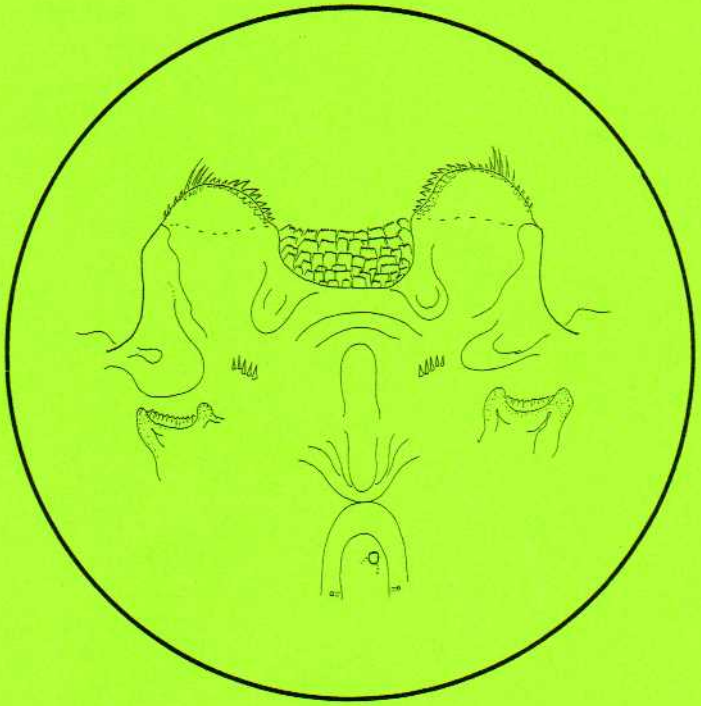
ISSN 0722-5741

MONOCULUS

Copepod Newsletter



Nr. 42

OCTOBER 2001

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

MONOCULUS

Copepod Newsletter

Number 42 October 2001

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Produced by: Bibliotheks- und Informationssystem (BIS) der Universität Oldenburg, Ammerländer Heerstr. 67/99, D-26111 Oldenburg, Germany.
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Chad Walter (U.S.A.) is acknowledged for substantial help in providing literature sources and helping to distribute the newsletter in the US.

Cartoons were provided by M. Pottek (Fachbereich Bio, Geo- und Umweltwissenschaften, Universität Oldenburg).

Cover: Labrum, anterior of female *Oncaea waldemari* (Fig. 25)(after Böttger-Schnack 2001. Bull. Nat. Hist. Mus. Lond. (Zool.) 67(1): 25-84).

Birthdays in 2001:

The MONOCULUS homepage is available from the www-service under:
http://www.hrz.uni-oldenburg.de/monoculus.
We try to keep it up with the most recent information.
Deadline for the next issue of MONOCULUS 43: 31st March 2002.

EDITORIAL

I just returned from the lab where my disapointed student stumblingly admitted that all her work for the last week was in vain. A situation everyone of us may recall from own experience. Her working hypothesis about the use of a microcharacter as a new synapomorphy for a group of copepods could no longer be pursued because a literature survey and the subsequent reinspection of related taxa showed that this character obviously was plesiomorphic and far more wide-spread, in particular among stem-line representatives of the group under consideration, than expected.

The potential value of data which do not support a research hypothesis is often not appreciated. Negative results have been discussed, condemned or defended by authors and editors for decades. Among others it was Stephen Jay Gould who stated the following (in his essay: Cordelia's dilemma. Nat. Hist. 2/93: 10-18): "The importance of negative results – nature's apparent silence or nonaquiescence to our expectations – is also a major concern in science. Of course, scientists acknowledge the vitality of a negative outcome and often try to generate such a result actively – as in trying to disprove a colleagues favoured hypothesis. But the prevalence of negative results does pose an enormous, and largely unaddressed problem in the reporting of scientific information". Positive results may tell more interesting stories than negative results and are, therefore, easier to write about and more interesting to read – a privileging of the positive? According to the famous philosopher of science Karl R. Popper (his classical book: The logic of scientific discovery), no researcher could be happier than to find negative results. To him, one cannot prove theories conclusively, beyond all doubt – even with positive results. Positive instances themselves do not necessarily exclude the possibility of significant counter-instances. Nor do they address possible alternative explanations for the same results: theories may overlap with their predictions. Even positive results deserve skeptical analysis. Positive evidence may accumulate, but because no one ever has all the facts, one never knows whether an alternative theory may be correct. At best, a hypothesis can be falsified using results that clearly contradict it.

