

## A REVISIT OF A CLASSIC PAPER ON AMPHIBIAN AND REPTILE COMMUNITY ECOLOGY

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**Abstract.**—We reissue a key paper from the book *Herpetological Communities* edited by Norman Scott, Jr. This effort remains among the most cited herpetological titles in community ecology. This revisit reminds us that the status of community ecology research continues to be in its infancy and much remains for us to investigate. Further, it contains many probing questions on how to approach field studies on amphibians and reptiles.

**Key Words.**— community ecology, *Herpetological Communities*, herpetology, history

Among the seminal publications in herpetology, Norman Scott Jr.'s (1982) book "Herpetological Communities" remains a vital reference. It continues to be one of the most highly cited herpetological titles produced. For example, we recently searched for the title in Google Scholar and found three pages of articles including over 250 instances in which it had been cited. This is remarkable, considering *Google Scholar* only accesses publications available online (Google, pers. comm.).

This book was among the first to evaluate techniques and provide guidelines for studying the community and population ecology of amphibians and reptiles. It is a government document that was widely distributed (e.g., to every major library in the U.S.), but the book remains in demand. However, it is now out of print and considered a collector's item. To alleviate this scarcity today, we intend to release material from this paper through installments of HCB's classic contributions.

Among the many contributions, "A Chronological Bibliography, The History and Status of Studies of Herpetological Communities, and Suggestions for Future Research (Scott and Campbell 1982) remains a useful guideline for community ecology in herpetology. We provide it as the first installment of several.

A key resonating point in this article was that natural history is the foundation for community studies and that community studies are, in nature, interdisciplinary. Natural history continues to be a foundation for many subdisciplines of herpetology including conservation (Bury 2006, Green 1993, McCallum and McCallum 2006), evolution (Green 1986; McCallum and McCallum 2006), and general interest (Trauth 2006). A second point was that at the time of their writing, only 3% of the 246 herpetological titles were related to community ecology (Scott and Campbell 1982). This continues to be the trend. Only 5% (5/101) articles in *Journal of Herpetology* Vol. 39 (Boone 2005; Watling et al. 2005; Weir et al. 2005; Whitfield and Pierce 2005; Wu et al. 2005) and 4.5% (4/22) articles in *Herpetological Conservation and Biology* Vol. 1 (Brodman 2006; Fitch 2006; Grover 2006; Tadevosyan 2006) qualified as amphibian and/or reptile community ecology using their guidelines.

Scott and Campbell (1982) analyzed the previous community studies, so we could ultimately learn from the successes and failures of others, and to provide guidance for future research in community ecology, which was then in its infancy. Despite the

development of modern community ecology and expansion of this kind of work, the formulation of themes within this discipline remains especially useful. Perhaps the most remarkable acknowledgement of Scott and Campbell (1982) is the importance of interdisciplinary approaches, something that is now portrayed as a new idea (National Science Foundation. 1997. NSF/Tokyo Report: The Prospects for Interdisciplinary Studies of Science, Technology and Society in Japan. Special Scientific Report 97-07.).

Community studies could be based on taxonomy (e.g., Tadevosyan 2006; Brodman et al. 2006), special habitats (e.g., Fitch 2006; Tadevosyan 2006), natural history (e.g., Boone 2006), theory (e.g., Hairston 1987), or energy flow (e.g., Burton and Likens 1975). Clearly, modern community studies can still be characterized in the same way and the connections between these different disciplines continue to be overlooked by many, but important to wildlife management and conservation (Bury 2006, McCallum 2006). Land, pesticide use, waste disposal and resource development continue to be major issues in herpetological conservation (Berrill et al. 1997; Boone 2005).

Further, Scott and Campbell (1982) are among the first to point out the increased production of government research reports, environmental impact statements and risk assessments, many of which exert major influence on environmental issues. While these continue to be under-utilized by the general scientific population, many are not peer reviewed. Scott and Campbell (1982) admonish authors to raise the bar on themselves and submit papers to outlets with peer review. Such advice should be followed today.

The editorial staff hopes that you will find the attached complimentary pdf of Scott and Campbell (1982) interesting and that revisiting this article may stimulate interest in this area that is vital to conservation theory.

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