

ADDITIONAL BUTTERFLY RECORDS FROM ALBERTA, 1999 - 2002

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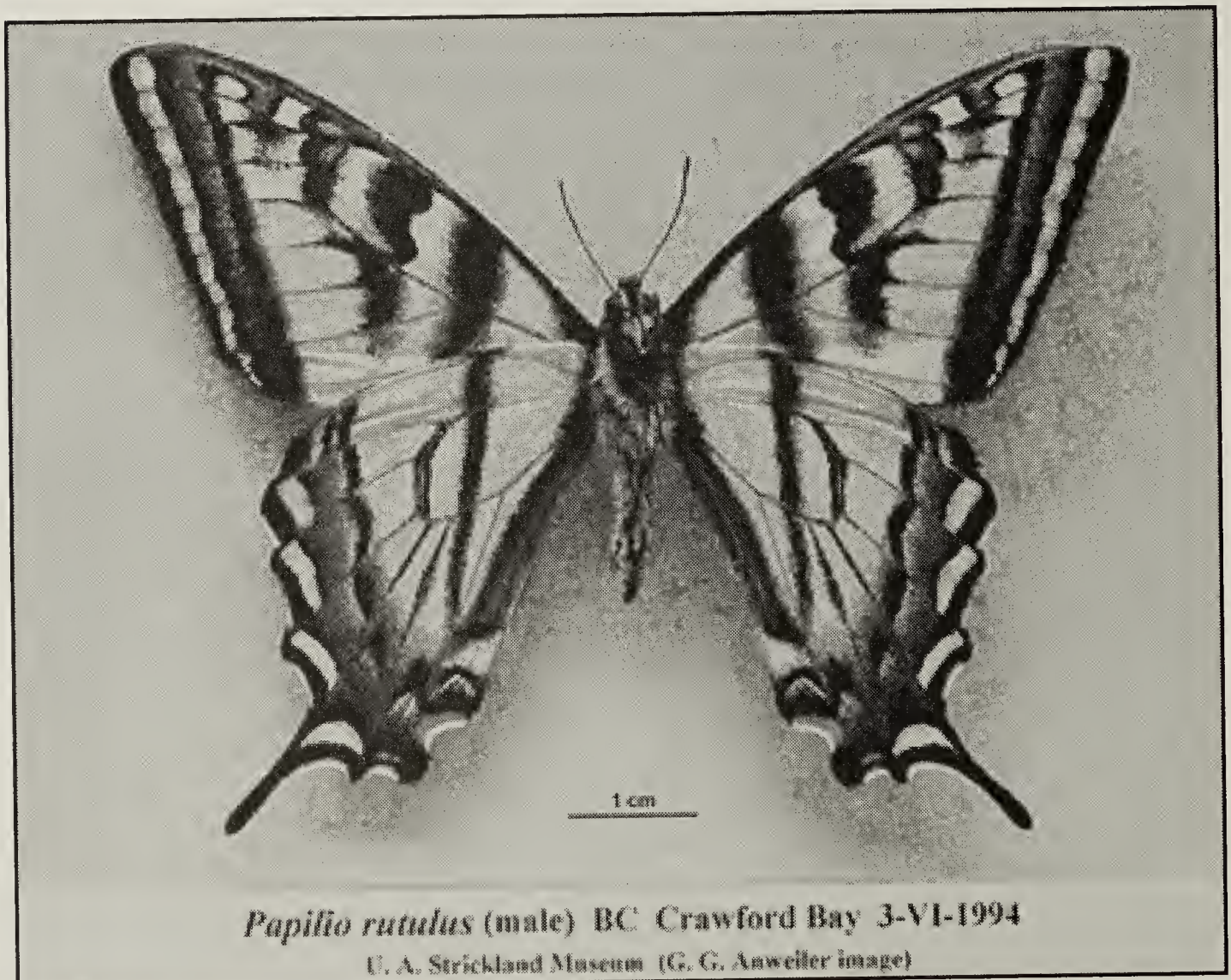
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Introduction

The following is a compilation of mainly recent butterfly records, which are noteworthy for extending the reported distribution or flight dates, or filling in distribution gaps as represented in recent works on the Alberta butterfly fauna.^{9, 21} Bernadett's Checkerspot (*Euphydryas*

'*anicia*' *bernadetta*) and Egleis Fritillary (*Speyeria egleis*) are reported for the first time from Canada. Tremblay's Margined White (*Pieris marginalis tremblayi*) is reported from Alberta for the first time, and the presence of the Western Tiger Swallowtail (*Papilio rutulus*) in Alberta is confirmed.



Western Tiger Swallowtail, male, ventral

G.G. Anweiler

Most of the unusual flight date observations occurred in 1998 and 2002, which exhibited very early (1998) and delayed (2002) spring conditions. Much of east-central Alberta experienced severe drought conditions throughout the spring and summer of 2002, followed by a cool, wet period in late July. This resulted in unusual timing of flowering events, such as blooming violets and canola crops in mid-September near Wainwright. These conditions may also have triggered late butterfly emergences. Extreme southern Alberta experienced above average precipitation throughout the summer of 2002, and vegetation was exceptionally lush; large clusters of blooming Dotted Blazing Star (*Liatris punctata*) and knee-high needle-and-thread grass (*Stipa* spp.) gave Writing-on-Stone Provincial Park a spring-like appearance in early September!

All reported specimens were identified or had previous identifications verified by Chris Schmidt or Norbert Kondla. Voucher specimens for most records are placed in the University of Alberta Strickland Museum collection. Butterfly nomenclature primarily follows that of *The Butterflies of Canada*.²¹

Grizzled Skipper - *Pyrgus centaureae freija* (Warren)

Few populations of this skipper are known in Alberta. Several populations have recently been found in acidic bogs of the boreal region, at the town of Zama Lake (= Zama City, see Map1) on 2 June 1999 (DM); Highway 813, 55 km N of Calling Lake on 26 June 2001 (CS), and Dussault Lake Natural Area on 16 June 2001 (CS). Together with other reports of this species from Elk Island National Park and the Darwell area in 2000,⁶ these records extend the known range southward and fill significant gaps in our knowledge of the distribution of this skipper.

