



# The Ecdysiast

Newsletter of The Crustacean Society

## *Message from the President...*

	<i>Inside.....</i>
TCS Board Members.....	3-4
JCB Editorial Report.....	5-6
Treasurer's Report.....	
Upcoming Meetings.....	2
Best Student Awards.....	8
Meeting Reports.....	10-11
New Books.....	9,13
TCS Minutes.....	12

We are rapidly approaching mid-year, which will hopefully bring a well-earned break for students and faculty alike. Also rapidly approaching is our Mid-Year TCS meeting, jointly hosted by the International Association of Astacology (IAA), to be held in Sydney, Australia, from 19–23 July. Joint meetings are not new to us – in the recent past, for instance, we've met in conjunction with the Carcinological Society of Japan, Alcarcinus, and Colloquium Crustacea Decapoda Mediterranea. Hopefully, we'll see more joint meetings in the future. July's meeting will be the first crustacean conference in Sydney for more than 30 years, and the first for TCS or IAA. Thus, I'm looking forward to hosting you all in my home town and home institution. We will be hearing from major international keynotes, Prof. Justin Marshall, Prof. Ronald Jenner, and Prof. Alastair Richardson. Symposium themes include freshwater crayfish, Peracarida, invasive species and a special symposium on biogeographic methods. We look forward to the meeting of minds, not to mention enjoying what the city has to offer.

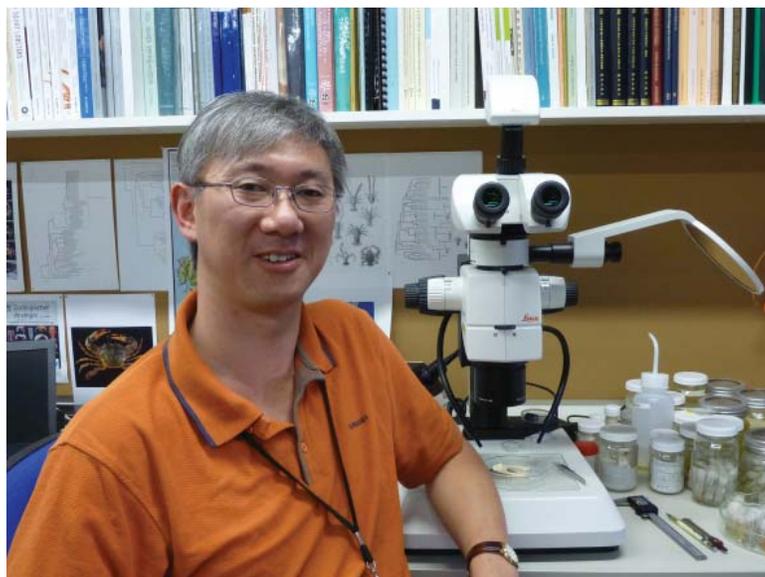
Changes are constantly afoot and the Future-of-TCS Committee, chaired by Neil Cumberlidge, has been actively exploring how to better achieve our goals as TCS. We commissioned the committee late last year, to spend the next 12 months looking at the future of TCS, asking where we want to be in the next decade, and how to get there. We'll hear some of their preliminary findings in Sydney. As mentioned last time, we are rebuilding the TCS website from the ground up. The old site has become limiting, with little prospect for expansion and improvement. Under the guidance of President-Elect Tsukimura, the new website is well advanced and we aim for a launch in Sydney this coming July. It promises to provide much greater functionality and interaction with social media platforms than our existing site and will be readily adaptable to our needs. Also, the new student travel grants have had good take-up and we're pleased to be able to help these students attend in July.

Thank you also to all who voted in the November 2015 TCS Board elections. We welcome to the board: Ole Sten Møller (secretary), Jason Williams (Treasurer), Enrique Macpherson (European Governor), D. Christopher Rogers (North American Governor) and Karen Schnabel (Indo-Pacific Governor). *continued.....*



As always, we move onward and (hopefully) upward. It has been encouraging to see new members joining, especially students, but please keep promoting TCS and flying the crustacean flag. See you in Sydney!

Cheers,  
Shane



### **For all members attending the Mid-Year Meeting in Australia in July!**

We will be running another silent auction of crustacean and related curios, souvenirs and memorabilia at the meeting.

