

# MONOCULUS

Copepod Newsletter



Nr. 43

**bis**

April 2002

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

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Copepod Newsletter

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Produced by: Bibliotheks- und Informationssystem (BIS) der Universität Oldenburg, Ammerländer Heerstr. 67/99, D-26111 Oldenburg, Germany.

Distributed in Canada by: E.J. Maly, Concordia University, Biology Dept. 1455 de Maisonneuve Blvd. W, Quebec H3G 1M8 Montreal, Canada.

Distributed in Europe and overseas by: H.-U. Dahms, Universität Oldenburg, Fachbereich 7, D-26111 Oldenburg, Germany.

Distributed in India by: M. Madhupratap, National Institute of Oceanography, Dona Paula, Goa 40 3004, India.

Distributed in Japan by: S.-i. Uye, Hiroshima University, Faculty of Applied Biological Science, 4-4 Kagaeniyama 1-chome, 724 Higashi-Hiroshima, Japan.

Distributed in Taiwan by: C.-t. Shih, Natn. Univ. of Taiwan, Dept. Zool., 106 Taipei, Taiwan.

Distributed in the U.S. by: T. Chad Walter, Smithsonian Institution, MRC-163, Washington, DC 20560-0163

Chad Walter (U.S.A.) is acknowledged for substantial help in providing literature sources. This issue has been typed by Hans-U. Dahms. Cartoons by Hans-U. Dahms and M. Pottek (Fachbereich 7, Universität Oldenburg).

Cover: Cartoon showing the "international flight" of copepods to the EICOC in Keelung 2002 (by Hans-U. Dahms)

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Birthdays this year:	85: Vervoort, W.	70: Chen, Q.-C.
	80: Dussart, B. H.	Flössner, D.
	75: Ackman, R. G.	Gooding, R. U.
	Conover, R. J.	Koga, F.
	Fryer, G.	Minoda, T.
	Hülsemann, K.	Mohammed, A. A.
	Kajihara, J.	Montschenko, V.
	Marinov, T.	Naidenow, W.
	Oishi, S.	Sherman, K.
	Saraswathy, M.	Watson, N. H. F.

The MONOCULUS homepage is available from the www-server under:

<http://www.hrz.uni-oldenburg.de/monoculus>.

Deadline for the next issue of MONOCULUS: 30th September 2002

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### EDITORIAL

The EIGHTS in a series of International Copepod Conferences is approaching soon. This time it will take place for the first time in Keelung (Taiwan), and the second time in Asia after we had the FOURTH International Copepod Conference in Karuizawa, Japan in 1990. As the preliminary program shows, the upcoming conference will provide a diverse spectrum of research disciplines focussing along research themes (copepods in aquaculture, copepods and pollution), or specific habitats (the significance of small copepods in estuaries, neritic waters, and the open sea; copepods in deep-sea habitats), methodological questions (molecules *versus* morphology), and general aspects (the importance of a natural system of the Copepoda).

For me the most fascinating aspect of studying the universe of biological performances of a particular taxon is its evolutionary approach: showing the broad diversity of organismic copepod structure, as well as their molecular, physiological, and behavioural performances in the context of populations and communities adapted to their particular environments through geological time towards nowadays selection scenarios. This way the whole range of biological attributes can be studied and compared through various methodical approaches and biological disciplines using one evolutionary unit – the Copepoda – as a model. This allows a comparison of attributes of closely or distantly related taxa within a smaller evolutionary unit. Temperature acclimation for instance, besides its nongenetic plasticity, shows a genetically based taxon-dependent range. The same holds for instance for tolerance to pollutants, locomotory capability, reproductive performance or structural characters. Only a taxon-based comparison also considering geographical differences, will provide insights in the variability of such characters, the range and speed of their evolutionary transformations and the actual selection forces driving them through time and space. This way, it could be very elucidating for say a planktologist studying the interrelationship of egg-size and egg-number of her/his favoured calanoid species to compare this with its next or distant relatives (even representatives of other copepod orders) along gradients between temperature or nutritional extremes, freshwater/ seawater, benthic/ pelagic, freeliving/ associate etc. This he/she may do in order to get a better cue of the actual driving forces behind. Only this kind of approach will offer explanations for the evolutionary causes of copepod biodiversity. Such a comparative method, cautiously applied, will also provide assumptions of some generality by transferring the evidences from copepods to other taxa. Thus, providing at least conceptual models for the explanation of biodiversity within other taxa of living organisms as well.

