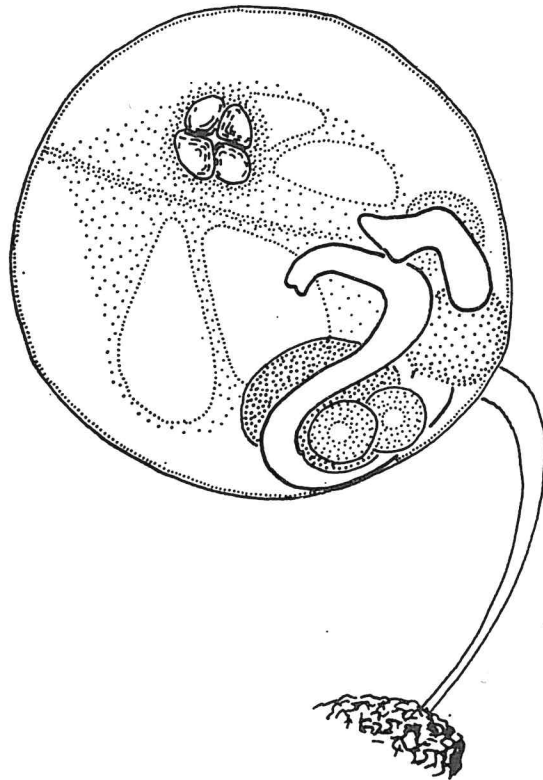


# PSAMMOMALIA

NEWSLETTER OF THE INTERNATIONAL ASSOCIATION  
OF  
MEIOBENTHOLOGISTS

COURRIER DE L'ASSOCIATION INTERNATIONALE  
DES  
MEIOBENTHOLOGISTES



n° 25

1977

PSAMMONALIA

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Laboratoire de Zoologie (Vers)  
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Cover : *Minipera pedunculata* . A 600  $\mu$  abyssal ascidian. An original drawing by F. MONNIOT

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INTERNATIONAL ASSOCIATION OF MEIOBENTHOLOGISTS  
ASSOCIATION INTERNATIONALE DES MEIOBENTHOLOGISTES

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## EDITORIAL

As can be seen on previous page and according to our constitution, changes have occurred in our Council. As decided by a recent ballot Dr. C. Heip and Dr. P.J.S. Boaden have been duly elected as Committee members for the years 1977 at 1978. I am glad to welcome them to the Council, and I express my thanks to the former councillors Dr. Lasserre and Dr. Warwick for their help and good will during their tenure.

Dr. Danielopol has accepted to serve on the board of correspondents for 1977, in replacement of Dr. Ott who resigned through lack of time. I would like to thank Dr. Ott for his sincerity.

In this issue's appendix you will find a review of the proceedings of two important symposia, on topics concerning meiobenthology, as well as complete lists of their contents. Symposium activities are an important and appreciated need among scientists involved in meiobenthology research, and «Psammonalia» hopes to continue its contribution to their success and diffusion.

Jeanne Renaud-Mornant

**EXECUTIVE COMMITTEE ELECTION RESULTS**

Fourty ballots were cast in the recent election for the two vacant Executive Committee positions. C. HEIP and P.J.S. BOADEN were elected and their terms of office run from January 1977 to December 1978.

As required by the Association's Constitution the election results are listed below :

P.J.S. BOADEN	18
P. BODIN	6
D. DANIELOPOL	8
J. GRAY	16
E. HARTWIG	7
C. HEIP	20
W. WIESER	5

**FINANCIAL REPORT**  
**RAPPORT FINANCIER**

Credits

Balance on hand (15.11.76)	FF	3 851,10
Dues and contributions received (15.01.77)		849,18
		<hr/>
Total :		4 700,28

Debits

Cost of Psammonalia No 34	377,30
Mailing cost	147,00
	<hr/>
Total :	524,30

Balance on hand (prior to Psammonalia No 35) 15.01.77	4 175,98
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The annual dues of 3 dollars should be paid preferably by cheque to :

Association des Méiobenthologistes  
Banque Populaire des Pyrénées Orientales  
Quai Pierre Forgas, 66660 Port-Vendres, France  
No 04 19 243 275

or by foreign money order sent to :

Jacques Soyer, Trésorier  
Laboratoire Arago, 66650 Banyuls-sur-Mer, France

Fees for 1977 from german members can be sent to the account of Hjalmar Thiel,  
Hamburger Sparkasse, Ktnr. 1217/470 333 : BLZ 200 505 50 before April 1, 1977.

