



The Ecdysiast

Newsletter of The Crustacean Society

Message from the President...

Welcome TCS colleagues,

Well, two years has flown by like fruit flies in a gale, and I find myself at my last Ecdysiast editorial as President of TCS. I wanted to spend these few lines to address two important issues: one, the recent highly successful TCS/ALCARCINUS meeting in Costa Rica and two, our looming membership crisis!

I think I speak for everyone who attended the summer TCS meeting (July 2013), held in conjunction with the Association of Latin American carcinologists (ALCARCINUS), in San Jose, Costa Rica, that it was a truly excellent and remarkable meeting. Not only was it a nice hotel venue with good food and convenient presentation rooms, but it was superbly executed without any of the usual meeting hassles. The meeting was well attended, especially by students from Latin America (as planned). There were many memorable social gatherings, formal and informal, and the excursions were exquisitely organized and run. Ingo Wehrmann and his co-organizers from Costa Rica and ALCARCINUS deserve our thanks for an excellent meeting that was not only a fruitful carcinological meeting, but an important cultural exchange and historic gathering (the first TCS/ALCARCINUS joint meeting). It will serve as a model, and a challenge, for future joint ventures. So, keep your eye out for future TCS/ALCARCINUS events and if you missed this one – don't miss the next! Thanks Ingo and colleagues!

My next topic is more dour and dire and relates to dwindling TCS membership. Like many societies worldwide, small or large, scientific or amateur, enrolling and maintaining significant membership numbers has become difficult. The benefits of society membership are less obvious, and perhaps not as treasured or sort after, as they were in the past. One of the principal ones, which was access to and authorship in, flagship society journals, has been circumvented by the expansion of publications onto the web, via pay for access or free access venues. Why be a TCS member when you can get JCB, and all its contained papers, via your institutional library subscription? Why publish in JCB when you can access myriads of other, well-respected, journals that will take crustacean papers, without being a member? The answer to both questions is quite simple. By being a member you support your field, your colleagues, your society and your journal, JCB. There are many other tangible benefits of TCS membership, including cheaper registration at meetings (even non-TCS meetings in some cases), access to crustacean resources and people, scholarships and awards for

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student members, and even exclusive access to the much sort after TCS shirts, hats and pins! Seriously though, if TCS continues to lose members at the current steady rate of attrition, we will reach a critical low mass in about a decade and the society may not be able to exist in its current form, including afford to run and publish JCB.

So, I urge you to maintain your current membership in TCS and become active in promoting new membership amongst your colleagues and students, or renew your lapsed membership and reconnect with your society and colleagues and support TCS and JCB, or join TCS for the first time and bask in the glory and camaraderie that is TCS. However you achieve it, support TCS and your flagship journal – JCB, promote both and the benefits of membership and attend our annual meetings with your friends, family and students. See you at SICB in Austin, TX (<http://www.sicb.org/meetings/2014/>) and the mid-year TCS/ICC meeting in Frankfurt, Germany (August 18-23, 2014), and don't forget to visit the TCS website (<http://www.thecrustaceansociety.org/>) for updates on your society, future meeting news, our illustrious history, crustacean resource links, donation and membership pages, and information about publishing in JCB.

Sincere regards from your soon-to-be Ex-President (2012 -2013),

Chris Tudge



The Chris's

The Crustacean Society Graduate Student Fellowships and Scholarships

The Crustacean Society Board is pleased to solicit applications from graduate students for the following monetary fellowships:

The Denton Belk Memorial Scholarship in Graduate Studies (\$1000);

The Crustacean Society Fellowship in Graduate Studies (6 awards of \$1000 each in the areas of (1) crustacean ecology and/or behavior; (2) crustacean population genetics and/or physiology; and (3) crustacean systematics, biogeography, and/or evolution).

All fellowships/scholarships will support the awardee's research program, including, but not limited to: supplies, travel for research, participation in off-campus research experience or training, or a specialized course of study to advance the awardee's knowledge and skills. Selection of the awardee is based on the relevance of the request ("candidate's statement") to the applicant's educational and research goals and a letter of support/recommendation from the applicant's major professor or mentor. Scholarships are awarded annually and may be received only once per awardee. Unsuccessful applicants may re-apply in subsequent years.

Please note: applicants for The Denton Belk Memorial Scholarship in Graduate Studies must be conducting or proposing research that specifically targets large branchiopod crustaceans (e.g., Anostraca, Notostraca, Laevicaudata and Spinicaudata).

Currently enrolled graduate students working on either a MS or PhD degree may apply by completing and sending the appropriate application form (available at <http://www.thecrustaceansociety.org> under "student information") and required documentation (CV, letter of support, and candidate's statement) to:

Dr. Jeff Sheilds
The Crustacean Society Awards Committee
Virginia Institute of Marine Science
POB 1346, Gloucester Point, VA 23062

For questions: jeff@vims.edu

DEADLINE FOR SUBMISSION: February 15th, 2014

Please note: The applicant and his/her major professor or mentor must both be current members of The Crustacean Society at the time of application.

The Crustacean Society Board Members, 2013

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The Ecdysiast is published twice yearly in May and November and it is available in electronic form at http://www.thecrustaceansociety.org/Ecdysiast_Newsletter.html. All the past issues are also available from the same web site. Submissions for the May newsletter should be received by mid March, while those for the November newsletter should be received by mid September. All types of crustacean related contributions are encouraged, including announcements of upcoming workshops and meetings, regional updates, meeting summaries (with photos!), new publications and any other crustacean news.

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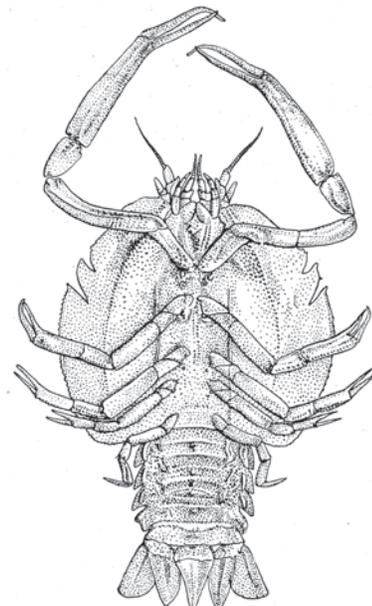
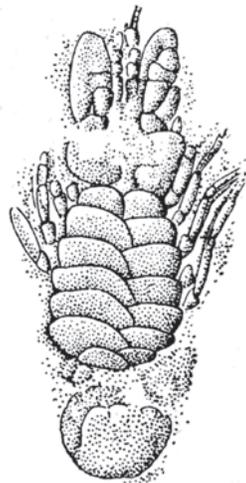
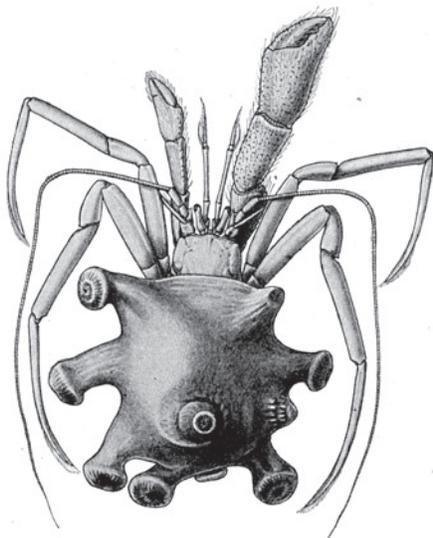
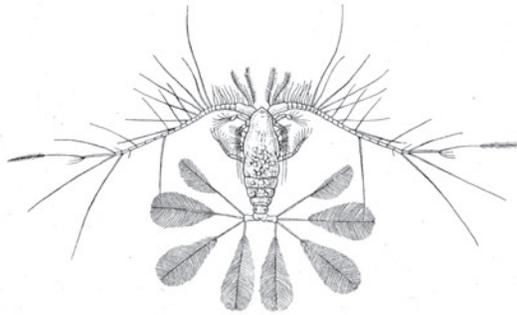
Treasurer's Report for Fall 2013

The Finance Committee has continued to monitor the resources and income/expenditures of TCS. We are continuing the development of a budget process, which we established only last year. Our financial situation is still tenuous as we begin to move forward with our budget development process. A full budget will be presented at the TCS Winter meeting in Austin, TX this January, and hope members are there for discussion. Projections of the 2014 budget will continue to land us in the black, which has not been the case for at least the past decade. We are happy to report that our revenue from our partnership with Brill has exceeded initial estimates and income from BioOne remains strong, both of which are stabilizing our financial situation. We have determined that funds needed to be moved to higher interest bearing accounts away from CD's. This effort may allow us to return the student awards to \$1000 each, but under the current 2014 projections, we had to reduce these awards to \$500 for the next year. In addition, by reducing the funding for officer travel and stabilizing administrative costs, we

are able to develop a 2014 budget that is in the black.

Of concern is our membership numbers and the relevancy of our products to our current and potential membership. The Finance Committee is concerned about the types of material that would greater serve the need of crustacean biologists beyond what we currently offer. Are we providing the intellectual leadership to drive our various fields, or are we lagging behind. We attracted our current membership through intellectual stimulation and curiosity, but are we presently providing this to our younger colleagues and potential future members? Is the TCS program keeping up with the hottest trends in crustacean research? As we cherish where we have been, our biggest hurdle is determining where we want and need to go? These are questions that we hope that our constituency will ponder and write to the TCS leadership about your thoughts on this matter.

Respectively Submitted: Brian Tsukimura, Treasurer



If you are not accessing JCB online because you do not have ID and Passwords you may contact Mary Belk at tcs1921@hotmail.com and she will have Brill send you a newcontact email. You must have your membership up to date. ID and Passwords will not be sent without current membership.



Recent Meetings...

First TCS-ALCARCINUS congress in Costa Rica: a successful meeting

During five days (07-11 July 2013), we celebrated the first joint congress of The Crustacean Society (TCS) and the Latin American Association of Carcinology (ALCARCINUS). A total of 175 colleagues from 36 countries travelled to San José, Costa Rica, in order to share the results of their ongoing research, enjoy the opportunity to chat with colleagues and students, as well as take advantage to visit some of the beautiful places in Costa Rica, a country well known for its impressive biodiversity.

