



THE ECDYSIAST

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Message from the President

This has been a year of significant developments for The Crustacean Society. The search for an editor to replace Dr. Arthur Humes at the helm of the Journal of Crustacean Biology is well underway, and we are very fortunate to have before us several impressive dossiers. I ask all of you to be patient during this time of transition, and, if asked, to be willing to help the Search committee and/or the new editor where needed.

The Fourth International Crustacean Congress in Amsterdam (see write-up later in this issue) was a resounding success, and I know I speak for the entire Society in expressing our extreme gratitude to Fred Schram and his top notch organizational team for putting this event together. No fewer than eight carcinological and other societies co-sponsored this event, headed by the Stichting Crustacea (Foundation of Dutch Carcinologists). The Congress provided a most impressive slate of plenary sessions, contributed papers, posters, and social events, including a wonderful opening reception at the Rijksmuseum and a marvelous dinner at the historic West Indies Huis. The amount of planning and work that went into scheduling and organizing this event were tremendous, and I only hope that the organizers — notably Fred Schram, Dick Spaargaren, Charles Franssen, Ronald Vonk, Carel von Vaupel Klein, Dirk Platvoet, Gerard van der Velde, Johannes Ringelberg, Wil van Zijl, and many others — were able to enjoy it half as much as those of us who simply benefited from their extremely hard work. For me personally, it was a rare opportunity

to meet and interact with many European colleagues with whom I had corresponded but not previously had the pleasure of meeting. And I was honored to be able to present the Society's Research Excellence Award to a good friend, Dr. Geoffrey Boxshall, who so richly deserved that recognition for his many substantial

TCS Elections Please Vote

(see page 10)

contributions to our understanding of crustacean, and especially copepod, biology.

ICC4 was a landmark event for several other reasons, one of which was the chance to assemble, for the first time, the presidents of every crustacean organization participating in the Congress. Representatives of carcinological organizations

from China, Japan, Brazil, Australia, Europe and the U.S. met with Fred Schram to form an international council to oversee future International Congresses (see Fred Schram's notice later in this issue). Plans for the next International Congress, to be held in Melbourne, Australia, in July of 2001, are well underway, and are being capably overseen by Dr. Gary Poore. Those meetings promise to be equally impressive, and I would advise clearing your calendars well in advance and planning on being in Melbourne. Another first in Amsterdam was the number and quality of student papers and posters competing for awards, and I sincerely thank Jack O'Brien and his crew of dedicated volunteer judges for overseeing the judging and evaluations of more than 70 student contributions. This was by far the largest effort to date, for any meeting of crustacean biologists, to encourage, honor, and recognize the valuable contributions of our students. Let's hope it sets a precedent.

Smaller but well attended and productive workshops on isopods (Amsterdam) and amphipods (Kronenberg, Germany) preceded and followed (respectively) ICC4, providing a wide array of topics for anyone with interests in the Crustacea. Truly, the summer of 1998 will be remembered as one of the most stimulating in recent history.

As bright as 1998 was, the coming year looks equally impressive. I hope to see many of you in Denver in January 1999, as TCS meets under the auspices of SICB for their annual meeting. And don't even think about missing Lafayette, Louisiana, for the TCS summer meeting in May. Then in September

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of 1999, the 7th Colloquium Crustacea Decapoda Mediterranea (7CCDM) will be held in Lisbon, Portugal, in conjunction with the 2nd Crustacean Larval Conference and possibly with other workshops and meetings.

On a personal note, I have returned from my year of working at the National Science Foundation in Arlington, Virginia, and can now be reached at my former address in Los Angeles (below). I look forward to hearing from you, or better yet,

to having you visit the Museum and its marvelous collection of Crustacea.

Sincerely,
Jody Martin



Hapalogaster mertensii
(from O'Clair & O'Clair, 1998; see p. 9)

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1998 Best Student Presentation Awards

The Crustacean Society recognized the following student presentations at the July, 1998 Summer Meeting held in Amsterdam, Netherlands in conjunction with the Fourth International Crustacean Congress. Awards were given for Best Student Paper (oral presentation) and Best Student Poster in each of five themes. Each of the ten award winners will receive a certificate, a free one-year membership in TCS (which includes a subscription to *Journal of Crustacean Biology*), and a cash award of \$50.00.

Theme *Biodiversity*

Best Paper: **Orpha Bellwood**, James Cook University, Australia, "Evolution and Biogeography of the Calappidae (Decapoda: Brachyura)."

Best Poster: **Jørgen Olesen**, Zoological Museum, Denmark, "Larval and Post-larval Development of the Clam Shrimp *Cyclestheria hislopi* (Branchiopoda, Conchostraca, Spinicaudata), with a Comparison of the Development in Various Cladoceran Orders."

Theme *Distributions*

Best Paper: **S.M. "Roni" Robbins**, The Natural History Museum, United Kingdom, "Seasonal Changes (1995-1997) in the Population Structure of Mitten Crabs (*Eriocheir sinensis*) in the Thames at Chelsea, London." (B.D. Smith, C. Byrne, P.S. Rainbow, & P.F. Clark co-authors).

Best Poster: **Sanja Gottstein**, University of Zagreb, Croatia "Biodiversity of the Amphipod Fauna in Croatian Fresh and Brackish Water," (M. Kerovec co-author).

Theme *Ecology and Behavior*

Best Paper: **Katrin Berkenbusch**, University of Otago, New Zealand, "Factors Influencing the Estimate of Sediment Turnover by the Burrowing Ghost Shrimp *Callianassa filholi* (Thalassinidae)," (A.A. Rowden co-author).

Best Poster: **Gauthier Chapelle**, Institut Royal des Sciences Naturelles de Belgique, Belgium, "Size in Amphipod Crustaceans: Polar Gigantism or Tropical Nanism?" (L. Peck co-author).

Theme *Physiology and Biochemistry*

Best Paper: **Silvia Gomez-Jimenez**, University of Hull, United Kingdom and Centro de Investigacion en Alimentacion y Desarrollo, Mexico "The Effects of Hypo- and Hyper Osmotic Media on Ammonia Efflux Rates and Haemolymph Constituent Levels in the Spiny Lobster, *Panulirus interruptus*." (R.F. Uglow & J. Hernandez-Lopez co-authors).

Best Poster: **Daniel Lemos**, Universidade de São Paulo, Brazil, "Ontogenetic Variations of Digestive Proteinase Activity of Larval and Postlarval Shrimp *Penaeus paulensis*," (M. Hernandez-Cortes, M. Navarrete del Toro, F. Garcia-Carreño, & V.N. Phan co-authors).

Theme *Fisheries and Aquaculture*

Best Paper: **Kyra Schlining**, Moss Landing Marine Laboratories, USA; "The Spot Prawn, *Pandalus platyceros*, Trap Fishery in Carmel Submarine Canyon, California," (J.D. Spratt co-author).

Best Poster: **Eli Haugen**, University of Bergen, Norway, "Parasites of Red King Crab, *Paralithodes camtschaticus*, from the Varangerfjord Area, Northern Norway," (G.A. Bristow & P.A. Jansen co-authors).

In addition, honorable mention recognition was given to **Vania Coelho** from the Universidade de São Paulo, Brazil for her talk entitled, "Comparison between the Setal Types Present on the Appendages Involved in Feeding of *Pomatogebia operculata* and *Upogebia omissa*." (S. de A. Rodriguez & A.B. Williams, co-authors).

Jack O'Brien
TCS Awards Committee Chair



Summer 1998 Crustacean Meetings

Fourth International Crustacean Congress (ICC4)

The Fourth International Crustacean Congress in Amsterdam, 19-24 July, 1998, was the first time that carcinologists gathered with official society sponsorships. Not only were there participants assembled from more than 30 nations, but also our organizational support was broadly based with input from the international Crustacean Society; the national societies from Brazil, China, and Japan; and the specialty group GEREK (the oldest of all these organizations). Truly the crustacean congresses are now firmly established on an international footing.

When the Dutch organizers chose the theme of this congress as "Crustaceans in the Biodiversity Crisis" they did so for several reasons. One was utilitarian. A successful meeting requires a timely and recognizable theme that can assist potential participants in raising travel grant monies to attend. It may be a bit cynical, but a dash of "show biz" in a title with biodiversity in it can, and we trust did, help granting agencies and bureaucrats see the need to assist science with injections of travel funds.

The second was based on the Dutch response to the need for addressing the biodiversity crisis. A congress theme on biodiversity linked to the study of one of the major groups of organisms found on all habitats of the world, is yet another example of Dutch commitment to furthering the goals and objectives of the Rio Accords. Not only does Nederland have a national research school dedicated to biodiversity, but also in the reorganization of the hard science faculties within the University of Amsterdam the field is receiving extra attention and support with the establishment of a new interdisciplinary Institute for Biodiversity and Ecosystem Dynamics.