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## BERTIL SWEDMARK MEMORIAL FUND

Marine biology has, with the death of Bertil Swedmark, lost an inspiring and endearing personality. Throughout his life Bertil gave special encouragement to the beginners, and as a tribute to this excellent scientist we propose to set-up a memorial fund. We would like to devote the funds, if appropriate, to the establishment of a travelling fellowship to encourage young scientists to visit new areas, to make contact with new colleagues or to attend meetings where funds are not available. We feel that this fellowship would be in the spirit that Bertil Swedmark would have wished.

The fellowship will be awarded annually, preferably to a young biologist specializing in the field of adaptation (morphology, ecophysiology), reproduction or speciation of meiofauna. Candidates will be selected by an international committee of established scientists, on the basis of scientific qualification and motivation.

We are thinking of an annual fellowship of ~~£600-£800~~ for 10 years. A minimum starting capital of ~~£7,000~~ will be necessary, to be administered by the International Association of Meiobenthologists. We have received, so far, a number of personal gifts, as well as encouragement from well-known colleagues and we have no doubt that substantial aid from scientific associations would greatly facilitate the establishment of the Fund.

The provisional committee for the establishment of the Bertil Swedmark Memorial Fund is composed of the following :

- Dr. P.J.S. Boaden, Queen's University, Belfast, Ireland
- Dr. J.S. Gray, University of Leeds, Robin Hood's Bay, U.K.
- Dr. C. Jouin, University of Paris, Paris, France
- Dr. P. Lasserre, University of Bordeaux, Arcachon, France (Treasurer)
- Dr. W.E. Sterrer, Bermuda Biological Station, Bermuda.

Donations should be made payable to the «Bertil Swedmark Memorial Fund» and sent to the Treasurer at either of the following addresses :

Dr. Pierre Lasserre,  
Bertil Swedmark Memorial Fund,  
Institut Universitaire de Biologie Marine,  
2, rue Jolyet, 33120 Arcachon, France

or Bertil Swedmark Memorial Fund  
Association of Meiobenthologists, Account 004 19 243 859  
Banque Populaire des Pyrénées Orientales,  
Quai Pierre Forgas, 66660 Port-Vendres, France.

NEWS FROM THE MEMBERS  
NOUVELLES DES MEMBRES

S.A. Gerlach (Helsingør) reports , announcing his change of adress to Bremerhaven :

On february 1, 1977, I will take up again my work as director of Institut für Meeresforschung, Bremerhaven, after a period of two years at the Marine Biological Laboratory in Helsingør. Though employed as a professor of Marine Biology of Copenhagen University I was free from administrative duties and could devote my time amply to research and manuscripts. I finished a small textbook on marine pollution problems (S.A. Gerlach, 1976 : Meeresverschmutzung. Berlin-Heidelberg-New York : Springer Verlag, 8 - 145 pp, 57 fig., 39 tables, paperback DM 24 - = ca US \$ 9.90). I worked out together with two students of Copenhagen University that the hermit crab *Pagurus bernhardus* is not only a predator and sifts the sediment for organic matter, but it is also a potential filter-feeder (Oecologia (Berl.) 24 : 257-264, 1976). I described together with P. Jensen some new nematodes from Bermuda, and completed a study «Attraction by decaying organisms as a possible cause for patchy distribution of nematodes in a Bermuda beach »(Ophelia, in press). There is a paper on «Means of Meiofauna dispersal» in press (Mikrofauna Meeresboden), and at present I am collecting material for one more general lecture or paper on size categories of benthos, and on the relationships of meiobenthos to other size categories of the Benthos. For the future, Franz Riemann and I have plans to produce an identification manual for the genera of aquatic nematodes.

ANNOUNCEMENTS  
NOUVELLES DIVERSES

**Keys to Aid in the Identification of Marine Harpacticoid Copepods**

Following discussions at the 2nd International Meiofauna Conference at York in 1973 on the need for identification manuals on meiofaunal taxa I have prepared a set of keys to harpacticoids. The keys include an introductory section on harpacticoid external anatomy. I hope that they will enable the user to identify harpacticoids at least to the genus, and in many cases to species. They include all species described to date and make reference to all the relevant literature not included in Lang's Monograph and Bodin's Catalogue of New Species. The keys are of the tabular type and the whole work is produced in loose leaf format so that amendments may be made as new information appears in the literature. I hope that they will serve a useful function and I would be very glad to receive comments and criticism from users.

The keys printed by the Aberdeen University Press with financial support from the U.K. Natural Environment Research Council are available free of charge on application to the Secretary, Department of Zoology, University of Aberdeen, Tillydrone Avenue, Aberdeen AB9 2TN, U.K.

