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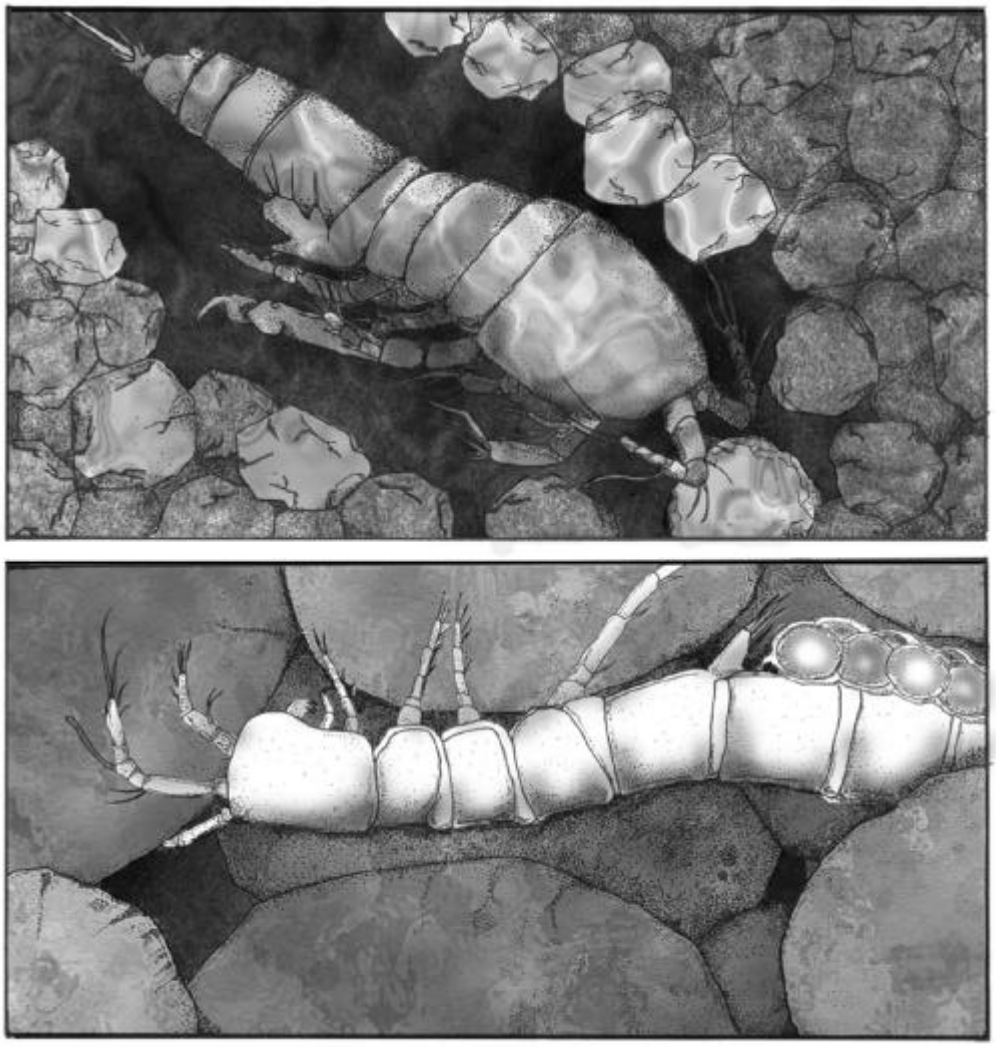
To dig or to crawl, that is the question



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

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You may make your donations to the *Bertil Swedmark Fund* directly to the IAM bank account (account number 6586667) of the Lloyds Bank (Sort code 30-96-68), 8 Royale Parade Plymouth PL1 1HB, UK.

EDITORIAL

This issue is being distributed to the members via either snail mail or e-mail. Meanwhile, the previous issue, Psammonalia #123, will be available on our website in the pdf file format. The file can be read using Adobe Acrobat Reader, which is available freely from Adobe's website. If you have a colorprinter, the first page of #123 with its colour picture will be readily at hand.