In north-eastern Canada, between Labrador and Manitoba, the Grizzled Skipper has a two-year life cycle, being absent or rare in even-numbered years.²¹ A thorough check of the Calling Lake locality

in 2002 failed to turn up any skippers. Interestingly, no Grizzled Skippers were reported from the Elk Island and Darwell count in 2001.⁷ This suggests that Alberta's boreal populations may also be biennial.

European Skipper - *Thymelicus lineola* (Ochsenheimer)

This introduced skipper has been expanding its range outward from the Edmonton area since the first specimens were discovered there in 1987.⁸ This species was common in roadside ditches of the Hastings Lake area 35 km east of Edmonton in 1997, and is currently common to abundant in the greater Edmonton area.¹⁰ A survey of the Highway 16 corridor between Edmonton and Wildwood in 1998 showed that it had spread to 10 km W of Evansburg, 130 km west of Edmonton (CS). On 27 July 2001 it was found south of Edmonton at the south end of Coal Lake, near Wetaskiwin (GA), and in 2001 for the first time at the north shore of Pigeon Lake (F. Sperling, pers. comm.). It has also expanded northward to at least the Redwater area within the last 10 years,¹⁵ and occurs eastward to at least Kinsella.⁶

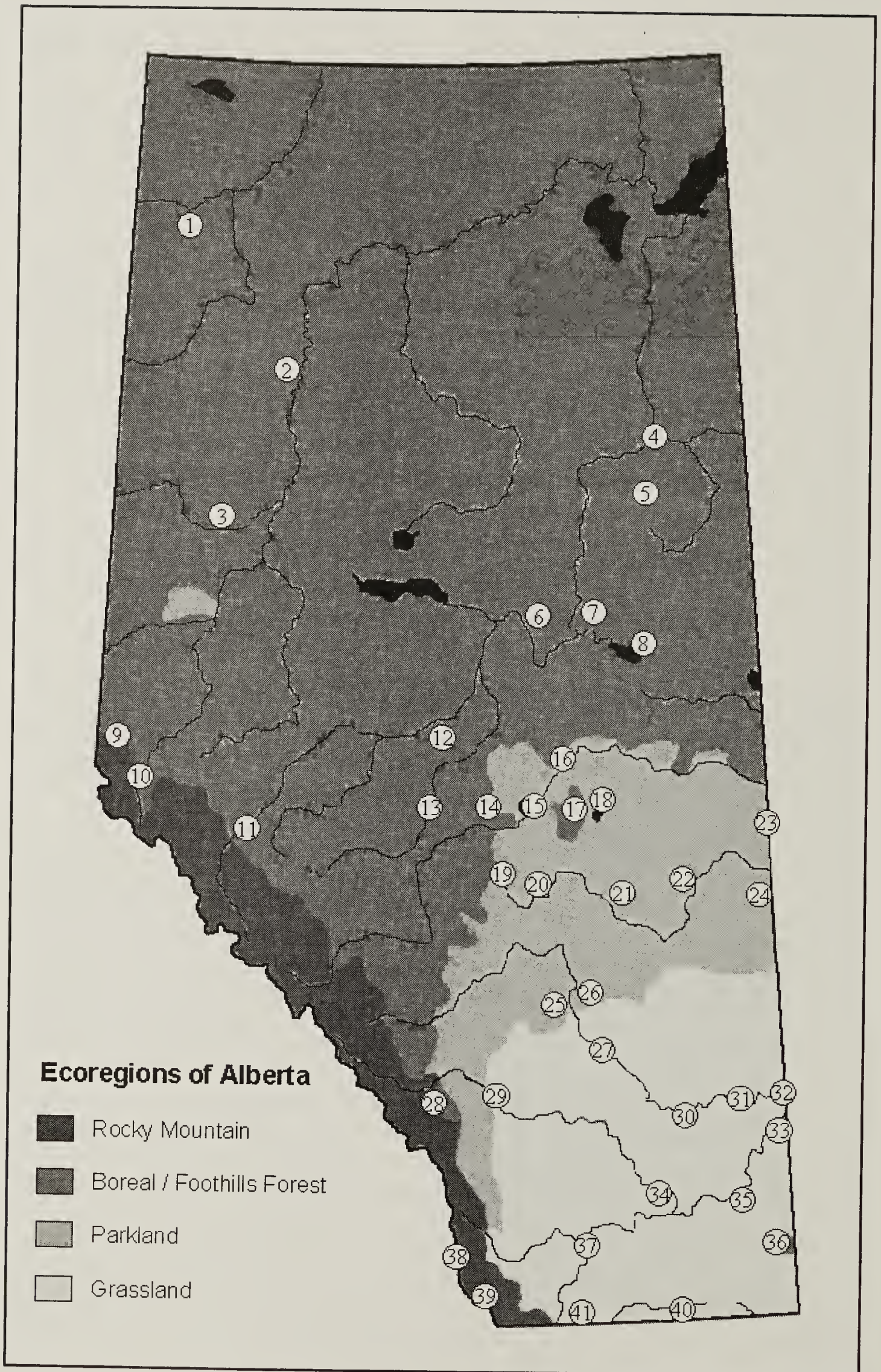
The European Skipper is currently also spreading eastward into the Crowsnest Pass region of Alberta, where it was found at the east end of Tent Mountain Pass by Ted Pike on 6 August 2001. This is not surprising, as it had been found in BC east as far as Sparwood (25 km northwest of Tent Mountain Pass) by 1999.¹⁷

Nevada Skipper - *Hesperia nevada* (Scudder)

Nevada Skippers were found along the Battle River west of Heisler on 21 June 2001 (CS). This expands the reported range north and west from the Rumsey and Lloydminster areas, respectively. This is the first report of this species from the Battle River valley.