Professor J.B.J. WELLS  
Department of Zoology  
Victoria University Of Wellington  
  
Private Bag  
Wellington  
New Zealand

FOURTH INTERNATIONAL COLLOQUIUM ON *GAMMARUS* AND *NIPHARGUS*  
 AND SECOND INTERNATIONAL SYMPOSIUM ON GROUNDWATER ECOLOGY  
 BLACKSBURG, VIRGINIA, U.S.A. - SEPTEMBER 1978

October 1976

1st Circular letter

Dear Colleagues :

At the 3rd International Colloquium on *Gammarus* and *Niphargus* and the 1st International Symposium on Groundwater Ecology in Schlitz, West Germany, it was agreed that the next combined meeting of these two groups should be held in the United States, preferably in the Appalachian region, during late summer or early fall of 1978. Professors Buikema (Virginia Polytechnic Institute & State University) and Holsinger (Old Dominion University) accepted the responsibility of organizing the meeting and suggested that it be held in Blacksburg, Virginia, and hosted by their respective institutions. We would like now to extend a cordial invitation to the 4th International Colloquium on *Gammarus* and *Niphargus* and the 2nd International Symposium on Groundwater Ecology to be held in the Donaldson Brown Center for Continuing Education on the campus of Virginia Polytechnic Institute & State University, Blacksburg, Virginia, during the week of September 10-16 1978.

In accordance with the wishes of many of you who attended the Schlitz conference, we are attempting to get funds from the National Science Foundation to assist with the travel expenses of our colleagues from Eastern Europe. The final decision on this, however, will not be made until about six months prior to the meeting.

The Blacksburg conference will cover five full days, with the following tentative schedule : Monday and Tuesday - papers on *Gammarus*, *Niphargus*, and other freshwater amphipod genera ; Wednesday - all day field excursion to selected springs and karst areas ; Thursday and Friday - papers on groundwater ecology. A second field excursion may be planned for Saturday if there is sufficient interest.

The 1st circular letter is being sent to 210 of our colleagues, including all who either attended or expressed an interest in attending the meeting in Schlitz. If you know of someone who does not receive this letter but who is interested in receiving additional circular letters, please ask them to contact one of us.

A form is attached for you to fill out and return if you are interested in receiving further circular letters

With best regards,

Arthur L. Buikema  
 Associate Professor of Biology  
 Virginia Polytechnic Institute and  
 State University  
 Blacksburg, Virginia 24061, U.S.A.

John R. Holsinger  
 Associate Professor of Biological  
 Sciences  
 Old Dominion University  
 Norfolk, Virginia 23508, U.S.A.

The following form should be returned to Dr. John Holsinger, Department of Biological Sciences, Old Dominion University, Norfolk, Virginia 23508, U.S.A., no later than the end of February 1977

Name : \_\_\_\_\_

Address : \_\_\_\_\_

Please put the following subjects (underline) on the program for the amphipod sessions. Also, please list any amphipod genera other than *Gammarus* and *Niphargus* that you would like to see included.

Systematics  
Ecology  
Physiology  
Ethology  
Genetics

For the groundwater sessions we suggest a free choice of titles, except that papers should not deal exclusively with physical-chemical aspects of groundwater. Please list any suggestions.

Several informal evening sessions concerned with specific problems of amphipod taxonomy and groundwater ecology were held at the Schlitz meeting. We would like to continue this practice at the Blacksburg meeting and would welcome any suggestions you might have.

Signature

## THE SYSTEMATICS OF MARINE FREE-LIVING NEMATODES

University of Ghent, Belgium

AUGUST 16th - AUGUST 19th 1977

## First announcement

Dear Colleague,

In many discussions held at different occasions during the last few years it became apparent that there is much need for an assessment of the present status of marine nematology and to discuss its further progress. Problems associated with nematode taxonomy are becoming of more general importance as the number of benthic studies is increasing rapidly throughout the world. It is our aim to organize a workshop, where we hope to gather most marine nematologists, immediately before the third meiofauna conference in Hamburg. The period was chosen to avoid overlap with the Baltic Marine Biologist Symposium in Kiel (August 29 - September 3).

In this work the following aspects are considered :

- 1) papers concerned with taxonomical problems in marine nematology
- 2) a review of work that is going on in the field
- 3) a catalogue of problems that should be looked at in future and if possible the creation of working groups ad hoc, responsible for the systematic study of a particular taxon
- 4) a «manual of instructions» to guide future work in the field.

We intend to spend a maximum of two days on presentation of papers and a minimum of two days on round-tables discussions.

