

STAZIONE ZOOLOGICA 'ANTON DOHRN' DI NAPOLI

**POLYCHAETE AUTECOLOGY: EVOLUTIONARY TRENDS AND
ADAPTIVE SIGNIFICANCE OF LIFE HISTORY TRAITS**

Reproductive biology, life history and feeding ecology of Polychaete worms

AN ADVANCED COURSE

Benthic Ecology Laboratory, Ischia (Naples, Italy) 2-23 July 1994

Course Directors:

Kristian Fauchald (Smithsonian Institution, Washington DC, USA)
Maria Cristina Gambi (Stazione Zoologica 'Anton Dohrn' di Napoli, Italy)

This three-week course will consist of lectures, laboratory and field research on Polychaete autecology, focusing mainly on reproductive biology, life history, with particular attention to larval biology and recruitment, and feeding ecology. The aim of the course is to provide a broad knowledge and hands-on experience on these topics that will be approached from both a morphological and functional viewpoint, taking into account the phylogenetic, structural and functional constraints within the Class. The expertise that students will develop in new techniques and approaches to the study of the relations between Polychaete morphology-phylogeny and autecology are also applicable to other invertebrate groups.

The course will be held at the Stazione Zoologica de Napoli, Laboratorio di Ecologia del Benthos, Ischia (Naples) Italy. It will run for three weeks, starting 2 July and ending 23 July 1994. The course will be organized to include formal lectures, laboratory and field research training, individual and group research projects.

The course will be limited to 16 students (postgraduates, post-doctorals, investigators) and 6 auditors (post-doctorals, investigators). **Students will participate in all the course activities while auditors will only attend the lectures.** Application forms may be obtained from the address provided below. Applications must be received by **30 March 1994**.

Acceptance notifications will be made not later than **15 May 1994**. The fee for the three week course is Italian Lire 1,600,000 (approx. US\$1,200) for **students**, and 1,300,000 (approx. US\$1000) for **auditors**, which includes tuition, course material, accommodation and one meal per day.

Scientific Organization: Maria Cristina Gambi, Laboratorio di Ecologia del Benthos, punta S. Pietro, 80077 Ischia (Napoli, Italy). Tel: +39 81 991410-5833305; Fax: +39 81 984201.

Organizing Secretariat: International Service Meeting, via Luigi Mazzella, 36, 80077 Ischia (Napoli, Italy). Tel: +39 81 983190; Fax: +39 81 982281.

JOURNAL OF THE MARINE BIOLOGICAL ASSOCIATION

INSTRUCTIONS FOR THE PREPARATION OF MANUSCRIPTS

Editorial Policy

The *JMBA* publishes papers on all aspects of marine biology and oceanography. Papers should report the results of original research and must not have been published, or be under consideration for publication, elsewhere.

General

Papers should be written in English and should be as clear and succinct as possible. If there is a particular reason why rapid publication is desirable this should be stated with the submission. If acronyms are used they must be specified in full on their first occurrence. SI units should be used. Sentences must not start with an abbreviation. Only the scientific names of species should be italicized, and their first mention should be followed by the authority except where reference is made to a work in which the authority appears. Footnotes must not be used.

A total of three copies of the typescript should be provided, double-spaced throughout, on one side of A4 paper. Tables and legends for illustrations should be typed separately at the end of the manuscript. All pages should be numbered serially (title, main text, acknowledgements, references, figure legends, tables). The originals and two copies of the illustrations should be provided. Whenever possible a copy of the text, once the paper has been accepted, should also be provided on a floppy disc (see below).

Short communications, which may also report on new methods or techniques, should not exceed four printed pages, including tables and illustrations. These papers must start with an abstract but are not otherwise divided into sections.

Page proofs only will be sent. One hundred reprints will be provided free of charge and up to 200 extra copies may be purchased if ordered when the proofs are returned.

Title

Each paper must have a unique title and not be one of a numbered series. The title should be kept as short as possible (maximum 18 words), and if specific names are included the authority should be omitted. A running head of not more than 43 characters should be suggested.