The meeting was officially inaugurated by a representative of the Vice-Ministry of Water and Oceans, the President of the Universidad de Costa Rica, Dr. Henning Jensen, the President of TCS, Dr. Christopher Tudge, the President of ALCARCINUS, Dr. Michel Hendrickx, and the organizer of the event, Dr. Ingo Wehrtmann. Subsequently, Dr. Elliott Norse, the first keynote speaker of the meeting, presented his impressive conference entitled "An old crustacean biologist offers an idea for conserving the world's marine biodiversity". Dr. Elliott Norse returned back home so inspired, he wrote down his experiences about the meeting and some things he learned at the conference (<http://blog.marine-conservation.org/2013/07/a-blog-to-save-earth-16-return-of-old.html>). The other keynote speakers also presented excellent presentations: Dr. Carlos Jara (Universidad Austral de Chile) gave an overview of our knowledge of *Aegla*, anomuran crabs endemic to temperate and subtropical South America. Dr. Patricia Briones-Fourzán (Universidad Nacional Autónoma de México) shared her vast experience with spiny lobster as an ideal model system to study interspecific trade-offs since two or more closely-related species may commonly coexist. Dr. John MacNamara (Universidade de São Paulo, Brazil) introduced the participants to the world of phylophysiology, using decapods with their highly diverse osmoregulatory capabilities as model organisms. Last, but not least, Dr. Raymond T. Bauer (University of Louisiana at Lafayette, U.S.A.) gave a lecture about sexual dimorphism and mating systems, focusing on the predominately tropical shrimp family Rhyhocinetidae. Dr. Raymond T. Bauer is the recipient of The Crustacean Society Excellence of Research Award 2012, and since he could not attend the TCS-meeting in Greece 2012, he officially received this important award after his presentation in Costa Rica.

Overall, there were 116 talks and 118 poster presentations. The session on phylogenetics contained 21 oral presentations, both

the fishery and the ecology session included 16 talks, followed by the session on Peracarida with 15 talks. The slightly smaller, but not less interesting sessions were on reproduction (12 talks), biodiversity (11), aquaculture (9), Branchiopoda (9), and behavior (7). As a pleasant surprise, all speakers respected (aided by the chairs of the different sessions) the time limits for their talks, so that the program did not suffer any delays or changes.

The organizers used two strategies to try to convince many colleagues to attend the meeting: 1) to allow (for the first time) Spanish oral presentations accompanied by slides in English; 2) to maintain a relatively low conference fee, especially for students. The first strategy was easy to accomplish and certainly successful. A low conference fee was much more difficult to achieve, but luckily and with the aid of a few sponsors of the event, it was possible to offer a quite affordable registration fee. Probably as a result of these efforts, the organizers are happy to inform that 77 students attended officially the meeting, representing 44% of all participants. As far as we know, there are no statistics about the student participation in TCS-meetings, but 44% is certainly a relatively high number and reflects the growing (?) interest and participation of students in crustacean research. Most students came from Mexico (20), Brazil (17) and Costa Rica (12), followed by the U.S.A. (8), Argentina (3), Hong Kong (3), Singapore (3), Venezuela (3), Chile (2), Taiwan (2), China (1), Denmark (1), Germany (1) and The Netherlands (1). A summary of the best student paper and poster awards of the TCS-ALCARCINUS meeting can be found in this Ecdysiast issue.

The conference proceedings will be published in the international journal ZooKeys (<http://www.pensoft.net/journals/zookeys/>). ZooKeys is an open access, peer-reviewed journal, currently with an impact factor of 0.897. Although the journal has been focused more on systematic zoology, they will be open to receive contributions from all sessions of the conference. All manuscripts need to be submitted through the platform of ZooKeys; authors have to register first to submit their manuscript. The final deadline for submitting manuscripts is 15 December 2013, and the estimated publication date is mid-2014. More detailed information can be found on the conference webpage (<http://www.crust-cos-tarica2013.org/index.html>).

Ingo Wehrtmann
TCS Latin American Governor
Host of TCS-ALCARCINUS Meeting 2013





Recent Meetings...

TCS Summer Meeting 2013: Best Student Paper and Poster Awards

The Crustacean Society (TCS) is pleased to announce the winners of the Best Student Paper and Poster Competition held during the Summer Meeting of the Society held in conjunction with the Latin American Association of Carcinology (Alcarcinus), June 7-11, 2013, in San Jose, Costa Rica. There were 70 high quality competitors. The Best Student Oral Presentation Award was presented to **Adriana Rebolledo-Navarro** (Universidad de Costa Rica) for her talk entitled, "Reproductive traits of the mangrove crab *Aratus pisonii* (Brachyura: Sesarmidae) from the Pacific coast of Costa Rica" (with co-author I. S. Wehrtmann). The Best Student Poster Award was presented to **Tatiana Magalhães** (Universidade de São Paulo) for her poster entitled "Taxonomic review of purse crabs of the genus *Persephona* (Leucosiidae: Decapoda): morphological and molecular analyses support revisions" (with co-authors D. L. Felder and F. L. Mantelatto). Each award consists of a certificate, US\$100 cash, and a one-year membership in The Crustacean Society, including subscription to *The Journal of Crustacean Biology*. A special Student Oral Presentation Runner-Up award, consisting of a one-year membership in TCS, was presented to **Wan-Ping Huang** (National Taiwan University) for her talk entitled "Temperature effects on development and reproduction in an androdioecious clam shrimp, *Eulimnadia braueriana* (Branchiopoda: Spinicaudata)" (with co-author L.-S. Chou). All winners also received a crustacean-themed hardcover book courtesy of Springer and Brill. TCS thanks those members who served as judges, Springer and Brill for book donations, and all student participants.

Christopher B. Boyko
Program Officer

Reproductive traits of the mangrove crab *Aratus pisonii* (Brachyura: Sesarmidae) from the Pacific coast of Costa Rica

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The transisthmian crab *Aratus pisonii* is one of the most conspicuous decapod species of American mangrove ecosystems. Despite its abundance, wide distribution and ecological function, our knowledge about its life history refers only to populations studied along the Atlantic coast. The present study analyzed aspects of the reproductive biology of a large population inhabiting the Pacific coast of Costa Rica and compared the obtained results with those published for Caribbean populations of this crab species. Ovigerous females of *A. pisonii* were present through the entire sampling period (April 2011 – April 2012), indicating a continuous reproduction. Individuals carrying recently-extruded embryos were

more abundant in the dry season (December 2011 – March 2012), while females carrying embryos close to hatching occurred more frequently during the rainy season (May – August 2011, October – November 2011). Fecundity increased with female size (N=50) and ranged from 2459 to 20292 eggs. Females invested on average 10% of their dry weight in egg production, and produced relatively small eggs (early development: 0.014mm³), which increased their volume by 80% during the embryogenesis. Compared to published data for *A. pisonii* from the Atlantic coast, females from the Pacific reach smaller sizes, present a lower fecundity, and produce smaller eggs. The differences of reproductive traits between *A. pisonii* populations from both sites of the Central American Isthmus demonstrate the ecological plasticity of this species in relation to distinct environmental conditions on each coast.

Taxonomic review of purse crabs of the genus *Persephona* (Leucosiidae: Decapoda): morphological and molecular analyses support revisions

Magalhães, T.¹, D. L. Felder² & F. L. Mantelatto¹

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The genus *Persephona* consists of ten species restricted in their distributions to western Atlantic and eastern Pacific waters of the Americas. Over the years, this genus has been placed in different subfamilies, and its phylogenetic lineage remains unresolved. *Persephona* is by most contemporary authorities assigned to the subfamily Ebalinae, but this is a grouping which itself remains poorly defined on the basis of strictly morphological characters. Limitations of present morphologically based characters are also evident at the species level, and identification keys often do not allow clear separations. This study focused in part on a broad review of morphologically based taxonomic characters in *Persephona*, including those that have great variability within the genus (i.e., number and size of spines, cheliped), the characters traditionally used in the diagnoses of the species, and other selected indicators of phenotype (i.e., gonopod, coloration). These observations were paired with analyses of molecular phylogenetic (sequence) data. For molecular analyses, 16S rRNA and Cytochrome Oxidase I (COI-barcoding) subunits, representing two mitochondrial genes, were used as markers. The morphological analyses revealed an absence of consistent differences among some species of *Persephona*, and were corroborated by molecular analyses. We concluded that the taxonomy of *Persephona* should be modified as follows: most (not all) specimens of "*P. mediterranea*" previously listed from the Gulf of Mexico, correspond instead to *P. aquilonaris*, a taxon to be resurrected; records of "*P. mediterranea*" from the Caribbean and South Atlantic generally correspond to *P. mediterranea*, which infrequently ranges into the Gulf of Mexico; *P. crinita* is taxonomically valid, but only for specimens from the Gulf of Mexico, with specimens of "*P. crinita*" from South America in-



Recent Meetings...

stead being assignable to *P. lichtensteinii*; *P. finneganae* is a junior synonym of *P. lichtensteinii*.

Temperature effects on development and reproduction in an androdioecious clam shrimp, *Eulimnadia braueriana* (Branchiopoda: Spinicaudata)

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The clam shrimp *Eulimnadia braueriana* occurs in Siangtian Pond, Yangmingshan National Park in northern Taiwan. This pool is dry most of the year and floods periodically to 3~5 meters in depth upon heavy rainfall. The water temperature ranges from 18°C to 28°C. *Eulimnadia braueriana* eggs hatch upon inundation. The naupliar larvae grow quickly to maturity and produce eggs for the next generation. The population is generally composed of hermaphrodites and a few males. We cultured *E. braueriana* in the laboratory at various temperatures and found that it grew and matured more quickly at higher temperatures, resulting in fewer days to reach the earliest maturity age (11.6 + 1.0 days at 20°C, and 4.9 + 0.4 days at 30°C). However, the male occurrence and the mature body size were relatively higher in cultures at lower temperatures. The average male hatching rate is (71.4 + 1.9) % at 15°C, and (37.5 + 0.7) % at 30°C. The body length at earliest maturity age was (4.5 + 1.9) mm at 20°C, and (2.8 + 1.2) mm at 30°C. Furthermore, we noticed that the body length of hermaphrodite correlated to the number of cysts it carried. These suggest that *E. braueriana* might accumulate more genetic diversity through male/hermaphrodite crossing under lower temperatures. At higher temperatures, hermaphrodites would grow faster with smaller body length, and quickly produce fewer eggs. *E. braueriana* demonstrates a reproductive trade-off strategy upon temperatures in the very dynamic environment.

Adriana Rebolledo-Navarro, the winner of the Best Student Oral Presentation Award



L to R: TCS President Christopher Tudge, TCS Liason with Sociedade Brasileira de Carcinologia Fernando Mantelatto, Mariana Negri (Winner of the Alcarcinus Best Oral Presentation), Tatiana Magalhães (Winner TCS Best Student Poster), Caio M. C. A. de Oliveira (Winner of the Alcarcinus Best Student Poster), Wan-Ping Huang (TCS Runner-Up Best Oral Presentation), Alcarcinus President Michel Hendrickx, TCS Program Officer Christopher Boyko



Recent Meetings...

13th International Congress of Invertebrate Reproduction and Development (ICIRD)

July 14-19, 2013, Wayne State University, Detroit, Michigan, USA

Your Crustacean Society sponsored a special symposium at the 13th ICIRD meeting in Detroit on “Crustacean Reproduction, Development & Regeneration”. The congress was organized by Jeffrey Ram of Wayne State University, and hosted in the facilities of the Wayne State University School of Medicine. The three crustacean symposium co-chairs, Penny Hopkins, Amir Sagi and Christopher Tudge put together a full day symposium with 9 speakers covering differing aspects of this broad topic. In addition to five invited speakers in the morning session a further four speakers presented in the afternoon (chaired by Hans Laufer), and there were a smattering of other crustacean talks throughout the four-day meeting. In fact, there were a total of 19 speakers, or poster presenters, who highlighted crustacean research. Because the congress had a small attendance, crustacean biology was therefore disproportionately represented; which was a good thing to see. The crustacean speakers hailed from many countries including the USA, Israel, China, Italy, Spain and even Russia, and covered taxa from parasitic rhizocephalan barnacles, branchiopods like *Artemia* and *Triops*, to decapods such as penaeid shrimp, crayfish, lobsters and brachyurans. Nobody was left out!