The above is just one example of the recent astonishing development of Internet technology. It is not easy for a meiobenthologist to follow the most up-to-date high-tech wares, such as Java, especially if one is at a remote site without colleagues from the field of information sciences. However, once connected to the Internet, one can catch up on the most up-to-date information in the biological sciences at a very low cost. A confirmation of these advantages is the fact that Internet connection is widely available even in developing countries.

"Introduction to the study of meiofauna" by Bob Higgins and Hjalmar Thiel is a bible for meiobenthologists; in it they can obtain much basic information on research techniques. However, some important information was omitted due to page space limitations. To rectify this, while he was president of IAM a decade ago, Paul Montagna tried to collect information on suppliers of goods necessary for the study of meiobenthos.

At that time, the lack of a supplier of Irwin loops was considered as a crisis. In the US a new venture company eventually started supplying these loops; however, because I knew how to make them, I did not need any commercial supplier. On the other hand, when I started my research on meiofauna, I could not get a depressor for Cob's aluminum frame, which is widely used to make microscope slides with two cover slips for observing meiofauna from both sides of the specimen. To overcome this problem, Bob Higgins and I made a mold to produce a special plastic frame. Other IAM members such as David Thistle and Nicole Gourbault now also use these frames.

For nematology, the choice of best medium for sealing the edge of the coverslip of a microscopic slide has been controversial. Canada Balsam and Glyceel have been used widely, but production of the latter product was halted. Recently, Jeff Bate published a paper describing the recipe of Glyceel (The slide-sealing compound "Glyceel". Journal of Nematology 29(4):565-566); he is now distributing a small quantity of his own stock.

It takes a lot of effort for meiobenthologists to overcome problems that arise due to the lack of a source of laboratory materials. However, the necessary effort and costs are often within the capacity of an individual scientist. Even if there is no supplier for Glyceel or Irwin loops in your country, you only need at hand a supplier of basic chemicals or of thin nickel wire. Bob Higgins and I needed more than $10,000 to build the mold for the HS slides, but other scientists need not pay such an amount. To save unnecessary effort, however, do-it-yourself information must be available. Publishing a book as a supplement to the meiofauna manual is one idea. However, I believe distribution of information via the Internet is more effective. In this way we can also encourage meiobenthologists in developing countries, where funding for library acquisitions is not satisfactory.

Thanks to the efforts of Keith Walter, our web manager, IAM's website is getting better and better. However, I would like to improve it even more with a lot of information useful for meiobenthologists. The research tips mentioned above are an example. In addition, seminar, job, and laboratory information would be especially useful for field scientists. Networking of data among research laboratories would make the data more useful; such data could comprise faunal lists, basic climate information, and other information useful for the study of taxonomy, biogeography, and biodiversity.
Those who wish to help us make a better website in this way, please send your information to Keith.

Request for Address Information

The editor is preparing the membership directory of IAM. Those who have not report your information completely inclusive of your e-mail address, please send it via e-mail to ***yshira@seto.kyoto-u.ac.jp***
The information IAM has can be checked in our web site at ***http://www.mtsu.edu/meio/*** .

ANNOUNCEMENTS

Meetings

The 29th meeting of the Association of Marine Laboratories of the Caribbean (AMLC)
18th to 24th July 1999
the Instituto Oceanografico, De Venezuela,
Universidad de Oriente,
Cuman, Venezuela.

For additional information contact:
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Third English Language International Nematology Symposium.
August 21-27, 1999,
Zoological Institute of the Russian Academy of Sciences,

St. Petersburg.

The scientific program will include the following topics:
Molecular Biology & Genetics
Phylogeny & Systematics
Control and Suppressants
Identification and Diagnosis
Ecology and Host-Parasite Relationships
Biogeography & Biodiversity
Methods & Techniques
Computers & Teaching

A symposium-wide, all-day tour of the famed Peterhoff Palace-Museum-Reserve will highlight the social activities and a complete social and cultural program is planned for accompanying persons.

Please examine the Meeting Announcement and registration materials that can be found at: *http://ianrwww.unl.edu/ianr/plntpath/nematode/son/sonhome.htm*

Registration fees are all-inclusive: symposium, hotel, meals, excursions, social events, airport transfers, etc. Preregistration and abstract deadline is April 15, 1999.

