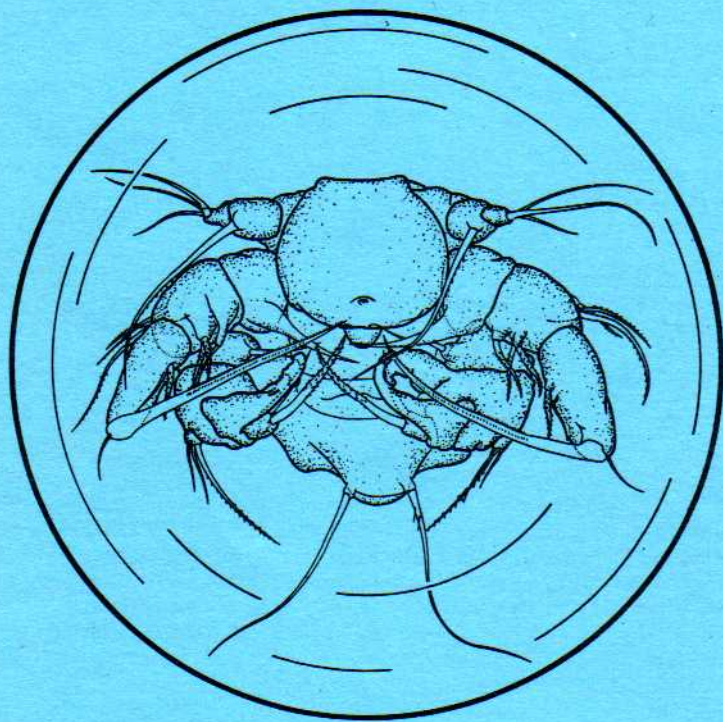


MONOCULUS

Copepod Newsletter



Nr. 25

March 1993



Bibliotheks- und Informationssystem der Universität Oldenburg
North American Edition distributed by National Museums of Canada

MONOCULUS

Copepod Newsletter

Number 25

March 1993

Edited by: H. Kurt Schminke, Fachbereich 7 (Biologie), Universität Oldenburg, Postfach 2503, D-2900 Oldenburg, Germany.
Gerd Schriever, Institut für Hydrobiologie und Fischereiwissenschaft, Universität Hamburg, Zeiseweg 9, D-2000 Hamburg 50, Germany. Hans-Uwe Dahms, c/o Department of Biology, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1.

Cover by: M. Pottek, Oldenburg.

Produced by: H. Kurt Schminke and Bibliotheks- und Informationssystem (BIS) der Universität Oldenburg, Ammerländer Heerstr. 67/99, D-2900 Oldenburg, Germany.

Distributed in North America by: National Museums of Canada (Chang-tai Shih, National Museum of Natural Sciences, Zoology Division, P.O. Box 3434, Station D, Ottawa, Ontario, Canada K1A 6P4).

This issue has been typed by: Elke Feeken, Arbeitsgruppe Zoomorphologie, Fachbereich 7 (Biologie), Universität Oldenburg.

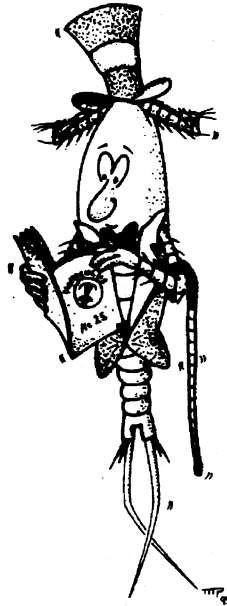
(This document is not part of the scientific literature and is not to be cited, abstracted or reprinted as a published document)

Deadline for the next issue of MONOCULUS: 1st October 1993

Editorial

With MONOCULUS 21 we celebrated the tenth birthday of our newsletter. This time we can celebrate its 25th issue. For this occasion we asked Dov Por to whose initiative back in 1980 we owe our beginnings, to look back and to comment on the newsletter, the conferences and the WAC. We also asked Frank Ferrari, the most productive contributor to the newsletter, to do the same. Read what they have to say.