Plains Skipper - *Hesperia assiniboia* (Lyman)

This species was found at the Rumsey



Map 1. Locations referred to in the text.

Ecological Reserve on the remarkably early date of 25 July 1998 (CS), likely a result of the early and unusually warm spring central Alberta experienced in 1998.

Rhesus Skipper - *Polites rhesus* (W.H. Edwards)

Prior to 2000, the only known Alberta record for this species was based on a specimen collected in the Milk River Valley during 1977.²⁹ John Acorn found and photographed this species along the rim of the South Saskatchewan River near Redcliff in May 2000 (pers. comm.). On May 19 and 20 that same year, we found Rhesus Skippers at several sites along the Red Deer and South Saskatchewan River valleys north of Redcliff: Jenner Bridge N of Jenner (GA), Highway 41 at South Saskatchewan River (GA, CS) and 6 km W of McNeill (CS). The first report of the Rhesus Skipper for Canada was a specimen collected by Ron Hooper at Fort Qu'Appelle, Saskatchewan in 1971.¹³ While examining the skippers in the University of Alberta Strickland Museum recently, Chris Schmidt was surprised to discover a specimen of *P. rhesus* in a series of Uncas Skippers (*Hesperia uncas*). The specimen is a female with a Bowman label, collected at Medicine Hat on 21 June 1928.

This specimen is significant in that it shows that this skipper is not a recent arrival to Alberta due to a population expansion. The paucity of records may be a result of annual fluctuations in numbers, as has been suggested for populations in North Dakota.²³

Tawny-edged Skipper - *Polites themistocles* (Latreille)

Garita Skipperling - *Oarisma garita* (Reakirt)

Both species were found near Tiger Lily (17 km south of Ft. Assiniboine) on 7 July 2002, (GA, CS) extending the reported range to the northwest. Both skippers were common and nectaring on roadside alfalfa next to a semi-native pasture. Garita Skipperlings also occur in the Peace River grasslands to the northwest,⁹ but these two populations appear to be disjunct.

Delaware Skipper - *Anatrytone logan* (W.H. Edwards)

This species was found at the Red Deer River crossing of Secondary Highway 876 on 12 July 2000 (DL). This occurrence fills a large distribution gap, with the nearest known occurrences over 100 km distant near Drumheller and Empress.⁹ In 2002, it was

Locations of place-names referred to in text:

Algar Lake - 5	Elk Island Nat	Lethbridge - 37	S. Saskatchewan
Barrier Lake - 28	Park - 17	Lloydminster - 23	River - 33
Beaverhill Lake - 18	Empress - 32	McNeill - 33	Tiger Lily - 12
Bluesky - 3	Evansburg - 13	Medicine Hat - 35	Torrens River - 9
Buffalo - 31	Fort McMurray - 4	Ministik Lake - 17	Trochu - 25
Calgary - 29	Grande Cache - 10	Owl River - 8	Wandering R. - 7
Calling Lake - 6	Hawk Hills - 2	Patricia - 30	West Castle R. - 39
Cooking Lake - 17	Hastings Lake - 17	Pigeon Lake - 19	Wetaskiwin - 20
Crowsnest Pass - 38	Hays - 34	Prairie Bluff	Whiskey Gap - 41
Cypress Hills - 36	Heisler - 21	Mtn. - 39	Windsor Mtn. - 39
Darwell - 14	Hilda - 33	Red Deer R. @	Whistler Mtn. - 39
Dilberry Lake - 24	Hinton - 11	Hwy. 876 - 30	Writing-on-Stone
Drumheller - 27	Jenner - 30	Redcliff - 35	Prov. Park - 40
Dussault Lake - 14	Jumpingpound	Redwater - 16	Zama Lake town
Edgerton - 24	Mtn. - 28	Rumsey - 26	(=Zama City) - 1
Edmonton - 15	Kinsella - 22		

also found near Patricia on 10 July by Jim Beck and Jeff Manchak (NK). These records are the result of recent surveys of grassland habitats. Although most recently treated as subspecies *lagus*,²¹ it has long been pointed out that Alberta populations are not typical *lagus* and should not be assigned to subspecies until further study.²⁹

Woodland Skipper - *Ochlodes sylvanoides*
(Boisduval)

This species was found to be common at Writing-on-Stone Provincial Park 1 - 4 September 2002 (GA, CS). A specimen was also caught there in an ultraviolet light trap on 13 August 1996 (GA). This is a new locality for this species. The Woodland Skipper may have expanded its range northward to the Wintering Hills southeast of Drumheller within the last 20 years,¹⁵ and it has apparently also established itself in Drumheller, where Ted Pike found it in August of both 2001 and 2002.

Hobomok Skipper - *Poanes hobomok*
(Harris)

The Hobomok Skipper is encountered regularly in the North Saskatchewan River valley in Edmonton, a significant westward expansion of the range depicted in recent books.^{9,21} This species also occurs locally 25 km and 40 km east of Edmonton, at the North Cooking Lake Natural Area (north shore of Cooking Lake) and the Ministik Game Bird Sanctuary (CS). It was also found on 3 July 2000 at Pigeon Lake Provincial Park (F. Sperling). The female Hobomok Skipper figured in *Alberta Butterflies*⁹ is a misidentified female Peck's Skipper *Polites peckius* (Kirby).