In practice, the art of falsification is more subtle. Researchers must consider methodological assumptions, statistical analyses, or details of observational or experimental design. On the other hand may negative results be important for several reasons: they may provide more balance for a subject area supported only by positive results so far. Also, they may indicate that a subject area is not as mature or clearly defined as previously suspected. In particular they may show that a particular line of research is not worth further efforts, or, that our current methodologies are inadequate for producing a definite result.

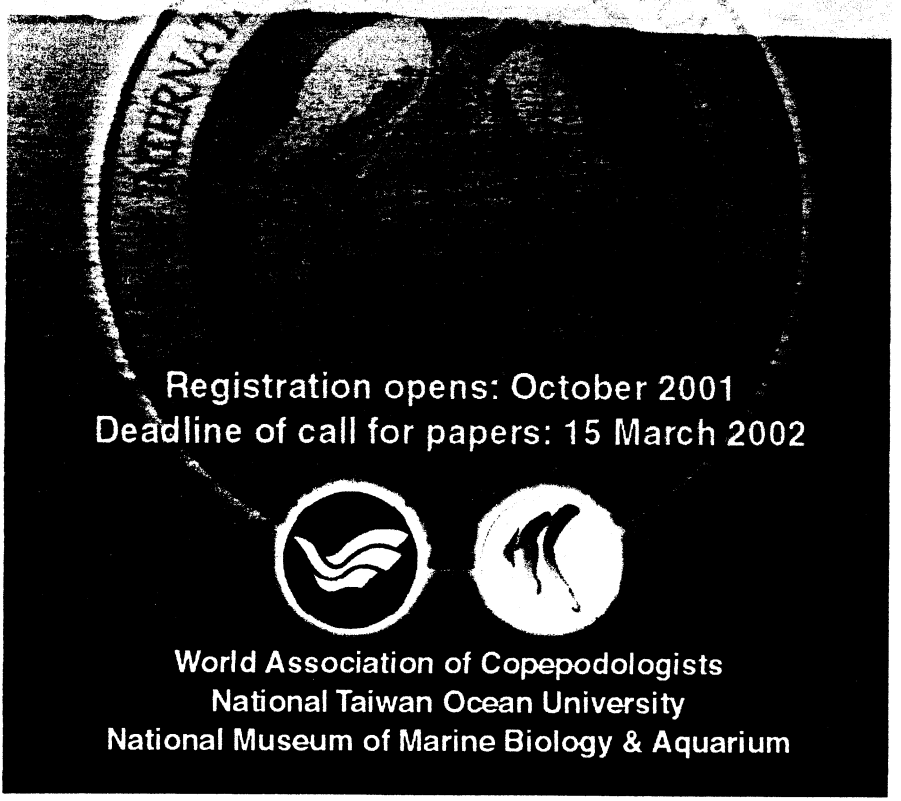
Transferring this to the problem of my student, I suggested her to be glad in a way, because: microcharacters are poorly investigated and data for comparison are less available as yet. High resolution techniques are needed for the study of a wide spectrum of taxa before these characters can be allocated as plesiomorphic or apomorphic for a particular taxon. Also, plesiomorphies are far more spread usually than apomorphies, but characterizing a phenology as plesiomorphic is actually helpful because it will exclude this from the pool of potential apomorphies in future searches.

The issue of negative results remains complex. It may reflect our scientific methodology and training, or our humanity with all its biases. Hopefully, the next "failing working-hypothesis" will remind us of the stimulating function of any type of scientific result: may it be positive, neutral or negative.

