



Front Matter

Source: The American Naturalist, Vol. 131, No. 1 (Jan., 1988)

Published by: The University of Chicago Press for The American Society of Naturalists

Stable URL: http://www.jstor.org/stable/2461794

Accessed: 30-10-2017 19:32 UTC

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at http://about.jstor.org/terms



The American Society of Naturalists, The University of Chicago Press are collaborating with JSTOR to digitize, preserve and extend access to The American Naturalist

The January 1988 Established 1867 American Naturalist

Published for the American Society of Naturalists by The University of Chicago Press

THE AMERICAN NATURALIST ISSN 0003-0147

Marcus W. Feldman, Editor

Paul R. Ehrlich, Senior Associate Editor
Harold A. Mooney, Senior Associate Editor
Jonathan Roughgarden, Senior Associate Editor
Peter M. Vitousek, Senior Associate Editor

Jean Doble McIntosh, Managing Editor

The American Naturalist is published monthly by The University of Chicago Press. Manuscripts and editorial correspondence should be addressed to The Editor, The American Naturalist, Department of Biological Sciences, Stanford University, Stanford, California 94305. A page of advice to authors may be found in this issue. Copy editor: Teresa Carson; editorial assistant: Leanne Grega.

Subscription to the journal does not require membership in the American Society of Naturalists. Subscriptions to *The American Naturalist* may be ordered from, and remittance should be made payable to, *The American Naturalist*, The University of Chicago Press, Journals Division, P.O. Box 37005, Chicago, Illinois 60637. Subscription rates, U.S.A.: institutions, 1 year \$100.00; individuals, 1 year \$50.00; students, 1 year \$35.00 (letter from professor must accompany subscription). Other countries: add \$9.00 for each year's subscription to cover postage. Single-copy rates: institutions, \$8.50; individuals, \$4.25. Japanese subscription agent: Kinokuniya Company Ltd. Reprinted volumes 1–10 available from Walter J. Johnson, Inc., 355 Chestnut Street, Norwood, New Jersey 07648. Volumes available in microfilm from University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106; in microfiche from Johnson Associates, P.O. Box 1017, Greenwich, Connecticut 06830.

For change of address, please notify the Press and local postmaster immediately, providing both the old and new addresses. Allow four weeks for change. Postmaster: send address changes to *The American Naturalist*, The University of Chicago Press, Journals Division, P.O. Box 37005, Chicago, Illinois 60637.

Copyright beyond fair use: The code on the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made beyond those permitted by Sections 107 or 108 of the U.S. Copyright Law provided that copies are made only for personal or internal use, or for the personal or internal use of specific clients and provided that the copier pay the stated per-copy fee through the Copyright Clearance Center, Inc., Operations Center, 27 Congress Street, Salem, Massachusetts 01970. To request permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale, kindly write to Permissions Department, The University of Chicago Press, 5720 S. Woodlawn Avenue, Chicago, Illinois 60637.

Second-class postage paid at Chicago, Illinois, and at additional mailing office. © 1988 by The University of Chicago. PRINTED IN U.S.A.

THE AMERICAN NATURALIST

Devoted to the Conceptual Unification of the Biological Sciences

Vol. 131, No. 1

CONTENTS

January 1988

This issue of the journal is dedicated to Sewall Wright in celebration of his reaching his 99th year

Directed dispersal: demographic analysis of an ant-seed mutualism. Frances M. Hanzawa, Andrew J. Beattie, and David C.	
Culver	1-13
The spatial response of chironomid larvae to the predatory leech Nephelopsis obscura. Joseph B. Rasmussen and John A. Down-	
ing	14–21
Relationships between bobwhite quail social-group size and intestinal helminth parasitism. Janice Moore, Daniel Simberloff, and	22 22
Michael Freehling	22–32
Mixed support for spatial heterogeneity in species interactions: hum- mingbirds in a tropical disturbance mosaic. Peter Feinsinger, William H. Busby, K. Greg Murray, James H. Beach, Willow Z.	
Pounds, and Yan B. Linhart	33-57
Incestuous mating in a communal bird: a family affair. John L. Craig and Ian G. Jamieson	58-70
Optimal reproductive allocation in female dusky salamanders: a quantitative test. Carole L. Hom	71–90
Effects of larval growth history on anuran metamorphosis. Ross A. Alford and Reid N. Harris	91–106
Foraging strategy, worker mortality, and the growth of the colony in social insects. Alasdair Houston, Paul Schmid-Hempel, and	
Alejandro Kacelnik	107–114
Notes and Comments	
Surfaces of selective value revisited. Sewall Wright	115-123
The evolution of large body size in females: a critique of Darwin's "fecundity advantage" model. Richard Shine	

(continued)

Sexual size dimorphism in relation to fecundity in some Swedish satyrid	
butterflies. Christer Wiklund and Bengt Karlsson	132-138
Cost of mating for female insects: risk of predation in <i>Photinus collustrans</i> (Coleoptera: Lampyridae). Steven R. Wing	139–142
Lack of rare-male mating effect using bw and st Drosophila melanogas-	
ter mutants. Karen S. Oberhauser	143-148
The Wahlund effect with overlapping generations. Freddy Bugge Chris-	
tiansen	149–156
Flexible body mass in social carnivores not just a predation strategy.	
Cris Cristoffer	157

ANNOUNCEMENTS

YOUNG INVESTIGATORS' PRIZES

Prizes were awarded at the 1987 annual meeting of the American Society of Naturalists, in June, to Ary A. Hoffmann, Carl D. Schlichting, Brian A. Maurer, and Steve Orzack. The prizes recognize outstanding and promising work by investigators who have received their doctorate in the preceding three years or who are in their final year of graduate school.

The prize committee requests applications for the 1988 prizes from anyone supporting the objectives of the Society. Winners of the award will be expected to present a 45-minute paper in a special symposium scheduled during the 1988 annual meeting of the Society, June 5-8. Winners will receive an honorarium of \$500 and a waiver of the registration fee for the 1988 meeting. Applications should consist of a summary of the applicant's work of no more than three pages (excluding tables, figures, and references), a curriculum vitae, and a letter from someone who is familiar with the applicant's work (such as the applicant's dissertation adviser). Suggested names and addresses of people who should be encouraged to apply are also welcome. Applications and recommendations should be sent by March 30, 1988, to the Prize Committee, c/o Dr. James P. Collins, Department of Zoology, Arizona State University, Tempe, Arizona 85287.

LITTORINID BIOLOGY

The Second European Meeting on Littorinid Biology will be held July 4–8, 1988, at Tjärnö Marine Biological Laboratory, Strömstad, Sweden. General themes include systematics, genetics, evolution, ecology, behavior, and the general biology of littorinids and systematically or ecologically related gastropod genera. For details about the meeting, write Dr. K. Janson, Tjärnö Marine Biological Laboratory, Pl 2781, S-452 00 Strömstad, Sweden.

INVITATION TO PUBLISH IN CURRENT ORNITHOLOGY

The goal of *Current Ornithology* is to serve the international ornithological community by publishing in book form the best current work in avian research. Volumes appear every 12 to 18 months. Prospectuses, not completed manuscripts, may be submitted for Volumes 6 and 7. The description of the proposed paper, of one to two pages, should include basic information: author(s), address(es), and telephone number(s); the principal topics, hypothesis, or areas of research to be addressed and their significance; and the principal audience. Prospectuses are to be sent to the editor, Dr. Dennis M. Power, *Current Ornithology*, c/o Santa Barbara Museum of Natural History, 2559 Puesta del Sol Road, Santa Barbara, California 93105.