Linnaeus, but three species were recognised by Landry and Landry (2004) in their revision of North American species. Gielis (2003) published a world catalogue of Alucitoidea.

0546 Alucita montana Barnes & Lindsey, 1921

Referred to in older literature as *A. hexadactyla* Linnaeus or *A. huebneri* Wallengren; both are Old World species that do not occur in North America (Landry and Landry 2004).

0547 Alucita adriendenisi Landry & Landry, 2004

Superfamily Pterophoroidea

40. Family Pterophoridae (tee moths; plume moths)

Tee Moths are slender, usually brown or grey moths with long, narrow wings. The forewing is normally notched into two to four lobes (two in our fauna), the hind wing into three more deeply cut, feather-like plumes. Most BC species are small, with wingspans of about 12 to 30 mm. The wings

are rolled and held outstretched horizontally at rest, forming a T-shape with the body.

Pterophorid larvae are usually leaf rollers or borers in plant stems, buds and roots. Many are specific to particular plants, mostly herbaceous dicots, but some feed on woody species.

The family Pterophoridae occurs worldwide, with over 1300 described species; 157 species are recorded in North America. Fifty-four species have been reported from BC. The family was revised by Barnes and Lindsey (1921), but is in need of modern work. Gielis (2003) published a checklist of the world Pterophoroidea.

Subfamily Pterophorinae

Tribe Platyptiliini

0548 Platyptilia tesseradactyla (Linnaeus, 1761) 0549 Platyptilia carduidactylus (Riley, 1869) Platyptilia percnodactylus (Walsingham, 1880) 0550 0551 Platyptilia comstocki Lange, 1939 0552 Platyptilia ardua McDunnough, 1927 0553 *Platyptilia albicans* (Fish, 1881) 0554 Gillmeria pallidactyla (Haworth, 1811) 0555 Gillmeria albertae (Barnes & Lindsey, 1921) 0556 U Anstenoptilia marmarodactyla (Dyar, 1902) Report of BC material by Blackmore (1924) is questionable. British Columbia vouchers in the UBC collection and the AAFC collection in Lethbridge, AB, require verification. 0557 Stenoptilodes antirrhina (Lange, 1939) 0558 Stenoptilia mengeli Fernald, 1898 0559 Stenoptilia exclamationis (Walsingham, 1880) 0560 Stenoptilia coloradensis Fernald, 1898 0561 Stenoptilia columbia McDunnough, 1927 0562 Paraplatyptilia edwardsii (Fish, 1881) 0563 Paraplatyptilia albiciliatus (Walsingham, 1880) 0564 Paraplatyptilia albidus (Walsingham, 1880) 0565 Paraplatyptilia shastae (Walsingham, 1880) The record by ESBC (1906) was declared erroneous by Blackmore (1921): it referred to Oidaematophorus cineraceus Fish. However, Blackmore (1923) and McDunnough (1927b) later reported P. shastae from BC. 0566 Paraplatyptilia nana (McDunnough, 1927) Paraplatyptilia albidorsellus (Walsingham, 1880) 0567

0568 Paraplatyptilia fragilis (Walsingham, 1880) This species was listed by ESBC (1906) and Blackmore (1923), based on material of P. shastae (Walsingham) and P. albidus (Walsingham), which Barnes and Lindsey (1921) considered to be synonyms of *P. fragilis* at that time. However, the species was confirmed from BC by Cannings and Scudder (2007) and Powell and Opler (2009), and is supported by vouchers in the CNC and UBC. 0569 Paraplatyptilia maea (Barnes & Lindsey, 1921) 0570 Amblyptilia pica (Walsingham, 1880) Tribe Oxyptilini 0571 Geina tenuidactylus (Fitch, 1854) 0572 U Capperia ningoris (Walsingham, 1880) No vouchers are known to support historical records of this species from BC; they may refer to C. evansi (McDunnough). 0573 Capperia evansi (McDunnough, 1923) 0574 Oxyptilus delawaricus Zeller, 1873 0575 Dejongia lobidactylus (Fitch, 1854) The ESBC (1906) record of this species was declared erroneous by Blackmore (1921), who stated that the specimens are actually O. delawaricus Zeller. However, it was confirmed from BC by Landry (1987), and BC vouchers exist in the CNC. Trichoptilus pygmaeus Walsingham, 1880 0576 Tribe Oidaematophorini 0577 Hellinsia gratiosus (Fish, 1881) Hellinsia fieldi (Wright, 1921) 0578 0579 Hellinsia phoebus (Barnes & Lindsey, 1921) Hellinsia helianthi (Walsingham, 1880) 0580 Hellinsia homodactylus (Walker, 1864) 0581 0582 Hellinsia pectodactylus (Staudinger, 1859) 0583 Hellinsia kellicottii (Fish, 1881) 0584 Hellinsia lacteodactylus (Chambers, 1873) 0585 Hellinsia costatus (Barnes & Lindsey, 1921) 0586 Hellinsia corvus (Barnes & Lindsey, 1921) 0587 Hellinsia inconditus (Walsingham, 1880) Oidaematophorus occidentalis Walsingham, 1880 0588 Oidaematophorus balsamorrhizae McDunnough, 1939 0589 0590 Oidaematophorus downesi McDunnough, 1927 0591 Oidaematophorus mathewianus (Zeller, 1874) 0592 Oidaematophorus eupatorii (Fernald, 1891) The ESBC (1906) record was declared erroneous by Blackmore (1921), who stated that BC specimens are actually O. guttatus Walsingham and/or O. mathewianus (Zeller). However, there is a BC specimen of O. eupatorii in the CNC. 0593 Oidaematophorus phaceliae McDunnough, 1938 0594 Oidaematophorus grisescens Walsingham, 1880 Oidaematophorus cineraceus Fish, 1881 0595

0596	Oidaematophorus rileyi (Fernald, 1898)
0597	Oidaematophorus castor Barnes & Lindsey, 1921
0598	Oidaematophorus brucei (Fernald, 1898)
	The ESBC (1906) record (repeated by Barnes and Lindsey 1921) was declared erroneous by Blackmore (1921), who stated that BC specimens are actually <i>O. mathewanus</i> (Zeller). However, there are BC specimens of <i>O. brucei</i> in the CNC.
0599	Emmelina monodactyla (Linnaeus, 1758)
0600	Adaina montanus (Walsingham, 1880)
0601	Adaina cinerascens (Walsingham, 1880)

Superfamily Carposinoidea

41. Family Copromorphidae

The Copromorphidae is a small, weakly defined family whose present make-up may not stand up to future taxonomic study. Most species are small, with wingspans from 12 to 20 mm. They have more-or-less rounded wing tips and are coloured for camouflage. The larvae tunnel in fruit, leaf veins, twigs or flower inflorescences, or feed between joined leaves.

Copromorphids are represented by about 40 species, and occur in all regions except the Palaearctic. The family is mainly Asian and Australian. Five species are known in North America; two occur in BC.

0602	Lotisma trigonana (Walsingham, 1879)
0603	Ellabella editha Busck, 1925

42. Family Carposinidae (fruitworm moths)

Carposinids are very small to small moths with broad, lanceolate wings; wingspans in North American species range from 10 to 20 mm. Males frequently have raised scale tufts on the forewings. Larvae are modified for living inside plants. They bore in leaf and flower buds, shoots, fruits, living bark, galls and tree wounds.

The family Carposinidae contains 283 named species, mostly in Asia and the Australo-Pacific region. Eleven species are recorded in North America; one of these occurs in BC.

0604 Bondia crescentella (Walsingham, 1882)

Superfamily Schreckensteinioidea

43. Family Schreckensteiniidae (bristle-legged moths)

Schreckensteiniids are very small, narrow-winged moths, with wingspans usually of 8 to 12 mm. They are characterised by stiff spines on the upper margin of the hind tibiae. Larvae are external feeders on various plants; pupation takes place in a mesh cocoon.

The family Schreckensteiniidae contains only eight species. Three species are known in North America, two of which are recorded from BC.

Schreckensteinia felicella (Walsingham, 1880)Schreckensteinia festaliella Hübner, [1819]

Superfamily Epermenioidea

44. Family Epermeniidae (fringe-tufted moths)

Epermeniids are very small to small moths, with narrow, fringed wings spanning 6 to 20 mm. The forewings usually have one or more tufts of erect scales on the trailing margin. Known larvae begin life as concealed feeders, but feed externally in later instars.

Worldwide, 126 species occur in all regions; 12 are known from North America. Three species are recorded from BC. These moths are rarely encountered and poorly known. The North American members of the family were revised by Gaedike (1977), in German.

607 Epermenia albapunctella Busck, 1908
 608 Epermenia cicutaella Kearfott, 1903
 609 Ochromolopis ramapoella (Kearfott, 1903)

Superfamily Urodoidea

45. Family Urodidae (false burnet moths)

Urodids are small to medium-sized moths, with wings spanning about 15 to 40 mm. The front margin of the male hind wing has a pencil of hairs; the antennae of males are lamellate. The few known larvae of the Urodidae feed on broadleaved trees.

This small family consists of 66 described species, most of which are Neotropical. Two species live in North America; one occurs in BC.

0610 Wockia asperipunctella (Bruand, 1852)

Superfamily Choreutoidea

46. Family Choreutidae (metalmark moths)

The Choreutidae are extremely small to small moths, with wingspans of 5 to 20 mm. The wings are usually broad, frequently with metallic markings or contrasting patterns. The species now placed in the Choreutidae had been placed in various other families, and often had been incorrectly associated with the Glyphipterigidae.

Choreutids fly during the day or at dusk. They often swarm over host plants or perch on flowers; many have a characteristically jerky walk. The larvae are mainly leaf webbers or skeletonisers, but a few species bore in flower inflorescences. Pupae are encased in a lace-like, often double, cocoon in folded leaves.

About 400 species of Choreutidae are known worldwide. There are 33 species in North America; 11 species are known in BC.

Subfamily Choreutinae

0611	Anthophila alpinella (Busck, 1904)
0612	Prochoreutis inflatella (Clemens, 1863)
0613	Prochoreutis pernivalis (Braun, 1921)
0614	Caloreas multimarginata (Braun, 1925)
0615	Caloreas leucobasis (Dyar, 1900)
	Older determinations likely refer to undescribed species, but are retained under this name as a 'placeholder'; CNC material was labelled with unpublished manuscript names by J. B. Heppner in the 1990s.
0616	Tebenna balsamorrhizella (Busck, 1904)
0617	Tebenna piperella (Busck, 1904)
0618	Tebenna onustana (Walker, 1864)
0619	Choreutis pariana (Clerck, 1759) Introduced from Eurasia. First found in North America in NY in 1917 and in BC in 1937 (Doganlar and Bierne 1981).
0620	Choreutis diana (Hübner, [1822])
0621	Choreutis betuliperda (Dyar, 1902)

Superfamily Tortricoidea

47. Family Tortricidae (bell moths and leafroller moths)

Tortricids are very small to medium-sized moths. Their wingspans range from about 7 to 35 mm, rarely to 60 mm. The forewings are broad and usually square tipped, giving the adult a characteristic bell or shield shape when the wings are folded tent-like at rest. The moths are usually cryptically

coloured—tan, brown or grey, and striped, spotted or marbled—but some have shiny, metallic markings.

Tortricid larvae feed upon a vast array of plant families. Many species are leafrollers, but larvae of many species have other habits: as leaftiers, as feeders in buds, flowers, shoots and seeds, and as borers in plant parts. Leafrolling larvae often pupate in silk-tied shelters on the food plant; many boring larvae pupate in the ground. Most adults are nocturnal, but there are several brightly coloured day-flying groups. The Tortricidae contains many agricultural and forest pests.

The family Tortricidae is a large group with about 10 400 named species. In North America, about 1390 species are described, with 440 reported in BC (and one more species listed as "expected"), making it the second-largest family of Lepidoptera in the province. The subfamily Olethreutinae has historically been given separate family status. The Subtribe Cochylina, here placed in the Tortricinae, has also historically been considered a family (Cochylidae). Despite the importance of many tortricid species as pests, many groups within the family are not well known. Some major published works cover the Tortricini (Razowski 1966), Archipini (Freeman 1958), Sparganothini and Atteriini (Powell and Brown 2012), and most of the Olethreutinae (Heinrich 1923, 1926). Brown (2005) recently published a world catalogue. Recently, Gilligan et al. (2014) redefined the large genera *Phaneta* and *Eucosma*, and moved several species from *Eucosma* to the new genus *Eucopina*. Wright and Gilligan (2015) reviewed the North American species of *Eucosma*.

Subfamily Tortricinae Tribe Tortricini

0622 Acleris forsskaleana (Linnaeus, 1758) I 0623 Acleris albicomana (Clemens, 1865) 0624 Acleris curvalana (Kearfott, 1907) 0625 Acleris holmiana (Linnaeus, 1758) I Introduced from Eurasia; first found in North America in BC in 1977. 0626 Acleris comariana (Zeller, 1846) The Strawberry Tortrix was introduced from Europe and first detected in North America in BC in 1972 (Gillespie and Gillespie 1982). 0627 Acleris caliginosana (Walker, 1863) 0628 Acleris ptychogrammos (Zeller, 1875) Acleris nivisellana (Walsingham, 1879) 0629

0630	Acleris rhombana ([Denis & Schiffermüller], 1775)
0631	Acleris cervinana (Fernald, 1882)
0632	Acleris subnivana (Walker, 1863)
0633	Acleris braunana (McDunnough, 1934)
0634	Acleris fuscana (Barnes & Busck, 1920)
0635	Acleris semiannula (Robinson, 1869)
0636	Acleris implexana (Walker, 1863)
0637	Acleris cornana (McDunnough, 1933)
0638	Acleris forbesana (McDunnough, 1934)
0639	Acleris schalleriana (Linnaeus, 1761)
0640	Acleris okanagana (McDunnough, 1940)
0641	Acleris oxycoccana (Packard, 1869)
0642	Acleris variegana ([Denis & Schiffermüller], 1775)
	Introduced from Eurasia; first detected in North America in Victoria in 1922 (Blackmore 1923).
0643	Acleris hastiana (Linnaeus, 1758)
0644	Acleris fragariana Kearfott, 1904
0645	Acleris celiana (Robinson, 1869)
0646	Acleris arcticana (Guenée, 1845)
0647	Acleris robinsoniana (Forbes, 1923)
0648	Acleris britannia Kearfott, 1904
0649	Acleris logiana (Clerck, 1759)
	Subspecies <i>placidana</i> (Robinson) has been reported from BC (Obraztsov 1963).
0650	Acleris senescens (Zeller, 1874)
0651	Acleris maculidorsana (Clemens, 1864)
0652	Acleris minuta (Robinson, 1869)
0653	Acleris paracinderella Powell, 1964
0654	Acleris gloveranus (Walsingham, 1879)
0655	Western Black-headed Budworm. Acleris variana (Fernald, 1886)
0033	Eastern Black-headed Budworm. Report of this species from western BC by
	Blackmore (1921) refers to <i>A. gloveranus</i> (Walsingham), but <i>A. variana</i> occurs in BC's Peace River region.
0656	Acleris maccana (Treitschke, 1835)
0657	Acleris inana (Robinson, 1869)
0658	Acleris scabrana ([Denis & Schiffermüller], 1775)
0659	Acleris bowmanana (McDunnough, 1934)
0660	Acleris aenigmana Powell, 1964
0661	Acleris nigrolinea (Robinson, 1869)
0662	Acleris maximana (Barnes & Busck, 1920)

0663	Acleris effractana (Hübner, 1822)
	Listed by Cannings and Scudder (2007) as A. emargana (Fabricius), an Old World species. North American specimens have recently been recognised as distinc (Karsholt et al. 2005).
0664	Acleris foliana (Walsingham, 1879)
0665	Acleris hudsoniana (Walker, 1863)
	nephasiini
0666	Cnephasia longana (Haworth, 1811)
0000	Known as the Omnivorous Leaftier, this species was introduced from Europe; i was first found in North America in OR in 1929.
0667	Cnephasia stephensiana (Doubleday, 1849)
0668	Eana argentana (Clerck, 1759)
0669	J Eana georgiella (Hulst, 1887)
0670	Identity of Canadian material identified as this species is uncertain. J Eana osseana (Scopoli, 1763)
	Most material previously identified as this species in western Canada has been re determined as <i>E. idahoensis</i> Obraztsov, although true <i>E. osseana</i> is known from the Rocky Mountains in AB and probably also occurs in BC (J. J. Dombroskie, persona communication). The subspecies <i>niveosana</i> (Packard) has been reported from BC
0671	Eana idahoensis Obraztsov, 1963
0672	Decodes fragariana (Busck, 1919)
0673	Decodes horariana (Walsingham, 1879)
	Powell (1980) claimed this species is restricted to WA–OR, and that northern Rocky Mountain specimens are <i>D. macdunnoughi</i> Powell. However, the relationship and boundaries between the two species in western Canada remain uncertain.
0674	Decodes macdunnoughi Powell, 1980
Tribe E	uliini
Subtrib	e Cochylina
0675	Phtheochroa aegrana (Walsingham, 1879)
0676	Phtheochroa aureoalbida (Walsingham, 1895)
0677	Phtheochroa baracana (Busck, 1907)
	Reported from BC by J. J. Dombroskie (personal communication).
0678	Phtheochroa canariana (Barnes & Busck, 1920)
	Reported from BC by J. J. Dombroskie (personal communication).
0679	Phtheochroa cartwrightana (Kearfott, 1907)
0680	Phtheochroa fulviplicana (Walsingham, 1879) Records by Razowski (1997) include P. canariana (Barnes & Busck), treated thereir as a synonym.
0681	Phtheochroa riscana (Kearfott, 1907)
	J Phtheochroa villana (Busck, 1907)
0683	Phtheochroa viiana (Busck, 1907) Phtheochroa vitellinana (Zeller, 1875)
0684	Phtheochroa vulneratana (Zetterstedt, 1839)
0685	Phtheochroa waracana (Kearfott, 1907)
0686	Henricus contrastana (Kearfott, 1907)
0000	Henneus Contrastaria (Neariott, 1907)

0687	Henricus fuscodorsana (Kearfott, 1904)
0688	Henricus infernalis (Heinrich, 1920)
	Listed by Cannings and Scudder (2007) under the name <i>H. brevipalpata</i>
0689	McDunnough, a synonym. Platphalonia lavana (Busck, 1907)
	•
0690	Agapeta zoegana (Linnaeus, 1767) European species released for biocontrol of knapweed (Centaurea spp.) (Weeden
	et al. 2002).
0691	Aethes biscana (Kearfott, 1907)
	Reported from BC by J. J. Dombroskie (personal communication).
0692	Aethes deutschiana (Zetterstedt, 1840)
0693	Aethes monera Razowski, 1986
0694	Aethes promptana (Robinson, 1869)
	Although most historical records of this species in western Canada are actually
	A. razowskii Sabourin & Miller, two BC specimens barcode consistently with true A. promptana.
0695	Aethes razowskii Sabourin & Miller, 2002
0696	Aethes rutilana (Hübner, 1818)
0697	Aethes smeathmanniana (Fabricius, 1781)
0698	Thyraylia bunteana (Robinson, 1869)
0699	Thyraylia nana (Haworth, 1811)
0700	Cochylis atricapitana (Stephens, 1852)
	Introduced from Europe for biocontrol of Tansy Ragwort (De Clerck-Floate &
0701	Carcamo 2011).
0701	Cochylis dubitana (Hübner, 1799)
0702	Cochylis hoffmanana (Kearfott, 1907)
0703	Recently collected in BC by DH. "Cochylis" voxcana (Kearfott, 1907)
Subtribe	,
0704	Eulina Eulia ministrana (Linnaeus, 1758)
0705	Anopina ednana (Kearfott, 1907)
0706	Anopina arizonana (Walsingham, 1884)
0707	Apotomops wellingtoniana (Kearfott, 1907)
Tribe Ar	
0708	Pandemis cerasana (Hübner, 1786)
0700	Introduced from Eurasia; first found in North America in BC in 1964.
0709	Pandemis heparana ([Denis & Schiffermüller], 1775)
	Introduced from Eurasia; first found in North America in BC in 1978.
0710	Pandemis lamprosana (Robinson, 1869)
0711	Pandemis limitata (Robinson, 1869)
0712	Pandemis canadana Kearfott, 1905
0713	Pandemis pyrusana Kearfott, 1907
0714	Pandemis coniferana Mutuura, 1978

0715	U	Argyrotaenia velutinana (Walker, 1863)
0716	U	Argyrotaenia pinatubana (Kearfott, 1905)
0717		Argyrotaenia tabulana Freeman, 1944
0718		Argyrotaenia gogana (Kearfott, 1907)
0719		Argyrotaenia occultana Freeman, 1942
0720		Argyrotaenia provana (Kearfott, 1907)
0721	Н	Argyrotaenia franciscana (Walsingham, 1879)
		The Orange Tortrix. This species was introduced from Europe; in BC, it occurs only in greenhouses (Freeman 1958). It has often been referred to as <i>A. citrana</i> (Fernald) but that is now treated as a subspecies of <i>A. franciscana</i> .
0722		Argyrotaenia dorsalana (Dyar, 1903)
0723	U	Choristoneura fractivittana (Clemens, 1865)
0724		Choristoneura zapulata (Robinson, 1869)
0725		Choristoneura rosaceana (Harris, 1841)
0726		Choristoneura albaniana (Walker, 1863)
0727		Choristoneura conflictana (Walker, 1863)
0728		Choristoneura fumiferana (Clemens, 1865)
		This species is known as the Eastern Spruce Budworm; it is a serious pest of conifers
0729		east of the Rocky Mountains. Choristoneura freemani Razowski, 2008
0723		This species, the Western Spruce Budworm, has historically been known as <i>C. occidentalis</i> Freeman, but a taxonomic rearrangement has rendered that name an unavailable homonym. That has not been universally accepted, but it is the valid name following the International Code of Zoological Nomenclature (Razowski 2008, Gilligan and Brown 2014).
0730		Choristoneura biennis Freeman, 1967
		The Two-year-cycle Budworm.
0731		Choristoneura orae Freeman, 1967
0732		Choristoneura pinus Freeman, 1953 The Jack Pine Budworm.
0733		Choristoneura lambertiana (Busck, 1915)
0734		Archips packardiana (Fernald, 1886)
0735		Archips striana Fernald, 1905
0736		Archips alberta (McDunnough, 1923)
0737	U	Archips dissitana (Grote, 1879) Recently collected in BC near Hazelton, by deWaard (2010), but the record requires verification.
0738		Archips tsuganus (Powell, 1962)
0739	S	Archips oporana (Linnaeus, 1758)
		This species was introduced from Eurasia. It may not be established; a few specimens have been collected at Vancouver, BC, and Font Hill, ON (Freeman 1958). The identity of FIDS specimens collected at Hope, BC, in 1959 in the PFC requires verification.

0740	Archips rosana (Linnaeus, 1758)
	The European Leafroller. Introduced from Europe.
0741	Archips podana (Scopoli, 1763)
	Introduced from Europe in 1897 (Covell 1984).
0742	Archips argyrospila (Walker, 1863)
	Subspecies columbiana (McDunnough), type locality Salmon Arm, occurs in BC.
0743	Archips mortuana Kearfott, 1907
0744	Archips eleagnana (McDunnough, 1923)
0745	Archips negundana (Dyar, 1902)
0746 U	Archips grisea (Robinson, 1869)
	Recently collected in BC near Sicamous by deWaard (2010). This species is other-
	wise not known from western North America, and the record requires confirmation.
0747	Archips cerasivorana (Fitch, 1856)
0748	Archips fervidana (Clemens, 1860)
0749	Archips purpurana (Clemens, 1865)
0750	Syndemis afflictana (Walker, 1863)
0751	Lozotaenia rindgei Obraztsov, 1962
0752	Aphelia alleniana (Fernald, 1882)
0753	Aphelia koebelei Obraztsov, 1959
0754	Dichelia histrionana (Frölich, 1828)
0755	Clepsis fucana (Walsingham, 1879)
0756	Clepsis spectrana (Treitschke, 1830)
0757	Clepsis persicana (Fitch, 1856)
	Subspecies <i>forbesi</i> Obraztsov (described from Wellington, BC) occurs in southern BC.
0758	Clepsis consimilana (Hübner, 1822)
	Introduced from Europe in 1897 (Covell 1984).
0759	Clepsis clemensiana (Fernald, 1879)
0760	Clepsis moeschleriana (Wocke, 1862)
0760.1 P	Clepsis melaleucana (Walker, 1863)
	No BC records are known for this species, but it almost certainly occurs in BC's
0761	Peace River region.
0761	Clepsis peritana (Clemens, 1860) The Garden Tortrix.
0762	Clepsis penetralis Razowski, 1979
0702	A specimen was collected on 19 August 2011 from Port Alberni, BC, by L. Avis, and
	was identified via DNA barcoding. This species was described from UT and was
	recently found in the Rocky Mountains of AB (Pohl et al. 2011), so this represents
0763	a western range extension for the species.
0763	Clepsis virescana (Clemens, 1865)
0764	Ditula angustiorana (Haworth, 1811)
	Introduced from Europe. First found in North America in BC in 1924 (Gillespie and Gillespie 1982).
0765	Xenotemna pallorana (Robinson, 1869)

Tribe Sp	arganothini
0766	Amorbia cuneana (Walsingham, 1879)
0767	Amorbia humerosana Clemens, 1860
0768	Sparganothis sulfureana (Clemens, 1860) This otherwise eastern species may occur naturally in BC's Peace River region. However, it has appeared recently in the Lower Mainland, where it feeds on commercial blueberry crops.
0769	Sparganothis unifasciana (Clemens, 1864) Reported from BC by J. J. Dombroskie (personal communication).
0770	Sparganothis violaceana (Robinson, 1869)
0771	Sparganothis xanthoides (Walker, 1863)
0772	Sparganothis senecionana (Walsingham, 1879)
0773	Sparganothis tunicana (Walsingham, 1879)
0774	Sparganothis vocaridorsana Kearfott, 1905
0775	Sparganothis striata (Walsingham, 1884)
0776	Cenopis reticulatana (Clemens, 1860) Reported from the Vancouver area by Powell and Brown (2012).
0777	Platynota idaeusalis (Walker, 1859)
0778 H	Platynota stultana Walsingham, 1884 i
	The Omnivorous Leafroller. This species is native to Mexico, but has been introduced to CA and the eastern USA. It has been reported in BC, but appears to occur here only in greenhouses.
Subfami	ly Olethreutinae
	lethreutini
0779	Endothenia hebesana (Walker, 1863)
0780	Endothenia nubilana (Clemens, 1865)
0781	Taniva albolineana (Kearfott, 1907)
0782	Bactra lancealana (Hübner, [1799])
0783	Bactra furfurana (Haworth, 1811)
0784	Bactra verutana Zeller, 1875
0785	Episimus argutanus (Clemens, 1860)
0786	Paralobesia piceana (Freeman, 1941)
0787	Lobesiodes euphorbiana (Freyer, 1842) Introduced to BC for biocontrol of Leafy Spurge.
0788	Apotomis funerea (Meyrick, 1920)
0789	Apotomis removana (Kearfott, 1907)
0790	Apotomis apateticana (McDunnough, 1922)
0791	Apotomis tertiana (McDunnough, 1922)
0792	Apotomis bifida (McDunnough, 1938) Collected recently in BC near Hazelton by deWaard (2010).
0793	Apotomis capreana (Hübner, [1817])
0794	Apotomis deceptana (Kearfott, 1905)

0795		Apotomis frigidana (Packard, 1867)
0796		Apotomis spinulana (McDunnough, 1938)
0797		Apotomis infida (Heinrich, 1926)
0798		Pseudosciaphila duplex (Walsingham, 1905)
0799		Orthotaenia undulana ([Denis & Schiffermüller], 1775)
0800		Olethreutes olivaceana (Fernald, 1882)
0801		Olethreutes punctanum (Walsingham, 1903)
0802		Olethreutes quadrifidum (Zeller, 1875)
0803		Olethreutes baccatana (McDunnough, 1942)
0804		Olethreutes permundana (Clemens, 1860)
0805		Olethreutes appendiceum (Zeller, 1875)
0806		Olethreutes fasciatana (Clemens, 1860)
0807		Olethreutes albiciliana (Fernald, 1882)
8080		Olethreutes siderana Treitschke, 1834
		Subspecies chalybeana (Walsingham) has been reported from BC.
0809		Olethreutes galaxana Kearfott, 1907
		The nominate subspecies and subspecies <i>glitranana</i> Kearfott have been reported from BC.
0810		Olethreutes astrologana (Zeller, 1875)
0811	U	Olethreutes coruscana (Clemens, 1860)
0011	Ü	Most historical records under this name in western Canada refer to <i>O. metallicana</i>
		(Hübner). True O. coruscana is known only as far west as SK, but it may also occur
0013		in AB and BC (Miller 1985).
0812		Olethreutes metallicana (Hübner, 1796)
0813		Olethreutes nordeggana (McDunnough, 1922)
0814		Olethreutes heinrichana (McDunnough, 1927)
0815		Olethreutes minaki (McDunnough, 1929)
0816		Olethreutes deprecatorius Heinrich, 1926
0817		Olethreutes carolana (McDunnough, 1922)
0818		Olethreutes polluxana (McDunnough, 1922)
0819		Olethreutes glaciana (Möschler, 1860)
0820		Olethreutes bipartitana (Clemens, 1860)
0821		Olethreutes trinitana (McDunnough, 1931)
0822		Olethreutes schulziana (Fabricius, 1777)
0823		Olethreutes turfosana (Herrich-Schäffer, 1851)
0824		Olethreutes septentrionana (Curtis, 1831)
0825		Olethreutes mengelana (Fernald, 1894)
0826		Olethreutes costimaculana (Fernald, 1882)
0827		Olethreutes buckellana (McDunnough, 1922)
0828		The nominate subspecies occurs in BC. Celypha cespitana (Hübner, [1817])
0020		Cerypha Cespitalia (Hubilei, [1017])

0000	1 1 1 1 (0 (10.17)
0829	Argyroploce dalecarliana (Guenée, 1845)
0830	Hedya separatana (Kearfott, 1907)
0831	Hedya ochroleucana (Frölich, 1828)
0832	Hedya nubiferana (Haworth, 1811)
	Introduced from Europe; first found in North America in NS in 1913 and in BC in 1914.
Tribe Fn	armoniini
0833	Ancylis nubeculana (Clemens, 1860)
0834	Ancylis subaequana (Zeller, 1875)
	Subspecies <i>kincaidiana</i> (Fernald) has been reported from BC.
0835	Ancylis discigerana (Walker, 1863)
0836	Ancylis metamelana (Walker, 1863)
0837	Ancylis tenebrica (Heinrich, 1929)
0838	Ancylis semiovana (Zeller, 1875)
0839	Ancylis columbiana (McDunnough, 1955)
0840	Ancylis simuloides (McDunnough, 1955)
0841	Ancylis laciniana (Zeller, 1875)
0842	Ancylis burgessiana (Zeller, 1875)
0843	Ancylis mira Heinrich, 1929
0844	Ancylis comptana (Frölich, 1828)
	Introduced from Eurasia?
0845	Ancylis apicana (Walker, 1866)
0846 U	,
	This species was reported from BC by ESBC (1906) as subspecies <i>cornifoliana</i> Riley, but no vouchers are known. This species is otherwise unknown in western Canada.
0847	Ancylis diminutana (Haworth, 1811)
00	Reported by ESBC (1906) and other early authors under the names "diminuatana"
	Kearfott", a misspelling or unjustified redescription, and "biarcuana (Stephens)", a
0040	synonym of the similar Palaearctic <i>A. geminana</i> (Donovan) (see Heinrich 1923).
0848	Ancylis unguicella (Linnaeus, 1758)
0849	Ancylis pacificana (Walsingham, 1879)
0850	Ancylis mediofasciana (Clemens, 1864)
0851	Ancylis tineana (Hübner, [1799])
0852	Hystrichophora paradisiae Heinrich, 1923
0853	Hystrichophora stygiana (Dyar, 1903) The subspecies californiae Heinrich has been reported from BC.
0854	Hystrichophora asphodelana (Kearfott, 1907)
0855	Enarmonia formosana (Scopoli, 1763)
Tribe Eu	·
0856	Rhyacionia buoliana ([Denis & Schiffermüller], 1775)
5550	Introduced from Europe. Found in North America in NY in 1913 and in BC in 1938.
0857	Rhyacionia pasadenana (Kearfott, 1907)

0858	Rhyacionia zozana (Kearfott, 1907)
0859	Rhyacionia busckana Heinrich, 1923
0860	Rhyacionia subcervinana (Walsingham, 1879)
0861	Retinia albicapitana (Busck, 1914)
0862	Retinia metallica (Busck, 1914)
0863	Retinia burkeana (Kearfott, 1907)
	Collected recently in BC by DH; determined by E. Lagasa.
0864	Retinia picicolana (Dyar, 1906)
0865	Barbara colfaxiana (Kearfott, 1907)
	Subspecies <i>coloradensis</i> (Heinrich) and <i>taxifoliella</i> (Busck) have been reported from BC. Blackmore (1924) reported it as subspecies <i>siskiyouana</i> (Kearfott), now recognised as a valid species in the genus <i>Eucopina</i> .
0866	Barbara mappana Freeman, 1941
0867	Spilonota ocellana ([Denis & Schiffermüller], 1775)
	Introduced from Eurasia; first found in North America in MA in 1841.
0868	Eucosma awemeana (Kearfott, 1907)
0869	Eucosma indeterminana (McDunnough, 1925)
0870	Eucosma umbrastriana (Kearfott, 1907)
0871	Eucosma altana (McDunnough, 1927)
0872	Eucosma corculana (Zeller, 1874)
0873	Eucosma verna (Miller, 1971)
0874	Eucosma formosana (Clemens, 1860)
0875	Eucosma marmontana (Kearfott, 1907)
0876	Eucosma oregonensis (Heinrich, 1923)
0877	Eucosma parmatana (Clemens, 1860)
0878	Eucosma modernana (McDunnough, 1925)
0879	Eucosma fasciculatana (McDunnough, 1938)
0880	Eucosma latens (Heinrich, 1929)
0881	Eucosma columbiana (Walsingham, 1879)
0882	Eucosma apacheana (Walsingham, 1884)
0883	Eucosma influana (Heinrich, 1923)
0884	Eucosma lapidana (Walsingham, 1879)
0885	Eucosma elongana (Walsingham, 1879)
0886	Eucosma rupestrana (McDunnough, 1925)
0887	Eucosma transversa (Walsingham, 1895)
0888	Eucosma tarandana (Möschler, 1874)
0889	Eucosma nepotinana (Heinrich, 1923)
0890	Eucosma complicana (McDunnough, 1925)
	This species is known only from the holotype, collected at Osoyoos on 19 May 1923 by C. B. Garrett.

0001	F (H. 1. 1. 1000)
0891	Eucosma misturana (Heinrich, 1923) Heinrich's (1923) report of this species from "White Pass AK" is actually from BC.
0892	Eucosma fertoriana (Heinrich, 1923)
0893	Eucosma crassana (McDunnough, 1938)
0894	Eucosma alatana (McDunnough, 1938)
0895	e e e e e e e e e e e e e e e e e e e
	Eucosma indagatricana (Heinrich, 1923)
0896	Eucosma dorsiatomana (Kearfott, 1905)
0897	Eucosma striatana (Clemens, 1860)
0898	Eucosma occidentalis (Heinrich, 1923)
	Raised from a subspecies of <i>E. striatana</i> (Clemens) to full species status by Wright and Gilligan (2015).
0899	Eucosma implicata (Heinrich, 1931)
0900	Eucosma pallidarcis (Heinrich, 1923)
0901	Eucosma pallidicostana (Walsingham, 1879)
0902	Eucosma perangustana (Walsingham, 1879)
0903	Eucosma kiscana (Kearfott, 1905)
0904	Eucosma artemisiana (Walsingham, 1879)
	No BC vouchers are known for this species, reported from BC by ESBC (1906), but
	it occurs in WA. There is no reason to doubt that it occurs in BC.
0905	Eucosma infimbriana (Dyar, 1904)
0906	Eucosma octopunctana (Walsingham, 1895)
0907	Eucosma youngi (McDunnough, 1925)
0908	Eucosma setonana (McDunnough, 1927)
0909	Eucosma montanana (Walsingham, 1884)
0910	Eucosma griseocapitana (Walsingham, 1879)
0911	Pelochrista crambitana (Walsingham, 1879)
0912	Pelochrista canariana (Kearfott, 1907)
0913	Pelochrista ridingsana (Robinson, 1869)
0914	Pelochrista caniceps (Walsingham, 1884)
0915	Pelochrista optimana (Dyar, 1893)
0916	Pelochrista ragonoti (Walsingham, 1895)
0917	Pelochrista serpentana (Walsingham, 1895)
0918	Pelochrista morrisoni (Walsingham, 1884)
0919	Pelochrista agricolana (Walsingham, 1879)
0920	Pelochrista smithiana (Walsingham, 1895)
0921	Pelochrista watertonana McDunnough, 1925
0922	Pelochrista louisana (McDunnough, 1944)
0923	Pelochrista subflavana (Walsingham, 1879)
0924	Pelochrista Iolana (Kearfott, 1907)
0925	Pelochrista dodana (Kearfott, 1907)
0926	Pelochrista biplagata (Walsingham, 1895)
3320	. S.