Morphology, Shape & Phylogenetics symposium

25 August 1999,
University of Glasgow, Glasgow, Scotland
(In association with The Systematics Association's Biennial Meeting)
Organizers: Norman MacLeod & Peter Forey

This is the first detailed announcement of the program for the upcoming Morphology, Shape & Phylogenetics symposium, to be held in conjunction with the Systematics Association's Biennial Meeting this August in Glasgow, Scotland.

Additional details for the symposium are available at *http://www.nhm.ac.uk/palaeontology/meetings/samp/samp.html* or from the organizers. Additional details for the meeting are available at *http://www.geology.gla.ac.uk/palaeo/systass/biennial/biennia2.html*

A proceedings volume is being prepared for the symposium. For additional details on that watch this space.

Description: Phylogeny represents the organizing principle for all biological data. While variations in organismal form can be studied from non-phylogenetic points-of-view, it is generally acknowledged that such data are not different, in principle, from any other type of biological data and cannot be understood in the absence of the historical perspective provided by phylogeny. Similarly, phylogenetic analysis is impossible in the absence of some way of assessing intrinsic attributes of individuals, populations, and species. The most obvious such attribute is the geometric form of the organisms body and/or parts thereof. Although phylogenetic analysis and morphological analysis are inextricably linked, historical circumstances have resulted in quantitative phylogenetic analysis (e.g., parsimony-based cladistics) and qualitative morphological analysis (e.g., eigenanalysis-based "geometric" morphometrics) occupying two more-or-less mutually exclusive sectors of the systematic community, to the detriment of both.

Fortunately there are signs of an incipient rapprochement between phylogenetic systematics and morphometrics. Many phylogeneticists are currently in the process of re-evaluating their traditional taboos regarding the use of continuously-distributed variables as a whole. At the same time some morphometricians have begun to raise the question of whether certain types of morphometric variables can be used to constrain phylogenetic hypotheses while others have begun to explore methods whereby phylogenetic information can be included in morphometric studies. This full day symposium will undertake a comprehensive exploration of the relationship between continuously-distributed morphological (and especially morphometric) variables and phylogenetic analysis to provide answers to four fundamental questions.

1. Can continuously-distributed variables (of any type) be used in phylogenetic inference?
2. Can morphometric variables be used to constrain and/or test phylogenetic hypotheses?
3. What strategies are available for taking advantage of morphometric information (however obtained) within the context of phylogenetic analyses?
4. What strategies are available for taking advantage of phylogenetic information (however obtained) within the context of morphometric analyses?

Technical Program:
Keynote Speakers:
F. L. Bookstein, Institute of Gerontology, University of Michigan, Ann Arbor, MI.
Creases in Deformations: the Missing Link Between Morphometrics and Phylogenetics
Joseph Felsenstein, Department of Genetics, Univ. of Washington, Box 357360, Seattle, WA.
Statistical Inference of Phylogenies from Morphology, Including Morphometrics

BIODIVERSITY IN THE PHYLUM NEMATODA

17 September 1999
University of Gent, Belgium
HIKW, Ledeganckstraat 35, 9000 Gent

AIM : The ancient and vast phylum of the Nematoda is an ideal instrument to study the origin of and the mechanisms whereby diversity originates and is established.

During the symposium invited speakers will highlight issues related to diversity and present an up to date account of the several research fields in nematology.

MEETING PROGRAMME
Nematode systematics : past, present and future.
A. Coomans, University Gent, Belgium
Lost in Worm space: phylogeny and morphology as road maps to nematode diversity.
P. De Ley, University Gent, Belgium.

Genisys and computer assisted identification of nematodes.
R. Fortuner, Mont sur Guesnes, France.
The biology, phylogeny and distribution of entomopathogenic nematodes of the genus *Heterorhabditis.*
A. Burnell, National University of Ireland, Ireland
Patterns and processes in parasitic nematodes.
M. Blaxter, University of edinborough, UK
Plant nematode interactions: the beauty of sedentary parasitic nematodes.
T. Tytgat, University Gent, Belgium.
Embryogenesis and cell specification in nematode embryos. Differences and similarities E. Schierenberg, University of Cologne, Germany
Lineage evolution in nematodes.
G. Borgonie, University of Gent, Belgium
Evolution of vulval induction in nematodes.
M.-A. Felix, J. Monod Institute, France
Evolution of vulva development. *Pristionchus pacificus* and other members of the Diplogasteridae.
R. Sommer, Max-Planck Institute for Developmental Biology, Germany.
Cell fusion during organ formation in Nematoda.
B. Podbilewicz, Technion University, Israel
Structural and functional biodiversity of free-living marine nematodes.
M. Vincx, University Gent, Belgium.

