

Volume 163

Number 3

THE BIOLOGICAL BULLETIN

PUBLISHED BY
THE MARINE BIOLOGICAL LABORATORY

Editorial Board

DANIEL L. ALKON, National Institutes of Health and Marine Biological Laboratory	MICHAEL G. O'RAND, Laboratories for Cell Biology, University of North Carolina at Chapel Hill
ROBERT B. BARLOW, JR., Syracuse University	RALPH S. QUATRANO, Oregon State University at Corvallis
STEPHEN C. BROWN, State University of New York at Albany	JOEL L. ROSENBAUM, Yale University
DAVID H. EVANS, University of Florida	DOROTHY M. SKINNER, Oak Ridge National Laboratory
HARLYN O. HALVORSON, Brandeis University	JOHN D. STRANDBERG, Johns Hopkins University
SAMUEL S. KOIDE, The Population Council, Rockefeller University	J. RICHARD WHITTAKER, Boston University Marine Program and Marine Biological Laboratory
FRANK J. LONGO, University of Iowa	E. O. WILSON, Harvard University
GEORGE O. MACKIE, University of Victoria	GEORGE M. WOODWELL, Ecosystems Center, Marine Biological Laboratory

Editor: CHARLES B. METZ, University of Miami

DECEMBER, 1982

Printed and Issued by
LANCASTER PRESS, Inc.

PRINCE & LEMON STS.
LANCASTER, PA.

THE BIOLOGICAL BULLETIN

PUBLISHED BY
THE MARINE BIOLOGICAL LABORATORY

Editorial Board

DANIEL L. ALKON, National Institutes of Health and Marine Biological Laboratory	MICHAEL G. O'RAND, Laboratories for Cell Biology, University of North Carolina at Chapel Hill
ROBERT B. BARLOW, JR., Syracuse University	RALPH S. QUATRANO, Oregon State University at Corvallis
STEPHEN C. BROWN, State University of New York at Albany	JOEL L. ROSENBAUM, Yale University
DAVID H. EVANS, University of Florida	DOROTHY M. SKINNER, Oak Ridge National Laboratory
HARLYN O. HALVORSON, Brandeis University	JOHN D. STRANDBERG, Johns Hopkins University
SAMUEL S. KOIDE, The Population Council, Rockefeller University	J. RICHARD WHITTAKER, Boston University Marine Program and Marine Biological Laboratory
FRANK J. LONGO, University of Iowa	E. O. WILSON, Harvard University
GEORGE O. MACKIE, University of Victoria	GEORGE M. WOODWELL, Ecosystems Center, Marine Biological Laboratory

Editor: CHARLES B. METZ, University of Miami

VOLUME 163
JULY TO DECEMBER, 1982

Printed and Issued by
LANCASTER PRESS, Inc.
PRINCE & LEMON STS.
LANCASTER, PA.