0927	Pelochrista nandana (Kearfott, 1907)
0928	Pelochrista dorsisignatana (Clemens, 1860)
0929	Pelochrista juncticiliana (Walsingham, 1879)
0930	Pelochrista derelicta (Heinrich, 1929)
0931	Pelochrista excusabilis (Heinrich, 1923)
0932	Pelochrista hohana (Kearfott, 1907)
0933	Pelochrista biquadrana (Walsingham, 1879)
0934	Pelochrista cataclystiana (Walker, 1863)
0935	Pelochrista conspiciendana (Heinrich, 1923)
0936	Pelochrista argenteana (Walsingham, 1895)
0937	Pelochrista scintillana (Clemens, 1865)
0938	Pelochrista mediostriata (Walsingham, 1895)
0939	Pelochrista kingi Wright, 2008
	This species was reported as <i>Eucosma occipitana</i> (Zeller) by Cannings and Scudder (2007), prior to the description of <i>P. kingi</i> as a distinct species.
0940	Pelochrista rorana (Kearfott, 1907)
0941	Pelochrista metariana (Heinrich, 1923)
0942	Pelochrista comatulana (Zeller, 1875)
0943	Pelochrista medullana (Staudinger, 1879)
0044	Introduced from biocontrol of knapweed.
0944	Eucopina sonomana (Kearfott, 1907)
0945	Eucopina bobana (Kearfott, 1907)
0946	Eucopina ponderosa (Powell, 1968)
0947	Eucopina rescissoriana (Heinrich, 1920)
0948	Eucopina siskiyouana (Kearfott, 1907)
0949	Epiblema hirsutana (Walsingham, 1879)
0950 U	No specimens are known to support the BC record by Blackmore (1924; as <i>E. gratuitana</i> Heinrich, a synonym), but the species is known from WA and likely
0951	occurs in BC as well. Epiblema periculosana Heinrich, 1923
0952	Epiblema brightonana (Kearfott, 1907)
0953	Epiblema resumptana (Walker, 1863)
0954	Notocelia rosaecolana (Doubleday, 1850)
0331	Recent collection in BC by DH.
0955	Notocelia cynosbatella (Linnaeus, 1758)
	Introduced from Europe; first found in North America in BC in 1978.
0956	Notocelia purpurissatana (Heinrich, 1923)
0957	Notocelia illotana (Walsingham, 1879)
0958	Notocelia culminana (Walsingham, 1879)
0959	Gypsonoma fasciolana (Clemens, 1864)

0960	Gypsonoma haimbachiana (Kearfott, 1907)
0961	Gypsonoma substitutionis Heinrich, 1923
0962	Gypsonoma salicicolana (Clemens, 1864)
0963	Gypsonoma adjuncta Heinrich, 1924
0964	Gypsonoma aceriana (Duponchel, 1842)
0304	This introduced species was collected in BC recently by DH; determined by
	E. Lagasa.
0965	Proteoteras aesculana Riley, 1881
0966	Proteoteras willingana (Kearfott, 1904)
0967	Proteoteras arizonae Kearfott, 1907
0968 U	Proteoteras obnigrana Heinrich, 1923
0969	Zeiraphera pacifica Freeman, 1966
0970	Zeiraphera canadensis Mutuura & Freeman, [1967]
	The Spruce Bud Moth. Prior to its description in 1967, this species was referred to
0071	under the Palaearctic name <i>Z. ratzeburgiana</i> (Saxesen).
0971	Zeiraphera improbana (Walker, 1863)
0972	Zeiraphera fortunana (Kearfott, 1907)
0973	Zeiraphera unfortunana Ferris & Kruse, 2008 The authority for the name <i>unfortunana</i> is often cited as "Powell (1983)", but
	Powell (in Hodges et al. 1983) proposed the name without a description, making
	it a nomen nudum. The species Z. unfortunana was formally described by Ferris
0074	and Kruse (2008).
0974	Zeiraphera hesperiana Mutuura & Freeman, [1967]
0975	Zeiraphera vancouverana McDunnough, 1925
0976	Pseudexentera oregonana (Walsingham, 1879)
0977	Pseudexentera maracana (Kearfott, 1907)
0978	Rhopobota naevana (Hübner, [1817])
0979	Epinotia radicana (Heinrich, 1923)
0980	Epinotia trigonella (Linnaeus, 1758)
	Also listed by Cannings and Scudder (2007) under the name <i>indecorana</i> Zetterstedt, a recent synonym.
0981	Epinotia solandriana (Linnaeus, 1758)
0982	Epinotia pulsatillana (Dyar, 1903)
0983	Epinotia castaneana (Walsingham, 1895)
0984	Epinotia johnsonana (Kearfott, 1907)
0985	Epinotia madderana (Kearfott, 1907)
0986	Epinotia albicapitana (Kearfott, 1907)
0987	Epinotia hopkinsana (Kearfott, 1907)
	Subspecies <i>cupressi</i> Heinrich has been reported from BC.
0988	Epinotia subviridis Heinrich, 1929
0989	Epinotia subplicana (Walsingham, 1879)
0990	Epinotia rectiplicana (Walsingham, 1879)
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0991	Epinotia solicitana (Walker, 1863)
0992	Epinotia nisella (Clerck, 1759)
0993	Epinotia cinereana (Haworth, 1811)
	This species was previously known as E. criddleana (Kearfott), which was recently
0004	synonymised by Mutanen et al. (2012) and shown to be Holarctic.
0994	Epinotia albangulana (Walsingham, 1879)
0995	Epinotia transmissana (Walker, 1863)
0996	Early reports of this species in BC refer to <i>E. digitana</i> Heinrich (Blackmore 1924). <i>Epinotia momonana</i> (Kearfott, 1907)
0990	Recently collected in BC near Hazelton by deWaard (2010).
0997	Epinotia terracoctana (Walsingham, 1879)
0998	Epinotia miscana (Kearfott, 1907)
0999	Epinotia silvertoniensis Heinrich, 1923
1000	Epinotia digitana Heinrich, 1923
1001	Epinotia nigralbana (Walsingham, 1879)
1002	Epinotia sagittana McDunnough, 1925
1003	Epinotia emarginana (Walsingham, 1879)
1004	Epinotia columbia (Kearfott, 1904)
	Listed by Cannings and Scudder (2007) and many others as <i>E. crenana</i> (Hübner),
	an Old World species. North American specimens have recently been recognised as distinct (Brown 2005).
1005	Epinotia bigemina Heinrich, 1923
1006	Epinotia arctostaphylana (Kearfott, 1904)
1007	Epinotia normanana Kearfott, 1907
1008	Epinotia nanana (Treitschke, 1835)
	This species was introduced from Europe and first recorded in North America in
1000	MA in 1907. It was present in BC before 1965 (Gillespie and Gillespie 1982).
1009	Epinotia tsugana Freeman, 1967
1010	Epinotia meritana Heinrich, 1923
1011	Epinotia Iomonana (Kearfott, 1907)
1012	Epinotia medioplagata (Walsingham, 1895)
1013	Epinotia cruciana (Linnaeus, 1761)
1014	Epinotia plumbolineana Kearfott, 1907
1015	Epinotia vagana Heinrich, 1923
1016	Epinotia seorsa Heinrich, 1924
1017	Epinotia kasloana McDunnough, 1925
1018	Epinotia signiferana Heinrich, 1923
1019	Epinotia lindana (Fernald, 1892)
1020	Epinotia trossulana (Walsingham, 1879)
1021	Epinotia biangulana (Walsingham, 1879)
1022	Epinotia salicicolana Kuznetsov, 1968 1? Introduced from Eurasia?
	initoduced from Ediasias

		Probably introduced to BC from eastern North America, according to Brown (1986).
Tribe	Gra	pholitini
1024		Dichrorampha simulana (Clemens, 1860)
1025		Dichrorampha vancouverana McDunnough, 1935
1026		Dichrorampha radicicolana Walsingham, 1879
1027		Dichrorampha piperana (Busck, 1900)
1028		Dichrorampha sedatana (Busck, 1906)
1029		Pammene felicitana Heinrich, 1923
1030		Pammene perstructana (Walker, 1863)
		Reported from BC by J. J. Dombroskie (personal communication).
1031		Grapholita libertina Heinrich, 1926
1032		Grapholita packardi Zeller, 1875
1033	U	Grapholita prunivora (Walsh, 1868)
4004		Reported from BC by Belton (1988), but no vouchers are known.
1034		Grapholita caeruleana Walsingham, 1879
1035		Grapholita vitrana Walsingham, 1879
1036		Reported from BC by J. J. Dombroskie (personal communication).
1036		Grapholita conversana Walsingham, 1879
1037		Grapholita Imitativa Heinrich, 1926
1036		Grapholita advardsiana (Koarfott, 1907)
		Grapholita edwardsiana (Kearfott, 1907)
1040		Grapholita lana (Kearfott, 1907)
1041		Cydia coniferana (Ratzeburg, 1840) Introduced from Europe to eastern North America; this species reached BC from
		WA after 2000.
1042		Cydia bracteatana (Fernald, 1880)
1043		Cydia laricana (Busck, 1916)
1044		Cydia rana (Forbes, 1924)
1045		Cydia inopiosa (Heinrich, 1926)
1046		Cydia confusana (McDunnough, 1935)
1047		Cydia obnisa (Heinrich, 1926)
1048		Cydia youngana (Kearfott, 1907)
		North American populations have recently been recognised as a distinct species, separate from the Palaearctic <i>C. strobilella</i> (Linnaeus).
1049		Cydia populana (Busck, 1916)
1050		Cydia flexiloqua (Heinrich, 1926)

Catastega timidella Clemens, 1861

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1023

1051	Cydia nigricana (Fabricius, 1794)
	Known as the Pea Moth, this species was introduced from Europe. It was first found in North America in eastern Canada in 1893 and in BC in 1933. It was responsible
	for the elimination of the dried-pea and pea-seed industry in BC. This species was also listed by Cannings and Scudder (2007) under the name <i>C. rusticella</i> (Clerck),
	a recent synonym.
1052	Cydia pseudotsugae (Evans, 1969)
1053	Cydia prosperana (Kearfott, 1907)
1054	Cydia lautiuscula (Heinrich, 1926)
1055	Cydia americana (Walsingham, 1879)
1056	Cydia toreuta (Grote, 1873)
1057	Cydia piperana Kearfott, 1907
1058	Cydia miscitata (Heinrich, 1926)
1059	Cydia pomonella (Linnaeus, 1758)
	This species, known as the Codling Moth, was introduced from Europe very early,
	perhaps in the 1600s. It was first reported in BC in 1900. The larva is the proverbial
	"worm in the apple": it damages apples by feeding in the core and tunneling out
	when fully grown. It is a serious pest in the fruit-growing regions of BC.
1060	Cydia latiferreana (Walsingham, 1879)

Subfamily Chlidanotinae

Tribe Hilarographini

Thaumatographa youngiella (Busck, 1922)
Reared in BC recently by DH, from the bark of Douglas-fir.

Superfamily Cossoidea

48. Family Cossidae (carpenterworm moths; goat moths)

Most Cossidae are medium-sized to large heavy-bodied moths; their wingspans range from about 10 to 240 mm (usually from 25 to 100 mm in North American species). The forewings usually are long and narrow, and the abdomen extends beyond the hind wing. The antennae are usually bipectinate in males and thread-like in females. There is no proboscis.

Cossid larvae are woodborers or, in a few cases, tunnel in the soil and feed externally on roots. Many are smelly, a characteristic that has given the family one of its English names: goat moths. The larvae of some species may take up to four years to mature. Many species can seriously damage trees.

The family Cossidae contains about 970 described species throughout the world. Forty-six species are recorded in North America; four occur in BC.

Subfamily Hypoptinae

1062 Givira cornelia (Neumögen & Dyar, 1893)

Subfamily Cossinae

1063 Acossus centerensis (Lintner, 1877) 1064 Acossus populi (Walker, 1856)

Subspecies orc (Strecker) has been reported from BC.

1065 Prionoxystus robiniae (Peck, 1818)

49. Family Sesiidae (clearwing moths)

Clearwing moths are mostly medium-sized moths of striking wasp-like appearance. The wingspan in North American species ranges from about 13 to 70 mm. The body is stout, elongate, and frequently marked and banded with white, yellow, orange or red. The scales often are iridescent. The wings are long and narrow, with wasp-like proportions, and have extensive areas, at least on the hind wing, that lack scales.

Clearwing moths are diurnal, swift-flying, usually brightly coloured insects that often mimic stinging Hymenoptera. Some species visit flowers and feed on nectar, but others do not eat. The pale, unpatterned larvae bore in roots, trunks and branches of trees, or in the stems and roots of herbaceous plants.

The Sesiidae consists of about 1400 named species worldwide; in North America, 133 species are recorded. Twenty-six species have been reported from BC. The family was revised by Eichlin and Duckworth (1988).

Subfamily Tinthiinae

Tribe Tinthiini

1066 U Zenodoxus sidalceae Engelhardt, 1946

Uncertain BC record in Eichlin and Duckworth (1988), but there is no reason to doubt this species occurs in BC: it was described from Pullman, WA.

Tribe Pennisetiini

1067 Pennisetia marginatum (Harris, 1839)

Subfamily Sesiinae

Tribe Paranthrenini

1068 Paranthrene robiniae (Edwards, 1880)

1069 U Paranthrene tabaniformis (Rottemburg, 1775)

Uncertain BC record in Eichlin and Duckworth (1988). That record may be based on an AB specimen (also determination unconfirmed) in the RBCM. This is an eastern species that is not thought to reach BC, but it was recently confirmed to occur in central AB (Pohl et al. 2011). It may occur in BC's Peace River region.

1070 Albuna pyramidalis (Walker, 1856)

Iribe	Ses	IINI	
1071		Sesia tibiale (Harris, 1839)	
1072		Sesia spartani Eichlin & Taft, 1988	
Tribe	Syn	anthedonini	
1073	,	Synanthedon scitula (Harris, 1839)	
1074		Synanthedon tipuliformis (Clerck, 1759) Probably introduced from Europe.	1?
1075		Synanthedon bolteri (Edwards, 1883)	
1076		Synanthedon canadensis Duckworth & Eichlin, 1973	
1077		Synanthedon culiciformis (Linnaeus, 1758)	
1078		Synanthedon saxifragae (Edwards, 1881)	
1079		Synanthedon albicornis (Edwards, 1881)	
1080		Synanthedon bibionipennis (Boisduval, 1869) Introduced from Eurasia?	1?
1081	U	Synanthedon chrysidipennis (Boisduval, 1869) Reported from BC by Eichlin and Duckworth (1988), but no confirmed BC vou ers are known.	ch-
1082		Synanthedon mellinipennis (Boisduval, 1836)	
1083		Synanthedon polygoni (Edwards, 1881)	
1084		Synanthedon resplendens (Edwards, 1881)	
1085		Synanthedon exitiosa (Say, 1823) The Peach Tree Borer.	
1086		Synanthedon novaroensis (Edwards, 1881)	
1087		Synanthedon sequoiae (Edwards, 1881)	
1088		Synanthedon myopaeformis (Borkhausen, 1789) Introduced from Europe to BC; first discovered in the Cawston area in 2005.	I
1089		Podosesia syringae (Harris, 1839)	
1090	U	Carmenta giliae (Edwards, 1881) Reported from BC by Eichlin and Duckworth (1988), but no confirmed BC vou ers are known.	ch-
1091	U	Penstemonia clarkei Engelhardt, 1946 Reported from BC by Powell and Opler (2009), but no confirmed BC vouch are known.	ıers

Superfamily Zygaenoidea

50. Family Limacodidae (slug caterpillar moths)

Limacodid adults are small to medium-sized moths. They are mostly richly coloured in browns, and marked with green, silver or other colours. The body is stout, and the wings are broadly rounded.

Most limacodids are nocturnal and have fast and erratic flight. Larvae feed on diverse trees, shrubs and grasses; some are pests. The larvae are short and sluglike, smooth or spiny; many bear stinging hairs or spines that make contact with them painful. Abdominal prolegs are highly reduced; specialised suckers and semifluid silk help the insect cling to foliage.

The family Limacodidae contains about 1670 described species worldwide, but is most diverse in the tropics. There are 49 named species in North America, one of which occurs in BC.

Subfamily Limacodinae

1092 *Tortricidia testacea* Packard, 1864 Subspecies *crypta* Dyar has been reported from BC.

Superfamily Thyridoidea

51. Family Thyrididae (window-winged moths)

Thyridid moths are small to rather large, with wingspans of 12 to 72 mm. North American species usually are small and dark. The wings are often patterned in reticulated rows of spots, frequently with translucent patches.

The larvae burrow in twigs and stems, or feed in rolled or tied leaves of diverse host plants. Adults rest distinctively with the front of the body strongly raised and wings outstretched or swept back. Many mimic dead leaves, but some day-flying Afrotropical species have metallic warning colours.

The family Thyrididae consists of about 940 described species; most are from tropical and subtropical lowland forests. Twelve species are recorded in North America; two occur in BC.

Subfamily Thyridinae

1093 Thyris maculata Harris, 1839

1094 Pseudothyris sepulchralis (Guérin-Méneville, 1832)

Section 2: Butterflies

The butterflies are well known and have been treated in detail in other works, including Guppy and Shepard (2001) for BC species, Pyle (2002) for the Pacific Northwest, including southern BC, and by Layberry et al. (1998) for all of Canada. Pelham (2008) provides a full taxonomic catalogue of North American species. Our main goal here is to list the names of BC species; the aforementioned works should be consulted for more detailed information.

Superfamily Papilionoidea

52. Family Papilionidae (swallowtails and apollos)

Papilionids are large butterflies with hairless eyes, short antennae and three fully developed pairs of legs. British Columbia species range from about 40 to 105 mm in wingspan and include some of the province's largest Lepidoptera. All BC species are yellow or white, with black markings. All BC members of the subfamily Papilioninae (swallowtails) have tails on the hind wings, whereas those in the subfamily Parnassiinae (apollos) do not—characteristics that do not hold for the world fauna of the family.

Larvae of papilionids eat a variety of food plants. Some species feed on poisonous plants and sequester the chemicals for protection against predators. This has resulted in brilliant warning colours and elaborate mimicry by non-poisonous butterfly species. Swallowtails are strong fliers, and males of some species often search out mates by hilltopping, a mating strategy where individuals fly uphill until they meet in concentrations at the height of land.

The family Papilionidae contains about 570 species worldwide. Most swallowtails are tropical, and are especially diverse in the Old World. Most apollos live in Eurasian temperate regions. About 40 papilionid species occur in North America; 11 of these occur in BC.

Subfamily Parnassiinae

in BC.

Tribe Parnassiini

1095	Parnassius eversmanni Menetries, [1850]
	Subspecies thor Edwards occurs in BC.
1096	Parnassius clodius Ménétriés, 1855
	Subspecies altaurus Dyar, claudianus Stichel, and pseudogallatinus Bryk

1097 Parnassius phoebus (Fabricius, 1793)
 Subspecies apricatus Stichel occurs in BC.
 1098 Parnassius smintheus Doubleday, 1847

Subspecies *magnus* Wright, *olympiana* Burdick, *smintheus* Doubleday, and *yukonensis* Eisner occur in BC. Llewellyn Jones (1951) also reported subspecies *sayii* Edwards from BC.

occur

Subfamily Papilioninae

Tribe Papilionini

1099	Papilio machaon Linnaeus, 1758
	Subspecies aliaska Scudder, bairdii Edwards, dodi McDunnough, hudsonianus
	Clark, oregonia Edwards, and pikei Sperling have been reported from BC. The
	taxon bairdii was treated as a full species by Guppy and Shepard (2001), with
	oregonius, pikei, and dodi as subspecies
1100	Papilio zelicaon Lucas, 1852
1101	Papilio indra Reakirt, 1866
	The nominate subspecies occurs in BC.
1102	Papilio canadensis Rothschild & Jordan, 1906
	Canadian Tiger Swallowtail.
1103	Papilio rutulus Lucas, 1852
	Western Tiger Swallowtail.
1104	Papilio eurymedon Lucas, 1852
1105	Papilio multicaudata Kirby, 1884
	Subspecies multicaudata Kirby and pusillus Austin & Emmel occur in BC.

53. Family Hesperiidae (skippers)

Skippers get their English name from their characteristic rapid and darting flight. They are small to medium-sized butterflies, with BC specimens having wingspans of 20 to 50 mm. Most have dull brown, grey or orange colours and, with their stout muscular bodies and short wings, resemble moths. The head is broad, and the antennae are usually clubbed or hooked at the tip.

Hesperiid larvae live in silk-lined nests that they construct on the food plant by cutting and folding leaves or by binding several leaves together. Some species build a cover of leaf bits or debris and carry this around while they feed. A few bore into plant tissue. They feed on a variety of flowering plants. A few species, especially in the tropics, may be economically important: some eat the leaves of rice, sugarcane, palms and bananas.

The family Hesperiidae contains over 4100 species worldwide. There are almost 300 species in North America; 30 of these occur in BC. The BC species are placed in three subfamilies, following Pelham (2008) and Warren et al. (2008). The Pyrginae (Spread-wing Skippers) hold their wings out flat. Most BC species are mottled black, grey or brown, and some are checkered with white. The larvae feed on dicotyledonous plants. The Subfamily Hesperiinae, called the Grass Skippers because many of their larvae feed on grasses, are sometimes termed "branded skippers": the

males are marked with a dark patch of scent scales on the forewing. At rest, they hold the forewings almost vertically and the hind wings horizontally. The Heteropterinae were included in the Hesperiinae in historical works.

Subfamily Pyrginae

Tribe Eudamini

- 1106 Epargyreus clarus (Cramer, 1775)
 - Subspecies californicus MacNeil and clarus (Cramer) occur in BC.
- 1107 Thorybes pylades (Scudder, 1870)
 The nominate subspecies occurs in BC.

Tribe Carcharodini

1108 Pholisora catullus (Fabricius, 1793)

Tribe Erynnini

- 1109 Erynnis icelus (Scudder & Burgess, 1870)
- 1110 Erynnis propertius (Scudder & Burgess, 1870)
- 1111 Erynnis pacuvius (Lintner, 1878)

Subspecies callidus (Grinnell) and lilius (Dyar) occur in BC.

- 1112 Erynnis afranius (Lintner, 1878)
- 1113 Erynnis persius (Scudder, 1863)

Subspecies fredericki Freeman occurs in BC.

Tribe Pyrgini

1114 Pyrgus centaureae (Rambur, [1842])

Subspecies freija (Warren) and loki Evans occur in BC.

1115 *Pyrgus ruralis* (Boisduval, 1852)

The nominate subspecies occurs in BC.

1116 Pyrgus communis (Grote, 1872)

The nominate subspecies occurs in BC.

Subfamily Heteropterinae

1117 Carterocephalus palaemon (Pallas, 1771)

Subspecies magnus (Mattoon & Tilden) and skada (Edwards) occur in BC.

1118 Carterocephalus mandan (Edwards, 1863)

Pohl et al. (2010) raised *C. mandan* to full species status; it was previously treated as a subspecies of the Holarctic *C. palaemon* (Pallas).

Subfamily Hesperiinae

Tribe Thymelicini

- 1119 Oarisma garita (Reakirt, 1866)
- Thymelicus lineola (Ochsenheimer, 1808)

 The European Skipper. This species was introduced from Europe; it was first found in ON in 1910 and in BC in 1960. The nominate subspecies occurs in BC.

Tribe Moncini

1121 Amblyscirtes vialis (Edwards, 1862)

Tribe Hesperiini

- 1122 Hesperia juba (Scudder, 1874)
- Hesperia manitoba (Scudder, 1874)
 Referred to in most works as *H. comma manitoba*; however, Pohl et al. (2010)
 raised *H. manitoba* to full species status, distinct from the European/Beringian *H. comma* (Linnaeus).
- 1124 *Hesperia assiniboia* (Lyman, 1892)
 Treated as a subspecies of *H. comma* (Linnaeus) by Guppy and Shepard (2001)
- Hesperia colorado (Scudder, 1874)
 Reported by Guppy and Shepard (2001) as subspecies harpalus (Edwards) and oregonia (Edwards) within the concept of the species H. comma (Linnaeus); these taxa are now considered to be subspecies of H. colorado. Llewellyn Jones (1951) and Pyle (2002) also report subspecies idaho (Edwards) from BC.
- 1126 Hesperia nevada (Scudder, 1874)
 The nominate subspecies occurs in BC.
- 1127 *Polites peckius* (Kirby, 1837)
- 1128 Polites sabuleti (Boisduval, 1852)
 The nominate subspecies occurs in BC. Pyle (2002) also reports subspecies alkaliensis Austin from BC.
- 1129 Polites draco (Edwards, 1871)
- 1130 Polites themistocles (Latreille, [1824])
 Subspecies themistocles (Latreille) and turneri Freeman occur in BC.
- 1131 *Polites mystic* (Edwards, 1863)
 The nominate subspecies occurs in BC.
- 1132 Polites sonora (Scudder, 1872)
 Sonora Skipper. Subspecies siris (Edwards) and sonora (Scudder) occur in BC. This species is listed federally as "special concern" (COSEWIC 2011) and provincially as "S1S2" (critically imperiled–imperiled) (BC Ministry of Environment 2012).
- 1133 Atalopedes campestris (Boisduval, 1852) The nominate subspecies occurs in BC.
- 1134 Ochlodes sylvanoides (Boisduval, 1852)
 The nominate subspecies occurs in BC.
- 1135 Euphyes vestris (Boisduval, 1852)

The Dun Skipper. Subspecies *metacomet* (Harris) and *vestris* (Boisduval) occur in BC. This species is federally and provincially listed as "threatened" in BC (COSEWIC 2011; BC Ministry of Environment 2012).

54. Family Pieridae (whites, marbles, and sulphurs)

Pierids are mostly medium-sized butterflies (30- to 60-mm wingspans in BC species), and are generally white, yellow, orange or greenish, and marked in black and frequently other colours. Males and females are often strikingly different in appearance. The larvae are cylindrical, striped and covered in fine, short hair.

Most BC whites (subfamily Pierinae) and marbles (subfamily Anthocharinae) feed on cruciferous plants (Family Brassicaceae), whereas most sulphurs (subfamily Coliadinae) feed on legumes (Family Fabaceae). A couple of species are economically important. The introduced European *Pieris rapae* (Linnaeus) (Cabbage White) now occurs all over the world where cabbage, broccoli, mustards and other crucifers are cultivated.

The family Pieridae contains about 1160 named species; 77 species are recorded in North America. British Columbia has 28 species, and is the centre of diversity in North America for the sulphur genus *Colias*, with 13 species in the province.

Subfamily Coliadinae

1126	Coling philadica Codort 1910
1136	Colias philodice Godart, 1819
	Subspecies <i>eriphyle</i> Edwards, <i>philodice</i> Godart, and <i>vitabunda</i> Hovanitz have
1127	been reported from BC.
1137	Colias eurytheme Boisduval, 1852
1138	Colias occidentalis Scudder, 1862
	Subspecies <i>chrysomelas</i> Edwards and <i>occidentalis</i> Scudder have been reported from BC.
1139	Colias christina Edwards, 1863
	The nominate subspecies occurs in BC.
1140	Colias alexandra Edwards, 1863
	Subspecies <i>columbiensis</i> Ferris and <i>pseudocolumbiensis</i> Guppy & Shepard occur in BC. Llewellyn Jones (1951) also reported subspecies <i>edwardsii</i> Edwards from BC.
1141	Colias elis Strecker, 1885
	Previously treated as a subspecies of <i>C. meadii</i> Edwards, but raised to full species status by Pohl et al. (2010).
1142	Colias hecla Lefebvre, 1836
	The nominate subspecies occurs in BC.
1143	Colias canadensis Ferris, 1982
1144	Colias nastes Boisduval, [1834]
	Subspecies aliaska Bang-Haas and streckeri Grum-Grshimailo occur in BC.
1145	Colias gigantea Strecker, 1900
	Subspecies <i>gigantea</i> Strecker, <i>harroweri</i> Klots, and <i>mayi</i> Chermock & Chermock have been reported from BC.
1146	Colias pelidne Boisduval & LeConte, [1830]
	Subspecies <i>skinneri</i> Barnes occurs in BC. Guppy and Shepard (2001) also used the name <i>mira</i> Verity as a subspecies; it is currently considered a synonym (Pelham
1147	2008). Colias interior Scudder, 1862
1148	,
1140	Colias palaeno Linnaeus, 1761

cies by Guppy and Shepard (2001).

Subspecies chippewa Edwards occurs in BC. That taxon was treated as a full spe-

Subfamily Anthocharinae

- 1149 Anthocharis sara Lucas, 1852
 - Subspecies alaskensis Gunder and flora Wright occur in BC.
- 1150 Anthocharis stella Edwards, 1879

Treated by many workers as a subspecies of *A. sara* Lucas, but recognised as distinct by Layberry et al. (1998) and Guppy and Shepard (2001). Pelham (2008) continued to treat *A. stella* as a subspecies of *A. sara* without providing justification.

- 1151 Euchloe ausonides (Lucas, 1852)
 - Subspecies *ausonides* (Lucas), *insulanus* Guppy & Shepard, *mayi* Chermock & Chermock, *ogilvia* Back, and *transmontana* Austin & Emmel have been reported from BC. The Vancouver Island subspecies *insulanus* is considered extinct in Canada, and is listed as such by COSEWIC (2011) and the BC Ministry of Environment (2012).
- 1152 Euchloe naina Kozhantchikov, 1923
- 1153 Euchloe creusa (Doubleday, 1847)
- 1154 Euchloe lotta (Beutenmüller, 1898)

Reported as a subspecies of *E. hyantis* (Edwards) by Llewellyn Jones (1951) and Cannings and Scudder (2007), but now treated as a distinct species.

Subfamily Pierinae

Tribe Pierini

Subtribe Aporiina

- 1155 Neophasia menapia (Felder & Felder, 1859)
 - Subspecies *menapia* (Felder & Felder) and *tau* (Scudder) have been reported from BC

Subtribe Pierina

- 1156 Pieris angelika Eitschberger, 1981
- 1157 Pieris marginalis Scudder, 1861

Subspecies *guppyi* Eitschberger, *marginalis* Scudder, *pseudobryoniae* Fruhsdorfer, *reicheli* Eitschberger, *tremblayi* Eitschberger, and *venosa* Scudder have been reported from BC.

- 1158 Pieris oleracea Harris, 1829
 - The nominate subspecies occurs in BC. Early reports refer to this species as *P. napi* (Linnaeus), an Old World name.
- 1159 Pieris rapae (Linnaeus, 1758)

 The Cabbage Butterfly. Introduced, and first found in North America in QC in 1860. The nominate subspecies occurs in BC.
- 1160 *Pontia beckerii* (Edwards, 1871)
- 1161 Pontia protodice (Boisduval & LeConte, [1830])
- 1162 Pontia occidentalis (Reakirt, 1866)
 - Subspecies nelsoni Edwards and occidentalis (Reakirt) occur in BC.
- 1163 *Pontia sisymbrii* (Boisduval, 1852) Subspecies *beringiensis* Guppy & Kondla and *flavitincta* (Comstock) occur in BC.

55. Family Riodinidae (metalmarks)

The metalmarks are closely related to the Lycaenidae and have historically been included as a subfamily therein. They are small to medium-sized; North American species seldom have wingspans over 50 mm. Most are coloured in browns, orange and black, and sometimes are checkered in white. Some species have metallic, coloured marks on the wings; these give the family its English name.

Riodinid butterflies often rest with their wings spread flat or held angled at 45 degrees. Many species, especially neotropical ones, typically land on the undersides of leaves. Many species have mutualistic relationships with ants.

About 1500 described species of metalmarks occur worldwide, but about 90% of these live in the New World tropics. There are 29 species in North America; one species occurs in BC.

Subfamily Riodininae

Tribe Emesiini

1164 Apodemia mormo (Felder & Felder, 1859)

The Mormon Metalmark. The nominate subspecies occurs in BC. This species is restricted in BC to the South Okanagan and Similkameen valleys, and is listed federally and provincially as "endangered" (COSEWIC 2011; BC Ministry of Environment 2012).

56. Family Lycaenidae (gossamer-wings; coppers, hairstreaks and blues)

Lycaenid butterflies are usually small to medium-sized, with wingspans of about 20 to 50 mm. They are often brightly coloured, frequently in iridescent blues, greens, and coppery tones. Many have small, hair-like tails on the hind wings. The forelegs of male adults are reduced in length (the tarsal segments are fused) and lack claws, but the forelegs of females have a normal structure and are fully functional. The larvae are oval, flattened and grub-like; many have glands that produce sweet liquids.

Many lycaenid larvae are symbiotic with ants, which protect them from predators in exchange for the honeydew from their abdominal glands. Most species have four larval stages, one less than other butterflies. They feed on many groups of dicotyledonous plants, often eating only the buds, flowers and seeds. Some are carnivorous; e.g, the eastern North American *Feniseca tarquinius* (Fabricius) eats woolly aphids.

The family contains about 5200 named species worldwide. There are about 160 North American species; 43 of these occur in BC, and another three species are likely to be found in the province.

The subfamily Lycaeninae (coppers) contains 10 species in BC, all in the genus *Lycaena*. The larvae feed on plants in the family Polygonaceae. The subfamily Theclinae (hairstreaks) is largely tropical, but is well represented in BC with 18 species. Fifteen species of subfamily Polyommatinae (blues) occur in BC.

Subfamily Lycaeninae

Tribe Lycaenini

1169

- 1165 *Lycaena phlaeas* (Linnaeus, 1761) Subspecies *arethusa* (Dod) occurs in BC.
- 1166 Lycaena cupreus (Edwards, 1870)
 Subspecies snowi (Edwards) occurs in BC. Guppy and Shepard (2001) also used the name henryae (Cadbury), now considered a synonym (Pelham 2008).
- 1167 Lycaena dione (Scudder, 1868)
- 1168 Lycaena editha (Mead, 1878)
 Recent collection in BC by B. C. Schmidt (Kondla 2007).
 - Lycaena heteronea Boisduval, 1852 Subspecies gravenotata Klots and heteronea Boisduval have been reported
- 1170 Lycaena hyllus (Cramer, 1775)
- 1171 Lycaena dorcas Kirby, 1837

from BC.

Subspecies *arcticus* (Ferris), *dorcas* Kirby, and *florus* (Edwards) have been reported from BC. The latter was treated as a full species distinct from *L. dorcas* by Kondla and Guppy (2002), but was retained as a subspecies by Pelham (2008).

- 1172 Lycaena helloides (Boisduval, 1852)
- 1173 *Lycaena nivalis* (Boisduval, 1869) Subspecies *browni* Dos Passos occurs in BC.
- 1174 Lycaena mariposa (Reakirt, 1866)
 Subspecies charlottensis (Holland), mariposa (Reakirt), and penroseae Field have been reported from BC.

Subfamily Theclinae

Tribe Eumaeini

Subtribe Eumaeina

1175 Satyrium semiluna Klots, 1930

Half-moon Hairstreak. Reported from BC by Llewellyn Jones (1951) and Guppy and Shepard (2001) as a subspecies of *S. fuliginosa* (Edwards); *S. semiluna* is now recognised as a full species. It is protected federally and provincially as "endangered".

1176 Satyrium behrii (Edwards, 1870)

Behr's Hairstreak. Subspecies *columbia* (McDunnough) has been reported from BC. This species is restricted to the shrinking Antelope-brush steppe of the South Okanagan. It is federally protected by COSEWIC (2011) as "threatened" and is ranked provincially as "S1" (critically imperiled) by the BC Ministry of Environment (2012).

1177 Satyrium californica (Edwards, 1862)

The nominate subspecies occurs in BC.

1178 Satyrium sylvinus (Boisduval, 1852)

Subspecies nootka Fisher and putnami (Edwards) have been reported from BC.

1179 Satyrium titus (Fabricius, 1793)

Subspecies immaculosus (Comstock) and titus (Fabricius) occur in BC.

1180 Satyrium liparops (LeConte, 1833)

Subspecies *aliparops* Michener & Dos Passos and *fletcheri* Michener & Dos Passos have been reported from BC.

1181 Satyrium saepium (Boisduval, 1852)

The nominate subspecies occurs in BC. Guppy and Shepard (2001) and Pyle (2002) referred to BC populations as subspecies *okanagana* (McDunnough), which is now considered a synonym (Pelham (2008).

1182 *Callophrys affinis* (Edwards, 1862)

Subspecies washingtonia Clench occurs in BC.

1183 Callophrys sheridanii (Carpenter, 1877)

This species was misidentified by Llewellyn Jones (1951) as *C. dumetorum* (Boisduval). Subspecies *neoperplexa* Barnes & Benjamin and *newcomeri* Clench have been reported from BC.

1184 *Callophrys gryneus* (Hübner, [1819])

Subspecies *nelsoni* (Boisduval), *plicataria* (Johnson), *rosneri* (Johnson), and *siva* (Edwards) have been reported from BC. Both *nelsoni* and *rosneri* have been treated as distinct species until recently. The names *acuminata* Johnson and *barryi* Johnson have also been used as subspecies for *C. gryneus* recently (e.g., by Layberry et al. 1998); both names are currently considered synonyms (Pelham 2008).

1185 *Callophrys spinetorum* (Hewitson, 1867)

The nominate subspecies occurs in BC.

1186 *Callophrys johnsoni* (Skinner, 1904)

Johnson's Hairstreak. This species occurs only on the south coast of BC and is considered "endangered" (COSEWIC 2011; BC Ministry of Environment 2012).

1187 Callophrys augustinus (Westwood, 1852)

Subspecies *augustinus* (Westwood) and *iroides* (Boisduval) have been reported from BC. The latter is treated as a full species, distinct from *C. augustinus*, by Guppy and Shepard (2001); it is considered a subspecies by Pelham (2008).

1188 *Callophrys mossii* (Edwards, 1881)

Subspecies mossii (Edwards) and schryveri (Cross) have been reported from BC.

1189 Callophrys polios (Cook & Watson, 1907)

Subspecies *obscura* (Ferris & Fisher) and *polios* (Cook & Watson) have been reported from BC.

1190 Callophrys niphon (Hübner, [1819])

Subspecies clarki (Freeman) has been reported from BC.

- 1191 Callophrys eryphon (Boisduval, 1852)
 Subspecies eryphon (Boisduval) and sheltonensis (Chermock & Frechin) have been reported from BC.
- 1192 Strymon melinus Hübner, 1818
 Subspecies atrofasciata McDunnough and setonia McDunnough occur in BC.

Subfamily Polyommatinae

Tribe Polyommatini

- 1193 Cupido comyntas (Godart, [1824])
 - The nominate subspecies occurs in BC.
- 1194 *Cupido amyntula* (Boisduval, 1852)
 Subspecies *albrighti* (Clench) and *amyntula* (Boisduval) have been reported from BC.
- 1195 Celastrina lucia (Kirby, 1837)
 Reported under the name C. ladon (Cramer) by Layberry et al. (1998) under a previous taxonomic arrangement. The nominate subspecies occurs in BC.
- 1196 Celastrina echo (Edwards, 1864)
 Reported under the name C. ladon (Cramer) by Layberry et al. (1998); C. echo is now considered to be a distinct species. Subspecies echo (Edwards) and nigrescens (Fletcher) occur in BC.
- 1197 Euphilotes glaucon (Edwards, 1871)
 Treated by Layberry et al. (1998) and Guppy and Shepard (2001) as a subspecies of E. battoides (Behr), Euphilotes glaucon is now considered to be a distinct species. The nominate subspecies and subspecies oregonensis (Barnes & McDunnough) have been reported from BC.
- 1197.1 P Euphilotes columbiae (Mattoni, 1955)

 This species is known from the Okanogan Valley of WA, very close to the BC border: it may also occur in BC (Guppy and Shepard 2001). It was treated by Guppy and Shepard (2001) as a subspecies of E. ancilla (Barnes & McDunnough).
- 1197.2 P Euphilotes ancilla (Barnes & McDunnough, 1918)

 This species is known from MT, very close to the BC border: it may also occur in BC (Guppy and Shepard 2001). The nominate subspecies occurs in the area.
- 1198 Glaucopsyche piasus (Boisduval, 1852)
 Subspecies toxeuma Brown and sagittera (Felder & Felder) have been reported from BC.
- 1199 Glaucopsyche lygdamus (Doubleday, 1842)
 Subspecies columbia (Skinner), couperi Grote, and oro (Scudder) have been reported from BC.
- 1200 Plebejus idas (Linnaeus, 1761)
 Subspecies alaskensis (Chermock), atrapraetextus (Field), ferniensis (Chermock), and scudderi (Edwards) have been reported from BC.
- 1201 Plebejus anna (Edwards, 1861)
 Subspecies anna (Edwards), ricei (Cross), and vancouverensis (Guppy & Shepard)
 have been reported from BC. This taxon was treated as a subspecies of *P. idas*(Linnaeus) by many, including Layberry et al. (1998).
- 1202 *Plebejus melissa* (Edwards, 1873) The nominate subspecies occurs in BC.

1203 Plebejus saepiolus (Boisduval, 1852)

Subspecies aehaja (Behr), amica (Edwards), insulanus Blackmore, and rufescens (Boisduval) have been reported from BC. The Vancouver Island subspecies insulanus is federally listed as "endangered" by COSEWIC (2011); it is provincially listed as "SH" ("historical") by the BC Ministry of Environment (2012).

1204 *Plebejus icarioides* (Boisduval, 1852)

Subspecies *blackmorei* (Barnes & McDunnough), *montis* (Blackmore), and *pembina* (Edwards) occur in BC.

1204.1 P Plebejus shasta (Edwards, 1862)

This species is known from the Crowsnest Pass area of AB, very close to the BC border: it may also occur in BC (Guppy and Shepard 2001). The subspecies *minnehaha* (Scudder) occurs in the area.

1205 *Plebejus lupini* (Boisduval, 1869)

Layberry et al. (1998) and Guppy and Shepard (2001) treated this taxon (as subspecies *lutzi* Dos Passos) as part of *P. acmon* (Westwood), now considered to be a separate species that does not occur in BC.

1206 Plebejus optilete (Knoch, 1781)

Subspecies yukona (Holland) occurs in BC.

1207 Plebejus glandon (de Prunner, 1798)

Subspecies *megalo* (McDunnough) and *rustica* (Edwards) have been reported from BC. This species has often been referred to as "P. aquilo Boisduval", an invalid name (Pelham 2008). Many workers have treated *megalo* as a full species, with subspecies *lacustris* (Freeman) and *bryanti* (Leussler).

57. Family Nymphalidae (brush-footed butterflies)

Most North American brush-footed butterflies are medium-sized to large (with 40- to 70-mm wingspans), and many are orange or brown with dark markings. However, size and colour vary greatly. Both sexes have forelegs reduced in length and covered in long brush-like hairs, thus the common name of the group. These legs are useless for walking or perching, but are used as sense organs. The face is broad, the eyes are not indented adjacent to the antennae, and the antennae usually have prominent clubs. The larvae commonly have branched spines; the pupae are often strongly angled, bear thorn-like projections and lack a silk girdle.

Many nymphalids are strong fliers, and some species are migratory and number among the most cosmopolitan of insects (*Vanessa, Danaus*). Others, such as members of the subfamily Melitaeinae, fly only short distances and live in small, local colonies.

The Nymphalidae is the largest family of butterflies, with about 6150 species worldwide. North America has about 225 species; 75 species have been reported from BC, and another four species are likely to be found in the province. The family, as now defined, is composed of several

subfamilies, some of which have long been treated as separate families (e.g., Danaidae, Satyridae and Heliconiidae). The subfamily Danainae (milkweed butterflies) contains one species in BC, the famous Monarch. The subfamily Limenitidinae (admirals) has three species in the province. The subfamily Heliconiinae (fritillaries) are typically orange, with black markings on the upper surface. The subfamily Nymphalinae (anglewings and relatives) contains 26 BC species; all four *Vanessa* species represented are migratory and lack permanent, year-round populations in the province. The subfamily Satyrinae (satyrs) contains 23 species in the province, all of which feed on grasses and sedges.

Subfamily Danainae Tribe Danaini

Subtribe Danaina

1208 M Danaus plexippus (Linnaeus, 1758)

The Monarch. The nominate subspecies occurs in BC. This species migrates as far north as southern BC, and flies south in late summer to winter on the CA coast. The conservation status of this species federally and provincially is "special concern" (COSEWIC 2011; BC Ministry of Environment 2012).

Subfamily Limenitidinae

Tribe Limenitidini

Subtribe Limenitidina

1209 Limenitis arthemis (Drury, 1773)

The White Admiral. Subspecies *rubrofasciata* (Barnes & McDunnough) occurs in BC.

1210 Limenitis lorquini Boisduval, 1852

Lorquin's Admiral. Subspecies *burrisonii* Maynard and *ilgae* Guppy occur in BC. Guppy and Shepard (2001) also described *itelkae* as a BC subspecies, but it is now considered a synonym (Pelham 2008).

1211 Limenitis archippus (Cramer, 1776)

The Viceroy. Subspecies *archippus* (Cramer) and *idaho* Austin have been reported in BC, but the species has been extirpated, apparently by pesticide spraying to control Codling Moths (*Cydia pomonella* (Linnaeus)). The last report of a Viceroy in BC was from Lillooet in 1930 (Guppy and Shepard 2001).

Subfamily Heliconiinae

Tribe Argynnini

Subtribe Euptoietina

1212 M Euptoieta claudia (Cramer, 1776)

Subtribe Boloriina

1218

1213 Boloria alaskensis (Holland, 1900)

Treated by many workers, including Layberry et al. (1998) and Cannings and Scudder (2007), as a subspecies of *B. napaea* (Hoffmansegg), an Old World species. North American material is now considered to be a distinct species. The ESBC (1906) report of "*Brenthis andersonii* Dyar" and Blackmore's (1927) listing of "*Brenthis euphrosyne andersoni* Dyar" likely refer to this species. The nominate subspecies occurs in BC.

1214 Boloria eunomia (Esper, 1800)

Subspecies *dawsoni* (Barnes & McDunnough), *nichollae* (Barnes & Benjamin), and *triclaris* (Hübner) have been reported from BC.

1215 *Boloria myrina* (Cramer, 1777)

This species was historically treated as a subspecies of *B. selene* ([Denis & Schiffermüller]) under a holarctic concept of that species, but was raised to full species status by Pohl et al. (2010), with *B. selene* considered to be restricted to Eurasia. Subspecies *atrocostalis* (Huard) and *tollandensis* (Barnes & Benjamin) have been reported from BC.

1216 Boloria bellona (Fabricius, 1775)

Subspecies jenistae Stallings & Turner and toddi (Holland) occur in BC.

1217 Boloria frigga (Thunberg, 1791) Subspecies saga (Staudinger) occurs in BC.

Boloria improba (Butler, 1877)

The nominate subspecies occurs in BC.

1219 Boloria epithore (Edwards, 1864)

Subspecies *chermocki* Perkins & Perkins and *sigridae* (Shepard) occur in BC. Layberry et al. (1998) used the name *uslui* Koçak, which was not mentioned in Pelham (2008).

1220 Boloria polaris (Boisduval, 1828)

The nominate subspecies occurs in BC.