REGISTRATION
The one-day Symposium will take place in the IBIS hotel in the historical center of Gent. Detailed information will be sent to all that register. Registration is free, including coffee breaks and lunch. However, it is necessary to register in advance for organizational purposes. Deadline for registration is August 15th 1999. Registration can be done by email, fax or sending the registration form below. Individuals who want hotel accommodations should contact the organizer (address below) before July 1st 1999.
Gaetan Borgonie
RUG - Vakgroep Biologie
Ledeganckstraat 35, B9000 Gent, Belgium
Tel: (+32) 9264 8740 Fax: (+32) 9264 5344
Email : Gaetan.Borgonie@rug.ac.be

The 1999 meeting of SOPAC's Science Technology & Resources network (STAR)
Saturday 23rd & Monday 25th October 1999
Nadi, Fiji.
ABSTRACTS ARE DUE 20 September 1999. The meeting is part of the 28th Annual Session of SOPAC, the South Pacific Applied Geoscience Commission, 23 - 29 October, 1999. For details, including registration form and accommodation costs, please monitor: *<http://www.sopac.org.fj/AnnualSession/ann99/default.htm>*.

Symposia on Pollutants, Aquaculture, Extremophily
The European Society for Comparative Physiology and Biochemistry is organizing in July 2000 a large international congress including symposia on Pollutants, Aquaculture, Extremophily, and more which may be of interested to many of you. Have a look at *<www.ulg.ac.be/physioan/escpb.htm>* for a look at the general programme.

9th International Congress on Invertebrate Reproduction and Development.
July 2001
Rhodes University,
Grahamstown, South Africa
Conference Organiser: Alan Hodgson, Department of Zoology & Entomology, Rhodes University, Grahamstown 6140, South Africa e-mail: zoah@giraffe.ru.ac.za; Fax: +46 622 4377.
The first announcement and preliminary program details are available at: *http://www.rhodes.ac.za/conferences/icird2001*
Suggestions for workshops are welcome

Publications

BioLink, The Biodiversity Information Management System, is now available for testing and evaluation.

The Australian National Insect Collection, CSIRO Entomology, is pleased to announce that BioLink, the Biodiversity Information Management System, is now available for evaluation by the taxonomic, museum and biodiversity communities. This release, Ver. 1.0 (Beta 1), is the first general release of BioLink.
More Information About BioLink
For details concerning BioLink, including a complete online version of the User's Manual, see *http://www.ento.csiro.au/biolink/home.htm.* Instructions for downloading a copy of BioLink and the BioLink release schedule are also available from this site. You can also contact us directly with any questions and comments at *biolink@ento.csiro.au*.
About BioLink
BioLink manages both taxon- and specimen-based information. The current release provides management tools for taxon names ranging from kingdom to subspecies as well as material based on both museum specimens and field observations. Easy to use data entry forms and predefined reports are provided to allow rapid collection and reporting of the highest possible data quality.
BioLink provides a range of tools to assist in data collection and analysis. An online electronic gazetteer assists in the geocoding of sites, including sites described by a distance and direction from a named place (for example 19km SE of Canberra). A mapping tool is also included which can plot distributions of taxa, at any rank, directly from the taxonomic checklist. These maps are fully customizable, can be at any scale or level of detail, and can include any number of taxa (each with its own symbol). These maps can be printed directly from BioLink, saved to disk or transferred to a GIS package such as ArcView.
Release Schedule, Prerequisites and Costs

This release of BioLink is provided free of charge. This free distribution will allow evaluation of BioLink's rich and diverse features and permit potential users to assess BioLink's usefulness in fulfilling their information management requirements. Prerequisites for installing BioLink include a Pentium-based PC running Windows 95/98/NT4, 60 megs of disk space and a Microsoft SQLServer Ver. 7.0 license.. BioLink is designed to run equally well on single PCs, institutional networks and the Internet.