You will have noticed that we have started experimenting with the computer in order to change the layout of the newsletter. We meant to present MONOCULUS in a new dress because we were told its actual outfit is rather old-fashioned. We have spared you the shock for this time because the inside is not finished yet. What we have done is replacing the portraits by photos because it has always been a tricky job to make drawings from the photos we had been given. Too often the faces on them were so small that the artist had more to guess than to portray. Accordingly the results have not always been satisfactory and even though there has never been overt protest we know that some victims did not look forward to the next issue of the newsletter without concern. Thanks to Klaus Kohlhage's computer skills future victims will have nothing to fear this respect.

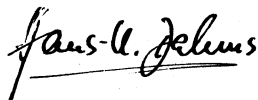
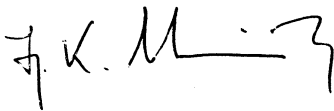


The next conference approaches. Its organizers try to make our mouths water with a couple of contributions. Tom Bowman gives a historical account of copepod research at one of the host institutions of the conference, Janet Reid introduces the University of Maryland at Baltimore and its surroundings, and Frank Ferrari discloses parts of the programme. Who can resist? Hurry to your travel agent! The flights to Baltimore are almost booked out.

We also publish the financial statement for the Fourth International Conference on Copepoda in Karuizawa (Japan). It is our fault that it appears so late. We forgot to include it last time and apologize for this omission. Apart from additional sales of the Proceedings there have been no changes since the end of February 1992. Shin-ichi Uye remarked that due to excess of printing costs for the Proceedings over previous estimates they had been in red, but thanks to donations from the members of the Plankton Society of Japan and Japanese authors of the Proceedings and to sales of the Proceedings the balance finally turned into black at the end of February 1992.

Twenty five issues of MONOCULUS, the first twenty one free of charge. This would not have been possible without help. The first to be thanked is Chang-tai Shih who contributed to the costs and mails the newsletter in North America. For India the same role has recently been taken over by M. Madhupratap. We have to thank Elke Feeken who replaces Angelika Sievers at the computer, and we have to thank Arjun Jagota at the University Library at Oldenburg who takes care that the manuscript is transformed into hundreds of printed issues.

The present issue owes its great variety of contributions to R. Böttger-Schnack, T. Bowman, G. Fava, F. Ferrari, M. Grygier, D. Por, J. Reid, S.-i. Uye, C. von Vaupel Klein, and, of course, to M. Pottek. We hope you recognize our old friend Coco, now matured to Mr. McSilliped.



Feelings and conclusions about MONOCULUS, The Copepod Conferences and WAC

I am pleased to say that MONOCULUS is an unmitigated success. It is lively and extremely useful, if not necessary, for everybody in the field. It fulfils its role of bibliographic updating, serves (lately) as a very good vehicle for cross-information between the young researchers, and most of all, is a newsletter with a social touch, a vehicle which maintains friendship within our small community. The artistic outlay and the drawings, are small masterpieces, which would deserve, one day, to be published as a separate album. My only criticism refers to the issue of the "perfect" descriptions. It is sound policy to promote good and trustworthy descriptions, but not an elitism. We are in fact discouraging young people, who do not have the time or the means or the talents, to deal with copepod taxonomy at the level of the presented models. Many of them are so much taken up by the worries of survival, that they will not have the time to spend on such detailed descriptions, as much as we would want them to do. While we need good descriptions, we need first of all to deal with the real business: to catch up with the description of the myriads of undescribed taxa. But you know my opinion on this: I voiced it already in London.

The conferences, in my view are somewhat lagging. True, that I did not attend the last conference. But, as I see it also from the preparations of the Baltimore meeting, there is no "backbone" to the conferences. We have to emphasize the broad-scoped, integrative discussions, like for instance, copepod genetics, feeding strategies, development, maxillopod relations, biogeography, aquaculture, not to speak of the permanent issue of the phylogeny and of the broad revisions. These "central" subjects should be covered by invited speakers. Instead, the conferences run the risk of turning into a stage for occasional papers only.