8th International Conference On Copepoda

National Taiwan Ocean University
Keelung, Taiwan, July 21-26, 2002

3rd Announcement



The 8th International Conference on Copepoda July 21-26, 2002, Keelung, Taiwan

PAPERS AND POSTERS

The Organizing Committee of the 8th ICOC cordially invites you to submit an abstract of your paper to be presented during the Conference. The papers will be accepted in two presentation formats: oral presentation in an appropriate symposium and poster display. For oral presentation, the author will have about 15 minutes to present the paper. For poster display, the presenter will describe the poster during a 1-hour period. A 90cm(W) x 140cm(H) bulletin board will be provided to all presenters. Interested individuals should submit their abstracts according to the following instructions. Abstracts that do not follow the instructions will not be reviewed.

GENERAL INSTRUCTIONS

❶ The abstract must be submitted in English, typed or printed on the enclosed abstract form.

❷ Please use a printer which gives a clear and distinct impression and use a font that is easy to read. The preferred font is Times New Roman or Courier, in 12 points.

❸ Within the main body of the abstract:
- — use single line spacing
- — indent 3 spaces on the first line of each paragraph
- — do not leave blank lines between paragrahs
- — please contact the Conference Secretariat if you have any problems relating to the guidelines for your abstract.

❹ Submit the original Abstract Forms (Form A & Form B), one extra copy of Form B and a disc.

❺ Use Form A to provide the presenter's name and mailing address. Only the presenting author will receive correspondence.

❻ The author **must** follow the above instructions. Abstracts will be reproduced exactly as typed in the program.

❷ If you are submitting an original research paper, Please adopt the following structured format for the abstract:
- — Background / Purpose
- — Methods
- — Results
- — Summary / Conclusions

❸ Note that:
- — abbreviations in parentheses must follow the full wording the first time it appears in text
- — references and credits are not to be included in the abstract

ABSTRACT REVIEW PROCESS

❶ Abstracts will be reviewed by the Scientific Committee. An abstract may be selected for oral or poster presentation.

❷ Schedule of presentation will be mailed by May 30, 2002 to the correspondence address given on Form A.

❸ Abstracts which do not follow the proper format or are received after the deadline will not be reviewed.

PRESENTATION INFORMATION

❶ Audio-visual
Each session room will be provided with a slide projector, overhead projector, LCD projector, podium, and lavaliere microphone. Please contact the Conference Secretariat in advance if you need special equipment which is not listed hereon

CONTENT OF ABSTRACT

❶ Type in the top section of the Abstract:
- — the title of the paper in CAPITAL letters. Make sure the title is brief and clearly indicates the nature of the paper.
- — the family name and initials of all authors. The family name should precede the initials (such as Smith J). Under-line the name of the presenting author.
- — the university/organization, city and country where the work was carried out. Do not state address, postal code, academic degrees or grant support.

MAILING INSTRUCTIONS

❶ The Abstract forms should be received by the Conference Secretariat on or before March 15, 2002.

❷ Please mail the completed abstract forms as well as any requests for additional information or forms to:

Conference Secretariat
8th ICOC, c/o TCM
P.O.BOX 68-439, Taipei, Taiwan
Tel:+886-2-2523-6017 Fax:+886-2-2537-7479

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- □ Abstract Form (For presenting author)
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For more and updated information, please visit our website:

http://8thicoc.ntou.edu.tw

... STUDENT AWARDS ... STUDENT AWARDS ... STUDENT AWARDS ...

Janet Reid has kindly prepared the following text on the student awards. I am circulating her covering letter and text to all Executive Council members for your information and any comments. The text will go onto the WAC website, the 8th ICOC website and into the next issue of Monoculus. Geoff Boxshall

Dear friends,
You will remember that in Curibita we discussed proposals for two kinds of awards to be awarded by the WAC. The following DRAFT text for the announcements reflects that discussion and considerations by Geoff, John, and myself.