Future BioLink releases, together with their contents and pricing, will be announced on the BioLink web site at *http://www.ento.csiro.au/biolink/home.htm.* Institutional licensing agreements are available on request from *biolink@ento.csiro.au.*

Subscription to the BioLink E-Newsletter

Note that you have been selected to receive this BioLink E-Newsletter based on your interest in biodiversity informatics. If you do not wish to receive further notices please reply to this email with the subject line 'unsubscribe' and you will be removed from the BioLink mailing list.

Please feel free to pass this notice to colleagues you feel may be interested in BioLink. Anyone who wishes to be added to the mailing list can do so by visiting *http://www.ento.csiro.au/biolink/subscribe/subscribe.html*. BioLink E-Newsletters will only be issued to announce major BioLink releases or other significant events.

From the entire BioLink Development Team, David Baird, Natalie Barnett, Neil Fitzsimmons, Ebbe Nielsen, Ian Reid and Steve Shattuck, thanks for your interest in BioLink and we hope you will find it a useful tool while studying the world's biological diversity.

Russian Studies of Arctic Marine Benthic Fauna

The Akvaplan-niva (Norway) project report: "Russian Studies of Arctic Marine Benthic Fauna A Bibliography and selected translations" by L. Kupriyanova, E. Wartena, and S. Cochrane Akvaplan-niva Report 434.1600 ISBN 82-449-0049-0 Released 1999. 74 pp

is available for download at *http://www.akvaplan.niva.no/akvaplan/download.htm*

We would appreciate any comments, suggestions, etc. regarding the bibliography.

Lena Kupriyanova <*lena@netside.net*>

The proceedings of the Electronic Conference of Research in Biodiversity are available both in printed and electronic form.

These are the details of the publication:

"Research and Biodiversity - A Step Forward. Report of an Electronic Conference"

Esteban, J.A, Costello, M.J, Larsson, T-B., Nowicki, P.L., Svensson, L., Troumbis, A.Y., Watt, A.D., 1998. Ministry of Environment, Government of Catalonia, Barcelona.

Copies of the publication may be obtained:

-In electronic format (PDF), from the he E-conference Web Site: *http://www.gencat.es/mediamb/biodiv*

-In printed volume, upon request to: *wbiodiv@correu.gencat.es*

Electronic Conference on Research and Biodiversity Secretariat c/o Ministry of Environment, Government of Catalonia, Diagonal, 523-525, E- 08029, Barcelona

We would also like to inform you that the transcripts of the sessions of the electronic conference are already available on the Web site. The web site will remain active, to allow reading and consulting all the messages and contributions posted during the E-conference.

Position available

Stockholm University, Department of Systems Ecology

Invites applications for three positions as Senior Lecturer in Marine Systems Ecology (Ref. # 612-1490/99) Aquatic Ecotoxicology, with emphasis on ecosystem effects (Ref. #612-1491/99). Natural Resource Management (Ref. # 612-1492/99)

The Department has three main research areas, each with its own graduate program: Marine Systems Ecology; Natural Resource Management, emphasising the interactions of humans with the natural environment; and Aquatic Ecotoxicology, emphasising ecosystem-level effects, especially in tropical Third-World Countries.

The Department now has five full professors, two senior lecturers, four assistant professors, and some 50 doctoral candidates. Altogether, staff and doctoral students numbers over 100.

The new Senior Lecturers are expected to strengthen the Department's undergraduate and graduate teaching, which requires learning Swedish, and to enrich and broaden its research program. The qualified applicant must have a Ph.D. within a relevant field of the natural sciences, or have demonstrated equivalent competence; the qualified applicant must also have demonstrated high teaching skills at the university level.

Since at present most senior lecturers in the Section for Biology are men, the University particularly welcomes applications from women.