Oslar's Roadside Skipper - *Amblyscirtes oslari*
(Skinner)

One individual of this rare and local skipper was found in sparsely vegetated grassland among the eroding hoodoos of Writing-on-Stone Provincial Park on 29 May 2000 (CS). There are fewer than ten known localities for this species in Canada, four of which are in Alberta.^{20,21}

Common Roadside Skipper - *Amblyscirtes vialis*
(W.H. Edwards)

Although this species is widely distributed across the province, there are no previous occurrences in a band from Calgary east to the Saskatchewan border.⁹ The following new records fill in this gap: Calgary (Sandy Beach Park), 27 June 1997; Highway 41 at South Saskatchewan River, 20 May 2000; and Lethbridge, 24 May 1999 (all DL).

Old World Swallowtail - *Papilio machaon*
L.

The prairie subspecies (*dodi* McDunnough) was found in the Battle River valley west of Heisler on June 13 and 21, 2001 (CS). There are no previous records of the Old World Swallowtail from the Battle River valley, and this locality is a slight northern range extension.

A female of the Peace River grassland subspecies (*pikei* Sperling) was collected nectaring on alfalfa on the north bank of the Peace River south of Bluesky on 7 August 2002 (CS and W. Nordstrom). This is over three weeks later than previous records.¹⁸ The cold and delayed spring in the Peace River district in 2002 may account for this unusually late emergence.

The boreal subspecies (*hudsonianus*) has also been collected recently at several new locations: northwest of Hinton (near Highway 40 at Big Berland River), 22 July 2000; Clear Hills lookout tower near Worsley, 4 July 2000; and Gator Ridge 27 km northeast of Zama Lake town on 27 May 1998, 5 June 1999 and 21 - 23 June 1999 (all DM). Kris Sabourin also found this species at the Algar Lake airstrip along Hwy. 63 southwest of Fort McMurray on 30 May 1998, filling in a large distribution gap between the Pelican Hills (north of Calling Lake) and Lake Athabasca.⁹

Western Tiger Swallowtail - *Papilio rutulus*
Lucas

Ted Pike collected this species in early July of 2002 along the South Castle River

and northwest of the Castle River campground at Ghost Creek (West Castle River area). This is the first confirmed report of the Western Tiger Swallowtail for Alberta. Apparent hybrids between this species and the Canadian Tiger Swallowtail (*P. canadensis* Roth. & Jordan) are found occasionally, and have been reported from Alberta.²¹

Margined White - *Pieris marginalis* Scudder

The Margined White has been reported as far north as the Bow River valley in Alberta.⁹ Previously unreported specimens from the Torrens River area, 70 km NW of Grande Cache, collected by G. Hilchie between 1981 and 1985, are also attributable to this species. Additional records for this region are for Highway 666 at Lick Creek, 16 July 1996 (DL). Although at first glance this appears to be a northward range extension, British Columbia records indicate this species is present to the west in the McBride area.¹² Guppy and Shepard treat these BC populations, which are indistinguishable from the Torrens River specimens, as subspecies *tremblayi* Eitschberger (described from Pink Mountain, BC)¹². This is the first report of *P. marginalis tremblayi* from Alberta.

Large Marble - *Euchloe ausonides mayi* Chermock & Chermock

This typically boreal butterfly was found in a parkland - sand dune complex in east-central Alberta at Dilberry Lake Provincial Park on 26 May 2001 (CS & GA) and near Edgerton on 1 June 2002 (GA). Previous records for eastern Alberta are all from the boreal forest zone, or from further south along the badlands of the Red Deer River and southward.⁹ Several specimens were also collected at the Redwater Natural Area on 2 May 1998 (DL, GA & CS), slightly earlier than the previously reported earliest flight date.⁹

Most Canadian populations have recently been assigned to subspecies *ausonides*,²¹ but

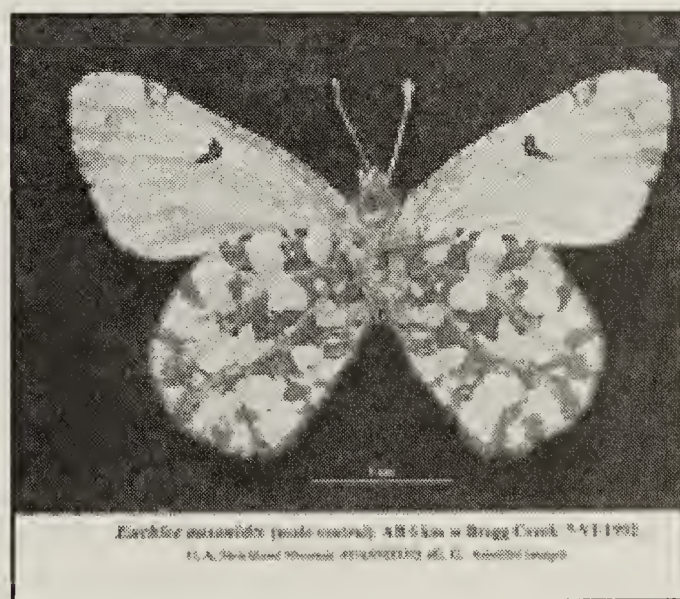
descriptions of typical *ausonides* from California² do not match Alberta specimens. Based on our present knowledge, the best subspecies assignment for Alberta populations appears to be *mayi*.⁹

Canada Sulphur - *Colias canadensis* Ferris

Canada Sulphurs were found in old growth White Spruce forest 29 km NE of the town of Zama Lake on 19 and 30 June 1997, 3 July 1997, 26 May 1998, and 21 June 1999 (DM). Individuals were observed drinking at puddles or flying down cutlines and along roadsides. Of the 11 specimens collected, only two were males.