1221 Boloria alberta (Edwards, 1890)

1222 Boloria astarte (Doubleday, 1847)

Subspecies *astarte* (Doubelday) and *distincta* (Gibson) occur in BC. The Old World name *B. tritonia* (Boeber) has sometimes been applied to this species (e.g., by Guppy and Shepard 2001).

1223 Boloria freija (Thunberg, 1791)

The nominate subspecies and subspecies *tarquinis* (Curtis) have been reported from BC.

1224 Boloria natazhati (Gibson, 1920)

Subspecies nabokovi Stallings & Turner occurs in BC.

1225 Boloria chariclea (Schneider, 1794)

Subspecies *butleri* (Edwards), *grandis* (Barnes & McDunnough), and *rainieri* (Barnes & McDunnough) have been reported from BC.

Subtribe Argynnina

1226 Speyeria cybele (Fabricius, 1775)

Subspecies pseudocarpenteri (Chermock & Chermock) occurs in BC.

1227 Speyeria leto (Behr, 1862)

Treated historically as a subspecies of *C. cybele* (Fabricius), this taxon was raised to full species status by Pohl et al. (2010), in accordance with works prior to Dos Passos and Grey (1947).

1228 Speyeria aphrodite (Fabricius, 1787)

Subspecies columbia (Edwards), manitoba (Chermock & Chermock), and white-housei (Gunder) occur in BC.

1228.1 P Speyeria edwardsii (Reakirt, 1866)

This species is known from the foothills of AB, within 50 km of the BC border: it may also occur in BC (Guppy and Shepard 2001).

1229 U Speyeria coronis (Behr, 1864)

This species was reported by Llewellyn Jones (1951) under the name *S. snyderi* (Skinner), now considered to be a subspecies of *S. coronis*. His record was based on a single specimen from Vernon, which cannot be located and is flagged therein as rare or doubtful. This species is known from central WA, very close to the BC border (Guppy and Shepard 2001), so it likely also occurs in BC. Blackmore's (1927) report of "*Dryas halcyone picta McDunnough*" probably refers to *S. zerene* (Boisduval), of which *halcyone* (Edwards) is a subspecies (*picta* is now considered a subspecies of *S. coronis*).

1230 Speyeria zerene (Boisduval, 1852)

Subspecies behrensii (Edwards), bremnerii (Edwards), picta (McDunnough), and platina (Skinner) have been reported from BC. The name garretti (Gunder) was also used as a subspecies name by Guppy and Shepard (2001), but that name is now considered a synonym (Pelham 2008).

1231 Speyeria callippe (Boisduval, 1852)

Subspecies *chilcotinensis* Guppy & Shepard and *semivirida* (McDunnough) occur in BC. Subspecies *nevadensis* (Edwards) was reported from BC by Llewellyn Jones (1951)

1231.1 P Speyeria egleis (Behr, 1862)

This species is known from MT and WA, very close to the BC border: it may occur in BC also (Guppy and Shepard 2001). The subspecies *macdunnoughi* (Gunder) occurs in the area.

1232 Speyeria atlantis (Edwards, 1862)

Subspecies hollandi (Chermock & Chermock) occurs in BC.

1233 Speyeria hesperis (Edwards, 1864)

Subspecies *beani* (Barnes & Benjamin), *brico* (Kondla et al.), *electa* (Edwards), and *helena* Dos Passos have been reported from BC.

1234 Speyeria hydaspe (Boisduval, 1869)

Subspecies *rhodope* (Edwards) occurs in BC. The names *minor* (McDunnough) and *sakuntala* (Skinner) have also been applied as subspecies of *S. hydaspe* in BC by Guppy and Shepard (2001), but those names are currently considered synonyms (Pelham 2008).

1235 Speyeria mormonia (Boisduval, 1869)

Subspecies *bischoffii* (Edwards), *erinna* (Edwards), *eurynome* (Edwards), *opis* (Edwards), and *washingtonia* (Barnes & McDunnough) have been reported from BC.

Subfamily Nymphalinae

Tribe Nymphalini

- 1236 M Vanessa virginiensis (Drury, 1773)
- 1237 M Vanessa cardui (Linnaeus, 1758) The Painted Lady.
- 1238 M Vanessa annabella (Field, 1971)

This species was historically treated as V. caryae (Hübner), an Old World name.

1239 M Vanessa atalanta (Linnaeus, 1758)

The Red Admiral. Subspecies rubria (Fruhsdorfer) occurs in BC.

1240 Aglais milberti (Godart, 1819)

Subspecies milberti (Godart) and subpallida (Cockerell) occur in BC.

1241 Nymphalis j-album (Boisduval & LeConte, 1833)

This species has been treated by many workers, including Cannings and Scudder (2007) and Layberry et al. (1998), under the name "N. vaualbum ([Denis & Schiffermüller])", a nomen nudum, or as N. I-album (Esper), a Palaearctic species. Nymphalis j-album was recognised as distinct from the Eurasian N. I-album by Pohl et al. (2010). Subspecies watsoni (Hall) occurs in BC.

- 1242 Nymphalis californica (Boisduval, 1852)
- 1243 *Nymphalis antiopa* (Linnaeus, 1758)
 The Mourning Cloak. The nominate subspecies occurs in BC.
- 1244 *Polygonia satyrus* (Edwards, 1869) Subspecies *neomarsyas* Dos Passos has been reported from BC.
- 1245 Polygonia progne (Cramer, 1776)
- 1246 *Polygonia oreas* (Edwards, 1869)

Subspecies *silenus* (Edwards) and *threatfuli* Guppy & Shepard have been reported from BC.

1247 Polygonia gracilis (Grote & Robinson, 1867)

Subspecies *gracilis* (Grote & Robinson) and *zephyrus* (Edwards) occur in BC. Guppy and Shepard (2001) treated *zephyrus* as a full species.

1248 Polygonia faunus (Edwards, 1862)

Subspecies hylas (Edwards) and rusticus (Edwards) have been reported from BC.

Tribe Melitaeini

Subtribe Euphydryina

- 1249 Euphydryas gillettii (Barnes, 1897)
- 1250 Euphydryas editha (Boisduval, 1852)

Edith's Checkerspot. Subspecies *beani* (Skinner), *colonia* (Wright), *nubigena* (Behr), and *taylori* (Edwards) have been reported from BC. The latter is listed federally and provincially as "endangered" (COSEWIC 2011; BC Ministry of Environment 2012).

1251 Euphydryas colon (Edwards, 1881)

Inclusion of this name in the BC fauna follows Pelham (2008), who considers *paradoxa* McDunnough to be subspecies of *E. colon*, and *perdiccas* (Edwards) to be a synonym. Those taxa were considered by previous workers, including Layberry et al. (1998) and Guppy and Shepard (2001), to be subspecies of *E. chalcedona* (Doubleday).

1252 Euphydryas anicia (Doubleday, [1847])

Subspecies *anicia* (Doubleday), *helvia* (Scudder), *hopfingeri* Gunder, and *howlandi* Stallings & Turner have been reported from BC. *Euphydryas anicia* and subspecies *helvia* were treated as subspecies of *E. chalcedona* (Doubleday) by Layberry et al. (1998).

1252.1 P *Chlosyne gorgone* (Hübner, 1810)

This species is known from the foothills of AB, within 50 km of the BC border: it may occur in BC also (Guppy and Shepard 2001). The subspecies *carlotta* (Reakirt) occurs in the area.

- 1253 *Chlosyne hoffmanni* (Behr, 1863) Subspecies *manchada* (Bauer) occurs in BC.
- 1254 *Chlosyne palla* (Boisduval, 1852) Subspecies *calydon* (Strecker) occurs in BC.
- 1255 Chlosyne damoetas (Skinner, 1902)

The nominate subspecies occurs in BC. This taxon was treated as a subspecies of *C. whitneyi* (Behr) by Guppy and Shepard (2001).

Subtribe Phyciodina

- 1256 *Phyciodes pallida* (Edwards, 1864) Subspecies *barnesi* Skinner occurs in BC.
- 1257 *Phyciodes mylitta* (Edwards, 1861) The nominate subspecies occurs in BC.
- 1258 Phyciodes cocyta (Cramer, [1777])

Subspecies *cocyta* (Cramer), *pascoensis* Wright, and *selenis* (Kirby) have been reported from BC. Guppy and Shepard (2001) included this taxon within a broader concept of *P. tharos* (Drury).

- 1259 *Phyciodes batesii* (Reakirt, 1865) Subspecies *lakota* Scott occurs in BC.
- 1260 *Phyciodes pulchella* (Boisduval, 1852)

Treated by many workers, including Layberry et al. (1998), Guppy and Shepard (2001) and Cannings and Scudder (2007), under the name "P. pratensis (Behr)", now considered a synonym (Pelham 2008). Subspecies owimba Scott has been reported from BC.

Subfamily Satyrinae

Tribe Satyrini

Subtribe Coenonymphina

1261 Coenonympha tullia (Müller, 1764)

Contrary to Pohl et al. (2010), we revert to the holarctic concept of this species, rather than using the name *C. inornata* Edwards, 1861, for North American populations. Although North American populations are genetically distinct from European populations (Kodandaramaiah and Wahlberg 2009), the taxonomy is far from settled. The subspecies *ampelos* Edwards, *benjamini* McDunnough, *columbiana* McDunnough, *insulanus* McDunnough, *kodiak* Edwards, and *yukonensis* Holland have been reported from BC, and more than one of these may prove to be separate species. The latter was treated as a full species by Guppy and Shepard (2001). Kondla (2007) reported *C. sweadneri* Chermock & Chermock from southeastern BC and provides an argument for its treatment as a separate species; Pelham (2008) considers it to be a synonym of *C. tullia*.

Subtribe Maniolina

1262 *Cercyonis pegala* (Fabricius, 1775)

Subspecies *alope* (Fabricius), *ariane* (Boisduval), *boopis* (Begr), *incana* (Edwards), *ino* Hall, and *nephele* (Kirby) have been reported from BC.

1263 *Cercyonis sthenele* (Boisduval, 1852)

Subspecies *paulus* (Edwards) and *sineocellata* Austin & Emmel occur in BC. The subspecies *silvestris* (Edwards) was reported from BC in error by Layberry et al. (1998), prior to the description of *sineocellata*.

1264 *Cercyonis oetus* (Boisduval, 1869)

Subspecies charon (Edwards) and phocus (Edwards) have been reported from BC.

Subtribe Erebiina

1265 Erebia vidleri Elwes, 1898

1266 Erebia rossii (Curtis, 1835)

The nominate subspecies occurs in BC.

1267 Erebia mancinus Doubleday & Hewitson, 1849

1268 Erebia magdalena Strecker, 1880

Subspecies *hilchie* Kemal & Koçak occurs in BC. The name *hilchie* is a replacement name for *saxicola* Hilchie, a junior homonym. The latter was used by Layberry et al. (1998) and Guppy and Shepard (2001).

1269 Erebia mackinleyensis Gunder, 1932

1270 Erebia epipsodea Butler, 1868

Subspecies *epipsodea* Butler, *remingtoni* Ehrlich, and *sineocellata* Skinner have been reported from BC. Pyle (2002) used the name *hopfingeri* Ehrlich as a subspecies for some BC populations, but that name is now considered a synonym (Pelham 2008).

1271 Erebia discoidalis (Kirby, 1837)

The nominate subspecies occurs in BC. Layberry et al. (1998) used the name *mcdunnoughi* Dos Passos as a subspecies for BC populations, but that name is now considered a synonym (Pelham 2008).

1272 Erebia pawloskii Ménétriés, 1859

Subspecies *alaskensis* Holland and *canadensis* Warren have been reported from BC. The Palaearctic name *E. theano* (Tauscher) has also been used for BC populations, based on a previous taxonomic arrangement, e.g., by Layberry et al. (1998). True *E. theano* is restricted to the Old World.

1272.1 P Neominois ridingsii (Edwards, 1865)

This species is known from the foothills of AB, within 50 km of the BC border: it may occur in BC also (Guppy and Shepard 2001). The subspecies *minimus* Austin occurs in the area.

1273 Oeneis philipi Troubridge & Parshall, 1988

Treated by Layberry et al. (1998) and Cannings and Scudder (2007) as *O. rosovi* Kurentzov, an Old World species. North American populations are *O. philipi*.

1274 Oeneis polixenes (Fabricius, 1775)

Subspecies *beringianus* Kurentzov occurs in BC. Guppy and Shepard (2001) used the name *luteus* Troubridge & Parshall as a subspecies name for BC populations, but that name is currently considered a synonym (Pelham 2008).

1275 Oeneis jutta (Hübner, [1806]) Subspecies alaskensis Holland, chermocki Wyatt, reducta McDunnough, and ridingiana Chermock & Chermock have been reported from BC. For consistency, we follow Pelham's (2008) interpretation of O. jutta as a holarctic species. However, Pohl et al. (2010) explain why use of the name O. balderi (Geyer) is a superior taxonomic concept for northern North American populations, as a species distinct from O. jutta. Oeneis melissa (Fabricius, 1775) 1276 Subspecies atlinensis Guppy & Shepard and beanii Elwes occur in BC. Layberry et al. (1998) also reported subspecies gibsoni Holland from BC, prior to the description of atlinensis. 1277 Oeneis bore (Schneider, 1792) Subspecies edwardsi Dos Passos, hanburyi Watkins, mckinleyensis Dos Passos, and taygete Geyer have been reported from BC. 1278 Oeneis chryxus (Doubleday & Hewitson, 1849) Subspecies caryi Dyar and chryxus (Doubleday & Hewitson) occur in BC. 1279 Oeneis alberta Elwes, 1893 The nominate subspecies occurs in BC. 1280 Oeneis nevadensis (Felder & Felder, 1866) Subspecies gigas Butler and nevadensis (Felder & Felder) occur in BC.

Oeneis macounii (Edwards, 1885)

Oeneis uhleri (Reakirt, 1866) Subspecies varuna (Edwards) occurs in BC.

Section 3: Macromoths

Superfamily Pyraloidea 58. Family Pyralidae

1281 1282

Pyralids are mostly small to medium-sized moths, with wingspans ranging from about 10 to 55 mm. They are defined by the unique arrangement of their tympanal organs, which are on the ventral part of the abdomen base and include a narrow opening that faces forward towards the thorax.

The family has some of the most diverse feeding habits among Lepidoptera. Many pyralids are leaf rollers, but some bore in buds, shoots, stems, cones, fruits, galls or under bark. Several species are serious pests of stored food products. A few species live as inquilines in galls and the nests of Hymenoptera. Still others have predatory larvae that hunt down Homoptera. Some tropical species live in sloth fur and eat algae off the fur; others are specialists in sloth dung.

The family Pyralidae is a large group of cosmopolitan moths. There are about 5900 described species; 679 are found in North America and 132

are reported from BC. The subfamily Phycitinae is fairly well known, with significant revisions published by Heinrich (1956) and Neunzig (1986, 1990, 1997, 2003). The other subfamilies are generally poorly known and require taxonomic work.

Subfamily Chrysauginae

1283	Acallis gripalis (Hulst, 1886)
1284	Arta statalis Grote, 1875
1285	Arta epicoenalis Ragonot, 1891
Subfa	mily Galleriinae
Tribe	Galleriini
1286	Galleria mellonella (Linnaeus, 1758)
	Greater Wax Moth. Introduced from Europe.
1287	Achroia grisella (Fabricius, 1794)
Tuils a	Introduced from Europe in 1897 (Covell 1984).
1288	Tirathabini Paralipsa gularis (Zeller, 1877)
1289	H Corcyra cephalonica (Stainton, 1866)
1209	This species was introduced to North America from the West Indies. It was collected from a honeybee hive in Victoria in 1994, but may not be established in the province.
Tribe	Cacotherapini
1290	Cacotherapia leucocope (Dyar, 1917)
Subfa	mily Pyralinae
	Pyralini
1291	Pyralis farinalis Linnaeus, 1758
	This species, known as the Meal Moth, was introduced from the Palaearctic (Lafontaine and Troubridge 2011).
1292	Aglossa cacamica (Dyar, 1913)
1293	Aglossa pinguinalis (Linnaeus, 1758)
	This introduced species is known from a few localities in BC, including Kamloops (J. deWaard, personal communication), Quamichan (RBCM material), Port Albern and Williams Lake (L. Avis, personal communication).
1294	Aglossa caprealis (Hübner, [1809])
1295	Hypsopygia costalis (Fabricius, 1775)
1296	Dolichomia thymetusalis (Walker, 1859)
1297	Pseudasopia cohortalis (Grote, 1878)
Subfa	mily Epipaschiinae
1298	Macalla zelleri (Grote, 1876)
1299	Toripalpus trabalis Grote, 1881
1300	Pococera aplastella (Hulst, 1888)
1301	Pococera asperatella (Clemens, 1860)

1302	Pococera expandens (Walker, 1863)
1303	Pococera provoella (Barnes & Benjamin, 1924)
1304	Pococera thoracicella (Barnes & Benjamin, 1924)
Subfamily	y Phycitinae
Tribe Phy	•
1305	Acrobasis vaccinii Riley, 1884 i
1306 U	Acrobasis indigenella (Zeller, 1848)
	Uncertain BC record reported in Neunzig (1986).
1307	Acrobasis tricolorella Grote, 1878
1308	Acrobasis rubrifasciella Packard, 1873
1309	Acrobasis betulella Hulst, 1890
1310	Trachycera suavella (Zincken, 1818)
	This species was introduced from Europe. However, the synonym $\it T. supposita$ (Heinrich) was described from BC.
1311	Cuniberta subtinctella (Ragonot, 1887)
1312	Myelopsis minutularia (Hulst, 1887)
1313	Myelopsis subtetricella (Ragonot, 1889)
1314	Myelopsis alatella (Hulst, 1887)
1315	Apomyelois bistriatella (Hulst, 1887)
1316	Euzophera semifuneralis (Walker, 1863)
1317	Euzophera habrella Neunzig, 1990
1318	Euzophera vinnulella Neunzig, 1990
1319	Eulogia ochrifrontella (Zeller, 1876)
1320	Ephestiodes gilvescentella Ragonot, 1887
1321	Ephestiodes erythrella Ragonot, 1887
1322	Ephestiodes griseus Neunzig, 1990
	Recently collected from BC's Lower Mainland by DH; the identity was confirmed by E. LaGasa.
1323	Vitula edmandsii (Packard, 1864)
1324	Vitula serratilineella Ragonot, 1887
1325	Vitula broweri (Heinrich, 1956) Recent BC record collected near Sicamous by deWaard (2010).
1326	Vitula setonella (McDunnough, 1927)
1327	Plodia interpunctella (Hübner, [1813])
	The Indian Meal Moth. This cosmopolitan pest of stored food products originates in temperate regions of the New World, but has been introduced to BC and elsewhere.
1328 H	Ephestia elutella (Hübner, 1796)
	Introduced from the Old World tropics (Lafontaine and Troubridge 2011). However,
	the synonym <i>E. amarella</i> Dyar was described from Kaslo, BC.
1329 H	Ephestia kuehniella Zeller, 1879
	The Mediterranean Flour Moth. Introduced from the southern USA, it occurs only in association with humans in BC.

1330 H	Cadra cautella (Walker, 1863)
1221	Introduced from the tropics (Lafontaine and Troubridge 2011).
1331	Bandera binotella (Zeller, 1872)
1332	Bandera virginella Dyar, 1908
1333	Eurythmia angulella Ely, 1910
1334	Eurythmia spaldingella Dyar, 1905
1335	Pima fosterella Hulst, 1888
1336	Pima boisduvaliella (Guenée, 1845)
1337	Pima occidentalis Heinrich, 1956
1338	Pima fulvirugella (Ragonot, 1887)
	Listed by Cannings and Scudder (2007) under the name <i>P. vividella</i> (McDunnough), a recent synonym.
1339	Pima albocostalialis (Hulst, 1886)
1340	Interjectio columbiella (McDunnough, 1935)
1341	Interjectio denticulella (Ragonot, 1887)
1342	Ambesa laetella Grote, 1880
1343	Ambesa walsinghami (Ragonot, 1887)
1344	Catastia actualis (Hulst, 1886)
1345	Oreana unicolorella (Hulst, 1887)
1346 U	Psorosina hammondi (Riley, 1872)
	This species was reported as an occasional pest of apple in BC by Belton (1988); no BC vouchers are known, and it is otherwise thought to be restricted to eastern and central North America. It may have occurred here, or the record may refer to another apple pest, perhaps <i>Choreutis pariana</i> (Clerck).
1347	Ortholepis pasadamia (Dyar, 1917)
1348 U	Polopeustis arctiella (Gibson, 1920)
	Known in BC from a single female specimen in the UBC collection from Chilcotin, collected 25 April 1920 by E. R. Buckell. The identification is tentative; therefore, the species is listed as unconfirmed in BC.
1349	Meroptera pravella (Grote, 1878)
1350	Meroptera abditiva Heinrich, 1956
1351	Sciota basilaris (Zeller, 1872)
1352	Sciota levigatella (Hulst, 1892)
1353	Sciota yuconella (Dyar, 1925)
	A specimen in the PFC collection from Quesnel River, BC, that had been identified as <i>S. termitalis</i> (Hulst) was redetermined as <i>S. yuconella</i> by GRP. This is the only known specimen outside of the type locality at Ft. Yukon, AK.
1354	Sciota fraudifera (Heinrich, 1956)
1355	Sciota fernaldi (Ragonot, 1887)
1356	Tulsa umbripennis (Hulst, 1895)

1357	Tulsa oregonella (Barnes & McDunnough, 1918) A specimen of this species in the PFC, collected in flight at Errington, BC, by D. Evans on 15 May 1973, is the only known record outside the type locality of Crater Lake, OR. The identity was confirmed by GRP.
1358	Telethusia ovalis (Packard, 1873)
1359	Phobus brucei (Hulst, 1895)
1360	Phobus funerellus (Dyar, 1905)
1361	Phobus incertus Heinrich, 1956
1362	Pyla fasciolalis (Hulst, 1886)
1363	Pyla impostor Heinrich, 1956
1364	Pyla aeguivoca Heinrich, 1956
1365	Pyla insinuatrix Heinrich, 1956
1366	Pyla aenigmatica Heinrich, 1956
1367	Pyla criddlella Dyar, 1907
1368	Pyla fusca (Haworth, 1828)
1369	Pyla hypochalciella (Ragonot, 1887)
1370	Pyla hanhamella Dyar, 1904
1371	Pyla scintillans (Grote, 1881)
1372	Pyla serrata Neunzig, 2003
1373	Pyla rainierella Dyar, 1904
	Reported by Blackmore (1921, 1923) from Mt. Cheam and Lillooet. A voucher specimen in the UBC from Mt. Cheam was dissected and largely fits the description of <i>P. rainierella</i> . However, that specimen and the published figures of <i>P. rainierella</i> are at the edge of the range of variation in the highly variable sister species, <i>P. scintillans</i> (Grote), as illustrated in Heinrich (1956) and Neunzig (2003). These taxa may represent one variable species; further taxonomic and genetic work would shed light on the relationship between them. <i>Pyla rainierella</i> was thought by Heinrich (1956) and Neunzig (2003) to be restricted to Mt. Rainier, WA.
1374	Pyla aeneoviridella Ragonot, 1887
1375	Dioryctria abietivorella (Grote, 1878)
1376	Dioryctria reniculelloides Mutuura & Munroe, 1973
	The Spruce Coneworm. Prior to its description in 1973, this species was known in North America under the Old World name <i>D. abietella</i> ([Denis & Schiffermüller]).
1377	Dioryctria pseudotsugella Munroe, 1959
1378	Dioryctria auranticella (Grote, 1883)
1379	Dioryctria rossi Munroe, 1959
1380	Dioryctria ponderosae Dyar, 1914
1381	Dioryctria okanaganella Mutuura, Munroe & Ross, 1969
1382	Dioryctria pentictonella Mutuura, Munroe & Ross, 1969
1383	Dioryctria vancouverella Mutuura, Munroe & Ross, 1969

1384	U	Dioryctria zimmermani (Grote, 1877)
		Neunzig (2003) reported this species only from eastern North America, and reports
		from BC by Ross and Evans (1957a), Munroe (1959), and Prentice (1965) were thought to refer to <i>D. cambiicola</i> (Dyar). However, confirmed material reared
		from Jack Pine is now known from as far west as AB. The species may well occur
		in northeastern BC.
1385		Dioryctria cambiicola (Dyar, 1914)
1386		Dioryctria banksiella Mutuura, Munroe & Ross, 1969
1387		Dioryctria tumicolella Mutuura, Munroe & Ross, 1969
1388		Dioryctria contortella Mutuura, Munroe & Ross, 1969
1389		Dioryctria monticolella Mutuura, Munroe & Ross, 1969
1390		Sarata nigrifasciella Ragonot, 1887
1391		Sarata edwardsialis (Hulst, 1886)
1392		Sarata pullatella (Ragonot, 1887)
1393		Macrorrhinia dryadella (Hulst, 1892)
1394		Promylea lunigerella Ragonot, 1887
1395		Dasypyga alternosquamella Ragonot, 1887
1396		Etiella zinckenella (Treitschke, 1832)
		This species was introduced from the Palaearctic; it was present in North America by 1917.
1397		Eumysia maidella (Dyar, 1905)
1398		Staudingeria albipenella (Hulst, 1887)
1399		Hulstia undulatella (Clemens, 1860)
1400		Honora mellinella Grote, 1878
1401		Honora subsciurella Ragonot, 1887
1402		Honora montinatatella (Hulst, 1887)
		The identity of voucher specimens in the UBC collection was confirmed via dissection by GRP.
1403		Honora perdubiella (Dyar, 1905)
		Known from a single female specimen in the UBC collection, from Mt. McLean, 7500 feet, collected 13 August 1921 by A. W. Hanham. The identity was confirmed via dissection by GRP.
1404		Zophodia grossulariella (Hübner, [1809])
1405		Melitara dentata (Grote, 1876)
1406		Rhagea packardella (Ragonot, 1887)
1407		Homoeosoma electella (Hulst, 1887)
1408	U	Homoeosoma phaeoboreas Goodson & Neunzig, 1993
		Reported as an uncertain record in BC by Neunzig (1997).
1409		Homoeosoma oslarellum Dyar, 1905
1410		Homoeosoma albescentella Ragonot, 1887
1411		Homoeosoma impressale Hulst, 1886
1412		Phycitodes mucidella (Ragonot, 1887)

Tribe Anerastiini

- 1413 Ragonotia dotalis (Hulst, 1886)
- 1414 Coenochroa californiella Ragonot, 1887

59. Family Crambidae (snout moths and grass moths)

Crambids are very small to large moths, with wingspans ranging from about 10 to 100 mm, but seldom exceeding 30 mm in BC species. They were historically placed within the Pyralidae. Like pyralids, they have tympanal chambers on the abdomen; however, they can be separated from pyralids by details of the tympanal opening.

Larvae of most crambid species are borers or concealed feeders of plants. Many species feed on primitive plants such as mosses, rushes and grasses. Several species are pests of cereal crops or turf grass. Many species in the subfamily Pyraustinae (e.g., species in the genera *Pyrausta*, *Loxostege*, and *Achyra*) are defoliating pests of pasture and field crops; others are borers in stems and fruits of various crops. Larvae of the subfamily Acentropinae are almost all aquatic as immatures: some feed on vascular plants in standing water, and others live in rapid streams under webs on rocks and feed on algae there. These larvae are either air breathers living in air-filled cases, or lack functional spiracles and take in dissolved oxygen through tracheal gills.

The family Crambidae is distributed around the world and contains about 9650 described species. About 850 species are known in North America, 131 of which are reported from BC. The arrangement of subfamilies, tribes and genera presented here follows Munroe et al. (1995). Several major subgroups of crambids have been revised by Munroe (1972a, 1972b, 1973, 1976a, 1976b), but other groups are poorly known.

Subfamily Scopariinae

- 1415 Gesneria centuriella ([Denis & Schiffermüller], 1775)
 The subspecies beringiella Munroe and caecalis (Walker) have been reported from BC.
- 1416 Cosipara tricoloralis (Dyar, 1904)
- 1417 Scoparia palloralis Dyar, 1906
- 1418 Scoparia biplagialis Walker, 1866
 Subspecies fernaldalis Dyar and pacificalis Dyar occur in BC; both were described from BC.
- 1419 U Scoparia basalis Walker, 1866
 Western records are unconfirmed; they may refer to S. biplagialis Walker.

1420	Eudonia rectilinea (Zeller, 1874)
1421	Eudonia recumea (Zener, 1074) Eudonia commortalis (Dyar, 1921)
1421	Eudonia expallidalis (Dyar, 1906)
1423	•
	Eudonia torniplagalis (Dyar, 1904)
1424	Eudonia albertalis (Dyar, 1929)
1425	Eudonia vivida Munroe, 1972
1426	Recent BC record collected near Hazelton by deWaard (2010). Eudonia spaldingalis (Barnes & McDunnough, 1912)
1427	Eudonia spenceri Munroe, 1972
1428	Eudonia spericeri Mullioe, 1972 Eudonia leucophthalma (Dyar, 1929)
1429	Eudonia echo (Dyar, 1929)
1429	•
1430	Eudonia alpina (Curtis, 1850) This species has historically been referred to under the name E. lugubralis (Walker),
	now considered a synonym.
Subfamil	y Crambinae
Tribe Ha	imbachiini
1431	Occidentalia comptulatalis (Hulst, 1886)
Tribe Cra	ambini
1432	Euchromius californicalis (Packard, 1873)
1433	Catoptria trichostomus (Christoph, 1858)
1434	Catoptria maculalis (Zetterstedt, 1840)
1435	Catoptria latiradiellus (Walker, 1863)
1436	Catoptria oregonica (Grote, 1880)
1437	Chrysoteuchia topiarius (Zeller, 1866)
	Subspecies vachellellus (Kearfott) has been reported from BC.
1438	Crambus pascuella (Linnaeus, 1758)
	The subspecies <i>floridus</i> Zeller is applicable to BC populations.
1439	Crambus hamella (Thunberg, 1794)
1440	Crambus alienellus (Zincken, 1817)
	Subspecies <i>labradoriensis</i> Christoph and <i>dissectus</i> Grote have been reported from BC.
1441	Crambus bidens Zeller, 1872
1442	Crambus perlella (Scopoli, 1763)
1443	Crambus unistriatellus Packard, 1867
1444	Crambus whitmerellus Klots, 1942
	The subspecies <i>browni</i> Klots is applicable to BC populations.
1445	Crambus tutillus McDunnough, 1921
1446	Crambus cockleellus Kearfott, 1908
1447	Crambus ainsliellus Klots, 1942
1448	Crambus praefectellus (Zincken, 1821)
1449	Crambus leachellus (Zincken, 1818)

1450	Crambus cypridalis Hulst, 1886
1451	Crambus occidentalis Grote, 1880
1452	Raphiptera argillaceellus (Packard, 1867)
1453	Agriphila straminella ([Denis & Schiffermüller], 1775)
1454	Agriphila plumbifimbriellus (Dyar, 1904)
1455	Agriphila ruricolellus (Zeller, 1863)
1456	Agriphila vulgivagellus (Clemens, 1860)
1457	Agriphila attenuatus (Grote, 1880)
1458	Neodactria luteolellus (Clemens, 1860)
1459	Neodactria caliginosellus (Clemens, 1860)
1460	Neodactria murellus (Dyar, 1904)
1461	Pediasia aridella (Thunberg, 1788)
	Subspecies edmontellus (McDunnough) has been reported from BC.
1462	Pediasia truncatellus (Zetterstedt, 1840)
1463	Pediasia browerellus (Klots, 1942)
1464	Pediasia trisecta (Walker, 1856)
1465	Pediasia dorsipunctellus (Kearfott, 1908)
1466	Tehama bonifatella (Hulst, 1887)
1467	Thaumatopsis pexellus (Zeller, 1863)
	Subspecies coloradella Kearfott has been reported from BC.
1468	Thaumatopsis repandus (Grote, 1880)
Subfam	ily Schoenobiinae
1469	Donacaula melinellus (Clemens, 1860)
	Subspecies albicostellus (Fernald) has been reported from BC.
	ily Acentropinae
•	ymphulini
1470	Elophila icciusalis (Walker, 1859)
1471	Elophila obliteralis (Walker, 1859)
1472	Elophila occidentalis (Lange, 1956)
1473	Parapoynx maculalis (Clemens, 1860)
1474	Parapoynx allionealis Walker, 1859
	rgyractini
1475	Petrophila kearfottalis (Barnes & McDunnough, 1917)
1476	Petrophila confusalis (Walker, 1866)
1477	Eoparargyractis floridalis Lange, 1956
Subfami	ily Odontiinae
Tribe O	dontiini
1478	Microtheoris ophionalis (Walker, 1859)
	The subspecies <i>occidentalis</i> Munroe (type locality: BC) is applicable to BC
1479	populations. Anatralata versicolor (Warren, 1892)
17/3	A TIALIAIA VEISICOIOI (VVAITEII, 1032)

		Subspecies <i>novalis</i> (Grote) and <i>nuchalis</i> (Grote) have been reported from BC.
Subfa	mil	y Evergestinae
1481		Evergestis pallidata (Hufnagel, 1767)
		Introduced from Eurasia?
1482		Evergestis simulatilis (Grote, 1880)
1483		Evergestis vinctalis Barnes & McDunnough, 1914 The subspecies muricoloralis Munroe (type locality: BC) is applicable to BC
		populations.
1484		Evergestis obscuralis Barnes & McDunnough, 1914
		Subspecies <i>palousalis</i> Munroe occurs in BC.
1485		Evergestis funalis (Grote, 1878)
		Subspecies <i>columbialis</i> Munroe and <i>insulalis</i> Barnes & McDunnough occur in BC; both were described from BC.
1486		Evergestis subterminalis Barnes & McDunnough, 1914
1487		Prorasea simalis Grote, 1878
1488		Prorasea praeia (Dyar, 1917)
1489		Orenaia trivialis Barnes & McDunnough, 1914
1490		Orenaia pallidivittalis Munroe, 1956
Subfa	mil	y Glaphyriinae
1491		Stegea salutalis (Hulst, 1886)
1492		Dicymolomia metalliferalis (Packard, 1873)
1493		Chalcoela iphitalis (Walker, 1859)
	mil	y Pyraustinae
		austini
1494	,	Saucrobotys fumoferalis (Hulst, 1886)
1495		Saucrobotys futilalis (Lederer, 1863)
		Subspecies <i>inconcinnalis</i> (Lederer) has been reported from BC.
1496		Ostrinia penitalis (Grote, 1876)
1497	U	Ostrinia marginalis (Walker, 1866)
		Munroe (1976b) reported this species from across Canada and north to Dawson, YT, but BC was not specifically mentioned and no BC vouchers are known.
1498		Fumibotys fumalis (Guenée, 1854)
1499		Perispasta caeculalis Zeller, 1875
1500		Eurrhypara hortulata (Linnaeus, 1758)
		Introduced from Eurasia; it was first found in NS in 1907 and in BC in 1977
		(Gillespie and Gillespie 1982).
1501		Anania tertialis (Guenée, 1854)
		This species has historically been referred to under the name <i>coronata tertialis</i> . It has recently been shown to be a distinct species from <i>A. coronata</i> (Hufnagel), which is restricted to the Palaearctic (Yang et al. 2012).
1502		Anania mysippusalis (Walker, 1859)

Mimoschinia rufofascialis (Stephens, 1834)

Tribe Eurrhypini

1480

1503	Anania funebris (Ström, 1768)
	Subspecies <i>glomeralis</i> (Walker) has been reported from BC.
1504	Sitochroa chortalis (Grote, 1873)
1505	Loxostege sticticalis (Linnaeus, 1761)
1506	Loxostege anartalis (Grote, 1877)
	Subspecies albertalis Barnes & McDunnough occurs in BC.
1507	Loxostege thrallophilalis (Hulst, 1886)
1508	Loxostege sierralis Munroe, 1976
	The nominal subspecies (type locality BC) and subspecies <i>internationalis</i> Munroe occur in BC.
1509	Loxostege commixtalis (Walker, 1866)
1510	Loxostege cereralis (Zeller, 1872)
1511	Pyrausta nicalis (Grote, 1878)
1512	Pyrausta signatalis (Walker, 1866)
1513	Pyrausta californicalis (Packard, 1873)
1514	Pyrausta orphisalis Walker, 1859
1515	Pyrausta tuolumnalis Barnes & McDunnough, 1918
1516	Pyrausta subsequalis (Guenée, 1854)
	Subspecies plagalis Haimbach occurs in BC.
1517	Pyrausta borealis Packard, 1867
1518	Pyrausta perrubralis (Packard, 1873)
	Subspecies <i>saanichalis</i> Munroe, described from Vancouver Island, is applicable to at least some BC populations.
1519	Pyrausta semirubralis (Packard, 1873)
1520	Pyrausta unifascialis (Packard, 1873)
1521	Pyrausta fodinalis (Lederer, 1863)
	Subspecies <i>septentrionicola</i> Munroe occurs in BC.
1522	Pyrausta socialis (Grote, 1877)
Tribe Spi	ilomelini
1523	Diastictis ventralis (Grote & Robinson, 1867)
	Subspecies seamansi Munroe occurs in BC.
1524	Herpetogramma pertextalis (Lederer, 1863)
1525	Herpetogramma thestealis (Walker, 1859)
1526	Choristostigma plumbosignalis (Fernald, 1888)
1527	Choristostigma disputalis (Barnes & McDunnough, 1917)
1528	Udea rubigalis (Guenée, 1854)
1529	Udea profundalis (Packard, 1873)
1530	Udea washingtonalis (Grote, 1882)
	Subspecies hollandi Munroe was described from BC.
1531	Udea inquinatalis (Zeller, 1846)
1532	Udea nordeggensis (McDunnough, 1930)
1533	Udea saxifragae (McDunnough, 1935)

1534	Udea derasa Munroe, 1966
1535	Udea livida Munroe, 1966
1536	Udea turmalis (Grote, 1881)
1537	Udea itysalis (Walker, 1859)
	British Columbia populations have been referred to as subspecies <i>kodiakensis</i> . Munroe and <i>tillialis</i> (Dyar), the latter described from BC (Munroe 1966).
1538	Udea abstrusa Munroe, 1966
1539	Udea radiosalis (Möschler, 1883)
1540	Desmia funeralis (Hübner, 1796)
1541	Desmia maculalis Westwood, 1831
1542	Palpita magniferalis (Walker, 1861)
1543	Diacme adipaloides (Grote & Robinson, 1867)
	This species has historically been misidentified in western Canada as <i>D. elealis</i> (Walker).
1544	Mecyna mustelinalis (Packard, 1873)
1545	Nomophila nearctica Munroe, 1973

Superfamily Drepanoidea

60. Family Drepanidae (lutestring moths and hooktip moths)

Drepanids are medium-sized moths, ranging in size from about 35 to 45 mm. In North America, this group includes two superficially dissimilar subfamilies that have been treated as separate families in the past; they and a third Asian subfamily are united, based on the unique structure of the tympanum. In the subfamily Drepaninae, the adults resemble geometrids. In many species, forewing tips are sickle-shaped, thus the name "hooktips". In the Thyatirinae, adult moths resemble noctuids.

Most drepanid larvae feed on the foliage of trees or shrubs. Some are gregarious when young. The larvae of many drepanids have abdomens that taper to a point; many larvae rest with the head and tail raised.

The family Drepanidae contains about 660 described species. Twenty-one species are known in North America; BC has 11 species.

Subfamily Thyatirinae

Tribe Habrosynini

1547

1546 Habrosyne scripta (Gosse, 1840) Subspecies chatfieldii Grote has been reported from BC.

Pseudothyatira cymatophoroides (Guenée, 1852)

Tribe Macrothyatirini

1548 Euthyatira pudens (Guenée, 1852)

1549 Euthyatira semicircularis (Grote, 1881)
Subspecies griseor (Barnes & McDunnough) has been reported from BC.

Tribe Ceranemotini

- 1550 Ceranemota improvisa (Edwards, 1873)
- 1551 Ceranemota fasciata (Barnes & McDunnough, 1910)
- 1552 Ceranemota albertae Clarke, 1938

Subfamily Drepaninae

Tribe Drepanini

- 1553 Drepana arcuata Walker, 1855
 - Subspecies siculifer Packard has been reported from BC.
- 1554 Drepana bilineata (Packard, 1864)
- 1555 Eudeilinia herminiata (Guenée, [1858])

Tribe Oretini

1556 Oreta rosea (Walker, 1855)

Superfamily Lasiocampoidea

61. Family Lasiocampidae (tent caterpillars and lappet moths)

Lasiocampids are medium-sized to very large (25 to 120 mm), stout-bodied, hairy moths. British Columbia species are at the lower end of the size range, with wingspans ranging from about 25 to 35 mm; they are also predominantly brown, yellow or grey. The mouthparts are nonfunctional, the eyes are often hairy, and the antennae are somewhat feathery, especially in males. Tent caterpillar (*Malacosoma*) larvae are hairy and often colourful, with stripes and spots of white, blue, orange and other colours. Lappet moth larvae (*Tolype, Phyllodesma*) are softly hairy and have a small lobe or lappet on either side of each segment.

Lasiocampid larvae feed mostly on deciduous trees and shrubs. The tent caterpillars live in silken colonies and often cause severe defoliation during cyclical outbreaks.

The family Lasiocampidae is practically cosmopolitan, but is best represented in the tropics; it includes about 1950 species worldwide. In North America, 35 species are known; four of these occur in BC. The family in North America was revised by Franclemont (1973).

Subfamily Lasiocampinae Tribe Gastropachini

1557 Phyllodesma americana (Harris, 1841)

Tribe Lasiocampini

1558 Malacosoma disstria Hübner, 1820

The Forest Tent Caterpillar. This species is a destructive pest of *Populus* trees in the boreal forest.

1559 *Malacosoma californica* (Packard, 1864)

The Western Tent Caterpillar. Subspecies pluvialis (Dyar) occurs in BC.

Subfamily Macromphaliinae

1560 Tolype dayi Blackmore, 1921

Crabo et al. (2015) treat *T. dayi* as a synonym of *T. distincta* French, and list records in the Pacific Northwest, including BC, under the latter name.

Superfamily Bombycoidea

62. Family Saturniidae (giant silk moths)

Giant silk moths are medium-sized to very large moths, with wingspans of about 30 to 280 mm. British Columbia species have wingspans ranging from about 60 mm (small *Hemileuca* specimens) to 140 mm (large *Antheraea*). The body is heavy and covered in hair-like scales. The mouthparts are reduced and non-functional. Larvae often have tubercles or spines on the body; the pupae usually are enclosed in silken cocoons, often incorporating leaves.

