

PSAMMONALIA

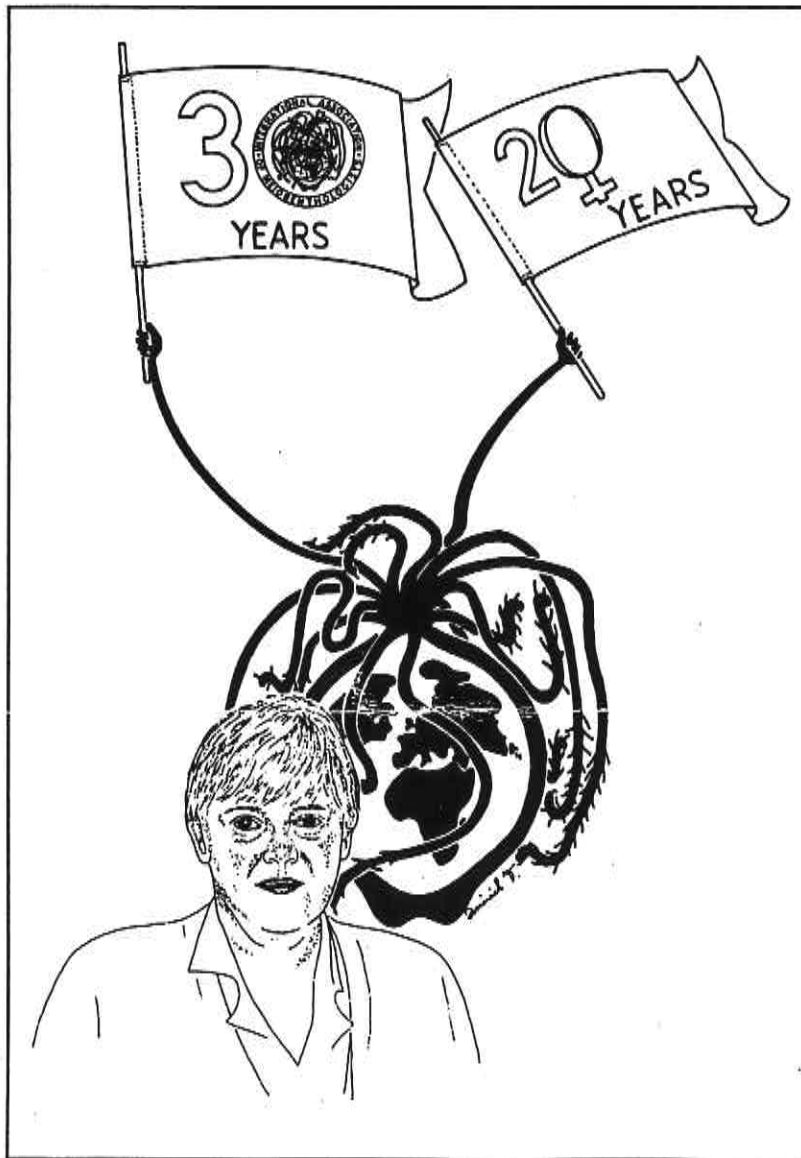
Newsletter of the
International Association of Meiobenthologists



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DOUBLE CELEBRATION



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

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List to be completed in the next issue of Psammonalia

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Marleen De Troch, Tom Moens, Ann Vanreusel,
 Dominick Verschelde, Magda Vincx.



EDITORIAL

Starting my new task as editor of *Psammonalia*, I looked back in the history of the International Association of Meiobenthologists and was surprised to find two important birthdays which merit a celebration (cf. front-page) :

IAM is 30 years old and reaches the age of maturity and wisdom. Indeed the IAM was founded in 1966 by Bob Higgins as founding Editor. We are still very grateful to him for that initiative. An organisation with 261 members after 30 years indicates that our discipline is alive and kicking.

What makes the success of the IAM ? IAM and more in particular, *Psammonalia* is a forum on which meiobenthologists can talk to each other. Four times a year, we can communicate with members all over the world. But in our field as well, new technology intervened and from now on, we can surf on internet on the homepage created by our North American colleague Nikolaos Schizas. See further in this issue. It does not mean that the four paper-issues will not be produced anymore, but it means that we encounter each other while playing with the computer. I'm sure that Bob Higgins did not even dream about this possibility 30 years ago.

A second celebration is for the fact that it is **20 years ago** since the Newsletter has been edited by a **female-meiobenthologist** : Jeanne Renaud-Mornant was editor of the journal in 1976-1977. In this period I graduated at the University and did not know that meiofauna would determine my life so drastically and that I could perform a hobby as a profession.