Chippewa Sulphur - *Colias chippewa* W.H. Edwards

This typically subarctic species was discovered at three new locations in Alberta during the summers of 1998 – 1999, doubling the number of reported localities for Alberta.²¹ Specimens were collected 29 km NE of the town of Zama Lake on 10 June 1998 and 12 and 22 July 1999; along the Adair Fire Tower access road E of Zama Lake town on 8 July 1999, and along the Chinchaga Fire Tower access road west of Hawk Hills in July 1999 (all DM). Two of the specimens collected near the town of Zama Lake were found resting in a wet area of a black spruce bog but all others were caught flying along roadsides.



Large Marble, male, ventral

G.G. Anweiler

This sulphur has usually been treated as a subspecies of the European *C. palaeno*,^{9,21} but these two butterflies have different habitat preferences where they co-occur in Siberia, consistent with differences in wing markings and size,³⁰ and are therefore best treated as separate species.¹²

Bronze Copper - *Lycaena hyllus* (Cramer)

There are few reported localities for this species in the boreal forest of Alberta, likely a result of its fondness for willow-sedge fens and marshes, which are not investigated by butterfly enthusiasts as often as drier habitats. A colony was found about 20 km north of Wandering River on 23 July 1997 (CS), which fills a large distribution gap between Edmonton and Fort McMurray. Another colony was discovered in an alkaline fen east of the town of Zama Lake on 16 August 1997 (DM & G. Pohl). The Bronze Copper was also found at the Forestry Trunk Road / Oldman River junction (40 km north of the Crowsnest Pass) on 1 August 2001 (NK), one of the few records for the mountain region.⁹

Ruddy Copper - *Lycaena rubida sirius* (W.H. Edwards)

Most reports are from the southeast corner of the province.⁹ New reports, over 70 km NW of previous records, are near the Highway 876 crossing of the Red Deer River on 12 July 2000, and north of Buffalo on 26 June 2000 (DL).

Blue Copper - *Lycaena heteronea* Boisduval

This species is generally restricted to low elevations in Alberta,⁹ but it was found above tree line in 2001 at Hailstone Pass and Sugarloaf Mountain near patches of umbrella-plant (*Eriogonum* sp.), its larval host plant (NK).

Dorcas Copper - *Lycaena dorcas* W. Kirby

A single freshly emerged male was collected on 24 August 2002 in the sandhills just east of Edgerton (GA). This extends the range in eastern Alberta some 100 km southward into the aspen parklands. The

Dorcas Copper is a species of boreal fens and bogs, and the Edgerton population is unusual and may be quite isolated. The male specimen illustrated as *dorcas* in *Alberta Butterflies*⁹ is actually a male Purplish Copper (*L. helloides*).

Mariposa Copper - *Lycaena mariposa penroseae* Field

A colony of Mariposa Coppers was found on an overgrown trail located along the Chinchaga Fire Tower Road, west of Hawk Hills on 26 July 1999 (DM). The butterflies were sunning themselves on alder leaves.

Grey Hairstreak - *Strymon melinus* Hübner

In Alberta, the Grey Hairstreak is uncommon and local and there are few records from north of the South Saskatchewan River. This species was found at the Red Deer River crossing north of Jenner on 19 May in 2000 (DL, CS & GA) and at the South Saskatchewan River bridge near Hilda on 20 May and 26 June (DL). Grey Hairstreaks were also found near the Highway 876 crossing of the Red Deer River on 30 April (an early flight date record) and 12 July 2000 (DL).

Although Alberta populations have been referred to subspecies *franki* Field^{12,21} (originally described from Kansas), our Gray Hairstreaks do not look like typical *franki*²⁹ and should not be assigned to subspecies until further study has been done.

Moss's Elfin - *Callophrys (Deciduphagus) mossii* (H. Edwards)

Until recently, the only known Alberta population of this species was found at Windsor Mountain in the West Castle River valley.⁹ On 24 May 1999, it was also found at Whistler Mountain, not far from the location of the Windsor Mountain colony (CS, DL, GA). Jim Beck also collected a flight-worn female at Prairie Bluff Mountain on 12 July 2002, a very late flight date and a new locality.

Johnson¹⁴ segregated the North American



Moss's Elfin, male, ventral

G.G. Anweiler

non-conifer-feeding elfins into the newly described genus *Deciduphagus*. Usage of this new name has not been addressed by North American workers, possibly as a result of where this work was published (see discussion under Greenish Blue, below). Here, we consider this genus to be a valid natural grouping of species, but prefer a broader definition of the genus *Callophrys*, and retain *Deciduphagus* and *Incisalia* as subgenera.

Hoary Elfin - *Callophrys (Deciduphagus) polia obscura* (Ferris & Fisher)

Brown Elfin - *C. (D.) augustinus augustinus* (Westwood)

These two elfins are typical of boreal and montane habitats, so we were surprised to find colonies of both species in the sandhills at Dilberry Lake Provincial Park on 26 May 2001 (GA & CS). Hoary Elfins were also found in the sandhills southwest of Edgerton on 1 June 2002 (GA). Colonies were associated with patches of the presumed larval hostplant, Bearberry (*Arctostaphylos uva-ursi*). These elfin populations are quite isolated, with the nearest suitable boreal habitat over 100 km to the north. Isolated prairie populations of the Brown Elfin also occur in the Wintering Hills southeast of Drumheller and the lower Milk River valley.⁹ Jeanette Pepper also found a specimen associated with bearberry in Grasslands National Park, southern Saskatchewan in 2002 (Ron Hooper, pers. comm.).