You are invited to give a paper of about twenty minutes on the latest developments in your work. Papers in English, French and German are accepted. There will be no formal translation service. Titles and abstracts should arrive no later than April 1st 1977. If any selection is necessary you will be informed before May 1st 1977.

Publication of formal proceedings might be difficult but we will give as wide a circulation as possible to at least the abstracts and to the results of the round-table discussions. If anyone has suggestions on this aspect of the organisation, please let us know.

Accommodation will be in student hostels. The price will be about 10 U.S. \$ per day, all meals included, for a single room. We will try to find some double rooms if required. The Symposium fee has been set at 20 U.S. \$, but might be reduced if more funding becomes available ; the fee is payable upon arrival in Ghent.

As the number of places will be limited to about forty we would be very glad if you could return the accompanying form before March 1st, 1977.

For the organisation committee,

L. DE CONINCK  
C. HEIP

Laboratoria voor Morfologie en  
Systematiek  
Museum voor Dierkunde  
B.9000 GENT

To return before March 1st, 1977 to :

Nematode Workshop  
Dr. C. HEIP  
Ledeganckstraat 35, B. 9000 Gent, Belgium

I will participate at the workshop. I will arrive on .....  
and be accompanied by .....person(s).

I require a double room            YES            NO

I am presenting a paper            YES            NO

(provisional title if possible) :

Signature

## RECENT LITERATURE

- ARGANO, R., G.L. PESCE & G. SILVERII, 1975. Prime osservazioni sul popolamento freatico della conca Aquilana (Abruzzo). (Contributo alla conoscenza della fauna dell'acque sotterranee dell'Italia centro-meridionale) II. Boll. Zool. Ital., 42 (1) : 9-32.
- ARLT, G., 1975. Remarks on indicator organisms (meiofauna) in the coastal waters of the G.D.R. Merentutkimuslait. Julk./havsforningsinst. Skr., 239 : 272-279.
- ASHBY, R.E., 1976. Long term variations in a protozoan chemostat culture. J.exp.mar.Biol.Ecol., 24 : 227-235.
- BALL, I.R., 1975. Nature and formulation of biogeographical Hypotheses. Syst. Zool., 24(4) : 407-430.
- Baltic Marine Biologists. 1976. Recommendations on methods for marine biological studies in the Baltic Sea. Publ. No1, Stockholm
- BENAZZI, M., 1975. *Opisthobursa josephinae*, a new troglobitic planarian from Chiapas, Mexico. Acc. Lincei-Rend.Sc.fis.mat.e nat., ser. 8, 59 (5) : 533-536.
- BENAZZI, M. & G. BENAZZI LENTATI, 1976. Platyhelminthes. In Animal Cytogenetics. Gebrüder Borntraeger. Berlin. Stuttgart 1976, 182 p.à
- BODIOU, J.Y., 1976. Copépodes Harpacticoides (Crustacea) des sables fins infralittoraux de Banyuls-sur-Mer. I. Description de la communauté. Vie Milieu, 25 (2), ser. B, 1975 : 313-330.
- BOUCHER G. & S. CHAMROUX, 1976. Bacteria and meiofauna in an experimental sand ecosystem. I. Material and preliminary results. J.exp.mar.Biol.Ecol., 24 : 237-249.
- BOVEE de, F., 1975. Étude morphométrique de *Dorylaimopsis mediterranea* Grimaldi de Zio, nématode libre marin. Vie Milieu, 25 (2A) : 215-226.
- BOVEE de, F., 1975. *Dorylaimopsis mediterranea* Grimaldi de Zio (Nematoda, Comesomatidae). Description d'une forme intersexuée. Vie Milieu 25 (2A) : 227-233.
- BRENCHLEY, G.A., 1976. Predator detection and avoidance : ornamentation of tube-caps of *Diopatra* spp. (Polychaeta Onuphidae). Mar.Biol., 38(2): 179-188.
- BURMISTROVA, I.I., 1976. Benthic Foraminifera in the deep sea sediments of the Arabian sea. Okeanologiya, 16 (4) : 685-689 (In Russia)
- CECH, J.J., D.W. BRIDGES, D.B. HORTON, (eds), 1975. Respiration of marine organisms (1 Maine Biomedical Science Symposium, Augusta, ME (USA), 14 Mar. 1975) : 17 pp.
- CLASING, E., 1976. Annual fluctuations of the meiofauna in the Chinquihue marsh (Puerto Montt, Chile). Stud. Neotrop. Fauna Environ, 11 (3) : 179-
- COULL, B.C., 1976. A revised key to *Stenhelia* (*Delavalia*) (Copepoda, Harpacticoida) including a new species from South Carolina, USA. J. Limn.Soc., 59: 353-364.
- DOE, D.A., 1976. The proboscis hooks in Karkinoxhynchidae and Gnathorhynchidae (Turbellaria, Kalyptorhynchia) as basement membrane or intracellular specializations. Zool. Script. 5 (3/4) : 105-116.
- EAGLE, R.A., 1975. Natural fluctuations in a soft bottom benthic community. J.mar.biol.Ass.U.K., 55 : 865-878.