Abstract

Each paper (including short communications) must start with a brief abstract summarizing the main results and conclusions of the work, and such other information as make it suitable for publication without change in abstracting journals. No references should be given in the abstract. If the title includes specific names, the abstract must include the taxonomic group to which the species belongs (e.g. *Pholoe minuta* (Annelida: Polychaeta)). The abstract must be intelligible to a reader who is not a specialist in the subject of the paper.

References

References should be kept to an essential minimum and must be listed alphabetically at the end of the paper. Care should be taken to ensure that all those quoted in the text are included, but no others. The full title of the paper and all the authors must be given. Where a volume appears in parts the part need be specified only where each has separate pagination. Titles of journals are given in full and references to books should include the place of publication and publisher. Citations in the text to be given as 'Smith & Jones (1964)', or '(Smith & Jones, 1964)', or 'Smith *et al.* (1964)' if there are more than two authors, except where this is ambiguous.

Examples:

Goldberg, E.D., 1965. Minor elements in sea water. In *Chemical oceanography*, vol. 1 (ed. J.P. Riley and G. Skirrow), pp. 163-196. New York: Academic Press.

Marshall, S.M., Nicholls, A.G. & Orr, A.P., 1939. On the growth and feeding of young herring in the Clyde. *Journal of the Marine Biological Association of the United Kingdom*, **23**, 427-455.

Russell, F.S. & Yonge, C.M., 1928. *The seas*. London: Frederick Warne.

JOURNAL OF THE MARINE BIOLOGICAL ASSOCIATION

Figures

Figures should be in black ink on white paper no larger than A4, and must be suitable for reproduction. Figures will normally be reduced as much as possible to save space (to one-third of a page on average), and the lines and lettering should be of a suitable size and thickness. After reduction the maximum size for a figure or photograph is 134 x 200 mm, including legend. Lettering, numerals etc. should conform to *JMBA* style (Helvetica 8 point after reduction). Symbols should be kept to a minimum and must be clearly explained in the legend.

Half-tone photographs will be reproduced in the text pages and should be supplied as glossy prints with suitable labelling on the originals. Sizes should be indicated by a scale line on the print (parallel to the side or bottom) and not by a magnification factor in the legend. Three sets of glossy prints are required.

Legends for figures must be typed all together on a separate sheet. All illustrations, including photographs, are numbered in Arabic numerals and referred to in the text as 'Figure 1', etc. Where a figure comprises two or more distinct components they must be given a single Figure number and be distinguished by capital letters (*e.g.* Figure 1A).

Please ensure that multiple diagrams are lined up correctly, with as little space between parts as possible, and labelled 'A', 'B', etc. If graphs have been plotted using a computer package the scales must be labelled in sensible intervals.

Coloured illustrations can be included but only at the author's expense (about £1000 per page).

Tables

Tables should be numbered in Arabic numerals, and given a concise heading.

Word-processor discs

All manuscripts should be provided on a floppy disc after the paper has been accepted. It is not necessary to send the disc when submitting the paper initially, as it will almost certainly need revision after refereeing.

It will speed the publication of your paper if you can send a copy of the text on a Macintosh or IBM-type disc; 3.5-inch discs are preferred, but 5.25-inch double density (but not high density) are also acceptable. The disc will be returned to you.

If you are unable to provide an appropriate disc please ensure that the typescript is clearly printed.

Please follow these instructions exactly:

1. Ensure that the disc you send contains only the final version of the paper and is identical to the typescript.
2. Label the disc with author's name, title of paper, machine and word-processor programme used.
3. If you have used a common PC or Macintosh word-processing programme (*e.g.* Microsoft Word, Microsoft Works, WordPerfect, Wordstar, MacWrite) send the file as a fully-formatted document. Otherwise send the file as ASCII or 'text only'.
4. Use italics not underlining for specific names etc. Make sure you distinguish numerals from letters, *e.g.* zero (0) from O; one (1) from l and I.
5. Type names of authors in the reference list in lower case, except for the initial letter.
6. If the diagrams have been prepared on a Macintosh it may be advantageous to send copies of these on disc as well, preferably saved in PICT format.