We acknowledge in particular the contributions of J.A. Fornshell, K. Nagasawa and J.-s. Hwang. As readers of the MONOCULUS newsletter, please, don't hesitate to send us all information

that you consider as interesting to the editor. Candidate members – without further notice – are requested to send a short biography.

For some time MONOCULUS has been gathering reprints in the MONOCULUS library. You will find these here under "LITERATURE" marked by an asterisk. Therefore, keep or put the MONOCULUS Library (Oldenburg) as well as the WILSON Library (Washington) on your mailing list.

## Final announcement for 8<sup>th</sup> ICOC

Dear members and non-members of World Association of Copepodologists (WAC):

We are delighted to invite you to attend the 8<sup>th</sup> International Conference on Copepoda (ICOC), to be held at the National Taiwan Ocean University (NTOU) in Keelung, Taiwan, during the period of 21-26 July, 2002.

The International Conference on Copepoda is held every three years to provide students and members of the World Association of Copepodologists (WAC) as well as any person who is concerned of copepod research with an excellent opportunity for discussing major advances and important issues in contemporary copepodology, identification of the challenges that lie ahead, and renewing old friendships and initiate new ones.

We are fortunate to have many experts from the World Association of Copepodologists (WAC), the National Taiwan Ocean University (NTOU) and the National Museum of Marine Biology & Aquarium (NMMBA) participating in planning this Conference, along with many colleagues who form the Local and International Organizing Committees. All committee members have worked diligently to identify both interesting and important subjects to be discussed, and select top-notch copepodologists from around the world to speak and/or chair the interesting sessions planned. Besides attending the daily meetings, you may also enjoy the many attractions of Taiwan in the mid-term and post-conference tours. What better place than Taiwan there is in July, 2002!

Additions and Amendments to previous Announcements:

### 1) Early Bird Registration and Abstract Submission

Some copepodologists, particularly of those from developing countries, have no access to website or received the information of the 8<sup>th</sup> ICOC very late. They asked to postpone the deadline of the early bird registration for the 8<sup>th</sup> ICOC. We have responded to this request and have, therefore, postponed the deadlines for early bird registration and abstract submission to May 1<sup>st</sup>, 2002. Please submit your abstracts and registration form according to the instructions described in the third announcement or on the website.

### 2) Hotel Accommodation

Those who have not yet made hotel reservations through the Congress secretariat but still wish to do so, are urgently asked to submit relevant details for facilitating hotel reservation. Those who prefer to save money in lodging can book the university student dormitory through the Congress Secretariat. All necessary information are available from the website

### 3) Transportation

All registrants are requested to inform the Congress Secretariat of their flight schedule, including inbound and outbound flight number and the time and date of arrival and departure.

A shuttle bus will be available from 08:00 to 21:00 on July 21, 2002 for transporting attendees from CKS International Airport to each of the contracted Congress hotels. A shuttle bus will be available from 08:00 to 21:00 again on July 27, 2002, taking attendees from each of the contracted Congress hotels to CKS International Airport. The shuttle bus will be provided free of charge by LOC on July 21 and July 27 only to the registrants of the 8<sup>th</sup> ICOC. On July 21, 2002, our staff with the ICOC logo will be at the counter of the Tourism Bureau situated on the right side as you exit from the customs. Transportation from CKS International Airport to downtown Keelung takes about one and one-half hours.

Those who do not wish to take the arranged shuttle bus, or arrive after the shuttle bus service hours, may take either the bus of            or            to the Taipei Central Railway Station (app. 60 minutes). Tickets can be purchased at the Bus Ticketing Office located on the left side after you pass through customs. Bus ticket costs NT\$120 and buses depart every 20-30 minutes. The last bus leaves the airport at 01:30 (after midnight). From the Taipei Central Railway Station you can take the bus, train or taxi to Keelung to near any of the contracted Congress hotels (app. 60 minutes). The cost for taxi fee will be about NT\$ 700 (about US\$ 20) and bus NT\$ 45 from Taipei to Keelung.