As far as I can remember this is the first time that such a co-sponsored symposium has been arranged between TCS and ISIRD (the International Society of Invertebrate Reproduction and Development) and judging from its success, I would hope it is not the last. This arrangement was particularly facilitated by the fact that the current TCS president (Tudge) is a crustacean reproductive biologist and the current ISIRD president (Sagi) is a crustacean reproductive biologist! Coincidence? I think not! Please keep the ISIRD and their triennial ICIRD meetings on your radar screen and attend them if you can. I can definitely see future opportunities for TCS/ISIRD collaborations.

Respectfully submitted,
Chris Tudge

17th International Symposium on Ostracoda “Back to the future”

University of Roma 3, Rome (Italy) 22nd-26th July, 2013

The International Symposium on Ostracoda (ISO) is a meeting that features research on both living and fossil Ostracoda. It takes place every four years, each time in a different location. The 17th Symposium took place in Rome (Italy) and was hosted by the University of Roma 3. It was also an opportunity to celebrate 50 years from the first ISO meeting, which took place at the Zoological Station in Naples (Italy) in 1963. For this reason, the motto of ISO17th was “Back to the future” further developed in “Evolution of concepts and methods in ostracodology during the last 50 years”.

The first day of the conference started with the Opening Ceremony. The short welcome of the Head of the Department of Sciences, the Head of the Faculty of Mathematics, Physics and Natural Sciences, and of the president of IRGO (International Research Group on Ostracoda), prepared the ground to an original introduction to the Symposium. The dynamic and engaging Dan Danielopol, with the contribution of many colleagues from all over the world (the Ostracodophili), presented “From Naples 1963 to Rome 2013. A brief review of how the International Research Group On Ostracoda (IRGO) developed as a social communication system” which was wonderfully delivered and highly enjoyable.

The Symposium was organised in five scientific sessions, each introduced by invited lectures. The scientific sessions included: “Evolution and extinction of Ostracoda” (20 presentations), “New and advanced approaches in the study of Ostracoda” (14 presentations), “Ostracoda in palaeoceanographic reconstructions during the Cenozoic” (10 presentations), “Ostracoda in the past and present worlds” (52 presentations), “Ostracoda as proxies for environmental monitoring and palaeoenvironmental reconstruction” (24 presentations). During the 3 workshops, more specific topics were addressed such as “Cyprideis- a multi-tool of ostracodology” (6 presentations), “Ostracods in environmental archaeology” (9 presentations), “Neogene brackish and freshwater ostracods in the Paratethys” (7 presentations).

The 132 participants did not spend all their time listening to 72 oral presentations, reading carefully the 72 posters or discussing scientific topics! There were plenty of opportunities to chat with colleagues and friends from 29 different countries, especially during the icebreaker and the farewell parties, the lunches and coffee breaks. And notwithstanding the July heat, also the mid-symposium field trip led by Elsa Gliozzi and Ilaria Mazzini was enjoyable. Imagine what the usual visitors of the Appia Antica Regional Park were thinking of this heterogeneous group of people sampling ponds, streams, channels, Roman ruins and springs in search of ostracods. A meeting in Italy could not be complete without a gorgeous social dinner in a unique setting. The conveners enjoyed the delicious roman cuisine dining “al fresco” looking at the Mausoleum of Cecilia Metella along the Ancient Appian Way.

TCS/ICIRD special crustacean symposium co-chairs and invited speakers. L-R: Fuhua Li, Hans Laufer, Penny Hopkins, Amir Sagi, Nipam Patel, Chris Tudge, David Durica & Brian Tsukimura



Recent Meetings...

The IRGO meeting closed the last day of the Symposium. The future of IRGO was discussed and a new steering committee was elected. Moreover, the winners of the Young Researchers Sylvester Bradley Awards and of the SF*IRGO poster Award were announced: Yuanyuan Hong (University of Hong Kong) was awarded for the best oral presentation (sponsored by TMS); Josep Antoni Aguilar-Alberola (University of Valencia) was awarded for the best poster presentation (sponsored by IRGO); Ilaria Mazzini (University of Roma 3) and Jessica Fischer (LMU-Munich) shared the SF*IRGO Poster Award. Finally, the venue for the next ISO was decided: ISO18 will be held in the USA.

Gianguido Salvi and Nevio Pugliese led the post-symposium field trip to the Trieste area, in the northeast part of Italy. The participants took shed from the heat in the Grotta Gigante sampling ostracods in karstic pools, visited the Reserve of the Cona Island at the Isonzo River mouth and the ancient Latin colony of Aquileia. The participants also visited the Marine Reserve of Miramare where they could snorkel in one of the most pristine areas of the Adriatic Sea.

ISO17 was a big success! This meeting represents an irreplaceable forum for the communication between specialists who focus on fossils with those who work on living ostracods. The importance of this communication is constantly increasing in the midst of pending climate change and acceleration of biodiversity loss.

The abstract volume was published by the “Naturalista Siciliano” and could be requested at secretaryiso17@gmail.com. The proceedings of the Symposium are scheduled for 2014 within three international journals. A special issue of the Journal of Archaeological Science on “Ostracods and environmental archaeology” is scheduled as well for 2014. Micropress offered to all the participants to ISO17 free online access to the Ellis and Messina Catalogue of Ostracoda.

To find more details of this meeting and the future ISO18 in the USA visit the websites:

<http://www.iso17.unipr.it/index.htm>

<http://www.irgo.uni-koeln.de/>

Ilaria Mazzini, Rome

The 15th International Conference on Amphipoda

Szczawnica, Poland, 2-7 September 2013

More than 100 participants from 30 nations gathered at the small town at Szczawnica, SE of Krakow in the Pieniny Mts of Poland, for another amphipod conference, beautifully organized by prof. Michal Grabowski and his colleagues of the University of Lodz. As always with these meetings, also this conference felt almost like a family reunion; the amphipod workers form a very friendly community, old friends meet again, and newcomers are quickly incorporated into the group. The Poles, who have organized these conferences already twice before, also had organized this one very well; they seem to have a special knack of making everybody feel welcome. The week was also blessed with beautiful late summer weather.

This time the conference was held at Hotel Jan, some km outside Szczawnica, where the participants also lived, which also made for a still better cohesion of the group. We listened to 59 oral presentations and discussed 43 posters, during long days of science, but as usual, many of the most important discussions took place in the intermissions and evenings. Subjects ranged very widely, from the higher classification of the Amphipoda, via new techniques for study and the adaptations of amphipod parasites, to the influence



Hotel “Jan” in Szczawnica, the venue of the conference



Logos of The International Research Group on Ostracoda and the 17th International Symposium on Ostracoda - presented on useful objects.



Group photo of the 17th International Symposium on Ostracoda

Recent Meetings...

of invasive amphipods on the local faunas. We learned about deep sea amphipods, sandy shore beach hoppers, Lake Baikal genera, and subterranean *Niphargus* problems. Amphipods occur everywhere, and the motto of the meeting was: "Amphipods, the way of life". The conference excursion crossed over into Slovakia, and ended up with a long rafting trip on the river Dunajec, that here constitutes the border between Poland and Slovakia.

The next conference will be in 2015 in Aveiro, Portugal, while we shall also meet in 2017 in Izmir, Turkey.

Wim Vader, Amphipod Group Liaison Officer



Dr. Krzysztof Jazdzewski, the grand old man of Polish amphipod research, and Dr. Felipe Costa (Portugal), the organizer of the 2015 conference.



Dr. Michal Grabowski (Lodz) the organizer of the conference, with Dr. Carolina Bacela-Spychalska, one of the indefatigable people on the organization committee.



The participants in front of Hotel Jan.

All pictures have been taken by Dr Anna Jazdzewska.

Upcoming Meetings...

8th International Crustacean Congress (ICC-8)



Registration is now open at

www.senckenberg.de/ICC-8

Request for Donations to The Crustacean Society

The Crustacean Society is a non-profit, 501 © 3, organization and survives through raising funds from memberships, institutional memberships, meeting organizational activities and donations. Donation can come in several forms. We ask for donations with the payment of your membership, any time during the year, and in estate planning. Donations to TCS as general unrestricted gifts are the most flexible type of donation for the society and can be used for any purpose. Restricted funds can only be used for the purpose they are restricted for or for the time they are restricted to. Accounting regulations allow a slow disbursement of restricted funds into the general fund based on a discount rate the day of donation. Due to the disbursement regulations, a considerable amount is needed to fund one scholarship per year. Most donations are combined to achieve one scholarship.

The Crustacean Society would like to urge its members to please donate at any point possible. Remember supporting this society and the students in it, are very worthy goals. We are creating the next generation of crustacean scholars by your donations. We wish to urge members to consider mentoring as an important contribution to young science oriented students.

Thecrustaceansociety.com web site can accept donations by credit card over the internet. Checks can be mailed to Mary Schug Belk at 1320 Winding Way, New Braunfels, Texas 78132 USA. Please make checks out to The Crustacean Society.



New Publications...

Advances in Marine Biology Series Volume 64

Edited by Magnus Johnson and Mark Johnson

Although it includes chapters on the systematics of *Nephrops* and the design of its iconic kidney shaped reflecting superposition eye, the volume generally has an applied feel to it. This is a reflection of the commercial importance of this species in Northern Europe where it is the most valuable shellfish species landed. *Nephrops*, a.k.a. scampi, langoustine, Norway lobster or Dublin bay prawns are particularly interesting because smaller animals are served up as economic pub grub in the form of breaded "scampi" tails and larger animals feature in posh restaurants as langoustine.

The collection of papers should be of interest to fisheries scientists and crustacean ecologists, providing comprehensive background information to the species.

Unusually the volume starts with a poem by a recent Leverhulme Trust poet in residence at the Centre for Environmental and Marine Sciences, University of Hull (John Wedgwood Clarke) entitled Scampi.

SCAMPI

Night flowers opening from burrows
or are you lice in the folds of the sea bed

I love your armour, your fault o' lames,
your gauntlet-greaves, your being none of these.

Dark eggs in the sea-dark foam like cuckoo spit
from joints, seethes of parasites,

and none of these. Pollen of dark
hunched and sprung silences shot slithering

across the deck of names in a final moult
Langoustine, Dublin Bay Prawn, Scampi

in a basket, *Nephrops norvegicus*-silences
the buttered tongue. Just this side of night

your black kidney-eyes filter the moon,
bioluminescent showpictures no one inhabits.