Indeed, for the decision of the subject of my M.Sc. I followed the advise of Carlo Heip who suggested me to start research on copepods (his favourites). I cultured (it means that I succeeded in raising two adult females during one year of study) *Canuella perplexa* and performed morphological studies of its postembryonic development. Soon I became fascinated by the wonderful little creatures living between the sandgrains but after one year of culturing (it means encouraging day and night the animals to reproduce) I had enough of it and decided to change subject for my Ph.D. Since the Marine Biological Section of Carlo was part of the famous Nematology Lab of Prof. De Coninck & Prof. Coomans, I decided to continue my Ph.D. studies with marine nematodes. I'm very glad for that decision; it gave me the opportunity to investigate a very diverse world of animals but boring for those who are not familiar with them. I'm still very enthusiastic about these creatures and recently, on the occasion of the discussion about the biodiversity crisis of our globe, nematodes become more and more important (even Belgian politicians know what nematodes are...). It was only in 1982, when Carlo Heip became editor of the IAM (and I was the treasurer) that I realised the importance of an organisation like IAM. With the organisation of the Meiofauna conference in Gent (August 1983), I met most of the meiobenthologist colleagues for the first time and it became clear to me that these colleagues are as diverse and as interesting as marine nematodes.

Getting the opportunity to continue my post-doc at the university of Gent, I am really satisfied that I have the opportunity to investigate meiofauna for the rest of my life (?). However, since struggle for jobs and scholarships are very hard, and since I have taken the responsibility for many Ph.D. projects on meiofauna, I cannot longer enjoy directly the surprise effect of a new discovery of a strange animal or a new phenomenon. Nevertheless it is very satisfactory to see good scientists to be born out of our students. In this educational position, I take the objectives of our organisation which are '*general advancement and promotion of the study of meiobenthos in all aspects*' very much at heart. Therefore I feel really honored when the Executive Committee has chosen me last summer in Perpignan as the new chairperson of the IAM.

I will do this three years job with pleasure (notice a smile on the cover page). And our meiobenthic staff of the University of Gent, Marleen De Troch, Maaïke Steyaert, Tom Moens, Sandra Vanhove, Ann Vanreusel, Dominick Verschelde, Jan Schrijvers, Lee Hee Joong, Chen Guo Tong, Agnes Muthumbi, promised me the necessary help for producing this journal. We survived already one '*Psammonalia fever*' of Feb 1996 !

But, for the future, I'm still trusting on guest editorials and other interesting and/or amusing contributions sent by each of you.

Finally I want to honour and thank the previous chairman, Paul Montagna and his staff, for all the effort he has given to our association .

Magda Vincx, Gent, February 14, 1996

NEWS OF THE TREASURER

Report of the Past-treasurer (now assistant-treasurer)

The IAM financial position remains stable. When I took over as Treasurer 3 years ago, we had \$3,651.68 in the bank. In Feb 1994 the balance was \$4,919.06, in Feb 95 it was \$4,900.11, and this year we have \$4,903.39 plus whatever is in our new European Treasurer's bank. Our biggest expense the last three years was production and mailing of *Psammonalia*: numbers #100 - 110 cost \$4,651.88, an average of \$422.90 per number. The treasury received \$6,853 from Feb 1993 to Feb 1996, and expended \$5,601.29, leaving our balance as stated above. Our membership contributed \$490 to the Swedmark Fund during the last 3 years through this treasury, but other contributions were made as a result of the raffle at the Perpignan meeting. We received a request from the Scripps Institution of Oceanography in La Jolla, California, for a complete set of all back issues of *Psammonalia*. B.C. Coull kindly allowed us to photocopy his (a massive task), and our charge of \$500 netted \$250 for the treasury. I would like to suggest that we raffle a complete set at the next IAM meeting in Plymouth. The biggest problem I have had as Treasurer has been getting checks from non-US members that were not written on US- affiliated banks, hence they could not be deposited and had to be returned. This cost us nearly \$100 in unnecessary fees. Having an European treasurer should

solve most of these problems. It has been a pleasure serving the IAM. I will continue in this capacity until the Presidency returns to this side of the Atlantic Ocean, at which time we shall have elected a new US Treasurer, so please keep the dues coming!
Respectfully submitted, Robert J. Feller.