You may also take a taxi directly from CKS International Airport to your hotel in Keelung, which will cost around NT\$1,800. As taxi drivers only speak limited English, you are advised to prepare a note stating the hotel's name and address in Chinese. You will find Keelung City Map from website with full name and address of all Congress hotels in Chinese and English.

The LOC has raised enough fund to cover local transportation, mid-term conference tour (National Palace Museum and Metropolitan Taipei), proceedings of the conference, and most of the food cost during conference for all registrants. We encourage members or non-members of WAC to submit your registration form and abstract to the Congress Secretariat of the 8<sup>th</sup> ICOC as soon as possible. If you have any question, please do not hesitate to contact us.

We are looking forward to seeing you in July.

Jiang-Shiou Hwang, Ph. D.  
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## Financial report for the WAC

This includes the dues payments through January 1, 2002. The financial statement is below:

Beginning balance January 1, 2001	\$21,237.64
Membership dues paid	1,289.15
Banking fees	30.00
Interest earned	585.34
Conversion of back issues of MONOCULUS to electronic format on The Copepod List WEB site	1,000.00
Check Returned	60.00
End of year balance December 31, 2001	22,022.13

There have been many changes in the international banking system this year. There are three (3) ways to pay your dues: (I) If your bank has an office in the Unites States, you may write a check or money order in US dollars. (II) If your bank does not have an office in the United States you may write the check in your native currency. The banking charge for such a deposit is \$3.00 US Dollars by our bank and any additional charge from the bank of origin for the check. In most cases this latter charge is relatively small or not existent. (III) You may pay your dues in U. S. dollars at the meeting.

John A. Fornshell, treasurer (Alexandria)



## GREAT AWARD TO THE FORMER WAC PRESIDENT, PROFESSOR JU-SHEY HO

Professor Ju-Shey Ho of California State University, the former president of WAC (1996-1999), received a great award (The Science and Engineering Achievement Award), generally called "Taiwanese Nobel Prize", for his great contributions to copepodology from the Taiwanese-American Foundation (TAF) in November 2001. This prize has been awarded to those people who love Taiwan, identify Taiwan as their homeland, and who have achieved on outstanding accomplishment in their own fields or in any of the following three categories, irrespective of nationality: science/engineering, social science, and social services. The Special Contribution Award and The Youth Civil Leaders Award were also given to Dr. Ho. He had been recommended as a candidate by the North American Taiwanese Professors' Association, which resulted in his being awarded in 2001.

The Taiwanese-American Foundation was established in November 1982 in Southern California. The founder is Mr. Ken-John Wang of Long Beach, California who was originally from Taiwan. He built up his savings for running hotels in the U.S.A. and recognized that there was no prize for those who contributed to Taiwanese societies. He generously contributed one million dollars following the example of Alfred Nobel. In 2001, the former general of the Government of Taiwan, Dr. Teng-Hui Lee also won the Special Contribution Award (see website: <http://www.TAFAward.com>).

The celebration ceremony was prosperously held at the Grand Hotel in Taipei on November 17, 2001. He accompanied his dearest wife, Pao-Hie (Betty) Ho, as usual. We can see the winners' good faces in the ceremony program booklet. He thinks that his award could not be accomplished without her devoted assistance.

Dr. Ho's award is ascribed not only to his daily continuous efforts in copepodology, including activities in the WAC, but also to his warm-hearted attitudes toward his friends, colleagues and students. We can readily understand this, seeing that he has found more than 1,000 species of parasitic copepods (only several hundreds of species were published in over 150 papers), and that three genera and seven species of parasitic copepods were named in honor of him (*Hoia hoi*; *Jusheyhoea macrurae*; *Jusheus shogunus*; *Anuretes hoi*; *Heteranthessus hoi*; *Heterochondria hoi*; *Lichomolgus hoi*; *Neobrachiella hoi*). He has been extensively cooperating with other copepodologists in the world, and training up his successors such as Dojiri, Perkins, Benz, Deetz, Tang, and Kalman (see attached letters). Additionally his award evidently means that copepodology is recognized as an important field for the human society. Currently he has been busy with helping Prof. Jiang-Shiou Hwang, a chief organizer of the Eighth International Conference on Copepoda to be held in Taiwan in the summer of 2002.