The third reason is of course a firm belief that one could stimulate the health and activities of our own science by holding a congress to explore this theme with

regard to carcinology. The animals that we love so dearly, the crustaceans, are no less threatened by the activities of man than are the mountain gorilla, the California condor, or the black rhinoceros. We have already lost, and continue to lose, so much. The northern California fresh water shrimp, *Syncaris pacifica*, has not been collected in decades, and is now probably extinct scarcely before we even had a chance to recognize and describe it. Branchiopods were once thought to be composed of a few ubiquitous species. We now recognize that the group is composed of highly endemic forms, a recognition that comes just as the vernal pool habitats favored by these animals are disappearing at an alarming rate under the path of development. Ground water crustaceans, occupying as they do a habitat that is unbelievably old as it is to most of our minds incredibly remote, are now beginning to succumb to the draw-down of water tables all over the world as well as their contamination by surface pollution seeping into the depths. Even the deep sea is not safe. From the staff of the Institute for Systematics and Population Biology, University of Amsterdam, Prof. Siebrecht van der Spoel has recently published a warning that the human driven global warming crisis may indeed have potentially disastrous consequences for the fauna of so remote and seemingly insulated a place as the deep sea.

The problems intrinsic to the biodiversity crisis are vast, and solutions will not come from just the efforts of single individuals and laboratories. Efforts must be made to extend the functional base of our science. Cooperation is a word we hear a lot of these days. But it is real cooperation that we will need. However, cooperation is a word that has become worn-out with overuse. The Dutch have a word for this — *samenwerking*. It literally means "working together." That is what the organizers of ICC-4 hoped to stimulate, more *working together*.

They tried to do this in two ways.

First, they deliberately invited plenary speakers not only from within carcinology, but also from outside the immediate field. The hope was that by seeing what people from outside carcinology are up to, carcinologists might bring about some creative stimulation to their own science.

Second, in constructing the program oral sessions were created in which workers from more than one field could have been brought together to see how different approaches could relate to each other. This was not always successful, since more than a few of the participants, once the draft program was on the web site, contacted the program committee and absolutely insisted that they be put into a more "traditional" session. The congress board yielded to most of these requests but trusted that enough intermixing remained that insured that some level of "*samenwerking*" emerged from the meeting. If anything, the resistance to their efforts in this regard indicate that we have a long distance to go before biologists quit engaging in repetitious efforts to re-invent the wheel over and over again and get down to pooling our data and expertise, and sharing out the work load to get us, through *samenwerking*, to common goals and objectives.

A great deal was achieved during the congress. Around 500 participants came to Amsterdam. Besides the congress itself, there were concurrent gatherings of the Third European Crustacean Conference, the annual summer meeting of The Crustacean Society, the eighth meeting of GEREK, and the Third International Workshop on Sea Lice. The mornings were constructed around 14 plenary lectures in the 5 themes of the congress: biodiversity in space and time, distributions and invasive crustaceans, ecology and behavior, physiology and biochemistry, fisheries and aquaculture. The afternoons were structured to feature oral paper sessions alternating with long breaks that featured posters. Special sessions were organized and included: memorial symposia for Jan

Stock and Pierre Drach, Evolution of Stomatopoda, *Corophium curvispinum* in Europe, Nutrition, Impact of fishing gear on population dynamics of crustaceans, and a special workshop on information technology in carcinology. The latter proved to be so popular, a second repeat session of the afternoon-long program had to be repeated later in the week to accommodate all that were interested.

These public sessions were by all reports a great success. However, some important behind the scenes business occurred as well. Since this was the first time that representatives of all the major crustacean societies were together, a gathering of these people was arranged. These included the president and president-elect of The Crustacean Society, Jody Martin and Jens Høeg; the president of the Brazilian Society of Carcinology, Fernando d'Incao; the complete officer corps of the Crustacean Society of China, Profs. J.-Y. Liu, J.-H. Xiang, and F.-H. Li; the president and vice-president of GEREC, Pierre Noël and Frederick Schram; and the organizer of the next crustacean congress, ICC-5 in Melbourne, Gary Poore. Prof. Schram also invited Prof. K. Sakai to join the meeting and act as a representative for the Carcinological Society of Japan. The group established the Intentional Crustacean Council. The council will consist of the presidents of the major carcinological societies above, as well as the presidents of the most recent and the next future international congresses and the regional governors of The Crustacean Society. The purpose of the ICCoun will be to oversee and coordinate the planning and scheduling of the international congresses. The ICCoun also decided that the next congress, ICC-5, will occur in Melbourne, in 2001. ICC-6 will happen in 2005, and thereafter the congresses will occur every 5 years. Possible future venues were discussed, and a tentative site for ICC-6 was suggested for Rio de Janeiro in 2005. With the establishment of a 5 year cycle for the congresses it is hoped that the years in-between will attract regional and specialty group meetings. For example, the next European Crustacean Conference, ECC-4, will occur in Lodz, Poland in 2002. It was also decided that

a 5 year cycle of congresses would insure that at least once in every Ph.D. student's tenure in graduate school will they have at least one international congress in which to participate.

Another important occurrence of ICC-4 was the establishment of a European Council for the Conservation of Crustacea. This event grew out of the congress theme on Invasive Crustacea. Considerable activity is now taking place on the international front with regard to coordinating the assembly and dissemination of information concerning current animal and plant distributions. Special projects have already been funded for the production of both national and international check lists of organisms, especially in Europe and adjacent waters. It was decided that some sort of structure was needed to be involved in these initiatives from the viewpoint of crustaceans. A working group was established, with Pierre Noël from the museum in Paris as coordinating secretary for the time being. An effort will now be made to collect national faunal lists of crustacean species and these will be collated by Pierre and Paul Clark at the Natural History Museum in London.

Not everything was work and science in Amsterdam. An opening registration reception hosted by the organizers on congress Sunday saw the assembled masses pore out of the university library complex to enjoy the summer breezes along the bank of the adjacent canal. Monday saw the entire congress transported through the canals of Amsterdam by boat to the great Rijksmuseum for a reception hosted by the mayor and aldermen of the City of Amsterdam. Food and drink was consumed with abandon as people fanned out through the building to enjoy a private viewing of the paintings of Rembrandt, Vermeer, and other Dutch masters. Thursday evening the congress banquet was held in the historic West Indies House, from where the Dutch colonies in North America were governed — the most famous of which was a series of settlements along the Hudson River, which were eventually traded to England to become New York. The ethnic menus in the different 17th century rooms of the building were accompanied by period

cocktail cruise of the canals and harbor for a final farewell look at Amsterdam. Even the weather cooperated. What had been a very cold and wet summer in Amsterdam was punctuated with a near perfect week with regard to sun, lack of rain, and warm temperatures.

In addition to the activities of congress week, there was a pre-congress conference on marine isopods held in the Zoological Museum of Amsterdam, and a post-congress conference on amphipods that occurred in Kronenburg, Germany, not far from Amsterdam. For those who did the "full monty" of crustaceans, by August they were pretty well saturated. The congress organizers hoped, however, that in the process of meeting again with old friends and colleagues, making new acquaintances and discovering points of common ground, that everyone left Amsterdam with a renewed spirit of devotion to the animals we love so much — the Crustacea.

Submitted by Fred Schram

Second International Isopod Conference

The Second International Isopod Conference was held in Amsterdam, The Netherlands, on the 16-17 July, 1998, immediately prior to the Fourth International Crustacean Congress. We were hosted by Prof. Fred Schram at the Institute for Systematics and Population Biology of the University of Amsterdam. About 60 participants presented 37 papers of 20 minutes duration each, as well as about 10 posters. Attendees came from Australia, Brazil, Denmark, France, Germany, China (Hong Kong), Iceland, Italy, Japan, Mexico, The Netherlands, Portugal, Russia, Slovenia, Spain, and the United States. Topics were wide-ranging and showed a refreshing integration of marine, freshwater, and terrestrial groups. The most pervasive theme throughout the conference was the development of phylogenies based on cladistic methods. We heard presentations on molecular-based phylogenies of the Peracarida as a whole,

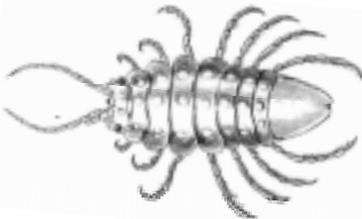


the Isopoda in general, the terrestrial Oniscidea, and the marine Serolidae, as well as morphology-based phylogenies of the Anthuridea, Phreatochoidea, Serolidae, and selected Cirolanidae genera. In addition, there were papers on ecological, biogeographic, reproductive, and biodiversity-related themes. A number of electronic databases and World-Wide-Web sites were demonstrated, which elicited lively discussion of the future of isopod (and crustacean) studies and the dissemination of data and results. Papers from the Conference will be gathered into a single volume of Crustacean Issues.

On the social front, the quite lavish Isopod Dinner was held in an old but picturesque convent near the Institute. The liquid refreshments were in abundant supply, so the after-dinner canal tour was lively and entertaining, ending in the red-light district. Tour-guide Fred Schram clearly has a future in the tourist industry; his knowledge of the history and architecture of Amsterdam is impressive. On a less formal level, the nearby Green Elephant pub saw a lot of isopod business, as post-presentation discussions were prolonged into the evenings.

Out of the Conference emerged a greater realization of the biological significance of the Isopoda, with over 10,000 described species, and occurring in almost every marine, freshwater, and terrestrial habitat. What also emerged was a clear need for greater collaboration and cooperation, especially in molecular studies, as well as a need for standardization of terms and especially for a stable chaetotaxy. Plans to achieve the latter are already underway. The next International Isopod Conference will be held in Sydney, Australia, in 2001.