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New treasurer

Finally the time has come that I have to take my responsibility as a new treasurer, or do I have to say co-treasurer since I am lucky to shear this highly responsible job with, Bob Feller, the past treasurer. The ammendment to the bylaw which defines an assistant-treasurer has passed unanimously among all 20 voters of IAM. Probably Bob did his work so good that some didn't like to loose him in that function, so he may go on for a while as the assistant-treasurer. In practise it will save a lot of members the problem of how to do transcontinental payments, which is even in this very international-minded time still a hard thing to do. Thus, ~~North American members of the IAM can pay to Bob Feller from the United States of America, while other members can pay to me in Belgium. As a surplus, you can pay from now on by VISA, EURO or MASTERCARD by just giving your card number with expiry date and your signature, a procedure which is commonly used for international money transactions and which is probably most efficient and cheap (only 3 % commission). Sending a cheque is another possibility, which most of the times works perfect, although occasionally things get lost on their way. So, there is not one good reason not to renew your membership. Already since the last issue, several members have come to the critical state of renewal. We give them a last chance by sending this issue and we hope our account will be spiced soon by their contribution. Finally, I want to mention that I hope to fulfil this job as accurately as the previous treasurers did, and that we end the coming three years with the same positive balance.~~

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ANNOUNCEMENTS

ESF-workshop 'Disseminating Biodiversity Information'

A workshop on 'Disseminating Biodiversity Information' is organized by the ESF-Systematic Network in Amsterdam, March 24-27 1996. The key theme of this workshop will be the

organization and subsequent dissemination world-wide of information on the Earth's biological diversity. As the flow of information arising from biodiversity studies accelerates, greater coordination between data sources and more attention to user needs is required. The workshop provides a platform to address these issues, with the objective of building upon current work to develop new European projects.

The workshop topics are:

General category

1. Specimen based collection databases
2. Species based taxonomic databases
3. Other databases and methods

Specific category

- A. Accessibility and the user needs
- B. The input of data and data management
- C. Technical developments and standardisation
- D. Legal and ethic aspects

Apart from the core programme, there are some interesting additional activities in and around the workshop:

- Special Working Group on European Zoological Checklists (chair: Prof. Minelli, Padua)
- Special Working Group on European Botanical Checklists (chair: dr. Jury, Reading)
- Special Working Group 'A Common Datastructure for European Floristic Databases' (chair Dr. W. Berendsohn, Berlin), EU network project
- Meeting 'Nematodes Collection Databases' (chair: Dr. P. de Ley, Gent)
- Meeting 'Species 2000 Committee' (chair: Dr. F.A. Bisby)

For more information about the topics and the content of the scientific programme, please contact:

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Please address all correspondence concerning registration and other practical matters to:

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Tel. +31 20 525 2690
Fax. +31 20 525 4799
e-mail: congres@bdu.uva.nl

31st European Marine Biology Symposium

The 31st European Marine Biology Symposium 1996 will be in Hotel 'St. Petersburg', St. Peterburg, Russia from September 9th to 13th 1996.

The following topics are being considered:

1. Adaptation Strategies of Marine Organisms
 2. The Interaction of Marine Organisms in Communities
- It is intended also to have a parallel workshop on 'Obelia as a Dominant in Epibiotic Communities'.

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Third international nematology congress

The third international nematology congress will take place in Gosier, Guadeloupe from 7 to 12 July 1996. Topics will include 'Free living nematodes biodiversity'.
Registration deadline is May 1, 1996. Poster abstracts can be submitted to:

Dr. R. Rodriguez-Kabana
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Fax. 334-844-1948

Next meiofauna conference

Paul Montagna reports us that the next conference will be held in Plymouth (U.K.) 26 July- 31 July 1998.

Summer field courses

The University of Texas, Department of Marine Science, announces the undergraduate field courses being offered during the Summer Program at the Marine Science Institute in Port Aransas, Texas, USA.

First Session: June 5 - July 12

Estuarine Ecology, MNS 352C, Dunton
Marine invertebrates, MNS 354, Montagna

Second Session: July 12 - August 19

Marine Environmental Science, MNS 354Q,
Thomas, Ingall, Montagna
Biology of Fish, MNS 354C, Fuiman

Room and board available. Small scholarships are also available.
For information contact Kathy Quade

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Information also available on the UTMSI homepage:
<http://www.utmsi.zo.utexas.edu>

Interest for a workshop on multivariate methods?

Paul Somerfield and some of his colleagues were wondering whether a workshop on multivariate methods would be useful. The idea would be to look at the details of what each set of analytical methods actually do with the raw data, what the consequences are, how and when each set of methods may be appropriate, and so on. The aim would be to try and harmonise analytical strategies which at present appear to be largely polarised.... Canoco in some places, DCA/Twinspace in others, Primer in others. The hope would be to get some of the "experts" together with a bunch of the users for a week or so, with European funding from source. Would this be a useful exercise?