Advances in MARINE BIOLOGY VOLUME 64

Complete List of Contents

Scampi

John Wedgwood Clarke

Preface

Magnus L. Johnson and Mark P. Johnson

1. Systematics and Position of *Nephrops* among the Lobsters

Dale Tshudy

2. Habitat and Ecology of *Nephrops norvegicus*

Mark P. Johnson, Colm Lordan and Anne Marie Power

3. Sensory Biology and Behaviour of *Nephrops norvegicus*

Emi Katoh, Valerio Sbragaglia, Jacopo Aguzzi and Thomas Breithaupt

4. The Reniform Reflecting Superposition Compound Eyes

of *Nephrops norvegicus*: Optics, Susceptibility to Light Induced Damage, Electrophysiology and a Ray Tracing Model
Edward Gatten, Steve Moss and Magnus L. Johnson

5. Stress Biology and Immunology in *Nephrops norvegicus*

Susanne P. Eriksson, Bodil Hemroth and Susanne P. Baden

6. Reproduction: Life Cycle, Larvae and Larviculture

Adam Powell and Susanne P. Eriksson

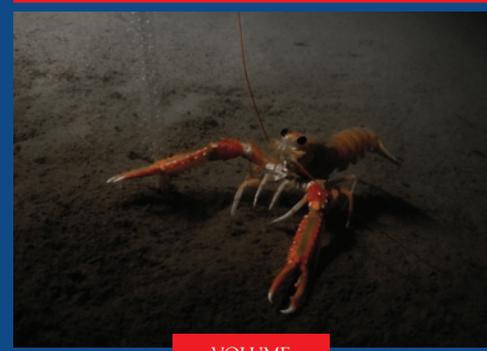
7. *Nephrops* Fisheries in European Waters

Anette Ungfors, Ewen Bell, Magnus L. Johnson, Daniel Cowing,
Nicola C. Dobson, Ralf Bublitz and Jane Sandell

Cover illustration: *Nephrops norvegicus* out of its burrow and on the prowl in Gullmarsfjorden (Sweden). Cover image taken by Rune Henssel (info@frogkick.dk) in Gullmarfjorden, Sweden at 45–50 m depth.

Advances in
MARINE BIOLOGY

Advances in MARINE BIOLOGY



VOLUME
64

64
2013



ACADEMIC PRESS
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Edited by
Magnus L. Johnson
Mark P. Johnson

Series Editor
Michael Lesser





New Publications...

Treatise on Zoology - Anatomy, Taxonomy, Biology. The Crustacea, Volume 4 Part A

<http://www.brill.com/products/book/treatise-zoology-anatomy-taxonomy-biology-crustacea-volume-4-part>

Price: €233,00 / \$324.00

Editors: J. Carel von Vaupel Klein, Mireille Charmantier-Daures & Frederick R. Schram

Subject: Biology, Carcinology

ISBN13: 9789004178090

E-ISBN: 9789047440451

Short description: With now (including this vol. 4) six fascicles published, out of 13 planned, the current series *Treatise on Zoology -- The Crustacea* has become firmly established as the prime carcinological reference for the first part of the 21st century.

Contents:

Genetic variability in Crustacea (Ilias Kappas, M.-L. Cariou & Theodore J. Abatzopoulos)

Class Cephalocarida Sanders, 1955 (Robert R. Hessler & Rolf Eloffson)

Class Remipedia Yager, 1981 (Stefan Koenemann & Thomas M. Iliffe)

Subclass Hoplocarida Calman, 1904: order Stomatopoda Latreille, 1817 (Frederick R. Schram, Shane T. Ahyong, Sheila N. Patek, Patrick A. Green, Michael V. Rosario, Michael J. Bok, Thomas W. Cronin, Kristina S. Mead Vetter, Roy L. Caldwell, Gerhard Scholtz, Kathryn D. Feller & Pere Abelló)

Superorder Syncarida Packard, 1885 (Nicole Coineau & Ana I. Camacho)

Description (copied from the preface):

As evident from the number 4A tagged to this volume, vol. 4 as originally planned had to be split into two fascicles, 4A and 4B, simply because of the numbers of pages covered by the various contributions meant for volume 4.

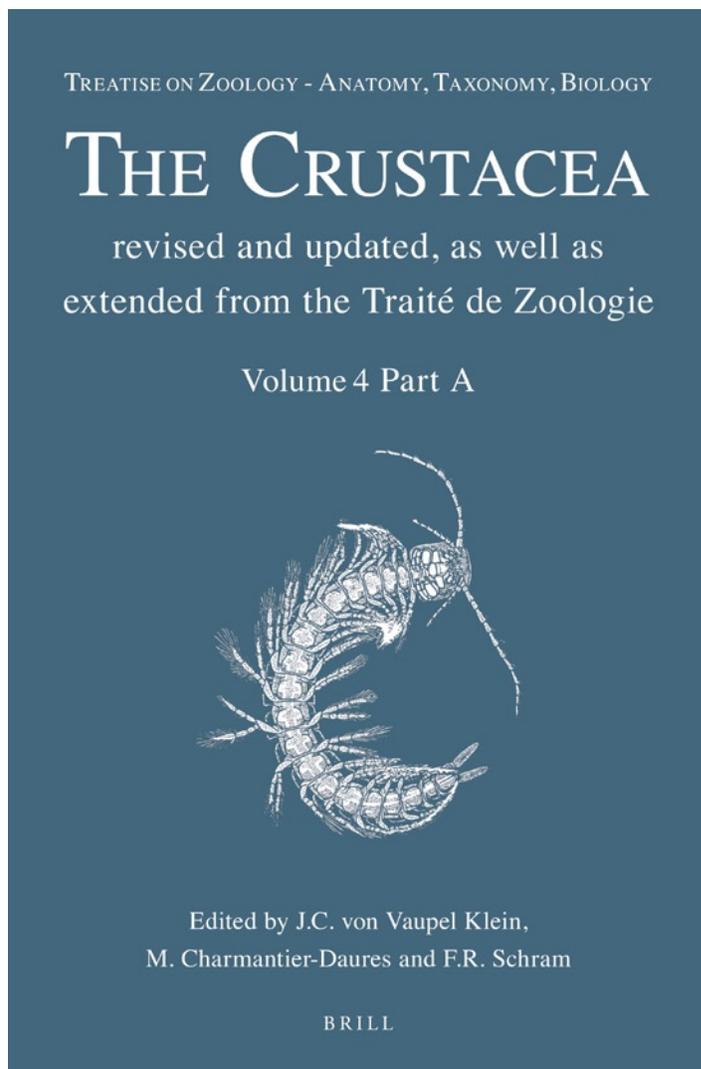
The present volume, then, comprises the fourth part in the series *The Crustacea*, i.e., the revised and updated texts from the *Traité de Zoologie – Crustacea*. The chapters in this book grew out of those in the French edition volume 7(II). The exception is chapter 49, which has been newly conceived; it was never published in French.

Overall, this constitutes the sixth tome published in this English series, viz., preceded by volumes 1 (2004), 2 (2006), 9A (2010), 9B (2012), and 3 (2012). Readers/users should note that

we have had to abandon publishing the chapters in the serial sequence as originally conceived by the late Prof. J. Forest, because the various contributions, i.e., both the updates and the entirely new chapters, have become available in a more or less random order. Waiting for a chapter with a consecutive serial number would mean an undue delay in publishing the already prepared manuscripts. Because this necessarily results in a non-serial sequence of the chapters in vols. 4-8, we shall publish an overview of the total series after completion, in which an enumeration of the volumes and the chapters included will be given, so as to facilitate quick reference throughout the series as a whole.

We are confident that also this fascicle will make a useful compendium for carcinologists worldwide both as a guide in their studies on Crustacea, and in interpreting their results.

The Editors



News from Liaison Officers...

Amphipod Newsletter

Dear Friends and Colleagues,

The Editors of the Amphipod Newsletter are pleased to announce the printing of Amphipod Newsletter 37. You can download the Newsletter from the following web page

<http://www.oeb.harvard.edu/faculty/giribet/lab/>

or ask Wim Vader.

As always we welcome any comments you may have. And please be sure to send us information about your publications.

Adam Baldinger, Miranda Lowe, Anne Helene Tandberg and Wim Vader (wim.vader@uit.no)

The Denton Belk Fund

The Crustacean Society would like to remind our readers that it is soliciting contributions to an endowed fund to honor the memory of Denton Belk, a founding member and past treasurer of TCS. The endowment will be used to fund scholarships for students performing large branchiopod research, a field in which Denton excelled and made significant contributions. Students will be able to use funds to support research costs and/or travel (either to scientific meetings or for research purposes).

Denton was exceptionally generous in his lifetime to students in need who expressed an interest and passion for large branchiopods. We feel it is a fitting tribute to our colleague and friend to continue this tradition in his passing. We encourage and appreciate your contribution!

Please note that you do not need to become a member of TCS to make a donation!

Personal checks (in U.S. Dollars) may be made out to "TCS – The Denton Belk Fund". Alternatively, contributions using Visa or Master Card can be made by printing out a copy of the membership application from the Society's website (<http://www.thecrustaceansociety.org>), indicating the amount (in U.S. Dollars) that you are willing to contribute on the appropriate line, and mailing the form to the Business Office at the address below.

Please send contributions to:
Business Office, The Crustacean Society
P.O. Box 1897, Lawrence, Kansas 66044-8897
U.S.A.

For additional inquiries, please contact Mary Belk (TCS Executive Director) by email: (tcs1921@hotmail.com)

CRUST-SOC@VIMS.EDU, the Crustacean Society's Listserver

The Crustacean Society has an email list server that is only open to members of the society. This list server is designed to provide you with timely official society business and important society announcements. CRUST-SOC is moderated and closed and is not a forum for discussion. It is not meant to replace CRUST-L because the latter is open to nonmembers and is for broader discussion on Crustacea. For suggestions, contact jeff@vims.edu, your TCS Secretary, or any member of the board (listed at our website <http://www.thecrustaceansociety.org>).

You can subscribe to CRUST-SOC by becoming a member of the society. Members who aren't subscribed can send SUBSCRIBE CRUST-SOC YOUR NAME (not your email address) as the message body to LISTPROC@VIMS.EDU. You can unsubscribe by sending UNSUBSCRIBE CRUST-SOC to LISTPROC@VIMS.EDU.

We have taken every effort to ensure that your email address has been correctly entered into CRUST-SOC. However, several members have changed email addresses or have made mistakes in entering email addresses. Thus, if you are a member and are not on the list, please enter your correct email address on the annual subscription form, and please subscribe as detailed above. Remember, CRUST-SOC is the official email list server for society information and not a forum for discussion.

CRUST-L@VIMS.EDU, the Discussion List for Crustacea

CRUST-L@VIMS.EDU is the email list server for those interested in Crustacea. It is an informal scientific forum for discussion on all aspect of the Crustacea. CRUST-L is a moderated, open list, but you have to be a member to post messages to it. You can subscribe to the list by sending SUBSCRIBE CRUST-L YOUR NAME (not your email address) as the message body to LISTPROC@VIMS.EDU. You can unsubscribe by sending UNSUBSCRIBE CRUST-L to LISTPROC@VIMS.EDU. Use LISTPROC@VIMS.EDU to post administrative commands such as SUBSCRIBE, INFO, HELP. Use CRUST-L@VIMS.EDU to post messages to CRUST-L. The listproc software includes several features such as searchable archives, and a digest mode for intermittent mailings.