Submitted by
Brian Kensley and Rick Brusca



Synidotea cornuta
(from O'Clair & O'Clair, 1998; see p. 9)

IXth International Amphipod Meeting

The IXth International Meeting on the Amphipoda (Amphipod Chatshop) took place in Kronenburg, Germany from 26-30 July 1998, and was led by Wim Vader, Adam Baldinger and Traudl Krapp-Schickel. The meeting directly followed the IVth International Crustacean Congress in Amsterdam. The small village of Kronenburg in the Eifel mountains of W. Germany formed a nice contrast to Amsterdam, where most participants had been the week prior. Thirty-five scientists from twelve countries on four continents took part in the amphipod meetings, some accompanied by their families whose presence increased the family atmosphere even more. The Amphipod Chatshop, was organized by Traudl Krapp Schickel (Bonn) and Wim Vader (Tromsø). The unpretentious title chatshop was chosen because no official lectures or contributed papers were given, instead the meeting concentrated on a series of moderated discussions on topics of common interest.

The discussions held were as follows:

27 July morning: "*Cladistic tools in amphipod taxonomy*," moderated by Jørgen Berge (Tromsø). Cladistic analyses are rapidly becoming a vital part in amphipod taxonomy, but many workers are still unfamiliar with the theory and methods of this discipline. Berge introduced this topic based upon his own studies. This resulted in a lively discussion, that included the peculiar problems posed by the mosaic-like evolution of the Amphipoda, coupled to their almost total absence from the fossil record. Virtually no agreement on what constitutes apomorphic characters impedes the search for suitable outgroups. Numerous ingroup taxa and only a few representative outgroup taxa, results in analyses that may become skewed, because the many closely related ingroup-taxa more or less swamp the character traits in the few outgroup taxa. The role of molecular studies and how to integrate such results into cladistic analyses currently generated mostly by morphological characters was also discussed.

27 July afternoon: "*What should a taxonomic description look like?*" moderated by Oliver Coleman (Berlin). Several years ago, Olli distributed a circular letter with the same title, asking for as complete illustrations as possible, and suggesting that written text concentrate on points insufficient for illustration. He maintained that "it is easier to understand a illustration than to visualize a written description." There was general agreement on the importance of complete and detailed illustrations, but many colleagues also stressed the significance of written descriptions, particularly to explain species variation. A researcher should discern between publications that involve new species descriptions and/or generic or family level revisions from the taxonomic keys produced for the general biologist or ecologists. Both types are of vital importance, but it was agreed upon that these publications can not easily be combined in one paper.

28 July morning: "*Amphipod information in an electronic age*," moderated by Alan Myers (Cork). A number of possibilities to distribute electronic information was discussed and included i.e.: the development of an amphipod website, that could serve as a gateway for the Amphipod Newsletter, now temporarily stalled; deposition of and easy access to regional taxa and their distribution lists; type specimens and their museum location; and illustrated interactive keys (hopefully in DELTA-format). A sizable number of technical problems and pitfalls was noted: Such a website requires constant service by an expert, a significant amount of time for a dedicated and altruistic researcher (several younger colleagues were named) and it will require resources. A problem with an easily accessible list is quality control, i.e.: who decides which entries are reliable, and will monitor and edit the taxonomic and distributional data? Stefan Koenemann (Norfolk, VA) promised to develop an amphipod homepage. Les Watling will scan Amphipod Newsletters 2-20 and Wim Vader has produced AN 21; all should be available soon to download on the web page.

28 July afternoon: "*Whither amphipod family-level taxonomy?*" This discussion

was introduced by Les Watling (Maine), who gave his views on the plesiomorphic amphipod and on the position of the Amphipoda among the Peracarida. Currently the classification of the Amphipoda is still in a state of flux; the schedules of Jerry Barnard and Ed Bousfield, often not very compatible and neither of them based on cladistic analyses, are still prevalent. Discussions revolved around the bush-like evolution of the Amphipoda and envious comparisons to the Isopoda where the general classification appears clearer. Not unexpectedly, the classification problems of the Amphipoda were not solved! However, it was suggested that a cladistic analysis of the amphipod families should have high priority, simply to give a general idea of the overall relationships, and to generate topics for further studies.

29 July morning: “*Uniformity of terminology*,” moderated by Oliver Coleman. The primary question of this session was whether this discussion is necessary at all in such that “we should not try to stifle colleagues by forcing everybody to use exactly the same terminology,” a thesis forcefully defended. However, descriptions should be unequivocal and unambiguous. As an example, the terminology of setae, spines and teeth was discussed. Les Watling announced that a workshop on this topic will be held in Maine in the summer of 1999.

29 July afternoon: “*Illustrations in taxonomic descriptions*.” This discussion was based on a note contribute by Kathy Conlan and Ed Hendrycks (Ottawa), with examples of good and poor illustrations,

and a set of guidelines that illustrations should adhere to. These guidelines were generally accepted as important, although it was pointed out that they were a bit “idealistic” and difficult to adhere to with increasing publication costs. Among the points mentioned often inadequately defined in present illustrations (and descriptions!) were the pleopods, the oostegites (form and number), and the characteristics of immature and juvenile animals.

“*Next amphipod meeting: when and where?*” moderated by Wim Vader (Tromsø). The next International Crustacean Congress will be held in Melbourne in 2001, and many participants voted for an amphipod meeting or an amphipod-isopod consortium prior to or after the Congress (Tasmania and Sydney were mentioned). The next European Crustacean Conference will be in Lodz, Poland in 2002. Most of the participants expressed interest in having an amphipod meeting prior to the Melbourne Congress. Wanda Plaitis (Kreta) offered a preliminary invitation to hold the next amphipod meeting on Kreta in the summer of 1999. It was decided to have the next amphipod meeting in 1999 and it should be in a regular format with contributed papers and invited lectures and posters. Wanda Plaitis, Wim Vader and Adam Baldinger are in the process of developing this proposal (PLEASE SEE BELOW).

In addition to the “chatshops,” ICC contributed posters were arranged at the Eifelhaus, and magnificent photographs of Antarctic and Lake Baikal amphipods were shown by Gauthier Chapelle

(Brussel). Also shown was a fascinating video on the biology of some amphipod species contributed by Les Watling. Ichiro Takeuchi (Japan) showed photographs from his Antarctic diving exploits. An evaluation of the chatshop format showed that most participants were satisfied with this informal meeting, especially when it is held directly following a large conference.

THE NEXT AMPHIPOD MEETING?

We are proposing to have the next amphipod conference at Heraklion, Kreta (Crete, Kriti), Greece. To organize the meeting, we ask your input in the following:

1. If you're interested in attending this meeting in Kreta, when would you prefer it to take place? August 1999, September 1999, Spring 2000. Please indicate why or give another suggestion.
2. Do you plan (now) to contribute a paper or poster at this meeting?
3. Please suggest topics and/or symposia that you would be interested in.

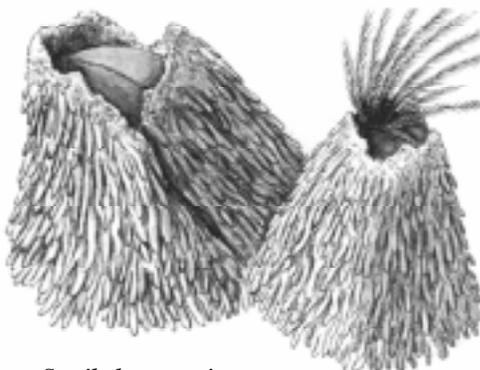
Please respond to Adam Baldinger (abaldinger@oeb.harvard.edu)

Submitted by Adam Baldinger



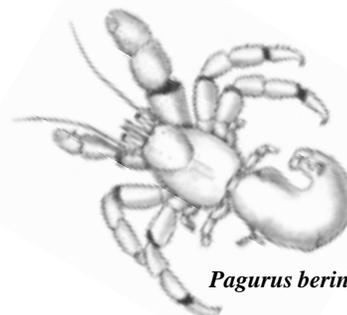
Maera danae

(from O'Clair & O'Clair, 1998; see p. 9)



Semibalanus cariosus

(from O'Clair & O'Clair, 1998; see p. 9)



Pagurus beringanus



International Crustacean Council (ICCoun)

Background:

Since the ICC-4 in Amsterdam was the first time that representatives of all the major crustacean societies were assembled together, a gathering of these people was arranged. These included the president and president-elect of The Crustacean Society, Dr. Jody Martin and Dr. Jens Høeg; the president of the Brazilian Society of Carcinology, Prof. Fernando d'Incao; the complete officer corps of the Crustacean Society of China, Profs. J.-Y. Liu, J.-H. Xiang, and F.-H. Li; the president and vice-president of GEREC, Dr. Pierre Noël and Prof. Frederick Schram; and the organizer of the next crustacean congress, ICC-5 in Melbourne, Dr. Gary Poore. Prof. Schram also invited Prof. K. Sakai to join the meeting and act as a representative for the Carcinological Society of Japan. The group established the International Crustacean Council, which is outlined below. The purpose of the ICCoun will be to oversee and coordinate the planning and scheduling of the international congresses, and to that end the ICCoun decided that the next congress, ICC-5, will occur in Melbourne, in 2001. Possible future venues were discussed, and a tentative site for ICC-6 was suggested for Rio de Janeiro in 2005. With the establishment of a 5 year cycle for the congresses it is hoped that the years in-between will attract regional and specialty group meetings. For example, the next European Crustacean Conference, ECC-4, will occur in Lodz, Poland in 2002. Thus, a 5 year cycle of congresses will insure that at least once in every Ph.D. student's tenure in graduate school they will have at least one international congress and one or more regional and/or specialty conferences in which to participate.

