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CAREX IN SASKATCHEWAN

JOHN H. HUDSON. 1977. Bison Publishing House, P.O. Box 7226, Saskatoon, Saskatchewan. 193pp. 8½x11 inches, soft cover. \$10.00 + .50 handling.

Carex is, by far, the most successful genus of flowering plant in Saskatchewan. Many botanists would also add that its many species and varieties make it nomenclaturally the most interesting and challenging genus in the province. In this book, the first of its kind in Saskatchewan, Mr. Hudson describes the genus and discusses all the species of *Carex* known to occur in the province. He exhibits an intimate knowledge of *Carex* both in the field and in the herbarium.

The book begins with a general description of *Carex*. The unique features, including the perigynium, of this group of sedges are described and illustrated with carefully labelled drawings. The keys to separate sections and species, occupying 22 pages, are adapted from the monographic treatment of North American species of *Carex* by K. K. McKenzie (North American Flora, Vol. 18, pp. 1-478, The New York Botanical Garden. 1931-35). The main body of the book, pages 35-157 inclusive, contains the descriptions of Saskatchewan species and discussions of taxonomic problems,

habitats and distributions. There are three pages of references, 13 pages of maps and 20 pages of photographs. The photographs show 40 different species preserved in the W. P. Fraser and in the J. H. Hudson herbaria. The maps show with dots the known distribution of 99 taxa of *Carex* in Saskatchewan. Each dot represents the location of one voucher specimen studied by Mr. Hudson.

The distribution maps clearly indicate that some species are confined to extreme northern parts of the province. Some species have wide distribution throughout the province but others are confined to the southwest or the southeast. In the past Hudson explains, in order "to determine a Saskatchewan sedge one had to hop back and forth between extralimital floras, a procedure conducive to error." Hudson's book now brings together under one cover all known species with ranges extending into our province; in this way he makes identification easier and encourages additional study of the ever-changing status of the native sedges of Saskatchewan.

Some species of *Carex* may in fact no longer be present in the province. Hudson notes, for example, that *Carex meadii* "may now be extinct" within the boundaries of Saskatchewan. The

only known collections were made by J. Macoun in the File Hills in 1879 and by Macoun and Herriott at the base of Spy Hill in 1906. "Its habitat", Hudson continues, "appears to have been moist prairie, perhaps with tall grass species of grasses. This habitat has been much destroyed by farming and what has escaped cultivation in this southeastern corner of Saskatchewan — the Aspen-Oak section of Rowe (1959) — is very susceptible now to being overrun by the aggressive introduced pest, *Bromus inermis*". Hudson implies that more should be done to preserve native habitats in all parts of the province.

This book brings the nomenclature of *Carex* up to date but it does not introduce any new species or variety names. It does, however, combine a number of species. For instance, McKenzie distinguished the three species *festivella*, *microptera* and *achystachya* but Hudson drops these names and includes all this material under the more inclusive name *Carex macloviana*. I am heartily in favour of this move because all Saskatchewan material seems to fit into the one species description.

One small complaint: the book does not include an index. Since the species descriptions are arranged alphabetically this would appear to present no problem. If, however, a botanist has been in the habit of using a species name now abandoned by Hudson (for example, *Carex festivella*), he must search for some time or run it through the keys in order to find it.

Serious naturalist should acquire and use a copy of *Carex in Saskatchewan*, for a careful study of the book will enable them to identify any *Carex* in this fascinating genus. Reviewed by G. F. Ledingham, 2335 Athol Street, Regina, Saskatchewan S4T 3G4

HOW TO CONTROL GARDEN PESTS WITHOUT KILLING ALMOST EVERYTHING ELSE

HELGA and WILLIAM OLKOWSKI. 1977. Rachel Carson Trust for the Living Environment, Inc., 8940 Jones Mill Road, Washington, D.C. 200015. 14pp.

This booklet of 14 pages is based on an article that appeared in *Horticulture* in June, 1976. In a very simple way it presents the principles of garden ecology and discusses the possible alternatives to synthetic pesticides, with an explanation of the reason for not using pesticides. The authors are two research scientists working in the Division of Biological Control of the University of California at Berkeley.

It struck me that this booklet might have a use in the classroom. It would allow the presentation of a complex concept in a simple situation to which most children have ready access — the town or farm garden. By inference, a wider application of these simply presented "principles of garden ecology" could be made.

In spite of its simple approach, there is a measure of sophistication about this little booklet, with its lively cartoons from *Punch* and a quotation from Rachel Carson's *Silent Spring*:

A truly extraordinary variety of alternatives to the chemical control of insects is available. Some are already in use and have achieved brilliant success. Others are in the stage of laboratory testing. Still others are little more than ideas in the minds of imaginative scientists, waiting for the opportunity to put them to the test. All have this in common: they are *biological* solutions, based on understanding of the living organisms they seek to control, and of the whole fabric of life to which these organisms belong." — Reviewed by Margaret Belcher, 2601 Winnipeg Street, Regina, Saskatchewan.