The number of awards, amounts of money involved, and procedures are all matters for discussion. John has assured us that the WAC can easily afford the amount (total $1,200), and perhaps even a little more, while continuing to build capital.

For instance, for the travel funding awards we might make two large awards, or several smaller awards. Geoff has made the point that even small grants are useful, because students can then demonstrate to their departments that they have succeeded in getting partial funding.

Another consideration is that students tend to present in posters rather than orally. The judges might be given discretion to award either one, two, or three winners in the poster category.

It seems best to finish the discussion by the end of August. The first week in September, I would like to submit approved the text to Jiang for inclusion in the 8th ICOC website, to Rubens for the new WAC website, and to Hans for printing in the next issue of Monoculus.

Thanks to all of you for your opinions and ideas!
Jan

AWARDS TO SUPPORT YOUNG RESEARCHERS PARTICIPATING IN THE 8TH ICOC IN TAIWAN

The WAC Executive Committee and the local organizers of the 8th International Conference on Copepoda to be held in Taiwan in July 2002 all wish to support and encourage our younger colleagues to pursue research on copepods. To this end, the Executive Committee has authorized the amount of US$1,200 from WAC resources, and the Local Organizing Committee of the 8th ICOC has more than doubled this amount with $2,800, to fund the travel grants and awards for best presentations described below. The local committee will also waive registration fees for all the recipients. We are extremely grateful to the Local Organizing Committee for their generosity.

These awards are for the 8th ICOC only. However, the Executive Committee intend

to repeat the awards at future Conferences, although the number and amounts may change depending on the financial condition of the WAC.

1. TRAVEL GRANTS TO THE 8TH ICOC

Six travel grants in the amount of US$500 each will be available to assist postgraduate students and young professionals (under 35 years of age) with expenses to attend and present their research at the 8th International Conference on Copepoda. The registration fee of each person receiving a grant will be waived, bringing the total value to $600.

Interested persons should send a 1-page description of the research project(s) to be presented, and a statement of financial need, to any member of the Executive Committee, or directly to the awards coordinator Jan Reid. This information must be received by 30 December 2001, by e-mail if possible.

The Executive Committee as a whole will evaluate the applications on the basis of the quality of the research to be presented, and demonstrated financial need. Persons who are attending their first ICOC, and candidates for the Doctorate or Master's degrees (in that order), will be given priority. Applicants will be notified by 1 March 2002 as to whether they will receive support. The grants will be paid directly to each person to be provided support (and the registration fee of $100 will be waived) during registration at the 8th ICOC.

2. AWARDS FOR BEST STUDENT PRESENTATIONS AT THE 8TH ICOC

Ten awards of US$100 each will be given for the best presentations of research (either oral presentation or poster) by undergraduate students or candidates for the Master's and Doctorate degrees who are attending the 8th ICOC. The registration fee will be reimbursed for each recipient, bringing the value of each award to $200.

Students wishing to be considered for an award must contact Jan Reid by 30 May 2002. Each should send a copy of the abstract, and briefly describe the contributions of the research toward advancing knowledge of copepods. The student must be first author, and must make the presentation in person.

The presentations will be judged by a committee, on the basis of the quality and originality of research, and on the effectiveness of the presentation, including composition of the abstract and use of visual aids. The awards will be presented during the final conference dinner.

Awards Coordinator:
Janet W. Reid, Ph.D.

Address until 31 December 2001:
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Smithsonian Institution
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E-mail: reid.janet@nmnh.si.edu
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After 1 January 2002:
Research Associate
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Virginia Museum of Natural History
Martinsville, Virginia 24112 U.S.A.
Fax: +1 276 632-6487

... CURRENT RESEARCH ...

In my laboratory we have been rearing populations of the copepod *Acartia hudsonica* from Great Bay (southern New Jersey), Long Island Sound (Connecticut), Cape Cod (Massachusetts) and Casco Bay (Maine) under one set of environmental conditions (14 degrees celsius and 12L:12D) and under the same diet (a mixture of several groups of phytoplankton at a total concentration of approximately 500 ug C/l). So far, we have reared some 18 generations of each population under these conditions, although every few generations we refresh each culture with new individuals from their location of origin.