Article 1: Goals

The goals and objectives of ICCoun shall be as follows:

(1) To further interaction and cooperation among the Crustacean Society, the national

and regional societies of carcinology, and various specialty theme groups for the study of crustaceans.

(2) To coordinate and facilitate the scheduling of the International Crustacean Congress (ICC), and to harmonize this with national and regional conferences.

A **congress** is herein defined as a large meeting of international character, from which published proceedings are issued. A **conference** is herein defined as a small to modest size meeting of local or regional character, from which published proceedings need not necessarily come forth.

Article 2: Membership

The ICCoun shall consist of the presidents of The Crustacean Society, The Brazilian Society of Carcinology, The Carcinological Society of Japan, The Crustacean Society of China, and the Groupe d'Etudes et de Reflexion sur l'Evolution des Crustaces; the presidents of the immediate past International Crustacean Congress and the next pending and approved International Crustacean Congresses; and the Regional Governors of The Crustacean Society.

The presidents of any other national or regional crustacean societies as may exist, or develop in the future, and express an interest in participating in this initiative can be invited to join ICCoun.

Article 3: Officers

The chairman of the ICCoun shall be the president of The Crustacean Society. His or her duties will consist in receiving applications to organize future crustacean congresses, and coordinate the approval and scheduling of such congresses with the other members of the council.

The secretary of the ICCoun shall be president of the next immediate crustacean congress. His or her duties will consist of keeping the ICCoun informed of congress plans as they develop, and facilitating the

scheduling of any program activities during such congresses as the individual societies may wish to organize themselves such as symposia, socials, business meetings, workshops and such like.

Article 4: Business

The council shall meet during every international crustacean congress, and at other times conduct business through the post, fax, or electronic media.

The council shall pro-actively solicit bids to organize future congresses in a manner and degree that will facilitate long range planning for these events amongst members of the international carcinological community. Approval of future venues of the congress shall be done in the spirit of international cooperation and consensus designed to stimulate and ease communication within the community of crustacean scientists and societies.

Article 5: Calendar

The schedule of future crustacean congresses will be as follows: 2001, 2005, 2010, and every 5 years thereafter.

The use of the years "X"-2/"X"-3" and "X"-7/"X"-8" and such like thereafter shall be encouraged for special regional and thematic conferences as may be organized from time to time.

Frederick R. Schram
University of Amsterdam
Past-secretary, ICCoun



Publication News

Free Book on Hyperiid Amphipods

Jody Martin brings to our attention the following information regarding the availability of the classic book, "Hyperiid Amphipods (Amphipoda, Hyperideae) of the World Oceans," by M. E. Vinogradov, A. F. Volkov, and T. N. Semenova. This book, first issued in Russian in 1982 as part of the Fauna of the USSR series, is now available as a 1996 English translation edited by Douglas Siegel-Causey. Copies are available free by sending an e-mail request to Dr. Siegel-Causey at: dsiegel@nsf.gov

Animals of Southeast Alaska's Rocky Shores

I would like to bring to the attention of our membership a book that was published recently:

Southeast Alaska's Rocky Shores: Animals, by Rita M. O'Clair & Charles E. O'Clair. 1998. ISBN 0-9664245-0-6

Everyone I have talked to who has seen this book is effusive about it. It covers over 460 species of invertebrates and vertebrates that either live, feed or reproduce between tidelines on the rocky shores of Southeast Alaska, but the book will be useful from the Aleutian Islands, Alaska, to southern Oregon or beyond.

For each species, current scientific and recommended common names are given, along with latitudinal and bathymetric ranges and comprehensive anatomical and ecological information. The bulk of the information provided is taken from the published literature (emphasizing the past 15 years), but this is embellished by numerous observations made by the authors, their students, and their colleagues. Almost every species is illustrated with a fine black and white sketch that clearly shows diagnostic characters.

A special feature is a chapter on intertidal ecology using examples from the area,

including superb profiles comparing an exposed shoreline (such as at Sitka, Alaska) with a more protected shore (as at Juneau).

The back of the book has a formal species list, a bibliography of over 800 references, and an extensive index set in an easily read font size. The glossary is integrated with the text. This 564-page book will serve as an essential reference to the intertidal biodiversity of this area for many years to come. It is a steal at just \$29.95 (the authors, who have self-published this volume, receive no profit).

For U.S. orders: send a cheque or purchase order for \$29.95 plus \$4.00 shipping to:

Plant Press,
PO Box 210094,
Auke Bay, AK 99821-0094
U.S.A.

Foreign orders will need to include additional funds for shipping; inquire at your post office for the cost to mail the book either by surface or by air (your choice) from Alaska, U.S.A. The book weighs 4 pounds, 2.5 ounces.

Don't miss out on this wonderful book! Only 2,000 copies were printed and they are selling fast!

Contributed by Tom Shirley

Southern California Invertebrates

The Southern California Association of Marine Invertebrate Taxonomists (SCAMIT) has recently published the following update to its listing of marine invertebrates:

SCAMIT. (1998). A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates from Infaunal and Epibenthic Monitoring Programs in the Southern California Bight. Edition 3. 167 pp.

The above list is comprised of over 2000 species, of which more than 25% are Crustacea. In addition, approximately 6% of the crustacean taxa represent provisional (i.e., undescribed) species or species complexes.

The species list is in Portable Document Format (PDF) and may be downloaded as a self extracting zip file from the SCAMIT website. In addition, SCAMIT members receive a comb-bound, two-sided copy as a benefit of membership. For further information on membership or the above publication, please visit the SCAMIT website at www.scamit.com.

Important Changes in NSF Literature

Jody Martin informs the *Ecdysiast* that there have been some recent changes in documents that are important to anyone working on grant proposals to the National Science Foundation (U.S.). The changes are available on the NSF web site at www.nsf.gov, and are summarized below.

An updated version of the NSF Grant Proposal Guide (GPG) (NSF 99-2) and Proposal Forms Kit (NSF 99-3) has just been issued. These documents supersede the prior version of the GPG (NSF 98-2) and the Proposal Forms Kit (NSF 98-3).

The revised GPG is now available electronically in both ASCII text and PDF on the NSF Web site. HTML and Microsoft Word versions will be available in the near future.

This revision of the GPG contains many significant changes not only to specific NSF proposal forms but also with regards to the use of electronic systems in proposal preparation and submission of reports to NSF. Since these changes will be effective October 1, 1998, NSF strongly encourages potential proposers and grantees to review the electronic version of the GPG on NSF's Web site.

A complete summary of the significant changes is included on pages iii-v of the revised GPG.



The Crustacean Society Fall Elections, 1998

It's time for the TCS 1998 Fall Elections. Five offices are up for grabs this year, including that of Secretary, Treasurer, European Governor, Indo-Pacific Governor, and North American Governor. Each office is for a 2-year term beginning in 1999. As usual, we have a strong slate of candidates. Jeff Shields from the Virginia Institute of Marine Science is currently running unopposed to succeed Frank Barnwell as Secretary. Alan Harvey of Georgia Southern University is also running unopposed to continue as Treasurer. We have three candidates for European Governor, including Paul Clark of the Natural History Museum, London, Denise Bellan-Santini of the Centre d'Océanologie de Marseille, and Dieter Walossek of the University of Ulm. Colin Mclay of Canterbury University and Gary Poore (incumbent) from the Museum Victoria are running for Indo-Pacific Governor. Running for North American Governor are Frank Ferrari and Rafael Lemaitre (incumbent), both from the Smithsonian Institution. Please see below for brief biographies of the candidates.

Ballots are attached at the end of this newsletter, or if you prefer, you may vote via e-mail. We are hoping that this latter option will increase voter participation. Please take the time to vote for, or write-in, your favorite candidate, and therefore participate in the future of our society. The deadline to return completed ballots is **December 15, 1998**. Please mark your ballots and return them to: TCS Fall 1998 Elections, Care of: Dr. Jens T. Høeg, Department of Cell Biology and Anatomy, Institute of Zoology, University of Copenhagen, DK-2100, Copenhagen, Denmark. If you vote by e-mail, please place "TCS 1998 Ballot" in the **subject** line and send your selections to Dr. Høeg at jthoeg@zi.ku.dk.