Remember those old crusty items that you no longer need/want but are too good to throw away. Someone else is bound to want them. Please bring them to the meeting or mail them ahead of time to me at the address below. All proceeds will go towards TCS student support.

Cheers,

Shane Ahyong  
Australian Museum  
6 College St.  
Sydney  
NSW 2010  
Australia

## **TCS-IAA joint Mid-Year Meeting, Australian Museum, Sydney, Australia, 19–23 July 2015**

Preparations are well in train for the upcoming joint Mid-Year Meeting of The Crustacean Society and International Association of Astacology. The meeting will be held from Sunday 19 to Thursday 23 July 2015 at the Australian Museum, Sydney, Australia (see conference website: [www.tcsiaa2015sydney.org](http://www.tcsiaa2015sydney.org)).

The Australian Museum, established in 1827, is the oldest museum in the country, with a long history of crustacean research and the most extensive crustacean collection in the Southern Hemisphere. The Museum is centrally located in the heart of Sydney City and is close to famous landmarks such as the Sydney Opera House and Harbour Bridge, the Royal Botanic Gardens, Art Gallery of New South Wales and of course the scenic harbour and foreshore hosting numerous tourist attractions, fine dining and recreational activities.

We have received abstracts from all over the world including Argentina, Australia, Brazil, China, Germany, Hong Kong, India, Japan, Republic of Korea, Netherlands, Madagascar, Mexico, New Zealand, Nigeria, Singapore, Slovenia, Spain, South Africa Taiwan, the United Kingdom, and the USA. We will have session son all aspects of crustacean biology including freshwater crayfish, invasive species, biogeographic methods, genomics, phylogenetics, functional ecology and fisheries.

Our Keynote speakers:

Prof. Justin Marshall – Vision in Stomatopods: Comparisons with other Crustaceans and Lesser animals

Prof. Ronald Jenner – Chasing neglected venomous invertebrates: tales of convergent toxin evolution

Prof. Alastair Richardson – Australian freshwater crayfish: how do they shape up?

We hope to see you in Sydney!

Shane Ahyong, on behalf of the Organising Committee: Malte Ebach, Luana Lins, Kelly Merrin, Rachael Peart, Alistair Poore, Jo Taylor



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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](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.

Send all material directly to the editor:

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## 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](http://www.JournalExperts.com?rcode=JCB1).

When you are sure about your text, manuscripts then can be submitted on line through the new link: [www.editorialmanager.com/jcb](http://www.editorialmanager.com/jcb).



## JCB Editorial Report for volume 34 (2014)

Here is the report for the JCB publication year just concluded: volume 34 (2014), the peach volume. The New Year brings in a new color – pale yellow.

We have processed 150 submissions this past 12 months, 6 less than last year – looks like we continue on a plateau [although we might get a few more by the end of the year]. Our Impact Factor rose to 1.187 this year, the highest it has ever been. Hence, we remain on a solid footing.

When a submission is received in the editorial office, I take on average 0.8 days to assign an Assc. Edit. The AEs take on average some 5.2 days to assign reviewers (picking up the pace from last year). On average, submission to first decision by the Gen Editor took 39.6 days; this is almost a week longer than last year and indicates our reviewers (205 of them) have been slower to submit their comments (38 of them in fact had to be terminated for non-response despite several prods to please fulfill their agreement).

Other statistics are of interest. Of submissions with completed reviews: 3.2% had immediate acceptance, 33% required major revisions, 38% required minor revisions, 0.9% were adjudged to be out-of-scope, and 24.9% were recommended for rejection. The average turnaround time by the authors after receiving their reviews is 61 days. Our overall rejection rate was 46.6% between 2011-2014, 35% out right rejected and 11.6% sent back as ‘out-of-scope.’ Differences with the immediately above numbers are related to decisions the GE makes before ever deciding to send things on to an AE. The rejection rate for 2014 only sits at 30% [again the difference between this figure and the figure above relates largely to carry-overs from 2013].

Volume 34 contains 915 pages (including the ToC for the whole volume. We published 905 pages in 2013.

