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Does meiofauna exist? Looking for interstitial life.

As suggestions are coming in for VIMCO I noted that some people are questioning the validity of the concept that meiofauna constitutes a separate ecological category. I hope this will be an interesting discussion point in Ghent, but I remember Hamburg where Ragnar Elmgren tried to convince participants of TIMCO to agree on a methodological definition. In vain. So what are we working on? Bruce Coull once told me that he referred to meiofauna as 'the small thing that crawl in the sand' when talking to the uninitiated. I have another suggestion: we might refer to the I.T.'s (interstitials) and this might even attract some money as does the search for E.T.'s whose existence is, to say the least, somewhat less certain.

Freshwater meiofauna research

During the last decade our association has become a meeting place predominantly for marine scientists. This may be somewhat regrettable as many ecological and certainly many taxonomic problems are similar and a confrontation with freshwater scientists will certainly be useful. Du choc des idées jaillit la lumière, isn't it? Comments?

An old French idea

Now that we are speaking French: being in Brest on the occasion of the 17th EMBS I was told that the French Minister for Scientific Policy, Mr. Chevenement (I don't know where to put the accents) insisted that French authors gave their papers in French. This was whispered to be the consequence of an editorial in Nature in which French science was said to be isolated in many fields because of this language problem. (Of course not in the field of meiobenthology, mesobenthology, meidzobenthology or whatever). This will almost certainly create problems for conferences in future. In analogy to an old French idea about its role in the universe and in honour of the Minister who reinstated it we might well call this new trend chevinisme. Honni soit qui mal y pense.

VIMCO

Up till now nearly forty papers have been offered for VIMCO and you will find the second announcement in this issue. There have been some changes compared with the first announcement. First, we had to change the dates and shift to 16-20 August. There were too many problems with the 15 August holiday. Second, as the first announcement had no large circulation and as we hope to do better with the second announcement, we postponed some of our deadlines. Abstracts should now arrive before the 1st of April and authors will be notified by the 1st of May. All papers will be accepted, but we will have to ask some people to present posters. Purely taxonomic papers are first candidates. Third, there is a possibility of publication, after review, of papers by Junk from Holland or in the Annals of the Belgian Royal Zoological Society. Of course, authors can decide whether or not they want their paper published.

And, if French policy would indeed require our French colleagues to give papers in French, we will of course accept these but ask them to at least introduce and conclude their paper in English.

THE EXECUTIVE COMMITTEE

According to the Constitution new elections for the chairman (who is editor of Psammonalia and appoints a treasurer) and two members of the Executive Committee are to be held in 1983. Nominations for officers have to be made before April 1st 1983 by two members. There will be a reminder of this in the February 1983 issue of Psammonalia, but people might start looking around for suitable candidates. The people to be replaced are Wolfgang Sterrer and Philippe Bodin.

Tardigrada

Dr. Diane Nelson is willing to organize a special session on Tardigrada on VIMCO. Anyone interested, please contact Dr. D.R. Nelson, Dept. of Biological Sciences, East Tennessee State University, Box 22900A, Johnson City TN 37614 USA.

MEETINGS OF INTEREST

Origins and Distribution of Caribbean-Gulf of Mexico Crustacean Fauna.

A special session of contributed papers on 'Origins and Distributions of Caribbean-Gulf of Mexico Crustacean Fauna' will be co-sponsored by The Crustacean Society during the 44th Annual Meeting of the Association of Southeastern Biologists in Lafayette, Louisiana. The session will be scheduled during April 13-16, 1983, meeting, which will be headquartered in the USL Conference Center on the campus of the University of Southwestern Louisiana. It is anticipated that the session will include papers dealing with a broad array of crustacean groups from marine and estuarine waters or freshwater and terrestrial habitats of coastal plains, drainage basins, and islands in the region. Topics will deal with relationships of distributions to geography, parent stocks, substrates, currents, host availability, season, water quality, or other physiographic factors. Further information, registration forms, and housing application forms may be requested from Dr. Darryl L. Felder, Department of Biology Box 42451, University of Southwestern Louisiana, Lafayette, LA 70504 (Tel. 318/231-6753).