Eastern Pine Elfin - *Callophrys (Incisalia) niphon clarki* (T.N. Freeman)

Western Pine Elfin - *C. (I.) eryphon* (Boisduval)

Both pine elfin species were found near the town of Zama Lake in a small lodgepole pine stand, on 26 May 1998 (*C. niphon*) and 24 May & 4 June 1999 (*C. eryphon*) (DM). These records fill in large gaps in the known distribution of these species, with the nearest records of *eryphon* about 200 km to the south and *niphon* 150 km to the east.^{9,21}

Alberta specimens of Western Pine Elfins often have a pinkish or purplish cast to the underside, a character that is not consistent with the original description of this species, and therefore should not be assigned to the nominate subspecies, as has been done in recent books.^{9,12,21} The ventral forewing cell bar character purported to be an identification character to separate *C. niphon* from *C. eryphon*^{12,21} is not reliable. The Eastern has a more irregular, white-edged median band on the hindwing underside, and the outer edges of the submarginal arrow-shaped marks do not reach the wing edge as they do in *eryphon*. The male specimen of the Eastern Pine Elfin figured in *Alberta Butterflies*⁹ is actually a female Western Pine Elfin.

Coral Hairstreak - *Satyrrium titus immaculosus* (W.P. Comstock)

A female, found nectaring on goldenrod on 18 September 2002 about 8 km southeast of Edgerton, extends the reported flight date range by two weeks (GA & CS).⁹

Rocky Mountain Dotted Blue - *Euphilotes ancilla* (Barnes & McDunnough)

A male was found on the south slopes of the Bow River near Hays on 5 June 1998 (DM). This represents a slight northern range extension for this species, which is known from relatively few localities in Alberta, with the northernmost occurrence near Lethbridge.⁹

Western Tailed Blue - *Cupido amyntula*
(Boisduval)

The Western Tailed Blue was another species that occurred unusually late in 2002, recorded from Barrier Lake in Kananaskis Country on August 17 (CS). The previous late record was August 9.⁹ Interestingly, this typically low-elevation species was found in 2001 inhabiting the steep, herbaceous alpine meadows above Window Mountain Lake in the Crowsnest Pass region (NK & T. Pike).

Several recent publications properly place our tailed blues, previously assigned to *Everes*, in the genus *Cupido*.^{25,11}

Arrowhead Blue (*Glaucopsyche piasus daunia*)

The Arrowhead Blue is an uncommon and local species in Alberta. Previous, unreported records include a female at the Milk River north of Del Bonita (a new locality but within the known distribution) on 2 July 1997 (DL), and a female collected at Bellevue on 15 June 1996 (DM). This latter record extends the Arrowhead Blue's reported range west into the Crowsnest Pass.

Silvery Blue - *Glaucopsyche lygdamus couperi* Grote

Greenish Blue - *Aricia saepiolus amica*
(W.H. Edwards)

These two species of blues were found on Jumpingpound Mountain near Bragg Creek on 20 August 2002 (CS), extending the reported flight range by several days.⁹ Silvery Blues were also observed in Fort McMurray along the west-facing slope of the Hangingstone River on 2 September 2002 (DM), later than any previous records for this species.⁹

The Greenish Blue has been placed in the genus *Plebejus* (= *Plebeius*) in recent books.^{9,12,21} Readers interested in the appropriate usage of *Plebejus* vs. *Plebeius* can refer to Balint *et al.*³ Balint and Johnson reviewed a large section of the world's blue fauna (the Polyomatini), and provide sound

reasons for transferring *saepiolus* to the genus *Aricia*.⁴ This work has apparently been overlooked or ignored by North American workers; Shepard²⁸ presents possible reasons why this arrangement has not been accepted on our continent, and Kondla¹⁶ points out that the reasons laid out by Shepard are unwarranted.

Shasta Blue - *Aricia shasta minnehaha*
(Scudder)

Shasta Blues were found in eroding hillside habitat on the west-facing slopes of the Red Deer River east of Trochu on 1 July 2001 (GA & CS). This locality slightly extends the range of this species to the north of distributions depicted in recent books.^{9,21} Uncommon at this location, the butterflies were observed nectaring on a species of yellow aster and on umbrella-plant (*Eriogonum* sp.).

This species has previously been placed in the genus *Icaricia*^{12,21} or *Plebejus*.⁹ We follow the generic assignment proposed by Balint and Johnson.⁴

Melissa Blue - *Plebejus melissa* (W.H. Edwards)

This species was found at the south end of Coal Lake near Wetaskiwin on 9 June 2001 (GA & CS). One worn female was also found in a meadow on the north shore of Ministik Lake on 29 August 2001 (CS). There are few records of the Melissa Blue in this region, near the northwestern limit of its North American range. These are apparently the first records for the Edmonton region since 1915, when the last known specimens were collected by Kenneth Bowman (Strickland Museum, University of Alberta). Genitalic examination of specimens from the Peace River grasslands⁹ previously thought to be *melissa* show that they are in fact allied to the Northern Blue, *P. idas* (CS). Further work is necessary to clarify the status of the Peace River *idas* / *melissa* population. Despite claims that the Melissa Blue thrives in agricultural alfalfa fields throughout its western range, and is double-brooded only

when associated with alfalfa,²⁴ we have found it only in native grasslands.

We place *melissa* in the genus *Plebejus*, following the work of Balint and Johnson⁴ rather than *Lycaeides* of most recent works.^{9,12,21} It should also be noted that both individuals of Melissa Blue depicted in *Alberta Butterflies*⁹ are actually misidentified specimens of Northern Blues. Due to the obvious difficulty in separating these two species, the published occurrences and distribution of the Melissa Blue in the southern foothills and mountains of Alberta, where both species may occur,^{9,21} needs re-evaluating.

Cranberry Blue - *Albulina optilete yukona* (Holland)

Two Cranberry Blue specimens were collected by Felix Sperling in a small bog at the north end of Pigeon Lake on 12 July 2002. This extends the range of this boreal species 50 km southward from the Edmonton area. This species was also found in black spruce bogs near the town of Zama Lake on 28 July 1997 and 21 July 1998 (DM) and along Highway 813 9 km S of Calling Lake on 7 July 1999 (DL).