Adults are usually nocturnal, although some Saturniinae and many Hemileucinae fly in the daytime. The larvae are frequently polyphagous; some species eat dozens of plant genera. Most are solitary, but Hemileucinae larvae are gregarious, feeding in tight clusters. Hemileucinae larvae also bear tubercles with poisonous spines. Although the main commercial production of silk comes from *Bombyx mori* (Linnaeus) in the family Bombycidae, some silk is commercially produced by saturniid species.

The family Saturniidae is cosmopolitan and is absent from only the most northerly and southerly regions. It is best represented in the tropics, especially in the New World. There are about 2350 species worldwide, with 74 species recorded for North America. Seven species are recorded from BC. North American saturniids were treated in detail by Ferguson (1971, 1972) and Tuskes et al. (1996).

Subfamily Hemileucinae

Tribe Hemileucini

1561 S Coloradia pandora Blake, 1863

Reported by Blackmore (1927) and Llewellyn Jones (1951) under the name *C. lindseyi* Barnes & Benjamin, now considered a subspecies of *C. pandora*. The record is based on one specimen from Victoria, BC, "probably accidentally introduced". That is likely the case, although presumably naturally occurring strays have been collected on the west coast as far north as WA (L. G. Crabo, personal communication).

1562 Hemileuca eglanterina (Boisduval, 1852)

The nominal subspecies occurs in BC; however Dyar (1904) and Llewellyn Jones (1951) erroneously reported subspecies *shastaensis* (Grote) from BC.

- 1563 Hemileuca nuttalli (Strecker, 1875)
- 1564 Hemileuca hera (Harris, 1841)

The nominate subspecies occurs in BC.

Subfamily Saturniinae

Tribe Saturniini

1565 Antheraea polyphemus (Cramer, 1776)
The Polyphemus Moth.

Tribe Attacini

1566 Hyalophora gloveri (Strecker, 1872)

Glover's Silk Moth. Tuskes et al. (1996) treated *H. gloveri* as a subspecies of *H. co-lumbia* (Smith), but western populations were reinstated as a full species by Pohl et al. (2010).

1567 Hyalophora euryalus (Boisduval, 1855)

Populations in southeastern BC exhibit some *gloveri* (Strecker) traits that are indicative of past hybridisation (Tuskes et al. 1996) and have been historically referred to under the name *kasloensis* (Cockerell).

63. Family Sphingidae (sphinx moths; hornworms)

Sphinx moths are medium-sized to large (30 to 180 mm), heavy-bodied moths with long, narrow forewings and relatively small hind wings; in BC species, wingspans range from about 40 to 140 mm. Most larvae lack obvious hairs and usually have a spine or button-like process near the end of the body, thus giving them the name hornworms. Most species pupate in the soil or in leaf litter; the sheath of the developing proboscis is sometimes separate from the rest of the body, resembling the handle of a jug.

Sphinx moths fly strongly with rapidly beating wings; many can hover like hummingbirds, and feed on flower nectar by probing tubular blooms with the proboscis. Larvae of some species damage commercial crops. Larvae often rear up when disturbed and, in this position, have reminded some imaginative people of the Sphinx of Egypt.

About 1450 species of Sphingidae are known worldwide. North America has approximately 130 species; 25 species are reported from BC, and one more is expected to be found. Hodges (1971) and Tuttle (2007) covered the North American Sphingidae; Kitching and Cadiou (2000) provided a complete world catalogue.

Subfamily Sphinginae

Tribe Acherontiini

1568 S *Agrius cingulata* (Fabricius, 1775)

Tribe Sphingini

- 1569 Manduca quinquemaculata (Haworth, 1803)
- 1570 Sphinx chersis (Hübner, 1823)
- 1571 Sphinx vashti Strecker, 1878
- 1572 Sphinx perelegans Edwards, 1874
- 1573 Sphinx poecila Stephens, 1828
- 1574 Sphinx luscitiosa Clemens, 1859
- 1575 Sphinx drupiferarum Smith, 1797
- 1576 U Lapara bombycoides Walker, 1856

Reported from BC by Smith (1994), but no BC voucher specimens are known. The species was not reported from BC by Tuttle (2007), but it could occur in the boreal forests of northeastern BC.

Subfamily Smerinthinae

Tribe Smerinthini

- 1577 Smerinthus jamaicensis (Drury, 1773)
- 1578 Smerinthus cerisyi Kirby, 1837
- 1579 Smerinthus ophthalmica Boisduval, 1855

This name was raised from synonymy with *S. cerisyi* Kirby by Pohl et al. (2010). It occurs across southern BC and west of the Coast Ranges, north to AK.

- 1580 *Paonias excaecata* (Smith, 1797)
- 1581 Paonias myops (Smith, 1797)
- 1582 Pachysphinx modesta (Harris, 1839)

Subfamily Macroglossinae

Tribe Dilophonotini

- 1583 *Hemaris thysbe* (Fabricius, 1775)
- 1584 Hemaris diffinis (Boisduval, 1836)

Historical BC records under this name are actually *H. thetis* (Boisduval) (Schmidt 2009); however, true *H. diffinis* was recently discovered in the Peace River region of northeastern BC by J. H. Shepard.

1585 Hemaris thetis (Boisduval, 1855)

This species was listed by Cannings and Scudder (2007) and Tuttle (2007) as *H. senta* (Strecker), a recent synonym (Schmidt 2009).

Tribe Macroglossini

- 1585.1 P *Proserpinus lucidus* (Boisduval, 1852)
 - This species is reported as "probable" for BC by Tuttle (2007).
- 1586 Proserpinus clarkiae (Boisduval, 1852)
- 1587 Proserpinus flavofasciata (Walker, 1856)
- 1588 U Darapsa choerilus (Cramer, [1780])

Listed as uncertain for BC by Tuttle (2007). The only known BC record is from Ucluelet; it is likely mislabelled. However, this species probably occurs in BC's Peace River region.

1589 S *Hyles euphorbiae* (Linnaeus, 1758)

This species was introduced to BC for biological control of *Euphorbia* beginning in 1966 (Harris and Alex 1971); it has not yet become established in the province, but it is expected to do so via dispersal from populations in AB.

- 1590 Hyles gallii (Rottemburg, 1775)
- 1591 M Hyles lineata (Fabricius, 1775)
- 1592 Deilephila elpenor (Linnaeus, 1758)

 Introduced from Europe to BC; known only from the Lower Mainland (Pitt Meadows, Maple Ridge, Langley). According to F. A. H. Sperling (personal communication), this species was intentionally released by a sphingid collector near

Vancouver before 1995.

Superfamily Geometroidea

64. Family Uraniidae (swallowtail moths)

Uraniids are small to large, usually slender-bodied moths. North American species have wingspans of 15 to 20 mm. Some tropical species are brilliantly iridescent and tailed like papilionid butterflies, but most are cryptically coloured. The family is defined by characters of the abdominal tympanum and wing venation. Some species, including the BC species, have notched hind wings.

Larvae of Epipleminae, including the North American species, are social when young, making webs that they abandon as they mature. Adults hold their wings outspread or rolled, often with the forewings and hind wings widely separated.

The family Uraniidae consists of about 700 described species, mostly in the tropics. Ten species are known in North America, one of which occurs in BC.

Subfamily Epipleminae

1593 Callizzia amorata Packard, 1876

65. Family Geometridae (inchworm moths; loopers)

Geometrid moths are small to very large (with wingspans of about 10 to 50 mm in BC, but up to more than 100 mm elsewhere), and typically slender bodied, with broad, delicate wings. In our fauna, colours are usually subdued, with browns, greys, whites and rusts predominating; some are green, yellow, or black and white. Delicate transverse lines or bands may cross both pairs of wings. In some species, the females have short wings or are wingless; wing loss is more common in the Geometridae than in any other lepidopteran family. Adult geometrids are mostly nocturnal, and many are attracted to lights. When resting, they typically hold the cryptically coloured wings outspread, but some species fold their wings tightly over the abdomen. Some species are diurnal; some of these are brightly coloured.

Most larvae have lost the front three of the usual five pairs of prolegs, but some species have retained more than two pairs (with some prolegs reduced). The loss of prolegs results in the looping habit of the moving larva; the name "Geometridae" is derived from this "earth-measuring" motion.

Characteristically, many geometrid larvae are beautifully camouflaged and, when disturbed, may stand erect on the prolegs, strikingly resembling a little twig. The larvae usually are externally feeding defoliators, although some attack fruits, dead leaves and stored food products; a few are carnivorous. Many are serious pests, especially of fruit-bearing shrubs and trees and of ornamental and forest trees. Adults of some *Scopula* species in Southeast Asia imbibe blood from wounds in mammals, or sip sweat and tears.

The family Geometridae is huge, containing about 23 000 species globally. About 1425 species are described in North America; 362 species have been reported from BC, and a further six species are expected to be found, making the family the third-most diverse group of moths in the province. Most Canadian species of geometrids were treated by McGuffin (1967, 1972, 1977, 1981, 1987, 1988) and Bolte (1990), but many genera in the subfamily Larentiinae remain poorly known. Other significant North American works are by Ferguson (1985, 2008). A global catalogue of the Geometridae was published by Scoble (1999).

Subfamily Larentiinae Tribe Cidariini

1594 Dysstroma citrata (Linnaeus, 1761)

1595		Dysstroma sobria Swett, 1917
1596		,
1390		Dysstroma suspectata (Möschler, 1874) This species is known in BC from a single specimen from Kootenay Park, verified
		via DNA barcode (B. C. Schmidt, personal communication).
1597		Dysstroma ochrofuscaria Ferguson, 1983
1597.1	Р	Dysstroma infuscata (Tengström, 1869)
		This species is known from YT and AB, and likely occurs in BC also.
1598		Dysstroma truncata (Hufnagel, 1767)
		Subspecies transversata (Kellicott) has been reported from BC.
1599		Dysstroma pseudimmanata (Heydemann, 1929)
4600		Historical reports of <i>D. walkerata</i> (Pearsall) refer to this species (Pohl et al. 2010).
1600		Dysstroma hersiliata (Guenée, [1858])
		Subspecies <i>cervinifascia</i> (Walker) and <i>manitoba</i> McDunnough have been reported from BC.
1601		Dysstroma formosa (Hulst, 1896)
		Subspecies <i>occidentata</i> (Taylor) has been reported from BC.
1602		Dysstroma colvillei Blackmore, 1926
1603		Dysstroma brunneata (Packard, 1867)
		Subspecies ethela (Hulst) has been reported from BC.
1604		Dysstroma mancipata (Guenée, [1858])
460		Subspecies <i>decorata</i> (Taylor) has been reported from BC.
1605		Eulithis propulsata (Walker, 1862)
1606		Eulithis testata (Linnaeus, 1761)
1607		Eulithis destinata (Möschler, 1860)
1600		Subspecies <i>harveyata</i> (Taylor) has been reported from BC.
1608		Eulithis flavibrunneata (McDunnough, 1943)
1609	U	Eulithis explanata (Walker, 1862)
		The record from BC by Forbes (1948) probably refers to <i>E. xylina</i> (Hulst), as no BC vouchers are known and this species has otherwise not been reported from BC.
		However, it lives in adjacent northwestern AB, and almost certainly occurs in BC's
		inadequately studied Peace River region.
1610		Eulithis xylina (Hulst, 1896)
		Subspecies <i>speciosa</i> (Hulst) has been reported from BC.
1611		Eurhinosea flavaria Packard, 1873
1612		Antepirrhoe semiatrata (Hulst, 1881)
1613		Antepirrhoe fasciata (Barnes & McDunnough, 1918)
1614		Antepirrhoe atrifasciata (Hulst, 1888)
1615		Ecliptopera silaceata ([Denis & Schiffermüller], 1775)
4646		Subspecies <i>albolineata</i> (Packard) has been reported from BC.
1616		Colostygia circumvallaria (Taylor, 1906)
		This species has been reported from BC by various authors, including Cannings and Scudder (2007), as <i>C. turbata</i> Hübner, a Palaearctic species.
1617		Plemyria georgii Hulst, 1896
.017		Subspecies <i>benesignata</i> (Barnes & McDunnough) has been reported from BC.
		1 0, 1

1618	Thera juniperata (Linnaeus, 1758)	I
1619	Thera otisi (Dyar, 1904)	
1620	Ceratodalia gueneata Packard, 1876	
1621	Lampropteryx suffumata ([Denis & Schiffermüller], 1775) A holarctic species, newly discovered in North America by deWaard et al. (2008))
Tribe Hy	Ariomenini	/-
1622	Hydriomena tuolumne Barnes & McDunnough, 1917	
	Known in BC from specimens in the RBCM from Wellington and Thetis Island.	
1623	Hydriomena exculpata Barnes & McDunnough, 1917	
1624	Hydriomena expurgata Barnes & McDunnough, 1918	
	Subspecies <i>nicolensis</i> McDunnough occurs in BC.	
1625	Hydriomena irata Swett, 1910	
1626	Subspecies <i>quaesitata</i> Barnes & McDunnough has been reported from BC.	
1626	Hydriomena perfracta Swett, 1910	
1627	Hydriomena marinata Barnes & McDunnough, 1917 Subspecies exasperata Barnes & McDunnough and marinata Barnes & McDunnough	h
	have been reported from BC.	
1628	Hydriomena edenata Swett, 1909	
	Subspecies grandis Barnes & McDunnough has been reported from BC.	
1629	Hydriomena divisaria (Walker, 1860)	
1630	Hydriomena renunciata (Walker, 1862)	
	Subspecies <i>columbiata</i> Taylor and <i>pernigrata</i> Barnes & McDunnough have bee reported from BC.	n
1631	Hydriomena albimontanata McDunnough, 1939	
1632	Hydriomena nevadae Barnes & McDunnough, 1917	
1633	Hydriomena californiata (Packard, 1871)	
1634	Hydriomena crokeri Swett, 1910	
1635	Hydriomena ruberata (Freyer, [1831])	
1636	Hydriomena macdunnoughi Swett, 1918	
1637	Hydriomena furcata (Thunberg, 1784)	
	The nominate subspecies occurs in BC.	
1638	Hydriomena quinquefasciata (Packard, 1871)	
1639	Hydriomena albifasciata (Packard, 1874)	
16.40	Subspecies <i>reflata</i> Grote and <i>victoria</i> Barnes & McDunnough occur in BC.	
1640	Hydriomena speciosata (Packard, 1874)	
1641	Hydriomena morosata Barnes & McDunnough, 1917	
1642	Hydriomena nubilofasciata (Packard, 1871)	
1643	Hydriomena manzanita Taylor, 1906	
1644	Triphosa haesitata (Guenée, [1858])	
1645	Coryphista meadii (Packard, 1874) The nominate subspecies has been reported from BC.	
1646	Rheumaptera undulata (Linnaeus, 1758)	
	Subspecies bluff (Bryk) occurs in BC.	

1647	Rheumaptera hastata (Linnaeus, 1758)	
45.0	Subspecies <i>gothicata</i> (Guenée) has been reported from BC.	
1648	Rheumaptera subhastata (Nolcken, 1870)	
16.40	Subspecies <i>confusa</i> (McDunnough) has been reported from BC.	
1649	Entephria kidluitata (Munroe, 1951)	
1650	Entephria multivagata (Hulst, 1881)	
1651	Entephria takuata Taylor, 1908	
1652	Entephria lagganata Taylor, 1908	
1653	Mesoleuca ruficillata (Guenée, [1858])	
1654	Mesoleuca gratulata (Walker, 1862)	
1655	Subspecies <i>latialbata</i> Barnes & McDunnough has been reported from BC.	
1033	Spargania magnoliata Guenée, [1858] Subspecies pernotata (Hulst) has been reported from BC.	
1656	Spargania luctuata ([Denis & Schiffermüller], 1775)	
.000	Subspecies <i>obductata</i> (Möschler) has been reported from BC.	
1657	Perizoma basaliata (Walker, 1862)	
1658	Perizoma grandis (Hulst, 1896)	
1659	Perizoma curvilinea (Hulst, 1896)	
1660	Perizoma costiguttata (Hulst, 1896)	
1661	Perizoma custodiata (Guenée, [1858])	
1662	Anticlea vasiliata Guenée, [1858]	
1663	Anticlea multiferata (Walker, 1863)	
Tribe Stamnodini		
1664	Stamnodes blackmorei Swett, 1915	
1665	Stamnodes topazata (Strecker, 1899)	
	Subspecies albida Barnes & McDunnough has been reported from BC.	
1666	Stamnodes marmorata (Packard, 1871)	
1667	Stamnoctenis morrisata (Hulst, 1887)	
1668	Stamnoctenis pearsalli (Swett, 1914)	
Tribe Xa	anthorhoini ann an t-	
1669	Xanthorhoe labradorensis (Packard, 1867)	
	This species was referred to in early reports under the Palaearctic name <i>X. designata</i> (Hufnagel).	
1670	Xanthorhoe packardata McDunnough, 1945	
1671	Xanthorhoe abrasaria (Herrich-Schäffer, [1855])	
	Subspecies <i>aquilonaria</i> Cassino & Swett (type locality Atlin BC) and <i>congregata</i> (Walker) have been reported from BC.	
1672	Xanthorhoe iduata (Guenée, [1858])	
1673	Xanthorhoe macdunnoughi Swett, 1918	

1673.1 P Xanthorhoe ramaria Swett & Cassino, 1920

Historical records of this species from BC are erroneous; populations west of the Rocky Mountains are now *X. delectaria* Cassino & Swett, which was until recently treated as a subspecies of *X. ramaria* (Pohl et al. 2010). However, *X. ramaria* is known from the boreal forests of AB, and likely occurs in BC's Peace River region (B. C. Schmidt, personal communication).

1674 Xanthorhoe delectaria Cassino & Swett, 1920

This taxon, described from Atlin, BC, was historically treated as a subspecies of *X. ramaria* Swett & Cassino, but was raised to species status by Pohl et al. (2010).

1675 Xanthorhoe lagganata Swett & Cassino, 1920

This species was previously reported from BC under the name *X. incursata* (Hübner), a Palaearctic species. All North American material is *X. lagganata* Swett (Pohl et al. 2010).

- 1676 Xanthorhoe baffinensis McDunnough, 1939
- 1677 Xanthorhoe algidata (Möschler, 1874)

Reported by Cannings and Scudder (2007) under the name *X. dodata* Swett & Cassino, which was synonymized with *X. algidata* by Pohl et al. (2010).

- 1678 Xanthorhoe pontiaria Taylor, 1906
- 1679 Xanthorhoe fossaria Taylor, 1906

Subspecies atlinensis Swett and blackmorei Swett were both described from BC material.

1680 Xanthorhoe decoloraria (Esper, [1806])

Until recently this species was known in North America by the name *X. munitata* (Hübner), but that taxon was recently synonymised with *decoloraria* (Esper) (Scoble 1999). Subspecies *convalaria* (Guenée) has been reported from BC.

- 1681 Xanthorhoe alticolata Barnes & McDunnough, 1916
- 1682 Xanthorhoe defensaria (Guenée, [1858])
- 1683 Xanthorhoe ferrugata (Clerck, 1759)
 The nominate subspecies has been reported from BC.
- 1684 Xanthorhoe clarkeata Ferguson, 1987
- 1685 Xanthorhoe borealis Hulst, 1896
- 1686 Xanthorhoe lacustrata (Guenée, [1858])
- 1687 Epirrhoe alternata (Müller, 1764)
- 1688 Epirrhoe plebeculata (Guenée, [1858])

Subspecies vivida Barnes & McDunnough has been reported in BC.

1689 Epirrhoe sperryi Herbulot, 1951

This species was historically reported from BC under the name *E. tristata* (Linnaeus), a Palaearctic species.

1690 Euphyia intermediata (Guenée, [1858])

Reported by Llewellyn Jones (1951) as *E. unangulata* (Haworth), an Old World name

- 1691 Enchoria lacteata (Packard, 1876)
- 1692 U Zenophleps lignicolorata (Packard, 1874)

Canadian populations traditionally treated as *Z. lignicolorata* may be *Z. alpinata* Cassino (Pohl et al. 2010). British Columbia populations have been referred to as subspecies *victoria* Taylor.

1693 Zenophleps alpinata Cassino, 1927 1694 Psychophora phocata (Möschler, 1862) 1695 Psychophora suttoni Heinrich, 1942 A recent BC record by B. C. Schmidt at Pink Mountain is provisionally listed here; this actually represents a new species near P. suttoni that awaits a formal description. 1696 Costaconvexa centrostrigaria (Wollaston, 1858) Tribe Asthenini 1697 Hydrelia albifera (Walker, 1866) Hydrelia brunneifasciata (Packard, 1876) 1698 1699 Venusia cambrica Curtis, 1839 1700 Venusia duodecemlineata (Packard, 1873) This species is known in BC (and Canada) from one specimen in the PFC, identified via DNA barcode (deWaard et al. 2011). Venusia obsoleta (Swett, 1916) 1701 1702 Venusia pearsalli (Dyar, 1906) 1703 Trichodezia albovittata (Guenée, [1858]) Subspecies tenuifasciata Barnes & McDunnough has been reported in BC. 1704 S *Minoa murinata* (Scopoli, 1763) Introduced to control Leafy Spurge in 1994; it may not be established in the province (McClay et al. 1995). Tribe Operophterini 1705 Epirrita autumnata (Borkhausen, 1794) Subspecies henshawi (Swett) and omissa (Harrison) have been reported from BC. 1706 Epirrita undulata (Harrison, 1942) 1707 Epirrita pulchraria (Taylor, 1907) 1708 Operophtera brumata (Linnaeus, 1758) Known as the Winter Moth, this alien species was first reported in North America in NS in 1949, but it may have been already present for more than 30 years by that time (Gillespie and Gillespie 1982). It was first found in BC in 1976. 1709 Operophtera bruceata (Hulst, 1886) 1710 Operophtera danbyi (Hulst, 1896) Tribe Eudulini 1711 Eubaphe mendica (Walker, 1854) Tribe Eupitheciini 1712 Horisme intestinata (Guenée, [1858]) 1713 Horisme incana Swett, 1918 Subspecies columbia McDunnough has been reported from BC. 1714 Eupithecia palpata Packard, 1873 1715 Eupithecia ornata (Hulst, 1896) 1716 Eupithecia columbiata (Dyar, 1904) 1717 Eupithecia maestosa (Hulst, 1896)

1718	Eupithecia pusillata ([Denis & Schiffermüller], 1775) I This is a Palaearctic species that was first collected in BC at Port Moody in 1976 and in North Vancouver in 1986. It is likely established on ornamental juniper in BC's Lower Mainland. Previous reports of this species in North America refer to E. interruptofasciata Packard, which was once considered a subspecies of E. pusillata (da)Moscal et al. 2010)
1719	sillata (deWaard et al. 2010). Eupithecia interruptofasciata Packard, 1873 Historically, this species was variously reported from BC as a subspecies under the Palaearctic names E. sobrinata (Hübner) and E. pusillata ([Denis & Schiffermüller]).
1720	Eupithecia longipalpata Packard, 1876
1721	Eupithecia placidata Taylor, 1908
1722	Eupithecia unicolor (Hulst, 1896)
1723	Eupithecia pseudotsugata MacKay, 1951
1724	Eupithecia misturata (Hulst, 1896)
1725	Eupithecia pygmaeata (Hübner, [1799])
1, 23	Subspecies <i>obumbrata</i> Taylor occurs in BC.
1726	Eupithecia bryanti Taylor, 1906
1727	Eupithecia regina Taylor, 1906
1728	Eupithecia borealis (Hulst, 1898)
1729	Eupithecia subfuscata (Haworth, 1809)
1730	Eupithecia tripunctaria Herrich-Schäffer, 1852
1731	Eupithecia harrisonata MacKay, 1951
1732	Eupithecia casloata (Dyar, 1904)
1733	Eupithecia rotundopuncta Packard, 1871
1734	Eupithecia intricata (Zetterstedt, [1839])
	Subspecies taylorata Swett occurs in BC.
1735	Eupithecia satyrata (Hübner, [1813])
4706	Subspecies <i>dodata</i> Taylor occurs in BC.
1736	Eupithecia nimbicolor (Hulst, 1896)
1737	Eupithecia cretaceata (Packard, 1874)
1738	Eupithecia behrensata Packard, 1876
1739	Eupithecia sharronata Bolte, 1990
1740	Eupithecia gelidata Möschler, 1860
1741	Eupithecia multistrigata (Hulst, 1896)
1742	Eupithecia perfusca (Hulst, 1898) Llewellyn Jones (1951) reported this species from BC under the Palaearctic name E. innotata (Hufnagel).
1743	Eupithecia annulata (Hulst, 1896)
1744	Eupithecia olivacea Taylor, 1906
1745	Eupithecia lachrymosa (Hulst, 1900)
1746	Eupithecia lafontaineata Bolte, 1990
1747	Eupithecia lariciata (Freyer, 1841)

1748	Eupithecia niphadophilata (Dyar, 1904)
1749	Eupithecia subcolorata (Hulst, 1898)
1750	Eupithecia assimilata Doubleday, 1856
1751	Eupithecia tenuata Hulst, 1880
1752	Eupithecia agnesata Taylor, 1908
1753	Eupithecia niveifascia (Hulst, 1898)
1754	Eupithecia johnstoni McDunnough, 1946
	Known in BC from a single specimen from Okanagan Falls, in the RBCM.
1755	Eupithecia albicapitata Packard, 1876
1756	Eupithecia mutata Pearsall, 1908
1757	Eupithecia columbrata McDunnough, 1940
1758	Eupithecia spermaphaga (Dyar, 1917)
1759	Eupithecia gilvipennata Cassino & Swett, 1922
1760	Eupithecia absinthiata (Clerck, 1759)
1761	Eupithecia anticaria Walker, 1862
1762	Eupithecia graefii (Hulst, 1896)
1763	Eupithecia nevadata Packard, 1871
	The nominate subspecies occurs in BC.
1764	Eupithecia ravocostaliata Packard, 1876
1765	Prorella leucata (Hulst, 1896)
1766	Prorella mellisa (Grossbeck, 1908)
1767	Pasiphila rectangulata (Linnaeus, 1758) Introduced from Europe, this species was first detected in North America in NS ir 1970 (Ferguson and Mello 1996).
Tribe L	obophorini
1768	Carsia sororiata (Hübner, [1813])
	Subspecies <i>alpinata</i> Packard, <i>columbiata</i> McDunnough, and <i>thaxteri</i> Swett have been reported from BC.
1769	Aplocera plagiata (Linnaeus, 1758)
	Introduced from Europe in 1967 to control St. John's Wort (Gillespie and Gillespie 1982), this species has subsequently become established in the southern Interio (deWaard 2010).
1770	Acasis viridata (Packard, 1873)
1771	Cladara limitaria (Walker, 1860) Subspecies nigroangulata (Strecker) has been reported from BC.
1772	Cladara atroliturata (Walker, [1863])
1773	Lobophora nivigerata Walker, 1862
1774	Lobophora montanata Packard, 1874
1774	Lafontaine and Troubridge (2011) correctly reported this species from BC. They also erroneously report in their Appendix 3 that BC records represent a misidenti fication, and that the species is known only from the southern Rockies.
1775	Lobophora simsata Swett, 1920
1776	Lobophora magnoliatoidata (Dyar, 1904)

Subfam	ily Sterrhinae
Tribe St	terrhini e e e e e e e e e e e e e e e e e e
1778	Idaea demissaria (Hübner, [1831])
	Subspecies columbia (McDunnough) has been reported from BC.
1779	Idaea rotundopennata (Packard, 1876)
1780	Idaea dimidiata (Hufnagel, 1767)
Tribe C	osymbiini
1781	Cyclophora dataria (Hulst, 1887)
1782	Cyclophora pendulinaria (Guenée, [1858])
Tribe T	imandrini
1783	Haematopis grataria (Fabricius, 1798)
Tribe Se	copulini
1783.1	P Scopula limboundata (Haworth, 1809)
	This species has not been found in BC, but it likely occurs in the boreal forest of BC's Peace River region.
1784	Scopula ancellata (Hulst, 1887)
1785	Scopula fuscata (Hulst, 1887)
1786	Scopula junctaria (Walker, 1861)
	The nominate subspecies has been reported from BC.
1787	Scopula quinquelinearia (Packard, 1871)
	This taxon was historically treated as a subspecies of <i>S. junctaria</i> (Walker), but was raised to species status by Pohl et al. (2010).
1788	Scopula frigidaria (Möschler, 1860)
1789	Scopula siccata McDunnough, 1939
1790	Scopula cajanderi (Herz, 1903)
1791	Scopula inductata (Guenée, [1858])
	Reported from BC by Shepard (unpublished report B); it is known from several specimens in the CNC and RBCM (deWaard 2010).
1792	Scopula luteolata (Hulst, 1880)
1793	Scopula sideraria (Guenée, [1858])
1794	Scopula sentinaria (Geyer, 1837)
1795	Leptostales rubromarginaria (Packard, 1871)
1796 l	J Leptostales ferruminaria (Zeller, 1872)
	Reported from BC by Shepard (unpublished report B); vouchers have not been confirmed, but this rare moth is known from the Peace River parkland of adjacent AB: it likely occurs in BC.
Subfam	ily Geometrinae
Tribe N	/emoriini
1797	Chlorosea nevadaria Packard, 1873
1798	Chlorosea banksaria Sperry, 1944
	The nominate subspecies has been reported from BC.

Lobophora canavestita (Pearsall, 1906)

- Nemoria unitaria (Packard, 1873)
 Nemoria darwiniata (Dyar, 1904)

 The nominate subspecies occurs in BC.

 Nemoria glaucomarginaria (Barnes & McDunnough, 1917)
- 1802 Dichorda rectaria (Grote, 1877)
 Reported from BC by deWaard (2010) based on three specimens in the Smithsonian
 Institution. Ferguson (1985) listed this species as "uncertain" in BC, as subspecies

cockerelli Sperry. **Tribe Synchlorini**

- Synchlora aerata (Fabricius, 1798)
 Subspecies *liquoraria* Guenée occurs in BC.
- 1804 Synchlora bistriaria (Packard, 1876)
 Lafontaine and Troubridge (2011) mistakenly reported that western Canadian records of this species are erroneous. It is known across western Canada.

Tribe Hemitheini

- 1805 Chlorochlamys triangularis Prout, 1912
- 1806 Hemithea aestivaria (Hübner, [1799])
 Introduced from Eurasia; this species was first found in North America in BC in 1978 (Gillespie and Gillespie 1982).
- 1807 Mesothea incertata (Walker, [1863])

 The nominate subspecies and subspecies *viridipennata* (Hulst) have been reported in BC.

Subfamily Archiearinae

- 1808 Archiearis infans (Möschler, 1862)
 Subspecies oregonensis (Swett) occurs in BC.
- 1809 Leucobrephos brephoides (Walker, 1857)

Subfamily Ennominae

Tribe Alsophilini

1810 Alsophila pometaria (Harris, 1841)

Tribe Cassymini

- Nematocampa resistaria (Herrich-Schäffer, [1856])
- 1812 Protitame virginalis (Hulst, 1900)
- 1813 Protitame subalbaria (Packard, 1873)
 Listed by Cannings and Scudder (2007) under the name P. matilda (Dyar), a recent synonym.

Tribe Macariini

- 1814 Eumacaria madopata (Guenée, [1858])
 - Listed by Cannings and Scudder (2007) under the name *E. latiferrugata* (Walker), a synonym that was overlooked prior to Ferguson (2008).
- 1815 Speranza brunneata (Thunberg, 1784)
- 1816 Speranza amboflava (Ferguson, 1953)

The BC record in Ferguson (2008) is listed as uncertain, but this species certainly occurs in BC and is supported by vouchers in the CNC. It was historically reported under the name *S. suphurea* (Packard).

1817	Speranza boreata Ferguson, 2008
1818	Speranza exauspicata (Walker, 1861)
1819	Speranza bitactata (Walker, 1862)
1820	Speranza decorata (Hulst, 1896)
1821	Speranza colata (Grote, 1881)
	Subspecies correllatum (Hulst) occurs in BC.
1822	Speranza occiduaria (Packard, 1874)
	Listed by Cannings and Scudder (2007) under the name <i>andersoni</i> (Swett) (type
1823	locality: Atlin, BC), a recent synonym (Pohl et al. 2010). Speranza simplex (Dyar, 1907)
1824	Speranza lorquinaria (Guenée, [1858])
1825	Speranza Ioricaria (Eversmann, 1837)
1826	Speranza plumosata (Barnes & McDunnough, 1917)
1827	Speranza quadrilinearia (Packard, 1873)
1828	Epelis truncataria (Walker, 1862)
1829	Macaria notata (Linnaeus, 1758)
1023	Listed by Cannings and Scudder (2007) and others under the name <i>M. ulsterata</i>
	(Pearsall), a recent synonym. The nominate subspecies occurs in BC.
1830	Macaria aemulataria Walker, 1861
	Listed by Cannings and Scudder (2007) under the name M. perplexata (Pearsall),
1831	a recent synonym. Macaria masquerata Ferguson, 2008
1031	Previously considered to be conspecific with <i>M. bicolorata</i> (Fabricius), this species
	was recently described by Ferguson (2008).
1832	Macaria adonis Barnes & McDunnough, 1918
1833	Macaria sexmaculata Packard, 1867
	Subspecies <i>incolorata</i> Dyar occurs in BC.
1834	Macaria signaria (Hübner, [1809])
	Includes <i>unipunctaria</i> (Wright), <i>marmorata</i> (Ferguson), and <i>submarmorata</i> Walker, all recent synonyms since Ferguson (2008).
1835	Digrammia californiaria (Packard, 1871)
1836	Digrammia sexpunctata (Bates, 1886)
	This species was reported by Llewellyn Jones (1951), but no BC vouchers could be
	located by Ferguson (2008), who reported it only from the adjacent northwestern
	USA, as far north as Boise, ID. Recent collections from southern BC by J. deWaard and B. C. Schmidt have been confirmed as this species (B. C. Schmidt, personal
	communication).
1837	Digrammia delectata (Hulst, 1887)
1838	Digrammia ubiquitata Ferguson, 2008
	Prior to Ferguson (2008), this species was often confused with <i>D. denticulata</i>
1839	(Grote) and <i>D. sexpunctata</i> (Bates) in collections. Digrammia denticulata (Grote, 1883)
1840	Digrammia nubiculata (Glote, 1865) Digrammia nubiculata (Packard, 1876)
1841	
1041	Digrammia curvata (Grote, 1880)

1842	Digrammia triviata (Barnes & McDunnough, 1917)
1843	Digrammia setonana (McDunnough, 1927)
10.15	Doubtfully distinct from <i>D. continuata</i> (Walker) (Ferguson 2008); see note under
	that species in the Excluded Taxa list.
1844	Digrammia muscariata (Guenée, [1858])
	Also listed by Cannings and Scudder (2007) as <i>D. respersata</i> (Hulst), which is now
	considered to be a subspecies of <i>D. muscariata</i> . British Columbia material previously identified as " <i>D. respersata</i> " is a mix of two taxa: Garry Oak feeders from
	Vancouver Island are <i>D. muscariata</i> subspecies <i>teucaria</i> (Strecker), but material
	from the southern mainland have been redetermined as D. extenuata Ferguson,
10.45	which was not described until 2008 (B. C. Schmidt, personal communication).
1845	Digrammia extenuata Ferguson, 2008
1846	Digrammia rippertaria (Duponchel, 1830)
	Reported by many workers, including Llewellyn Jones (1951) and Ross and Evans (1958), as <i>D. hebetata</i> (Hulst) under a previous taxonomic arrangement.
1847	Digrammia decorata (Grossbeck, 1907)
1848	Digrammia subminiata (Packard, 1873)
1849	Digrammia neptaria (Guenée, [1858])
1850	Digrammia irrorata (Packard, 1876)
	Subspecies venosata (McDunnough) occurs in BC.
Tribe Bo	
1851	Dasyfidonia avuncularia (Guenée, [1858])
1852	Orthofidonia tinctaria (Walker, 1860)
	All BC <i>Orthofidonia</i> were erroneously reported by Cannings and Scudder (2007) as <i>O. exornata</i> (Walker); see note in the Excluded Taxa list.
1853	Hesperumia sulphuraria Packard, 1873
1854	Hesperumia latipennis (Hulst, 1896)
1855	Neoalcis californiaria (Packard, 1871)
1856	Glena nigricaria (Barnes & McDunnough, 1913)
1857	Stenoporpia pulmonaria (Grote, 1881)
	Subspecies albescens (Hulst) and satisfacta (Barnes & McDunnough) have been
	reported from BC.
1858	Stenoporpia separataria (Grote, 1883)
1859	Stenoporpia excelsaria (Strecker, 1899)
1860	Aethalura intertexta (Walker, 1860)
1071	Subspecies <i>fumata</i> (Barnes & McDunnough) has been reported from BC.
1861	Iridopsis clivinaria (Guenée, [1858]) Subspecies profanata (Barnes & McDunnough) has been reported from BC.
1862	Iridopsis larvaria (Guenée, [1858])
1863	Iridopsis emasculatum (Dyar, 1904)
.000	This species was described from Kaslo, BC, as a variety of <i>I. humaria</i> (Guenée); it
	is now recognised as a distinct species (Scoble 1999).
1864	Anavitrinella pampinaria (Guenée, [1858])
1865	Anavitrinella addendaria (Grossbeck, 1908)

1866	Gnophos macguffini Smiles, 1978
1867	Ectropis crepuscularia ([Denis & Schiffermüller], 1775)
1868	Protoboarmia porcelaria (Guenée, [1858])
	Subspecies indicataria (Walker) has been reported from BC.
Tribe M	'elanolophiini
1869	Melanolophia imitata (Walker, 1860)
1870	Eufidonia convergaria (Walker, 1860)
1871	Eufidonia discospilata (Walker, 1862)
Tribe Bi	istonini
1872	Biston betularia (Linnaeus, 1758)
40=0	Subspecies <i>cagnataria</i> (Guenée) has been reported from BC.
1873	Lycia ursaria (Walker, 1860)
1874	Lycia rachelae (Hulst, 1896)
1875	Hypagyrtis unipunctata (Haworth, 1809)
1876	Hypagyrtis piniata (Packard, 1870)
1877	Phigalia plumogeraria (Hulst, 1888)
1878	Erannis tiliaria (Harris, 1841)
	Historical records of this species in BC refer to <i>E. vancouverensis</i> Hulst, long considered a subspecies of <i>E. tiliaria</i> . However, <i>E. tiliaria</i> was long suspected to occur
	in BC's Peace River region, and was recently confirmed there, in the Fort St. John
	area (L. Avis, personal communication).
1879	Erannis vancouverensis Hulst, 1896
Tribe Ba	aptini
1880	Lomographa semiclarata (Walker, 1866)
Tribe Ca	aberini
1881	Sericosema juturnaria (Guenée, [1858])
1882	Sericosema wilsonensis Cassino & Swett, 1922
1883	Cabera exanthemata (Scopoli, 1763)
1004	Subspecies <i>bryantaria</i> (Taylor) occurs in BC.
1884	Cabera erythemaria Guenée, [1858]
1885	Cabera variolaria Guenée, [1858]
1886	Cabera borealis (Hulst, 1896)
1887	Eudrepanulatrix rectifascia (Hulst, 1896)
1888	The nominate subspecies has been reported from BC. Dropanylatrix unical cararia (Cyopéo, [1858])
1889	Drepanulatrix unicalcararia (Guenée, [1858])
1890	Drepanulatrix quadraria (Grote, 1882)
1891	Drepanulatrix foeminaria (Guenée, [1858]) Drepanulatrix carnearia (Hulst, 1888)
1091	Subspecies <i>columbiaria</i> McDunnough has been reported from BC.
1892	Drepanulatrix falcataria (Packard, 1873)
1893	Drepanulatrix secundaria Barnes & McDunnough, 1916
.000	2. 2. m.

1894 Drepanulatrix monicaria (Guenée, [1858]) Records of this species in BC and AK by Rindge (1949) were missed by McGuffin (1981) and many subsequent Canadian workers. 1895 Apodrepanulatrix litaria (Hulst, 1887) 1896 Ixala desperaria (Hulst, 1887) Tribe Angeronini 1897 Aspitates aberrata (Edwards, 1884) 1897.1 P Aspitates orciferaria (Walker, [1863]) Dyar's (1904) report of a specimen from Kaslo, BC, (repeated by ESBC 1906) is assumed to be erroneous; the species is otherwise known from AK, YT and NT (McGuffin 1981). However, it could possibly be found in the northern part of the province. 1897.2 P Aspitates taylori (Butler, 1893) This species is known from YT and northern AB, where it occurs in open Black Spruce bogs. It is likely to be found in BC's Peace River region. 1898 Euchlaena johnsonaria (Fitch, 1869) 1899 Euchlaena mollisaria (Hulst, 1886) Genetic barcode data suggests this may be merely a form of *E. johnsonaria* (Fitch), as it was historically treated, but we continue to list it pending formal synonymy. 1900 Euchlaena madusaria (Walker, 1860) Subspecies ochrearia McDunnough has been reported in BC. 1901 Euchlaena marginaria (Minot, 1869) 1902 Euchlaena tigrinaria (Guenée, [1858]) Subspecies sirenaria (Strecker) occurs in BC. Xanthotype urticaria Swett, 1918 1903 1904 *Xanthotype sospeta* (Drury, 1773) Tribe Azelinini Pero honestaria (Walker, 1860) 1905 1906 Pero morrisonaria (Edwards, 1881) 1907 Pero mizon Rindge, 1955 1908 Pero behrensaria (Packard, 1871) 1909 Pero occidentalis (Hulst, 1896) Tribe Nacophorini Phaeoura mexicanaria (Grote, 1883) 1910 1911 Gabriola dyari Taylor, 1904 Tribe Campaeini 1912 Campaea perlata (Guenée, [1858]) Tribe Ennomini 1913 Ennomos magnaria Guenée, [1858] 1914 Ennomos alniaria (Linnaeus, 1758) I

Tribe Epirranthini

1914.1 P Spodolepis substriataria Hulst, 1896

Known records in BC from as far north and east as Prince George all are *S. danbyi* (Hulst), raised from its previous status as a subspecies of *S. substriataria* by Pohl et al. (2010). However, *S. substriataria* likely does occur in the boreal forest habitat of BC's Peace River region.