A problem with on-line access to the entire JCB catalog on the Brill platform re-emerged this fall. For some reason, the special issue in vol. 20 (2000), the Manning Festschrift, simply vanished into cyberspace; Brill now is rescanning those papers and will re-insert them as issue 5 in vol. 20. Brill asked us again to consider going to 8 issues. I am not sure we would have enough submissions to fill 8 issues and still maintain our quality. I will leave this decision to Pedro Castro as to whether this should occur. However, our submissions per year remain steady and while we have no trouble filling 6 issues, 8 issues might be a stretch.

We published 8 fewer papers this year than last, but the total published pages was up slightly because we had a few papers that were quite long – major research efforts.

Our Aquaculture submissions remained steady this year. We rejected as out-of-scope some purely technical submissions in this field, which we recommended be sent to a suitable journal for that subject.

The subject spread of the 80 published pieces in volume 34 was:

	2011	2012	2013	2014
Review		1	2	
Special Sections	5	4	3	2
Anatomy	10	8	3	7
& Func. Morph.				
Aquaculture		1	8	7
Behavior	6	5	2	2
Ecology	24	19	23	11
Larvae & Development	7	6	4	7
Paleobiology	3	6	2	1
Physiology	1	10	6	8
Population Biol	5	5	5	5
& Genomics				
Systematics, Evol.	10	9	8	11
& Biog.				
a-Taxonomy	5	13	7	10
Conservation	0	1	4	0
Short Communications	5	6	5	4
Book Reviews	3	4	6	2
Memorials/history				3
Total	84	98	88	80

Our tally of author origins shows for the first time a notable decrease in the number from the USA. Brazil and the PRC continue very strong. A few new countries appear in the submissions, viz., Colombia, Guatemala, Saudi Arabia, and Turkey. The latter is noteworthy because there is a fairly sizable network of carcinologists there. I continue to wonder why we have so few submissions from Australia, Canada, Denmark, New Zealand, and the UK. Why France, Singapore, and the UK, which have strong carcinological communities, remain low is a mystery.

All in all, we have a solid international spread, and I know that there are a few items in the pipeline that will fill in some of the gaps recorded this year, e.g., out to review are papers from Thailand and Singapore. Nevertheless, our international appeal and our falling North American numbers impinge upon another problem, that of society membership. It is a struggle to get foreign authors to take up a membership – would that they did join because they are using the journal to feature their research – in fact most of our authors are from outside the USA.



# JCB Editorial Report for volume 34 (2014)

	2011	2012	2013	2014
Argentina	8	24	10	15
Australia	6	13	2	5
Austria	1			
Belgium	3		3	5
Bolivia		1		
Brazil	13	28	32	39
Canada	11	4	6	7
Chile	12	13	4	5
Colombia				2
Costa Rica	2	2	5	1
Czech Republic		1		
Denmark	1	2	1	1
Egypt	2			
France	4	5		
Germany	10	17	14	14
Guatemala				1
Iceland	2			
India	3	4	1	7
Indonesia	1			4
Israel			1	2
Italy			12	11
Japan	31	27	5	12
Korea	3	7	22	11
Mexico	5	21	7	25
Netherlands		1	1	1
New Zealand	2		6	
Norway	1	1		1
Pakistan	1			
Panama	2		1	
Paraguay		3		
PR China	14		24	40
R China	10	9	2	8
Poland	1			
Portugal		4	4	
Puerto Rico				
Russia		2	1	1
Saudi Arabia				1
Serbia		2		
Singapore	4	3		
Slovakia			1	
Slovenia	1			
South Africa	1	2	4	4
Spain	6	14	10	17
Sweden	1		3	
Tahiti			1	1
Thailand	3	4	2	
Turkey				6
UK	8	11	4	11
USA	70	74	99	65

My Associate Editors must also be thanked for their volunteer service: Antonio Baeza, Ray Bauer, Neil Bruce, Keith Crandall, Mark Grygier, Magnus Johnson, Won Kim, Rafa Lemaitre, Paul Moore, D. Christopher Rogers, Bernard Sainte-Marie, Gerhard Scholtz, and Gilbert van Stappen, as well as Brad Stevens and Martin Thiel (now rotated off). I continue to say to one and all that the work of our AEs is responsible for the quality of our journal. Pedro Castro is also now an AE and learning the ropes over the next several months as we transition to his general editorship late in 2015.