If you are interested, please contact Paul Somerfield
e-mail: PJSO@wpo.nerc.ac.uk

Bertil Swedmark Fund

J.M. Gee and R.M. Warwick sent us a statement of the accounts of the BS Fund for the period up to the end of 1995.

This fund was originated from 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 date are as follows:

	Capital (£)	Interest (£)
Oct.-Dec. 1993	1267.06	5.03
Jan.-Dec. 1994	125.01	38.95
Jan.-Dec. 1995	388.17	54.39
TOTAL	1780.24	98.37

During this period bank interest rates on savings accounts of more than £500 but less than £5000 have varied between 2.96% and 3.45%. You may make donations to the BSF either directly into the bank account (in sterling) or by sending them to the treasurer with your subscription.

Meiofauna www site

The most striking development of recent years has been the explosive growth in the use of the Internet, particularly of the

World Wide Web (www), as a standard means of communication in science. Many biological societies (e.g. The Society of Systematic Biology) have already created their own www site and provide information about society activities and their areas of expertise, upcoming meetings and pointers to related information (other societies, database...).

Nikolaos V. Schizas from the University of South Carolina (Department of Biological Sciences) has established a prototype meiofauna www site that provides an example of the services that could be made available.

With the creation of a meiofauna www site, the meiofauna society can gain a world wide audience for its activities, news and services. Since www sites are immediately indexed by numerous search and retrieval systems, the meiofauna society will become the initial point of contact for researchers new to this fauna. Additionally, society members will benefit by the services such a site can offer. Depending on the wishes of the members, these services can include indexes to society members, a searchable index of meiofauna inferences repository of meiofauna reference, archiving and retrieval of newsletter information on a worldwide basis with lowered clerical access to society information on a worldwide basis with lowered clerical demands on the societal officers. These alternate channels broaden the availability of information currently distributed to society members in Psammonalia.

You can find the prototype meiofauna www site on :
<http://inlet.geo.sc.edu/~nick/meiofauna.htm/>

Interesting internet sites

Geoffrey Read reminds us about the Annelida resources on the internet. Just connect to :

<http://www.actrix.gen.nz/users/chaeto/index.html>

Paul Montagna reports that you can now get information about the University of Texas Marine Science Institute on internet by connecting to the UTMSI homepage. The URL address is:
<http://www.utmsi.zo.utexas.edu>

The Expert Center for Taxonomic Identification (ETI) in Amsterdam is now available on internet. You can find more information about ETI and his collaborating scientists on :
<http://www.weti.eti.bio.uva.nl>

NEWS FROM MEMBERS

Meiobenthic greetings from Antarctica

Sandra Vanhove, Lee Hee Joong (both from Gent, Belgium), Jan Vanaverbeke and Hans Dahms (both from Oldenburg), on board of RV Polarstern, are steaming to the high Antarctic Weddell Sea to explore the meio(hyper)benthic life. This is in the frame of the CS-EASIZ (coastal sea-ecology of the Antarctic sea-ice zone)-the cruise being coordinated by the AWI (Alfred-Wegener Institut für Polar-und Meeresforschung).

Sandra will study the impact of typical polar conditions (e.g. ice-shelf, sponge spicule and bryozoan mats...) on the small-scale distribution of the meiobenthos in their ambient sedimentary

environment. Lee will address the diversity of our dear friends, the nematodes, related to larger scale environmental conditions and macrofaunal presence. Jan will mainly focus on the importance of demersal drift for the dispersal of meiobenthos. Another topic will be scaling the patchiness of the meiobenthos in the order of cm, dm, m and km. Hans, who was implanting the demersal drift project, is going to study the hypoplankton association and general feeding and reproductive biology of meiofauna in order to compare this with a similar approach simultaneously carried out at the Subantarctic Jubany (King George Island) by Gritta Veit Köhler (Oldenburg).

NEW MEMBERS

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Interests: I'm studying the meiofauna (in particular the copepods) associated with tropical seagrass beds.

The aim of this study is to know something about the biodiversity of copepods in the tropics. The study areas are Kenya/Tanzania, Mexico and Indonesia. I'm interested in collaborating with anyone working on the same subject.

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Interests: Since 1992 I started a PhD programme (under SAREC Bilateral Programme) at the University of Stockholm, Sweden, in tropical meiobenthology. My research topic is: Ecology of Meiobenthos in Tropical intertidal lagoons. All field work is done in Zanzibar, Tanzania, where I am also involved in teaching undergraduate courses in Marine Biology. For my PhD research I look at spatial distribution and population dynamics of meiobenthos in a tropical intertidal lagoon on the eastern coast of Zanzibar.