SECRETARY

JEFFREY D. SHIELDS is Assistant Professor of Marine Science at the Virginia Institute of Marine Science. He has a B.A. in Aquatic Biology from the University of California, Santa Barbara, a M.S. in Parasitology from the University of California, Berkeley, and a Ph.D. in Aquatic & Population Biology from the University of California, Santa Barbara (1987). He is the list administrator for CRUST-L@VIMS.EDU, the mailing list for Crustacea, and MARINE_PATHOL@VIMS.EDU, for fish and shellfish pathology. He is a member of the American Association for the Advancement of Science, The Crustacean Society, National Shellfisheries Association, and The American Microscopical Society. His research interests are in: epizootiology of disease agents in marine invertebrates, taxonomy of parasitic organisms, and host-parasite relationships. Dr. Shields can be reached via e-mail at jeff@vims.edu, or you can visit his website at <http://www.vims.edu/~jeff/>.

TREASURER

ALAN W. HARVEY is an Assistant Professor of Biology at Georgia Southern University at Statesboro, GA. He has a B.Sc. in Biological Sciences from Stanford University and a Ph.D. in Ecology and Evolutionary Biology from the University of Arizona, Tucson. His research interests include phylogenetic systematics and biogeography of hermit crabs and related crustaceans, the evolution of larval settlement and metamorphic strategies in decapod crustaceans, various aspects of biological invasions of insular and continental ecosystems, and the theory of phylogenetic systematics. He is the current treasurer of TCS. Dr. Harvey can be reached via e-mail at aharvey@gsaix2.cc.gasou.edu or you can visit his website at <http://www.bio.gasou.edu/bio-home/Harvey/index.html>.

EUROPEAN GOVERNOR

PAUL F. CLARK is employed in the Department of Zoology, The Natural History Museum, London. His academic qualifications include a BSc (General) in Physiology and Zoology and a MSc in Modern Taxonomy, with Ph.D. study in progress at London University. He has served on a number of symposia committees, including: Underwater Association, Annual Symposium 1981-86, London, UK; Larval Forum, 2nd European Crustacean Conference, Liege, Belgium, September 1996; 6th Colloquium Crustacea Decapoda Mediterranea, Florence, Italy, September 1996; and the 2nd Crustacean larval conference to be held in Lisbon, Portugal in 1999. His publication record includes 42 papers, 1 book, several edited volumes and various other reports and publications. Scientific interests include using brachyuran larval characters to test adult phylogeny, taxonomy of xanthoid crabs, *Eriocheir sinensis* in the River Thames, and crustacean bibliographic history. Paul Clark can be reached via e-mail at pfc@nhm.ac.uk, or you the Natural History Museum homepage at <http://www.nhm.ac.uk>.

DENISE R. BELLAN-SANTINI is Directeur de Recherche CNRS Centre d'Océanologie de Marseille-France. She has a Doctor of Oceanography (1962) and a Doctor of Sciences (1969) from the University of Marseille. Memberships include the

Crustacean Society, Société Française de Systématique (Executive Committee), Société Française d'Ecologie (President), Società Italiana di Biologia Marina, Società Italiana di Ecologia, Society for Integrative and Comparative Biology, and the International Academy of Underwater Sciences and Techniques. Her research interests are in systematic phylogeny and ecology of amphipod crustaceans. Dr. Bellan-Santini can be reached via e-mail at bellan@com.univ-mrs.fr.

DIETER WALOSSEK is University Professor and Head of the Section for Biosystematic Documentation at the University of Ulm, Germany. He received his Dr. rer. nat. in Hamburg, 1983, and has held positions at the Paleontological Institute, University of Bonn and at the Zoological Institute, University of Kiel. He has been a full professor at the University of Ulm since 1995. His special interests are: crustacean and arthropod phylogeny in general, with more specific interests in entomostracan taxa, such as maxillopods and branchiopods, larval development, comparative morphology (especially limb structures, head shield, tagmosis), evolution of locomotory and feeding structures, integration of zoological and paleontological data, phylogenetic systematics after Hennig, and illustrative documentation. His current major activities include research on further 'orsten' fossils, cooperation on larval cycles of cirripedes, and comparative morphology of crustacean limbs in a phylogenetic perspective. Dr. Walossek can be reached via e-mail at dieter.walossek@biologie.uni-ulm.de, or you can visit the website <http://www.biologie.uni-ulm.de/biosysdoc/>

INDO-PACIFIC GOVERNOR

COLIN MCLAY is a professor in the Zoology Department at Canterbury University, New Zealand where he teaches marine invertebrate zoology and aquatic ecology. His research interests are: the systematics and phylogeny of podotreme crabs (primitive Brachyura), especially Dromiidae and Dynomenidae; comparative mating behaviour and strategies of the Brachyura; and ecology of New Zealand Crustacea. He is an ex-HoD (been there done that and survived) and a proud owner of a complete series of JCB from volume 1 onwards (no offers considered). Professor McLay can be reached via e-mail at c.mclay@zool.canterbury.ac.nz.

GARY C.B. POORE is Curator of Crustacea at Museum Victoria, Melbourne, Australia (since 1979) and before that research scientist in the Victorian Department of Conservation. His primary research goals are the systematics and identification of marine invertebrates, especially Crustacea, and the methods for description of the biodiversity of marine benthic communities. He is responsible for the direction of a department engaged in research on crustacean systematics, management of Victoria's taxonomic collection of Crustacea, and surveys of marine environments. He manages several large government grants and contract work which addresses marine environmental issues. Dr. Poore is author of over 60 major papers in international journals on the systematics of Crustacea, mainly from Australia, including significant reviews of families and genera and descriptions of many new species of Isopoda, Amphipoda, other Peracarida and Decapoda; and of 24 reviewed papers and several reports on biodiversity, biogeography and the description of benthic communities. He has been leader on three Franklin cruises in southeastern Australia. He is the present Indo-Pacific governor of the TCS. Dr. Poore can be reached via e-mail at gpoore@mov.vic.gov.au, or you can visit Crustaceans of Southern Australia at <http://www.mov.vic.gov.au/crust/>.

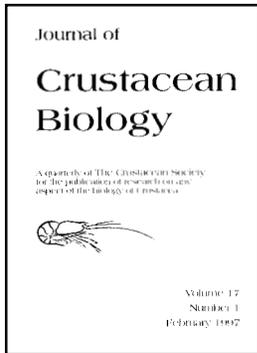
NORTH AMERICAN GOVERNOR

FRANK D. FERRARI is Research Zoologist at the National Museum of Natural History, Smithsonian Institution, Washington, DC. He has a B.S. in Biology from Hobart College, an M.S. in Marine Biology from Boston University, and a Ph.D. in Oceanography from Texas A&M University (1974). He is a member of the American Society of Limnology and Oceanography, Biological Society of Washington, Sociedade Brasileira de Carcinologia, The Crustacean Society, Estuarine Research Foundation, Japanese Society of Systematic Zoology, Oceanography Society, Plankton Society of Japan, Sigma Xi, and the World Association of Copepodologists. His research interests are in the evolution and ecology of crustaceans. Dr. Ferrari can be reached via e-mail at ferrarif@simsc.si.edu.

RAFAEL LEMAITRE is a Research Zoologist at the Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, DC. He obtained his Ph.D. in Biological Oceanography from the University of Miami in 1986. Research interests include the taxonomy, systematics and biogeography of decapod crustaceans in general, and of paguroids in particular. He has been involved over the years in field studies of the crustacean fauna from the Caribbean, and in worldwide systematic studies of the deep-water hermit crabs of the family Parapaguridae. He is associate editor of the Proceedings of the Biological Society of Washington, and the Journal of Crustacean Biology. He also serves as adjunct faculty in the Department of Biology, University of Southwestern Louisiana, and is the present North American governor of the TCS. Dr. Lemaitre can be reached via e-mail at lemaitre.rafael@nmnh.si.edu.



Editor Search, Journal of Crustacean Biology



The search for a new editor for the JCB is currently in progress, with four and perhaps five candidates having submitted formal applications at this time. The search committee, headed by Dr. Les Watling of the Darling Marine Center, will review the applications and have a nomination for the TCS Board at its next meeting in January 1999.

TCS E-mail Directory Changes

The TCS E-mail Directory was first published in the May 1996 issue of the *Ecdysiast* (Vol. 15, No. 1), although it included only those members that had responded to previous queries. Since then, changes and additions have been printed in subsequent issues of the newsletter. If your address or contact numbers have changed or you have not been included previously in the directory, please send the appropriate information to Tim Stebbins, *Ecdysiast* Editor.

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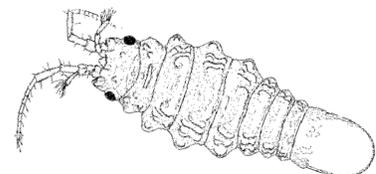
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Contributions to the Ecdysiast

The *Ecdysiast* is published twice a year and mailed with the May and November issues of the *Journal of Crustacean Biology* (published and mailed by Allen Press, Lawrence, KS). Submissions for the spring (May) newsletter should be in by mid-March, while those for the fall (November) newsletter should be in by mid-September. This allows the editor to compile, produce, print and ship the newsletters to Allen Press in time to meet the *JCB* mailing deadlines.