Further information on the positions and how to apply may be obtained from the Departmental Web Site *http://www.ecology.su.se/*, from the Departmental Head, Professor Fredrik Wulff (tel. +46/8 16 42 50; e-mail *Fred@system.ecology.su.se*), or from division chief Ann-Charlotte Ostblom (tel. +46/8 16 20 86; e-mail *AC.Ostblom@natkan.su.se*).

Deadline for application is September 15, 1999.

Aquatic Ecophysiology at UNIVERSITY BORDEAUX 1, DEPARTMENT of BIOLOGICAL SCIENCES

The University of Bordeaux 1 is currently exploring the possibility of opening a Professorship in Aquatic Ecophysiology, starting from 1st September 2000.

The new Professor will benefit from laboratory facilities at the Marine Station in Arcachon (60 km from the main campus of Bordeaux 1 University in Talence), in order to conduct research in comparative and environmental Physiology/Biochemistry on aquatic

(marine, estuarine or freshwater) invertebrates or vertebrates. This research is intended not only to contribute to ongoing knowledge of adaptive responses of organisms and populations to ambient conditions, but also to serve a better understanding of the processes of contamination of organisms by toxicants from the environment.

Applicants should have been previously engaged in productive high level research activity on the interactions between organisms and the environment, particularly in studies of transfer processes : respiratory gas exchange, or osmotic and ionic regulations, or gut absorption of nutriments Efforts to apply such basic work to the understanding of the mechanisms of toxicant accumulation and biological effects will be appreciated.

The new Professor will be a member of the CNRS-supported " Laboratoire d'Ecophysiologie et Ecotoxicologie des Systemes Aquatiques " (LEESA). With other researchers at the University of Bordeaux 1 and in the Marine Station at Arcachon, this laboratory is contributing to interdisciplinary approaches of the functioning and disfunctioning of littoral and continental aquatic ecosystems. Strong interactions between the work conducted by the new Professor and ecotoxicological research will be encouraged, as they are deemed essential to arrive at a better understanding of contamination processes, both at organismal, populational and food chain levels.

The new Professor will have to teach undergraduate and graduate courses in General and Comparative animal Biology and Physiology. He will also be asked to participate in high level Summer Schools at the Marine Station. A good teaching experience and a fluent practice of the French language will be required.

For further information, please contact :
Prof. J.P. TRUCHOT, Directeur Department of Biological Sciences Phone : (33) 5 56 84 87 00 or (33) 5 56 84 24 38 Fax : (33) 5 56 84 87 01 e-mail *ufr-biologie@adm-bx1.u-bordeaux.fr* (bx1 with number one)

Interesting websites

-The Web page of the International Association of Meiobenthologists has moved.
The new Internet address is***:***
http://www.mtsu.edu/meio/

new web pages of the Estuarine and Coastal Sciences Association (ECSA) which can be found at ***www.ecsa.ac.uk.***
For those that aren't aware of its existence, ECSA is an academic organisation, with a world wide membership, which promotes research and study of all aspects of estuarine and coastal regions. The Association was founded in 1971, as the Estuarine and Brackish-Water Biological Association, to promote production and dissemination of scientific knowledge and understanding of estuaries and coastal waters, in order to encourage resource management for the public benefit.

The email listserver estuarine-science, has now become the official email discussion list of ECSA (see *www.mailbase.ac.uk/lists/estuarine-science*) for details, but this does not change the purpose of the list, which is to encourage discussion from any interested parties regarding estuarine and related topics.

Biodiversity links
A web site with extensive links to other web sites on the subject of **marine invertebrate biodiversity** is:
http://www.obs-banyuls.fr/web/departs/feral/biolpop/LIENS/liens.htm
and more general biodiversity with a marine backbone:
http://erms.biol.soton.ac.uk/links.shtml
An impressive web site on Sea Anemones has a searchable (by genus, species, author, and distribution map) database with bibliography:
http://biocomplexity.nhm.ukans.edu/anemones/images/Version.html

Looking for scientific funding?
Announcing the International Grants Finder - new from Nature! Your one stop guide to international scientific opportunities. Search free through the details of 1,300 awards online. Visit *http://www.nature.com/server-java/Propub/nature/grants.frameset*
to get all the latest grant information today.