I would like to cooperate with other meiobenthologist carrying out

research in tropical benthic systems to exchange information and advance science in this area.

RECENT LITERATURE

- * Adrianov, AV & Malakhov, VV, 1995. Comparative-morphological analysis of the organization of cephalorhynch worms, the phylogeny and the system of the phylum Cephalorhyncha. 6. Diagnoses of higher taxa, species diversity, position within the animal kingdom. *Zoologicheskij Zhurnal*, 74: 5-15.
- * Ascenio, G, Clasing, E, Herrera, C, Stead, R & Navarro, J, 1995. Larval development of *Amphiascopsis cinctus* Claus, 1866 (Harpacticoida: Diosaccidae) and *Laophonte parvula* Sars 1908 (Harpacticoida: Laophontidae).
- * Austen, MC & Warwick, RM, 1995. Effects of manipulation of food supply on estuarine meiobenthos. *Hydrobiologia*, 311: 175-184.
- * Barrett, M, 1995. A lifetime of study. *Coast and Sea*, 4: 2-3 (LA Sea Grant Communications Office. LA State University, Baton Rouge, LA 70803, USA).
- * Bartsch, I, 1996. Halacarids (Halacaroida, Acari) in freshwater. Multiple invasions from the Paleozoic onwards? *Journal of Natural History*, 30: 67-100.
- * Belyaeva, NV & Burmistrova, II, 1995. On the late Pleistocene changes of foraminiferal fauna and paleohydrology in the Indian Ocean. Site DS DP 216. *Okeanologiya*, 35: 607-613.
- * Boucher, G & Lamshead, PJD, 1995. Ecological biodiversity of marine nematodes in samples from temperate, tropical, and deep sea regions. *Conservation Biology*, 9: 1594-1604. *Revista Chilena de Historia Natural*, 68: 271-283 (in French).
- * Butman, CA & Carlton, JT (eds.), 1995. Understanding marine biodiversity. A research agenda for the nation. National Academy Press, Washington DC, 114 pp.
- * Curini-Galletti, M & Cannon, L, 1995. Contribution to the knowledge of the Prosaeriata (Platyhelminthes: Seriata) from eastern Australia. 2. Genera *Pseudomonocelis* Meixner, 1943 and *Acanthopseudomonocelis* ng. *Contributions to Zoology*, 65: 271-xxx.
- * Dahms, H-U & Hicks, GRF, 1996. Naupliar development of *Parastenhelia megarostrum* (Copepoda: Harpacticoida), and its bearing on phylogenetic relationships. *Journal of Natural History*, 30: 11-22.
- * Danovaro, R, Fabiano, M, Albertelli, G & Della Croce, N, 1995. Vertical distribution of meiobenthos in bathyal sediments of the eastern Mediterranean Sea: Relationship with labile organic matter and bacterial biomasses. *Marine Ecology P.S.Z.N.I.*, 16: 103-116.
- * deBovee, F, Yacoubi-Khebiza, M, Coineau, N & Boutin, C, 1995. The influence of sediment granulometry in the distribution of the interstitial stygobiotic crustaceans in the western High Atlas. *International Revue der Gesamten Hydrobiologie*, 80: 453-468. (in French)
- * Dybdahl, MF, 1995 Selection on life-history traits across a wave exposure gradient in the tidepool copepod *Tigriopus californicus* (Baker). *Journal of Experimental Marine Biology & Ecology*, 192: 195-210.
- * Edgar, GJ & Shaw, C, 1995. The production and trophic ecology of shallow-water fish assemblages in southern Australia. 2. Diets of fishes and trophic relationships between fishes and benthos at Western Port, Victoria. *Journal of experimental marine Biology and Ecology*, 194: 83-106.
- * Edgar, GJ & Shaw, C, 1995. The production and trophic ecology of shallow-water fish assemblages in southern Australia. 3. General relationships between sediments, seagrasses, invertebrates and fishes. *Journal of experimental marine Biology and Ecology*, 194: 107-131.
- * Epstein, S, 1995. Simultaneous enumeration of protozoa and micrometazoa from marine sandy sediments. *Aquatic microbial Ecology*, 9: 219-227.
- * Ferraguti, M, Balsamo, M & Fregni, E, 1995. The spermatozoa of three species of Xenotrichulidae (Gastrotricha, Chaetonotida): the two "dunne nebengeissein" of spermatozoa in *Heteroxenotrichula squamosa* are peculiar para-acrosomal bodies. *Zoomorphology*, 115: 151-161.
- * Gerino, M, Stora, G, Poydenot, F & Bourcier, M, 1995. Benthic fauna and bioturbation on the mediterranean continental: Toulon Canyon. *Continental Shelf Research*, 15: 1483-1496.
- * Gevaerts, H, Moens, JB, Martens, EE & Schockaert, ER, 1995. Hard parts in the female system of *Syndesmis longicanalis* (Platyhelminthes, Rhabdocoela, Umagillidae) are basement membrane derivatives. *Invertebrate Biology*, 114: 279-284.
- * Green, AS, Chandler, GT & Coull, BC, 1995. Age-specific survival analysis of an infaunal meiobenthic harpacticoid copepod, *Amphiascus tenuiremis*. *Marine Ecology Progress Series*, 129: 107-112.
- * Fiers, F, 1995. *Halicyclops Caneki* n.sp. (Copepoda, Cyclopoida) from Celestun Lagoon (Yucatan, Mexico). *Belgian Journal of Zoology*, 125: 301-314.
- * Haynes, D & Quinn, GP, 1995. Temporal and spatial variability in community structure of a sandy intertidal beach, Cape Paterson, Victoria, Australia. *Marine and Freshwater Research*, 46: 931-942.
- * Heip, CH, Goosen, NK, Herman, PMJ, Kromkamp, J, Middelburg, JJ & Soetaert, K, 1995. Production and consumption of biological particles in temperate tidal estuaries. *Oceanography and marine Biology: An annual Review*, 33: 1-150.
- * Herdendorf, CE, Thompson, TG & Evans, RD, 1995. Science on a deep-ocean shipwreck. *Ohio Journal of Science*, 95: 4-212.
- * Henry, BA & Jenkins, GP, 1995. The impact of predation by the girdled goby, *Nesogobius* sp 1, on abundance of meiofauna and small macrofauna. *Journal of Experimental Marine Biology & Ecology*, 191: 223-238.
- * Huys, R, 1995. A new genus of Canuellidae (copepoda, Harpacticoida) associated with Atlantic bathyal sea-urchins. *Zoologica Scripta*, 24: 225-244.
- * Huys, R, 1995. Some remarks on the taxonomic status of *Parashizopera* Wells, 1981 (Copepoda, Harpacticoida). *Hydrobiologia*, 308: 23-28.
- * Karling, TG, 1995. Two new species of *Kalyptorhynchia* (Platyhelminthes) from the N. American Atlantic Coast. *Belgian Journal of Zoology*, 125: 395-402.
- * Lasserre, P, McIntyre, AD, Ogden, JC, Ray, CG & Grassle, JF, 1994. Marine laboratory networks for the study of the biodiversity,