News from Regional Governors...

Meetings:

22nd Biennial Conference of the Coastal and Estuarine Research Federation

3-7 November 2013, San Diego, California, USA
<http://www.erf.org/cerf2013>

American Society of Naturalists

Conference entitled "21st-Century Naturalists: Integrating pattern and process to understand biodiversity"
 13-15 January 2014, the Asilomar Conference Center, CA
<http://w3.biosci.utexas.edu/AmNatAsilomar/>

Society of Integrative and Comparative Biology Annual Meeting 2014 (joint meeting with TCS)

January 3-7, 2014
 Austin, TX

<http://www.sicb.org/meetings/2014/>

Includes a symposium on: Parasitic manipulation of host phenotype, or how to make a zombie (Organizers: Kelly Weinersmith, Zen Faulkes)

<http://www.sicb.org/meetings/2014/symposia/parasitic.php>

Evolution 2014

(the joint annual meeting of the Society for the Study of Evolution (SSE), the Society of Systematic Biologists (SSB), and the American Society of Naturalists (ASN))
 Raleigh, North Carolina, USA
 June 20-24, 2014
<http://evolution2014.org/>

89th Annual Meeting of the American Society of Parasitologists

July 24-27, 2014

JW Marriott New Orleans
 New Orleans, Louisiana

<http://amsocparasit.org/taxonomy/term/5>

99th Ecological Society of America Annual Meeting 2014

Sunday, August 10 – Friday, August 15, 2014
 Sacramento, California
<http://esa.org/am/>

Funding Opportunities:

National Science Foundation
 Division of Integrative Organismal Systems
 Preliminary Proposal Deadline Date: January 17, 2014
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503623&org=NSF&sel_org=BIO&from=fund

National Science Foundation
 Major Research Instrumentation Program (MRI)
 Full Proposal Deadline Date: January 23, 2014
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5260&org=NSF&sel_org=BIO&from=fund
 Note: Hofstra University was awarded an MRI grant for the purchase of a new electron microscopes (with SEM, STEM, and elemental analysis capabilities), see: http://www.nsf.gov/award-search/showAward?AWD_ID=1337525. As the lead PI on this grant, I invite anyone that may have a need for such technologies in their research to contact me. I'd be happy to collaborate on new projects.

Books:

As posted recently by Chris Boyko to Crust-L, a new book "What on Earth?: 100 of Our Planet's Most Amazing New Species" by Quentin Wheeler & Sara Pennak was published in 2013. The book was reviewed in American Scientist (<http://www.americanscientist.org/bookshelf/pub/the-greatest-show-on-earth>).

A few of the species covered of interest to crustacean researchers:
 One of the "Strangest New Species": *Dinochelus ausubeli* Ahyong, Chan & Bouchet, 2011
 One of the "Smallest New Species": *Arcticotantalus kristenseni* Knudsen, Kirkegaard & Olesen, 2009
 One of the "Largest New Species": *Branchinecta raptor* Rogers, Quinney, Weaver & Olesen, 2006
 One of the "Most Endangered New Species": *Barbicambarus simonsi* Taylor & Schuster, 2010
 One of the "New Species with the Best Names": *Lebbeus clarehannah* McCallum & Poore, 2010
 One of the "New Species with the Best Names": *Albunea groeningi* Boyko, 2002

Jason D. Williams
 TCS North American Governor





Items of Interest...

Observadores del Mar / Seawatchers: a website to record faunistic and environmental observations

Observadores del Mar / Seawatchers is a website (www.observadoresdelmar.es), coordinated by the Institut de Ciències del Mar - CSIC (Institute of Marine Sciences) (www.icm.csic.es), where faunistic and environmental observations can be recorded and made available to both the scientific community and the public.

The site aims to be a place where enthusiasts of marine life can record the sightings made through their activities, be they professional or recreational. We aim to create a large database with good quality information, validated by scientists, that could help scientists in their projects and be useful for the understanding of marine wildlife (distribution, abundance, occurrence of common, rare or invasive species, etc.), and to provide and document first-hand evidence of environmental problems (surface and bottom pollution).

So far, the site is mainly aimed at Mediterranean and adjacent Atlantic waters, since this is the area mainly targeted by the present team of scientists. Current research projects provide the major topics of the site, where citizen collaboration is needed to improve relevant information (e.g. "Jellyfish alert", "Endangered gorgonians" or "Invasive fishes", among others. Other projects have a faunistic/biodiversity approach, such as "Decapod crustaceans" (our project!), "Mediterranean fishes", or "Seabirds".

Accurate position (latitude/longitude) is necessary to properly record any observation, but if not known, it can be easily obtained, in coastal observations, from an interface to Google maps. Date, of course, is another of the compulsory inputs, as well as species name, but...if you don't know the species you may upload its picture for identification by the scientists team at the other side of the screen. Pictures are more than welcome, since they are the easiest way to validate observational faunistic records, and in some cases the only one. The interface is so far available in Catalan, Spanish and English. A French interface is being worked at, which will be very useful for many Mediterranean countries. We also try to keep often in touch with collaborators, and to comment on their doubts and proposals.

How often have we thought that very often (sorry for the repetition) we have more distributional information on rare species than actually on the common ones. But also, and especially nowadays that faunistic temporal series start to become common, we scientists start to become first-hand aware, not just through textbooks, that ecosystems are not stable and change through time, that recruitment success of a certain species implies changes in trophic ecology, population cascades or even ecological landscape changes. Species that are common today in our local spot, were not common or even did not occur at all a decade or two ago, and may even become scarce or disappear. These are changes that can be properly documented by just proper interest, some time "lost" writing down our species records, and trying to make public our observations.

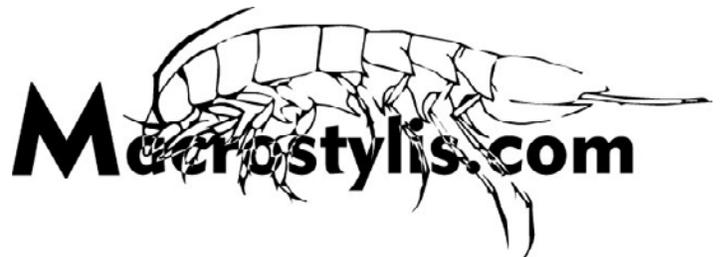
We may even think that it is not worth reporting the occurrence of common species, but I am sure that we are wrong, because we may be of great value to other people's interests, while recording time series or just by adding another dot to the known/unknown distribution of a species. Our observations can be very valuable to record present and past distributions of a species, as well as their changes through time, and remember that, as I said before, there is a lack of proper knowledge on the detailed distribution of most species, even of the commonest.

And well, this is almost all by now. I just wanted to make you aware of the existence of this website, and please visit the section on "Decapod crustaceans", and collaborate with us if you wish. The website team knows well some of the problems we have, some of which can be dealt with easily. We also know that funding is necessary to keeping up the site, to make changes and progress (we are more than well aware of that), and we also know that we are unaware of many errors, so we will appreciate your opinions and views on this project but we will even appreciate more your constructive opinions on the errors and "things" that should/could be improved.

Thank you very much.
PERE

Pere Abelló
Institut de Ciències del Mar (CSIC), Barcelona, Catalonia, Spain
Coordinator of the Decapod Crustacean section in Observadores del Mar

Macrostylis.com



Macrostylis.com is a science news website on the world of invertebrate animals. Although it deals with all invertebrates, it has a crustacean as logo!

www.macrostylis.com



Spotlight on...

Ben Gurion University Professor Wins Inaugural Aquaculture Innovation Award

Amir Sagi, Ph.D., a professor at Ben Gurion University of the Negev in Israel, is the winner of the Global Aquaculture Alliance's (GAA) inaugural Novus Global Aquaculture Innovation Award, sponsored by Novus International.

Dr. Sagi was presented with the award at GAA's GOAL 2013 conference in Paris, France, on Wednesday, Oct. 9. Dr. Sagi's innovation - which involves a novel biotechnology application to produce all male populations of the giant freshwater prawn *Macrobrachium rosenbergii* through temporal RNA interference - was selected over 15 other creative innovations to capture the award.

The six judges selected Dr. Sagi's innovation as the winner because its application addressed a key obstacle in the production of *Macrobrachium rosenbergii* - manual sorting of juveniles by gender. The judges felt that this innovation could stimulate expansion in freshwater prawn production without genetic modification or use of exogenous hormones.

<http://www.gaalliance.org/newsroom/news.php?Ben-Gurion-University-Professor-Wins-Inaugural-Aquaculture-Innovation-Award-134>

Results of the TCS online survey

In total, we had 268 respondents from over 40 countries that completed the survey, thanks to everyone for your time and comments. Following the links below you will find the summary of the data that was auto-generated by the SurveyMonkey site (thanks to Ole Møller for setting up the survey and Ingo Wehrtmann for the Spanish translation). Note that in the summary the following translations may be helpful (besvarelser procent = percent of replies; besvarelser antal = number of replies; besvaret spørgsmål = answered questions; ubesvaret spørgsmål = unanswered questions; vurderinger gennemsnit = rating average).

The TCS Executive Board is examining this data, as well as the responses to the open answer questions (not provided due to length) in order to hopefully improve our recruitment efforts and also enhance our services to current members. If you have any additional feedback or comments you would like to provide along these lines, please do not hesitate to contact one of us or bring it up at the next meeting.

http://www.thecrustaceansociety.org/uploads/SurveySummary_English.pdf

http://www.thecrustaceansociety.org/uploads/SurveySummary_Spanish.pdf

Jason D. Williams
TCS North American Governor

Minutes of The Crustacean Society...

TCS Board Meeting July 7, 2013 4pm, San Jose, Costa Rica

TCS President Tudge opened the meeting at 4 pm and welcomed everyone to the meeting and to Costa Rica. He read the official apologies from executive members Jo Taylor, Ole Mueller, Diego Maruzzo, Jason Williams, Gary Poore & Fred Schram. All other TCS executive board members were present and included: Chris Tudge, Shane Ahyong, Chris Boyko, Brian Tsukimura, Mary Belk, Sherry Tamone, Akira Asakura, Ingo Wehrtmann, Shirley Lim, and Elena Mente. Tadashi Kawai (Japan), the liaison officer for the International Astacology Association, was also present.

Treasurer Tsukimura & Executive Director Belk presented the TCS financial accounts for TCS to mid-year 2013 and a projected budget for 2014, and minor budgetary items were discussed. The projected budget is looking promising for 2014. It was also suggested that a future Ecdysiast article should be written for the TCS membership explaining the membership fee breakdown and how these fees are used by the society.

It was determined that TCS is contractually obligated to switch all of our current JSTOR income (revenue from older, archived JCB articles) to Brill, for them to collect this revenue on our behalf and share the profits. It was decided to switch this immediately.