Respectfully submitted,

Frederick R. Schram  
General Editor, JCB

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# Treasurer Report for Fiscal Year 2014

TCS ended 2013 in the black for the first time in several years. The TCS budget for 2014 projected a surplus of \$3,800.00. After the budget was accepted, the Financial Committee voted an additional \$3000 in student scholarships for 2014 and thus TCS ended 2014 with a small surplus of \$209.00.

For TCS to meet the original approved 2014 budget, the Financial Committee would have had to cut deeper than the officers were willing. In particular, no one wanted to cut student scholarships to only \$3000.00 and the Financial Committee voted to keep the six \$1000 scholarships for 2014. For the 2015 budget, the Finance Committee has approved expanding student support.

In total, six scholarships of \$1000 are budgeted in 2015 and the Financial Committee has added the student benefit of conference assistance for ten students (in total, \$4,500 for registration support for TCS meetings). In order to partially offset these and additional expenses, the Financial Committee voted to use \$14,000 from the TCS Schwab investment accounts. The Financial Committee agreed that students are the basis of keeping TCS functional in the future and need to be supported.

TCS did not have a symposium scheduled for SICB for 2015; therefore we did not spend the \$2000 to \$3000 generally allotted. The 2015 budget includes \$4500 for support of two symposia for SICB in January 2016 (“Tapping the Power of Crustacean Transcriptomes to Address Grand Challenges in Comparative Biology” by Donald Mykles, Karen Burnett, David Durica, and Jonathon Stillman and “Parasites and Pests in Motion: Biology, Biodiversity and Climate Change” by Christopher Boyko and Jason Williams).

One of the biggest single financial issues for TCS at the moment is membership. Lowering membership rates is an option but not viable this year because TCS has to cover fixed expenses associated with JCB. A large number of authors are not able or choose not to pay page charges and this money must come from membership payments. Each member should try to get at least one other person to join during each year. Also, each professor should get his/her students signed up as members. In 2013, TCS had about 438 members, compared to 403 in 2014.

The projected 2015 budget currently shows a ~\$22,165 deficit. This is largely due to our effort at maintaining student support, new website construction, overlap of two editors, reduced income from Brill, and currency fluctuations between the Euro and US dollar. TCS Schwab account earnings will be used to cover the projected deficit in the 2015 budget.

## TCS Accounts:

Wells Fargo Bank Checking	\$17,183.85
Dec. 19, 2014	
Wells Fargo Bank Savings	\$38,542.91
Dec. 29, 2014	
Schwab Scholarship Account	\$66,625.57
Nov. 30, 2014	
Schwab Main Account	\$246,797.26
Ded. 19, 2014	
Schwab Second Account	\$196,594.99
Nov. 30, 2014	

Respectfully submitted, Jason Williams



Participants in CrusTag, meeting report on page 11.  
Photo provided by Ole Sten Møller PhD



## TCS Best Student Paper and Best Student Poster Awards SICB, West Palm Beach, 2015

The Crustacean Society (TCS) is pleased to announce the winners of the Best Student Paper and Poster Competition held during the annual meeting of the Society for Integrative and Comparative Biology, January 3-7, 2015, in West Palm Beach, FL. There were 18 high quality competitors. The Best Student Oral Presentation Award was presented to Natalie Pitts (Colorado State University) for her talk entitled, "Nitric oxide production and sequestration in the sinus gland of the green shore crab, *Carcinus maenas*" (with co-author D. L. Mykles). The Best Student Poster Award was presented to Samuel Thalathoti (Elizabethtown College) for his poster entitled "Individual recognition in crayfish *Orconectes obscurus*" (with co-author A. Goldina). 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. TCS thanks those members who served as judges and all student participants.