Recently, we did a life history study for the New Jersey and the Maine populations under the conditions described above. We found that the generation times of the populations differed dramatically--10 days for the New Jersey population and 15 days for the Maine population. This was quite surprising to me since under nonlimiting food conditions, development time should be a function of temperature alone.

Given the long number of generations and the constancy and similarity of environmental conditions under we rear these populations, one must wonder whether generation time is under genetic control. I also wonder about the role of temperature as a selection force for minimum generation time since it is likely than on average the New Jersey population under its natural conditions would experience a temperature greater than 14 Celsius and the Maine population a temperature lower than 14 Celsius. Has anyone done studies of this kind? Can anyone suggest some literature on the norms of reactions of copepod population?

Thanks,

Hans G. Dam Phone: (860) 405-9098
Dept. of Marine Sciences Fax: (860) 405-9153
University of Connecticut
1084 Shennecosset Rd. Web:www.marinesciences.uconn.edu
Groton, CT 06340-6097,USA E-mail: hans.dam@uconn.edu

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Organisms, Diversity and Evolution is published by the Gesellschaft für Biologische Systematik (GfBS) (Society for Systematic Biology) and the Urban & Fischer Verlag.
The Journal consists of a printed version and an electronic supplement. It is devoted to the understanding of organismal diversity and addresses an international audience. Purely taxonomic papers are published in the electronic supplement by GfBS. Extended abstracts of these publications will be contained in the printed Journal. The electronic supplement will be available free of charge on the internet independent of the printed Journal to everybody interested.
Examples: see http://www.senckenberg.uni-frankfurt.de/odes/
To fulfill the rules of taxonomic nomenclature (botany/ zoology) diagnoses appear in the printed version and CDs are deposited in major libraries. Furthermore, a German institute responsible for the conservation of electronic data (Deusche Bibliothek, Frankfurt) will take care of the electronic version to keep the format of stored information up to date.
For further information see: http://www.urbanfischer.de/journals/ode/

****

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http://www.ruhr-uni-bochum.de/spezzoo/

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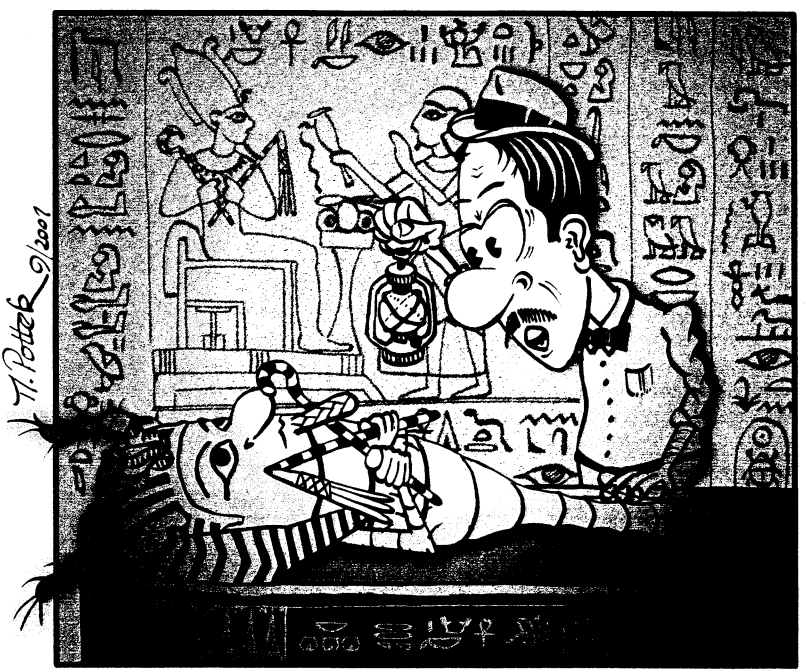

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