

Volume 157

Number 1

# THE BIOLOGICAL BULLETIN

PUBLISHED BY  
THE MARINE BIOLOGICAL LABORATORY

## Editorial Board

JOHN M. ANDERSON, Cornell University

EDWARD M. BERGER, Dartmouth College

STEPHEN C. BROWN, State University of New York  
at Albany

PHILIP B. DUNHAM, Syracuse University

CATHERINE HENLEY, National Institutes of Health

J. B. JENNINGS, University of Leeds

MEREDITH L. JONES, Smithsonian Institution

GEORGE O. MACKIE, University of Victoria

HOWARD A. SCHNEIDERMAN, University of  
California, Irvine

RALPH I. SMITH, University of California,  
Berkeley

F. JOHN VERNBERG, University of  
South Carolina

E. O. WILSON, Harvard University

W. D. RUSSELL-HUNTER, Syracuse University  
*Managing Editor*

AUGUST, 1979

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

# THE BIOLOGICAL BULLETIN

PUBLISHED BY  
THE MARINE BIOLOGICAL LABORATORY

## Editorial Board

|   |  |
|---|--|
| JOHN M. ANDERSON, Cornell University                                | MEREDITH L. JONES, Smithsonian Institution               |
| EDWARD M. BERGER, Dartmouth College                                 | GEORGE O. MACKIE, University of Victoria                 |
| STEVEN C. BROWN, State University of New York<br>at Albany          | HOWARD A. SCHNEIDERMAN, Monsanto Research<br>Corporation |
| PHILIP B. DUNHAM, Syracuse University                               | RALPH I. SMITH, University of California,<br>Berkeley    |
| CATHERINE HENLEY, National Institutes of Health                     | F. JOHN VERNBERG, University of<br>South Carolina        |
| J. B. JENNINGS, University of Leeds                                 | EDWARD O. WILSON, Harvard University                     |
| W. D. RUSSELL-HUNTER, Syracuse University<br><i>Managing Editor</i> |  |

VOLUME 157  
JULY TO DECEMBER, 1979

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