Christopher B. Boyko  
Program Officer

### **Nitric oxide production and sequestration in the sinus gland of the green shore crab, *Carcinus maenas***

Pitts, N. L. & D. L. Mykles (Colorado State University, USA) [pittsn@rams.colostate.edu](mailto:pittsn@rams.colostate.edu)

Molting in decapod crustaceans is regulated by molt-inhibiting hormone (MIH), a neuropeptide produced in the X-organ (XO)/sinus gland (SG) complex of the eyestalk ganglia (ESG). Pulsatile release of MIH from the SG suppresses ecdysteroidogenesis by the molting gland or Y-organ (YO). The hypothesis is that nitric oxide (NO), a neuromodulator that controls neurotransmitter release at presynaptic membranes, depresses the frequency and/or amount of MIH pulses to induce molting. NO synthase (NOS) mRNA was present in *Carcinus maenas* ESG and other tissues and NOS protein was present in the SG. A copper based ligand (CuFL), which reacts with NO to form a highly fluorescent product (NO-FL), was used to image NO in the ESG and SG and quantify the effects of NO scavenger (cPTIO), NOS inhibitor (L-NAME), and sodium azide (NaN<sub>3</sub>) on NO production in the SG. Preincubation with cPTIO prior to CuFL loading decreased NO-FL fluorescence ~30%; including L-NAME had no additional effect. Incubating SG with L-NAME during preincubation and loading decreased NO-FL fluorescence ~40%, indicating that over half of the NO release was not directly dependent on NOS activity. Azide, which reacts with NO-binding metal groups in proteins, reduced NO-FL fluorescence to near background levels without extensive cell death. Spectral shift analysis showed that azide displaced NO from a soluble protein

in SG extract. These data suggest that the SG contains NO-binding protein(s) that sequester NO and releases it over a prolonged period. This NO release may modulate neuropeptide secretion from the axon termini in the SG.

### **Individual recognition in crayfish *Orconectes obscurus***

Thalathoti, S. P. & A. Goldina (Elizabethtown College, PA, USA)  
[thalathotis@etown.edu](mailto:thalathotis@etown.edu)

Individual recognition is important for maintaining stable social hierarchies and minimizing aggression intensity. While status recognition facilitates discrimination based on individual behavior that resulted from prior winning or losing experience, it does not assume individual discrimination. In crustaceans, evidence for individual recognition is scarce. The goal of our study was to assess whether crayfish *Orconectes obscurus* can recognize individuals based on previous experience with the individual, and not social status. We examined the ability of *O. obscurus* to distinguish between previously known opponents and unknown opponents of the same status. After a 1 week isolation period, two individuals were placed in a tank and allowed to establish dominance in a familiarization trial. Once dominance was established, the opponents were isolated for another week. At the end of this isolation period each individual was paired with 3 opponents: 1) known opponent from the familiarization trial, 2) an unknown opponent of the same status as known opponent, and 3) naïve individual. Order of opponent presentation was randomized. We compared average fight durations and aggression levels in familiarization trials to subsequent fights. While fight duration between known and unknown opponents did not differ significantly, aggression intensity reflected extent of previous experience with opponents. Dominants exhibited less aggression towards known subordinates than towards unknown subordinates or naïve individuals. Subordinate individuals exhibited least aggression towards known dominants, while aggression towards unknown opponents varied. Our preliminary data suggest that *O. obscurus* can distinguish between individuals of different status, but can also distinguish between individuals based on previous social experience.

Addendum to abstract: The original abstract submitted to the SICB conference reported results from studies conducted using *Orconectes obscurus*. However, we were unable to increase our sample size due to animal shortage at our field sites. We decided to refocus our study on the more populous *O. rusticus*. The data reported in the poster presentation reflect our findings in *O. rusticus*. The patterns reported are similar to our findings in *O. obscurus*; however, more experiments are needed to compare the two species.



