

BUTTERFLIES OF NORTH SASKATCHEWAN An Atlas and Guide

A. ROYER. 1988. Science Series No. 1. Minot State University, Minot, ND. 192 pp. 12 colour, 142 black and white plates; 142 maps. Cerlux bound. 210 x 203 mm). \$20.50

When writing a bibliography for Saskatchewan butterfly watchers in the June issue of *Blue Jay*, I had not seen this attractive volume. Each of the state's 144 species is illustrated — all but two in life-size, which results in some images that are pretty small. Most are of whole insects and usually show the upper and lower surfaces of both wings. Sixteen specimens of the highly distinctive Uhler's Arctic are shown. After the introductory chapters there are three sections: text on identification and biology of each species (74 pp.), distribution maps by county for each (32 pp.), and plates of excellent colour with facing text (52 pp.). The publication includes with lists of expected species, locations and suppliers, a glossary and index (16 pp.).

The purpose is "to offer to naturalists, amateurs and the young people of North Saskatchewan an understandable and truly useful introductory guide ..." In some ways the manual falls far short of that goal. In the interest of comprehension, was there really a need for unnecessary jargon such as "poltine" or "maculation" and "genetic" (none of these is in the glossary)? It is also difficult to imagine a less well-organized organization. How much more efficient it would have been to have a distribution map with each species. Illustrating for non-scientists to find

only scientific names with maps and photographs, and only metric measurements! And how much more straightforward it would have been to assign numbers to connect legends and photos, especially when there are up to 56 of each on facing pages. (A name is located on one page in the same position as its photo on the opposite page.) The lack of cross-referencing adds to the difficulty of use: text for a species does not tell the reader where its map can be found, and neither map nor illustration indicates where the species' text is found. There was also an inexcusable waste of trees with 13 pages of photos and their facing 13 pages of legends occupying 52 pages (the backs are blank).

However, because its colour photos cover 103 of Saskatchewan's 144 species (2 more are in black and white), this title is well worth adding to your butterfly library. — Reviewed by *Bernie Gollop*, 2202 York Avenue, Saskatoon, Saskatchewan. S7J 1J1

GEOLOGICAL HISTORY OF SASKATCHEWAN

JOHN E. STORER 1989. Saskatchewan Museum of Natural History, Regina, Saskatchewan. Illus. color and b/w, map, folding charts. \$13.95.

This attractively produced and lavishly illustrated work constitutes the first general account of Saskatchewan geology to be written for the general reader. Its production was linked with the opening of the new Earth Sciences Gallery of the Saskatchewan Museum of Natural History, Regina. The greater part of its illustrations — most of them in colour —

are, indeed, photographs of the displays. In consequence, though this book can be quite well read in isolation, it will be used most effectively as an educational tool before, during or after visits to the Museum.

Though an interesting section on "The evolution of the Trans-Hudson Orogen (Mountain Belt) 2.1 to 1.8 billion years ago" was contributed by John Lewry of the University of Regina, the greater part of the text was written by John Storer himself. This affords the considerable asset that Dr. Storer is a lucid writer, well able to explain Saskatchewan's geology in a fashion comprehensible to any reasonable intelligent and educated reader.

John Storer's heart lies with the higher vertebrates; the story of the Palaeozoic era and its life occupies 10 pages, whereas the Tertiary — after all, a much shorter time! — is given 14 pages and an infinitely more loving consideration! However, this imbalance will not disturb most readers, for whom dinosaurs and mammals afford a very much greater appeal than any mere invertebrate!

Some of the illustrations present problems, simply *because* they are direct photographs of displays. For example, in the block model of Saskatchewan's geological structure (p. 15), the place-names which serve as reference points are altogether illegible; could not *larger* name-cards have been temporarily laid on, for the photograph? Similarly, the reconstructions of Paleocene coal-swamps (p. 64) and of a Late Eocene landscape (p. 66) are spoiled — the latter, especially so! — by the cases of specimens set at centre; surely these could have been removed before the pictures were taken? The striking, if rather bizarre, colour reconstruction on p. 45 lacks any caption, while the captions to the two figures on p. 48 have been absentmindedly transposed.

There are a few inconsistencies. The figure on p. 28 is vaguely labelled "Fossils in Tyndall Stone;" at left a receptaculitid and at right, a stromatolite. Yet, on p. 25, another stromatolite is labelled as such; while on pp. 30 and 31 there are reconstructions of receptaculitids (the latter, oddly and misleadingly labelled a "sunflower coral" to which the illustration on p. 28 might have been usefully linked.

Certain other statements, though not erroneous, are potentially misleading. Yes, the Ordovician ostracods were "among the largest in the group's history" (p. 29); but an explanation that ostracods are *micro*-organisms, and these giants a mere few centimeters long, would have helped a reader who did not know so. (Indeed, their textual juxtaposition with nautiloids tends to suggest that these groups were equally large!) Personally I deprecate the use of the name "flightless lemurs" (p. 66) for animals that were neither lemurs nor capable of flight; could not "dermopteran" or "colugo" have been used instead? "Shrubox" (p. 5) puzzled me considerably, until I realised that a hyphen had been omitted! (Shrubox?)

These are all minor matters, however, that can be attended to when the book goes into its second edition (as surely it must!). All in all, this is a vividly presented and well-written work that should not only be of high value to Saskatchewanians already interested in geology and the life of the past, but also inspire such interests in persons hitherto indifferent to these topics. John Storer, John Lewry and the Museum of Natural History have done a real service to our province by making it available in such a pleasant format and at so moderate a price. — Reviewed by *William A. Sargeant*, Department of Geological Sciences, University of Saskatchewan, Saskatoon, Saskatchewan. S7N 0W9