function and management of marine ecosystems. *Biology International*, IUBS, special issue 31: 33 pp..

- * Lutufo, GR, 1995. Psammic Procyclopina (Copepoda, Cyclopoida) from the coast of Brazil. *Zoological Scripta*, 24: 245-255.
- * Marchant, SMM, 1993. Foraminifera of Scholl, Magellanic Region, Chile (Protozoa, Foraminifera). *Gayana Zoologia*, 57: 61-76.
- * Marti, A & Villora-Moreno, S, 1995. A new interstitial species of *Gammarella* (Amphipoda, Gammaridae) from the western Mediterranean Sea. *Contributions to Zoology*, 65: 189-xxx.
- * Medeiros, LRA, 1992. Sandy beach meiofauna at Anchieta Islands, Sao Paulo: I. Physical factors. *Boletim do Instituto Oceanografico de Sao Paulo*, 40: 27-38.
- * Millward, RN & Grant, A, 1995. Assessing the impact of copper on nematode communities from a chronically metal-enriched estuary using pollution-induced community tolerance. *Marine Pollution Bulletin*, 30: 701-706.
- * Morin, A, Rodriguez, MA & Nadon, D, 1995. Temporal and environmental variation in the biomass spectrum of benthic invertebrates in streams: An application of thin-plate splines and relative warp analysis. *Canadian Journal of Aquatic Science*, 52: 1881-1892.
- * Muthumbi, A, Verschelde, D & Vincx, M, 1995. New Desmodoridae (Nematoda: Desmodoroidea): three new species from *Cerriops* mangrove sediments (Kenya) and one related new species from the North Sea. *Cahiers de Biologie Marine*, 36: 181-195.
- * Navajas Corbisier, T., 1993. Meiofauna da plataforma continental interna do litoral norte de Sao Paulo-verao/89. *Publicacao esp. do Instituto Oceanografico de Sao Paulo*, 10: 123-135.
- * Ndaró, SGM, Sjöling, S & Olafsson, E, 1995. Small-scale variation in major meiofaunal taxa and sediment chemistry in tropical sediments. *Ambio*, 24: 470-474.
- * Ndaró, SGM & Olafsson, E, 1995. A note on the selection of meiobenthic prey by *Gerres oyena* in a tropical lagoon in Eastern Africa. *Ambio*, 24: 517-519.
- * Neuhaus, B, 1995. Postembryonic development of *Paracentrophyes praedictus* (Homalorhagida): Neotony questionable among the Kinorhyncha. *Zoologica Scripta*, 24: 179-192.
- * Ohman, MD, 1996. Freezing and storage of copepod samples for the analysis of lipids. *Marine Ecology Progress Series*, 130: 295-298.
- * Olafsson, E, 1995. Meiobenthos in mangrove areas in eastern Africa with emphasis on assemblage structure of free-living marine nematodes. *Hydrobiologia*, 312: 47-58.
- * Palmer, MA, Arensburger, P, Botts, PS, Hakenkamp, CC & Reid, JW, 1995. Disturbance and community structure of stream invertebrates: Patchspecific effects and the role of refugia. *Freshwater Biology*, 34: 343-356.
- * Pastor de Ward, C., 1995. Free-living marine nematodes (Enoploidea) from Deseado river estuary, Santa Cruz, Argentina. XIV. *Physis (Buenos Aires)*, Sec. A, 50: 13-20.
- * Pastor de Ward, C., 1995. Free-living marine nematodes from Deseado river estuary, Santa Cruz, Argentina. *Spixiana*, 18: 201-209.
- * Pettigrosso, RE, Cazzaniga, NJ & Rosa, MRS, 1995. The giant psammophilous ciliate *Avilla martinicensis* (Ciliophora, Proto-
