

# PSAMMONALIA

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International Association of Meiobenthologists



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## The first newsletter from Asia



*This Newsletter is not part of the scientific literature for taxonomic purposes*

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Motohiro Shimanaga, Yoshihisa Shirayama



## EDITORIAL

It is my great honour to serve IAM as the editor of "Psammonalia" during the three years that connect the 20th and 21st Centuries. It is another honour to be the first chairperson of IAM from an Asian country. I would like to contribute to the globalization of IAM, and in the upcoming three years I will try to add as many new members as possible from the western Pacific area.

Recently, the development of molecular biology has been astonishing. Previously, thousands of nematode samples were necessary for analysing their proteins. However, now thanks to the PCR (Polymerase Chain Reaction) technique, we can obtain DNA sequence data from a single nematode individual.

A landmark among the recent accomplishments of molecular biology is the complete sequencing of the genome of a nematode species, *Caenorhabditis elegans* (See, Science, vol. 282, No. 5396, 1998). The sequence consists of about 97 million base pairs of DNA, about 1/30 of the human genome. The sequence contains 19 thousand suspected protein-coding genes, but functional information is available for less than half of them. Complete genome information provides the seed for further studies. If we compare the sequence of parasitic nematodes with that of *C. elegans*, we can expect to find genes that are related to parasitism, and the finding will help in the search for effective medical treatments.

There are various possibilities of applying molecular techniques to meiofauna studies, too. If we succeed in sequencing the complete genome of marine nematodes, we probably can obtain numerous insights into the biology of free-living marine species, e.g. the mechanism of osmotic regulation in aphasmic nematode species living in seawater.

The most powerful application of molecular biology to meiobenthology would be in the field of taxonomy. Many meiofaunal taxa have "cosmopolitan species". A kinorhynch species, *Echinoderes dujardini*, is a famous example. However, on the face of things it seems too difficult for such a tiny creature to have expanded its distribution world-wide, because kinorhynchs probably do not spawn eggs into the seawater. Though their morphology is identical, molecular information may be distinct between populations from one area to another. Such distinctions would not necessarily mean that a reproductive barrier has been established between these

distant populations. However, such a result would strongly indicate the possibility that the two populations are distinct species.

Another potential application of molecular techniques to meiobenthology is in phylogenetic analyses. The first example of such an application was presented 7 years ago during our conference in Maryland. In XIMCO, two such papers were presented. There are, however, still too few papers of this kind at our conferences. I think we need to consider molecular techniques as a new and powerful tool in addition to microscopic instruments; furthermore, we should approach molecular biologists with questions that only field workers are likely to ask, in order to stimulate the laboratory biologists' imaginations. I would like to be able to expect many presentations on the basis of such collaborations at ELIMCO in the first year of the third millennium.

### Report from the European treasurer

I received for the 3 year period (1996-1998) 126.000BEF for IAM membership fees (at a fee rate of 300BEF per year, this gives about 420 yearly subscriptions). The production and distribution of psammonalia (multicopies and stamps) costed on the average about 62.000BEF yearly (7.500 BEF for stamps and copies respectively or 15.000 BEF per issue). Including the banking costs the total amount of outlays was 188.220 BEF for the three years.

Since we started with 37.088 BEF in January 1996 which we received from the previous treasurer, while we also received a cheque of 1500 US\$ (or after exchange 52.436 BEF) from the American treasurer in 1997, the incoming for the total period amounted 215.524 BEF. This gave a positive balance on the first of January 1999 of the psammonalia account of exactly 27.304 BEF (about 758 US\$ or 680 euro).

Because the euro is a fact from now on, it was decided in Plymouth (at the XIMCO meeting) that membership fees should be paid in euro (only by checks or VISA/EUROcard) or US dollars (only checks or cash) to the respectively European (still me for the next three years) and American treasurer (Robert Feller). Yearly fees amount 10 euro or 10 US\$ (for details see application forms).

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### Report from North American Treasurer

(All amounts in U.S. dollars.)  
For the 3-yr period from 1Jan 1996 to 31 Dec 1998, I

made deposits from 128 members totaling 2638 plus 367 for the Swedmark Fund. The checking account balance on 1 Jan 1996 was 4605.89 and on 31 Dec 1998 was 3921.39. Expenditures during the 3-yr period totaled 3689.50 as follows: 1367 to Swedmark Fund, 132.50 for returned checks, 440 hourly labor to photocopy back issues of Psammonalia for sale to Scripps Library, 250 postage fees, 1500 to European Treasurer for production of and mailing Psammonalia. The account does not earn interest. I will be sending Dr. Shirayama some money to enable him to begin producing Psammonalia. I urge all members to pay their dues as soon as possible, and I am happy to continue to serve the IAM for the next three years.