Anything of interest to the TCS membership is welcome, including notices of upcoming meetings and symposia, regional updates, research and job opportunities, important research findings, new publications, other related societies, and basically all things crustacean. Although contributions may be submitted in any form, electronic submissions via e-mail are preferred and strongly encouraged. This saves the editor an enormous amount of time and minimizes transcription errors in the process. Graphic images should be submitted on disk or camera-ready copy by mail. Camera-ready graphics will probably be scanned into the final document. This edition of the newsletter was prepared using PageMaker 6.5 for the Mac; graphics were scanned and then modified using either Deskpaint or Photoshop. Submit all materials directly to the editor via e-mail (tds@mwharbor.sannet.gov) or at the address listed at the bottom of page 1 of this newsletter (Tim Stebbins, *Ecdysiast* Editor).

Upcoming Meetings & Symposia

TCS Winter 1999 (Denver, Colorado)

The 1999 Winter Meeting of TCS will be held from January 6-10 in Denver, CO, in conjunction with the Society of Integrative and Comparative Biology (SICB). See the SICB website for full details: <http://www.sicb.org>

TCS Summer 1999 (Lafayette, Louisiana)

The 1999 Summer Meeting will be held from May 26-30, 1999 in Lafayette, LA. The local contact for the meeting is Darryl Felder. A detailed information and reservation packet is attached to this newsletter, beginning on page 14.

TCS Winter 2000 (Atlanta, Georgia)

The 2000 Winter (January) Meeting of TCS will be held in Atlanta, GA in conjunction with SICB.

TCS Summer 2000 (Puerto Vallarta, Mexico)

The 2000 Summer Meeting will be held in Puerto Vallarta, Mexico. The meeting will be hosted by Elva Escobar-Briones of the Universidad Nacional Autonoma de Mexico (UNAM).

TCS Winter 2001 (Chicago, Illinois)

The 2001 Winter (January) Meeting of TCS will be held in Chicago, IL in conjunction with SICB.

TCS Summer 2001 (Melbourne, Australia)

The 2001 Summer Meeting will be held in Melbourne, Australia. The meeting will be hosted by Gary Poore of the Museum of Victoria.



Western Society of Naturalists December 26-30, 1998 (San Diego, California)

The 79th Annual Meeting of the WSN will be held in San Diego, California from December 26-30. The local host for the meeting will be Dr. Mia Tegner of the Scripps Institution of Oceanography. For information on symposia and registration, please visit the WSN website at: www.csun.edu/wsn

IV. Workshop on Crabs and Their Environment

&

I. Argentine Carcinological Meeting April 5-8, 1999 (Buenos Aires, Argentina)

For additional information, please see the announcement and registration form beginning on page 21 of this newsletter.

Second International Symposium on Krill August 23-27, 1999 (Santa Cruz, California)

We are pleased to announce the Second International Symposium on Krill, 23-27 August 1999 on the campus of the University of California Santa Cruz.

The purpose of this symposium is to review current knowledge of krill biology, to highlight gaps and future areas for research, and to show how the study of a range species of krill can illuminate more general problems (for example krill flux, recruitment, swarming behavior, age and growth). The sessions (and invited speakers) are:

Krill demography, life history, and genetic diversity (V. Siegel, Germany; Vassily Spirodonov, Germany; T. Paternello, Italy; E. Pakamov, South Africa)

Krill development, growth, reproduction and aging (N. Iguchi, Japan; S. Nicol, Australia; J. Cuzin-Roudy, France)

Krill physiology, metabolism nutrition and energetics (L. Quetin, USA; F. Buchholz, Germany; R. Perissinoto, South Africa; Y. Nishino, Japan; P. Mayzaud, France; S. Falk-Petersen, Norway; A. Clarke, UK)

Krill behavior: swarming, vertical migration, foraging and antipredator mechanisms (W. Hamner, USA; D. Ritz, Australia; L. Madureira, Brazil; J. Watkins, UK; A. Brierley, UK)

The opening talk will be given by D. Miller (South Africa). Each day will include invited and contributed talks and poster sessions. Proceedings of the meeting will be published; contributors will be expected to arrive with disk and hard copies of their papers.

A call for contributed talks will occur in fall 1998. Special support will be available for young investigators and students. Further communication will occur electronically, either at the web site:

http://www2.ucsc.edu/people/msmangel/Krill_Symposium.html

or by contacting Marc Mangel by email at msmangel@cats.ucsc.edu.

International organizing Committee: M. Mangel, S. Nicol, J. Cuzin-Roudy, Y. Endo, D. Miller, R. Ross, V. Siegel and J. Watkins.

Local host Committee: S. Barnett, D. Croll, M. Mangel, and B. Marinovic.

7th Colloquium Crustacea Decapoda Mediterranea (7CCDM)

&

2nd Crustacean Larval Conference September, 1999 (Lisbon, Portugal)



The 1999 Crustacean Society Summer Meeting May 26-30 — Lafayette, Louisiana USA

Hosted by

The University of Southwestern Louisiana (Laboratory for Crustacean Research and Office of Environmental and Energy Technology Application Programs)

(with the generous support and assistance of)

the USGS National Wetlands Research Center, the Louisiana Universities Marine Consortium, USL Crawfish Research Center, the International Association of Astacology and the National Museum of Natural History—Smithsonian Institution

Meeting Site: The meeting will center in the The Hotel Acadiana (Best Western), 1801 W. Pinhook Road, Lafayette, LA, located about 2.5km from the University of Southwestern Louisiana campus and 4 km from the Lafayette Regional Airport. It is in walking distance of USL campus facilities, many restaurants, fast food outlets, taverns, parks and shopping centers. In Lafayette, dress and atmosphere are casual, food is great, music is unique, and people are friendly, as is typical in this region of Cajun French Louisiana.

Lodging: The Hotel Acadiana (Best Western) has set aside a limited block of rooms for our use at \$72 per night (excluding local taxes); these can be reserved for single or shared use (up to 4 persons) and are convenient to meeting rooms and social events. To reserve a room there, mail or FAX the enclosed registration form or contact the Hotel Acadiana directly by using the local phone number 318-233-8120 or the FAX number 318-234-9667. To receive the TCS room rate, be sure to indicate that you are attending the 1999 TCS Summer Meeting. A number of alternative hotels are located within short walking distance from the meeting hotel, and may be contacted for reservations should our needs exceed the number set aside at The Hotel Acadiana. Included among these are some options with less amenities and lower room costs. To request a list of these, please contact Ms. Mona Pomier by e-mail (mpomier@usl.edu) or FAX (318-482-5660).

Transportation: Lafayette is served by three major airline hubs, Houston, Dallas and Atlanta, through which international flights are routed; direct commuter airline links from these hubs are provided by several airlines serving Lafayette (Continental, American, Northwest and Delta airlines). National and regional flights of these carriers are also routed through the aforementioned hubs and Memphis, or may be scheduled as direct flights from a few other regional locations. By auto, Lafayette is located about 2.5 hours west of New Orleans and 1 hour west of Baton Rouge on Interstate Highway 10 (I-10), and 3.5 hours east of Houston on I-10. The Hotel Acadiana is located about 4 km from the Lafayette regional airport. Shuttle service is available from the airport directly to the hotel; upon arrival, find the courtesy phone near the baggage area, push the button for the Hotel Acadiana, and you will be directly connected so you can request shuttle service. Return shuttle service can be requested at the hotel. Otherwise taxi service is generally available if called for by phone. Rental cars are available at the airport through Avis, Hertz, or National; advance booking may be required. For those departing from the airport by rental car, you will exit the airport property on Blue Blvd which you will follow to first lighted intersection; there go left on Surrey to first lighted intersection, there left on Hwy 90 East to first lighted intersection, there right on Kaliste Saloom Rd (for 1.2 mi/2 km) and there right on Pinhook Rd (for 0.3 mi; 0.5 km); entrance driveway to hotel is just beyond "Shoney's". To access it from I-10, traveling from east or west, exit at the I-49/Hwy 167/Evangeline Thruway exit (exit no. 103A), travel south on Evangeline Thruway toward the city and past the airport on Evangeline Thruway (which becomes Hwy 90) to the Kaliste Saloom Rd exit, turn right and follow the directions above beginning after underline.

Registration: Preregistration and advance purchase of banquet tickets (by submission of form in this newsletter, with payment) is strongly encouraged to facilitate meeting arrangements. Advance payment by check is preferred. Alternatively, a form is provided for payment of registration fees by Visa, Mastercard, or Discover Card. In either case, do not combine payment for registration fees with payment for hotel reservations. On-site issuance of badges, printed programs and meeting packets, along with late registration, will be conducted in the Hotel Acadiana lobby 4:30 – 8 pm on Wednesday, May 26; 7:30am – 3pm on Thursday, May 27, and 7:30am – 12 noon on Friday, May 28.

Oral presentations and poster sessions: All speakers (invited and contributing) and presenters of contributed posters must complete and submit the Abstract Transmittal Form (including diskette) and the Preregistration Form, as furnished in this issue of the newsletter or as downloaded from our website. Unless otherwise arranged, payment must accompany the preregistration form. Oral presentations will be scheduled for 12 minutes, with 3 minutes for questions; time limits will be enforced strictly. Speakers are encouraged to use the 35mm slide (Kodak Carousel) projectors that will be provided (with operators and remote controls) in meeting rooms; overhead projectors can be readily provided if requested. Any other A/V requests will require special arrangements and adequate advance notice; requests should be noted on the margin of the abstract form and submitted to the Program Chair, by any of the means noted in the last item below. Posters will be limited to no more than 48x72 “ (124 x 186 cm) displays; use of a 40x60” format is encouraged, if possible; push pins will be provided for mounting.