One of the authors (SO) happened to be a guest researcher at Dr. Ho's laboratory, when he received the award, and could directly give blessing to him. Also, SO interviewed Dr. Ho about his award and could hear of his frank opinions about it, in which we can see his view of life. (Q): question from SO; (A) answer from Dr. J.-S. Ho.

(Q) What about your first impression to hear of your being awarded from TAF?

(A) I was deeply surprised to hear that a copepodologist could be awarded.

(Q) Do you think that both your research in copepodology and educational/social activities were highly evaluated?

(A) I think so.

(Q) What does this award mean in your life?

(A) Since I wish to continue to study until my last breathing, this award has greatly encouraged me. I will make much more efforts to educate young generations in the fields of biodiversity, in particular, in Taiwan, and basic sciences rather than molecular biology. I am now writing a textbook entitled "Sea lice of Taiwan", and am cheered up by this award.

(Q) To whom do you express your sincere thanks?

(A) First of all, I express my sincere thanks to my wife, Betty. I would not have been awarded without her assistance. When I made a speech in the ceremony party, I stressed this. Although she has always been saying that she could help him much more if she would become a biologist, I am completely

satisfied to see that she has been skillfully handling complex domestic things and been devoted to the development and growth of our two children. Moreover I must be indebted to the late Dr. Arthur G. Humes. He even now remains to be my teacher. His sincere and gentle attitude to me has brought up me. I am proud of being one of his students. I had never seen him in anger except for one time when his taxonomic paper on parasitic copepods was insulted. His spirit will be succeeded through me to the next generations forever.

Kazuya Nagasawa  
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and  
Susumu Ohtsuka  
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I met Dr. Ju-Shey Ho in the fall of 1974 while I was a master's degree candidate in the Department of Biology at California State University, Long Beach (CSULB). Initially at CSULB to study under the guidance of another parasitologist, I quickly switched to Dr. Ho after a chance meeting. My decision to choose him as my graduate advisor was influenced by his helpfulness and extensive knowledge of marine biology; however, it was his congenial personality that impressed me most at the time. After several meetings, he accepted me as his graduate student, and we quickly became close friends.

During this period, Dr. Ho and I published three papers together. His flexibility and easy acceptance of criticism (even from a "lowly" graduate student) are traits of his that are still clearly etched in my mind. He made it obvious that his main objective was to advance scientific knowledge by producing the best research that he possibly could; positive criticism was and still is readily accepted by him. It is this open-mindedness that allows him to be such an excellent scientist

I received my B.A. from the University of California, Santa Barbara, my M.A. from California State University, Long Beach, and my Ph.D. from Boston University at the Woods Hole Marine Biological Laboratory. I completed a postdoctoral fellowship at the Smithsonian Institution in Washington, D.C., taught at Georgetown University, and worked at the Smithsonian Oceanographic Sorting Center. I have met with, corresponded with, and read papers by scientists from all over the world, but none have impressed me as much as Dr. Ju-Shey Ho. He is truly a remarkable scientist and unique human being. His attributes are many; his research is superb; he has contributed greatly to science; and he is extremely deserving of the prestigious Taiwanese-American Foundation Award. I wholeheartedly recommend him for this award without hesitation and without reservations. He is one-of-a-kind; there simply can be no better person for this award. The numerous scientific achievements of Dr. Ho's are summarized below.

Dr. Ho is an internationally renowned and respected scientist, having conducted field work in Taiwan, Ecuador, Peru, Australia, Indonesia, Japan, Caribbean Sea, North Atlantic, eastern South Pacific, Thailand, Malaysia, as well as off the coasts of the United States. He has been a visiting scientist at the Smithsonian Institution in Washington, D.C., the British Museum (Natural History) in London, various institutions in Beijing and Qingdao in the People's Republic of China, the Zoologiske Museum in Copenhagen, the University of Gdansk in Poland, and various oceanographic institutes in Korea, Thailand, Malaysia, India, and Taiwan. Currently, he has joint research projects with scientists from Russia, Kuwait, India, Thailand, and Korea. In addition, he has lectured and conducted workshops in parasitology and phylogenetics (cladistics), thus educating other scientists in various universities and marine laboratories in many countries including Japan: Sado Marine Biological Station, Niigata University; Noto Marine Biological Laboratory, Kanazawa University; Seto Marine Biological Laboratory, Kyoto University; Laboratory of Marine Biology, Kochi University; Otsuchi Marine Research Center, University of Tokyo; Akkeshi Marine Biological Laboratory, Hokkaido



University. Finally, he recently completed a sabbatical leave to Taiwan to study copepods parasitic on fishes of Taiwan during the 1997-98 academic year.