Respectfully,

R. Feller, Baruch Institute, Univ. South Carolina, Columbia, SC 29208 USA.

### **Bertil Swedmark Fund, Statement of Accounts for 1998**

This fund originated with a bequest of £1000 from Dr. Bertil Swedmark, to encourage the study of meiofauna amongst students. However, the money was held within the general IAM funds until 1993 when the treasury was handed over from Plymouth to South Carolina. The money is held in the IAM Account Number 6586667 of Lloyds Bank (Sort code 30-96-68), 8 Royal Parade, Plymouth, PL1 1HB, UK. The account opened in October 1993 with the original £1000 and a sum of money donated by the organizers and participants of the Maryland Conference. The accounts to December 31st 1998 are as follows:

|  |           |
|--|-----------|
| Capital brought forward .....                    | £ 2490.89 |
| Interest brought forward .....                   | £ 217.48  |
| Total brought forward .....                      | £ 2708.37 |
| Interest received in 1998 .....                  | £ 95.02   |
| Donations from members .....                     | £ 245.02  |
| Ximco 1998 Raffle .....                          | £ 389.95  |
| Ximco 1998 sale of T-shirts .....                | £ 154.39  |
| Total income for 1998 .....                      | £ 884.38  |
| Expenditure of 1998 -                            |           |
| 2 student grants for XIMCO .....                 | £ 250.00  |
| Excess of Income over Expenditure for 1998 ..... | £ 634.48  |

Balance carried forward ..... £ 3342.75

Originally three student fellowships were granted but one

student was unable to attend because they could not get other funds, this money was therefore returned to the account.

Interest rates on balances between £ 500 to £ 5000 have been around 3.35% this year. The XIMCO organizing committee would like to thank all the conference delegates who donated prizes for the raffle, I think we finished up with about thirty which made £ 390 for the fund. All those who bought XIMCO shirts also contributed £ 1 each to the fund.

May we also remind you that you may make a donation to the BSF either directly into the bank account (in sterling) or by sending it to the treasurer or assistant treasurer with your subscription.

Mike Gee & Richard Warwick

## **ANNOUNCEMENTS**

### **7th International Conference On Copepoda**

25-31 JULY 1999 Curitiba, Brazil

The 7th International Conference On Copepoda (7th ICOC) will be held in Curitiba, Brazil, during the austral winter of 1999. The conference will cover several aspects of copepod research, including taxonomy, phylogeny, ecology, zoogeography, ecophysiology, biochemistry and genetics. This meeting is sponsored by the World Association of Copepodologists (WAC) and hosted by the Federal University of Parana.

#### **Proceedings**

Papers are invited on all aspects of copepod research. The contributed papers will be published in the international journal *Hydrobiologia* and in the corresponding book series,

*Developments in Hydrobiology*. Guest editors for this volume are Rubens Lopes, Janet Reid and Carlos Rocha. We invite you to submit manuscripts directly to one of the guest editors, at the conference address. Please do not submit your manuscript to the journal editor. Submission deadline is July 30, 1999.

*More information on the congress website:*

<http://www.ufpr.br/eventos/icoc>

### **34<sup>th</sup> European Marine Biology Symposium**

13-17 September 1999

Ponta Delgada - Azores - Portugal  
University of the Azores/ Department of Biology

#### Topics

- ! Ecology and Evolution on Island Shores
- ! The Open Ocean ! The Deep Ocean ! Open Session

Deadline for abstracts: May 31

Website: <http://www.uac.pt/db/embs34>

E-mail: [embs34@alf.uac.pt](mailto:embs34@alf.uac.pt)

### **International Conference on Sustainable Management of Coastal Ecosystems**

3 - 5th November 1999

Sponsored by:

Fernando Pessoa University

IMAR - Institute of Marine Research

Conference announcement

You are invited to attend the International Conference on Sustainable Management of Coastal Ecosystems in Oporto, Portugal. The conference will be held at Fernando Pessoa University.

Scope

The conference focuses on studies at the ecosystem level, related to sustainable management of coastal ecosystems. Papers on experimental, theoretical and mathematical modeling work will be accepted as well as papers dealing with economic aspects of coastal ecosystem management. The objectives of the conference are to:

- Synthesize current knowledge on sustainable management of coastal ecosystems, as estuaries, coastal lagoons, salt marshes and shorelines.
- Promote the exchange of ideas about the economic value of coastal ecosystems.
- Demonstrate the use of mathematical modeling as a valuable tool for ecosystem management.