"Russian Scientific Translations" created to help folks looking for Russian sources in the following fields -Biological Oceanography, Marine Biology, Ichthyology, Fish Biology, Plankton Ecology and similar subjects.
please visit us at *http://members.xoom.com/_XOOM/Russ_transl/*
To help you started we've already put a list of references some of you might be interested in. This list will be expanded in the future.

NEWS FROM MEMBERS

Congratulations for the Ph.D degree

Tom Moens, University of Gent, Biology Department, Marine Biology Section, informs us that he has successfully defended his PhD - entitled "Feeding ecology of free-living estuarine nematodes. An experimental approach" last February. The PhD consists of eight chapters. The Introduction (chapter 1) and General synthesis (chapter 8) have not been published or submitted, but most of the other chapters have. Chapter 2, "Materials and Methods", chapter 3 "Nematode trophic ecology in the Westerschelde Estuary: A working frame with trophotypes", chapter 4 "Is predation a significant feeding strategy in free-living estuarine nematode communities?", chapter 5 "Do nematodes utilize autotrophic primary production?", chapter 6 "Selecting and finding food: A case study with marine bacteriovorous nematodes" and chapter 7 "Nematode responses to environmental fluctuations: the structuring role of temperature, salinity and food density", consist of

three, one, two, two, one and two
papers which have been published, accepted or submitted, or are currently in preparation (see list below).
Tom hopes to start a postdoc project aiming at the role of nematodes and nematode diversity in breakdown processes of saltmarsh litter at the University of Gent from October next onwards.

(*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 postdoctral position. In addition, job and/or postdoc position announcements also are welcome.)

New Member

Joseph L. Staton
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USA

Address changes

Guerrini Alberto
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ITALY

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.)

D'Addabbo, M.G., Pietanza, R., D'Addabbo, R., De Lucia Morone, M.R., and de Zio Grimaldi, S. (1999) A redescription of *Actinarctus Doryphorus* (Tardigrada, Heterotardigrada). Cah. Biol. Mar. 40, 21-27.

Aleshin, V.V., O.S. Kedrova, I.A. Milyutina, N.S. Vladychenskaya and N.B. Petrov (1998) Relationships among nematodes based on the analysis of 18S rRNA gene sequences: molecular evidence for monophyly of chromadorian and secernentian nematodes. Russian Journal of Nematology 6(2): 175-184.

Ansari ZA and AH Parulekar (1998) Community structure of meiobenthos from a tropical estuary. Indian Journal of Marine Science 27(3-4): 362-366.

Austen, MC, Widdicombe, S, and Villano Pitacco N. (1998) Effects of biological disturbance on diversity and structure of meiobenthic nematode communities.
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Zoological Scripta 27(3): 247-262.

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Curini Galletti, M. And Puccinelli, I (1998) The *Gyratrix hermaphroditus* species complex (Kalyptorhynchia : Polycystididae) in marine habitats of eastern Australia. Hydrobiologia 383 : 287-298 .

de Troch M, Mees J and Wakwabi E (1998) Diets of abundant fishes from beach seine catches in seagrass beds of a tropical bay (Gazi Bay, Kenya). Bel. J. Zool. 128 (2) : 135-154

Dittmann S (1998) Spatial and temporal patterns of platyhelminth assemblages in intertidal sediments of northeast Australia. Hydrobiologia 383 : 41-47.

Drgas A, Radziejewska T and Warzocha J (1998)

Biomass size spectra of near shore shallow water benthic communities in the Gulf of Gdansk (Southern Baltic Sea). Mar. Ecol. Publ. Sta. Zool. Napoli 19 (3) : 209-228.

Duplisea DE and A Drgas (1999) Sensitivity of a benthic, metazoan, biomass size spectrum to differences in sediment granulometry. Marine Ecology Progress Series 177: 73-82

Engel J and Kvitek R (1998) Effects of otter trawling on a benthic community in monterey bay national marine sanctuary. Conserv. Biol. 12 (6) : 1204-1214.

Ettema CH, Coleman DC, Vellidis G, Lowrance R and Rathbun SL (1998) Spatiotemporal distributions of bacterivorous nematodes and soil resources in a restored riparian wetland. Ecology 79 (8) : 2721-2734.

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