- ERSEUS, C. & P. LASSERRE, 1976: Taxonomic status and geographic variation of the marine enchytraeid genus *Grania* Southern (Oligochaeta). Zool. Script. 5 (3/4) : 121-132.
- FENWICK, G.D., 1976. The effect of wave exposure on the Amphipod Fauna of the algae *Caulerpa brownii*. J.exp.mar. Biol.Ecol., 25 : 1-18.
- FOIN, T.C., 1976. Plate tectonics and the biogeography of the Cypraeidae (Mollusca: Gastropoda). J.Biogeogr., 3: 19-34
- GALTSOVA, V.V., 1976. Freilebende Meeresnematoden als Komponente des Meiobenthos des Tschupa Meerbusens des Weibens Meeres. In : Akad. Nauk CCP, Zool. Inst. (Issledovaniya Fauny Morzei 15 (23) spec. pp. 165-270 (russian) Leningrad 1976
- GARDINER, S.L., 1976. Errant Polychaete Annelids from North Carolina. J. Elisha Mitchell Scient. Soc., 91 (3) : 77-220
- GERLACH, S., 1975. In Memory of Bertil Swedmark. Mar.Biol., 33 : 279-280.
- GERLACH, S., 1976. Meeresverschmutzung Diagnose & Therapie. 145 pp. Berlin-Heidelberg-New York, Springer-Verlag.
- GERLACH, S., D.K. EKSTRÖM et P.B. ECKARDT, 1976. Filter feeding in the hermit crab, *Pagurus bernhardus*. Oecologia (Berl.) 24 : 257-264.
- GERLACH, S. & P. JENSEN, 1976. Three new nematodes from Bermuda. Veröff. Inst. Meeresforsch. Bremerh., 16 : 31-44
- GETTLESON, D.A., 1976. An Ecological Study of the Benthic Meiofauna and Macroinfauna of a Soft Bottom area Outer Continental Shelf. Ph. D. Thesis, Texas A & M University , 257 pp.
- GIERE, O., 1976. Zur Kenntnis der lotiralen Oligochaetenfauna Südfinnlands. Ann. Zool. Fennici, 13 : 156-160.
- GOH, S.L., 1976. Acetylcholinesterase and synapses in the nervous system of *Phocanema decipiens* (Nematoda) : a histochemical and ultrastructural study. Can. Zool., 54 (5) : 752-771.
- GRAHAN, J.B., 1975. The biological investigation of Malpelo Island, Colombia. Smithsonian Contributions, 176 : 1-98.
- GRASSLE, J.F. & W. SMITH, 1976. A similarity measure sensitive to the contribution of rare species and its use in investigation of variation in marine benthic communities. Oecologia (Berl.), 25 : 13-20
- GUPTA, S.K., 1976. Triosephosphate isomerase from young and old *Turbatrix aceti*. Archiv. Biochem. and Biophys., 174 (1) : 333-338.
- HAKANSON, L., 1976. A bottom sediment trap for recent sedimentary deposits. Limnol. Oceanogr., 21 : 170-174.
- HEIP, C. & M. SMOL, 1975. On the importance of *Protohydra leuckarti* as a predator of meiobenthic populations. 10th Europ. Symp. Mar. Biol. Ostend. Belgium, 2 : 285-296.
- HOPPER, B.E., J.W. FELL & R.C. CEFALU 1973. Effect of temperature on life cycles of Nematodes associated with the Mangrove (*Rhizophora mangle*) detrital system. Mar. Biol. , 23 : 293-296.
- HUMMON, W.D., J.W. FLEEGER & M.R. HUMMON, 1976. Meiofauna - macrofauna interactions : I Sand beach meiofauna affected by maturing *Limulus* eggs. Chesapeake Sci., 17 (4) : 297-299.
- HUSMANN, S., 1975. Die Schotterufer des Neiderrheins bei Krefeld : Abwasserkrankte Biotope mit gestörter Uferfiltration. Gewäss Abwass., 57/58 : 7-26.
- HUSMANN, S., 1976. 1st International Symposium on Groundwater Ecology. Introduction : Sense and Course of the Meeting. Int. J. Speleol., 8 : 3-4.