1915 Spodolepis danbyi (Hulst, 1898)

Historically treated as a subspecies of *S. substriataria* Hulst, but raised to species status by Pohl et al. (2010).

Tribe Lithinini

- 1916 Philedia punctomacularia (Hulst, 1888)
- 1917 Thallophaga taylorata (Hulst, 1896)
- 1918 Thallophaga hyperborea (Hulst, 1900)

Tribe Anagogini

- 1919 Selenia alciphearia Walker, 1860
- 1920 Selenia kentaria (Grote & Robinson, 1867)
- 1921 Metanema inatomaria Guenée, [1858]
- 1922 Metanema determinata Walker, 1866
- 1923 Metarranthis duaria (Guenée, [1858])
- 1924 Probole alienaria Herrich-Schäffer, [1855]
- 1925 Probole amicaria (Herrich-Schäffer, [1855])

North American material historically assigned to this species may in fact be part of a variable species, *P. alienaria* Herrich-Schäffer. However, *P. amicaria* is retained separately herein, pending further analysis.

1926 Plagodis phlogosaria (Guenée, [1858])

Subspecies approximaria Dyar and iris Rupert have been reported from BC.

1927 Plagodis pulveraria (Linnaeus, 1758)

Subspecies *occiduaria* (Walker) occurs in BC and the rest of North America; it has historically been treated as a species distinct from a Palaearctic concept of *P. pulveraria*.

Tribe Ourapterygini

1928 Neoterpes trianguliferata (Packard, 1871)

The nominate subspecies has been reported from BC.

- 1929 Caripeta divisata Walker, [1863]
- 1930 Caripeta aequaliaria Grote, 1883

Included here is a new species near *C. aequaliaria*, flagged via DNA barcoding and not yet described (deWaard 2010).

- 1931 Caripeta angustiorata Walker, [1863]
- 1932 Meris suffusaria McDunnough, 1940
- 1933 Besma quercivoraria (Guenée, [1858])
- 1934 Lambdina fiscellaria (Guenée, [1858])

Known as the Hemlock Looper, this species is a serious forest pest in BC. The nominate subspecies and subspecies *lugubrosa* (Hulst) (Western Hemlock Looper) and *somniaria* (Hulst) (Western Oak Looper) occur in the province.

1935		Nepytia umbrosaria (Packard, 1873)
		Subspecies nigrovenaria (Packard) occurs in BC.
1936	U	Nepytia canosaria (Walker, [1863])
		Early reports of this species from BC are confused with <i>N. freemani</i> Munroe, which
		was not described until 1963. Reports of this species in BC remain unconfirmed as vouchers are not known; it is known from the boreal forest of AB and could
		occur in northeastern BC.
1937		Nepytia phantasmaria (Strecker, 1899)
1938		Nepytia freemani Munroe, 1963
1939		Sicya crocearia Packard, 1873
1940		Sicya macularia (Harris, 1850)
1941		Plataea trilinearia (Packard, 1873)
1942		Tetracis crocallata Guenée, [1858]
1943		Tetracis cachexiata Guenée, [1858]
1944		Tetracis cervinaria (Packard, 1871)
1945		Tetracis pallulata Hulst, 1887
1946		Tetracis jubararia Hulst, 1886
		The nominate subspecies occurs in BC.
1947		Tetracis formosa (Hulst, 1896)
1948		Tetracis pallidata Ferris, 2010
1949		Prochoerodes amplicineraria (Pearsall, 1906)
1950		Prochoerodes forficaria (Guenée, [1858])
		Subspecies catenulata Grote and combinata McDunnough have been reported from BC.
1951		Prochoerodes lineola (Goeze, 1781)
		Reported from BC's Peace River region by Shepard (unpublished report B) under
		the name <i>P. transversata</i> (Drury), a recent synonym.
1952		Sabulodes edwardsata (Hulst, 1886)
1953		Enypia venata (Grote, 1883)
1954		Enypia griseata Grossbeck, 1908
1955		Enypia packardata Taylor, 1906

Superfamily Noctuoidea

66. Family Notodontidae (prominents)

Notodontid moths are mostly robust and medium-sized, with wingspans reaching about 25 to 60 mm in BC species. Their colouration is brown, grey, olive or yellow, and spotted or streaked with darker or lighter tones. Many are strongly hairy and often bear backwards-projecting tufts on the hind margins of the forewings that protrude when the wings are folded. These, along with the large tubercles and processes on the backs of many larvae, give the family its scientific name, which means "back tooth". The common name, "prominents" also refers to these projections.

Most notodontids feed on the foliage of trees and shrubs. Many adults and larvae are cryptic in form, pattern and posture: twig, bark, lichen and deadleaf mimics are found throughout the family. Some larvae produce defensive secretions when disturbed, and others flaunt warning colours of red or yellow, sometimes raising the front and rear of the body or extruding long tails. Some larvae are gregarious when young, but become solitary as they mature.

Approximately 3800 notodontid species are known from all world regions except the Pacific islands and New Zealand. The Neotropical fauna is especially diverse. There are 139 species known in North America; 25 of these have been reported in BC. Despite the prominence of this group, there are no recent taxonomic works on the North American fauna.

Subfamily Pygaerinae

1956	Clostera albosigma Fitch, 1856
1957	Clostera strigosa (Grote, 1882)
1958	Clostera brucei (Edwards, 1885)
1959	Clostera apicalis (Walker, 1855)

Subfamily Notodontinae

Tribe Notodontini

1960 Pheosia rimosa Packard, 1864

True *P. rimosa* occurs in BC only in the Peace River region; specimens from elsewhere in BC are a new species that has been referred to as *P. portlandia* Edwards (e.g., by Cannings and Scudder 2007), but is in fact a new species awaiting description (B. C. Schmidt, personal communication).

1961 Odontosia elegans (Strecker, 1885)1962 Notodonta scitipennis Walker, 1862

1963 Notodonta pacifica Behr, 1892

1964 Notodonta torva (Hübner, 1803)

Subspecies *simplaria* Graef occurs in BC and the rest of North America; it was synonymised with the otherwise Palaearctic *N. torva*, a recently designated but often-overlooked synonym (Schintlmeister [1984]).

Tribe Dicranurini

1965 Gluphisia septentrionis Walker, 1855

Subspecies quinquelinea Dyar has been reported from BC.

1966 Gluphisia avimacula Hudson, 1891

1967 U Gluphisia lintneri (Grote, 1877)

Reported from BC by ESBC (1906) and Blackmore (1927), but not in more recent lists. These earlier records are probably based on misidentifications of *G. severa* Edwards. However, a specimen collected at Quesnel by C. S Guppy on 15 April 1994 has been tentatively identified as this species. It is known from the boreal forest of AB adjacent to BC, and is expected in BC's Peace River region.

1968 Gluphisia severa Edwards, 1886

1969 Furcula cinerea (Walker, 1865) Subspecies paradoxa (Dyar) has been reported from BC. Furcula occidentalis (Lintner, 1878) 1970 Subspecies gigans (McDunnough) has been reported from BC. Furcula scolopendrina (Boisduval, 1869) 1971 1972 Furcula modesta (Hudson, 1891) 1973 Cerura scitiscripta Walker, 1865 **Subfamily Phalerinae** 1974 Datana ministra (Drury, 1773) Subspecies californica Dyar has been reported from BC. 1975 Nadata gibbosa (Smith, 1797) **Subfamily Heterocampinae** 1976 Schizura ipomoeae Doubleday, 1841 Schizura unicornis (Smith, 1797) 1977 Subspecies conspecta (Edwards) occurs in BC. Crabo et al. (2015) treat conspecta as a full species. Schizura concinna (Smith, 1797) 1978 Oligocentria semirufescens (Walker, 1865) 1979

67. Family Erebidae (tussock moths, tiger moths, underwings and relatives)

Oligocentria pallida (Strecker, 1899)

1980

The Noctuidae sensu lato has been split recently into several families, with the "Nolinae" and "Euteliinae" becoming full families, the "quadrifine noctuids" becoming the Erebidae, and the "trifine noctuids" remaining as the true Noctuidae (Zahiri et al. 2011). As well, the "Arctiidae" (tiger moths) and "Lymantriidae" (tussock moths) have been relegated to subfamily rank within the Erebidae. This classification scheme better reflects our understanding of the evolutionary relationships among these groups, but will no doubt cause confusion in the short term. As a result of this rearrangement, the Erebidae are a large and diverse assemblage of moths with few consistent external features. The family is defined mainly by the state of vein M2 in the forewing, which lies in the lower part of the discal cell, so that the cubital vein appears to have four branches. The erebids range in size from very small to very large; BC species cover the entire range, with wings spanning 10 to 160 mm. Most are medium-sized moths, with 20- to 50-mm wingspans. Most species have forewings coloured in dull grey-and-brown patterns, but many Arctiinae are brightly coloured to warn potential predators of the poisonous chemicals they sequester from their food plants.

Most erebid larvae feed on living plants, but a few—including most members of the Herminiinae, Hypenodinae and Boletobinae—feed on dead leaves, fungi, lichens, dried fruit, or dung. Some erebids are serious forest and agricultural pests, particularly among the tussock moths (subfamily Lymantriinae). Most erebid adults feed on nectar or sap; a few (Scoliopteryginae) have mouthparts modified for piercing fruit. Some adult tiger-moth species produce clicking sounds with their tymbal organs when they detect bats nearby, warning the bats of the moths' distastefulness. Some species can make sounds that subvert the bats' echolocation system and confuse the bats as to the moths' locations.

The Erebidae are the most speciose Lepidoptera family in the world, with more than 24 500 described species. In North America, about 960 species are known; 125 have been recorded from BC, and another is listed as "expected". The only comprehensive revision of an erebid group is by Ferguson (1978) for the Lymantriinae, but many species are covered and illustrated in field guides and other popular works. A checklist (and errata) of valid North American species and recent taxonomic changes appears in Lafontaine and Schmidt (2010, 2011, 2013); a more complete catalogue of the Arctiinae, including all synonyms, was published by Schmidt and Opler (2008). Most Erebidae as currently defined are included in the world catalogue of the Noctuidae by Poole (1989).

Subfamily Lymantriinae Tribe Lymantriini Subtribe Lymantriina

1981 S Lymantria dispar (Linnaeus, 1758)

This European pest species known as the Gypsy Moth was first brought to North America to MA in 1869 for experimental silk production; it escaped and has been a major pest of hardwood forests ever since. It was first found in BC in 1911. It is currently considered by the CFIA to be extirpated from the province, although it is occasionally intercepted at ports of entry. Females of the European strain cannot fly, but females of the Asian strain are capable of flight.

Subtribe Orgyiina

1982 *Gynaephora rossii* (Curtis, 1835) Recent provincial record by B. C. Schmidt.

1983 Dasychira vagans (Barnes & McDunnough, 1913) Subspecies *grisea* (Barnes & McDunnough) occurs in BC.

1984 U Dasychira plagiata (Walker, 1865)

According to B. C. Schmidt (personal communication), BC records are probably misidentified *D. grisefacta* (Dyar). Confirmed *D. plagiata* is known only as far west as central AB; putative BC material requires confirmation.

1985	Dasychira grisefacta (Dyar, 1911)
1006	Subspecies <i>ella</i> Bryk (type locality: Duncan, BC) and <i>grisefacta</i> (Dyar) occur in BC.
1986	Orgyia antiqua (Linnaeus, 1758)
	Subspecies <i>badia</i> Edwards (type locality: Victoria, BC) and perhaps <i>nova</i> Fitch occur in BC.
1987	Orgyia pseudotsugata (McDunnough, 1921)
	The Douglas-fir Tussock Moth. The nominate subspecies and subspecies <i>morosa</i> Ferguson occur in BC.
Tribe L	eucomini
Subtrib	e Leucomina
1988	Leucoma salicis (Linnaeus, 1758)
	The Satin Moth. This species was introduced from Eurasia, and was first found in Canada at New Westminster, BC, by Blackmore (1921).
Subfam	ily Arctiinae
Tribe L	ithosiini
Subtrib	e Cisthenina
1989	Hypoprepia miniata (Kirby, 1837)
1990	Bruceia pulverina Neumögen, 1893
1991	Clemensia albata Packard, 1864
Subtrib	e Lithosiina
1992	Eilema bicolor (Grote, 1864)
1993	Crambidia casta (Packard, 1869)
Tribe A	rctiini
Subtrib	e Arctiina
1994	Holoarctia sordida (McDunnough, 1921)
1995	Neoarctia beanii (Neumögen, 1891)
1996	Neoarctia brucei (Edwards, 1888)
1997	Holarctia obliterata (Stretch, 1885)
1998	Grammia doris (Boisduval, 1869)
1999	Grammia virgo (Linnaeus, 1758)
2000	Grammia parthenice (Kirby, 1837)
2001	Grammia virguncula (Kirby, 1837)
2002	Grammia speciosa (Möschler, 1864)
2003	Grammia quenseli (Paykull, 1793)
2004	Grammia margo Schmidt, 2009
	Reported until recently under the name <i>G. celia</i> (Saunders), a synonym of <i>G. figurata</i> (Drury).
2005	Grammia nevadensis (Grote & Robinson, 1866)
	The nominate subspecies, and subspecies <i>geneura</i> (Stretch) and <i>superba</i> (Stretch) have been reported from BC.
2006	Grammia williamsii (Dodge, 1871)
	Subspecies tooele (Barnes & McDunnough) has been reported from BC.

	\mathcal{O}
2008	Grammia ornata (Packard, 1864)
2009	Grammia complicata (Walker, 1865)
2010	Parasemia plantaginis (Linnaeus, 1758)
2011	Pararctia yarrowii (Stretch, 1873)
2012	Platarctia parthenos (Harris, 1850)
2013	Platyprepia virginalis (Boisduval, 1852)
2014	Arctia caja (Linnaeus, 1758)
	Subspecies <i>americana</i> Harris, <i>utahensis</i> (Edwards), and <i>waroi</i> Barnes & Benjamin have been reported from BC.
2015	Arctia opulenta (Edwards, 1881)
2016 l	J <i>Virbia aurantiaca</i> (Hübner, [1831])
	British Columbia material is probably a new species near <i>V. aurantiaca</i> ; it is listed here provisionally, pending taxonomic work (B. C. Schmidt, personal communication).
2017	Virbia ferruginosa (Walker, 1854)
Subtrib	e Spilosomina
2018	Spilosoma congrua Walker, 1855
2019	Spilosoma vagans (Boisduval, 1852)
	Subspecies kasloa (Dyar) occurs in BC.
2020	Spilosoma pteridis Edwards, 1874
2021	Spilosoma danbyi (Neumögen & Dyar, 1893)
	This species is likely a synonym of <i>S. pteridis</i> Edwards, but this has not been formalised.
2022	Spilosoma virginica (Fabricius, 1798)
2023	Estigmene acrea (Drury, 1773)
2024	Hyphantria cunea (Drury, 1773)
2025	Hypercompe permaculata (Packard, 1872)
2026	Phragmatobia fuliginosa (Linnaeus, 1758)
	Subspecies <i>rubricosa</i> (Harris) has been reported from BC.
2027	Phragmatobia assimilans Walker, 1855
2028	Pyrrharctia isabella (Smith, 1797)
2029	Leptarctia californiae (Walker, 1855)
	e Callimorphina
2030	Dodia albertae Dyar, 1901
2031	Tyria jacobaeae (Linnaeus, 1758) Introduced and established for biocontrol of Tansy Ragwort.
Subtrib	e Pericopina
2032	Gnophaela vermiculata (Grote, 1864)
	Reported by Dyar (1904) and other early workers as a subspecies of G . <i>latipennis</i> (Boisduval).

Grammia elongata (Stretch, 1885)

Subtrib	e Phaegopterina
2033	Lophocampa roseata (Walker, 1866)
2034	Lophocampa argentata (Packard, 1864)
	Subspecies <i>subalpina</i> (French) has been reported from BC.
2035	Lophocampa maculata Harris, 1841
2036	Cycnia tenera Hübner, 1818
2037	Cycnia oregonensis (Stretch, [1874]) The nominate subspecies occurs in BC.
Subtribe	e Ctenuchina
2038	Ctenucha virginica (Esper, 1794)
2039	Cisseps fulvicollis (Hübner, [1818])
Subfam	ily Herminiinae
2040	Idia americalis (Guenée, 1854)
2041	Idia aemula Hübner, 1814
2042	Idia concisa auct., not Walker, 1860
	This name is applied here merely as a placeholder for a new species near <i>I. aemula</i> Hübner that has been referred to in early literature as <i>I. concisa</i> .
2043 L	Idia suffusalis (Smith, 1899)
	This species was reported from BC by Crabo et al. (2015), but those records have not been verified; this species is otherwise unknown from Canada, but it has been reported from northwestern USA.
2044	Idia lubricalis (Geyer, 1832)
2045	Idia occidentalis (Smith, 1884)
2046	Zanclognatha jacchusalis (Walker, 1859)
	This species was known as <i>Z. lutalba</i> (Smith) until very recently; <i>lutalba</i> is now treated as the eastern subspecies of <i>Z. jacchusalis</i> . Subspecies <i>bryanti</i> Barnes occurs in BC (Lafontaine and Schmidt 2013) and was listed as a full species by Cannings and Scudder (2007).
2047	Chytolita morbidalis (Guenée, 1854)
	Includes C. petrealis Grote, a recent synonym (Crabo et al. 2013)
2048	Phalaenostola metonalis (Walker, 1859)
2049	Phalaenostola hanhami (Smith, 1899)
	This species is known in BC from a specimen in the CNC collected at Agassiz by J. Troubridge.
2050	Tetanolita palligera (Smith, 1884)
2051	Bleptina caradrinalis Guenée, 1854
2052	Palthis angulalis (Hübner, 1796)
Subfam	ily Hypeninae
2053	Hypena bijugalis Walker, 1859
2054	Hypena palparia Walker, 1861
2055	Hypena abalienalis Walker, 1859
2056	Hypena atomaria (Smith, 1903)
2057	Hypena edictalis Walker, 1859

2058 Hypena humuli Harris, 1841
2059 Hypena californica Behr, 1870
2060 Hypena decorata Smith, 1884

Subfamily Rivulinae

2061 Rivula propinqualis Guenée, 1854

Subfamily Scoliopteryginae

Tribe Scoliopterygini

2062 Scoliopteryx libatrix (Linnaeus, 1758)

Subfamily Scolecocampinae

2063 Phobolosia anfracta (Edwards, 1881)

Subfamily Hypenodinae

2064 U Hypenodes caducus (Dyar, 1907)

The recent BC record of this species, collected near Hazelton by deWaard (2010), is probably a new species near *H. caducus*. It is listed here pending formal description of the new species.

2065 Hypenodes fractilinea (Smith, 1908)

A recent BC record, collected at Port Coquitlam by DH and confirmed via DNA barcoding.

2066 Hypenodes sombrus Ferguson, 1954

A recent BC record collected near Hazelton by deWaard (2010).

Subfamily Boletobinae

Tribe Boletobiini

2067 Mycterophora inexplicata (Walker, [1863])

Recently discovered in BC independently by D. Nicholson, J. Shepard, and E. Avis.

2068 Mycterophora longipalpata Hulst, 1896

Tribe Phytometrini

2069 Hemeroplanis historialis (Grote, 1882)

A specimen from the Central Kootenay district of southeastern BC was reported by Crabo et al. (2015); it requires verification.

2070 Spargaloma sexpunctata Grote, 1873

Subfamily Toxocampinae

2071 Lygephila victoria (Grote, 1874)

Subfamily Erebinae

Tribe Thermesiini

2072 S Ascalapha odorata (Linnaeus, 1758)

The Black Witch. This neotropical stray is occasionally reported as far north as Canada.

Tribe Catocalini

2073 Catocala aholibah Strecker, 1874
 2074 Catocala relicta Walker, [1858]
 2075 Catocala unijuga Walker, [1858]
 2076 Catocala faustina Strecker, 1873

2077	Catocala allura Hulet 1994
2077	Catocala allusa Hulst, 1884 The taxon allusa was relegated to a subspecies of C. faustina Strecker by Gall and
	Hawks (2010), but we follow Crabo et al. (2015) and continue to recognise it as a
	full species, based on morphological and ecological differences and no indication
	of intergradation with <i>C. faustina</i> .
2078	Catocala hermia Edwards, 1880
2079	Catocala californica Edwards, 1864
2080	Catocala briseis Edwards, 1864
2080.1 P	Catocala grotiana Bailey, 1879
	This species is known from ID and from Waterton Lakes National Park, AB: it likely occurs in adjacent BC (B. C. Schmidt, personal communication).
2081	Catocala semirelicta Grote, 1874
2082	Catocala meskei Grote, 1873
2083	Catocala junctura Walker, [1858]
2084	Catocala ultronia (Hübner, 1823)
Tribe Me	lipotini
2085	Cissusa indiscreta (Edwards, 1886)
2086 S	Melipotis jucunda Hübner, 1818
2087 S	Bulia deducta (Morrison, 1875)
2088	Drasteria hastingsii (Edwards, 1878)
	The nominate subspecies has been reported from BC.
2089	Drasteria sabulosa (Edwards, 1881)
2090	Drasteria ochracea (Behr, 1870)
2091	Drasteria pallescens (Grote & Robinson, 1866)
2002	Known in BC only from old material in the USNM collected at Kaslo by H. G. Dyar.
2092	Drasteria divergens (Behr, 1870)
	Reported from BC by Cannings and Scudder (2007) as <i>D. divergens</i> and also under the name <i>D. socia</i> (Behr), a synonym.
2093	Drasteria petricola (Walker, 1858)
2000	Subspecies <i>athabasca</i> (Neumögen) has been reported from BC.
2094	Drasteria hudsonica (Grote & Robinson, 1865)
2095	Drasteria adumbrata (Behr, 1870)
	Subspecies alleni (Grote) has been reported from BC.
2096	Drasteria howlandii (Grote, 1865)
Tribe Euc	
2097	Caenurgina annexa (Edwards, 1890)
2098	Caenurgina caerulea (Grote, 1873)
2099	Caenurgina crassiuscula (Haworth, 1809)
2100	Caenurgina erechtea (Cramer, [1780])
2101	Euclidia cuspidea (Hübner, 1818)
	Some early BC records refer to E. ardita Franclemont, described in 1957. Both
2102	species are now known to occur in BC.
2102	Euclidia ardita Franclemont, 1957

Tribe Omopterini

Zale lunata (Drury, 1773)
 Zale minerea (Guenée, 1852)
 Subspecies norda (Smith) has been reported from BC.
 Zale duplicata (Bethune, 1865)

68. Family Euteliidae (rolled-wing moths)

Eutelliids are medium-sized moths, with wingspans of about 30 mm. The group is defined by internal abdominal structures. They usually have brightly coloured wings.

The larvae of most North American species feed on sumacs and poison ivy (*Rhus* spp.). Adults have an unusual resting posture, with the wings rolled and held out from the body.

This is a small group of mainly tropical moths with 520 species worldwide, mostly in arid regions of the tropics. Eighteen species occur in North America, one of which is found in BC.

Subfamily Euteliinae

2106 *Marathyssa inficita* (Walker, 1865)

69. Family Nolidae (tuft moths)

Nolid moths are difficult to define simply, as most consistent characters are not easily observed. Many North American species have tufts of raised scales on the upper surfaces of the forewings, and the ocelli are usually absent. Basal abdominal tymbal organs occur in many members of the family.

Larvae of Nolidae feed on green plants or lichens; a few are pests of sorghum or cotton. Adults of some species feed on animal tears, and have been implicated in the transmission of diseases.

Approximately 1700 species of nolids are known worldwide. It is primarily a group of the Old World tropics. Forty species are known from North America, seven of which have been recorded from BC.

Subfamily Nolinae

2107 Meganola minuscula (Zeller, 1872)
 2108 Nola cilicoides (Grote, 1873)
 Collected recently in BC by D. W. Knight.

Nola minna Butler, 1881
 Nola cucullatella (Linnaeus, 1758)
 This is a new North American and BC record for this introduced species, collected in 2009 by DH.

Subfamily Chloephorinae

Tribe Sarrothripini

- 2111 *Nycteola frigidana* (Walker, 1863)
 Subspecies *britana* McDunnough has been reported from BC.
- 2112 Nycteola columbiana (Edwards, 1873)
- 2113 Nycteola cinereana Neumögen & Dyar, 1893

70. Family Noctuidae (owlet moths)

The Noctuidae, in the modern, more restricted sense, vary in size and coloration; however, at least in North America, most are medium-sized to large, heavy-bodied moths, with wingspans ranging from 20 to 80 mm (up to at least 150 mm in some tropical species). The forewings are usually finely mottled or figured in browns and greys, and the hind wings are pale and more unicolourous. A few species defy this pattern, however.

Most noctuid larvae are naked or clothed in fine, sparse hairs; a few, such as some *Acronicta* and *Panthea*, are more densely hairy.

Noctuid larvae feed on a huge variety of plants. Included in the family are the cutworms, which rest in the soil during the day and emerge at night to feed on the bases of young plants or to climb higher to eat shrub and tree foliage. Many are stem and root borers. Others feed openly on leaves and stems, or eat fruits, buds and flower heads. Some become gregarious and migratory at high densities (armyworms); these are among the most destructive moth pests.

Adults of this diverse group are largely nocturnal and strongly attracted to light; their eyes brightly reflect the light as they flutter or rest nearby. "Noctua" in Latin means "owl"—thus the family common name, "owlet moths". The normally strong proboscis enables adults to feed extensively on plant nectar, sap and fermenting fruit. Some tropical species pierce thick-skinned fruits to feed on juices, and the Southeast Asian Calyptra eustrigata Hampson and some close relatives use their piercing proboscis to suck blood from mammals.

The family Noctuidae, as defined by Zahiri et al. (2011), consists of about 11 800 described species. About 2525 species are recognised in North America; in BC, 719 have been recorded and a further nine species are expected, making it our most speciose family. A world catalogue of Noctuidae was published by Poole (1989). Other comprehensive works include Lafontaine and Poole (1991; Plusiinae), Poole (1995; Cuculliinae), Hardwick (unpublished report; Heliothinae), and (Lafontaine 1987, 1998, 2004; Noctuinae).

Subfamily Plusiinae

Tribe Abrostolini

2114 Abrostola urentis Guenée, 1852

Tribe Argyrogrammatini

- 2115 Trichoplusia ni (Hübner, [1803])
- 2116 S Chrysodeixis chalcites (Esper, [1798])

This species was temporarily established in a greenhouse in Delta, BC, with specimens collected as far as 40 km away. It has since been eradicated from BC. It was originally confused with *C. eriosoma* (Doubleday), but was diagnosed via DNA barcode (B. C. Schmidt, personal communication).

Tribe Plusiini

Subtribe Euchalciina

- 2117 Diachrysia aereoides (Grote, 1864)
- 2118 Euchalcia borealis Lafontaine & Poole, 1991
- 2119 Polychrysia esmeralda (Oberthür, 1880)
- 2120 Pseudeva purpurigera (Walker, 1858)
 Reported from BC's Peace River region by Shepard (unpublished report B).
- 2121 Pseudeva palligera (Grote, 1881)
- 2122 Eosphoropteryx thyatyroides (Guenée, 1852)

Subtribe Plusiina

- 2123 Autographa californica (Speyer, 1875)
- 2124 Autographa mappa (Grote & Robinson, 1868)
- 2125 Autographa buraetica (Staudinger, 1892)
- 2126 Autographa pseudogamma (Grote, 1875)
- 2127 Autographa v-alba Ottolengui, 1902
- 2128 Autographa speciosa Ottolengui, 1902
- 2129 Autographa bimaculata (Stephens, 1830)
- 2130 Autographa corusca (Strecker, 1885)
- 2131 Autographa metallica (Grote, 1875)
- 2132 Autographa ampla (Walker, [1858])
- 2133 Autographa rubidus Ottolengui, 1902
- 2134 Autographa sansoni Dod, 1910

2135		Autographa flagellum (Walker, [1858])
2136	Μ	Megalographa biloba (Stephens, 1830)
2137		Syngrapha octoscripta (Grote, 1874)
2138		Syngrapha viridisigma (Grote, 1874)
2139		Syngrapha selecta (Walker, [1858])
		Most older records of <i>S. selecta</i> actually refer to <i>S. viridisigma</i> (Grote) (Lafontaine
		and Poole 1991). However, deWaard (2010) confirmed the presence of this species
2140		from near Hazelton, BC. Syngrapha epigaea (Grote, 1875)
2140		Syngrapha interrogationis (Linnaeus, 1758)
2142		Syngrapha surena (Grote, 1882)
2143		Syngrapha diasema (Boisduval, 1828)
2144		Syngrapha borea (Aurivillius, 1890)
2145		Syngrapha orophila (Hampson, 1908)
2146		Syngrapha ignea (Grote, 1863)
2147		Syngrapha abstrusa Eichlin & Cunningham, 1978
2148		Syngrapha alias (Ottolengui, 1902)
2149		Syngrapha anas (Ottolengui, 1902) Syngrapha rectangula (Kirby, 1837)
2150		Syngrapha angulidens (Smith, 1891)
2150		Syngrapha celsa (Edwards, 1881)
2152		Syngrapha microgamma (Hübner, 1823)
2153		Syngrapha alticola (Walker, [1858])
2154		Syngrapha parilis (Hübner, [1809])
2155		Anagrapha falcifera (Kirby, 1837)
2156		Plusia venusta Walker, 1865
2157		Plusia putnami Grote, 1873
2158		Plusia nichollae (Hampson, 1913)
2158.1	p	Plusia magnimacula Handfield & Handfield, 2006
2130.1	١	Known from the Rocky Mountains of central AB, and expected in adjacent BC
		(B. C. Schmidt, personal communication).
Subfan	nil	y Eustrotiinae
2159		Deltote bellicula (Hübner, 1818)
2160		Protodeltote albidula (Guenée, 1852)
Subfan	nil	y Acontiinae
Tribe A	Acc	
2161		Ponometia semiflava (Guenée, 1852)
2162		Ponometia tortricina (Zeller, 1872)
2163		Ponometia fumata (Smith, 1905)
2164		Ponometia elegantula (Harvey, 1876)
		This species has been reported historically under the name <i>Conochares arizonae</i> (Edwards), a recently designated synonym.
		(Luwarus), a recently designated symonym.

2103	rarache aren (Streeker, 1050)
2166	Tarache augustipennis Grote, 1875
2167	Tarache major (Smith, 1900)
Subfam	nily Pantheinae
2168	Panthea gigantea (French, 1890)
2169	Panthea furcilla (Packard, 1864)
	Treated until recently, including by Cannings and Scudder (2007), as <i>P. pallescens</i> (McDunnough), a recently designated synonym (Anweiler 2009).
2170	Panthea acronyctoides (Walker, 1861)
2171	Subspecies <i>nigra</i> Anweiler occurs in BC.
2171	Panthea virginarius (Grote, 1880)
2172	Colocasia propinquilinea (Grote, 1873) Collected recently in BC by D. W. Knight and by L. Janzen.
	nily Raphiinae
2173	Raphia frater Grote, 1864
	Cannings and Scudder (2007) and others also reported this species under the name <i>R. coloradensis</i> Putnam-Cramer, a recent synonym (Lafontaine and Schmidt 2010).
	nily Acronictinae
2174	Acronicta dactylina (Grote, 1874)
2175	Acronicta lepusculina (Guenée, 1852)
2176	Subspecies <i>felina</i> (Grote) has been reported from BC.
2176	Acronicta cyanescens (Hampson, 1909)
2177	Acronicta vulpina (Grote, 1883)
	Listed by Llewellyn Jones (1951) and others as <i>A. leporina</i> (Linnaeus), an Old World name. Subspecies <i>moesta</i> (Dyar) has been reported from BC.
2178	Acronicta innotata (Guenée, 1852)
2179	Acronicta radcliffei (Harvey, 1875)
	Subspecies <i>vancouverensis</i> Strand occurs in BC.
2180	Acronicta grisea (Walker, 1856)
	Subspecies revellata (Smith) has been reported from BC.
2181	Acronicta mansueta (Smith, 1897)
2102	Crabo et al. (2015) use the name <i>A. parallela</i> (Grote) for western Canadian populations traditionally treated as <i>A. mansueta</i> . That may indeed be correct, but we retain them under the latter name, pending publication of taxonomic work currently underway by B. C. Schmidt and G. G. Anweiler.
2182	Acronicta funeralis (Grote & Robinson, 1866)
2183	Acronicta quadrata (Grote, 1874)
2184	Acronicta hasta (Guenée, 1852) This species was also listed by Cannings and Scudder (2007) under the name A. furcifera (Guenée), a recently designated synonym (Lafontaine and Schmidt 2010).
2185	Acronicta strigulata (Smith, 1897)
2186	Acronicta fragilis (Guenée, 1852)
	Subspecies <i>fragiloides</i> (Barnes & Benjamin) and <i>minella</i> (Dyar) have been reported from BC.

Tarache areli (Strecker, 1898)

2187	Acronicta marmorata (Smith, 1897)
2188	Acronicta impleta (Walker, 1856)
2.00	Subspecies <i>illita</i> (Smith) has been reported from BC.
2189	Acronicta impressa (Walker, 1856)
2190	Acronicta perdita (Grote, 1874)
2191	Acronicta oblinita (Smith, 1797)
2192	Acronicta lanceolaria (Grote, 1875)
	Known in BC from a single record near Trail (G. G. Anweiler, personal communication).
2193	Acronicta Iupini (Grote, 1873)
2194	Simyra insularis (Herrich-Schäffer, 1868)
Subfami	ly Cuculliinae
2195	Cucullia montanae Grote, 1882
2196	Cucullia similaris Smith, 1892
2197	Cucullia omissa Dod, 1916
2198	Cucullia florea Guenée, 1852
	Also reported from BC by Cannings and Scudder (2007) under the name <i>C. obscurior</i> Smith, a recently designated synonym.
2199	Cucullia postera Guenée, 1852
2200	Cucullia intermedia Speyer, 1870
	Subspecies <i>cinderella</i> Smith has been reported from BC.
2201	Cucullia speyeri Lintner, 1874
2202	Cucullia dorsalis Smith, 1892
	This species was not reported north of southern WA (Poole 1995), but it has recently been collected in BC.
2203	Cucullia antipoda Strecker, 1878
2204	Cucullia eulepis (Grote, 1876)
2205	Cucullia mcdunnoughi (Henne, 1940)
2206	Cucullia strigata (Smith, 1892)
2206.1 F	P Cucullia albida Smith, 1894
	This species was reported from BC by Lafontaine and Troubridge (2011), based on misidentified material of <i>C. strigata</i> (Smith). However, <i>C. albida</i> occurs in the
	mountains of AB: it likely occurs in BC also.
2207	Cucullia pulla (Grote, 1881)
	ly Amphipyrinae
	nphipyrini
2208	Amphipyra pyramidoides Guenée, 1852
2209	Amphipyra tragopoginis (Clerck, 1759) Introduced from the Palaearctic.
2210	Amphipyra glabella (Morrison, 1874)

Sub	tribe Psaphidina
221	•
Sub	tribe Feraliina
2212	2 Feralia jocosa (Guenée, 1852)
2213	B Feralia deceptiva McDunnough, 1920
2214	Feralia comstocki Grote, 1874
Sub	tribe Triocnemidina
2215	5 Acopa perpallida Grote, 1878
Trib	e Stiriini
Sub	tribe Annaphilina
2210	•
221	Annaphila arvalis Edwards, 1875
2218	3 Annaphila decia Grote, 1875
2219	Annaphila diva Grote, 1873
Sub	family Oncocnemidinae
222	,
222	1 Calophasia lunula (Hufnagel, 1766)
	Introduced from the Palaearctic for the control of toadflax (Lafontaine and
222	Troubridge 2011).
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	Listed by Lafontaine and Troubridge (2011) as "Oncocnemis sp. nr. terminali Smith".
222	Sympistis albifasciata (Hampson, 1906)
222	
222	Sympistis umbrifascia (Smith, 1894)
223	· ·
	Reported by Cannings and Scudder (2007) as S. mus (Troubridge & Crabo), a re
	cently designated synonym. The species was listed by Lafontaine and Troubridge
223	(2011) as "Oncocnemis sp. nr. tenuifascia Smith". Sympistis parvanigra (Blackmore, 1923)
223	, , ,
223	
223.	The historical BC record by ESBC (1906) is erroneous. However, the species occur
	in BC's Peace River region, where it was discovered by J. H. Shepard in 1999.
223	4 Sympistis fifia (Dyar, 1904)
223.	Sympistis dinalda (Smith, 1908)

Tribe Psaphidini

2236		Sympistis glennyi (Grote, 1873) This species was also listed from BC by Cannings and Scudder (2007) under the
2237		name <i>S. phairi</i> (McDunnough), a recently designated synonym. <i>Sympistis levis</i> (Grote, 1880)
2238	U	Sympistis incubus Troubridge, 2008
		The sole known Canadian specimen, from Fort Steele, BC, was provisionally determined as this species by Crabo et al. (2015), but it may be the closely related species <i>S. seth</i> Troubridge. The two species appear to intergrade in the Pacific Northwest.
2239		Sympistis poliochroa (Hampson, 1906)
2240		Sympistis cibalis (Grote, 1880)
2241		Sympistis augustus (Harvey, 1875)
2242		Sympistis sandaraca (Buckett & Bauer, 1967)
2243		Sympistis pudorata (Smith, 1893)
2244		Sympistis acheron Troubridge, 2008
2245		Sympistis cocytus Troubridge, 2008
2246		Sympistis riparia (Morrison, 1875)
2247		Sympistis amun Troubridge, 2008
2248		Sympistis chons Troubridge, 2008
2249		Sympistis columbia (McDunnough, 1922)
2250		Sympistis cherti Troubridge, 2008
2251		Sympistis youngi (McDunnough, 1922)
2252		Sympistis chionanthi (Smith, 1797)
2253		Sympistis barnesii (Smith, 1899)
2254		Sympistis chalybdis (Troubridge & Crabo, 1998) Reported from BC by Lafontaine and Troubridge (2011) as "Oncocnemis sp. nr. piffardi (Walker)".
2255		Sympistis funebris (Hübner, [1809])
		Subspecies <i>cocklei</i> (Dyar) has been reported from BC.
2256		Sympistis dentata (Grote, 1875)
2257		Sympistis anweileri Troubridge & Lafontaine, 2008
2258		Sympistis californiae (McDunnough, 1946)
2259		Sympistis lacticollis (Smith, 1908)
2260		Sympistis extremis (Smith, 1890)
2261		Sympistis dunbari (Harvey, 1876)
2262		Sympistis wilsoni Barnes & Benjamin, 1924
2263		Sympistis heliophila (Paykull, 1793)
2264		Sympistis zetterstedtii (Staudinger, 1857)
2265		Subspecies <i>kolthoffi</i> (Aurivillius) occurs in BC. Sympistis figurata (Harvey, 1875)
2266		Sympistis pallidior (Barnes, 1928)
ZZ00		sympisus pailiului (bames, 1920)

Reported from BC by Lafontaine and Troubridge (2011) as "Oncocnemis sp. nr. figurata (Harvey)". 2268 Sympistis semicollaris (Smith, 1909) **Subfamily Agaristinae** 2269 Alypia langtoni Couper, 1865 2270 Alypia ridingsii Grote, 1865 2271 Androloma maccullochii (Kirby, 1837) **Subfamily Condicinae** Tribe Condicini 2272 Condica discistriga (Smith, 1894) 2273 Condica mersa (Morrison, 1875) Known in BC (and Canada) from a single specimen, collected near Nicola, on 21 August 1993 by L. G. Crabo and J. T. Troubridge (Crabo et al. 2015). **Subfamily Heliothinae** 2274 Eutricopis nexilis Morrison, 1875 2275 Pyrrhia exprimens (Walker, 1857) Helicoverpa zea (Boddie, 1850) 2276 The Corn Earworm, a serious agricultural pest. Heliothis phloxiphaga Grote & Robinson, 1867 2277 2278 Heliothis ononis (Fabricius, 1787) 2279 Heliothis oregonica (Edwards, 1875) 2280 Heliothis borealis (Hampson, 1903) Recently collected in the BC southern Interior by D. Nicholson. 2281 Heliocheilus paradoxus Grote, 1865 2282 Protoschinia nuchalis (Grote, 1878) 2283 S Schinia biundulata Smith, 1891 Reported by Blackmore (1927) and Llewellyn Jones (1951) as probably an accidental introduction; it is likely either that or a stray, as no further records of this species have been found in BC (Lafontaine and Troubridge 2011). However, this species may occur naturally in the extreme southern Okanagan Valley in BC (L. G. Crabo, personal communication). 2284 Schinia suetus (Grote, 1873) 2284.1 P Schinia meadi (Grote, 1873) This species occurs in WA and in AB, and may occur in BC. 2285 Schinia honesta (Grote, 1881) 2286 Schinia villosa (Grote, 1864) 2287 Schinia intermontana Hardwick, 1958 2288 Schinia persimilis (Grote, 1873) 2289 Schinia acutilinea (Grote, 1878) 2290 Schinia walsinghami (Edwards, 1881) 2291 Schinia cumatilis (Grote, 1865)

Sympistis greyi (Troubridge & Crabo, 1998)

Subfa	mily Bryophilinae	
2292	"Cryphia" olivacea (Smith, 1891)	
2293	"Cryphia" cuerva (Barnes, 1907)	
Subfa	mily Noctuinae	
Tribe	Prodeniini	
2294	S Spodoptera exigua (Hübner, [1808])	
2295	S Spodoptera praefica (Grote, 1875)	
Tribe	Elaphriini	
2296	Elaphria alapallida Pogue & Sullivan, 2003	
2297	Galgula partita Guenée, 1852	
2298	Chytonix palliatricula (Guenée, 1852)	
Tribe	Caradrinini	
Subtr	be Caradrinina	
2299	Protoperigea anotha (Dyar, 1904)	
2300	Protoperigea posticata (Harvey, 1875)	
2301	Protoperigea umbricata Mustelin, 2006	
	Collected in BC by L. G. Crabo.	
2302	Caradrina morpheus (Hufnagel, 1766)	I
2202	Introduced from Europe; first found in North America in BC in 1944.	
2303	Caradrina meralis Morrison, 1875	
2304	Caradrina camina (Smith, 1894)	
2305	Caradrina montana Bremer, 1861	
	be Athetiina	
2306	Proxenus miranda (Grote, 1873)	
2307	Proxenus mindara Barnes & McDunnough, 1913	
2308	Proxenus mendosa McDunnough, 1927	
	Actinotiini	
2309	Alastria chico Lafontaine & Troubridge, 2004	
	Phlogophorini	
2310	Euplexia benesimilis McDunnough, 1922	
2311	Phlogophora periculosa Guenée, 1852	
Tribe	Apameini	
2312	Apamea vultuosa (Grote, 1875)	
2242	Subspecies <i>multicolor</i> (Dyar) occurs in BC.	
2313	Apamea plutonia (Grote, 1883)	
2314	Apamea alia (Guenée, 1852)	
2315	Apamea unanimis (Hübner, [1813])	
	Reported recently from BC by L. Avis; the determination was confirmed I	ЭУ

2316		Anamoa indocilis (Walker 1856)
2310		Apamea indocilis (Walker, 1856) This species has been referred to in some historical lists under the name A. remissa
		(Hübner), which is the Old World/Beringian sister species to <i>A. indocilis</i> that occurs
		in North America only in AK (Mikkola et al. 2009).
2317		Apamea impulsa (Guenée, 1852)
2318		Apamea cuculliformis (Grote, 1875)
2319		Apamea sordens (Hufnagel, 1766)
		Subspecies finitima Guenée occurs in BC.
2320		Apamea inordinata (Morrison, 1875)
		The nominate subspecies occurs in BC.
2321		Apamea spaldingi (Smith, 1909)
2322		Apamea cinefacta (Grote, 1881)
2323		Apamea atriclava (Barnes & McDunnough, 1913)
2324		Apamea antennata (Smith, 1891)
2325		Apamea sora (Smith, 1903)
2326		Apamea commoda (Walker, 1857)
		Subspecies commoda and parcata (Smith) occur in BC.
2327		Apamea centralis (Smith, 1891)
2328		Apamea occidens (Grote, 1878)
2329		Apamea amputatrix (Fitch, 1857)
2330		Apamea maxima (Dyar, 1904)
2331		Apamea acera (Smith, 1900)
2332		Apamea longula (Grote, 1879)
2333		Apamea scoparia Mikkola, Mustelin & Lafontaine, 2000
		Reported until recently as <i>A. lateritia</i> (Hufnagel), an Old World name. The nominate subspecies occurs in BC.
2334		Apamea cogitata (Smith, 1891)
2335		Apamea inficita (Walker, 1857)
		Subspecies <i>indela</i> (Smith) and <i>inficita</i> (Walker) have been reported from BC.
2336		Apamea lutosa (Andrews, 1877)
2337		Apamea devastator (Brace, 1819)
2338		Apamea zeta (Treitschke, 1825)
		Subspecies <i>nichollae</i> (Hampson) was described from Simpson River, BC. The
		Palaearctic name A. maillardi (Geyer) was historically applied in North America to A. zeta.
2339		Apamea contradicta (Smith, 1895)
2340		Apamea niveivenosa (Grote, 1879)
2340		Subspecies <i>niveivenosa</i> (Grote) and <i>obscuroides</i> Poole occur in BC.
2341		Lateroligia ophiogramma (Esper, 1793)
2342	U	Resapamea venosa (Smith, 1903)
	-	This species is virtually indistinguishable from <i>R. passer</i> (Guenée); the BC deter-
		mination is uncertain.
2343		Resapamea passer (Guenée, 1852)

2344		Eremobina claudens (Walker, 1857)
2345		"Oligia" tusa (Grote, 1878)
2346		"Oligia" violacea (Grote, 1881)
		Subspecies <i>columbia</i> (McDunnough) has been reported from BC.
2347		"Oligia" rampartensis (Barnes & Benjamin, 1923)
2348		"Oligia" obtusa (Smith, 1902)
2349		"Oligia" divesta (Grote, 1874)
2350		Neoligia subjuncta (Smith, 1898)
2351		Neoligia tonsa (Grote, 1880)
2352		Neoligia invenusta Troubridge & Lafontaine, 2002
2353		Neoligia albirena Troubridge & Lafontaine, 2002
2354		Neoligia lancea Troubridge & Lafontaine, 2002
2355		Neoligia lillooet Troubridge & Lafontaine, 2002
2356	U	Xylomoia chagnoni Barnes & McDunnough, 1917
		Records reported from southeastern BC by Crabo et al. (2015) require verification;
		this species is otherwise known from eastern North America only as far west as SK.
2357		Xylomoia indirecta (Grote, 1875)
2358		Photedes inops (Grote, 1881)
		Known in BC from recent collections near Cranbrook, by D. Nicholson (Crabo et al. 2015).
2359		Photedes defecta (Grote, 1874)
2360		Hypocoena inquinata (Guenée, 1852)
2361		Hypocoena basistriga (McDunnough, 1933)
2362		Hypocoena rufostrigata (Packard, 1867)
2363		Benjaminiola colorada (Smith, 1900)
2364		Capsula oblonga (Grote, 1882)
2365		Capsula subflava (Grote, 1882)
2366		Helotropha reniformis (Grote, 1874)
2367		Amphipoea interoceanica (Smith, 1899)
		This species was reported from BC by Blackmore (1927) and Llewellyn Jones
		(1951), but Lafontaine and Troubridge (2011) excluded it from their BC list, stating
		that the BC material had been redetermined as <i>A. americana</i> (Speyer). However, a specimen in the CNC from Duncan, BC, has recently been confirmed via genitalic
		dissection as <i>A. interoceanica</i> (B. C. Schmidt, personal communication).
2368		Amphipoea americana (Speyer, 1875)
2369		Hydraecia medialis (Smith, 1892)
2370		Hydraecia obliqua (Harvey, 1876)
2371		Hydraecia perobliqua (Hampson, 1910)
2372		Papaipema birdi (Dyar, 1908)
2373		Papaipema pertincta Dyar, 1920
2374		Papaipema insulidens (Bird, 1902)

Tribe Arzamini

2375 Bellura obliqua (Walker, 1865)

Also reported by Cannings and Scudder (2007) under the name *B. gargantua* (Dyar), now considered to be a subspecies, which probably does not occur in BC. The name *gargantua* was inadvertently left out of Lafontaine and Schmidt (2010). The subspecies *pallida* Barnes & Benjamin occurs in the BC Interior.