Sessions and Symposia: In addition to our typically varied contributed paper/poster sessions on all aspects of crustacean biology, a symposium honoring the contributions of Dr. Raymond B. Manning will include blocks of invited papers on “*Biology of Stomatopods*”, “*Biology of Tropical Decapods*” and “*Biology of Thalassinideans and their Symbionts*”. Other symposia include invited papers on “*Applications of Molecular Genetic Techniques in Crustacean Biology*” and “*Mortality in Populations of the Blue Crab, Callinectes sapidus*”. Where time allows, contributed papers on related subject matter may be grouped into some symposium sessions. It is anticipated that contributed papers on biology of freshwater crayfish, including those submitted by participating members of the *International Association of Astacology*, will also be grouped into a special session.

Coffee Breaks: Mid-morning complimentary coffee breaks will include light snacks, coffee, fruit juices and lemonade; afternoon breaks will be limited to the beverages. All will be served adjacent to poster displays, and are available only to registrants wearing proper identification badges.

Social Events: A welcome social, concurrent with the opening registration period, will feature complimentary beer, wine, and snacks (and a cash bar) on Wednesday (May 26) evening from 5–8pm in the Courtyard adjacent to the registration area; also free-of charge, Cajun Hospitality will be featured on Thursday (May 27) evening from 5:30–10:00 pm on grounds of the USL Alumni House (St. Mary Street, about 1.5 mi/ 2.5 km from the hotel), with Cajun-style boiled crawfish and sausage, fried turkeys, and trimmings, complimentary beer and wine, all to the music of the Cajun band, Les Freres Michot (so bring your dancing shoes!); while no official social is scheduled for Friday (May 28) evening, and you are encouraged to sample the local restaurant fare, the young and young-at-heart may want to kick off the evening at a public street party from about 5–8 pm called *Downtown Alive*, a Lafayette tradition on each Friday evening, featuring a live band and dancing or just visiting in the streets, with beer and snacks available for purchase (about 2.1 mi/3.5 km from the hotel; directions will be furnished with packets). The Saturday evening honorary banquet will be preceded by a Happy Hour with complimentary beer and wine from 6:30–7:30 pm prior to opening of the dinner buffet line. Following the banquet, participants may elect to close out the evening with music and dancing in the Hotel Acadiana’s in-house club called Scandal’s, or (weather permitting) assemble in the Courtyard area adjacent to the pool for a last-night visit among old and new friends.

Manning Honorary Banquet and Program: The buffet banquet will feature selections of chicken, pork, and crawfish prepared in regional style, accompanied by salads, vegetables, potatoes, bread, desserts, wine tea and coffee. A short program will follow, including special ceremonies in which Dr. Raymond B. Manning is recognized by The Crustacean Society for his career-long contributions to studies in crustacean biology and for his leadership in building of the Society.

Lunches: Light luncheon buffets (soup, salad, sandwiches and drinks) on both Thursday and Friday will be provided in the Hotel Acadiana without charge to registrants (covers both days); these are available to only registered meeting participants and registered spouses. This will allow a quick lunch break on site and prompt resumption of sessions in the early afternoon for each of these days. Saturday lunch will be on your own, and can be purchased in the hotel café or from an ample selection of fast-food outlets and restaurants in short walking distance or drive from the hotel. However, you may need to budget the time you allow for this if you are scheduled for an afternoon field trip departure.



Field trips: Field trips will be scheduled only if adequate interest is indicated on preregistration forms and may be subject to group size limitations. It is anticipated that the Saturday afternoon trip to area crawfish farms and peeling plants will be a bus trip led by Dr. Jay Huner and associates of the USL Crawfish Research Center; costs, if any, will be a modest fee for bus use. The offered tour of Atchafalaya Basin swamps is a commercially operated boat ride for tourists, mainly to see alligators and other wildlife; the cost will depend upon the number of interested participants, but is estimated to run about \$ 10/person. Coastal field trips to marshes and embayments will require a full day and must all be deferred to Sunday, May 30, given the combination of roadway distances and boat travel involved; participants in these trips that will be departing Lafayette by airline connection should anticipate spending Sunday night in Lafayette and departing on Monday, May 31. Additional options may be arranged prior to the meeting and announced on our webpage and in the final program.

Preliminary Schedule of Events:

Wednesday, 26 May: Registration and evening Welcome Social [registration beginning 4:30pm]

Thursday, 27 May: Registration; general Sessions and Molecular Techniques Symposium; sponsored evening “Cajun Hospitality” happy hour [registration beginning 7:30am, sessions at 8:30am]

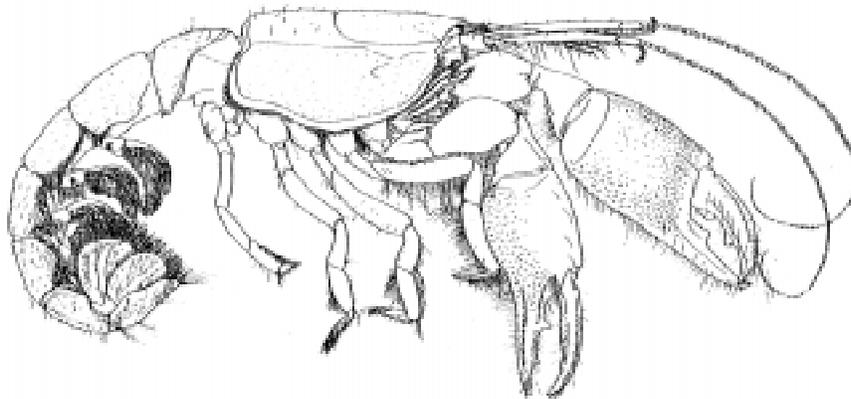
Friday, 28 May: Registration; symposium Honoring Dr. Manning; evening “Downtown Alive” and unscheduled time to experience local food and culture of Acadiana

Saturday, 29 May: General Sessions and Blue Crab Mortality Symposium; afternoon short field trip options; evening banquet and program in honor of Dr. Raymond B. Manning

Sunday, 30 May: Optional coastal and marine field trips

International Student Financial Assistance: Given the cost of international travel, students traveling from overseas or South/Central America may qualify for funds to cover the costs of their meeting registration and the banquet. Though unconfirmed at this writing, these students may also qualify for inexpensive, subsidized housing on the USL campus. Please note that these alternatives can be requested by only international student participants who preregister for the meeting. The amount of this support is limited, and requests may exceed availability. Inquiries should be directed to the Program and Local Arrangements Committee, by any of the means noted below.

For additional information you are invited to contact Dr. Darryl L. Felder, Chair, Program and Local Arrangements Committee (address as on form below); tel. (318)-482-6753; FAX (318)-482-5834; e-mail: dlf4517@usl.edu. Also watch for further announcements, registration forms, and program updates on our developing web page (<http://www.usl.edu/Departments/Biology/TCS/>).



TCS Summer Meeting – Lafayette, Louisiana, USA

(see webpage at <http://www.usl.edu/Departments/Biology/TCS/>)

May 26-30, 1999

Preregistration Form

(you must register to present or attend sessions; preregistration deadline is February 15, 1999)

Name to appear on badge: _____

Institutional affiliation, as to appear on badge: _____

Your mailing address: _____

Work phone: _____ Home phone: _____

FAX: _____ E-mail: _____

<u>Number</u>	<u>Item</u>	<u>Total US\$</u>
_____	TCS Member registration @ \$75 (add \$20 after February 15, 1999)	_____
_____	Nonmember registration @ \$85 (add \$20 after February 15, 1999; *join to get rate above)	_____
_____	Registrant's spouse badge @ \$20 Spouse name: _____ (for socials only; allows lunch and purchase of banquet tickets; not for admission to talks or poster sessions)	_____
_____	Welcome reception, Wednesday evening	[Free to registrants]
_____	Cajun Hospitality (food and music) Thursday evening	[Free to registrants]
_____	Thursday and Friday luncheons	[Free to registrants]
_____	Saturday night banquet honoring Dr. Manning @ \$25	_____

TOTAL ENCLOSED _____

[Enclose check made payable to "TCS" in US \$, or enclose completed Credit Card Registration, last p. of newsletter]

Are you interested in *possible* Saturday afternoon or Sunday field trips or recreational activity in the Lafayette area? If so, mark those of interest below; this survey will determine which are to be scheduled; modest costs may apply for some, and will be communicated to you prior to your confirmation:

- _____ Saturday afternoon trip to crawfish farms and peeling plants of "Cajun" Louisiana
_____ Saturday afternoon *commercially run* tour of Atchafalaya Basin swamps
_____ Sunday tour of coastal marshes and embayments, Vermilion Bay or Terrebonne/Barataria System
_____ Saturday afternoon soccer, tennis, or _____ matches (circle or write in)

Please mail forms and payment to:

TCS c/o Mona Pomier
Dept. of Biology
University of Southwestern Louisiana
Lafayette, LA 70504-2451 USA

Phone: (318) 482-6626
FAX: (318) 482-5660
E-mail: mpomier@usl.edu

*Become member with JCB subscription for \$75 (\$20 without JCB) by enclosing separate check to "TCS"

TCS Summer Meeting - Lafayette, Louisiana, USA

(see webpage at <http://www.usl.edu/Departments/Biology/TCS/>)

May 26-30, 1999

Abstract Transmittal Form (for invited or contributed papers; to attend without presenting paper, use only opposite side)

Please complete (typewritten in English or Spanish) and return by February 15, 1999 to: TCS, c/o Ms. Mona Pomier, Department of Biology, University of Southwestern Louisiana, Lafayette, LA 70504 USA. Acknowledgement of abstract receipt will be sent by e-mail.