- HUSMANN, S., 1976. Studies on subterranean drift of Stygobiont Crustaceans (Niphargus, Crangonyx, Graeteriella). Int. J. Speleol., 8 : 81-92.
- HUSMANN, S., 1976. Langsemsandfilter als lebensräume von Grundwassertieren / mit Befunden aus Wiesbaden-Schierstein. Wissenschaftliche Berichte über Untersuchungen und planungen der Stadwerke Wiesbaden AG, 3 : 83-92.
- HYLLENBERG, J., 1975. Selective feeding by *Abarenicola pacifica* with notes on *Abarenicola vagabunda* and a concept of gardening in lugworms. Ophelia, 14: 113-137
- JUMARS, P.A., 1976. Deep sea species diversity : does it have a characteristic scale ? J. Mar. Res., 34 : 217-246
- KATTAR, M.R., 1970. Estudo dos Protozoários ciliados psamofilados do litoral Brasileiro. Bol. Zool. Biol. Mar. Sao Paulo, (1) N.S., 27 : 123-206.
- KAWAKATSU, M. & V. MACK-FIRA, 1975. The fauna of the insular lava caves in West Japan. XI, Proseriata et Tricladida (Turbellaria). Bull. nation. Sci. Mus. A. jap., 1(2) : 77-84.
- KENK, R., 1974. Index of the genera and species of the freshwater triclads (Turbellaria) of the world. Smithsonian Contr. 183 : 1-90
- KNOPPERS, B., 1976. Die Vertikalverteilung motiler Protozoen in Abhängigkeit von Umweltfaktoren und der Tageszeit in einer abgeschlossenen Wassersäule. Reports SFB 95 University Kiel , 22 : 86 pp.
- KORMICKER, L.S., 1976. Removal of gelatinous coating from the surface of the carapace of Ostracoda in preparation for their examination with the scanning electron microscope. Proc. Biol. Soc. Wash., 89 (30) : 365-368.
- LASSERRE, P. J. RENAUD-MORNANT & J. CASTEL, 1975. Metabolic activities of meiofaunal communities in a semi-enclosed lagoon. Possibilities of trophic competition between meiofauna and mugilid fish. 10th European Symposium Mar. Biol., Ostendé Belgium, 2 : 393-414.
- LAYBOURN, J. & B.J. FINLAY, 1976. Respiratory energy losses related to cell weight and temperature in ciliated Protozoa. Oecologia (Berl.), 24 : 349-355.
- LAZZARETTO-COLOMBERA, I., 1976. Chromosome number in ten species of the genus *Tisbe* (Copepoda, Harpacticoida). Mar. Biol., 38(2) : 159-162.
- LIU, A. & M. ROTHSTEIN, 1976. Nematode biochemistry XV. Enzyme changes related to glycerol excretion in *Caenorhabditis briggsae*. Comp. Biochem. and Physiol., part B, 54 (2) : 233-238.
- MAGNIEZ, G., 1976. Remarques sur la biologie et l'écologie de *Stenasellus virei* Dollfus (Crustacea Isopoda Asellota des eaux souterraines). Int. J. Speleol. 8 : 135-140.
- MARTENS, P., 1976. Artspezifische Merkmale der Faeces von vier dominierenden Copepodenarten der Kieler Bucht. Helgoländer wiss. Meeresunters, 28 : 411-416.
- MICHIELS, M., 1974. Biomass determination of some freshwater ciliates. Biol. Jb. Dodonaea, 42 : 132-136.
- MIELKE, W., 1976. Ökologie der Copepoda eines Sandstrandes der Nordseeinsel Sylt. Mikrofauna Meeresboden, 59 : 1-86.
- MOREIRA, G.S. & W.B. VERNBERG, 1968. Comparative thermal metabolic patterns in *Euterpina acutifrons* dimorphic males. Mar. Biol. 1(4) : 282-284.
- NEWELL, I.M., 1976. Construction and use of tabular keys : Addendum. Syst. Zool. 25 (3) : 243-250.
- OLSON, I., 1975. Benthic meiofauna. In : Byfjorden : Ekologiska undersökningar av zooplankton, benthisk meio- och makrofauna samt bakterier 1970-73. SNV PM 568 : 28-58.
- OWESEN, H.A., 1976. Artendiversität in der Ökologie. Ein Vergleich verschiedener Diversitätskonzepte unter besonderer Berücksichtigung mathematischer Gesichtspunkte. Reports SFB 95 University Kiel, 16 : 178 pp.