Tribe Xylenini

Subtribe Xylenina

- 2376 *Xylena nupera* (Lintner, 1874)
- 2377 Xylena curvimacula (Morrison, 1874)
- 2378 *Xylena thoracica* (Putnam-Cramer, 1886)
- 2379 Xylena cineritia (Grote, 1875)

Subspecies mertena (Smith) has been reported from BC.

- 2380 *Xylena brucei* (Smith, 1892)
- 2381 Lithomoia germana (Morrison, 1875)

The Palaearctic name *L. solidaginis* (Hübner) has historically been misapplied to this species.

- 2382 Homoglaea californica (Smith, 1891)
- 2383 Homoglaea hircina Morrison, 1876
- 2384 Homoglaea dives Smith, 1907
- 2385 Homoglaea carbonaria (Harvey, 1876)
- 2386 Litholomia napaea (Morrison, 1874)

Subspecies umbrifasciata Blackmore was described from Victoria, BC.

- 2387 Lithophane innominata (Smith, 1893)
- 2388 Lithophane petulca Grote, 1874
- 2389 U Lithophane disposita Morrison, 1874

This occasional pest of fruit trees was reported from BC by Belton (1988). No BC vouchers are known, but it is known from WA and MT and from across much of the rest of Canada, including AB, so it may occur in BC.

- 2390 Lithophane amanda (Smith, 1900)
- 2391 Lithophane pexata Grote, 1874

Subspecies washingtonia Grote has been reported from BC.

- 2392 Lithophane dilatocula (Smith, 1900)
- 2393 Lithophane thaxteri Grote, 1874
- 2394 Lithophane fagina Morrison, 1874
- 2395 Lithophane baileyi Grote, 1877

Also reported from BC by Cannings and Scudder (2007) and others under the name *L. vivida* (Dyar), now considered a synonym.

2395.1 P Lithophane tepida Grote, 1874

Historical reports of this species in western BC as subspecies *atincta* (Smith) refer to *L. baileyi* Grote. However, this species may occur in BC's Peace River region.

- 2396 Lithophane atara (Smith, 1909)
- 2397 Lithophane ponderosa Troubridge & Lafontaine, 2003

2398		Lithophane itata (Smith, 1899)
2399		Lithophane contenta Grote, 1880
2400		Lithophane georgii Grote, 1875
		Subspecies ancilla (Smith), holocinerea (Smith), oregonensis Harvey, and vertina
2401		(Smith) have been reported from BC.
2401		Lithophane pertorrida (McDunnough, 1942)
2402		Eupsilia tristigmata (Grote, 1877)
2403		Eupsilia fringata (Barnes & McDunnough, 1916)
2404		Eupsilia devia (Grote, 1875)
2405		Eucirroedia pampina (Guenée, 1852)
2406		Mesogona olivata (Harvey, 1874)
2407		Mesogona subcuprea Crabo & Hammond, [1998]
2408		Agrochola purpurea (Grote, 1874)
2409		Agrochola pulchella (Smith, 1900)
2410	U	Sunira bicolorago (Guenée, 1852)
		This species has been placed on various historical BC lists, but no confirmed vouchers are known. Historical records likely refer to similar species <i>S. decipiens</i>
		(Grote) or <i>Agrochola purpurea</i> (Grote) (L. G. Crabo, personal communication).
		However, S. bicolorago may occur in BC, as it is known from nearby AB.
2411		Sunira decipiens (Grote, 1881)
2412		Sunira verberata (Smith, 1904)
2413		Anathix puta (Grote & Robinson, 1868)
0.44.4		Subspecies <i>dusca</i> (Smith) has been reported from BC.
2414		Anathix aggressa (Smith, 1907)
2415		Xanthia tatago Lafontaine & Mikkola, 2003
		Prior to the description of <i>X. tatago</i> , this species was historically reported in western North America under the name <i>X. togata</i> (Esper), which does not occur in the area.
2416		Hillia maida (Dyar, 1904)
2417		Hillia iris (Zetterstedt, 1839)
2418		Parastichtis suspecta (Hübner, [1817])
2419		Aseptis fumosa (Grote, 1879)
2420		Aseptis binotata (Walker, 1865)
		Subspecies <i>curvata</i> (Grote) has been reported from BC.
2421		Aseptis adnixa (Grote, 1880)
2422		Aseptis characta (Grote, 1880)
2423		Epidemas cinerea Smith, 1894
		This species is known from BC, based on a specimen from the Cariboo region (Doc
2424		English Gulch) collected by A. I. Fisher in 1996.
2424		Epidemas obscurus Smith, 1903
		Reported by Cannings and Scudder (2007) as <i>E. melanographa</i> Hampson, a dark morph of <i>E. obscurus</i> that was synonymised by Lafontaine and Schmidt (2010).
2425		Brachylomia populi (Strecker, 1898)
2426		Brachylomia algens (Grote, 1878)
		,

Z7Z/	Drachylothia dischiigia (Walker, 1050)
2428	Brachylomia cascadia Troubridge & Lafontaine, 2007
2429	Brachylomia thula (Strecker, 1898)
2430	Hyppa contrasta McDunnough, 1946
	Reported as <i>H. xylinoides</i> (Guenée) by early workers under a previous taxonomic arrangement.
2431	Hyppa brunneicrista Smith, 1902
2432	Hyppa indistincta Smith, 1894
Subtribe	Cosmiina
2433	Cosmia praeacuta (Smith, 1894)
2434	Cosmia elisae Lafontaine & Troubridge, 2003
2435	Cosmia calami (Harvey, 1876)
2436	Zotheca tranquilla Grote, 1874
2437	Enargia infumata (Grote, 1874)
2438	Enargia fausta Schmidt, 2010
2439	Enargia decolor (Walker, 1858)
2440	Ipimorpha nanaimo Barnes, 1905
2441	Ipimorpha viridipallida Barnes & McDunnough, 1916
2442	Ipimorpha pleonectusa Grote, 1873
Subtribe	Antitypina
2443	Andropolia diversilineata (Grote, 1877)
2444	Andropolia contacta (Walker, 1856)
	Subspecies <i>pulverulenta</i> (Smith) has been reported from BC.
2445	Andropolia aedon (Grote, 1880)
2446	Andropolia theodori (Grote, 1878)
	Subspecies <i>epichysis</i> (Grote) and <i>vancouvera</i> McDunnough have been reported from BC. Cannings and Scudder (2007) reported this species under the name <i>A. epichysis</i> .
2447	Fishia discors (Grote, 1881)
2448	Fishia yosemitae (Grote, 1873)
2449	Fishia illocata (Walker, 1857)
	Moved from <i>Oligia</i> (tribe Apameini) by Lafontaine and Schmidt (2010).
2450	Platypolia anceps (Stephens, 1850)
2451	Platypolia contadina (Smith, 1894)
	The nominal subspecies and subspecies <i>albertae</i> McDunnough have been reported from BC.
2452	Platypolia loda (Strecker, 1898)
2453	"Platypolia" mactata (Guenée, 1852)
	Subspecies <i>allecto</i> (Guenée) has been reported from BC. This species was moved from <i>Oligia</i> (tribe Apameini) by Lafontaine and Schmidt (2010).
2454	Xylotype arcadia Barnes & Benjamin, 1922
	This species name has been misspelled as "acadia" in many works, including Hodges et al.'s (1983) checklist.

Brachylomia discinigra (Walker, 1856)

2455	Dryotype opina (Grote, 1878)
2456	Mniotype pallescens McDunnough, 1946
2457	Mniotype ducta (Grote, 1878)
2458	Mniotype tenera (Smith, 1900)
2459	Sutyna privata (Walker, 1857)
	Reported until recently, including by Cannings and Scudder (2007), under the
Carb tarib a	name <i>S. profundus</i> (Smith), now considered a synonym (Pohl et al. 2010).
Subtribe 2460	
2 4 00	Ufeus satyricus Grote, 1873 Subspecies sagittarius Grote occurs in BC (Lafontaine and Walsh 2013). Cannings
	and Scudder (2007) listed <i>sagittarius</i> as a separate species.
2461	Ufeus hulstii Smith, 1908
Tribe Xyl	enini-unplaced
2462	Properigea albimacula (Barnes & McDunnough, 1912)
2463	Properigea niveirena (Harvey, 1876)
2464	Pseudobryomima muscosa (Hampson, 1906)
2465	Pseudanarta crocea (Edwards, 1875)
2466	Pseudanarta flava (Grote, 1874)
Tribe Ort	thosiini
2467	Acerra normalis Grote, 1874
2468	Stretchia plusiaeformis Edwards, 1874
2469	Stretchia muricina (Grote, 1876)
2470	Orthosia pulchella (Harvey, 1876)
	Subspecies achsha (Dyar) and pulchella (Harvey) have been reported from BC.
2471	Orthosia transparens (Grote, 1882)
2472	Orthosia praeses (Grote, 1879)
2473	Orthosia mys (Dyar, 1903)
a	Subspecies <i>caloramica</i> (Barnes & McDunnough) has been reported from BC.
2474	Orthosia ferrigera (Smith, 1894)
2475	Orthosia revicta (Morrison, 1876)
2476	Orthosia segregata (Smith, 1893)
2477	Orthosia pacifica (Harvey, 1874)
2478	Orthosia hibisci (Guenée, 1852)
2.470	Subspecies <i>quinquefasciata</i> (Smith) has been reported from BC.
2479	Egira variabilis (Smith, 1891)
2480	Egira hiemalis (Grote, 1874)
2481	Egira simplex (Walker, 1865)
2482	Egira crucialis (Harvey, 1875)
2483	Egira cognata (Smith, 1894)

2484	Egira curialis (Grote, 1873)
	Subspecies <i>indurata</i> (Smith) has been reported from BC; the taxon <i>candida</i> (Smith)
	from Vancouver Island, currently treated as a junior synonym, may be a geographic
2485	subspecies, as well (L. G. Crabo, personal communication). Egira dolosa (Grote, 1880)
2486	Egira rubrica (Harvey, 1878)
2400	Subspecies <i>mustelina</i> (Smith) and <i>pulchella</i> (Smith) have been reported from BC.
2487	Egira perlubens (Grote, 1881)
2488	Admetovis oxymorus Grote, 1873
2489	Admetovis similaris Barnes, 1904
Tribe Th	
2490	Tholera americana (Smith, 1894)
2491	Nephelodes minians Guenée, 1852
	The subspecies <i>pectinatus</i> Smith and <i>tertialis</i> Smith have been reported from BC.
Tribe Ha	ndenini
2492	Hadenella pergentilis Grote, 1883
2493	Anarta nigrolunata Packard, 1867
	This species was traditionally reported in North America under the name A. mela-
	nopa (Thunberg). However, as currently defined, A. nigrolunata is the Nearctic
	species and <i>A. melanopa</i> is restricted to the Palaearctic. The subspecies <i>laerta</i> Smith has been reported from BC.
2494	Anarta trifolii (Hufnagel, 1766)
	Subspecies <i>albifusa</i> (Walker) has been reported from BC.
2495	Anarta mutata (Dod, 1913)
2496	Anarta hamata (McDunnough, 1930)
2497	Anarta oregonica (Grote, 1881)
2498	Anarta inconcinna (Smith, [1888])
	Until recently, this species was known as A. montanica (McDunnough), a recently
2400	designated synonym.
2499	Anarta columbica (McDunnough, 1930)
2499.1 F	P Anarta alta (Barnes & Benjamin, 1924) This species is known from western AB and likely occurs in BC's Peace River region
	(L. G. Crabo, personal communication).
2500	Anarta farnhami (Grote, 1873)
2501	Anarta crotchii (Grote, 1880)
2502	Anarta edwardsii (Smith, 1888)
2503	Anarta decepta (Grote, 1883)
2504	Coranarta luteola (Grote & Robinson, 1865)
2505	Coranarta macrostigma (Lafontaine & Mikkola, 1987)
2506	Polia discalis (Grote, 1877)
	Lafontaine and Troubridge (2011) list this species from BC, but also state that BC
	material has been revised to <i>P. piniae</i> Buckett & Bauer; the latter is incorrect.
2507	Polia piniae Buckett & Bauer, 1967

2508	Polia nimbosa (Guenée, 1852)
	Subspecies <i>mystica</i> (Smith) and <i>mysticoides</i> Barnes & Benjamin have been reported from BC.
2509	Polia imbrifera (Guenée, 1852)
2510	Polia rogenhoferi (Möschler, 1870)
2511	Polia propodea McCabe, 1980
2512	Polia richardsoni (Curtis, 1834)
2513	Polia purpurissata (Grote, 1864)
2514	Polia nugatis (Smith, 1898)
2515	Melanchra adjuncta (Guenée, 1852)
2516	Melanchra picta (Harris, 1841)
2517	Melanchra pulverulenta (Smith, 1888)
2518	Melanchra assimilis (Morrison, 1874)
2519	Lacanobia nevadae (Grote, 1876)
2520	Lacanobia atlantica (Grote, 1874)
2521	Lacanobia radix (Walker, [1857])
2522	Lacanobia subjuncta (Grote & Robinson, 1868)
	Subspecies <i>eleanora</i> (Barnes & McDunnough) and <i>subjuncta</i> (Grote & Robinson) have been reported from BC.
2523	Lacanobia grandis (Guenée, 1852)
2524	Moved from <i>Spiramater</i> by Lafontaine and Schmidt 2010.
2524	Spiramater lutra (Guenée, 1852)
2525	Subspecies <i>glaucopis</i> (Hampson) has been reported from BC. <i>Trichordestra tacoma</i> (Strecker, 1900)
2526	Trichordestra dodii (Smith, 1904)
2527	Trichordestra lilacina (Harvey, 1874)
2528	Trichordestra liquida (Grote, 1881)
2320	Subspecies <i>meodana</i> (Smith) has been reported from BC.
2529	Papestra quadrata (Smith, 1891)
	Subspecies <i>ingravis</i> (Smith) has been reported from BC.
2530	Papestra biren (Goeze, 1781)
2531	Papestra cristifera (Walker, 1858)
2532	Papestra brenda (Barnes & McDunnough, 1916)
2533	Papestra invalida (Smith, 1891)
2534	Hada sutrina (Grote, 1881)
2535	Mamestra configurata Walker, 1856
2536	Mamestra curialis (Smith, 1888)
2537	Sideridis fuscolutea (Smith, 1892)
2538	Sideridis uscripta (Smith, 1891)
2539	Sideridis rosea (Harvey, 1874)
2540	Sideridis maryx (Guenée, 1852)

2541	Hadena variolata (Smith, 1888)
	The nominate subspecies and subspecies dealbata (Staudinger) occur in BC
	(Troubridge and Crabo 2002).
2542	Hadena capsularis (Guenée, 1852)
2543	Hadena caelestis Troubridge & Crabo, 2002
2544	Hadena ectrapela (Smith, 1898)
2545	Dargida procinctus (Grote, 1873)
2546	Dargida diffusa (Walker, 1856)
2547	Dargida terrapictalis (Buckett, 1969)
Tribe Le	eucaniini
2548	Mythimna oxygala (Grote, 1881)
	Subspecies <i>luteopallens</i> (Smith) has been reported from BC.
2549	Mythimna yukonensis (Hampson, 1911)
2550	Mythimna unipuncta (Haworth, 1809)
2551	Leucania farcta (Grote, 1881)
2552	Leucania oregona Smith, 1902
2553	Leucania anteroclara Smith, 1902
	This species name has often been misspelled "anteoclara".
2554	Leucania multilinea Walker, 1856
2555	Leucania commoides Guenée, 1852
2556	Leucania insueta Guenée, 1852
0555	Subspecies <i>heterodoxa</i> Smith and <i>megadia</i> Smith have been reported from BC.
2557	Leucania dia (Grote, 1879)
	For many years, this taxon was considered a synonym or western subspecies of L. insueta Guenée. However, it was formally recognised as a distinct species by
	Pohl et al. (2010).
Tribe Er	riopygini
2558	Lasionycta taigata Lafontaine, 1988
2559	Lasionycta secedens (Walker, [1858])
	The nominate subspecies occurs in BC.
2560	Lasionycta fergusoni Crabo & Lafontaine, 2009
	This is a recently recognised name for populations previously included within
2561	L. conjugata (Smith); the type locality is Pavilion, BC. Lasionycta mutilata (Smith, 1898)
2562	,
	Lasionycta haida Crabo & Lafontaine, 2009
2563	Lasionycta luteola (Smith, 1893)
2564	Lasionycta leucocycla (Staudinger, 1857) Subspecies albertensis (McDunnough) occurs in BC. Subspecies hampa (Smith)
	was reported from BC by Blackmore (1922a), but that is erroneous: <i>hampa</i> is
	restricted to the White Mountains of NH.
2565	Lasionycta poca (Barnes & Benjamin, 1923)
2566	Lasionycta illima Crabo & Lafontaine, 2009

2567	Lasionycta perplexa (Smith, 1888)
	This species now includes the synonym $\textit{marloffi}$ (Dyar), listed as a separate species
	by Cannings and Scudder (2007). It was synonymised with <i>L. perplexa</i> by Crabo and Lafontaine (2009).
2568	Lasionycta perplexella Crabo & Lafontaine, 2009
2569	Lasionycta subfuscula (Grote, 1874)
2303	Subspecies <i>livida</i> Crabo & Lafontaine occurs in BC.
2570 U	Lasionycta quadrilunata (Grote, 1874)
	This species was not specifically reported from BC by Crabo and Lafontaine (2009),
	but it was reported from AK, YT, NT, AB and MT, and almost certainly occurs in BC.
2571	Lasionycta lagganata (Barnes & Benjamin, 1924)
2571.1 P	Lasionycta carolynae Crabo, 2009
	Known from YT on Montana Mountain, very close to the BC border; this species may occur in BC.
2572	Lasionycta uniformis (Smith, 1893)
23, 2	Subspecies <i>multicolor</i> Crabo & Lafontaine (type locality: Gott Peak, BC) and <i>uni-</i>
	formis (Smith) occur in BC.
2573	Lasionycta brunnea Crabo & Lafontaine, 2009
2574	Lasionycta caesia Crabo & Lafontaine, 2009
2575	Lasionycta gelida Crabo & Lafontaine, 2009
2576	Lasionycta promulsa (Morrison, 1875)
2577	Lasionycta macleani (McDunnough, 1927)
2578	Lasionycta silacea Crabo & Lafontaine, 2009
2579	Lasionycta impingens (Walker, 1857)
	The nominate subspecies occurs in BC.
2580	Psammopolia arietis (Grote, 1879)
2581	Psammopolia wyatti (Barnes & Benjamin, 1926)
2582	Lacinipolia meditata (Grote, 1873)
	Subspecies <i>columbia</i> (Smith) has been reported from BC.
2583	Lacinipolia lustralis (Grote, 1875)
2584	Lacinipolia cuneata (Grote, 1873)
2585	Lacinipolia anguina (Grote, 1881)
	Subspecies <i>larissa</i> (Smith) has been reported from BC.
2586	Lacinipolia stenotis (Hampson, 1905)
2587	Lacinipolia vicina (Grote, 1874)
2500	Subspecies <i>acutipennis</i> (Grote) has been reported from BC.
2588	Lacinipolia pensilis (Grote, 1874)
2589	The nominate subspecies has been reported from BC.
	Lacinipolia renigera (Stephens, 1829)
2590	Lacinipolia stricta (Walker, 1865) Subspecies cinnabarina (Grote) has been reported from BC.
2591	Lacinipolia lorea (Guenée, 1852)
	Zacimpona iorea (Gaerice, 1032)

2592	Lacinipolia olivacea (Morrison, 1874) Subspecies altua (Smith), lucina (Smith), and petita (Smith) have been reported
	from BC.
2593	Lacinipolia bucketti Selman & Leuschner, 2001
	This coastal species is known in BC from an individual photgraphed by L. Avis near
	Port Alberni, and identified by L. Crabo (Crabo et al. 2015).
2594	Lacinipolia davena (Smith, 1901)
2595	Lacinipolia comis (Grote, 1876)
2596	Lacinipolia rectilinea (Smith, 1888)
2597	Lacinipolia strigicollis (Wallengren, 1860)
2598	Lacinipolia patalis (Grote, 1873)
	Subspecies fletcheri (Grote) has been reported from BC.
2599	Trichocerapoda oblita (Grote, 1877)
2600	Anhimella perbrunnea (Grote, 1879)
2601	Anhimella contrahens (Walker, 1860)
2602	Anhimella pacifica McDunnough, 1943
2603	Homorthodes furfurata (Grote, 1875)
	Subspecies uniformis (Smith) has been reported from BC.
2604	Homorthodes communis (Dyar, 1904)
2605	Homorthodes fractura (Smith, 1906)
	Subspecies mecrona (Smith) has been reported from BC.
2606	Homorthodes discreta (Barnes & McDunnough, 1916)
2607	Homorthodes hanhami (Barnes & McDunnough, 1911)
2608	Homorthodes carneola McDunnough, 1943
2609	Protorthodes curtica (Smith, 1890)
	Subspecies <i>bostura</i> (Smith) has been reported from BC.
2610	Protorthodes oviduca (Guenée, 1852)
2611	Protorthodes rufula (Grote, 1874)
2612	Pseudorthodes irrorata (Smith, 1888)
2613	"Orthodes" goodelli (Grote, 1875)
	Subspecies acutermina (Grote) has been reported from BC.
2614	"Orthodes" obscura (Smith, 1888)
2615	"Orthodes" noverca (Grote, 1878)
	Until recently this species was known as Orthodes delecta (Barnes & McDunnough),
2616	a recently designated synonym. "Orthodes" detracta (Walker, 1857)
2010	Subspecies <i>neoterica</i> (Smith) has been reported from BC.
2617	Zosteropoda hirtipes Grote, 1874
Tribe No	•
Subtribe 2618	Agrotina Peridroma saucia (Hübner, [1808])
2010	The Variegated Cutworm, a serious agricultural pest.
2619	Anicla exuberans (Smith, 1898)

2620	Anicla tepperi (Smith, 1888)
2621	Actebia fennica (Tauscher, 1806)
2622	Actebia balanitis (Grote, 1873)
	Reported by Lafontaine and Troubridge (2011) from BC as <i>A. squalida</i> (Guenée), a Palaearctic name historically applied to this species.
2623	Dichagyris variabilis (Grote, 1874)
2624	Copablepharon spiritum Crabo & Fauske, 2004
2625	Copablepharon absidum (Harvey, 1875)
2626	Copablepharon fuscum Troubridge & Crabo, 1996
2627	Copablepharon viridisparsa (Dod, 1916) Known from a single BC specimen in the CNC, collected at Brilliant (near Castlegar), 8 July 1946, by H. R. Foxlee. Subspecies hopfingeri Franclemont occurs in BC; it was listed by Cannings and Scudder (2007) as a separate species.
2628	Euxoa bochus (Morrison, 1874)
2629	Euxoa adumbrata (Eversmann, 1842) This species has been historically included within the concept of E. lidia (Cramer), including by Lafontaine (1987). However, E. adumbrata has since been recognised as a distinct species. Euxoa lidia is restricted to the Old World. Subspecies thanatologia (Dyar) has been reported from BC.
2630	Euxoa auxiliaris (Grote, 1873)
2631	Euxoa shasta Lafontaine, 1975
	The nominate subspecies occurs in BC.
2632	Euxoa biformata Smith, 1910
2633	Euxoa intermontana Lafontaine, 1975
2634	Euxoa mimallonis (Grote, 1873)
0.60=	Subspecies <i>gagates</i> (Grote) occurs in BC.
2635	Euxoa septentrionalis (Walker, 1865)
2636	Euxoa olivia (Morrison, 1876)
2637	Euxoa messoria (Harris, 1841)
2638	Euxoa divergens (Walker, [1857])
2639	Euxoa edictalis (Smith, 1893)
2640	Euxoa westermanni (Staudinger, 1857)
2641	Euxoa quebecensis (Smith, 1900)
2642	Euxoa vallus (Smith, 1900) The nominate subspecies occurs in BC.
2643	Euxoa macleani McDunnough, 1927
2644	Euxoa apopsis Troubridge & Lafontaine, 2010
2645	Euxoa lewisi (Grote, 1873)
	The nominate subspecies occurs in BC.
2646	Euxoa altens McDunnough, 1946
2647	Euxoa extranea (Smith, 1888)
2648	Euxoa tristicula (Morrison, 1876)
2649	Euxoa vetusta (Walker, 1865)

2650		Euxoa atomaris (Smith, 1890)
		Subspecies $\it esta$ Smith (type locality: Wellington, BC) occurs in coastal BC, and
26.51		subspecies detesta (Smith) occurs inland.
2651		Euxoa pleuritica (Grote, 1876)
2652		Euxoa pestula Smith, 1904
2653		Euxoa simona McDunnough, 1932
2654	U	Euxoa medialis (Smith, 1888)
		Reported from BC by ESBC (1906), but not by subsequent workers. No BC vouchers are known, but the species occurs in southwestern AB, and may also occur in
		southeastern BC.
2655		Euxoa perexcellens (Grote, 1875)
2656		Euxoa rufula (Smith, 1888)
		Subspecies basiflava (Smith) was described from BC.
2657		Euxoa intrita (Morrison, 1874)
2658		Euxoa terrenus (Smith, 1900)
2659		Euxoa scotogrammoides McDunnough, 1932
2660		Euxoa pluralis (Grote, 1878)
2661		Euxoa setonia McDunnough, 1927
2662		Euxoa pallidimacula Lafontaine, 1987
2663		Euxoa declarata (Walker, 1865)
2664		Euxoa campestris (Grote, 1875)
2665		Euxoa rockburnei Hardwick, 1973
2666		Euxoa silens (Grote, 1875)
2667		Euxoa simulata McDunnough, 1946
2668		Euxoa punctigera (Walker, 1865)
2669		Euxoa pallipennis (Smith, 1888)
2670		Euxoa tessellata (Harris, 1841)
2671		Euxoa plagigera (Morrison, 1874)
2672		Euxoa albipennis (Grote, 1876)
2673		Euxoa hollemani (Grote, 1874)
2674		Euxoa subandera Lafontaine, 1987
2675		Euxoa catenula (Grote, 1879)
		Subspecies <i>lindseyi</i> Blackmore (type locality: Goldstream, BC) occurs on Vancouver Island, and subspecies <i>catenula</i> occurs inland in BC.
2676		Euxoa comosa (Morrison, 1876)
20,0		Subspecies <i>lutulenta</i> (Smith) and <i>ontario</i> (Smith) have been reported from BC.
2677		Euxoa occidentalis Lafontaine & Byers, 1982
2678		Euxoa infausta (Walker, 1865)
2679		Euxoa satis (Harvey, 1876)
2680		Euxoa brunneigera (Grote, 1876)
2681		Euxoa excogita (Smith, 1900)
2682		Euxoa bicollaris (Grote, 1878)

2683	Euxoa satiens (Smith, 1890)
2684	Euxoa ochrogaster (Guenée, 1852)
2685	Euxoa nostra (Smith, 1890)
2686	Euxoa choris (Harvey, 1876)
2687	Euxoa obeliscoides (Guenée, 1852)
2688	Euxoa lillooet McDunnough, 1927
2689	Euxoa basalis (Grote, 1879)
	Known in BC from a single specimen from Mt. Kobau, in the CNC.
2690	Euxoa costata (Grote, 1876)
2691	Euxoa castanea Lafontaine, 1981
2692	Euxoa idahoensis (Grote, 1878)
2693	Euxoa furtivus (Smith, 1890)
2694	Euxoa brevipennis (Smith, 1888)
2695	Euxoa servitus (Smith, 1895)
2696	Euxoa auripennis Lafontaine, 1974
2697	Euxoa olivalis (Grote, 1879)
2698	Euxoa agema (Strecker, 1899)
2699	Euxoa oblongistigma (Smith, 1888)
2700	Euxoa tronellus (Smith, 1903)
	Recently collected by D. Nicholson in the Cranbrook, BC, area; the determination
2701	was confirmed by J. D. Lafontaine.
2701	Euxoa difformis (Smith, 1900)
2702	Euxoa murdocki (Smith, 1890)
2703	Euxoa infracta (Morrison, 1875)
2704	Euxoa laetificans (Smith, 1894)
2705	Euxoa quadridentata (Grote & Robinson, 1865)
2706	Subspecies <i>flutea</i> Smith and <i>quadridentata</i> (Grote & Robinson) occur in BC.
2706	Euxoa dargo (Strecker, 1898)
2707	Euxoa cicatricosa (Grote & Robinson, 1865)
2708	Euxoa aequalis (Harvey, 1876) Subspecies alko (Strecker) occurs in BC.
2709	Euxoa munis (Grote, 1879)
2710	Euxoa atristrigata (Smith, 1890)
2711	Euxoa nevada (Smith, 1900)
2712	Euxoa cinereopallidus (Smith, 1903)
2713	Euxoa mitis (Smith, 1894)
2714	Euxoa aberrans McDunnough, 1932
2715	Euxoa nomas (Erschov, 1874)
2716	Euxoa macrodentata Hardwick, 1965
2717	
	Euxoa perolita (Morrison, 1876)
2718	Euxoa perpolita (Morrison, 1876)

2719	Euxoa taura Smith, 1905
2720	Euxoa flavicollis (Smith, 1888)
2721	Euxoa maimes (Smith, 1903)
2722	Euxoa ridingsiana (Grote, 1875)
2723	Euxoa wilsoni (Grote, 1873)
2724	Feltia mollis (Walker, [1857])
2725	Feltia nigrita (Graeser, 1892)
2726	Feltia jaculifera (Guenée, 1852)
2727	Feltia herilis (Grote, 1873)
2728	Agrotis vetusta (Walker, 1856)
2729	Agrotis ruta (Eversmann, 1851)
2730	Agrotis venerabilis Walker, [1857]
2731	Agrotis vancouverensis Grote, 1873
2732	Agrotis gravis Grote, 1874
2732.1 P	Agrotis volubilis Harvey, 1874
	Reports from BC by Dyar (1904) and other historical workers are erroneous. All known BC material is actually <i>A. obliqua</i> (Smith) or <i>A. antica</i> Crabo & Lafontaine (Lafontaine and Troubridge 2011). However, <i>A. volubilis</i> is known from AB's Peace River region and may yet be found in adjacent northeastern BC.
2733	Agrotis obliqua (Smith, 1903)
2734	Agrotis antica Crabo & Lafontaine, 2004
2735 M	Agrotis ipsilon (Hufnagel, 1766)
Subtribe	Noctuina
2736	Ochropleura implecta Lafontaine, 1998 This species has historically been reported in North America under the Palaearctic name O. plecta (Linnaeus).
2737	Diarsia esurialis (Grote, 1881)
2738	Diarsia calgary (Smith, 1898)
2739	Diarsia dislocata (Smith, 1904)
2740	Diarsia rubifera (Grote, 1875)
2741	Diarsia rosaria (Grote, 1878)
	The nominate subspecies occurs in BC. deWaard (2010) also reported the subspecies <i>freemani</i> Hardwick, but that may be a result of a barcoding misidentification; <i>freemani</i> was considered by Lafontaine (1998) to be restricted to east of the Rocky Mountains.
2742	Cerastis enigmatica Lafontaine & Crabo, 1997 Reported by historical workers as <i>C. cornuta</i> (Grote) before the recognition of <i>C. enigmatica</i> as a distinct species.
2743	Cerastis salicarum (Walker, 1857)
2744	Paradiarsia littoralis (Packard, 1867) The nominate subspecies has been reported from BC.
2745	Lycophotia phyllophora (Grote, 1874)
2746	Lycophotia phyllophora (Grote, 1874) Rhyacia clemens (Smith, 1890)
	Lycophotia phyllophora (Grote, 1874)

2748		Noctua pronuba (Linnaeus, 1758) Introduced from Europe to NS in about 1979, it quickly spread across North
2749		America. Noctua comes Hübner, [1813] Introduced from Europe to BC in about 1982, and to ON in 2006.
2750		Cryptocala acadiensis (Bethune, 1870)
2751		Spaelotis clandestina (Harris, 1841)
2752		Spaelotis bicava Lafontaine, 1998
2,32		This species has been treated historically under the Palaearctic name <i>S. havilae</i> Grote before the description of <i>S. bicava</i> by Lafontaine (1998).
2753		Eurois occulta (Linnaeus, 1758)
2754		Eurois astricta Morrison, 1874
		Subspecies subjugata (Dyar) (type locality: Kaslo, BC) occurs in BC.
2755		Eurois nigra (Smith, 1892)
		The nominate subspecies has been reported from BC.
2756		Graphiphora augur (Fabricius, 1775)
2757		Anaplectoides prasina ([Denis & Schiffermüller], 1775)
2758		Anaplectoides pressus (Grote, 1874)
2759		Aplectoides condita (Guenée, 1852)
2760		Eueretagrotis perattentus (Grote, 1876)
2761		Xestia xanthographa ([Denis & Schiffermüller], 1775)
2762		Xestia smithii (Snellen, 1896)
2763		Xestia normanianus (Grote, 1874)
2764		Reported from BC's Peace River region by Shepard (unpublished report B). <i>Xestia oblata</i> (Morrison, 1875)
2765		Xestia plebeia (Smith, 1898)
2766		Xestia mustelina (Smith, 1900)
2767		Xestia vernilis (Grote, 1879)
2707		Historical records of this species from the BC coast refer to <i>X. verniloides</i> Lafontaine, described in 1998. However, at least some records from the BC Interior ("southern interior; Kootenays" (Blackmore 1927); Salmon Arm, Vavenby, Enderby, Canoe (UBC collection)) are correct, as are recent records by D. Nicholson. Lafontaine (1998) did not report this species from BC, but reported it from adjacent AB, ID and MT.
2768		Xestia verniloides Lafontaine, 1998
2769		Xestia infimatis (Grote, 1880)
2770		Xestia finatimis Lafontaine, 1998
2771		Xestia praevia Lafontaine, 1998
2772	U	Xestia dilucida (Morrison, 1875)
2//2	O	This taxon includes <i>X. youngii</i> (Smith), synonymised by Lafontaine and Schmidt (2010). It was reported from BC by Crumb (1956), but that record is likely based on material of a related species such as <i>X. praevia</i> Lafontaine, which was not described at that time. However, <i>X. dilucida</i> , previously considered to be strictly eastern, was recently discovered in boreal AB and may occur in northeastern BC.