TCS money/sponsorship requests: We had received four requests for TCS funds to help support meetings or symposia at future meetings. These are:

15th International Colloquium on Amphipoda (Anna Jazdzewska) – the request was denied because it was received too late to put into the 2013 budget.

IAA & CSJ 2014 (Kawai & Asakura) – it was decided to commit \$500 to this joint meeting and symposium and see if it will be possible to provide more funds when we know what the 2014 finances will look like.

American Physiological Society Oct. 2014 “Overcoming a Major Physiological Barrier: Adaptation from Saline to Freshwater Habitats” (Guy Charmantier & Carol Lee) – it was decided to commit \$500 to this joint meeting and symposium and see if it will be possible to provide more funds when we know what the 2014 finances will look like and see if more TCS participation will occur.

ICC Frankfurt (via Carola Becker)- it was decided to commit \$2,000, and most likely more will be possible before this meeting occurs.

Current TCS membership stands at 412 members!

Scholarship Support: Loligo Systems sent in money (\$1000) to support the student scholarship in ecophysiology and behavior. The scholarship now bears their name.



Minutes of The Crustacean Society...

Further scholarship support has been requested from the World Aquaculture Society, Latin American Chapter (via Tonio Garzia de Yta) for the fisheries and aquaculture student scholarship.

Future meetings: President-Elect Ah Yong confirmed the TCS 2015 mid-year/summer meeting will be in Sydney, Australia. The dates are currently set at 18-24 August. He is fervently planning said event!

A 2016 joint TCS meeting idea and collaboration with the International Aquaculture Association (IAA-21), possibly in Cancun, Mexico, has been suggested. This is the only 2016 TCS meeting offer we have so far!

TCSERA Award: Austin (SICB 2014 venue) will be the appropriate venue for Jens Hoeg's TCSERA award ceremony. It will be at one of the TCS meetings/gatherings, and most likely combined with a special social.

Change of office of President: The SICB meeting at Austin will also be the official presidential hand-off, from President Tudge to President Ah Yong.

The forthcoming TCS Elections (2013/14) will be for President-Elect, Program Officer, Executive SICB Liaison Officer, Asian Governor and Latin American Governor.

President Tudge presented a synopsis of JCB Editor Schram's report. A discussion also ensued about plans for the next generation editor(s) after Fred. JCB's IF is now 1.019, with the 4 year trend looking like this - 0.974, 1.115, 1.116.

Executive Director Belk checked into the TCS constitution about changing the wording such that past-past presidents are not board members forever. The TCS executive agreed that the current wording places fiduciary responsibility on all past-past presidents in perpetuity!

The TCS By-laws about the role of the Program Officer and other executive members in the selection of TCSERA award recipients and student oral and poster awards at meetings are very unclear and ambiguous. It was decided that PO Boyko should draft some changes and present them to the TCS executive for editing and approval.

Both of the above textual changes to the TCS Constitution and By-laws will be voted on at the next set of TCS elections.

The report on "Women in carcinology" by Secretary Mueller is complete in its first draft. This is in direct response to similar Paleontological Society report in their newsletter "Priscum". The TCS executive decided that this favorable report should be published for the general membership in the next *Ecdysiast*.

Program Officer Boyko asked everyone present to be engaged in judging student orals and posters on the first day of the conference, and to participate in said activity throughout the event.

Other business: Asian Governor Lim said she would run again for her Asian Governor position for 2014/2015, as she would like to try and organize a special South East Asian carcinology meeting/workshop in Thailand in 2015. It was also suggested that this meeting perhaps be back-to-back with the 2015 TCS mid-year meeting in Sydney to facilitate attendance at both.

Executive SICB Liaison Officer Tamone asked everyone to think about SICB symposium ideas for both the Austin 2014 SICB meeting and the West Palm Beach 2015 SICB meeting. Deadlines were revealed.

President-Elect Ah Yong suggested a novel idea to try to recruit more student members to the society. He suggests TCS explore the idea of us providing special English language services, prior to JCB paper submissions as a benefit of membership, and maybe even subsidize TCS student members.

With no other business, the meeting was adjourned by President Tudge at 6:30 pm and libations were suggested prior to the CR meeting opening social.

JCB language service

Before you submit a manuscript to JCB, and if you are not fully fluent or a native speaker of English, we recommend the following. American Journal Experts (AJE) provides professional language editing services to authors around the globe who wish to publish in scientific, technical, medical, and humanities journals. We urge authors who are not well versed in the English language to use this service to improve a paper's English and, therefore, its overall quality. Seeking this assistance is suggested before an article is submitted to JCB for peer review and certainly before it is finally accepted for publication.

AJE has over 500 editors from Harvard, Stanford, MIT, Berkeley, and Duke; these editors are native English speakers and subject-matter experts in a wide variety of fields. They will check your manuscripts not only for terminology and language specific to your field but also for proper English usage, grammar, punctuation, spelling, verb tense, and phrasing. In addition, AJE's professional editors will make sure the text reads naturally and the sentences are well constructed. The cost for this service is very reasonable. Visit AJE's website for more information, or to submit a document for their scientific proofreading service use this link: www.JournalExperts.com?rcode=JCB1.

When you are secure about your text, manuscripts then can be submitted on line through the new link: www.editorialmanager.com/jcb.



TCS Constitutional and Bylaw Changes...

Constitutional Changes

Article 6: Section 1 Board of Governors

Old Version

Section 1. Board of Governors. The voting members of the Board shall consist of the current Past-President, President (Chair of the Board), President-Elect, Treasurer, Secretary, Program Officer, SICB Liaison Officer, Journal Editor and the regional Governors, one each to represent North America, Europe, Asia, South America, and Australasian respectively. As appropriate, regional Governors may be elected to the Board to represent other regions (e.g., Africa, Southeast Asia). All members of the Board must be members of the Society in good standing at the time of their election and throughout their terms as Governors. The Board shall be the governing body of the Society. It is empowered to act on all matters pertaining to the Society except as otherwise provided for in this Constitution and Bylaws. It shall be responsible for matters of policy and procedure and shall have jurisdiction over finances and publications. After completion of the Past-President's term, all former Past-Presidents who remain members in good standing shall, if not holding an elected or appointed membership of the board, serve for life as ex officio (non-voting) members of the board.

New Version

Section 1. Board of Governors. The voting members of the Board shall consist of the current Past-President, President (Chair of the Board), President-Elect, Treasurer, Secretary, Program Officer, SICB Liaison Officer, Journal Editor and the regional Governors, one each to represent North America, Europe, Asia, South America and Indo-Pacific respectively. As appropriate, regional Governors may be elected to the Board to represent other regions. All members of the Board must be members of the Society in good standing at the time of their election and throughout their terms as Governors. The Board shall be the governing body of the Society. It is empowered to act on all matters pertaining to the Society except as otherwise provided for in this Constitution and Bylaws. It shall be responsible for matters of policy and procedure and shall have jurisdiction over finances and publications. The Executive Director of the Society shall serve as an ex officio member of the Board of Governors, but may not vote.

Add Paragraph

Article 15

Indemnification: The Society shall indemnify, to the full extent permitted by the laws of Texas, any Executive Committee member, officer, employee, or agent of the Corporation against expenses actually and necessarily incurred in connection with the defense of any action, suit or proceeding in which such individual is made a party by reason of being or having been such Executive Committee member, officer, employee, or agent, except that the Corporation shall not indemnify such individuals for willful misconduct. Such indemnification shall not be deemed exclusive of any other rights to which such Executive Committee member,

officer, employee, or agent may be entitled under any agreement, vote of the Executive Committee, or otherwise.

Bylaw Changes

Bylaw 4: Duties of officers

Old Version

A. Past-President. The office of Past-President shall be filled by the immediate Past-President of the Society. The Past-President shall assume primary responsibility for promotion of the Society's journal to institutions and for solicitation of appropriate book offerings for the Society membership. The Past-President shall receive and compile nominations for the Excellence in Research Award and liaise with the Program Officer regarding other awards.

New Version

A. Past-President. The office of Past-President shall be filled by the immediate Past-President of the Society.

Duties of the Past President:

1. The Past-President shall preside over the Advisory Committee (Bylaw 7, D).
2. The Past-President shall receive and compile nominations for the Excellence in Research Award.

Old Version

B. President. The President shall call and preside at meetings of the Society and the Board, represent the Society's interests in external business affairs, and perform such other functions as may be defined in the Constitution and Bylaws. Should the office of President-Elect become vacant, the President shall temporarily assume all duties of the President-Elect until an election can be conducted. The President shall succeed to the office of Past-President upon the expiration of the President's term.

New Version

Duties of the President:

1. The President shall preside at all general scientific sessions and at the business meetings and shall assume overall concern for the affairs of the Society.
2. The President, or President-Elect, if instructed by the President, shall appoint the members of standing committees of the Society and of such temporary committees as may be desirable.
3. The President, together with the Executive Committee, shall define the duties and areas of responsibility of standing and temporary committees where these are not specifically designated by the Constitution and Bylaws.
4. Whenever the officers of a number of related societies shall confer on matters of mutual interest to these organizations, the President shall represent this Society or shall delegate representation to a member of the Executive Committee.



TCS Constitutional and Bylaw Changes...

Old Version

C. President-Elect. The President-Elect shall solicit nominations for offices and Governorships from the membership and present nominations to the Board for consideration to adopt a slate of candidates. The President-Elect shall oversee all elections and other votes by the membership and be responsible for tabulating and disseminating results for all elections and votes on Bylaws and Amendments to the Constitution. The President-Elect shall perform all duties incumbent upon the President during any period(s) when the President is incapable of fulfilling those duties for the Society and shall succeed the President to that office upon the expiration of the President's term. Should the office of Past-President be vacant, the duties incumbent upon the office of Past-President shall be additional duties of the President-Elect.

New Version

C. President-Elect. The President-Elect shall perform all duties incumbent upon the President during any period(s) when the President is incapable of fulfilling those duties for the Society and shall succeed the President to the office upon the expiration of the President's term.

Duties of the President- Elect:

1. The President-Elect shall solicit nominations for offices and Governorships from the membership and present nominations to the Board for consideration to adopt a slate of candidates.
2. The President-Elect shall oversee all elections and other votes by the membership and be responsible for tabulating and disseminating results for all elections and votes on Bylaws and Amendments to the Constitution.
3. The President-Elect shall assume the duties of the Past-President should the office of Past-President be vacated.

Old Version

D. Treasurer. The Treasurer shall be in charge of funds, make necessary disbursements, direct and oversee fund-raising activities, and keep the financial records of the Society. The Treasurer shall present a statement of financial accounts, audited by the Financial Committee, at the time of the annual business meeting. The Treasurer chairs the Financial Committee.

New Version

D. Treasurer. The Treasurer shall oversee the finances of the Society.

Duties of the Treasurer:

1. The Treasurer shall be responsible for monitoring the financial affairs of the Society ensuring the timely distribution of notices of dues to the membership.
2. The Treasurer shall oversee preparation of the Annual Budget to cover the fiscal operation of the Society including all allocations of funds for the expenses of Officers, Standing Committees, and the Editorial Office.
3. The Treasurer shall submit the Annual Budget to the Executive Committee for review and approval at the Annual Board Meeting prior to the Society's annual business meeting.
4. The Treasurer shall present a statement of the current fi-

ancial position of the Society at the annual business meeting of the Society.