As to WAC, it seems to me that the whole organization is dormant. It would have much to do in the field of representing us "outside", like in ICSU, or in other International forums. It could approach funding agencies in order to obtain stipendia for young people, it could use the different channels to help Eastern European colleagues, etc.

In conclusion, it would be good to set aside a discussion on these "jubilee" issues at the next Conference.

F.D. Por, Jerusalem (Israel)

The Next Twenty-five Numbers and the Next Twenty-five Years

In its first number (October 1980), MONOCULUS outlined its responsibility; serving as a means of contact and as a forum for discussions of issues among copepodologists. Initially there were questions about a newsletter devoted specifically to copepods (MONOCULUS # 1, editorial). However, a consensus emerged about the study of copepods, called copepodology, which includes scientific disciplines that contribute to knowledge about copepod biology. Scientists who study any aspect of copepod biology comprise a community of copepodologists. Later MONOCULUS became the official newsletter of the World Association of Copepodologists (WAC) upon the latter's establishment at the 2nd International Conference on Copepoda in Ottawa, Canada. MONOCULUS's association with WAC is formally stated in WAC's bylaws (MONOCULUS # 11).

Over the last 12 years MONOCULUS has fulfilled its responsibility. By serving as a forum for discussions of ongoing research topics and of contemporary issues, it has defined copepodology. It also has identified copepodologists, historically through essays about scientists who have contributed to copepodology, and by listing authors of contemporary published research that contributes to copepodology.

This listing of published research papers is of critical interest to copepodologists. Research papers about copepods can be found in an increasing number of international journals. Managing this information has become a daunting task. There are too many tables of contents, abstracts, and articles to be easily assimilated. MONOCULUS provides a valuable information management service by printing authors, titles, and sources of all articles which are sent to the MONOCULUS Library.

MONOCULUS discovered that soliciting reports from copepodologists about research in progress is much more challenging. Because MONOCULUS is not a part of the published literature, many scientists are reluctant to present details about their research. Too many details may stimulate an early publication by competing laboratories so that research in progress is preempted and the priority for ideas lost. As a result, reports about research in progress are usually simple lists of general topics and have not had the stimulatory effect of initiating communication among copepodologists. This difficulty aside, through its service of information exchange and management MONOCULUS has defined copepodology and become a critical network for a community called copepodologists.

What then should MONOCULUS do or do differently in the next 25 numbers and the next 25 years? It is worth reiterating Dov Por's point (MONOCULUS # 1; quoted in the editorial); MONOCULUS should not become a journal of

copepodology. The number of scientific journals and other regular outlets for scientific research is over 40,000. Library acquisition budgets are strained under this load, and librarians from different institutions are now beginning to coordinate efforts to control costs for journal subscriptions. In this environment new journals will face a precarious existence.

What should MONOCULUS continue to do? Clearly work on the identity of copepodologists should continue and it should be as inclusive as possible in keeping with the original concept. Interviews, short biographical and historical sketches should be solicited and printed whenever possible.

MONOCULUS also should continue its basic function of managing information. Compiling relevant literature, entering that information into the MONOCULUS database, and making that information available in different formats should be a high priority. In addition as personal computers become more common, a new challenge awaits MONOCULUS's information management skills; cataloging copepod databases.

The development of personal computers has made available to scientists very powerful electronic machines. Complex computing tasks which a few years ago were done on a large, mainframe computer with its attendant staff now can be done in an office. In the not-too-distant future, a copepodologist may spend as much time choosing a personal computer as choosing optical equipment.

The availability of sophisticated software programs has followed development of personal computers; database programs which compare and contrast items have become very useful. The ease with which a database can be generated on a personal computer will ensure rapid growth of databases about copepods. With these databases questions can be answered which never before could have been asked, and questions asked that never before could have been imagined. These new answers and new questions will suggest new research directions for copepodologists.

