Additions and Corrections to the Alberta Lepidoptera List Greg Pohl and Doug Macaulay

This is the 2016 update to the Checklist of the Lepidoptera of Alberta (Pohl et al. 2010), which is updated annually in the ALG News (Pohl et al. 2011, 2012, 2013, 2015; Pohl 2014). This year we are reporting ten new species including one historical published record that was overlooked. We are removing two species from the Alberta list.

Vouchers are deposited in either the Canadian Forest Service collection in Edmonton, Alberta (NFRC) or the personal collections of GRP and DAM. The total number of reportedAlberta species now stands at 2489.

We thank Colleen Raymond, Bob Byers, Don Wright, and Cory Sheffield for providing specimens and information. Angela Telfer and Jeremy deWaard of the Barcode of Life Initiative facilitated DNA barcoding of specimens.

Tischeriidae

33. Strotischeria solidagonifoliella (Clemens, 1859). New record. A series of reared specimens were collected in Edmonton in 2015 by Adrian Jones, and brought to GRP's attention by Colleen Raymond. They were reared from seed pods of Evening Primrose (*Oenothera* sp.). This species was previously known from eastern Canada as far west as Manitoba. This species, and Adrian and Colleen, are the winners of the ALG's Wolley-Dod Discovery Award in 2016, recognising new Alberta Lepidoptera discoveries.



Gracillariidae

80 Micrurapteryx occulta (Braun, 1922). New status.

The taxon *Parectopa albicostella* Braun, 1925 was synonymized with *P. occulta*, and moved to the genus *Micrurapteryx* by Kirichenko et al. (2016). This species was well known in Alberta since Bowman (1951), under the name *P. albicostella*.

Autostichidae

237.1 *Gerdana caritella* Busck, 1908. New record (previously, "expected"). This species, long suspected to occur in Alberta, has been confirmed based on a specimen collected in Lethbridge, Alberta, on 12 August 2004 by J. R. Byers. It was recently identified via DNA barcode.

Depressariidae

153 Depressaria radiella (Goeze, 1783). New status.

This is a recently discovered senior synonym of *D. pastinacella* (Duponchel), the introduced Parsnip Webworm. As the older name, it takes precedent as the new valid name (Karsholt et al. 2004).

129.1 Antaeotricha leucillana Zeller, 1854. New record.

A specimen was collected on 11 Aug. 2015 at Dillberry Lake Provincial Park, by DAM. It was previously known in eastern Canada as far west as Saskatchewan.



Tortricidae

424.1 *Acleris placidana* (Robinson, 1869). Rediscovered record. This Holarctic species was reported from Alberta by Obraztsov (1963), but that record was missed by Pohl et al. (2010). No Alberta vouchers have been

located, but they likely reside in a collection in the USA. The species is otherwise known from B. C. and eastern Canada.

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494.1 Archips rosana (Linnaeus, 1758). New record.

This introduced species, known as the European Leafroller, has been reported from B. C. and eastern Canada (Doganlar & Bierne 1978). A specimen collected in downtown Calgary on 22 July 2011 by GRP was identified recently via DNA barcode.



538.1 *Bactra maiorina* Heinrich, 1923. New record. A specimen of this species was collected at Dillberry Lake Provincial Park on 30 Aug. 2015 by DAM. It was previously known in Saskatchewan.

585.1 Evora hemidesma (Zeller, 1875). Reinstated record.

This species was reported from Alberta by Bowman (1951), but his voucher specimens, now deposited in the University of Alberta Strickland Museum, were misidentified specimens of *Hedya ochroleucana* (Frölich), and the species was listed as "erroneous" by Pohl et al. (2010) (#E023). On 30 Aug. 2015, DAM collected an authentic specimen at Dillberry Lake Provincial Park.



595.01 Acylis floridana (Zeller, 1875). New status. This is a new name in North America for the taxon previously listed as *A. comptana* (Frölich). The true *A. comptana* is restricted to the Old World, and North American populations have recently been recognised as a separate species (Gilligan et al. 2014). The name *floridana* is the oldest North American synonym, so it becomes the valid name for our species. *Ancylis comptana* should be added to the Erroneous Species List, at #E017.2.