- PARKER, J.G., 1976. Cultural characteristics of the marine ciliated Protozoan *Uronema marinus* Dujardin. *J.exp.mar.Biol.Ecol.*, 24 : 213-226.
- PETKOVSKI, T.K., 1976. *Nitocra lacustris sinoi* Marcus et Por (Copepoda, Harpacticoida) vom Strande des Karibischen Meeres. *Pos. Izd.Mus.Maced.Sci.Nat.*, 7 : 89-95.
- PLATONOVA, T.A., 1976. Neue Enoplida (freielebende Meeresnematoden) aus den Meeren der UdSSR. *Ibid. spec. pp.* 3-164 (russisch)
- POINAR, G.O., 1976. Presence of Mermithidae (Nematode) in invertebrate paratenic hosts. *Parasitology*, 62 (5) : 853
- PUYTORAC, P. de & J. GRAIN, 1976. Ultrastructure du cortex buccal et évolution chez les ciliés. *Protistologica*, 12 : 49-67.
- REIMERS, T., 1976. Anoxische Lebensräume: Struktur und Entwicklung der Mikrobiozönosen an der Grenzfläche Meer/Meeresboden. *Reports SFB 95 University Kiel, Nr. 20* : 133 pp.
- RENAUD-MORNANT, J., 1975. Occurrence of the genus *Tanarctus* Renaud-Debyser 1959 in North Eastern Atlantic waters with a description of *T. ramazzotti* n.sp. (Arthrotardigrada). *Mem.Ist.Ital.Hydrobiol.*, 32 suppl. : 325-332.
- RENAUD-MORNANT, J., 1976. Tardigrades marins de Polynésie. *Cah. du Pacifique*, 19 : 289-297.
- RENAUD-MORNANT, J., 1976. Le genre *Florarctus* Delamare Deboutteville et Renaud-Mornant, 1965, en Méditerranée, description des deux espèces nouvelles (Arthrotardigrada). *Bull.Mus.natn.Hist.nat.*, Paris, 3e sér., No 369, *Zool.* 257 : 325-333
- RIEGER, R.M., 1976. Monociliated epidermal cells in *Gastrotricha*—Significance for concepts of early Metazoan evolution. *A. Zool.Syst. Evolforsh.*, 14 (3) : 198-226.
- SAYLES, F.L., P.C. MANGELSDORF, T.R.S. WILSON & D.N. HUME, 1976. A sampler for the *in situ* collection of marine sedimentary pore waters. *Deep-sea Res.*, 23 : 259-264.
- SCHMINKE, H.K., 1976. The ubiquitous teison and the deceptive furca. *Crustaceana*, 30 (3) : 292-300
- SCHMINKE, H.K., 1976. Systematische Untersuchungen an Grundwasserkrebsen eine Bestandsaufnahme (mit der Beschreibung zweier neuer Gattungen der Familie Parabathynellidae, Bathynellacea). *Int.J.Speleol.*, 8 : 195-216.
- SELLNER, B.W., 1976. Survival and metabolism of the harpacticoid copepod *Thompsonula hyaenae* fed on different diatoms. *Hydrobiologia*, 50 (3) : 233-238.
- SHARMA, H.K., 1976. Age-related alteration of enolase in the free-living nematode *Turbatrix aceti*. *Archiv. Biochem. Biophys.* 174 (1) : 324-332.
- SMAGOWICZ, K., 1968. Fauna of two puddles from melting snow in the Gorce Range (Western Carpathians). *Acta Hydrobiol. Krakow*, 10 (1/2) : 259-264.
- SMAGOWICZ, K., 1975. Meiofauna of riverine waters of the Bialka Tatrznska. I. Testaceous *Rhizopoda* (Testacea). *Acta Hydrobiol. Krakov* 1975, 17 (4) : 405-414.
- SMITH, K.L., C.H. CLIFFORD, A.H. ELIASON, B. WALDEN, G.T. ROWE & J.M. TEAL, 1976. A free vehicle for measuring benthic community metabolism. *Limnol. Oceanogr.*, 21 : 164-170.
- SOYER, J., 1975. Contribution à l'étude des Copépodes Harpacticoides de Méditerranée occidentale. 14. Le genre *Paranannopus* Lang (Cletodidae, T. Scott). *Systématique, Ecologie. Vie Milieu*, 25 (2B) : 331-338.

STOCK, J.H., 1976. A new genus and two species of the Crustacean order Thermosbaenacea from the west Indies. *Crustaceana*, 46 (1) : 47-70.

