



OXFORD JOURNALS
OXFORD UNIVERSITY PRESS

Abstracts

Source: *American Zoologist*, Vol. 19, No. 3 (1979), pp. 851-1015+1017-1023

Published by: [Oxford University Press](#)

Stable URL: <http://www.jstor.org/stable/3882507>

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ABSTRACTS

**Annual Meeting of the
American Society of Zoologists,
Society of Systematic Zoology
and the American Microscopical Society**

**December 27– 30, 1979
Holiday Inn Hotel and Convention Center
Tampa, Florida**

Papers are listed in numerical order by Abstract Number.
The Author Index is given on pages 1017– 1023.

Abstracts of papers from the American Microscopical Society
will be published in an early 1980 issue of
Transactions of the American Microscopical Society.

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NEW PERSPECTIVES IN PHYLOGENETIC AND ECOLOGICAL ASPECTS OF SIZE AND SHAPE IN ANIMALS. D. B. Wake. Univ. of California, Berkeley.

Comparative ontogenetic studies of salamander morphology offer a point of departure for analysis of size and shape in relation to systematics and ecology. Multivariate morphometric and discrete character approaches are applied to interpopulational and interspecific comparisons of shape. The significance of shape change is analyzed from several perspectives including size, ecological features, phylogenetic relationships, and relative divergence times. Systematic aspects employ cladistic analysis (mainly morphological) and patterns of genetic relationships (from electrophoresis and micro-complement fixation). Examples include a number of separate studies of tropical and temperate salamanders. Convergence is a dominant theme in salamander evolution; the above approach enables its detection, both within and between species, and affords a means of studying the ecological basis of convergence.

Supported by NSF (DEB-78 03008).