5. The Treasurer, together with the Finance Committee, shall have oversight of the investment of any funds over and above the operating budget of the Society.

6. The Treasurer shall serve as Chair of the Finance Committee and as an Ex Officio member of the Student Support Committee.

Old Version

E. Secretary. The Secretary shall keep the Society calendar of events, advise officers of deadlines, record minutes for all Board and Annual meetings, issue notices for meetings of the Board and the Society, conduct the correspondence of the Society and Board, be responsible for mailing ballots, and present a written yearly summary of the Society's activities to the Membership. The Secretary shall compile and edit the Society newsletter, or shall supervise this activity if it is delegated by the Secretary to a newsletter editor.

New Version

E. Secretary. The Secretary shall have the responsibility of seeing that complete records of the Society are kept, and that minutes of meetings of the Executive Committee and of the annual business meeting of the Society are recorded.

Duties of the Secretary:

1. The Secretary shall make a record of all Board and business meetings of the Society.
2. The Secretary shall be responsible for all arrangements for meetings not specifically assigned to the Program Officer.
3. The Secretary shall be responsible for reporting to the press the important activities of the Society (if deemed appropriate).
4. The secretary shall be responsible for such activities as organization of the Society-wide elections and the Society's newsletters (this activity may be delegated to a newsletter editor).

Old Version

F. Program Officer. The Program Officer shall be responsible for arranging or coordinating all symposia, workshops, conferences and similar activities in which the Society takes part. The Program Officer chairs the Awards Committee and liaises with the Past-President regarding the Excellence in Research Awards.

New Version

F. Program Officer. The Program Officer shall be responsible for arranging or coordinating all symposia, workshops, conferences and similar activities in which the Society takes part. The Program Officer shall work with the SICB Liaison Officer, and when appropriate, ICC and summer meeting organizers, to develop symposia, workshops, and special sessions related to cutting edge research topics.

Duties of Program Officer:

TCS Constitutional and Bylaw Changes...

1. The Program Officer shall receive and arrange the titles and abstracts of papers submitted for the scientific programs at meetings of the Society.
2. The Program Officer shall, in consultation with the Officers, appoint Chairpersons to preside over scientific sessions.
3. The Program Officer shall chair the Program Committee (if needed) for the purposes of establishing and organizing the program for the annual meeting.
4. The Program Officer shall coordinate with the Executive Director and local planning committee for space and costs related to room needs. (Spread Sheets)

Old Version

G. SICB Liaison Officer. The SICB Liaison Officer shall represent the Society at SICB meetings and will serve as liaison between SICB and the Society's officers. The SICB Liaison Officer shall liaise with the Program Officer to arrange symposia and workshops at SICB Meetings.

New Version

G. SICB Liaison Officer. The SICB Liaison Officer shall represent the Society at SICB meetings and will serve as liaison between SICB and the Society's officers. The SICB Liaison Officer shall liaise with the Program Officer to arrange symposia and workshops at SICB Meetings.

Duties of SICB Liaison Officer:

1. Attend the January Meeting of SICB
2. Attend the SICB programming meetings (typically at the end of Sept.) to help put together the program.
3. Coordinate with TCS during planning to handle the needs of symposia, workshops, or special sessions.
4. Plan for room needs for TCS business meetings, board meetings and special meetings.

Bylaw 7: Committees

Old Version

C. Awards Committee. An Awards Committee of the Program Officer, the Past-President and four (4) other members of the Society shall be appointed by the Society President to evaluate student presentations for special recognition by the Society, and to periodically nominate a distinguished crustacean biologist to be recognized for a Lifetime Achievement Award or for the Excellence in Research Award for contributions to the field. Additional awards may be made as deemed appropriate by the Awards Committee. Nominations by the committee or its nominees, and the substance of all awards to be presented, shall be reported to the Board within two (2) weeks of an award being made and published in the next issue of the Society journal, newsletter and website.

New Version

C. Student Awards Committee. 1) Before and during each meeting of the Society, the Program Officer shall enlist members

of the Society present at the meeting site to form an ad hoc Student Awards Committee to judge the merits of enrolled student members of TCS who give oral presentations and posters at said meetings and select those deserving of special recognition by the Society. Awards may also be given at meetings other than those of the society, but only if an Executive Officer of TCS is present at the meeting and if prior sanctioning of the award(s) is granted by the Board. Results are to be reported to the Executive Committee within two (2) weeks of an award recipient being decided and are to be published in the first practicable issue of the Society newsletter as well as on the website.

D. Excellence in Research Award Committee. Periodically (usually but not necessarily on an annual basis), the Immediate Past-President shall convene an Awards Committee consisting of the Immediate Past-President, and four (4) other members of the Society, one of whom may be the Program Officer, to evaluate nominations solicited from The Crustacean Society Membership of a distinguished crustacean biologist to be recognized for The Crustacean Society Excellence in Research Award (TCSERA) for contributions to the field. Said committee's membership is to be reported by the Immediate Past-President to the Executive Committee for approval before nominations are accepted for that year. The Awards Committee shall be entrusted to evaluate the nominations for TCSERA. Ideally, nominations should consist of a CV, bibliography, and a detailed nomination letter (additional letters of support would be welcome). If the standard of the slate of nominees for any given year is deemed to be insufficient by the Awards Committee, the Committee will not be obligated to make a recommendation for that year. The results of the committee's deliberations shall be reported to the Executive Board for final evaluation and acceptance. The President of TCS will then coordinate announcements and the public presentation. As far as is practicable, the award typically will be presented to the recipient at the next available meeting of TCS.

Add Paragraph

Bylaw 7: Committees:

Section 7

D. Advisory Committee: The Advisory Committee shall consist of the President, the President-Elect, and the former Presidents. The Advisory Committee shall consider long-range plans and policies of the Society, make recommendations to the Executive Committee, perform such other functions as may be delegated to it by the Executive Committee, but be without power to commit the Society to action. The Past President shall preside.





TCS Board Election, 2013

Board of The Crustacean Society Nominations for Officer Vacancies (2013-2014)

The TCS board positions of President Elect, Program Officer, SICB Liaison Officer, Asian Governor and Latin American Governor are now open. The following members of TCS have been nominated for positions on the Board of The Crustacean Society for the period 2014–2015:

President Elect:

Bella S. Galil – Senior Scientist, National Institute of Oceanography, Haifa, Israel.

Bella Galil received her B.Sc., M.Sc. and Ph.D. from Tel-Aviv University, Israel. Her research interests include marine biology with emphasis on decapod crustacean taxonomy and biology; dynamics/conservation of marine biodiversity, anthropogenic changes of macrobenthic ecology in coastal and deep waters, and marine bioinvasions. She has handled benthic surveys and monitoring of nationally important projects, pioneered studies of vessel-transported alien species in the Mediterranean, and headed the first national study of ballast water biota in vessels entering and exiting Israeli ports.

Bella is Chairperson of the executive committee of the Zoological Society of Israel 1993–1997; Managing Editor of the Israel Journal of Zoology, 1992–1998; founding member of the Israeli Association for Aquatic Sciences (IAAS), and member of its first executive committee 2003–2005. She is co-chair of the scientific committee “Living Resources & Marine ecosystems”, CIESM – The Mediterranean Science Commission, 2001–2007 and a member of the Directorate, chairperson of the Scientific Committee of the Nature and Parks Authority, Israel, 2007–2012. She has authored over 230 peer-reviewed scientific papers, co-edited 3 books; on is the editorial board of three international journals.

Write in nomination: _____

Program Officer:

Chris Boyko (incumbent) – Assistant Professor, Department of Biology, Dowling College

Chris Boyko received his B.S. in Biology from the State University of New York at Binghamton; his M.S. in Marine Biology from the University of Massachusetts at Dartmouth; and his Ph.D. in Biological Sciences from the University of Rhode Island. His interests include the taxonomy, ecology, phylogenetic systematics of crustaceans, and host/parasite co-evolution. He is also interested in the biodiversity of invertebrates in general and has headed or participated in invertebrate surveys in coastal Georgia, USA, The Bahamas, and on Easter Island in the South Pacific Ocean. He has published over 90 papers on a variety of invertebrate subjects, described over 40 new species, presented at national and international scientific meetings, and has served as a consultant for the American Museum of Natural History (AMNH), the Newark Museum, the Institute for Exploration at Mystic Aquarium, CT, and the Yale Peabody Museum. He is an Assistant Professor in the Department of Biology at Dowling College, and a Research Associate

at the AMNH. He is also an Associate Editor for the peer-reviewed journal *The Proceedings of the Biological Society of Washington*, and has served as the Program Officer for the international organization The Crustacean Society since 2005.

Write in nomination: _____

SICB Liaison Officer:

Chris Boyko – Assistant Professor, Department of Biology, Dowling College Oakdale, NY, USA

Chris Boyko received his B.S. in Biology from the State University of New York at Binghamton; his M.S. in Marine Biology from the University of Massachusetts at Dartmouth; and his Ph.D. in Biological Sciences from the University of Rhode Island. His interests include the taxonomy, ecology, phylogenetic systematics of crustaceans, and host/parasite co-evolution. He is also interested in the biodiversity of invertebrates in general and has headed or participated in invertebrate surveys in coastal Georgia, USA, The Bahamas, and on Easter Island in the South Pacific Ocean. He has published over 90 papers on a variety of invertebrate subjects, described over 40 new species, presented at national and international scientific meetings, and has served as a consultant for the American Museum of Natural History (AMNH), the Newark Museum, the Institute for Exploration at Mystic Aquarium, CT, and the Yale Peabody Museum. He is an Assistant Professor in the Department of Biology at Dowling College, and a Research Associate at the AMNH. He is also an Associate Editor for the peer-reviewed journal *The Proceedings of the Biological Society of Washington*, and has served as the Program Officer for the international organization The Crustacean Society since 2005.

John Zardus – Associate Professor, The Citadel, Charleston, SC, USA

John D. Zardus is an Associate Professor at The Citadel in Charleston, SC and an adjunct faculty member in the Graduate Program in Marine Biology at the College of Charleston. He obtained a Ph.D. in Biology in 1998 from Northeastern University, Boston, MA emphasizing a track in marine invertebrate ecology and evolution. This was followed by a Postdoctoral Fellowship at the University of Massachusetts, Boston, MA (1999-01) working on the population genetics of deep-sea molluscs; and another at the Kewalo Marine Lab, Honolulu, HI (2001-05) working on invertebrate larval biology. These experiences led to John's specialization in population connectivity and substratum selection in barnacles commensal with vertebrate and invertebrate hosts. Utilizing molecular phylogenetics and larval settlement experiments he investigates how barnacles that are obligate epibionts find their hosts and are subsequently distributed by their mobile homes. John has been a member of The Crustacean Society since 2003 and a regularly attending member of SICB since 1991. He organized a symposium for SICB on barnacle biology (2012) and recently served as Program Officer for the Division of Invertebrate Zoology (2011-14). His long and intimate association with SICB makes him well-qualified to represent The Crustacean Society as SICB Liaison Officer.