- heterotrichida) in Guanabara Bay, Brazil, with taxonomic and nomenclatural notes. *Iheringia Serie Zoologia*, 78: 73-84.
- * Saburova, MA, Polikarpov, IG & Burkovsky, IV, 1995. Spatial structure of an intertidal sandflat micrphytobenthic community as related to different spatial scales. *Marine Ecology Progress Series*, 129: 229-239.
- * Santos, PJP, Castel, J & Souza-Santos, LP, 1995. Microphytobenthic patches and their influence of meiofaunal distribution. *Cahiers de Biologie Marine*, 36: 133-140.
- * Schrijvers, J, Okondo, J, Steyaert, M & Vincx, M, 1995. Influence of epibenthos on meiobenthos of the *Cerriops* tagal mangrove sediment at Gazi Bay, Kenya. *Marine Ecology Progress Series*, 128: 247-259.
- * Soetaert, K & Heip, C, 1995. Nematode assemblages of deep-sea and shelf break sites in the North Atlantic and Mediterranean Sea. *Marine Ecology Progress Series*, 125: 185-194.
- * Soetaert, K, Vincx, M, Wittoeck, J & Tulkens, M, 1995. Meiobenthic distribution and nematode community structure in five European estuaries. *Hydrobiologia*, 311: 185-206.
- * Somerfield, PJ & Clarke, KR, 1995. Taxonomic levels in marine community studies, revisited. *Marine Ecology Progress Series*, 127: 113-120.
- * Somerfield, PJ, Rees, HL & Warwick, RM, 1995. Interrelationships in community structure between shallow-water marine meiofauna and macrofauna in relation to dredgings disposal. *Marine Ecology Progress Series*, 127: 103-112.
- * Souza-Santos, LP, Castel, J & Santos, PJP, 1995. Population dynamics of the harpacticoid copepod *Amonardtia normani* reared on bacteria and microalgae. In: Caumette, P (ed.). *Proceedings CLEAN UE Environment Programme Workshop, Ferrara, Italy, 1-3 December 1994*: 75-86.
- * Sun, B. & Fleeger, JW, 1995. Sustained mass culture of *Amphiascoides atopus* a marine harpacticoid copepod in a recirculating system. *Aquaculture*, 136: 313-321.
- * Tchesunov, AV & Mokievsky, VO, 1995. A new marine tardigrade, *Batillipes crassipes* sp. nov., from the Japan Sea (Tardigrada, Arthrotardigrada, Batillipedidae). *Cahiers de Biologie Marine*, 36: 153-162.
- * Tengberg, A, de Bovée, F, Hall, P et al., 1995. Benthic chamber and profiling landers in oceanography-Areview of design, technical solutions and functioning. *Progress in Oceanography*, 35: 253-294.
- * Thistle, D, Weatherly, GL & Ertman, SC, 1995. Shelf harpacticoid copepods do not escape into the seabed during winter storms. *Journal of Marine Research*, 53: 847-863.
- * Thistle, D, Weatherly, GL, Wonnacott, A & Ertman, SC, 1995. Suspension by winter storms has an energetic cost for adult male benthic harpacticoid copepods at a shelf site. *Marine Ecology Progress Series*, 125: 77-86.
- * Traunspurger, W, 1995. Autecology of *Rhabdolaimus terrestris* De Man-A dominant freshwater nematode in an oligotrophic lake. *Nematologica*, 41: 603-616.
- * Vanhove, S, Wittoeck, J, Desmet, G et al., 1995. Deep-sea meiofauna communities in Antarctica: Structural analysis and relation with the environment. *Marine Ecology Progress Series*, 127: 65-76.
- * Vénec-Peyré, MT, Caulet, JP & Vergnaud Grazzini, C, 1995. Paleohydrographic changes in the Somali Basin (5°N upwelling