TEUCHERT, G., 1975. Organisation und Fortpflanzung von *Turbanella cornuta* (Gastrotricha). In : *Encyclopaedia Cinematographica*, G. Wolf (ed.) Inst. für Wissenschaft Göttingen. Film C.1176 , 1-16

\* TEUCHERT, G., 1976. Elektronenmikroskopische Untersuchung über die Spermato-genese von *Turbanella cornuta* Remane (Gastrotricha). *J.Ultrastruct.Res.*, 56 : 1-14.

TEUCHERT, G., 1976. Sinneseinrichtungen bei *Turbanella cornuta* Remane (Gastrotricha). *Zoomorphologie*, 83 : 193-207.

THANE, A. & T. PERRY, 1975. Observations on the absence of cytochrome oxidase and mitochondria in some anaerobic, marine ciliates. *J. Protozoology*, 22 : 45A.

TORRES, J.J. & P.C. MANGUN, 1974. Effects of hyperoxia on survival of benthic marine invertebrates. *Comp. Biochem. Physiol.* 47 (1A) : 17-22.

VERNBERG, F.J. & W.B. VERNBERG, 1976. Ecological affinities of Brazil and the southeastern United States of America. A study in comparative physiological Ecology. *Ans. Acad. Brasil. Ciencias*, 47 : 69-74.

WELLS, J.B.J., 1976. Keys to aid in the identification of marine harpacticoid copepods. Univ. of Aberdeen. Press, 215 pp.

WELLS, J.B.J., H. KUNZ & G.C. RAO, 1975. A review of the mechanisms for movements of the caudal furca in the family Paramesochridae (Copepoda, Harpacticoida), with a description of a new species of *Kliopsyllus* Kunz, *Mikrofauna Meeresbodens*, 53 : 177-190

WERGIN, P., 1976. Ultrastructure of a neuro-sensory organ in a Root-Knot nematode. *J. Ultrastruct. Res.*, 56 (3) : 258-276

\* TEUCHERT, G., 1975. Anpassungsformen von marinen Gastrotrichen (Macrodasyoidea) an das Sand-lückensystem. In *Encyclopedia Cinematographica*, G. Wolf (ed.) Inst. für Wissenschaft, Göttingen, Film C.1177 : 1-16.

WESTHEIDE, W., 1972-73. Nouvelles récoltes d'Annélides interstitielles dans les plages sableuses du Bassin d'Arcachon. *Vie Milieu*, 23 (2A) : 365-370.

WESTHEIDE, W., 1973. Two new interstitial species of *Microphihalmus* (Annelida, Polychaeta) from the Bermudas. *Mikrof. Meeresbodens (Akad. Wiss. Lit. Mainz)*, 14 241-252 (in German)

WESTHEIDE, W., 1973. Brutpflege bei Borstenwürmern. *Mikrokosmos*, 6 : 161-163.

WESTHEIDE, W., 1974. Interstitial polychaetes from Brazilian sandy beaches. *Mikrof. Meeresboden (Akad. Wiss. Lit. Mainz)*, 31 : 1-16 (in German)

WESTHEIDE, W., 1974. Interstitial fauna of Galapagos. XI. Pisionidae, Hesionidae, Pilargidae, Syllidae (Polychaeta). *Mikrof. Meeresboden (Akad. Wiss. Lit. Mainz)*, 44 : 1-146. (in German)

WESTHEIDE, W., & P. SCHMIDT, 1974. *Tribodrilus axi* (Polychaeta) Nahrungsaufnahme und Fortpflanzung. In : *Encyclopaedia Cinematographica*, G. Wolf (ed.) Inst. für Den Wissenschaftlichen Film, Film E1955 : 3-12.

WILFERT, M., 1975. Nachweis eines Pharynx-bulbus bei Polychaeten aus der Familie Flabelligeridae (Evidence of a buccal bulb in polychaetes of the family Flagelligeridae). *Helgolander wiss. Meeresunters.*, 27 (3) : 313-323.

WOLFF, W.J. & H. STEGENGA, 1975. *Hesionura augeneri*, *Goniadella bobretzkii*, and *Parapodrilus psammophilus* (Annelida, Polychaeta) new to the Netherlands. *Zool. Bijdr.*, 17 : 82-87.

YOUNG, M.L., 1975. The transfer of <sup>65</sup>Zn and <sup>59</sup>Fe along a *Fucus serratus* (L.)- *Liittorina obtusata* (L.) food chain. *J.mar. biol. Ass. U.K.*, 55 : 583-610.

YOUNG, D.K., M.A. BUZAS & M.W. YOUNG, 1976. Species densities of macrobenthos associated with seagrass. A field experimental study of predation. *J. Mar. Res.*, 34(4) : 577-592.