Frontiers in Crustacean Endocrinology

American Society of Zoologists Symposium on 'Frontiers in Crustacean Endocrinology' December 26-30, 1983 in Philadelphia, USA. Organized by Thomas C. Jegla for the Division of Comparative Endocrinology (co-sponsored by the Division of Comparative Physiology and Biochemistry, ASZ, and the Crustacean Society).

Thiel, H., A. Faubel, E. Hartwig, O. Pfannkuche
Meiobenthologists at the University of Hamburg.

' MEIO- vs. MESO- '

In Psammonalia 55, L.M. CAMMEN (meiobenthologist) has emphasized to use the prefix 'meso-' instead of 'meio-'. He wanted discussion, but generally we feel that no discussion is necessary.

Many of the meiobenthologists would prefer another term for meiobenthos and related expressions, but the arguments should be scientific and not purely linguistic. And, linguistically MARE used 'meio-' well in the right context, pooling the smaller invertebrates (and thus comparing two categories).

Worldwide the use of 'meio-' differs, and an innovation of the term would at least call for an improved definition. This seems to be too early, as long as many meiobenthologists still equate meiofauna with interstitial fauna.

The reason to divide the meiobenthos -permanent and temporary - from the macrobenthos was ecologically orientated. Different methods had to be used to isolate the two size groups of macro- and meiofauna from the sediments. But 'meio-' was given taxonomic value by some authors for the separation of those taxa with predominantly small sized species.

We regard the size groups to be of ecological importance. A full scale ecological study wants to consider all organisms of the different size groups on and in a unit of the sea bed, as it was elaborated for the first time by P. SCHINGHAMER in his article on "Characteristic size distributions of integral benthic communities" (Can. J. Fish. Aquat. Sci., 38: 1255-1263, 1981). Independent from taxonomic positions, different methods are to be used to study the size groups, known as macro-, meio- and micro-organisms.

'Micro-' is a rather bad expression, because it is an "overexploited" prefix, leading to confusion of terms and organism groups including an overlapping with the meio-complex. Organisms smaller than 'meio-' (40 μ m) cannot be studied with just one method. While micro-organisms have to be cultured, an intermediate size group must be observed alive and counted or microscopically scanned after slide preparation and staining (microbiota in BURNETT, Deep-Sea Res., 28, 1981, and earlier papers). Nanofauna was introduced (see table) for the size groups 2 - 40 (50) μ m, in part to avoid the 'micro-'. (An overlap in size groups seems to be useful in quantitative studies to receive large enough figures at the size groups' limits).

We are aware of the limitations contained in these terms and definitions, however, we are not yet able to introduce a well-balanced system of new terms and definitions. For energetic calculations a new system should be based on the logarithmic scale on the base 2, as it is presented by SIEBURTH, SMETACEK & LENZ (Limnol. Oceanogr., 23, 1978) for plankton organisms.

Theoretically one could use this plankton size group system with its terms and definitions, but the question is whether this is useful, whether anyone would use such a multi-size group system in his studies, which cuts through all size groups now in use in benthos research. SCHINGHAMER's paper presents the right approach.

We would promote a new system for scientific, but not purely for linguistic reasons. And we prefer to remain members of the "Association of MEIOBENTHOLOGISTS".

Table : Benthos size groups defined by mesh size, sample size and processing methods.

Size group	Mesh size	Sample size	Processing	
			Shipboard	Laboratory
macrobenthos	> 1 mm (0.5, 0.42, 0.3 mm other authors)	600 - 2500 cm ²	sieving, (sorting) preservation	(staining), sorting with lens or stereo- microscope
meiobenthos	42 - 1000 μ m (50, 63 μ m other authors)	subsample area 2 - 19 (25) cm ²	preserved totally	sieving, staining, sorting with stereo- microscope or live observations
nanobenthos	2(10) - 40(50) μ m	subsample area 0.71 or 2.84 cm ² (as used by BURNETT)	preserved totally	slide preparation using subvolumes of 0.25 ml, staining, microscopic scanning or live observations
microbenthos	< 2(10) μ m	small area or volume and dilution	live culturing or preservation and staining	

(altered from THIEL, The Sea, Vol. 8, in print)

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RECENT LITERATURE

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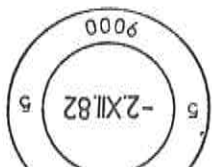
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