2773	Xestia c-nigrum (Linnaeus, 1758)
2774	Xestia maculata (Smith, 1893)
2775	Xestia speciosa (Hübner, [1813])
	Subspecies apropitia (Benjamin) occurs in BC.
2776	Xestia mixta (Walker, 1856)
2777	Xestia imperita (Hübner, [1831])
2778	Xestia atrata (Morrison, 1874)
	The nominate subspecies and probably subspecies $yukona$ (McDunnough) occur in BC (Lafontaine 1998).
2779	Xestia ursae (McDunnough, 1940)
2779.1 P	Xestia tecta (Hübner, [1808])
	This species is known from YT on Montana Mountain, very close to the BC border;
2780	it likely occurs in adjacent BC. Vection okalennis (Packard, 1867)
2700	Xestia okakensis (Packard, 1867) The nominate subspecies occurs in BC.
2781	Xestia perquiritata (Morrison, 1874)
2, 0.	Subspecies <i>partita</i> (McDunnough) and <i>perquiritata</i> (Morrison) occur in BC.
2782	Xestia fabulosa (Ferguson, 1965)
2783	Xestia homogena (McDunnough, 1921)
	The nominate subspecies occurs in BC.
2784	Xestia intermedia (Kononenko, 1981)
	Recent BC record by B. C. Schmidt.
2785	Xestia bryanti (Benjamin, 1933)
2785.1 P	Xestia lyngei (Rebel, 1923)
	This species is known from YT on Montana Mountain, very close to the BC border; it likely occurs in adjacent BC.
2786	Xestia lupa Lafontaine & Mikkola, 1998
2787	Coenophila opacifrons (Grote, 1878)
2788	Prognorisma substrigata (Smith, 1895)
2789	Agnorisma bugrai (Koçak, 1983)
2790	Pseudohermonassa tenuicula (Morrison, 1874)
2791	Pseudohermonassa flavotincta (Smith, 1892)
2792	Setagrotis pallidicollis (Grote, 1880)
	This species was historically treated under the name <i>S. cinereicollis</i> (Grote), which
2702	is now considered a synonym of <i>S. vocalis</i> (Grote).
2793	Tesagratic piccipallia (Crote, 1873)
2794	Tesagrotis piscipellis (Grote, 1878)
2795	Tesagrotis corrodera (Smith, 1907)
2796	Adelphagrotis stellaris (Grote, 1880)
2797	Adelphagrotis indeterminata (Walker, 1865)
2798	Parabagrotis formalis (Grote, 1874)
2799	Parabagrotis insularis (Grote, 1876)
2800	Parabagrotis cupidissima (Grote, 1875)

2801		Parabagrotis exsertistigma (Morrison, 1874)
2802		Parabagrotis sulinaris Lafontaine, 1998
2803		Protolampra rufipectus (Morrison, 1875)
2804		Protolampra brunneicollis (Grote, 1865)
		Collected recently in BC near Okanagan Falls by deWaard (2010) and confirmed
2005		via DNA barcoding. Abarratic exercises (Smith, 1900)
2805 2806		Abagrotis erratica (Smith, 1890)
2807		Abagrotis trigona (Smith, 1893)
		Abagrotis apposita (Grote, 1878)
2808		Abagrotis vittifrons (Grote, 1864)
2809		Abagrotis mirabilis (Grote, 1879)
2810		Abagrotis glenni Buckett, 1968
2811		Abagrotis pulchrata (Blackmore, 1925)
2812		Abagrotis nefascia (Smith, 1908)
2813		Abagrotis reedi Buckett, 1969
2814		Abagrotis duanca (Smith, 1908)
2815		Abagrotis nanalis (Grote, 1881)
2816		Abagrotis discoidalis (Grote, 1876)
2817		Abagrotis turbulenta McDunnough, 1927
2818		Abagrotis hermina Lafontaine, 1998
2819		Abagrotis dodi McDunnough, 1927
2820		Abagrotis dickeli Lafontaine, 1998
2821		Abagrotis placida (Grote, 1876)
2822		Abagrotis orbis (Grote, 1876)
2823		Abagrotis baueri McDunnough, 1949
2824		Abagrotis variata (Grote, 1876)
2825		Abagrotis scopeops (Dyar, 1904)
2826	U	Abagrotis alternata (Grote, 1864)
		Report of this species in BC by ESBC (1906) is unconfirmed and probably erro-
		neous. However, it is known from southwestern AB (Lafontaine 1998) and may well occur in BC.
2827		Abagrotis forbesi (Benjamin, 1921)
2828		Abagrotis brunneipennis (Grote, 1875)
2829		Abagrotis cupida (Grote, 1865)
2830		Pronoctua typica Smith, 1894
2831		Pronoctua peabodyae (Dyar, 1903)
2031		Historically reported under the name <i>P. pyrophiloides</i> (Harvey) under a previous
		concept of that species.
2832		Pronoctua craboi Lafontaine, 1998

Part III: Excluded Taxa

The following 322 species have been erroneously reported in published literature as occurring in BC. Some of the entries in this list reflect cases that are deemed to be errors or misidentifications, but many others result from recent taxonomic interpretations shifting the historical divisions between species and subspecies. Many are due to the recognition of separate Palaearctic and Nearctic species that were once considered conspecific. A few may be due to mislabelled material. One collection in particular, the "Bush-Wilson" collection of approximately 100 years ago was made up of eastern North American material that was mistakenly labelled as being from "Vancouver, BC" (the collection may once have been housed there), and has caused confusion about species ranges. There may still be mislabelled "Bush-Wilson" material (particularly bombycoids) deposited in collections (B. C. Schmidt, personal communication). Details of current species and subspecies assignments are provided for each entry. Species are listed here in the most recent taxonomic order, similar to the main checklist.

Micropterigidae

E001 Epimartyria pardella Walsingham, 1880. This species was listed by Blackmore (1923) based on an old record at Fraser Mills. Those specimens are the very recently described *E. bimaculella* Davis & Landry, 2012.

Hepialidae

E002 Gazoryctra pulcher (Grote, [1865]). Reported from BC as "Hepialus pulcher macglashlani Edwards" by Blackmore (1921). Gazoryctra mcglashlani Edwards is now a valid species; neither G. mcglashani or G. pulcher occur in BC.

E003 *Gazoryctra mcglashani* (Edwards, 1886). Early records of this species in BC are based on specimens of *G. novigannus* (Barnes & Benjamin), which was not described until 1926.

Tineidae

E004 *Morophagoides tessulatellus* (Zeller, 1846). This Palaearctic species was reported by Dietz (1905) under a previous taxonomic arrangement. All records of this species in North America refer to *M. burkerella* (Busck).

Gracillariidae

- E005 Caloptilia elongella (Linnaeus, 1761). This Palaearctic species was reported by ESBC (1906) under a previous taxonomic arrangement. North American records refer to *C. alnivorella* (Chambers).
- E006 Caloptilia glutinella (Ely, 1915). The record from Prentice (1965) for BC and YT is considered to be erroneous: no authentic voucher material could be found. This species is otherwise known only from CT.
- E007 Marmara pomonella Busck, 1915. Reported as a pest in BC by Belton (1988) but that is deemed erroneous as no vouchers are known.
- E008 *Phyllonorycter populiella* (Chambers, 1878). This species was not reported from the West by Davis and Deschka (2001). British Columbia material cited by ESBC (1906) and other early works is assumed to be another species.

Yponomeutidae

E009 Zelleria hepariella Stainton, 1849. This Palaearctic species was reported in error by Cannings and Scudder (2007), based on misidentified specimens of *Z. pyri* Clarke.

Ypsolophidae

E010 *Ypsolopha ustella* (Clerck, 1759). Historical reports of this species in BC are incorrect; it is restricted to the Palaearctic (J. Sohn, personal communication).

Argyresthiidae

E011 Argyresthia calliphanes Meyrick, 1913. The identity of this species has long been confused with A. goedartella (Linnaeus). Forbes (1923) claims that most North American reports of the latter actually

refer to *A. calliphanes*. Until this matter is resolved, we list known BC material under *A. goedartella*, and treat *A. calliphanes* as an erroneous record.

Oecophoridae

- E012 Decantha borkhausenii (Zeller, 1839). This Palaearctic species was reported by Cannings and Scudder (2007). North American material is *D. boreasella* (Chambers).
- E013 Endrosis lacteella ([Denis & Schiffermüller], 1775). The report from BC by ESBC (1906) refers to E. sarcitrella (Linnaeus). Endrosis lacteella is restricted to the Old World.

Cosmopterigidae

E014 Walshia amorphella Clemens, 1864. Western Canadian specimens once identified as this species are actually W. miscecolorella (Chambers), long considered a synonym of W. amorphella.

Gelechiidae

- E015 Dichomeris flavocostella (Clemens, 1860). Reported as an uncertain record from BC by Hodges (1986). No BC voucher material is known, and the species is otherwise unknown west of MB; the report is considered erroneous. Two specimens in the RBCM with no locality information may be the basis of Hodges' record.
- E016 *Chrysoesthia hermanella* (Fabricius, 1781). The report by Blackwelder (1923) is erroneous and refers to *C. drurella* (Fabricius). *Chrysoesthia hermanella* is restricted to the Old World.
- E017 Coleotechnites nigritus (Hodges, 1983). The BC record by Cannings and Scudder (2007) is based on a misidentified specimen in the CNC. This species is not known to occur in Canada.
- E018 Carpatolechia proximella (Hübner, 1796). The report by Cannings and Scudder (2007) is erroneous; it is based on misidentified material that is actually *C. belangerella* (Chambers).
- E019 *Chionodes trophella* (Busck, 1903). Reported from BC by Blackmore (1924), but this species is not known north of UT and CO (Hodges 1999b). The BC report is probably based on the very similar *C. restio* Hodges, which is a recently-described Garry Oak feeder in southwestern BC.
- E020 *Aroga paraplutella* (Busck, 1910). The report by Cannings and Scudder (2007) was based on misidentified material.

Elachistidae

E021 *Elachista stramineola* Braun, 1921. Misidentification by Braun (1948); this is *E. morwenella* Kaila, according to Kaila (1999b).

Coleophoridae

E022 Coleophora tenuis (Walsingham, 1882). The record of this species in BC by ESBC (1906) is deemed erroneous as no vouchers are known and it is otherwise unknown from Canada.

Momphidae

- E023 *Mompha albapalpella* (Chambers, 1875). Historical records of this species in Canada are based on misidentified material of *M. conturbatella* (Hübner).
- E024 *Mompha decorella* (Stephens, 1835). Historical records of this Palaearctic species in North America refer to *M. unifasciella* (Chambers).

Alucitidae

- E025 Alucita hexadactyla Linnaeus, 1758. Historical application of this name to North American material is incorrect; known BC specimens have been redetermined as *A. montana* Barnes & Lindsey.
- E026 Alucita huebneri Wallengren, 1859. Like A. hexadactyla Linnaeus, the name A. huebneri was sometimes applied to Alucita material in North America. In BC, these records refer to A. montana Barnes & Lindsey.

Pterophoridae

- E027 Stenoptilia islandicus (Staudinger, 1857). This Palaearctic species was reported by Landry (1987) under a previous taxonomic arrangement. North American material is *S. mengeli* Fernald.
- E028 Paraplatyptilia grandis (Walsingham, 1880). The ESBC (1906) record was declared erroneous by Blackmore (1922b). British Columbia specimens are *Platyptilia carduidactylus* (Riley). Barnes and Lindsey (1921) repeated the BC report as a questionable record.
- E029 Paraplatyptilia modesta (Walsingham, 1880). The ESBC (1906) record was declared erroneous by Blackmore (1922b). British Columbia specimens are *Platyptilia carduidactylus* (Riley).
- E030 Amblyptilia cosmodactyla (Hübner, [1819]). This Palaearctic species was reported by ESBC (1906) following a previous taxonomic arrangement. North American material is A. pica (Walsingham).

- E031 Amblyptilia punctidactyla (Haworth, 1811). This Palaearctic species was reported by several early workers following a previous taxonomic arrangement. North American material is *A. pica* (Walsingham).
- E032 *Geina periscelidactyla* (Fitch, 1854). The ESBC (1906) record was declared erroneous by Blackmore (1922b). British Columbia specimens are *Amblyptilia pica* (Walsingham).
- E033 Dejongia californicus (Walsingham, 1880). An uncertain record by Barnes & Lindsey (1921), who reported that *D. lobidactylus* (Fitch) records from BC (reported by ESBC 1906) likely referred to this species. However, Landry (1987) confirmed the presence of *D. lobidactylus* in BC. *Dejongia californicus* is otherwise unknown from Canada so we consider Barnes & McDunnough's conclusion erroneous.
- E034 *Hellinsia fishii* (Fernald, 1893). Reported by McDunnough (1923, 1927b) from BC to ON, but no Canadian voucher specimens are known so that is deemed erroneous.
- E035 *Hellinsia paleaceus* (Zeller, 1873). The BC record by ESBC (1906) and Barnes and Lindsey (1921) was declared erroneous by Blackmore (1922b). British Columbia specimens are *H. corvus* (Barnes & Lindsey).
- E036 Oidaematophorus guttatus Walsingham, 1880. The record by McDunnough (1927b) without current vouchers is considered to be a misidentification. This species is otherwise unknown in Canada and the northwestern USA.

Tortricidae – Tortricinae

- E037 Acleris bergmanniana (Linnaeus, 1758). This Palaearctic species was reported by Dyar (1904) and ESBC (1906) under a previous taxonomic arrangement. North American material is *A. albicomana* (Clemens).
- E038 Acleris permutana (Duponchel, 1836). Report of this Palaearctic species by Forbes (1923) follows a previous taxonomic arrangement. North American material is A. fragariana Kearfott.
- E039 Acleris lipsiana ([Denis & Schiffermüller], 1775). According to Clarke (1987), all reports of A. lipsiana in North America refer to A. inana (Robinson). Acleris lipsiana is strictly Palaearctic.
- E040 Acleris emargana (Fabricius, 1775). Historical application of this Palaearctic name to North American material is erroneous. All

- North American populations have recently been recognised as a distinct species, *A. effractana* (Hübner) (Karsholt et al. 2005).
- E041 *Cnephasia asseclana* [Denis & Schiffermüller], 1775. This introduced species was reported from BC in error by Smith (1994) under the name *C. interjectana* (Haworth), a synonym (Lafontaine and Troubridge 2011).
- E042 *Phalonidia felix* (Walsingham, 1895). No vouchers are known for the Cannings & Scudder (2007) BC record; it presumably originated with CNC material that has since been redetermined as another species, so the BC record is deemed erroneous.
- E043 Argyrotaenia Ijungiana (Thunberg, 1797). This Palaearctic species was reported by ESBC (1906) as "Eulia politana Haworth", a synonym. It is assumed to refer to the very similar A. occultana Freeman, which had not been described at the time.
- E044 Sparganothis pilleriana ([Denis & Schiffermüller], 1775). The record by ESBC (1906) is thought to be erroneous, as no BC vouchers are known and this species is otherwise unknown in North America (Powell and Brown 2012).

Tortricidae – Olethreutinae

- E045 Apotomis albeolana (Zeller, 1875). The BC report by Blackmore (1923) is considered erroneous and refers to another species of Apotomis. Apotomis albeolana is not known west of ON in Canada.
- E046 Olethreutes electrofuscum (Heinrich, 1923). The report from BC by deWaard (2010), based on a barcoded specimen, is deemed erroneous. Barcodes are not reliable for diagnosis in this genus, and this species is otherwise known only in eastern North America.
- E047 Olethreutes versicolorana (Clemens, 1860). The report from BC by Blackmore (1922a) was erroneous and was corrected to O. appendiceum (Zeller) (Blackmore 1923).
- E048 *Ancylis geminana* (Donovan, [1806]). Reported in error by ESBC (1906) and other early authors as *A. biarcuana* (Stephens), a synonym of this Palaearctic species (see Heinrich 1923). North American records refer to *A. diminutana* (Haworth).
- E049 *Spilonota lariciana* (Heinemann, 1863). The report of this species in BC by Blackmore (1921) refers to *S. ocellana* ([Denis & Schiffermüller]); *S. lariciana* is strictly Palaearctic.
- E050 *Eucosma refusana* (Walker, 1863). This species was reported from BC by Cannings and Scudder (2007) on the basis of misidentified specimens of *E. verna* (Miller) in the CNC.

- E051 *Eucosma circulana* Hübner, 1823. The record by Dyar (1904) and ESBC (1906) is assumed to be a misidentification; this species is otherwise unknown in western North America.
- E052 Eucosma salmicolorana (Heinrich, 1923). Report of this species from BC by Cannings and Scudder (2007) is erroneous, it occurs in Canada only in the southern prairies east of the Rocky Mountains.
- E053 "Eucosma" occipitana (Zeller, 1875). Reported by Cannings and Scudder (2007) under a previous taxonomic arrangement. All known Canadian records of *E. occipitana* refer to *Pelochrista kingi* Wright. "Eucosma" occipitana is not known to occur north of CO. The generic placement of this species is uncertain (Gilligan et al. 2014).
- E054 *Pelochrista similiana* (Clemens, 1860). Reported from BC by Dyar (1904). This record is erroneous, and refers to *P. dorsisignatana* (Clemens). *Pelochrista similiana* is not known to occur west of MB (Wright 2011).
- E055 *Pelochrista atomosana* (Walsingham, 1879). The record by Dyar (1904) and ESBC (1906) is assumed to be a misidentification; this species is otherwise unknown in western North America.
- E056 *Pelochrista lathami* (Forbes, 1937). Western records of this species refer to *E. morrisoni* (Walsingham).
- E057 Pelochrista passerana (Walsingham, 1879). This species was reported from BC by Blackmore (1923) but the record is deemed erroneous; no BC vouchers are known and the species is otherwise unknown north of CA.
- E058 Zeiraphera ratzeburgiana (Saxesen, 1840). Historical application of this Palaearctic name in North America is based on a previous taxonomic concept. All North American material is *Z. canadensis* Mutuura & Freeman.
- E059 Zeiraphera diniana (Guenée, 1845). Records of this Palaearctic species by Prentice (1965) and others are erroneous. North American material is *Z. improbana* (Walker).
- E060 *Epinotia crenana* (Hübner, [1817]). This Palaearctic name has been used for many years for North American material now recognised as a distinct species, *E. columbia* (Kearfott).
- E061 *Dichrorampha alpinana* (Treitschke, 1830). This Palaearctic species was reported by ESBC (1906) under a previous taxonomic concept. North American material is *D. simulana* (Clemens) (Heinrich 1926).
- E062 *Grapholita molesta* (Busck, 1916). This exotic pest species, known as the Oriental Fruit Moth, was reported by Cannings and Scudder

- (2007). It was intercepted at Summerland, BC, in 1956 on fruit imported from WA for canning. An eradication campaign was carried out at the cannery and in an adjacent orchard as a precautionary measure (Touzeau and Nielson 1957, 1958). However, it has never been collected in the wild in the province, so is hereby removed from the BC list.
- E063 *Cydia strobilella* (Linnaeus, 1758). Historical records of this European species in North America are now recognised as a distinct species, *Cydia youngana* (Kearfott), which was raised from synonymy with *C. strobilella* by Svensson et al. (2012).
- E064 *Cydia gallaesaliciana* (Riley, 1881). The BC record by Dyar (1904) and other early workers was based on a determination by Kearfott that is assumed to be erroneous. No vouchers are known, and the species is otherwise unknown west of MB.

Papilionidae

- E065 *Papilio polyxenes* Fabricius, 1775. This Holarctic species was reported in error by Smith (1994), as *P. polyxenes asterius* Stoll, in a list of exotic species introduced to BC. It does not occur west of MB.
- E066 *Papilio glaucus* Linnaeus, 1758. Reported in error from BC by Dyar (1904) and other early workers based on a previous taxonomic arrangement. British Columbia records refer to *P. canadensis* Rothschild & Jordan.

Hesperiidae

- E067 Pyrgus albescens Plötz, 1884. A report of "Urbanus tessellata occidentalis Skinner" from BC by Blackmore (1927) has been misinterpreted as a record of this species. Hesperia tessellata Scudder is a synonym of Pyrgus communis (Grote), which occurs in BC. However, P. occidentalis is now considered a synonym of P. albescens, which does not occur in Canada.
- E068 *Pyrgus oileus* (Linnaeus, 1767). Report of this species by Dyar (1904) and ESBC (1906) under the name *montivagus* Reakirt, a synonym, is considered to be erroneous. This species does not occur in Canada or the Pacific Northwest.
- E069 *Hesperia comma* (Linnaeus, 1758). North American specimens south of Beringia are *H. manitoba* (Scudder), long considered to be a subspecies of *H. comma* (Pohl et al. 2010).
- E070 Ochlodes agricola (Boisduval, 1852). Historical records of this species are assumed to be erroneous. It has not been listed as occurring

in Canada since Llewellyn Jones (1951), and no Canadian vouchers are known.

Pieridae

- E071 *Colias meadii* Edwards, 1871. Canadian records historically referred to as *C. meadii* are *C. elis* Strecker, which was long treated as a subspecies of *C. meadii*, but was raised to species status by Pohl et al. (2010). *Colias meadii* is restricted to the USA.
- E072 *Euchloe hyantis* (Edwards, 1871). Reported from BC by various workers, including Cannings and Scudder (2007), but these records refer to *E. lotta* (Beutenmüller), considered a subspecies of *E. hyantis* until recently.
- E073 *Pieris napi* (Linnaeus, 1758). Historical records of this Palaearctic species from North America are erroneous, due to a previous taxonomic arrangement. All North American populations are *P. oleracea* Harris.

Lycaenidae

- E074 *Lycaena epixanthe* (Boisduval & LeConte, [1835]). Reported from BC in error by Belton (1988). This is an eastern species.
- E075 Satyrium fuliginosa (Edwards, 1861). Reports of this species in BC by Layberry et al. (1998) and others all refer to *S. semiluna* Klots, then considered a subspecies of *S. fuliginosa*, but now considered a full species, following Warren (2005).
- E076 Satyrium acadica (Edwards, 1862). The report of this species from southeastern BC by Ferris and Brown (1981) is incorrect, it refers to *S. sylvinus* (Boisduval).
- E077 *Callophrys dumetorum* (Boisduval, 1852). The reports of this species in BC by Llewellyn Jones (1951) and earlier workers refer to *C. sheridanii* (Carpenter).
- E078 Callophrys xami Reakirt, [1867]. The record by ESBC (1906), as "Thecla blenina Hewitson", a synonym, is erroneous. This species does not occur in northwestern North America.
- E079 Callophrys irus (Godart, [1824]). The report by ESBC (1906) is erroneous, and refers to another Callophrys species. Callophrys irus is not known to occur in northwestern North America.
- E080 Celastrina ladon (Cramer, [1780]). Reported from BC by Layberry et al. (1998), Guppy and Shepard (2001) and others going back to ESBC (1906). However, these records refer to C. lucia (Kirby) and C. echo (Edwards), once treated within the concept of a widespread

- Holarctic "C. ladon", but now considered to be separate species. True C. ladon is restricted to eastern North America.
- E081 *Celastrina argiolus* (Linnaeus, 1758). Reports of this Palaearctic species in North America are based on a previous taxonomic arrangement. Western North American populations are now treated as *C. lucia* (Kirby) and *C. echo* (Edwards). In the east, they are *C. ladon* (Cramer).
- E082 Euphilotes battoides (Behr, 1867). Reports of this species in BC by Layberry et al. (1998), Guppy and Shepard (2001) and others refer to *E. glaucon* (Edwards), then considered to be a subspecies of *E. battodes*.
- E083 *Plebejus acmon* (Westwood, 1852). Records in Layberry et al. (1998), Guppy and Shepard (2001) and others going back to ESBC (1906) refer to *P. lupini* (Boisduval), recently raised to species status.
- E084 *Plebejus podarce* (Felder & Felder, 1865). Reported from BC in error by Dyar (1904) and ESBC (1906), this taxon was until recently considered to be a subspecies of *P. glandon* (de Prunner). It is now recognised as a full species, and is restricted to OR and CA (Layberry et al. 1998).

Nymphalidae – Heliconiinae

- E085 *Boloria napaea* (Hoffmansegg, [1826]). This Palaearctic name has been used for North American populations under a previous taxonomic arrangement. They are now treated as *B. alaskensis* (Holland), following Pelham (2008).
- E086 Boloria selene ([Denis & Schiffermüller], 1775). This Palaearctic name has been used for North American populations under a previous taxonomic arrangement. They are now treated as *B. myrina* (Cramer), following Pelham (2008).
- E087 *Boloria tritonia* (Boeber, 1812). This Palaearctic name has been used for North American populations under a previous taxonomic arrangement. North American populations are now treated as *B. astarte* (Doubleday), following Pelham (2008).

Nymphalidae – Nymphalinae

E088 *Vanessa caryae* (Hübner, 1812). Reports of this Palaearctic species in BC by ESBC (1906) and Blackmore (1927) are based on a previous taxonomic arrangement. All North American material is *V. annabella* (Field).

- E089 *Nymphalis I-album* (Esper, 1781). This Palaearctic species was reported by Guppy and Shepard (2001) and Pyle (2002), following a previous taxonomic arrangement. North American populations are *N. j-album* (Boisduval & LeConte).
- E090 *Polygonia marsyas* Edwards, 1870. ESBC (1906) reported "variety *marsyas* Edwards" from BC in error; *marsyas* was described from mislabelled Old World material (see Pelham 2008: Appendix II).
- E091 Euphydryas chalcedona (Doubleday, 1847). Records of this species in BC refer to E. colon (Edwards), long considered a subspecies of E. chalcedona, but treated as distinct by Pelham (2008). True E. chalcedona does not occur north of the USA.
- E092 *Chlosyne whitneyi* (Behr, 1863). Reported in BC by Guppy and Shepard (2001) and others as *C. whitneyi damoetas* (Skinner), now considered to be a separate species.
- E093 *Chlosyne acastus* (Edwards, 1874). Layberry et al. (1998) reported "C. palla sterope (Edwards)" from the southern Okanagan of BC, but those populations are actually *C. palla* (Boisduval), subspecies *calydon* (Strecker). The taxon *sterope* is now regarded as a subspecies of *C. acastus* (Edwards), which occurs in central WA and in the grasslands of AB, but is unknown from BC (Pyle 2002).
- E094 *Phyciodes tharos* (Drury, 1773). British Columbia records of *P. tharos* refer to *P. cocyta* (Cramer), which was recently split from *P. tharos*. Guppy and Shepard (2001) continued to treat *P. cocyta* as a subspecies of *P. tharos*.

Nymphalidae – Satyrinae

- E095 *Cercyonis sylvestris* (Edwards, 1861). The report by ESBC (1906) as "*Cercyonis sylvestris* Edwards variety *charon* (Edwards)" is erroneous. The taxon *charon* is a valid subspecies of *C. oetus* (Boisduval) that occurs in BC; however, *C. sylvestris* is strictly Palaearctic.
- E096 Erebia disa (Thunberg, 1791). The BC records by Blackmore (1927) and Llewellyn Jones (1951) refer to E. mancinus Doubleday & Hewitson, which was considered a synonym of E. disa at that time. Erebia disa is otherwise known only from YT, NT and NU near the Arctic Ocean.
- E097 *Erebia theano* (Tauscher, 1809). This Palaearctic name was applied to North American populations by Layberry et al. (1998) and others, following a previous taxonomic arrangement. The North American taxon is now known as *E. pawloskii* Ménétriés.

- E098 Oeneis rosovi Kurentzov, 1960. This Palaearctic species was reported by Layberry et al. (1998) and Cannings and Scudder (2007) following a previous taxonomic arrangement. North American material is O. philipi Troubridge & Parshall.
- E099 Oeneis norna (Thunberg, 1791). Listed from BC by ESBC (1906) as "Oeneis norna Thunberg variety beanii Elwes". The taxon beanii is now recognised as a subspecies of O. melissa (Fabricius). It occurs in BC. However, O. norna is strictly Palaearctic.

Pyralidae

- E100 *Aglossa electalis* (Hulst, 1886). The historical records by Dyar (1904) and ESBC (1906) refer to *A. cacamica* (Dyar), which had not been described at that time. *Aglossa electalis* does not occur in northwestern North America.
- E101 Euzophera aglaeella Ragonot, 1887. Reported by Blackmore (1923), but now assumed to be erroneous. No vouchers are known, and this species was not reported from Canada or the northern USA by Neunzig (1990).
- E102 *Pima albiplagiatella* (Packard, 1874). All records west of QC refer to *P. occidentalis* Heinrich, which was considered a subspecies of *P. albiplagiatella* prior to Neunzig (2003).
- E103 Sciota termitalis (Hulst, 1886). The BC record by Heinrich (1956), repeated by Cannings and Scudder (2007), is considered erroneous. Earlier western determinations were thought by Neunzig (2003) to refer to *S. levigatella* (Hulst), which Heinrich (1956) considered to be a synonym of *S. termitalis*.
- E104 *Sciota inconditella* (Ragonot, 1893). Reported by Blackmore (1923, 1924) as "*S. virgatella* subspecies *inconditella* Ragonot", from Shawnigan Lake and Duncan, BC. Only two purported BC vouchers exist, both in the UBC collection. They were redetermined by GRP: one is *S. fraudifera* (Heinrich), and the other is a *Sciota* species, but definitely not *S. virgatella* (Clemens) or *S. inconditella*. *Sciota inconditella* is not known from western North America (Neunzig 2003).
- E105 *Sciota subcaesiella* (Clemens, 1860). Reported by Blackmore (1922a) as a subspecies of *S. virgatella* (Clemens) from Goldstream, BC. This is assumed to be a misidentification; the species is known only from eastern North America.
- E106 *Sciota virgatella* (Clemens, 1860). Reported by Blackmore (1923, 1924) as "S. virgatella subspecies inconditella Ragonot". Purported

- vouchers have been redetermined as other *Sciota* species (see note above on *S. inconditella*). *Sciota virgatella* is not known from western North America (Neunzig 2003).
- E107 Pyla aeneella Hulst, 1895. Canadian records, including from BC by Cannings & Scudder 2007, are erroneous: no confirmed vouchers are known, and the species is reported only from CO and UT by Neunzig 2003.
- E108 *Dioryctria abietella* ([Denis & Schiffermüller], 1775). This Palaearctic name was used in North America before 1973 when Nearctic populations were described as a separate species, *D. reniculelloides* Mutuura & Munroe.
- E109 Sarata atrella (Hulst, 1890). Erroneous BC record by ESBC (1906) and Blackmore (1922a). Vouchers in the RBCM were redetermined as *S. pullatella* (Ragonot) by GRP.
- E110 Zophodia convulutella (Hübner, 1796). This Palaearctic species was reported in error by Heinrich (1956) under a previous taxonomic arrangement. North American populations are *Z. grossulariella* (Hübner).
- E111 *Phycitodes reliquella* (Dyar, 1904). Historical records of this species in western North America refer to *P. mucidella* (Ragonot), a closely related species. As defined by Neunzig (1997), *P. reliquella* is restricted to eastern North America.

Crambidae

- E112 Euchromius ocelleus (Haworth, 1811). Reports of this species from western Canada, including from BC by Blackmore (1924), refer to E. californicalis (Packard). Euchromius ocelleus is not known from the area.
- E113 Crambus dumetellus Hübner, 1813. This Palaearctic species was reported by various authors prior to Klots (1942) under a previous taxonomic arrangement. North American populations are *C. whitmerellus* Klots.
- E114 *Crambus gausapalis* Hulst, 1886. Reported from BC by ESBC (1906), but not by subsequent authors. The record is assumed to be erroneous, because the species is not known to occur in northern North America.
- E115 Stegea eripalis (Grote, 1878). The BC record by Dyar (1904) and ESBC (1906) is considered to be erroneous and likely refers to *S. salutalis* (Hulst). Stegea eripalis is otherwise unknown west of the Great Lakes region.

- E116 Anania coronata (Hufnagel, 1767). This Palaearctic name was used in North America until very recently. North American populations are now recognised as a distinct species, *A. tertialis* (Guenée) (Yang et al. 2012).
- E117 Anania terrealis (Trietschke, 1829). This Palaearctic species was reported by early workers up to Forbes (1923). North American populations are *A. mysippusalis* (Walker).
- E118 *Pyrausta generosa* (Grote & Robinson, 1867). Report of this species from BC by ESBC (1906) refers to *P. orphisalis* Walker. The two species were historically confused. *Pyrausta generosa* does not occur west of southern AB.
- E119 Herpetogramma aeglealis (Walker, 1859). BC record by Dyar (1904) and ESBC (1906) is assumed erroneous: no BC vouchers are known, and this species is otherwise unknown in western Canada.
- E120 *Udea ferrugalis* (Hübner, 1796). This Palaearctic species was reported by ESBC (1906) following a previous taxonomic arrangement. North American populations are *U. rubigalis* (Guenée).
- E121 *Nomophila noctuella* ([Denis & Schiffermüller], 1775). North American records of this Palaearctic species are erroneous, due a previous taxonomic concept. North American populations are *N. nearctica* Munroe.

Drepanidae

- E122 Euthyatira Iorata (Grote, 1881). Erroneous BC record by deWaard (2010) based on a misidentification of *E. pudens* (Guenée). Euthyatira Iorata does not occur in Canada.
- E123 *Ceranemota tearlei* (Edwards, 1886). The record from Blackmore (1927) and Llewellyn Jones (1951) is erroneous and refers to *C. albertae* Clarke (Lafontaine and Troubridge 2011). Crabo et al. (2015) treat *C. albertae* as a synonym of *C. tearlei*, and list records in the Pacific Northwest, including BC, under the latter name.

Lasiocampidae

- E124 *Phyllodesma occidentis* (Walker, 1855). Erroneous record by Franclemont (1973) under a previous concept of this species. Western Canadian populations are now considered to be *P. americana* (Harris). *Phyllodesma occidentis* does not occur in northwestern North America.
- E125 *Malacosoma americana* (Fabricius, 1793). This otherwise eastern North American species was reported as an uncertain record by

- Llewellyn Jones (1951) and Forbes (1954); the specimen is either mislabelled or misidentified.
- E126 *Tolype laricis* (Fitch, 1856). Historical records of this species, including by Franclemont (1973), are considered to be misidentifications of *T. dayi* Blackmore. No confirmed *T. laricis* material is known west of MB (B. C. Schmidt, personal communication).

Saturniidae

- E127 Ormiscodes ribesii Edwards, 1875. This species was described from a reared female from "Esquimault", BC, by Edwards (1874). The ESBC (1906) subsequently listed it as a questionable record for BC. This is the only known report of this tropical species from North America; Ferguson (1971) presumed it was either mislabelled or an accidental introduction.
- E128 Hyalophora columbia (Smith, 1865). British Columbia records of H. columbia refer to H. gloveri (Strecker), historically treated as a subspecies or synonym, but recognised as distinct by Pohl et al. (2010). True H. columbia does not occur west of MB.

Sphingidae

- E129 *Sphinx gordius* Cramer, 1780. Reported from BC by Shepard (unpublished report B), but that record refers to *S. poecila* Stephens. *Sphinx gordius* is an eastern species, occurring only as far west as SK.
- E130 *Smerinthus saliceti* Boisduval, 1875. Erroneous record by Llewellyn Jones (1951). Specimens from western Canada that are similar in appearance to *S. saliceti* are currently considered to be *S. ophthalmica* Boisduval (Pohl et al. 2010). However, these may in fact represent another biological entity. More taxonomic work is required on this group in western Canada (B. C. Schmidt, personal communication).
- E131 *Deidamia inscripta* (Harris, 1839). This introduced species was reported in error from BC by Smith (1994).

Geometridae – Larentiinae

- E132 *Dysstroma walkerata* (Pearsall, 1909). This species has been reported from BC by many workers; however, all BC material is *D. pseudimmanata* (Heydemann). *Dysstroma walkerata* is a species of the eastern boreal forest (Pohl et al. 2010).
- E133 *Eulithis populata* (Linnaeus, 1758). Reported from BC by Dyar (1904). Nevertheless, he thought the specimens may be *E. propulsata*

- (Walker) (as *packardata* (Lintner), a synonym), a view reiterated by Taylor (1908a).
- E134 *Colostygia turbata* Hübner, [1799]. Records of this Palaearctic species by various authors, including Cannings and Scudder (2007), are based on a previous taxonomic arrangement. North American populations are *C. circumvallaria* (Taylor).
- E135 Thera contractata (Packard, 1873). The BC record by Fischer et al. (unpublished report) is based on a misidentification; this species is restricted to eastern North America.
- E136 Hydriomena impluviata ([Denis & Schiffermüller], 1775). This Palaearctic species was reported by ESBC (1906), under the name Geometra autumnalis Ström, a synonym. The report likely refers to H. renunciata (Walker), a very similar species.
- E137 *Hydriomena pluviata* (Guenée, [1858]). Llewellyn Jones' (1951) BC record is assumed to be a misidentification: this species is otherwise known in Canada only from QC.
- E138 Entephria aurata (Packard, 1867). The report of this species in BC by Forbes (1948) is considered erroneous. Western populations are *E. multivagata* (Hulst) (Troubridge 1997).
- E139 *Stamnodes gibbicostata* (Walker, 1862). The report of this species in BC by ESBC (1906) is erroneous, based on a previous taxonomic interpretation. British Columbia populations were described as *S. blackmorei* by Swett (1915).
- E140 *Xanthorhoe designata* (Hufnagel, 1767). Historical records of this Palaearctic species, up to and including Llewellyn Jones (1951), are based on a previous taxonomic concept. North American populations are now known as *X. labradorensis* (Packard).
- E141 *Xanthorhoe incursata* (Hübner, [1813]). North American populations previously treated under this Palaearctic name have recently been recognised as distinct, under the name *X. lagganata* Swett & Cassino (Pohl et al. 2010).
- E142 *Epirrhoe tristata* (Linnaeus, 1758). This Palaearctic species was reported by historical workers under a previous taxonomic arrangement. North American populations are now recognised as *E. sperryi* Herbulot.
- E143 *Euphyia unangulata* (Haworth, 1809). Llewellyn Jones (1951) and Lafontaine and Troubridge (2011) used this Palaearctic name following a previous taxonomic arrangement. North American populations are now known as *E. intermediata* (Guenée).

- E144 *Epirrita dilutata* ([Denis & Schiffermüller], 1775). This Palaearctic species was reported from BC by ESBC (1906) under a previous taxonomic arrangement. North American populations are *E. autumnata* (Borkhausen).
- E145 *Eubaphe unicolor* (Robinson, 1869). This species has been reported on historical BC lists, but no vouchers are known north of the southwestern USA. Those reports are deemed erroneous.
- E146 *Horisme vitalbata* ([Denis and Schiffermüller], 1775). Historical use of this Palaearctic name is incorrect; North American populations were recognised as a distinct species, *E. incana* Swett, in 1918.
- E147 Eupithecia subvirens Dietze, 1875. The report of this species from BC by Llewellyn Jones (1951)—under the name E. laisata Strecker, a synonym—is assumed to be erroneous. It was not reported from Canada by Bolte (1990).
- E148 Eupithecia chiricahuata McDunnough, 1944. Report by Llewellyn Jones (1951) is assumed to be a misidentification. It is otherwise known only from AZ (Lafontaine and Troubridge 2011).
- E149 Eupithecia sobrinata (Hübner, [1817]). This species was reported from BC by Prentice (1963) as "E. sobrinata niphadophilata (Dyar)", and by Llewellyn Jones (1951) as "E. sobrinata interruptofasciata Packard". Both E. niphadophilata and E. interruptofasciata are now recognised as distinct species in North America. Eupithecia sobrinata is restricted to the Palaearctic.
- E150 Eupithecia fletcherata Taylor, 1907. BC records reported by Forbes (1948) and Prentice (1963) refer to *E. sharronata* Bolte, which was not described until 1990.
- E151 *Eupithecia arceuthata* (Freyer, 1842). This Palaearctic name was used by Prentice (1963); North American populations are *E. intricata* (Zetterstedt). The name *arceuthata* was omitted from the world Geometridae catalogue of Scoble (1999).
- E152 Eupithecia multiscripta (Hulst, 1896). The report of this species from BC by Llewellyn Jones (1951) is assumed to be erroneous; it was not reported from Canada by Bolte (1990). It may be based on non-BC material in the RBCM.
- E153 *Eupithecia innotata* (Hufnagel, 1767). Llewellyn Jones (1951) used this Palaearctic name for what is now known as *E. perfusca* (Hulst).
- E154 *Eupithecia togata* (Hübner, [1817]). This Palaearctic name was used by early workers up to Llewellyn Jones (1951). North American populations are now known as *E. columbrata* McDunnough.

- E155 Eupithecia abietaria (Goeze, 1781). Erroneous BC record by Forbes (1948), who reported *E. pini* Retzius, a synonym of this Palaearctic species. This record refers to *E. columbrata* McDunnough.
- E156 Eupithecia scabrogata Pearsall, 1912. Reports of this species from BC by various workers, beginning with Blackmore (1921) and up to Llewellyn Jones (1951), are assumed to be erroneous. The species was not reported from Canada by Bolte (1990).
- E157 Eupithecia subapicata Guenée, [1858]. Reported from BC by ESBC (1906), but no BC vouchers are known, and the species was not reported from BC by subsequent authors. It is assumed to be erroneous.
- E158 Eupithecia implorata (Hulst, 1896). The report of this species from BC by Llewellyn Jones (1951) is assumed to be erroneous; it was not reported from Canada by Bolte (1990).
- E159 *Eupithecia cestata* (Hulst, 1896). The report of this species from BC by Llewellyn Jones (1951) is assumed to be erroneous; it was not reported from Canada by Bolte (1990).

Geometridae - Sterrhinae

- E160 Lobocleta quaesitata (Hulst, 1880). Report of this species in BC and the rest of Canada by Llewellyn Jones (1951), McGuffin (1967), and Cannings and Scudder (2007) is erroneous (Pohl et al. 2010, deWaard 2010).
- E161 *Scopula quadrilineata* (Packard, 1876). This species was listed in error by Cannings and Scudder (2007) and deWaard (2010); no vouchers are known west of SK.
- E162 Leptostales hepaticaria (Guenée, [1858]). Reports from BC by Dyar (1904) and other early workers are assumed to be erroneous. No BC voucher material is known, and the species is otherwise known only from the southeastern USA. These historical records probably refer to *L. rubromarginaria* (Packard).

Geometridae – Ennominae

- E163 *Speranza sulphurea* (Packard, 1873). This species is restricted to eastern North America as far west as MB; western material is *S. amboflava* (Ferguson), which was historically considered a subspecies of *S. sulphurea* (Ferguson 2008).
- E164 *Speranza anataria* (Swett, 1913). According to Ferguson (2008), all Canadian specimens west of ON are *S. boreata* Ferguson.

- E165 Speranza denticulodes (Hulst, 1896). Erroneous record by Llewellyn Jones (1951) and other early workers. British Columbia records refer to *S. bitactata* (Walker). Speranza denticulodes is restricted to the southwestern USA (Ferguson 2008).
- E166 Speranza flavicaria (Packard, 1876). Reported from BC by ESBC (1906) under the name "Diastictis subfalcata Hulst", a synonym, but no vouchers or other BC reports exist. According to Forbes (1948), early reports of this species were confused with *S. occiduaria* (Packard).
- E167 Speranza pustularia (Guenée, [1858]). The BC record by Blackmore (1922a) is erroneous; this eastern North American species is known to occur only as far west as the Great Plains of southern SK (Ferguson 2008).
- E168 Psamatodes atrimacularia (Barnes & McDunnough, 1913). This species was erroneously reported from BC by Cannings and Scudder (2007); it is restricted to southern TX (Ferguson 2008).
- E169 *Macaria regulata* (Fabricius, 1775). Erroneous record by ESBC (1906) under the name "*Philobia enotata* Guenée", a synonym of this Palaearctic species. The record probably refers to *M. notata* (Linnaeus), which is similar in appearance.
- E170 *Macaria bicolorata* (Fabricius, 1798). Records from BC by historical workers, beginning with ESBC (1906), are erroneous; this species occurs only in the eastern USA. These records refer to *M. masquerata* Ferguson, although Ferguson (2008) did not report that species from BC.
- E171 *Macaria minorata* Packard, 1873. Reported by ESBC (1906) and Forbes (1948) under a previous taxonomic arrangement. Their records refer to *M. sexmaculata* Packard. *Macaria minorata* is not known to occur west of ON and MN.
- E172 *Macaria granitata* Guenée, [1858]. Historical reports of this species from BC, beginning with Dyar (1904), are erroneous; this species is restricted to eastern North America (Ferguson 2008).
- E173 *Digrammia continuata* (Walker, 1862). Historical reports of this species from BC (Dyar 1904; Ross and Evans 1958) refer to *D. setonana* (McDunnough) (Ferguson 2008). However, *D. setonana* is doubtfully distinct from *D. continuata* (Ferguson 2008; B. C. Schmidt, personal communication). If future research proves that to be the case, then *D. setonana* would become a synonym of *D. continuata*, the older name.