A great honor bestowed upon Dr. Ho was his selection to the committee for the International Prize for Biology in honor of Emperor Hirohito of Japan. It is not surprising that out of all the scientists in the world from which to choose, one of the scientists selected for this prestigious committee was Dr. Ho. Certainly scientists from all over the world recognize his scientific stature.

California State University, Long Beach, where he has been employed as a professor since 1970, has recognized the many scientific and teaching accomplishments of Dr. Ho by awarding him the Distinguished Faculty Scholarly and Creative Achievement Award in 1986, and from 1987-89 the Meritorious Performance and Professional Promise Award. Both these awards are presented only to excellent professors at this university who have displayed exceptional qualities in research and teaching.

Dr. Ho is an active member of ten professional organizations and was on the executive council of one of them, the World Association of Copepodologists from 1987-1993 and is currently the vice-president of this organization. This is an international organization which was established in 1981 and has several hundred members. He is also an official reviewer (editor gratis) of no less than 14 internationally-recognized, peer-reviewed scientific journals which include *Science*, *Journal of Parasitology*, *Bulletin of Marine Science*, and *Journal of Crustacean Biology*. From 1996-98, Dr. Ho continued to be an Associate Editor for the *Journal of Crustacean Biology*.

Several universities and institutions have requested Dr. Ho to present seminars and workshops. He has never, to my knowledge, refused an offer, always seeming to find time from his hectic schedule to teach his various research methods and his diverse knowledge to his scientific peers. He has presented seminars on topics as diverse as parasites as biological tags, origin and dispersal of hakes (fishes), evolution of specific families of copepods, phylogeny of a single order of copepods, symbiotic organisms found on copepods, symbiotic organisms of hermit crabs, coevolution between parasites and their hosts, cladistics, and evolution of sharks and rays. These were presented all over the world: Federal Republic of Germany, Taiwan, Japan, Poland, The Netherlands, Canada, Guam, People's Republic of China, Korea, England, and Thailand. Dr. Ho is truly an international scientist in every sense of the word.

His scientific fellows have selected Dr. Ho as chairman of four symposia concerning marine biology in Long Beach (USA), Japan, Canada, and England, and also one on "Education in Taiwan". The latter symposium held in Taipei reflects his concern for education and for his continued interest and love of his native land. In fact, he has served on the Board of Governors of the North American Taiwanese Professors' Association since 1985 and was the President of the Southern California Chapter from 1985-86. Additionally, he was elected as the President of the Taiwanese-American Foundation. The above positions and the positions he held as chairman of the Marine Program (1981-84) and chairman of the East Asian Exchange Program (1988-91) at the California State University, Long Beach, indicates his experience and abilities in administration and leadership.

Dr. Ho has 180 publications either published or in press. This is a remarkable record for any scientist for an entire career, but is truly astounding when one considers that he is only 66 years old. During his graduate school years at Boston University, Dr. Ho authored 27 scientific papers before he received his Ph.D. in 1969, a feat unmatched by any graduate student. His dissertation was a monographic revision of an entire parasitic copepod family. This *magnum opus* is arguably the finest monographic revision of a copepod family ever completed; it is thoroughly researched, flawlessly written, and beautifully illustrated by him.

Dr. Ho ranks as one of the top three scientists in his specific field of interest. He is one of the most painstakingly careful and precise systematist I know. He is also one of the most versatile scientists living today, entering into specific fields of study outside his original expertise of copepodology and taxonomy. His publication list encompasses such diverse topics as descriptions of new taxa (families, genera, and species) of copepods, descriptions and life histories of marine organisms, symbionts of other marine invertebrates (mollusks, corals, polychaete worms, starfishes, sponges, tunicates, sea

