INSECTS

MORE ABOUT BUTTERFLY BOOKS AND A MAGAZINE

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This article reviews five regional identification guides not included in my June 1989 synopsis in *Blue Jay*, a caterpillar guide and a magazine.² It also compares the species coverage for each of the prairie provinces in eight major field guides. But first, a book about names.

THE COMMON NAMES OF NORTH AMERICAN BUTTERFLIES. J.Y. Miller. 1992. Smithsonian Institution, Washington, DC. 177 pp. (155 x 230 mm) \$20 US.

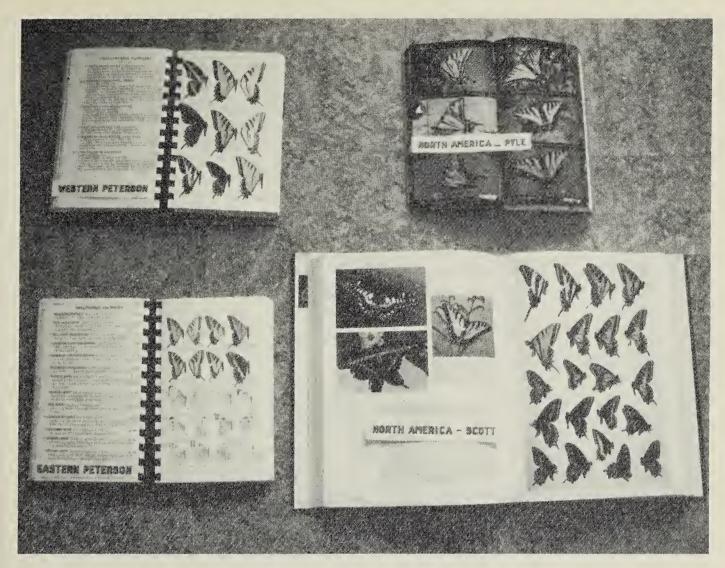
One curse of the insect world is the variety of names, both scientific and English (common), for one animal. For instance, Arctic Blue appears in all eight of the guides in the tables below but under six comand five scientific names mon names. So, to compare a species from one guide to another, you may have to check both common and scientific name. The sequence of butterfly groups may also change from book to book, making it difficult to learn where to look for a species.

This volume was the first step toward standardizing English butterfly names. For each species the most frequently published name is proposed as *the* common name. Beneath it are listed many of the alternatives (with scientific names) used over the years. Each synonym gives the book it was taken from so that the reader knows what name to look up in each title. (None of the prairie province guides were included.) To facilitate finding a particular butterfly by any other name, there is a 58-page index.

(The second step was taken by the newly formed North American Butterfly Association [NABA] which looked at Miller's list and came up with more appropriate names for some species. Their efforts have been published in *American Butterflies* [see below] and may soon appear as a separate checklist for North America.⁶ Hopefully this list will receive as widespread acceptance and use as the American Ornithologists' Union's bird names.)

BUTTERFLIES OF ALBERTA. John Acorn. 1993. Lone Pine, Edmonton, Alberta. 143 pp. Colour photos, black-and-white sketches. (140 x 215 mm) \$17 Cdn.

This is an attractive, softcover book. Its introduction includes sections on butterfly habitats and seasons, butterflies vs. moths, butterfly life cycles, enemies and behaviour, and enjoying butterflies - watching, gardening for and photographing. It concludes with a glossary, an index and a checklist. The major section on species makes



North American butterfly identification guides. Clockwise from upper left: Tilson's Western Peterson, Pyle's North American, Scott's North American, Opler's Eastern Peterson.

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interesting reading and presents a range map for each butterfly. Included are caterpillar and adult food plants.

There are a few problems. For instance: how many species are found in Alberta? "[S]ome 156," according to the introduction. However, the checklist gives 162 species. The text indicates that two of these (Pahaska Skipper and Northern Pearly Eye) have not yet been found and I could not locate the other two (Dun Skipper and Dog Face) elsewhere in the book. This volume would indicate that there are 158 species found in Alberta.

Unfortunately, this guide fails to ilsignificant portion of lustrate а Alberta's butterflies. Six species are not described and 20% are treated with text alone, often inadequately. Furthermore, an illustration, whether of a living butterfly or a sketch, usually displays only one surface of one Roadside Skipper (p. 42) and White Admiral (p. 109). On p. 98, Sage-Checkerspot brush is named. apparently meaning Acastus Checkerspot.