However, duplication of keystrokes will become a problem when dozens of copepodologists begin building dozens of different and independent databases. For example, in my laboratory I have a database in progress which is projected to comprise 2,500 records of the names of the genera of copepods, the authors of each name, and date of publication. Now suppose another copepodologist wishes to create a database about copepod genera. She/he could try to assemble all the literature sources which I have here at the Wilson Copepod Library and then keystroke each generic name; OR she/he could write to me and ask that I make my list of genera available in a format compatible with her/his database program. But how would that copepodologist know to write

to me? If a description of my database files were recorded at a central facility like the MONOCULUS Library, that exchange of information could be initiated easily. What about the responsibilities of MONOCULUS's readers? Should they change over the next 25 numbers and the next 25 years? YES! Clearly continued participation by a broad base of readers/contributors is **the key** to a strong newsletter like MONOCULUS. Readers will have to continue sending their reprints to the MONOCOLUS Library in a timely fashion if the Literature Section is to remain useful. Those readers interested in writing essays about various aspects of copepodology must be willing to contribute text to MONOCULUS. For example, I particularly would enjoy reading essays on early ecological research or early behavioral research on copepods. Finally readers should try to respond with more detailed information to requests by MONOCULUS about ongoing research projects. MONOCULUS should emphasize that open communication may lead to cooperation more often than competition, and that laboratories with related interests might build on each others work to the benefit of all parties. The issue of priority should be addressed if a section on research in progress is to be useful. Perhaps an informal understanding can be reached within the community so that if an individual feels that his/her research idea was preempted as a result of a contribution to a research in progress report, MONOCULUS will serve as an open forum to redress the grievance.

Over the last 12 plus years, MONOCULUS has played an invaluable role in defining copepodology and identifying copepodologists. MONOCULUS is now the nexus of that community. In the next 25 numbers and the next 25 years its relationships with its readers/contributors will continue to evolve, resulting in a better informed and more knowledgeable community of scientists.

F.D. Ferrari, Washington (U.S.A.)

Plaire et instruire

We are soon to come together for the fifth time. We are united by a group of organisms even though everyone looks at it from a different angle and overlooks a different portion of it. This is what makes these conferences so stimulating and attractive: planktologists, physiologists, systematists, ecologists, ethologists, parasitologists, aquaculturists mingle and become copepodologists. We have long since started to practise what E.O. Wilson visualizes as a future development.

In his article "The coming pluralization of biology and the stewardship of systematics" (BioScience 39: 242-245, 1989) he says: *"It is my impression that a thematic shift in biology has begun to occur... The principal division of labor will change from the present philosophical stress on levels of biological organization to more emphasis on taxonomic groups of organisms... The result will be a pluralization of biology and the return of the expert naturalist to a position of leadership in biological research. By pluralization I mean the increased esteem and growth of studies of particular groups of organisms for their own sake... The word fundamental will be applied not just to broad generalizations but also to important discoveries about individual taxa, even if the information cannot be readily applied to other taxa... As biologists increasingly commit themselves to particular groups of organisms, they seem destined to converge toward a common language and methodology."*

It is true, systematists have taken the lead in building up the MONOCULUS-community (Por, Stock, Kabata, Shih, Humes to name but a few) and they will continue to play an important role but, in my opinion, it is time the others became more active, e.g. as officers of the WAC or as contributors to the newsletter. In the past, the newsletter has had two main controversial discussions, one on morphological terminology, the other on quality of descriptions. Aren't there any controversial issues in the other fields of copepodology to be ventilated on the informal level of the newsletter? It is my impression that copepodologists don't make best use of the possibilities they have created themselves.