The Cranberry Blue was previously placed in the genus *Vacciniina*; Balint and Johnson⁴ revised the generic placement.

Rustic Blue - *Agriades rusticus* W.H. Edwards

In favourable years, prairie populations of the Rustic Blue have at least a partial second brood. The unusually warm and early spring of 1998 apparently facilitated a very early second brood at the Rumsey Ecological Reserve, where freshly emerged individuals were found on May 13 and again on 26 July (CS). This is much earlier than previous September records for the second brood.¹⁹

This blue is known under a variety of both English and Latin names,¹⁹ including Arctic Blue, Rustic Blue, *Plebejus aquilo*, *Agriades glandon* and *Agriades rusticus*.^{9,12,13,21} We

treat *rusticus* as a species separate from the arctic/alpine entities (*aquilo*, *glandon*, *megalos*) due to the different appearance, ecology, and broodedness of prairie populations, and the lack of intergradation between prairie and mountain populations where these occur in close proximity in southwestern Alberta.

Aphrodite Fritillary - *Speyeria aphrodite* (F.)

One flight-worn individual found at Dilberry Lake Provincial Park on 18 September 2002 (GA & CS) extends the flight period by over three weeks.⁹

Egleis Fritillary - *Speyeria egleis* (Behr)

A fritillary collected at Whiskey Gap on 26 June 1983 (NK) has recently been identified as *Speyeria egleis* with the help of Paul Hammond. This record is mapped in *Butterflies of British Columbia* (p. 360),¹² where it is incorrectly attributed to subspecies *albrighti*. Gerald Hilchie also collected this species in the Cypress Hills in 1999 and Ted Pike found it there in 2000. Another specimen was collected near Pincher Creek southwest of Lethbridge in 2002 by Dean Nicholson. These are the first records of this species for Canada.

Rockslide Checkerspot - *Chlosyne damoetas altalus* Scott

This species was found on a scree slope on Mount Hammell, near Grande Cache on 19 July 1998 (DL). This is the first reported occurrence north of the Athabasca River, and extends the North American range over 170 km northwest of the Cadomin area (southwest of Hinton), the previous northern range limit.²¹

Examination of Alberta specimens reveals that Alberta populations are best assigned to subspecies *altalus*,²⁷ not *damoetas*.^{12,21}

Gorgone Checkerspot - *Chlosyne gorgone carlota* (Reakirt)

This species has a local and sporadic distribution in Alberta, with adults on the

wing from May into July.⁹ It was therefore unexpected when John Acorn found this species locally common at Medicine Hat in early September of 2002, nearly two months later than the previous late date of July 15.⁹ This is the first report of a probable second brood for Alberta; Layberry *et al.* state that only one brood occurs in western Canada,²¹ but a second brood occurs, at least on occasion, in Saskatchewan.¹³ Local colonies flying late in the season may have been overlooked previously in southern Alberta, or this species may be responding to warming climate trends by producing a second brood some years.

Bernadett's Checkerspot - *Euphydryas 'anicia' bernadetta* Leussler

On 26 June 1984 Kondla collected a series of 45 *Euphydryas* at two locations in the Cypress Hills. A few specimens were examined for the presence of Edith's Checkerspot, *E. editha hutchinsi* McDunnough, but close examination of all specimens was not carried out until 2001. Examination then revealed that the individuals from one location were all 'typical' reddish Anicia Checkerspots, *E. anicia* subspecies, but that the second locality supported two distinct phenotypes flying together. Here the freshly-emerged, reddish *E. anicia* were accompanied by mostly flight-worn, whitish Bernadett's Checkerspot (*E. 'anicia' bernadetta*) phenotypes. These were compared to specimens of *bernadetta* from the type locality (Monroe Canyon, Sioux

Co., Nebraska) provided by S. Spomer, and found to be indistinguishable. Additional specimens of Cypress Hills *bernadetta* exist in the Canadian National Collection and have also been collected there by Ted Pike. Consequently we report a new butterfly taxon from Alberta and from Canada – *Euphydryas 'anicia' bernadetta*.

Sympatric occurrence of two distinct-looking butterflies, coupled with a difference in flight period, is normally cited as convincing evidence of distinct species, rather than subspecies, status for such phenotypes. Steve Kohler (pers. comm.) has found that *bernadetta* is also sympatric with *anicia* in Montana, again with a difference in flight period. This strongly supports the observation made by Bauer (p. 652)⁵ that "there is a fairly good possibility that this group is a separate, but closely related, species instead of a subspecies of *anicia*." The group that Bauer referred to is a suite of named populations that share phenotypic and ecological similarities over a substantial area in the interior of North America. Available information certainly supports recognition of *Euphydryas bernadetta* as a species distinct from *anicia*.

Hoary Comma - *Polygonia gracilis* (Grote & Robinson)

Two specimens were collected nectaring at clover near the town of Zama Lake (29 km NE) on 12 August 1997 (DM). This is a regional record for the northwest boreal part of the province.

Hybrid White x Lorquin's Admiral - *Limenitis arthemis* (Drury) x *lorquini* Boisduval

Both the White and Lorquin's Admiral occur together in the Waterton – Crowsnest Pass region of Alberta, and hybrids have been found there on occasion.⁹ A hybrid female was collected on 24 July 1999 in the West Castle River valley (DL), and another hybrid individual was collected at the base of Sugarloaf Mountain (north of the Crowsnest Pass) on 2 August 2001 (NK). This is a



Gorgone Checkerspot, male, ventral
G.G. Anweiler



Lorquin's Admiral, male, ventral

G.G. Anweiler

substantial northward extension for a hybrid admiral in Alberta.