598.01 Ancylis diminuatana Kearfott, 1905. New status.

As clarified by Gilligan et al. (2016), the species *A. diminuatana* Kearfott is not the same species as *A. diminutana* (Haworth)— note the missing letter 'a' in the latter. They were described as separate species on different continents. For many years, the name "*A. diminutana* (Haworth)" was used in North America, and it was reported from Alberta by Pohl et al. (2010), with the taxon "*A. diminuatana* Kearfott" treated as a synonym of it. However, "*A. diminuatana*

Kearfott" is the correct name for the North American species; "A. diminutana (Haworth)" is strictly Palaearctic (the latter can be added as #E017.3 in the Erroneous Species List).

597 *Ancylis uncella* ([Denis & Schiffermüller], 1775). New status. This is a new name for the taxon previously known in North America as *A. carbonana* Heinrich. Gilligan et al. (2016) synonymized *A. carbonana* and recognised the Holarctic taxon *A. uncella*.

663 *Pelochrista lathami* (Forbes, 1937). Removed from Alberta list. Records of this species from Alberta were misidentified, and have been corrected to #662 *P. morrisoni* (Walsingham). *P. lathami* becomes #E025.1 on the Erroneous Species List.

Crambidae

937.1 *Eudonia vivida* Munroe, 1972. New record. A specimen collected on 25 July 2006 along the Snaring River road in Jasper National Park was identified recently via DNA barcode. It was previously known from B. C..



998 Evergestis palousalis Munroe, 1974. New status. Pohl et al. (2010) listed *E. obscuralis* Barnes & McDunnough, 1914 for Alberta, but that taxon is an invalid name (there is an older "Evergestis obscuralis" described by Hampson in 1912). Munroe et al. (1995) proposed the replacement name *E. obscuralias* (note the extra letter 'a'), but it is now considered a subspecies of *E. palousalis* in the online Pyraloidea catalog

(Scholtens & Solis 2015).

1031 Pyrausta insequalis Guenée, 1854. New status.

Pohl et al. (2010) listed this species under the name *P. subsequalis* Guenée, which is now a synonym of *P. insequalis* (Scholtens & Solis 2015).

Erebidae

After a convoluted journey, this species arrives back on the Alberta list due to synonymy, not discovery. The valid name for *S. pteridis/danbyi* populations in Alberta has flipped back and forth over the past half century. Bowman (1951) listed *S. pteridis*, and *danbyi* was considerd a synonym of it at the time. Then Ferguson et al. (2000) reinstated *S. danbyi* to full species status. Pohl et al. (2010) listed *S. danbyi* as the confirmed Alberta species, with *S. pteridis* listed as "expected". Now *S. danbyi* has once again been synonymized with *S. pteridis*, by Lafontaine & Schmidt (2015). Thus *S. pteridis* is the valid name of the Alberta species, and #1643 *S. danbyi* should be removed.

1716.1 *Catocala sordida* Grote, 1877. Correction.

This species was listed as "expected" for Alberta by Pohl et al. (2010), and then confirmed by Pohl (2014) based on a specimen in the Royal Saskatchewan Museum from Gordon Lake, near Ft. McMurray. That was a databasing error; that specimen was in fact from a Gordon Lake in Saskatchewan, not Alberta. The species remains "expected" in Alberta, so it is coded as "erroneous but expected, EP. "

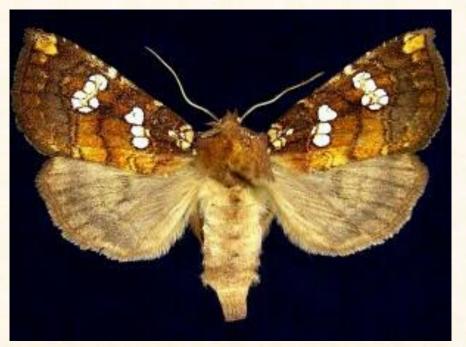
Noctuidae

1943.1 Oligia obtusa Smith, 1902). Confirmed record.

This species, long expected in Alberta, was collected at Dillberry Lake Provincial Park on 1 Sept. 2015 by DAM. It is provisionally placed in the genus *Oligia*, but may actually belong elsewhere.

1964 Papaipema insulidens (Bird, 1902). New status.

Three *Papaipema* species; *P. insulidens*, *P. pertincta* Dyar, and *P. birdi* (Dyar) have recently been recognised as a single variable species that occurs across the Boreal zone (Lafontaine & Schmidt 2015). Alberta records were previously listed as *P. birdi*, but *P. insulidens* is the older name.



Papaipema insulidens, photo by Jim Vargo, Moth Photographers Group



A blast from the past: mothing near Medicine Hat, August of 2005, with Randy Dzenkiw, Sarah McPike, Tenille Camphaug, and Jesse Acorn