Author(s), last name first: _____

Institution of first author: _____

Address of first author: _____

Phone: _____ FAX: _____ E-mail: _____

Format (check one): contributed oral presentation; contributed poster presentation
 invited oral symposium presentation (if so, indicate which below)
 Manning honorary symposium; Blue crab mortality; Molecular methods
Is paper eligible/entered for TCS best student paper award? A/V needs: _____

Abstract: Please use type no smaller than 12 pitch or 10 point. Submit the abstract **BOTH** on diskette and as a hard copy. Software must be IBM compatible (either Word or Wordperfect). The entire abstract must fit within a 4 x 5" (10.2 x 12.7 cm) box, as in example below. Punctuate and style as below; underline name of speaker for oral presentations. Use numbered footnotes to indicate multiple institutional affiliations of authors. Use all capital letters for title. Underline species names; do not type in Italic.

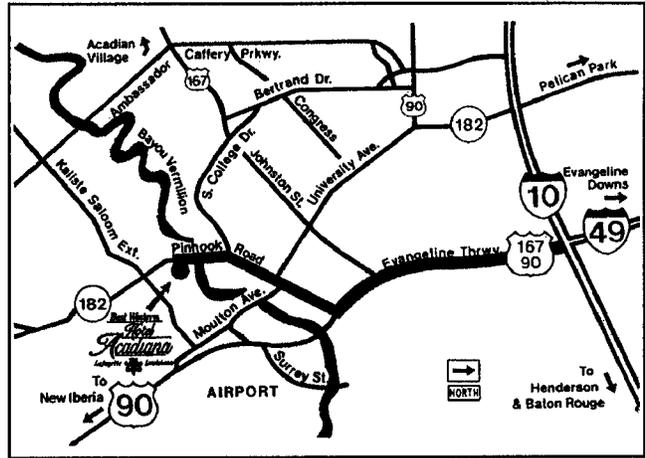
¹Wehrtmann, Ingo, Jaime ²Cortés, and Jaime ³Garzón-Ferreira. ¹Inst. de Zoología, Univ. Austral de Chile, Valdivia, Chile; ²CIMAR, Univ. de Costa Rica, San Jose, Costa Rica; ³INVEMAR, Santa Marta, Colombia. EGG PRODUCTION IN THREE TROPICAL ROCK-BORING SNAPPING SHRIMPS (ALPHEIDAE).

Most studies concerning rock-boring shrimps deal with possible excavation mechanisms and cavity architecture. Detailed information regarding their reproductive biology is mostly lacking. We describe reproduction in Thunor saxidomus and...

I have a reservation at
The Hotel Acadiana on _____

Check in time 3 p.m.
Check out time 12 noon

Best Western Hotel Acadiana
1801 W. Pinhook Road
Lafayette, LA 70508
318-233-8120/1
800-826-8386
In Louisiana 1-800-874-4664



Cut off this portion for your personal records; copy it for your records if you are paying registration fees by credit card with the form on reverse side

(Room Reservation Request – cut here, fold and mail to hotel)

THE CRUSTACEAN SOCIETY 1999 SUMMER MEETING
GROUP 1739

Deadline: 5/5/99

Arrive: 5/ __ /99

Depart: 5/ __ /99

Guest Name _____

Address _____

City _____ Zip _____ Phone _____

Date of Arrival _____ Time of Arrival _____ Date of Departure _____

ROOM TYPE:

- _____ 1 Person \$72
- _____ 2 Person \$72
- _____ 3 Person \$72
- _____ 4 Person \$72

Suite Rates Available Upon Request

- Hold until 4:00 pm
- Guaranteed by the following:
 - Cash Deposit _____
 - Credit Card Type _____
 - Number on Card _____
 - Exp. Date _____
 - Name on Card _____



Check-In Time 3:00 p.m. - Check-Out Time 12:00 p.m.
1801 W. Pinhook Road • LAFAYETTE, LOUISIANA 70508
OFFICE: 318-233-8120 / 8121 1-800-826-8386
IN LOUISIANA 1-800-874-4664

Optional *Credit Card Registration* Form [use only to pay registration fees and only if you cannot pay by check in US\$]
If you elect to use this payment method, please enclose with completed **Preregistration Form** and mail both to:
TCS c/o Ms. Mona Pomier, Dept. of Biology, University of Southwestern Louisiana, Lafayette, LA 70504-2451 USA
[Important: Do not mail registration forms or registration payments to hotel; do not mail room reservation requests/payments to Ms. Pomier]

Total amount of credit card payment in US\$ _____
(should equal "Total Enclosed" on Preregistration Form)

Cardmember's Signature (sign here); Cardmember herewith acknowledges receipt of services in the amount shown hereon and agrees to perform obligations set forth by the cardmember's agreement with the issuer

Credit Card Type (circle one below):

VISA MASTERCARD DISCOVER

Name on Card: _____ Number on Card: _____
Expiration Date on Card: _____

-----cut-----

-----fold here-----

stamp

Best Western Hotel Acadiana
1801 W. Pinhook Road
Lafayette, Louisiana 70508
USA

IV. Workshop on Crabs and their Environment / IV. Taller sobre Cangrejos y Cangrejales (4th. TCC).
and
I. Argentine Carcinological Meeting / I. Jornadas Argentinas de Carcinologia (1st. JAC).
Buenos Aires, Argentina. April 5-8, 1999

Dear Colleagues,

We look forward to welcoming you to Buenos Aires for the “4^{to}. Taller de Cangrejos y Cangrejales” and the “1^{ras}. Jornadas Argentinas de Carcinología”, to be held 5-8 April 1999.

The 4th. TCC is a follow-up of the 1st., 2nd. and 3rd. Workshops held respectively in Buenos Aires (Argentina), Mar del Plata (Argentina) and Rio Grande do Sul (Brazil). In this opportunity the 4th. TCC will also host the 1st. Argentine Carcinological Meeting.

We invite all carcinologists interested in South American fauna to come to Buenos Aires and to participate with oral presentations and/or posters.

To register, please complete and return the registration form below by ordinary mail or e-mail.

Registration form

(Please complete in block capitals)

Last name:

First name(s):

Title (please circle): Prof./ Dr./ M.Sc./ Mr./ Ms.

Organization:

Department:

Full postal address:

Post/Zip Code:

Country:

Phone:

Fax:

E-mail:

I wish to register as:

Regular registrant (US\$ 30.00.-)

Student (US\$.10.00.-)



I will present:

a conference
an oral communication
a poster

relevant to:

Crabs and their environment (4th TCC)
Other crustaceans (other groups except Brachyura) (1st JAC)

Please send the following form by return mail to:

Dr. Carlos M. Luquet
4th TCC - 1st JAC
Departamento de Biología
Facultad de Ciencias Exactas y Naturales
Universidad de Buenos Aires
Ciudad Universitaria - Núñez
(1428) BUENOS AIRES
ARGENTINA

or

E-mail: insc_carcinohotmail.com
Fax: (54 1) 576 3384

By filling in and sending back this form, you will insure the receipt of the 2nd announcement

BALLOT



The Crustacean Society Fall Elections, 1998



**Deadline for return of ballots is
December 15, 1998**

Please mark or write in your choice of candidate for each of the TCS offices below, fold, staple, affix a stamp, and mail to Dr. Jens Høeg at the address on the reverse of this form. If you prefer, you may vote via e-mail by placing "TCS 1998 Ballot" in the **subject** line and sending your selections to Dr. Høeg at jthoeg@zi.ku.dk

THANKS FOR TAKING THE TIME TO VOTE!!!

SECRETARY

_____ Jeffrey D. Shields
_____ other (write in) _____

TREASURER

_____ Alan W. Harvey (incumbent)
_____ other (write in) _____

EUROPEAN GOVERNOR

_____ Paul F. Clark
_____ Denise R. Bellan-Santini
_____ Dieter Walossek
_____ other (write in) _____

INDO-PACIFIC GOVERNOR

_____ Colin Mclay
_____ Gary C.B. Poore (incumbent)
_____ other (write in) _____

NORTH AMERICAN GOVERNOR

_____ Frank D. Ferrari
_____ Rafael Lemaitre (incumbent)
_____ other (write in) _____

Please detach, fold, staple, stamp and mail you ballot.

Staple

Fold 2

Place
Stamp
Here

TCS Fall 1998 Elections

Care of: Dr. Jens T. Høeg

Department of Cell Biology and Anatomy

Institute of Zoology

University of Copenhagen

DK-2100, Copenhagen Denmark



Fold 1