There is a map for every species (except Edith's Copper) but the maps are so small — 15 mm high and lack landmarks, such as Edmonton, Calgary, or any river systems, that their usefulness is significantly reduced.

Because scientific names are a necessary evil, it would have been more convenient if they had apmain text when the peared in



Provincial/state butterfly identification guides. Clockwise from upper left: Royer's North Dakota, Acorn's Alberta, Hooper's Saskatchewan, Klassen's Manitoba.

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species are first discussed, rather than in the checklist.

The strengths of *Butterflies of Alberta* are that it lists the species found, tells where and when to find them, and gives hints on plants for butterfly gardeners.

A FIELD GUIDE TO EASTERN BUTTERFLIES (Peterson Field Guide Series). P.A. Opler and Vichai Malikul. 1992. Houghton Mifflin, Boston. 396 pp. plus 48 colour plates. (114 x 182 mm) \$24 Cdn.

This is not a revision of Peterson's 40-year-old eastern butterfly book.⁵ It is a completely new guide — fully illustrated in colour with *paintings*. It covers "all species documented in the east" — east of the 100th Meridian (through Brandon, MB), including

practically all of Manitoba's butterflies, 85% of Saskatchewan's and 73% of Alberta's.

There are sections on life history; watching, photographing, collecting; gardening; conservation; habitats; glossary; checklist; directory of butterfly societies; and index to host and nectar plants. There are also colour *photos* of 9 butterfly flowers, 18 larvae, 9 chrysalids and 68 live butterflies.

Both upper and lower surfaces (half butterflies) of one sex are usually shown and each is identified by name on the plate (unlike the Western Peterson, where images are numbered). These illustrations are not enough in cases where male and female are different. All species on a plate are to the same scale. Typical

Table 1.PERCENTAGE OF PROVINCIAL SPECIES
TREATED IN EIGHT BUTTERFLY IDENTIFICATION GUIDES

Sequence: Total %	treated (% of provin	cial species in colour	r/black-and-white/ac	lequate text only)*
Butterflies of:	Alberta	Saskatchewan	Manitoba	Images/species
No. species:**	159	151	144	usual/range
GUIDE	%	%	%	Number
North America/	100	100	100	3-4/1-14
Scott	(99/1/–)	(99/1/–)	(99/1/)	
North America/	99	100	100	2-1/1-5
Pyle	(94/4/2)	(95/3/2)	(97/4/–)	
Western	97	95	92	2-1/1-13
Peterson/Tilden	(63/34/–)	(58/37/)	(63/29/)	
Eastern	73	85	97	2/1-5
Peterson/Opler	(70//3)	(82//3)	(96/-/1)	
Alberta/	94	68	79	1/1-4
Acorn	(51/23/20)	(44/14/10)	(50/17/13)	
Saskatchewan/	73	97	77	3-2/1-4
Hooper	(9/64/1)	(11/81/5)	(10/66/1)	
Manitoba/	66	78	99	3-4/1-10
Klassen	(66/–/–)	(78/–/–)	(99/—/—)	
North Dakota/	59	73	72	3/1-16
Royer	(57/1/–)	(72/1/–)	(71/1/–)	
* Total does not alw	vays equal three sub	totals because of rou	unding off.	
** Through 1993 fro	om provincial publica	tions, NABA listing a	nd additions to prov	incial faunas.

of the Peterson series, arrows point out diagnostic field marks and the facing text enlarges them. These features are most useful.

BUTTERFLIES OF NORTH DAKOTA — AN ATLAS AND GUIDE. R.A. Royer. 1988. Minot State University. Minot, ND. 193 pp. 1 black-and-white and 12 colour plates (145 x 203 mm) \$20 ± US.

The 142 species of North Dakota butterflies are illustrated by coloured photos. The pictures are excellent, if small. Two plates each have more than 50 images of pinned specimens. There are 1 to 16 pictures per species, with an average of 3. There is a map for each species (in a separate, paper-wasting section) with distribution designated by county. A most significant drawback is that illustrations and maps are identified by scientific names only. Seventy-two percent of Manitoba's butterflies are illustrated, 73% of Saskatchewan's, and 59% of Alberta's.

BUTTERFLIES THROUGH BIN-OCULARS. A FIELD GUIDE TO BUTTERFLIES IN THE BOSTON-NEW YORK-WASHINGTON RE-GION. Jeffrey Glassberg. 1993. Oxford University Press, New York. 160 pp. plus 40 plates of coloured photos (140 x 210 mm) \$17 US.

