

Frogs of the United States and Canada (2 Volumes)

By C. Kenneth Dodd Jr. 2013. John Hopkins University Press, 2715 North Charles Street, Baltimore, MD, USA, 21218-4363. 982 pages, 180 USD, Cloth.

In the preface to this mammoth two-volume set, the author quotes a New Zealand saying: “fact: the survival of the Earth depends on frogs”. Unfortunately, the threats to these species continue to grow. Understanding these threats has never been more important and this publication summarizes the current scientific knowledge on the 100 species found in North America.

The book begins with an introduction to the biology, evolution and conservation of frogs. The bulk of the book provides detailed species accounts. The accounts follow a thorough and standardized format that makes locating information very easy: etymology (of the species name); nomenclature; identification; distribution; fossil record; systematics and geographic variation; adult habitat; terrestrial and aquatic ecology; calling activity and mate selection; breeding sites; reproduction; larval ecology; diet; predation and defence; population biology; diseases, parasites, and malformations; susceptibility to potential stressors; status and conservation. Each account also usually includes colour photos of the adult, tadpole, eggs and breeding habitat. The photos are good to very good, in general. Each species account also has a black and white distribution map. The accounts vary in length depending upon how much information is available for North American populations (Dodd excluded studies conducted south of the United States as tropical populations may differ in their life history). The account for the Rio Grande Chirping Frog (*Eleutherodactylus cystignathoides*) is only three pages (including one photo and a distribution map) but some accounts are more than 10 pages long.

Overall, the quality of the text is extremely high. Dodd has synthesized the scientific literature on North American frogs published up to May 2011. The bibliography consists of over 4,500 titles and is over 130 pages long. The book is more than just a summary, as Dodd has also critically examined that literature. This is a key issue as many “species” are now recognized as diverse species complexes. For example, the Northern Leopard Frog (*Lithobates pipiens*) was once considered an extremely wide ranging species with a high degree of phenotypic variation, while it is now considered a complex of about 20 different species. Hence Northern Leopard Frog papers published before the early 1970s may be about a different species. In the Northern Leopard Frog account, Dodd identifies papers where there is confusion over the study species. Of course no publication is perfect. Dodd states that all references in his book “have been examined for accuracy of citation and content” (p. xxiii). I have no doubt he did examine every paper, but the occasional citation error still occurs. For example, Catherine Bevier is the lead author of two cited papers on Mink Frogs (*Lithobates septentrionalis*). In the text she is variously referred to as Bervien and Bervier as well as by her correct surname. And in the bibliography the papers are incorrectly attributed to Bervier.

From a Canadian perspective, there are some areas that could have been improved. The book states that only Blanchard’s Cricket Frog (*Acris blanchardi*) is listed by the Committee on the Status of Endangered Wildlife in Canada. This overlooks a number of other

listed species. Both the text and distribution map incorrectly indicate that Canadian Toads (*Anaxyrus hemiophrys*) are found in extreme western Ontario. Although the text correctly indicates that Cope's Gray Treefrog (*Hyla chrysoscelis*) occurs in Manitoba, the distribution map omits this. Similarly, for the Mink Frog, the text correctly states that it is found on Cape Breton

Island, but the map shows that it is not found there. Nonetheless, these are fairly minor errors considering the vast scope of the book and overall, this is a major contribution to frog biology and conservation.

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