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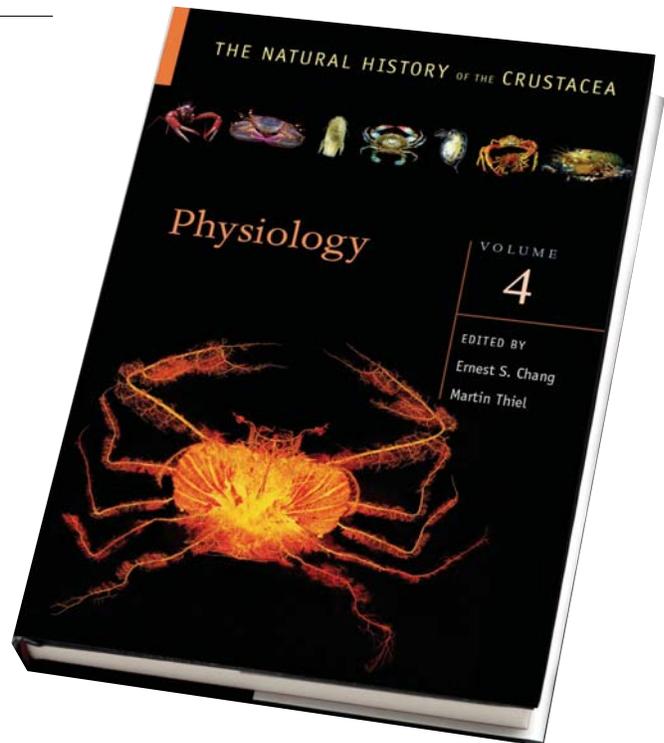
from *The Natural History of Crustacea Series*

## PHYSIOLOGY

Edited by Ernest S. Chang and Martin Thiel

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The Crustacea is one of the dominant invertebrate groups, displaying staggering diversity in form and function, and spanning the full spectrum of Earth's environments. Crustaceans are increasingly used as model organisms in all fields of biology, as few other taxa exhibit such a variety of body shapes and adaptations to particular habitats and environmental conditions. *Physiology* is the fourth volume in *The Natural History of the Crustacea* series, and the first book in over twenty-five years to provide an overview of the comparative physiology of crustaceans. An understanding of physiology is crucial to a comprehension of the biology of this fascinating invertebrate group. Written by a group of internationally recognized experts studying a wide range of crustacean taxa and topics, this volume synthesizes current research in a format that is accessible to a wide scientific audience.



### Special Features:

- The first extensive overview of crustacean physiology in two decades.
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- An up-to-date volume, focusing on the last 25 years after advances have been made in the fields of crustacean endocrinology, genomics and proteomics.

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MARTIN THIEL is Professor of Marine Biology at Universidad Catolica del Norte, Coquimbo, Chile.

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## Report on the IAA & CSJ joint International Conference on Crustacea Sapporo, Hokkaido, Japan, 20-21 September 2014

The Crustacean Society sponsored a plenary session of the joint meeting of the International Association of Astacology (IAA) and the Crustacean Society of Japan (CSJ), entitled “IAA & CSJ joint International Conference on Crustacea”. The organizers, Tadashi Kawai, Kazunori Tanaka, Hiroyuki Yamada, and Kousuke Ikeda, hosted this half-day Special Symposium “Conservation and Biology of Freshwater Decapoda: A Global Overview” with 5 invited speakers, Elena Tricarico (Dip. Biologia, Università degli Studi di Firenze, Italy); Francesca Gherardi: memories and her story, Amir Sagi (Department of life Sciences and the National Institute for Biotechnology in the Negev Ben Gurion University □ Israel); RNAi-based biotechnologies to control sexuality in crustaceans: environmental implications, Paolo Vezza (Instituto de Investigación para la Gestión Integrada de Zonas Costeras (IGIC), Universidad Politécnica de Valencia, Spain); Quantitative habitat models for the conservation of the endangered crayfish *Austropotamobius pallipes* complex, Sérgio Bueno (Department of Zoology, Institute of Biosciences, University of São Paulo, Brazil); Remarkable Anomurans: The family Aeglidae Dana, 1852, and Neil Cumberlidge (Department of Biology, Northern Michigan University, USA); Freshwater crabs and the biodiversity crisis: meeting the conservation challenges. This plenary session will be published as book “A Global Overview of the Conservation of Freshwater Decapod Crustaceans” by the Publisher Springer. Also, there were a total 36 speakers and poster presenters, who highlighted crustacean research from Indonesia, Chinese Taipei, and Germany. Speakers covered, taxonomy, ecology, morphology, phylogeny, aquaculture, systematics and zoogeography, I would hope it is not the last such meeting. I can definitely see future opportunities for collaboration between the CSJ and other international societies.