Authors are requested to see that their manuscripts are in finished form and completely ready for publication so that corrections may be reduced to a minimum. Alterations to the text at the proof stage will be charged to the author.

Cover: The photograph on the outside of the cover was taken by David Nicholson at Pedney Beach, Cornwall

© 1994 Marine Biological Association of the United Kingdom (Registered charity no. 226063)

JMBA

JOURNAL OF THE MARINE BIOLOGICAL ASSOCIATION OF THE UNITED KINGDOM
VOLUME 74:1 FEBRUARY 1994

CONTENTS

	PAGE
Brownlee, C. Developmental biology of marine organisms	1
Swann, K., McDougall, A. & Whitaker, M. Calcium signalling at fertilization	3
Coffman, J. A. & Davidson, E. H. Regulation of gene expression in the sea urchin embryo	17
Yokota, Y., Matranga, V., Zito, F., Cervello, M. & Nakano, E. Nectins in sea urchin eggs and embryos	27
Jeffery, W. R. A model for ascidian development and developmental modifications during evolution	35
Holland, P. W. H., Garcia-Fernández, J., Holland, L. Z., Williams, N. A. & Holland, N. D. The molecular control of spatial patterning in amphioxus	49
Moss, C., Burke, R. D. & Thorndyke, M. C. Immunocytochemical localization of the neuropeptide S1 and serotonin in larvae of the starfish <i>Pisaster ochraceus</i> and <i>Asterias rubens</i>	61
Raineri, M. & Ospovat, M. The initial development of ganglionic rudiments in a posterior position in <i>Mytilus galloprovincialis</i> (Mollusca: Bivalvia)	73
Johnston, I. A. & Horne, Z. Immunocytochemical investigations of muscle differentiation in the Atlantic herring (<i>Clupea harengus</i> : Teleostei)	79
Bonotto, S. Developmental biology of <i>Acetabularia</i>	93
Pingree, R. D. Winter warming in the southern Bay of Biscay and Lagrangian eddy kinematics from a deep-drogued Argos buoy	107
Thiébaud, E., Dauvin, J.-C. & Lagadeuc, Y. Horizontal distribution and retention of <i>Owenia fusiformis</i> larvae (Annelida: Polychaeta) in the Bay of Seine	129
Llansó, R. J. & Díaz, R. J. Tolerance to low dissolved oxygen by the tubicolous polychaete <i>Loimia medusa</i>	143
Jordan, R. W. & Green, J. C. A check-list of the extant Haptophyta of the world	149
Michel, H. B. Antarctic Megacalanidae (Copepoda: Calanoida) and the distribution of the family	175
Beare, D. J. & Moore, P. G. Observations on the biology of a rare British marine amphipod: <i>Monoculodes gibbosus</i> (Crustacea: Amphipoda: Oedicerotidae)	193
Tzioumis, V. Bryozoan stolonial outgrowths: a role in competitive interactions?	203
Baceljaun, T., Bouchet, P., Gofas, S. & Bruyn, L. de. Genetic variation, systematics and distribution of the venerid clam <i>Chamelea gallina</i>	211
Lowe, D. M., Salkeld, P. N. & Carr, M. R. The effect of geographical location on the cellular composition of the mantle tissue of the mussel, <i>Mytilus edulis</i>	225
Johnson, M. A. & Le Pennec, M. The development of the female gamete in the endosymbiont-bearing bivalve <i>Loripes lucinalis</i>	233
Clare, A. S., Freet, R. K. & McClary, M. Jr. On the antennular secretion of the cyprid of <i>Balanus amphitrite amphitrite</i> , and its role as a settlement pheromone	243
Neal, A. L. & Yule, A. B. The tenacity of <i>Elminius modestus</i> and <i>Balanus perforatus</i> cyprids to bacterial films grown under different shear regimes	251
Short Communications:	
Turley, C. M. & Hughes, D. J.	259
Book Notices	263

CAMBRIDGE
UNIVERSITY PRESS



0025-3154(199402)74:1;1-Y