

AMPHIBIANS AND REPTILES IN ALASKA, THE YUKON AND NORTHWEST TERRITORIES. BY ROBERT PARKER HODGE. *Anchorage: Alaska Northwest Publishing Company, 1976. 89 pages, illus. \$4.75.*

The vast expanses of the Far North are, understandably, not the preferred habitat of professional herpetologists. However, many persons interested in travel and natural history are discovering how readily accessible are Alaska, the Yukon and Northwest Territories. Such persons will find this little book on amphibians and reptiles to be an excellent adjunct to their field-guide library. Hodge's booklet will also add a new dimension to the challenges of wildlife photography, as these amphibians are colourful subjects but difficult to locate and unpredictable in behaviour. Anyone who succeeds in photographing the rare garter snake or worm salamander in Alaska will have obtained a remarkable "first".

Hodge is the first biologist to have provided a summary of information available on amphibians and reptiles as they exist at the extreme limit of their northern ranges. To this he has added the results of his own extensive travels. Information from Europe and Siberia is included and compared to that in respect of Northern American fauna. Readers will be amazed to learn that in Eurasia frogs, salamanders, snakes, lizards and even the leatherback sea turtle have been observed north of the Arctic Circle. This book is, in fact, a mini-treatise on high-latitude zoogeography as well as a pictorial field guide.

A general outline of the anatomy of amphibians and snakes, their eggs and larvae is followed by a discussion concerning the influence of both continental drift and pleistocene ice sheets on the determination of the present patterns of distribution of northern herptiles and how they adapt themselves for survival. An interesting outline of the importance of toads and salamanders in the totems of West Coast Indian mythology and religion includes the observation that anthropologists have mistakenly referred to these as frog and lizard.

The remainder of the book is divided into two regional accounts: one covering Alaska, and the other the Yukon and Northwest Territories in combination. Maps and photographs supplement information on physiology, climate and vegetation, followed by eight pages of colour photographs of the ten species recorded by the author. Of particular interest is the inclusion of ventral views and

photographs taken with natural backgrounds, as well as the usual white backdrops. The infamous range of variation in colour pattern of northern wood frogs is superbly represented by a plate of nine colour photographs.

Each species is conveniently summarized on a pair of facing pages which contain black-and-white photographs of the species and of its habitat, a large spot-distribution map, and information on diagnostic features, habitat, sound of voice, postglacial dispersal and general remarks. For those naturalists of insatiable curiosity there are eight pages of references providing access to detailed physiological studies. Addressing all readers, the author encourages those who visit any part of the whole region of two million square miles (approximately 5 million sq. km) to record their observations and make them known to the appropriate museums. This well-prepared introduction to amphibians and reptiles of the North will certainly be an incentive for visitors and residents alike to do just that.

Although the text is very helpfully supplemented by a variety of illustrations, and remarkably few of the colour plates are of poor quality, several diagrams seem unnecessarily confusing. The "eye mask" label (p. 3) is misleading, and neither the frog tadpole (p. 8) nor the salamander larva (p. 9) can be assigned to any of the three species listed in the legend beneath the sketch of it. Regrettably, the diagnostic features of larva of each species are not illustrated. Surely the broken snake skin (p. 10) could have been arranged to clearly show the head and large scales that cover the eyes as described on page 11? Interested persons could have been asked to collect and donate snake skins and tadpoles, as these provide as concrete and valid species records as does the entire adult animal. As a final, though minor, criticism may be mentioned the surprising inclusion of information relating to the islands in James Bay on grounds that the latter come politically under Northwest Territories jurisdiction, even though their herpetofauna are derived from adjacent Ontario and Quebec, and they themselves are nearer to Toronto than they are to the Territories.

In summary, this compact and exceptionally informative treatment of northern herptiles will be of particular value to naturalists and vacationers as a field guide, and to the professional biologist as the first reference work for the region to contain spot-distribution maps and colour photographs.

J. S. Bleakney