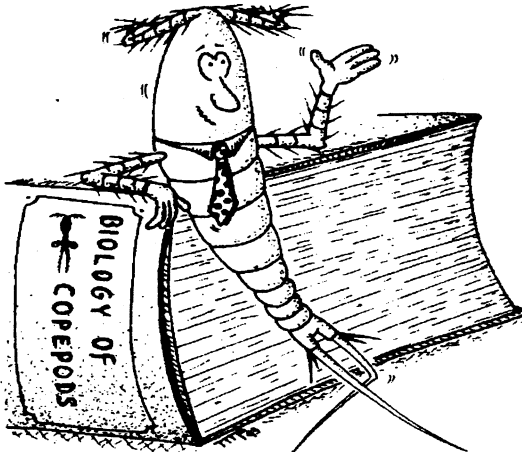
This applies to the newsletter, it applies to their society WAC (Dov Por is right!), it also applies to their two libraries: the WILSON-Library and the MONOCULUS-Library. I can only speak for the latter. In cases where requests have been precisely formulated, the MONOCULUS-Library has been able to help quickly, even with recent literature often from obscure journals. I therefore regret that the number of those is diminishing constantly who loyally donate their reprints to it. Science is a matter of communication and if we are to converge more and more to that unity that E.O. Wilson predicts, don't underestimate the usefulness of a functioning infrastructure!

On the scientific side, I feel, the integration of copepodology could considerably be accelerated if we knew more about the achievements and advances in the different fields. There is a lack of reviews. Frank Ferrari is right, we don't need a journal, but we definitely need something like "Advances in Copepodology" to appear regularly every 2 or 3 years. Let me just give a few examples that happen to come to my mind: "Biology of cyclopoids", "Copepod nutrition", "Vertical migration in copepods", "Morphological adaptations to parasitism", "Biology of Tisbidae", "Copepod genetics", "Diapause in copepods" etc. There is truly no lack of topics and even though so much is known, many of us are ignorant. If we are to converge to a common language we had better know from each other what is talked about in the different fields.

"Advances in Copepodology" could have a not unwanted side effect. So far, the benefits for members of the WAC are restricted to the newsletter. These benefits could be expanded by offering "Advances of Copepodology" to members of the Society to a special price.

Reviews, obviously, are no task for the newsletter. MONOCULUS will continue on a lower, more personal level and, hopefully, will also continue according to the precept that Nicolas Boileau, the theorist of the classical period in French literature, had formulated for the classical French drama: *plaire et instruire* (please and instruct).

H.K.S.



5th INTERNATIONAL CONFERENCE ON COPEPODA

Preparations for the 5th International Conference on Copepoda are moving along. The following Platform Sessions have been scheduled:

Monday, June 7 - GENETICS, PHYLOGENY;
Tuesday, June 8 - MORPHOLOGY, CYCLOPID-MOSQUITO
INTERACTIONS;
Wednesday, June 9 - ACARTIA;
Thursday, June 10 - REPRODUCTIVE BIOLOGY, VERTICAL
DISTRIBUTION, SEASONAL CHANGE;
Friday, June 11 - HORIZONTAL DISTRIBUTION, FEEDING, BEHAVIOR.

Poster Sections (Tuesday afternoon and evening will be devoted to posters) are on related subjects in the following areas:

MORPHOLOGY, REPRODUCTIVE BIOLOGY, SEASONAL CHANGE,
HORIZONTAL DISTRIBUTION, FEEDING.



In addition I would be interested in hearing from MONOCULUS readers who will attend the conference and might be interested in an informal discussion about "how many species of copepods remain to be discovered?" This is a favorite topic of mine because it should bring together taxonomists interested in describing animals new to science and ecologists interested in describing new habitats. The input of ecologists is particularly important in aquatic environments where, I suspect, many new habitats with their new copepods remain to be discovered.

The best time for this discussion appears to be Wednesday night. Earlier that evening at the Maxilliped Lecture in Washington, D.C., Dr. Arthur G. Humes will discuss how many species of copepods are known. Perhaps after we return to campus those copepodologists interested in the question of new discoveries could gather for a discussion. Please let me know by fax 301.238.3361; phone 301.238.3797, mail Invertebrate Zoology/MS, National Museum of Natural History, Smithsonian Institution Washington, D.C. 20560, U.S.A.; or in person, early in the conference if you are interested in contributing to this topic.

F.D. Ferrari, Washington (U.S.A.)