Conference topics

Coastal ecosystems ecology

- Ecological theory and practice in the management of coastal ecosystems.
- Carrying capacity of coastal ecosystems for aquaculture and pollution loads.
- Ecological and economic advantages and disadvantages of mono- versus policultures.
- The control of eutrophication.
- The control of erosion on shorelines.
- Mathematical modeling as a management tool.

Economic and social benefits from the scientific management of coastal ecosystems

- Economic value of coastal ecosystems.
- Management policies.
- Sustainable management of living resources.

•Conservation of environmental quality.

•The impact of short and long-term decision making.

Venue and Dates

The conference will be held at Fernando Pessoa University in the city of Oporto, Portugal, from November 3 to 5, 1999. Oporto is a City rich in history and culture. Its historical centre was recently classified by

UNESCO as a World Heritage. Located on the Douro River, it is the City of the famous Port Wine. Fernando Pessoa University has the name of one of the most famous Portuguese writers. It has approximately 4000 students and over 200 teachers. It has several undergraduate and graduate degrees in Humanitarian and Technical disciplines, among which is Environmental Engineering. It is less than 10 km from the International Airport Francisco SCarneiro and at a walking distance from hotels, restaurants and the Old City.

Call for papers

The programme of the conference will consist of oral and poster presentations. Authors wishing to present a contribution are asked to send a 2 A4 pages-abstract (1400 words). Authors are encouraged to submit the abstracts in floppy disks (3-1/2", PC or Macintosh), using Word format. Alternatively, abstracts may be sent via e-mail to [pduarte@ufp.pt](mailto:pduarte@ufp.pt).

Deadlines

Deadline abstracts July 15, 1999

Letter of acceptance to authors September 5, 1999

Manuscript (1st version) On arrival at the Conference

Letter of final acceptance January 15, 2000

Deadline for final manuscript February 28, 2000

Publications

The papers presented at the conference will be published as Conference Proceedings. Authors will be invited to submit their papers to a dedicated issue of Aquatic Ecology.

e-mail: [pduarte@ufp.pt](mailto:pduarte@ufp.pt)

Phone: +351 2 550 82 70 / 5506710 (Conference secretariat)

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**Interesting websites**

-The Web page of the International Association of Meiobenthologists has moved.

The new Internet address is:  
<http://www.mtsu.edu/meio/>

- Nature - Table of Contents Now available at  
<http://www.nature.com>

This table of contents alert contains the key highlights in this week's edition of Nature. Visit Nature online to browse the content of the current issue, including opinion, news, correspondence, commentary and additional web only features.

## NEWS FROM MEMBERS

### Invitation to the submission of your paper to Publications of the Seto Marine Biological Laboratory

The Seto Marine Biological Laboratory (SMBL) has been published articles regarding the natural history of marine organisms in the Publications of the Seto Marine Biological Laboratory from 1942. It is distributed to more than 500 libraries world wide in the exchange basis. (See the home page of SMBL <http://www.seto.kyoto-u.ac.jp/> for the list of papers so far published.)

Recently publishing a voluminous paper is not very easy, because it costs a lot of page charges. But monographic papers regarding the taxonomy of certain group of animals is useful for not only taxonomists of the group but also ecologists etc. The publications appreciate such a value of monographic works and welcome submission of lengthy manuscripts. When the manuscript is accepted for publishing after a peer review, the publication will print the paper without any page charges. Anyone who is interested in publishing a paper in the publication, please contact with librarian of the SMBL ([mokita@seto.kyoto-u.ac.jp](mailto:mokita@seto.kyoto-u.ac.jp)) for the instruction to authors.

### Congratulations for the PhD degree

On 25<sup>th</sup> January, Mr. Shabdin Mohd. LONG of University of Sarawak, Malaysia, succeeded passed the final examination for his Ph.D degree at National University of Malaysia (UKM). The abstract of his thesis is as follows:

A meiofaunal community structure study was carried out on the intertidal sandy and mangrove areas of the West Coast of Sabah, Malaysia. The meiofaunal densities on the intertidal of the west coastal area of Sabah ranged from 1,193 to 7,054 ind./10cm<sup>2</sup>, consisting of nematodes, harpacticoid copepods, polychaetes,

oligochaetes and insects. Seven groups of nematode species were distributed horizontally across the intertidal area. Species diversity increased towards the low water level. The vertical distribution of the nematodes and harpacticoid copepods was influenced by both the redox potential discontinuity (RPD) and burrow of macrofauna such as *Uca*. Nematodes densities were influenced by the convectional and monsoon rain. The recruitment of dominant nematodes species occurred all the year round.