and equatorial areas) during the last 160 kyr, based on correspondence analyses of foraminiferal and radiolarian assemblages.

Paleoceanography, 10: 473-492.

* Vergnaud Grazzini, C, Vénec-Peyré, MT, Caulet, JP & Lerasle, N, 1995. Fertility tracers and monsoon forcing at an equatorial site of the Somali Basin (North West Indian Ocean). *Marine Micropaleontology*, 26: 137-152.

* Vergnaud Grazzini, C, Caulet, JP & Vénec-Peyré, MT, 1995. Index de fertilité et mousson dans le Bassin de Somalie. Evolution au Quaternaire supérieur. *Bulletin de la Société de Géologie, France*, 166: 259-270.

* Vershelde, D, Muthumbi, A & Vincx, M, 1995. *Papillonema danieli* gen. et sp.n. and *Papillonema clavatum* (Gerlach, 1957) comb.n. (Nematoda, Desmodoridae) from the *Ceritops* mangrove sediments of Gazi Bay, Kenya. *Hydrobiologia*, 316: 225-237.

* Vershelde, D & Vincx, M, 1995. *Psammonema* gen.n. and *Pseudochromadora* Daday, 1889 (Nematoda, Desmodoridae) from sandy sediments of Gazi, Kenya. *Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen, Sectie Biologie*, 65: 11-39.

* Voronov, DA & Panchin, YV, 1995. Gastrulation in the free-living marine nematode *Enoplus brevis* (Enoplida, Enoplidae) and the localization of endothermal material at the stage of two blastomeres in the nematodes of the order Enoplida. *Zoologicheskij Zhurnal*, 74: 10-18. (in Russian)

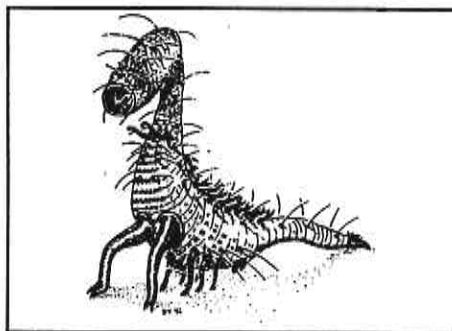
* Wetzel, MA, Jensen, & Giere, O, 1995. Oxygen/sulfide regime and nematode fauna associated with *Arenicola marina* burrows: new insights in the thioobios case. *Marine Biology*, 124: 301-312

* Zapata, MJ, Zapata, CV & Gutierrez, AM, 1995. Recent benthic Foraminifera from south of Chile. *Gayant Zoologia*, 59: 23-40.

Quiz-question of the month : Identify this animal !

Send your email answers to :

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Answer in next issue of Psammonalia, together with a honourary citation of this month's winner.

International Association of Meiobenthologists

APPLICATION FOR MEMBERSHIP OR RENEWAL

The International Association of Meiobenthologists is a non-profit scientific society representing meiobenthologists in all aquatic disciplines. The Association is dedicated to the dissemination of information by publishing a quarterly newsletter and sponsoring a triennial International Conference. The newsletter, Psammonalia, is published mid-month in February, May, August and November.

Membership is open to any person who is actively interested in the study of meiofauna. Annual membership dues are 300 Belgian francs (\$ 10 US) and you may pay up to 3 years in advance, i.e. 900 BEF (\$30). New members will receive Psammonalia beginning with the February issue of the current year. If you are able, please add extra money to be contributed to the Bertil Swedmark Fund, which is used to help students or others who wish to attend the triennial International Conference.

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