TCS Board Election, 2013

Write in nomination: _____

Asian Governor:

Shirley S. L. Lim (incumbent) – Natural Sciences & Science Education, National Institute of Education, Nanyang Technological University, Republic of Singapore

Shirley received her Ph.D from The University of Western Ontario (Canada) and after a stint of post-doctoral work at the Huntsman Marine Laboratory (St. Andrews, New Brunswick, Canada), she returned to Singapore to join the Nanyang Technological University as a faculty member. She is currently an Associate Dean at the Office of Graduate Studies and Professional Learning as well as Associate Professor in Natural Sciences & Science Education Academic Group, where she teaches invertebrate zoology, ecology, environmental science, biostatistics and animal behavior courses. Her main research focuses on the ecology and morphometrics of ocyropodid crabs and molluscs. With good grant support as well as strong international collaborations with fellow scientists, she has carried out extensive field work in Panama (Smithsonian Tropical Research Institute), The Bahamas (Gerace Research Centre), Taiwan and Thailand (Phuket Marine Biological Center). She has published over 40 publications (books, chapters, peer-reviewed papers) and regularly shares her research findings (together with her graduate students) at international meetings (> 60 conference presentations). She holds the distinction of being the first lady to be elected as President of The Singapore Institute of Biology in 2000 (27th Council), and has served five years as President of the professional society for biologists and biology educators in Singapore. In addition, she was also a member of the Singapore Science Centre Board and a Council member of the Singapore National Academy of Science for six and five years respectively. She was the convenor of the Symposium on ocyropodid crabs at the recent TCS Summer meeting in Honolulu, Hawaii (2011).

Write in nomination: _____

Latin American Governor:

Ingo Wehrtmann (incumbent) – School of Biology, Universidad de Costa Rica, Costa Rica

My scientific carrier started with a study on shrimp larvae (Diploma degree), and continued as a Ph.D thesis (University of Hamburg, Germany, 1991) with a comparison of ecological features of crangonid larvae in the German Bight and Chesapeake Bay. My first contact with Latin America was in Colombia and Costa Rica (1986–1987), and from 1991–1996 I had the pleasure to work as a visiting professor at the Zoological Institute of the Universidad Austral de Chile in Valdivia. After these years in Chile, I returned to Germany and went to the Philippines (Mindanao), where I worked for the German Development Service (DED) in the area of marine coastal resource management in Mindanao. Since 2001, I am professor at the School of Biology of the Universidad de Costa Rica (UCR) and researcher at the Research Center of Marine Sciences and Limnology (CIMAR) of the UCR, where I founded the Unit for Fishery Research and Aquaculture (UNIP) of the CIMAR. I also curator of the Zoological Museum

of the UCR, co-founder and treasurer of the Latin American Association of Carcinologists (ALCARCINUS), associate/subject editor of Latin American Journal of Aquatic Research, Sexuality and Early Development in Aquatic Organisms, and ZooKeys, as well as member of the editorial board of the journal Nauplius (Brazil). My principal research areas are decapod diversity in aquatic habitats, reproduction of marine and freshwater decapods, and fishery-biology of deep-water shrimps. I have published roughly 100 papers, one book about the marine biodiversity of Costa Rica, and participate as referee in numerous journals. I organized the joint TCS-ALCARCINUS meeting, which was held in July 2013 in San José, Costa Rica; currently we are preparing the proceedings of this meeting as a special volume of the journal ZooKeys.

Write in nomination: _____

The President-Elect serves for 2 years before assuming the role of President, who presides over meetings and represents the Society's interests in external affairs. The President-Elect also runs the TCS elections during his term. The Program Officer is responsible for arranging and/or coordinating all symposia, workshops, and developing programs for TCS meetings etc. The SICB Liaison Officer is responsible for coordinating the activities of TCS with the SICB executive and the SICB annual meeting.

Regional Governors shall serve to represent the best interests of membership in all activities of the Board. In addition they shall serve to actively promote the Society through recruitment of Society members and Institutional subscriptions to the Society's journal in their respective regions. Regional governors are expected to attend regional carcinology-related meetings, advertise and promote the Society at these meetings, and promote relations between regional societies and the Crustacean Society. Governors are expected to file a yearly report to the Board of Governors (or the Society newsletter) on their activities (e.g., meetings attended, awards given, new members, important liaison issues).

Voting for the election is done electronically at

<http://www.thecrustaceansociety.org/>.

Ballots can be cast anytime after XX October 2013.

Voting will close on XX December 2013.

Shane Ahyong, TCS President-Elect



TCS Board Over the Years

Office	President	President Elect	Past-President	Secretary	Treasurer
Year					
1982					
1983					
1984	Larry Abele	Fredrick R. Schram	Ray Manning	Paul Haefner	C.W. Hart Jr.
1985	Larry Abele	Fredrick R. Schram	Ray Manning	“	“
1986	Fredrick R. Schram	Darryl Felder	Larry Abele	“	Denton Belk
1987	Fredrick R. Schram	Paul Haefner	Larry Abele	“	“
1988	Darryl Felder	Paul Haefner	Fredrick R. Schram	Elizabeth Wenner	“
1989	Darryl Felder	Paul Haefner	Fredrick R. Schram	“	“
1990	Paul Haefner	Richard Brusca	Darryl Felder	“	“
1991	Paul Haefner	Richard Brusca	Darryl Felder	Frank Barnwell	“
1992	Richard Brusca	Les Watling	Paul Haefner	“	“
1993	Richard Brusca	Les Watling	Paul Haefner	“	“
1994	Les Watling	Elizabeth E. Wenner	Richard Brusca	“	“
1995	Les Watling	Elizabeth E. Wenner	Richard Brusca	“	“
1996	Elizabeth E. Wenner	Joel W. Martin	Les Watling	“	“
1997	Elizabeth E. Wenner	Joel W. Martin	Les Watling	“	“
1998	Joel W. Martin	Jens T. Hoeg	Elizabeth E. Wenner	“	Alan W. Harvey
1999	Joel W. Martin	Jens T. Hoeg	Elizabeth E. Wenner	Jeffrey D. Shields	“
2000	Jens T. Hoeg	Gary C.B. Poore	Joel W. Martin	“	“
2001	Jens T. Hoeg	Gary C.B. Poore	Joel W. Martin	“	“
2002	Gary C. B. Poore	Trisha Spears	Jens T. Hoeg	“	Mary Belk
2003	Gary C. B. Poore	Trisha Spears	Jens T. Hoeg	“	“
2004	Trisha Spears	Jeffrey D. Shields	Gary C. C. Poore	Christopher Tudge	“
2005	Trisha Spears	Jeffrey D. Shields	Gary C. C. Poore	“	“
2006	Jeffrey D. Shields	Rafael Lemaitre	Trisha Spears	“	“
2007	Jeffrey D. Shields	Rafael Lemaitre	Trisha Spears	“	“
2008	Rafael Lemaitre	Akira Asakura	Jeffrey D. Shields	“	“
2009	Rafael Lemaitre	Akira Asakura	Jeffrey D. Shields	“	“
2010	Akira Asakura	Christopher Tudge	Rafael Lemaitre	Ole Sten Moeller	“
2011	Akira Asakura	Christopher Tudge	Rafael Lemaitre	“	“
2012	Christopher Tudge	Shane Ahyong	Akira Asakura	“	Brian Tsukimura
2013	Christopher Tudge	Shane Ahyong	Akira Asakura	“	“

continued...





TCS Board Over the Years

Office	Program Officer	Editor	Newsletter Editor	Goverenor At Large	North Am Governor
Year					
1982		Arthur Humes	Paul Haefner		x
1983		“	“		x
1984	Adrian Wenner	“	“	Jacques Forest	x
1985	“	“	“		x
1986	“	“	Ray Bauer		Elizabeth Wenner
1987	“	“	“		
1988	George D. Wilson	“	“		Dorothy Skinner
1989	“	“	“		“
1990	“	“	“		“
1991	Robert Elnor	“	“		“
1992	“	“	“		“
1993	“	“	“		“
1994	“	“	“		“
1995	“	“	“		“
1996	Thomas G. Wolcott	“	Timothy D. Stebbins		“
1997	“	“	“		“
1998	Jack O’Brian	“	“		Rafael Lemaitre
1999	“	“	“		“
2000	“	David K. Camp	“		“
2001	“	“	“		Trisha Spears
2002	“	“	“		J. Emmett Duffy
2003	“	“	Rachael A. King		“
2004	Pending	“	“		“
2005	Chris Boyko	Fredrick R. Schram	“		Michael Childress
2006	“	“	“		“
2007	“	“	“		“
2008	“	“	“		Ragina Wetzer
2009	“	“	Diego Maruzzo		“
2010	“	“	“		“
2011	“	“	“		Jason Williams
2012	“	“	“		“
2013	“	“	“		“

continued...





TCS Board Over the Years

Office	Asian Governor	Indopacific Governor	Latin Am Gov	Europe Gov	SICB Liaison	Executive Director	
Year							
1982	x	x	x	x	x	x	
1983	x	x	x	x	x	x	
1984	x	x	x	x	x	x	
1985	x	x	x	x	x	x	
1986	Tatsunori Ito	Donald Anderson	Gilberto Rodriguez	Jan Stock	x	x	
1987	“	“	“	“	x	x	
1988	“	G.R.F. Hicks	“	“	x	x	
1989	“	“	“	“	x	x	
1990	Yasuhiko Miya	“	“	“	x	x	
1991	“	“	“	Geoffrey Boxshall	x	x	
1992	“	“	Albertina Kamaya	“	x	x	June 1, 1992 Allen Press took over business office functions
1993	“	James K. Lowry	“	“	x	x	
1994	Ichiro Takeuchi	“	“	“	x	x	
1995	“	“	“	“	x	x	
1996	“	Diana S. Jones	Elva G. Escobar-Briones	Pierre Noel	x	x	
1997	“	“	“	“	x	x	
1998	Peter Ng	Gary C.B. Poore	“	“	x	x	
1999	“	“	“	Paul F. Clark	x	x	
2000	“	Colin McLay	Marcos Tavares	“	x	x	
2001	“	“	“	Angelika Brandt	x	x	
2002	Akira Asakura	“	“	“	x	x	
2003	“	“	“	“	x	x	
2004	“	“	Michel Hendricks	“	x	x	
2005	“	“	“	“	Brian Tsukimura	x	
2006	“	“	“	“	“	x	
2007	“	“	“	“	“	x	
2008	Xiang Jianhai	Shane Ahyong	“	Jens Hoeg	“	x	
2009	“	“	“	“	“	x	
2010	“	“	Fernando Mantelatto	“	Sherry Tamone	x	
2011	“	Joanne Taylor	“	Elena Mente	“	x	
2012	Shirley S. L. Lim	“	Ingo Wehrtmann	“	“	Mary Belk	
2013	“	“	“	“	“	“	