

A KANSAS SNAKE COMMUNITY: COMPOSITION AND CHANGES OVER 50 YEARS

by Henry S. Fitch. 1999. Krieger Publishing, Malabar, Florida. xi + 165 pp. ISBN 0-89464-996-5. Available from: Krieger Publishing, P. O. Box 9542, Melbourne, Florida 32902, USA. Fax: + 407 951 3671; Email: info@krieger-pub.com. Price: US\$ 42.50.

Fitch's latest is surely Krieger's finest in herpetology- a magnificent volume, well printed with all those little bits of data that were not in the technical papers Fitch published during his over half of century of research on the snakes of the American State of Kansas.

What follows the Acknowledgments are an Introduction, that includes the taxa covered in the study; a description of the study site and methods and materials, followed by accounts of individual taxon. In all, 18 species are covered, and topics covered under each include: traits of the species, behaviour, spatial relationships, prey, reproduction, growth, numbers and geographic distribution. Following the species descriptions is the chapter Discussion and Conclusions, that provides overall summaries of diversity of diet and demography, size relationships, temporal changes, snake occurrence, sex ratios and maturity, geographic differentiation and mortality factors. A short section on literature cited and an index wraps up this work. Tucked away in the text are many useful nuggets of information, such as the activity pattern of *Crotalus horridus*, the so-called timber rattler, which tends to be nocturnal in hot weather, but diurnal when daytime temperatures are near their preferendum (p. 41), or that over half (sample size being 1,285!) the captured *Agkistrodon contortrix*, alias copperhead, had only one fang on each side (p. 10).

What is different between this study and virtually any study done on snakes in general or, for

that matter, anything living, is the enormous temporal scale involved. Scale is of tremendous significance in ecology, and generalisations true at one scale may not be true at another scale. Fitch's data (based on 31,000 capture records over 50 consecutive years of study) show significant fluctuations in many population parameters making one realise that generalisations made from short-term ecological observations may be open to question.

The only nit I will complain about are the colour plates printed between pages 85-100 (the photos used on the dust jacket have printed exceptionally well). Each plate carries 2-3 colour photos of snakes, nearly all of which suffer from problems of exposure, focussing and/or framing and composition. The fact that most are on artificial surfaces detracts, and subsequent editions can perhaps fix the problem through the judicious selection of photographs.

In conclusion, I think the highly readable text of *A Kansas Snake Community* would make young readers seek out Henry S. Fitch's other ecological works (published in scholarly journals and out of reach of many of those outside of universities and museums), and perhaps draw even more young naturalists to the science of herpetology.

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