(From the editor: I would welcome submission of the abstracts of Ph.D thesis to Psammonalia. I believe that will help him/her finding a job or postdoctoral position. In addition, job and/or postdoc position announcements also are welcome.)

### Greetings Meiobenthologists -

I am working on a project sponsored by the South Florida Water Management District (SFWMD), seeking information on freshwater invertebrate specialists. In a proposed program, SFWMD technicians would collect and preserve specimens from the rivers, lakes and wetlands under the SFWMD jurisdiction. The annual volume of these specimens could be quite large. As many as 5000 lots of organisms may be collected each year from as many as 500 different locations. As these technicians would not be capable of making the necessary identifications, we are attempting to locate experts in the appropriate taxonomic disciplines, e.g. freshwater mollusks, aquatic insects, freshwater crustacea.

If proposed funding is approved, these lots will be transported to the Univ. of Florida for sorting, then on to the appropriate specialist for identification. The bulk of the identifications would be during the first year of the proposed project, tapering off as the ID database and reference collections grow. The collection of specimens is required to continue annually, so I expect services from specialists will be required for some years to come.

We are also compiling a database of the existing biological and systematics collections corresponding to south Florida and would like information on relevant material held by you or your institution. We are looking for specialists to join our invertebrate ID team. This project can potentially benefit you, your collections and/or your institution. At this time, we are seeking only people and collections located in Florida. If you have the appropriate expertise and have interest in knowing more about this project please reply. We appreciate any pertinent information that you might have regarding colleagues, collections, or institutions that we should contact.

Thank you,

Robert Godshalk wetlands@flmnh.ufl.edu  
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#### RECENT LITERATURE

(To make this section as complete as possible, please do not forget sending literature information via e-mail to the editor when you publish papers.

In the earlier issues of Psammonalia, a collection of literature information regarding a special issue was published. I would welcome submission of such compiled data, too. In this issue, Dr. Westeid sent me such a type of data.)

•Albertelli G., Covazzi-Harrigue A., Danovaro R., Fabiano M., Frascchetti S., Pusceddu A. (1998). Differential responses of bacteria, meiofauna and macrofauna in a shelf area (Ligurian Sea, NW Mediterranean): role of food availability. *Journal of Sea Research* (in press).

•Austen M.C., Widdicombe S. (1998). Experimental evidence of effects of heart urchin *Brissopsis lyrifera* on associated subtidal meiobenthic nematode communities. *J. Exp., Mar., Biol., Ecol.*, 222, 1-2 : 219-238.

•Badalamenti F., Chemello R., D'Anna G., Riggio S. (1998). Diversity of polychaete assemblage in the hard bottom mediolittoral along the north-western sicilian coast: the role played by the vermetid bioconstruction. *Atti del CoNISMa, Ischia 11-14 Novembre 1998*.

•Bertasi F., Colangelo M. A., Buffan-Dubau E., Ceccherelli V. U. (1998). Community structure and diversity changes of meiobenthic copepod assemblage after flooding of a brackish pond in the Arcachon bay (France). *Atti del CoNISMa, Ischia 11-14 Novembre 1998*.

•Beyerem H., Aissa P. (1998). Impact de la pollution petroliere sur les densites de la meiofauna du littoral de Bizerte (Tunisie). *Vie Milieu* 48, 3: 183-190.

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•Bonze, S., H. Schmidt, D. Eibye-Jacobsen & W. Westheide (1996): *Eurasia viridis* (L., 1767) (Polychaeta: Phyllodocidae) is a complex of two species in northern Europe: Results of molecular and morphological investigations. *Cah. Biol. Mar.* 37, 33-48.

•Covazzi Harrigue A., Chiantore M., Piccione E., Maliardi L., Albertelli G. (1998). Macro- and Meiobenthic assemblages distribution in coastal areas in front of Genova and Savona (Western Mediterranean Sea). *Atti del CoNISMa, Ischia 11-14 Novembre 1998*.

•Colangelo M. A., Dall'Olio P., Ceccherelli V. U. (1998). Meiobenthos biodiversity on marine bottoms characterized by Hydrothermal seepage off the Panarea Island (Eolie, Tyrrhenian Sea). *Atti del CoNISMa, Ischia*

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