Immediately after the joint meeting, IAA20 (the 20th biennial meeting of the IAA) was held in Sapporo, from the 22nd to the 26th of September. The hosts provided an excellent one-day field trip to a local brook containing natural habitat of the Japanese endangered and endemic freshwater crayfish *Cambaroides japonicus*. Participants were also taken to other beautiful and historic sites in Sapporo City, such as the winter Olympic games stadium and the Natural History Museum of Hokkaido University.

Tadashi Kawai, Wakkanai Fisheries Research Institute, Hokkaido, JAPAN



Group photo of delegates at the IAA & CSJ joint International Conference on Crustacea.  
Photo provided by Tadashi Kawai



Group photo of IAA20 delegates at the venue, Sapporo Maruyama Zoo.  
Photo provided by Tadashi Kawai



## Report on the 17th bi-annual meeting of CrustTag

The 17th bi-annual meeting of the German speaking carcinologists (CrustTag) was convened officially by Prof. Reinhard Saborowski, at 10 am, on Friday 27th March 2015. The organizing team from the Alfred Wegener Institute, Helmholtz-Center for Polar & Marine research, had wisely selected a beautiful meeting venue just across the street from their main building in Bremerhaven: The German Shipping Museum. On behalf of The Crustacean Society, I also extended a warm welcome to all participants and continued by reading the greeting message provided to me by our president, Shane Ah Yong. With 89 participants of whom many were in their early career stages, the beautiful auditorium with the wavy ceiling was well filled. Two and a half days followed with many interesting talks and high-quality presentations followed by interesting discussions. The contributions covered a wide range of topics. These included the traditional basic research areas like morphology, developmental biology and evolution but also applied research areas such as aquaculture and fisheries. Among the most memorable, was the very interesting discussion about the best and most “humane” way of killing a lobster e.g. after use in an experiment. Torsten Fregin (AWI) presented some very interesting studies on this subject (based on neuronal activity), and seemingly the method with the lowest neuronal activity response, is to let the water temperature rise slowly! So, the way many cartoonists envision the demise of many a white explorer in a pith helmet, being boiled slowly in a big pot, is actually a very “humane” way to go (at least if you are a lobster!).

The Conference Dinner was held at the very beautifully situated restaurant “Strandhalle”. Our long standing TCS member Martin Thiel gave a very humorous and thought-provoking evening lecture on “Citizen Science” while, at the same time, quizzing people on the past days’ lectures! After a delicious buffet-style dinner, the prizes for the three best posters and oral contributions were handed out. Most remarkable was the 3rd prize for best poster to Gideon Haug, at the tender age of 10! But of course, as many of you will know from the ICC7 in Frankfurt last summer, he is already a very capable and interested young researcher. The remaining prizes are listed below. A very enjoyable and memorable evening all together.

The post conference excursions were slightly hampered by the persistently bad weather, so most opted for the guided tour of the fantastic “Klimahaus” (=Climate House). This monumental building situated directly on the waterfront, gives the visitors the possibility to virtually travel through all the climate zones of the world. Very well made and remarkable house, but after a demanding conference, the whole house was almost too big for us to take in in one go. But everyone agreed that the conference had been another great success in the row of “CrustTags”.

### Best posters:

First Prize: “Microplastic and Crustacea” by Julia Hämer (Ruhr University, Bochum)

Second Prize: “Morphologie des weiblichen Geschlechtsapparats von *Medorippe lanata* (Brachyura, Dorippoidea, Dorippidae)” by Juliane Vehof (Humboldt University, Berlin)

Third prize: “Neues über Fangschreckenkrebslarven (Stomatopoda)” by Gideon Haug (Ludwig-Maximilians-University, Munich)

### Best Oral presentations:

First Prize: “Die 150 Millionen Jahre alte “Raupe Nimmersatt”: Erster Fossilbericht von cymothoiden Asseln auf Fischen und deren Klammermechanismus im Detail” by Christina Nagler (Ludwig-Maximilians-Universität München)

Second prize: “Increased seawater temperatures cause shifts in catabolic pathways of Antarctic krill *Euphausia superba*” by Tobias Mattfeld (Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Bremerhaven)

Third prize: “Bioturbationsaktivität von *Corophium volutator* – Einfluss von Temperatur” by Alexa Wrede (Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Bremerhaven)

Respectfully submitted, Ole Sten Møller PhD



## *Minutes of the Crustacean Society*

### *Jan. 4, 2015*

Present: Shane Ahyong (President), Chris Boyko (Program Officer), Fred Schram (JCB General Editor), Brian Tsukimura (President-Elect), John Zardus (SICB Liaison Officer), and Mary Belk (Executive Director)

The meeting was called to order by Shane Ahyong using the official TCS gavel at 6:25 pm. (Mary reported the finding of the original bronze identification plate for the gavel, thought long lost!).