While not particularly pertinent as a guide to our region, this book deserves mention for its approach --field marks as seen through binocumajor requirement for lars. Α butterfly binoculars is a short focus distance. Bausch and Lomb 7 x 26 Custom Compact, Nikon 8 x 20 folding and Minolta "Pocket" binoculars are among the models that focus down to about 6 ft. Note: this distance can vary even among

Table 2.COMPARISON OF TEXTUAL INFORMATION
IN EIGHT BUTTERFLY IDENTIFICATION GUIDES*

Information on:	Subspecies	Larva Desc.	Food Yg/Ad/Index	Range Map/Text
North America/ Scott	best	X	Х/—/19рр	NA/NA
North America/ Pyle	_	-	Х/—/19рр	-/NA
Western Peterson/Tilden	Х	X	Х//8рр	–/WNA
Eastern Peterson/Opler	-	X	Х//6рр	ENA/ENA
Alberta/ Acorn	-	-	X/X/-	AB/
Saskatchewan/ Hooper	X	-	X/X/2pp	–/NA,SK
Manitoba/ Klassen	X	X	X/X/5pp	MB/NA,MB
North Dakota/ Royer	-	-	X/-/-	ND/-
Information on:	Biology, Ecology, Studying	Glossary of Terms	Bibliography	Remarks
North America/ Scott	132pp	8рр	Зрр	Keys: 33pp
North America/ Pyle	28pp	8рр		
Western Peterson/Tilden**	28рр	4рр	6рр	
Eastern Peterson/Opler**	41pp	брр	4рр	Lists of societies & suppliers
Alberta/ Acorn	15pp	Зрр	-	
Saskatchewan/ Hooper	13рр	_	_	
Manitoba/ Klassen	8рр	2рр	5рр	
North Dakota/ Royer	Зрр	6рр	_	Lists of societies & suppliers

* All have adult description, similar species, flight periods, habitat and collecting (see text)

** Arrows point to field marks

X Usually

- Not at all or rarely

glasses of the same model, so check more than one if you can.

As the vanguard of future regional lists, this volume includes bar graphs of relative abundance for each of five years by five-day periods and descriptions of nine sites with a checklist for each.

On average, there are two excellent colour photos of living butterflies for each of 150 species. The book illustrates 59% of Manitoba's butterflies, 49% of Saskatchewan's, and 32% of Alberta's. BUTTERFLIES EAST OF THE GREAT PLAINS. AN ILLUS-TRATED NATURAL HISTORY. P.A. Opler and G.O. Krizek. 1984. John Hopkins University, Baltimore. 294 pp. plus 54 plates of coloured photos (220 x 285 mm). \$66 Cdn.

The area of emphasis is the United States, east of the Mississippi River. Minnesota is the state closest to the prairie provinces. This book presents 317 colour photos (many 2 to 4 times life size) for 199 of the 292 species covered. Maps are shown for 274 butterflies.

A unique feature is the derivation of each scientific name. Strong points are the Life History section (behaviour, broods, early stages, etc.) and adult nectar sources for each species.

There are images for 67% of Manitoba's butterflies, 54% of Saskatchewan's and 39% of Alberta's. However, an additional 32 prairie province species are treated in the text with maps.

PETERSONFIRSTGUIDETOCATERPILLARSOFNORTHAMERICA.A.B.Wright.1993.Houghton Mifflin, Boston.128 pp.55colour plates(95 x 185 mm)\$6 Cdn.

This book covers the 120 most common larvae — butterflies (57) and moths (63). For each species the author paints adult and larva, often a pupa, chrysalis or cocoon, and sometimes eggs. Text faces paintings, with one to four species per pair of pages. Food plants are given for each species but no index for those is included. Scientific names appear in the species index.

Caterpillars are treated in ten groups, based on appearance smooth, hairy, with spines, etc. One learns that the caterpillars for such different looking butterflies as Viceroy and White Admiral are "identical," and look "like bird droppings." And that the Wooly Bear grows into the Isabelle Tiger Moth. One hopes that a much more complete caterpillar guide is forthcoming.

AMERICAN BUTTERFLIES. A magazine, published quarterly by the North American Butterfly Association (a non-profit organization), 4 Delaware Road, Morristown, NJ, 07960. 36 pp. per issue, maps and many black-and-white photos. Canadian subscription: \$25 US.

The first four issues of this magazine appeared in 1993. There are five or six articles per issue, an editorial, book reviews, letters, and a section on the English names of butterflies.