Viceroy - *Limenitis archippus* (Cramer)

A single very worn individual was collected at Writing-on-Stone Provincial Park on 3 September 2002 (GA). This is almost three weeks later than the latest known flight date (August 12).⁹ A single individual was also seen in Edmonton in early September 2001 (GA), unusually late for this species. This species was also collected in the Swan Hills (90 km NW of Tiger Lily) on 1 July 1988 (DM). This record fills a large gap in the known distribution of the east-central boreal region of Alberta.²¹

West Coast Lady - *Vanessa annabella* (Field)

A large spring migration of the Painted Lady (*Vanessa cardui* [L.]) occurred in Alberta during 2001. Rather surprisingly, a specimen of the West Coast Lady was captured among individuals of the Painted Lady on 8 June 2001, near the west shore of Beaverhill Lake (CS). This species was previously recorded from as far north as Calgary.²¹ It should be watched for among migrating Painted Ladies.

Ochreous Ringlet - *Coenonympha ochracea mackenziei* Davenport

Ochreous Ringlets were found in an alkaline fen east of the town of Zama Lake on 16 August 1997 (DM). This extends their

range south into the northwestern part of the province.

Although recent books treat some or most of the North American populations as part of the European species *tullia*,^{10,19} no compelling evidence has been published to follow this interpretation. We follow the nomenclature presented by Bird *et al.*⁹

Chryxus Arctic - *Oeneis chryxus caryi* Dyar

A single specimen of this species was found in open, sandy jack pine woods near the locality of Owl River north of Lac La Biche on 20 May 2000 (DM). This is a new locality for the province, and extends the known range southward by about 200 km from Fort McMurray.⁹

Uhler's Arctic - *Oeneis uhleri varuna* (W.H. Edwards)

The northernmost breeding populations occur locally in the parkland region on grassy, south-facing slopes of the North Saskatchewan River valley. Two additional populations were found on 16 May 2001 on the banks of the North Saskatchewan River where Highway 855 and 831 cross the river, east of Redwater (CS).

Alberta Arctic - *Oeneis alberta alberta* Elwes

Several individuals were found in a sandy pasture at the north end of Beaverhill Lake on 16 May 2001 (CS), extending the range about 90 km to the north.⁹

Northern Pearly Eye - *Enodia anthedon borealis* A.H. Clark

The Northern Pearly Eye was not known to occur in Alberta until 1990.²⁶ New Alberta localities for this species include the Cooking Lake area east of Edmonton in the Blackfoot – Cooking Lake Grazing Reserve in 1999 and 2002; Ministik Game Bird Sanctuary in 2001; and 35 km north of Boyle (SW of Wandering River) in 2002 (all CS). Also recently recorded from the Beaverhill Lake Natural Area and Elk Island National Park.^{6,10} These records extend the known

range of this uncommon and local species by about 200 km to the southwest.⁹

Layberry et al.²¹ do not recognize any subspecies for Canadian populations of *antheson*. The subspecies *borealis* was described from Hymers in western Ontario, and Masters²² pointed out that differences in adult behaviour observed between nominate *antheson* and adjacent *borealis* populations might indicate species-level differences. A careful comparison of ecological, morphological and genetic characters is needed to shed light on the relationships among populations of this interesting species-group.

Common Wood-nymph - *Cercyonis pegala* ino Hall

Several individuals were found near Edgerton on 15 September 2002 (GA & CS), an unusually late flight date for this species. The previous late record is September 7.⁹

Dark Wood-nymph - *Cercyonis oetus* (Boisduval)

This species was found to be quite common at lower elevations in the Grande Cache area in July of 1997, 1998 and 2000 (DL). This is the northernmost known occurrence of this species in the province⁹ and the presence of this butterfly in this area fills in a gap in the distribution with more northern populations in the Peace River district of BC.²¹

Monarch - *Danaus plexippus* (L.)

A single Monarch was collected at Writing-on-Stone Provincial Park on 3 September 2002 (GA), over a week later than previous records show (August 25).⁹ A specimen was also found on 16 June 2002 near Standard (NK). The Monarch is very rare or absent in Alberta during most years, and numbers appear to have been higher than usual in 2002.

Although similar in colouration and pattern to the Viceroy, Monarchs are easy to recognize on the wing by their very

distinctive flight. Monarchs have a leisurely, floating flight and hold their wings at an angle above the body when gliding, whereas Viceroy's hold their wings in a flat plane when gliding, a behaviour characteristic of the genus *Limenitis*.

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DAKOTA SKIPPER (*Hesperia dacotae*) IN SASKATCHEWAN

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On July 19, 2001, I collected three male Dakota Skippers (*Hesperia dacotae*) on a prairie hilltop near Oxbow, Saskatchewan. These were the first known records of this species of butterfly for the province. These males had established territory which they guarded from high perches on top of purple coneflowers (*Echinacea angustifolia*). When disturbed they would dash off, but later return to the same perches. The Dakota Skipper has previously been taken as far west as Brandon, Manitoba and McKenzie County in western North Dakota.¹

In July 2002, Reginald Webster did a Canadian survey in Manitoba and

southeastern Saskatchewan of the Dakota Skipper for COSEWIC.² On July 11, he observed about 22 individuals in the Oxbow area. Three other Dakota Skipper records from Saskatchewan in 2002 were a female collected near Roche Percee on July 1 by Daniel Glaeske; a female collected south of Glen Ewen along the east slope of the Souris River Valley on July 28 by John Kozial; and a worn female collected 5 km east of Roche Percee on 29 July also by John Kozial.

The identity of our Saskatchewan specimens was confirmed by Ronald Royer of Minot State University who viewed high resolution jpg files of one of the 2001 males



Male Dakota Skipper collected by Ron Hooper at Oxbow, SK on 19 July 2001 (left - dorsal surface, right- ventral surface) / Jeanette Pepper