- E174 Digrammia atrofasciata (Packard, 1876). The report from Osoyoos, BC, by ESBC (1906) is considered to be erroneous, as the species is known only from the southwestern USA. The record likely refers to D. setonana (McDunnough), which was not described until 1927.
- E175 *Digrammia ordinata* (Walker, 1862). The record by deWaard (2010) and deWaard et al. (2011) is a misidentification; this species is not known to occur west of MB and ND (Ferguson 2008). These specimens likely are *D. sexpunctata* (Bates).
- E176 Digrammia hebetata (Hulst, 1881). Erroneus record under a previous taxonomic arrangement. British Columbia material is *D. rippertaria* (Duponchel). Digrammia hebetata is restricted to the southwestern USA, occurring only as far north as CO and UT (Ferguson 2008).
- E177 Orthofidonia exornata (Walker, 1862). Report of this species from BC by Cannings and Scudder (2007) and others is incorrect. Recent genetic barcode work indicates that all western Canadian Orthofidonia are O. tinctaria (Walker) (B. C. Schmidt personal communication).
- E178 Ematurga amitaria (Guenée, [1858]). This species was reported from "AK to NS" by Powell and Opler (2009), erroneously implying that it occurs in BC. It does not occur as far west as BC or AK (Ferris et al. 2012).
- E179 *Hypomecis umbrosaria* (Hübner, [1813]). Reported from BC by Dyar (1904). The record is assumed to be erroneous, as there are no vouchers or other BC or Canadian records. His record most likely refers to *Protoboarmia porcelaria* (Guenée).
- E180 *Stenoporpia dissonaria* (Hulst, 1896). Report of this species in BC by Llewellyn Jones (1951) is considered to be erroneous: it is otherwise not known north of CO and UT (Rindge 1968).
- E181 *Iridopsis vellivolata* (Hulst, 1881). The BC record by Llewellyn Jones (1951) is considered erroneous. This species is otherwise known from eastern North America only as far west as central SK (Rindge 1966; McGuffin 1977).
- E182 *Iridopsis humaria* (Guenée, [1858]). Reported from BC by Dyar (1904) as "Selidosema humarium emasculatum Dyar" under a previous taxonomic arrangement. British Columbia specimens are *I. emasculatum*, which is now recognised as a full species.
- E183 *Eufidonia notataria* (Walker, 1860). Reports of this species from BC by various authors (initially by Blackmore 1923) are considered to

- be erroneous; it is otherwise known from eastern Canada only as far west as MB (McGuffin 1977).
- E184 Erannis defoliaria (Clerck, 1759). Reported from BC by ESBC (1906) under a previous taxonomic arrangement as "E. defoliaria Clerck variety vancouverensis Hulst". Erannis vancouverensis is now recognized as a distinct species; E. defoliaria is strictly Palaearctic.
- E185 *Drepanulatrix bifilata* (Hulst, 1880). Report of this species in BC by various early authors, beginning with ESBC (1906), under the name "Deilinia perpallidaria Grote", a synonym, is considered erroneous. This species occurs in the southwestern USA only as far north as northern CA (Rindge 1949).
- E186 Euchlaena effecta (Walker, 1860). The BC record by Blackmore (1927) and Llewellyn Jones (1951) is based on a misidentification (McGuffin 1981).
- E187 Euchlaena amoenaria (Guenée, [1858]). Report of this species from BC by early workers (as *E. astylusaria* (Walker), now a subspecies) is erroneous, due to a previous taxonomic arrangement. The record refers to *E. madusaria* (Walker), which at that time was considered a synonym of *E. astylusaria* (McDunnough 1938).
- E188 Euchlaena pectinaria ([Denis & Schiffermüller], 1775). Dyar's (1904) report of this species from Kaslo refer to E. tigrinaria (Guenée), subspecies sirenaria (Strecker). Dyar considered sirenaria to be a synonym of E. pectinaria.
- E189 *Pero ancetaria* (Hübner, 1806). Erroneous record by ESBC (1906) and Taylor (1908b) under a previous taxonomic arrangement. This name was mistakenly applied to *P. honestaria* (Walker) (Poole 1987). True *P. ancetaria* is not known to occur in Canada.
- E190 *Pero giganteus* Grossbeck, 1910. Records of this species in BC by Blackmore (1927) and Llewellyn Jones (1951) refer to *P. mizon* Rindge (Rindge 1955).
- E191 Ennomos subsignaria (Hübner, [1823]). No vouchers are known of this species in BC; Llewellyn Jones' (1951) record is assumed to be erroneous. Ennomos subsignaria is not known west of eastern AB.
- E192 *Thallophaga nigroseriata* (Packard, 1874). Report from BC by ESBC (1906) is considered erroneous; the record probably refers to *T. hyperborea* (Hulst).
- E193 Nepytia semiclusaria (Walker, [1863]). Report of this species by Blackmore (1927) and Llewellyn Jones (1951) is assumed to be erroneous: it is otherwise unknown from Canada.

E194 Nepytia pellucidaria (Packard, 1873). Report of this species by Blackmore (1927), as a subspecies of *N. semiclusaria* (Walker), is assumed to be erroneous: it is not otherwise known from Canada.

Notodontidae

- E195 *Pheosia dimidiata* Herrich-Schäffer, 1856. This is a Palaearctic name used by ESBC (1906) following an old taxonomic concept. North American material has since been recognised as *P. rimosa* Packard.
- E196 *Nadata oregonensis* Butler, 1881. Erroneous BC record by Blackmore (1927); a purported voucher specimen in the UBC collection is *N. gibbosa* (Smith). *Nadata oregonensis* is not known from Canada.
- E197 Oligocentria perangulata (Edwards, 1882). Historical reports of this species in BC are assumed to be erroneous, as no BC voucher specimens are known, it has not been reported since Blackmore (1924), and the species is otherwise unknown in Canada.

Erebidae – Lymantriinae

- E198 Orgyia leucostigma (Smith, 1797). The BC record by Forbes (1948) is considered to be erroneous: this species is known from eastern Canada only as far west as MB.
- E199 Euproctis chrysorrhoea (Linnaeus, 1758). The record of this species in BC by Smith (1994) is erroneous and refers to E. similis (Feussly). Historically, there was confusion as to the application of the name E. chrysorrhoea to either the Browntail Moth or the Goldtail Moth. This was clarified by Ferguson (1978), but misapplication of the name continued. The Browntail Moth, E. chrysorrhoea, was introduced to eastern North America in 1897, but it did not spread beyond New England and the Canadian Maritime provinces.
- E200 Euproctis similis (Feussly, 1775). A single specimen of this European species, known as the Goldtail Moth, was collected in 1948 at Wellington, BC, and more recently several specimens were collected at Delta, BC. These are treated herein as unestablished interceptions, and the species is hereby excluded from the resident BC fauna.

Erebidae – Arctiinae

E201 *Crambidia impura* Barnes & McDunnough, 1913. Reports of this species from western Canada are based on misidentified *C. casta* (Packard). True *C. impura* is restricted to the southwestern USA (B. C. Schmidt, personal communication).

- E202 *Grammia figurata* (Drury, 1773). Earlier reports of *G. figurata* (as *G. celia* (Saunders), a synonym) refer to the recently described *G. margo* Schmidt. The taxon *celia* is now considered to be a synonym of *G. figurata* (Drury), an eastern species that does not occur in BC.
- E203 Grammia blakei (Grote, 1865). Blackmore (1927) reported this species from BC under a different taxonomic arrangement, as "Apantesis blakei superba Stretch" and "Apantesis blakei elongata Stretch". The taxon superba is now regarded as a subspecies of G. nevadensis (Grote & Robinson), and G. elongata is recognised as a full species. Grammia blakei does not occur in BC.
- E204 *Virbia fragilis* (Strecker, 1878). Records of *V. fragilis* from BC refer to *V. ferruginosa* (Walker). True *V. fragilis* does not occur north of WY (B. C. Schmidt, personal communication).
- E205 *Virbia lamae* (Freeman, 1941). The report of this species from BC by Shepard (unpublished report B) is considered to be erroneous. It probably refers to an undescribed *Virbia* species near *aurantiaca* (Hübner), which is provisionally placed under the name *V. aurantiaca* in the BC list.
- E206 *Virbia immaculata* (Reakirt, 1864). Report of this species in BC by Blackmore (1927) and Llewellyn Jones (1951) is assumed to be erroneous and probably refers to *V. ferruginosa* (Walker). *Virbia immaculata* is not known from western Canada. This record may be based on non-BC material in the RBCM.
- E207 *Gnophaela latipennis* (Boisduval, 1852). British Columbia records by Dyar (1904) and other early workers refer to *G. vermiculata* (Grote), which was then considered a subspecies of *G. latipennis*.
- E208 *Cisseps packardii* (Grote, 1865). The records by Dyar (1904) and other early workers refer to *C. fulvicollis* (Hübner); *C. packardii* is not known to occur in Canada.

Erebidae – Hypeninae

- E209 *Hypena modestoides* Poole, 1989. Specimens that have been identified as *H. modestoides* in Canada and the Pacific Northwest are actually a plain form of *H. decorata* Smith. True *H. modestoides* is a small gray species confined to southwestern CA.
- E210 Hypena scabra (Fabricius, 1798). This species was reported from BC by ESBC (1906), but no BC vouchers are known. It is otherwise unknown west of central AB, and the record is considered erroneous. However, there is a slight chance it could occur in BC's Peace River region.

Erebidae – Erebinae

- E211 Catocala clintonii Grote, 1864. Reported from BC by ESBC (1906), but no BC vouchers are known so the record is deemed erroneous. The species is otherwise known from eastern North America only as far west as MB.
- E212 *Bulia mexicana* (Behr, 1870). Reported in error by ESBC (1906) and Blackmore (1927) under a previous taxonomic arrangement. These records refer to *B. deducta* (Morrison). *Bulia mexicana* does not occur north of Mexico.
- E213 *Drasteria mirifica* (Edwards, 1878). Erroneous record by Llewellyn Jones (1951) under a previous taxonomic arrangement. His record refers to *D. hastingsii* (Edwards), then considered a subspecies of *D. mirifica*, but now elevated to full species status. *Drasteria mirifica* does not occur in BC.
- E214 *Drasteria graphica* Hübner, 1818. Erroneously reported in Llewellyn Jones (1951). This is strictly an eastern species (Lafontaine and Troubridge 2011).
- E215 Zale calycanthata (Smith, 1797). This species was reported from BC by early workers, but Blackmore (1923) noted that these reports referred to Z. norda (Smith) (now Z. minerea norda). Zale calycanthata is strictly an eastern species (Lafontaine and Troubridge 2011).

Nolidae

E216 *Nycteola revayana* (Scopoli, 1772). Historical records of this Palaearctic species in North America refer to *N. cinereana* Neumögen & Dyar.

Noctuidae - Plusiinae

- E217 Syngrapha u-aureum (Guenée, 1852). Reports of this species from BC by Dyar (1904) and ESBC (1906) refer to *S. interrogationis* (Linnaeus). True *S. u-aureum* is not known to occur west of Churchill, MB (Lafontaine and Poole 1991).
- E218 Syngrapha hochenwarthi (Hochenwarth, 1785). Reports of this Palaearctic species by early workers up to Crumb (1956) refer to S. ignea (Grote).

Noctuidae – Pantheinae

E219 Colocasia flavicornis (Smith, 1884). This species was reported from BC by Blackmore (1927) and Llewellyn Jones (1951), but

- those records are assumed to be erroneous. No voucher material is known west of SK (Lafontaine and Troubridge 2011).
- E220 Charadra deridens (Guenée, 1852). Report of this species "from NS to BC (not yet recorded from AB)" by Schmidt and Anweiler (2010) is incorrect; the species occurs in eastern Canada only as far west as southeastern SK (G. G. Anweiler, personal communication 2012). Other reports from BC (Cannings and Scudder 2007; Powell and Opler 2009) are also incorrect.

Noctuidae – Acronictinae

- E221 Acronicta leporina (Linnaeus, 1758). This Palaearctic species has been reported by many authors following a previous taxonomic arrangement. North American populations are *A. vulpina* (Grote).
- E222 Acronicta interrupta (Guenée, 1852). Reported in error by Llewellyn Jones (1951). This species does not occur west of CO and UT (Lafontaine and Troubridge 2011).
- E223 Acronicta ovata (Grote, 1873). Reported in error by Blackmore (1927) and Llewellyn Jones (1951). This is strictly an eastern species (Lafontaine and Troubridge 2011).

Noctuidae – Cuculliinae

E224 *Cucullia serraticornis* Lintner, 1874. This species was erroneously reported from BC by Blackmore (1927) under the name *C. solidaginis* Strecker, a synonym. The error is likely based on a misidentification of *C. strigata* (Smith). *Cucullia serraticornis* occurs only in CA and AZ (Poole 1995).

Noctuidae - Oncocnemidinae

- E225 Sympistis saundersiana (Grote, 1876). The record by Forbes (1954) of this species from BC is assumed to be erroneous, as no BC vouchers are known and it is otherwise unknown west of east—central AB.
- E226 Sympistis viriditincta (Smith, 1894). The ESBC (1906) and Forbes (1954) records of this species from BC are assumed to be erroneous, as no BC vouchers are known and it is otherwise unknown west of east–central AB.
- E227 *Sympistis infixa* (Walker, 1856). All historical BC records of this species refer to *S. dinalda* (Smith).
- E228 *Sympistis simplex* (Smith, 1888). Report of this species in BC by Lafontaine and Troubridge (2011) is considered to be erroneous.

- It was not reported by CBIF (2003), and is otherwise unknown in Canada.
- E229 *Sympistis chandleri* (Grote, 1873). Erroneous record by earlier workers based on a previous taxonomic arrangement. These BC records refer to *S. poliochroa* (Hampson), at that time considered to be a synonym of *S. chandleri*.
- E230 *Sympistis hayesi* (Grote, 1873). Western Canadian material previously identified as *S. hayesi* are *S. sandaraca* (Buckett & Bauer), not described until 1967.
- E231 Sympistis major (Grote, 1881). Historical reports of this species in BC refer to *S. amun* Troubridge and *S. chons* Troubridge. True *S. major* is restricted to the southwestern USA (Troubridge 2008). Crabo et al. (2015) consider *S. chons* and *S. amun* to be synonyms of *S. major*.
- E232 *Sympistis homogena* (Grote, 1877). Reports of this species in BC by Blackmore (1927) and others refer to *S. cherti* Troubridge (Troubridge 2008).
- E233 *Sympistis piffardi* (Walker, 1862). Historical records of this species from BC refer to *S. chalybdis* (Troubridge & Crabo). *Sympistis piffardi* occurs only east of the Rocky Mtns. (G. G. Anweiler, personal communication).
- E234 *Sympistis chorda* (Grote, 1880). The BC record of this species by Llewellyn Jones (1951) refers to *S. extremis* (Smith), then considered to be a subspecies of *S. chorda*.
- E235 *Sympistis definita* (Barnes & McDunnough, 1912). Reported in error from BC by Powell and Opler (2009) prior to their knowledge of work by Troubridge (2008) describing many new species in the group. This record probably refers to *S. dunbari* (Harvey), a similar species (L. G. Crabo, personal communication).
- E236 *Sympistis lapponica* (Thunberg, 1791). Historical reports of this species in BC, beginning with Dyar (1904), are erroneous and probably refer to *S. wilsoni* Barnes & Benjamin, which was described in 1924.

Noctuidae - Condicinae

E237 Ogdoconta cinereola (Guenée, 1852). Reports of this species in BC by Llewellyn Jones (1951) and Cannings and Scudder (2007) are based on Bush-Wilson material in the CNC that is presumed to be eastern material that was mislabelled as "Vancouver". This species is not known to occur in western North America (L. G. Crabo, personal communication).

Noctuidae - Heliothinae

- E238 *Pyrrhia umbra* Hufnagel, 1766. Reported in error in Llewellyn Jones (1951) and other historical lists as well as in Crumb (1956). *Pyrrhia umbra* is strictly Palaearctic; records of it in North America generally refer to *P. cilisca* (Guenée), but that species does not occur west of MB. These western records are a further misidentification applicable to *P. exprimens* (Walker).
- E239 *Protoschinia scutosa* ([Denis & Schiffermüller], 1775). Reports of this Palaearctic species by early workers, up to and including Llewellyn Jones (1951), refer to *P. nuchalis* (Grote).
- E240 *Schinia perminuta* (Edwards, 1881). No BC vouchers are known of this species, and the BC record originating with Blackmore (1923) is presumed to be erroneous. It is likely a misidentification of *S. villosa* (Grote) (Lafontaine and Troubridge 2011) or of *S. intermontana* Hardwick (L. G. Crabo, personal communication).
- E241 Melaporphyria immortua Grote, 1874. This species was reported specifically from BC by Forbes (1954), but despite an exhaustive search for Canadian material to include in a report commissioned by COSEWIC on this enigmatic species, no specimens were found west of Edmonton, AB (Schmidt and Anweiler unpublished report). Forbes' report is therefore deemed erroneous. It may have originated with two specimens from MB at the RBCM.

Noctuidae – Noctuinae – Elaphriini

- E242 *Elaphria georgei* (Moore & Rawson, 1939). Misidentification reported in Llewellyn Jones (1951). This is strictly an eastern species (Lafontaine and Troubridge 2011).
- E243 *Elaphria festivoides* (Guenée, 1852). Historical reports of this species in BC going back to Dyar (1904) refer to *E. allapallida* Pogue & Sullivan, which was not described at that time.
- E244 *Elaphria grata* Hübner, 1818. Reported in error by Llewellyn Jones (1951) and others, based on a misidentification. This is strictly an eastern species (Lafontaine and Troubridge 2011).

Noctuidae - Noctuinae - Caradrinini

E245 Caradrina multifera Walker, [1857]. Historical reports of this species from BC are based on dark specimens of *C. montana* Bremer. True *C. multifera* does not occur west of MB (L. G. Crabo, personal communication).

Noctuidae - Noctuinae - Phlogophorini

E246 Euplexia lucipara (Linnaeus, 1758). Historical reports of this Palaearctic species in North America refer to E. benesimilis McDunnough.

Noctuidae - Noctuinae - Apameini

- E247 Apamea apamiformis (Guenée, 1852). Erroneous record by ESBC (1906); this species occurs in eastern North America only as far west as MB. The BC record probably refer to *A. vultuosa* (Grote), which is similar in appearance.
- E248 *Apamea remissa* (Hübner, [1809]). This species is now considered to reside only in Beringia. All North American material outside of Beringia that has previously been referred to under this name, e.g., by Cannings and Scudder 2007, is now treated under the name *A. indocilis* (Walker).
- E249 *Apamea lignicolora* (Guenée, 1852). Historical reports of this species in BC refer to *A. atriclava* (Barnes & McDunnough), which was once thought to be a subspecies of *A. lignicolora*; true *A. lignicolora* is not known to occur west of AB (Mikkola et al. 2009).
- E250 *Apamea auranticolor* (Grote, 1873). Canadian material historically referred to as *A. auranticolor* (often under the synonym *barnesii* (Smith)) is now treated under the name *A. sora* (Smith).
- E251 Apamea genialis (Grote, 1874). The record by ESBC (1906) is assumed to be erroneous, as this species is restricted to CA. British Columbia records probably refer to *A. commoda* (Walker), which can look very similar (Mikkola et al. 2009) and was not reported by ESBC (1906).
- E252 Apamea albina (Grote, 1874). The record by ESBC (1906) is assumed to be erroneous, as this species is restricted to CA and southern OR. The record probably refers to *A. amputatrix* (Fitch), which can look very similar (Mikkola et al. 2009) and was not reported by ESBC (1906).
- E253 Apamea relicina (Morrison, 1875). Records by Dyar (1904) and ESBC (1906) are considered to be erroneous; no BC vouchers are known, and this species is otherwise unknown in northwestern North America.
- E254 *Apamea lateritia* (Hufnagel, 1766). Reports of this Palaearctic species in North America refer to *A. scoparia* Mikkola, Mustelin & Lafontaine, described in 2000.

- E255 Apamea dubitans (Walker, 1856). Reports by Llewellyn Jones (1951), Crumb (1956) and others refer to *A. cogitata* (Smith), then considered to be a subspecies of *A. dubitans* but now treated as a full species. True *A. dubitans* does not occur in western North America.
- E256 *Apamea maillardi* (Geyer, [1834]). Historical reports of this Palaearctic species in North America refer to *A. zeta* (Treitschke).
- E257 Loscopia velata (Walker, 1865). Forbes' (1954) report from BC based on "a single specimen seen from Vancouver; determination uncertain" is deemed erroneous, due to mislabelling. The specimen (in the CNC) was once part of the Bush-Wilson collection that is known to contain mislabelled material. This species is otherwise restricted to eastern NA only as far west as MB (Mikkola et al. 2009).
- E258 Eremobina leucoscelis (Grote, 1874). This species was reported "from the west coast" by Forbes (1954) as "race hanhami Barnes & Benjamin" under a previous taxonomic arrangement. The taxon hanhami (described from Duncan, BC) is now a synonym of E. claudens (Walker).
- E259 "Oligia" modica (Guenée, 1852). Report of this species in BC by Cannings and Scudder (2007) is considered erroneous. It is not known to occur west of Saskatoon SK (Pohl et al. 2010; B. C. Schmidt, personal communication).
- E260 "Oligia" egens (Walker, [1857]). The report of this species from BC by ESBC (1906) (as "Hadena transfrons Neumögen", a synonym) is deemed erroneous. It is a Great Plains species that does not occur near BC.
- E261 *Macronoctua onusta* Grote, 1874. This species was reported from BC by Cannings and Scudder (2007) based on a single specimen that was brought in with eastern plant material (L. G. Crabo, personal communication). It has never become established in BC and it is hereby excluded from the BC fauna.
- E262 Amphipoea oculea (Linnaeus, 1761). This species was reported from BC (as A. nictitans (Linnaeus), a synonym) by Blackmore (1927) and Jones (1951) under a previous taxonomic arrangement. The North American species is now known as A. americana (Speyer). It was considered to be a subspecies of A. nictitans prior to Forbes (1954). Amphipoea oculea is strictly Palaearctic.
- E263 Amphipoea pacifica (Speyer, 1875). This species was reported from BC by Cannings and Scudder (2007), based on misidentified material. All BC Amphipoea has been redetermined as A. americana

- (Speyer), except for the sole specimen of *A. interoceanica* (Smith) (L. G. Crabo and B. C. Schmidt, personal communications). See note under the latter species in the main list.
- E264 *Hydraecia micacea* (Esper, 1789). This introduced species was reported in error from BC by Smith (1994). It is not known to occur west of ON (Belton 1988).

Noctuidae - Noctuinae - Arzamini

E265 *Bellura gortynoides* Walker, 1865. Reported by ESBC (1906) from BC, but Llewellyn Jones (1951) considered it a doubtful record. It probably refers to *B. obliqua* (Walker).

Noctuidae - Noctuinae - Xylenini

- E266 *Lithomoia solidaginis* (Hübner, [1803]). Historical reports of this species in North America refer to *L. germana* (Morrison).
- E267 *Lithophane patefacta* (Walker, 1858). This eastern species was reported on several previous BC checklists, but no authentic BC material is known (L. G. Crabo, personal communication). These erroneous reports likely refer to the very similar *L. innominata* (Smith) (B. C. Schmidt, personal communication).
- E268 *Lithophane lamda* (Fabricius, 1787). Reports of this species in North America refer to *L. fagina* Morrison and *L. thaxteri* Grote; *L. lamda* is strictly Palaearctic.
- E269 Lithophane lepida Grote, 1878. Report of this species by Prentice (1962) from Cherryville, BC, (on Ponderosa Pine) refers to L. ponderosa Troubridge & Lafontaine, described in 2003. Lithophane lepida does not occur outside of eastern North America.
- E270 *Lithophane antennata* (Walker, 1858). This pest of apple trees was reported from BC by Belton (1988), who described an infestation in apple orchards at Kamloops in the 1940s. However, no BC vouchers are known, and this species is otherwise unknown in Canada west of MB. That report is assumed to be a misidentification referable to *L. georgii* Grote.
- E271 *Lithophane torrida* (Smith, 1899). Reported from BC by Llewellyn Jones (1951) and other early workers. The BC material has been redetermined as *L. pertorrida* (McDunnough) (Lafontaine and Troubridge 2011).
- E272 Eupsilia sidus (Guenée, 1852). Report of this species by Prentice (1962) from the BC Interior, and repeated by Belton 1988, is considered erroneous. This species is not known to occur west of ON.

- E273 *Epiglaea apiata* (Grote, 1874). Report of this species in BC by Forbes (1954) was based on a misidentified specimen of *Mesogona olivata* (Harvey) (L. G. Crabo, personal communication).
- E274 *Agrochola lota* (Clerck, 1759). Reported from BC by Llewellyn Jones (1951) and Crumb (1956) under a previous taxonomic arrangement, as "Nephelodes emmedonia pectinata Smith". Although emmedonia Cramer is now a synonym of *A. helvola* (Linnaeus), which does not occur in the Nearctic, that name has generally been applied to *Agrochola lota* Clerck in North America. However, BC material is currently treated under the name *Nephelodes minians* Guenée (Noctuinae: Tholerini), of which *pectinatus* is a subspecies.
- E275 Agrochola helvola (Linnaeus, 1758). This species was indirectly reported from BC if one logically follows the synonym trail. Llewellyn Jones (1951) and Crumb (1956) erroneously reported Nephelodes emmedonia pectinata (Smith) from BC; pectinatus is now a subspecies of Nephelodes minians Guenée. However, emmedonia Cramer is now a synonym of A. helvola, which does not occur in North America.
- E276 *Xanthia togata* (Esper, 1788). This Palaearctic name was widely used in North America under a previous taxonomic arrangement. North American material was recently described as a distinct species, *X. tatago* Lafontaine & Mikkola.
- E277 Aseptis perfumosa (Hampson, 1918). Reports by Llewellyn Jones (1951) and Crumb (1956) are based on a misidentification. This species is known only from CA (Lafontaine and Troubridge 2011).
- E278 Brachylomia curvifascia (Smith, 1891). Reported from BC by Llewellyn Jones (1951) and others based on an earlier taxonomic concept of the species. British Columbia records refer to other Brachylomia species.
- E279 Brachylomia rectifascia (Smith, 1891). Reported from BC by Llewellyn Jones (1951) and others based on an earlier taxonomic concept. Western Canadian specimens are *B. cascadia* Troubridge & Lafontaine. True *B. rectifascia* does not occur north of central CA (Troubridge and Lafontaine 2007). Crabo et al. (2015) continue to use the name *B. rectifascia* for BC populations, considering *B. cascadia* to be a subspecies.
- E280 *Hyppa xylinoides* (Guenée, 1852). Records by Llewellyn Jones (1951) and other early workers refer to *H. contrasta* McDunnough.

- E281 *Cosmia epipaschia* (Grote, 1883). Reports from BC by Blackmore (1927) and Crumb (1956) are erroneous; known BC voucher specimens are *C. praeacuta* (Smith).
- E282 Enargia paleacea (Esper, 1788). The report of this Palaearctic species by ESBC (1906) refers to *E. decolor* (Walker).
- E283 *Xylotype capax* (Grote, 1868). Reported in error by Dyar (1904) and other early workers under a different taxonomic concept. The BC records refer to *X. arcadia* Barnes & Benjamin.
- E284 *Ufeus plicatus* Grote, 1873. Historical reports of this species in BC refer to *U. hulstii* Smith, recently recognised as distinct (Lafontaine and Schmidt 2011).

Noctuidae – Noctuinae – Orthosiini

E285 Perigonica pectinata (Smith, 1888). Reports of this species from BC by ESBC (1906) and Blackmore (1927), and from the Peace River region of northeastern BC by Shepard (unpublished report B), are considered erroneous. No verified BC vouchers are known and the species is otherwise unknown in Canada.

Noctuidae – Noctuinae – Hadenini

- E286 Anarta melanopa (Thunberg, 1791). This Palaearctic name was used for many years in North America following a previous taxnomic concept. As currently defined, A. nigrolunata Packard is the Nearctic species.
- E287 Scotogramma densa Smith, 1893. Historical reports of this species from BC by Dyar (1904) and other early workers are deemed incorrect as no vouchers are known.
- E288 Scotogramma ptilodonta (Grote, 1883). This species was reported by Llewellyn Jones (1951) as subspecies nevada Barnes & McDunnough, but Lafontaine and Troubridge (2011) considered that a misidentification. Scotogramma ptilodonta is a Great Basin and southern Rockies species.
- E289 *Coranarta cordigera* (Thunberg, 1792). The report of this Palaearctic species by Llewellyn Jones (1951) refers to *C. luteola* (Grote & Robinson).
- E290 *Trichordestra legitima* (Grote, 1864). The record by Llewellyn Jones (1951) from Vernon is considered to be erroneous. Crumb (1956) repeated the Llewellyn Jones (1951) record, but listed it as uncertain. No voucher specimens of this species are known in BC, and it is widely believed to occur only in eastern Canada. However,

- a specimen has recently been collected from the boreal forest of northeastern AB (Pohl et al. 2010), so it may yet be found in BC, perhaps in the Peace River region.
- E291 *Dargida albilinea* (Hübner, [1821]). The report of this Palaearctic species by Llewellyn Jones (1951) refers to *D. diffusa* (Walker).

Noctuidae - Noctuinae - Eriopygini

- E292 Lasionycta conjugata (Smith, 1899). This species was reported in error by Cannings and Scudder (2007), based on a previous taxonomic concept. Crabo and Lafontaine (2009) described northern populations as *L. fergusoni* Crabo & Lafontaine. Lasionycta conjugata is restricted to the southern Rocky Mountains, only as far north as WY.
- E293 Lasionycta phoca (Möschler, 1864). This is a historical misidentification going back to Blackmore (1924). Lasionycta phoca is strictly an eastern species (Lafontaine and Troubridge 2011).
- E294 *Lasionycta discolor* (Smith, 1899). Records of this species in western Canada refer to *L. uniformis* (Smith) (Crabo and Lafontaine 2009).
- E295 Lacinipolia buscki (Barnes & Benjamin, 1927). The uncertain record by deWaard (2010) is deemed erroneous, this species is otherwise restricted to southwestern USA.
- E296 Homorthodes mania (Strecker, 1899). Report by Blackmore (1927) and Llewellyn Jones (1951) is considered to be a misidentification. This species is otherwise known only from the southwestern USA (Lafontaine and Troubridge 2011).
- E297 Orthodes cynica Guenée, 1852. Report of this species in BC by Blackmore (1922a) is assumed to be erroneous. No BC vouchers are known, and it is otherwise unknown west of central SK.
- E298 "Hexorthodes" senatoria (Smith, 1900). Report of this species in BC by Dyar (1904) and other early workers is erroneous. It occurs only in the southwestern USA (Lafontaine and Troubridge 2011).
- E299 "Hexorthodes" nipana (Smith, 1910). Misidentification by Llewellyn Jones (1951), under the name "Polia montara Smith", a synonym; this species is otherwise known only from the southern USA (Lafontaine and Troubridge 2011).

Noctuidae - Noctuinae - Noctuini

E300 Actebia squalida (Guenée, 1852). This Palaearctic species was reported in error from BC by Lafontaine and Troubridge (2011). The BC record refers to A. balanitis (Grote).

- E301 *Euxoa lidia* (Cramer, 1782). This Palaearctic species has been reported for many years in North America under a previous taxonomic concept. North American material has recently been recognised as distinct, *E. adumbrata* (Eversmann).
- E302 *Euxoa dissona* (Möschler, 1860). The report from Field, BC, by Llewellyn Jones (1951) is assumed to be a misidentification, as no vouchers are known. This is a subarctic species known only as far west as Churchill, MB.
- E303 *Euxoa trifasciata* (Smith, 1888). Reported by Dyar (1904) and ESBC (1906), but not by subsequent workers. No BC vouchers are known; this is assumed to be a misidentification. However, the species is known from south–central WA and could occur in BC.
- E304 *Euxoa fuscigerus* (Grote, 1874). This species was reported from BC by Blackmore (1923, 1927) and Llewellyn Jones (1951) as *Euxoa feniseca* (Harvey), a synonym. No vouchers are known, and it is otherwise unknown north of CA, so the record is assumed to be a misidentification.
- E305 *Euxoa stigmatalis* (Smith, 1900). Reported from BC by Blackmore (1927) and Llewellyn Jones (1951), as *E. stigmatalis* and *E. stigmatalis atrofusca* (Smith). *Euxoa atrofusca* is now considered a full species, which occurs in BC. The record of *E. stigmatilis* is deemed erroneous. No BC vouchers of true *E. stigmatalis* are known, and it is otherwise not known to occur as far north as Canada. It is either *E. atrofusca* or, possibly, *E. punctigera* (Walker).
- E306 *Euxoa velleripennis* (Grote, 1874). This species was reported from BC by ESBC (1906), but not by subsequent workers. The BC record is considered erroneous, as the species is known from eastern Canada only as far west as MB (Lafontaine 1987).
- E307 Euxoa redimicula (Morrison, 1874). Erroneous record by Dyar (1904) and other early workers up to Llewellyn Jones (1951); their records refer to *E. auripennis* Lafontaine, which had not been described at that time.
- E308 *Euxoa teleboa* (Smith, 1890). This species was reported in error by Lafontaine (1998); it is restricted to the Great Plains (Lafontaine 1987). A specimen from BC in the CNC is assumed to be mislabelled or an unestablished introduction.
- E309 *Euxoa latro* (Barnes & Benjamin, 1927). The BC record by Lafontaine and Troubridge (2011) was based on a misidentification.
- E310 Feltia subgothica (Haworth, 1809). Historical reports of this species from BC are erroneous, based on a previous taxonomic concept.

- British Columbia material is *F. jaculifera* (Guenée), which was considered a synonym of *F. subgothica* at the time.
- E311 Agrotis buchholzi (Barnes & Benjamin, 1929). The uncertain BC record by deWaard (2010) is deemed erroneous, this species occurs only in eastern USA (Lafontaine 2004).
- E312 Ochropleura plecta (Linnaeus, 1761). This Palaearctic species has historically been reported in North America under a previous taxonomic concept. North American material has been described recently as a distinct species, *O. implecta* Lafontaine.
- E313 *Cerastis cornuta* (Grote, 1874). This species has been reported in error by historical workers going back to ESBC (1906). British Columbia records refer to the recently described *C. enigmatica* Lafontaine & Crabo.
- E314 *Spaelotis unicava* Lafontaine, 1998. The BC record by deWaard (2010) is a misidentification; this species is restricted to the southwestern USA, only as far north as southern OR (Lafontaine 1998).
- E315 *Spaelotis havilae* Grote, 1881. This Palaearctic species was reported from North America prior to the description of Nearctic material as a distinct species, *S. bicava* Lafontaine.
- E316 *Xestia baja* ([Denis & Schiffermüller], 1775). Historical records of this Palaearctic species in North America, e.g. by Forbes (1954), refer to *X. smithii* (Snellen) which was once considered to be a race of *X. baja*. True *X. baja* does not occur in North America.
- E317 *Xestia elimata* (Guenée, 1852). Erroneous record by Blackmore (1927) and Llewellyn Jones (1951). Those records refer to *X. praevia* Lafontaine, which had not been described at that time.
- E318 *Xestia laetabilis* (Zetterstedt, 1839). This Palaearctic species was reported from North America prior to the description of Nearctic material as a distinct species, *X. lupa* Lafontaine & Mikkola.
- E319 *Pseudohermonassa bicarnea* (Guenée, 1852). The report from BC by Forbes (1954) is deemed erroneous. This species is strictly eastern, occurring only as far west as SK.
- E320 Setagrotis vocalis (Grote, 1879). Reported from BC by various historical workers, often under the name *S. cinereicollis* (Grote), a synonym. These records refer to *S. pallidicollis* (Grote), of which cinereicollis was once considered a synonym. Setagrotis vocalis has recently been recognised as a distinct species by Lafontaine (1998); it is known from the Great Basin as far north as southern MT and is replaced by *S. pallidicollis* to the northwest.

- E321 Abagrotis anchocelioides (Guenée, 1852). Historical reports of this species from BC going back to Dyar (1904) are assumed to be erroneous; no BC vouchers are known, and the species is otherwise not known to occur West of MB (Lafontaine 1998).
- E322 *Pronoctua pyrophiloides* (Harvey, 1876). Reports of this species from BC by various historical workers refer to *P. peabodyae* (Dyar). Northern specimens of the latter were historically considered to be *P. pyrophiloides* until Lafontaine (1998) clarified the matter. True *P. pyrophiloides* is restricted to CA and southern OR.

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Heterocampinae	1976	[Copablepharon]	2627
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heteronea Boisduval [Lycaena]	1169	hopkinsana (Kearfott) [Epinotia]	
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hiemalis (Grote) [Egira]	2480	howlandii (Grote) [Drasteria]	2096
Hilarographini	1061	hudsoniana (Walker) [Acleris]	665
hilchie Kemal & Koçak [Erebia]	1268	hudsonianus Clark [Papilio]	1099
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hircina Morrison [Homoglaea]	2383	[Drasteria]	2094
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[Speyeria]	1232	hyllus (Cramer) [Lycaena]	1170
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Holoarctia	1994	Hypeninae	E209
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hololeuca Braun [Elachista]	466	Hypenodes	2064
homodactylus (Walker) [Hellinsia]	581	Hypenodinae	2064
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juniperata (Linnaeus) [Thera] 1618 [Xanthorhoe] 16.	75, <i>E141</i>
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kentaria (Grote & Robinson) [Selenia] 1920 Lamproniinae	29
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laricella (Hübner) [Coleophora]	495	leuconotella (Busck) [Dichomeris]	319
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	7, E124	levisella (Fyles) [Dichomeris]	318
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latiferreana (Walsingham) [Cydia]	1060	lillooet McDunnough [Euxoa]	2688
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[Gnophaela] 2032	, E207	Limacodidae	1092
latipennis (Hulst) [Hesperumia]	1854	Limacodinae	1092
latiradiellus (Walker) [Catoptria]	1435	limboundata (Haworth) [Scopula]	1783.1
latro (Barnes & Benjamin) [Euxoa]	E309	Limenitidina	1209
lautiuscula (Heinrich) [Cydia]	1054	Limenitidinae	1209
lavana (Busck) [Platphalonia]	689	Limenitidini	1209
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leto (Behr) [Speyeria]	1227	lineata (Fabricius) [Hyles]	1591
Leucania	2551	lineatella Zeller [Anarsia]	300
Leucaniini	2548	lineola (Goeze) [Prochoerodes]	1951
leucata (Hulst) [Prorella]	1765	lineola (Ochsenheimer) [Thymelicus]	1120
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liquoraria Guenée [Synchlora]	1803	lucipara (Linnaeus) [Euplexia]	E246
litaria (Hulst) [Apodrepanulatrix]	1895	luctuata ([Denis & Schiffermüller])	
Lithinini	1916	[Spargania]	1656
Lithocolletinae	132	lugubralis (Walker) [Eudonia]	1430
Litholomia	2386	lugubrella (Fabricius) [Chionodes]	396
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Litini	340	lunigerella Ragonot [Promylea]	1394
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Lobophorini	1768	[Paraswammerdamia]	164
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lolana (Kearfott) [Pelochrista]	924	luteolata (Hulst) [Scopula]	1792
Lomographa	1880	luteolellus (Clemens) [Neodactria]	1458
lomonana (Kearfott) [Epinotia]	1011	luteopallens (Smith) [Mythimna]	2548
longana (Haworth) [Cnephasia]	666	lutescella (Clarke) [Scrobipalpula]	447
longifasciella (Clemens) [Telphusa]	360	luteus Troubridge & Parshall [Oene	is] 1274
longipalpata Hulst [Mycterophora]	2068	lutosa (Andrews) [Apamea]	2336
longipalpata Packard [Eupithecia]	1720	lutra (Guenée) [Spiramater]	2524
longula (Grote) [Apamea]	2332	lutulenta (Smith) [Euxoa]	2676
Lophocampa	2033	lutzi Dos Passos [Plebejus]	1205
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lorea (Guenée) [Lacinipolia]	2591	,	65, E074
loricaria (Eversmann) [Speranza]	1825	Lycaeninae	1165
lorquinaria (Guenée) [Speranza]	1824	Lycaenini	1165
lorquini Boisduval [Limenitis]	1210	Lycia	1873
Lorquin's Admiral	1210	Lycophotia	2745
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lota (Clerck) [Agrochola]	E274	[Glaucopsyche]	1199
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louisana (McDunnough) [Pelochrista		Lymantriina	1981
Loxostege	1505		81, E198
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lyngei (Rebel) [Xestia]	2785.1	maestosa (Hulst) [Eupithecia]	1717
Lyonetia	216	magdalena Strecker [Erebia]	1268
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Lyonetiinae	216	magniferalis (Walker) [Palpita]	1542
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Pleurotinae	243	Polyommatini	1193
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semiatrata (Hulst) [Antepirrhoe]	1612	Sesiidae	1066
semanata (Franst) [/ tittepii/froe]	1012	o conduc	.000

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Moths and butterflies (Lepidoptera) are one of the most diverse and economically important groups of insects, with approximately 157,000 species worldwide. This book establishes a definitive list of the species that occur in BC, and clarifies erroneous records in past works. It provides a knowledge baseline that will be useful to resource and conservation managers, biodiversity researchers, taxonomists, amateur collectors, and naturalists.