Subjects have included: starting your own butterfly club, binoculars and video cameras for butterflying, tracking North American Monarchs, the international July 4th butterfly count, raising caterpillars, identificadifficult groups, tion of and descriptions of good butterfly locations in detail along with their butterflies. For instance: a nature reserve 30 mi from New York City hosts 84 species (about 70 can be expected within 55 km of Saskatoon). A 600-acre state park in Texas has 164 species, 13 more than in all of Saskatchewan.

This is an interesting magazine for anyone, particularly amateurs, who enjoy butterflies.

Field guides for the prairie provinces:

More so than birders, butterfliers need more than one field guide, both because upper and lower surfaces of

male and female butterflies are seldom illustrated in one volume and because colour and pattern for a species may vary by season and from region to region. With that in mind, Table 1 is presented, giving the proportions of each province's butterflies treated in eight guides.^{1,3,4,7,8,9,10,11} The number of species per province is based on NABA decisions as to what is a species and what is a suband includes additions species through 1993 to prairie fauna. Also included is the number of images (whole or half butterflies) of a species ---- the more, the better.

An outline of additional contents in each guide is presented in Table 2. Using the Eastern Peterson as an example, the table reads as follows: For each species, the guide treats adults, similar species, flight period and collecting; images have arrows pointing to important field marks; it seldom lists subspecies, usually gives food plants of larva but, rarely, nectar plants of adult; it includes a six-page index of host plants; both map and range in the text are restricted to eastern North America; there is an introductory 41-page discussion of biology, ecology, and studying (including one or more of watching, conservation, gardening and photographing); a 6-page glossary; a 4-page bibliography, and lists of pertinent societies and suppliers of equipment. (The Western Peterson and North Dakota guides also have this last feature.)

The best field guides for each province? Why not? — if you will settle for just one person's opinion. 1) Your provincial guide. 2) & 3) For Alberta, Pyle and the Western Peterson guides; for Saskatchewan, Pyle and Manitoba guide; and for Manitoba, Pyle and Eastern Peterson. (Scott is probably a better guide than Pyle but it is more a cumbersome home reference rather than a field guide. It is particularly good at describing and illustrating subspecies and detailing life histories.)

All the books above and below are softcover (except for Klotz).

- ACORN, J. 1993. Butterflies of Alberta. Lone Pine, Edmonton, Alberta. 143 pp. Colour photos, black-and-white sketches. (141 x 215 mm) \$17 Cdn.
- 2. GOLLOP, B. 1989. A selected, annotated bibliography for Saskatchewan butterfly watchers. *Blue Jay* 47:83-88.
- HOOPER, R.R. 1973. Butterflies of Saskatchewan — a field guide. Royal Saskatchewan Museum, Regina. 216 pp. (114 x 72 mm) \$4 Cdn.
- KLASSEN, P., A.R. WESTWOOD, W.B. PRESTON, and W.B. MCKIL-LOP. 1989. Butterflies of Manitoba. Manitoba Museum of Man and Nature, Winnipeg. 290 pp. (204 x 254 mm) \$22 Cdn.
- 5. KLOTZ, A.B. 1951. A field guide to the butterflies of North America, east of the Great Plains. Houghton Mifflin, Boston. 349 pp. (120 x 190 mm). Out of print.
- NORTH AMERICAN BUTTERFLY ASSOCIATION. 1994. Collated list of English names for North American butterflies. American Butterflies 2(2):28-35.
- OPLER, P.A. and V. MALIKUL. 1992. A field guide to eastern butterflies. (Peterson Field Guide series). Houghton Mifflin, Boston. 396 pp. (114 x 182 mm) \$21 Cdn.
- PYLE, R.M. 1981. The Audubon Society field guide to North American butterflies. Knopf, NY. 924 pp. (102 x 192 mm) \$21 Cdn.
- ROYER, R.A. 1988. Butterflies of North Dakota. An atlas and guide. Minot State University, Minot, ND. 192 pp. 12 colour and 1 black-and-white plates. (141 x 215 mm) \$20 ± US.
- SCOTT, J.A. 1986. The butterflies of North America. A natural history and field guide. Stanford University, Stanford, CA. 583 pp. (195 x 260 mm) \$50 US.
- 11. TILDEN, J.W., and A.C. SMITH. 1986. Field guide to western butterflies. (Peterson Field Guide series). Houghton Mifflin, Boston. 370 pp. (114 x 182 mm) \$23 Cdn.