Treasurer's Report was read to the board by Mary Belk and notes were made for revisions with the revised report to be presented to the board at the Finance Committee meeting Monday evening (5 January 2015). Members examined the 2014 budget, the Actuals for 2014 and the proposed budget for 2015. Corrections to this document were noted for the forthcoming Finance Committee meeting.

The point was raised that TCS Regional Governors are expected to attend TCS Meetings that take place in the respective regions.

The board discussed the need to stand more candidates for each office for board elections.

Fred Schram summarized the draft Editor's report that was provided to the board ahead of the SICB meeting. He noted that a goal was to get JCB to an impact factor of 1.2 during his tenure and he was happy to say JCB was now at 1.18. JCB issue 35(3) was likely to be devoted to Large Branchiopods based on symposium presentations at the ICC8 in Frankfurt. The board discussed member page charge issues and it was recommended that for authors to qualify for page charge waivers, more than half of the authors on the paper must be TCS members. It was noted that TCS has a copyright policy and it is on the website and printed in JCB. TCS wants authors to contact the Copyright Clearance Service to get permission to use figures and pay through that process. Mary was instructed to contact CCC and establish TCS policies with them. Fred noted TCS is waiting for Brill to turn over a list of translation

and English assistance companies for TCS to recommend to authors.

Brian Tsukimura, in charge of redesign of the TCS website, presented the new design to the board and sought suggestions for improvement. He noted the decision to put what he determined to be the most important information on the draft home page. Meetings notices would be moved to the home page with links to JCB and the Ecdysiast. The TCS Facebook page will be reworked and linked directly to the new TCS homepage.

The two symposia supported by TCS for SICB 2016 were discussed. Chris Boyko presented his current slate of speakers and the funding position of NSF. Chris received support for three of the speakers from NSF and \$1000 from TCS. One other commitment for funds brought the total to about \$7500, still short of requirements for the symposium. The board supported an addition of \$1500 to the \$1000 already committed, as an important way to promote the society.

John Zardus gave a report on SICB. He noted some problems with the growing size of the SICB meetings and the challenge of finding appropriate locations at a reasonable cost. Also, the timing (early January) of the meeting has been an ongoing issue for discussion over the years. The current meeting received 1508 abstracts, and there was concern about the number of students presenting in relation to the total capacity of the conference.

Shane Ahyong adjourned the board meeting at 9:58 pm.

Respectfully submitted, Mary Belk



## Crabs of Christmas Island

Max Orchard, Christmas Island Natural History Association, 2012, ISBN 970646576428, hardcover, 288pp.

The Australian territory of Christmas Island in the eastern Indian Ocean is world famous for its land crabs that feature massive annual spawning migrations, described by Sir David Attenborough as one the 10 greatest natural wonders on Earth. The Crabs of Christmas Island is a beautiful editorial of the life and environment of the amazing assortment of crabs of this Island. The book is a long welcome successor to the 1984 book, Christmas Crabs by John Hicks, Holger Rumpff and Hugh Yorston. Author, Max Orchard has spent much of his time observing and documenting the life cycle of the red crabs and many of the other land crabs that inhabit the island. In all, almost 120 species are covered in full colour, both Brachyura and Anomura, including terrestrial and intertidal marine species. Of course, the crabs treated in most detail are the terrestrial species that have made Christmas Island famous, and a great deal of information is provided about their biology habits and mores making it a must have for scientists and naturalists. The author has adopted the most current taxonomy and consulted with experts to ensure the highest quality identification and information. Crabs of Christmas Island is available from the Christmas Island Natural History Association (<http://www.christmasislandnaturalhistoryassociation.com/>). We hope to have copies for sale during the Mid-Year meeting of The Crustacean Society and International Association of Astacology at the Australian Museum, Sydney, in July 2015.

