



The Ecdysiast

The Newsletter of The Crustacean Society

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President's Message – Winter (North Hem)/Summer (South Hem) 2018

Dear TCS Colleagues,

Happy New Year! It was great to see everyone at ICC-9 in Washington D.C. Thanks to the organizers Rafa Lemaitre, Chris Tudge, Keith Crandall, Amanda Windsor, and Brian Tsukimura for putting this excellence conference together. Special thanks to Rafa for arranging the use of the Smithsonian and the Freer Gallery. I am very excited to report that the JCB switch to Oxford University Press (OUP)

has led us to a better financial stability. The broader OUP has also increased the accessibility and exposure of JCB contents. This change is part of greater efforts for a more permanency in the TCS finances.

I wish to thank the outgoing TCS officers, in particular, Christopher Rogers for his four years of dedicated service to TCS as North American Governor. In addition, I wish to thank Rachel King for serving as the Indo-Pacific Governor. We look forward to their participation on future TCS endeavors.

I hope to see you in Tampa, Florida for our General Meeting associated with the Society for Integrative and Comparative Biology. TCS is sponsoring two symposia: 1) Beyond the powerhouse: integrating mitonuclear evolution, physiology, and theory in comparative biology; and 2) Multifunctional structures and multistructural functions: Functional coupling and integration in the evolution of biomechanical systems [<http://www.sicb.org/meetings/2019/symposia/index.php>].

I hope that the membership is also planning to participate in the TCS Summer Meeting in Hong Kong, May 26–30, 2019. Abstract Submission is closing January 20, 2019, and early registration deadline is February 20, 2019, thus please put these dates on your calendar. Please see their website: <http://tcs2019.net/>.

If you are unable to attend these meetings, but have ideas on how we can improve and broaden TCS, please feel free to contact me or any of the board members [<http://www.thecrustaceansociety.org/society-officers>]. Also, please engage your regional governor on how TCS can make local improvements in your region as well as at our international levels.

With appreciation,

Shirley, President TCS



**Crustacean Society Patron
Members**

Shane Ahyong
Raymond Bauer
David K. Camp
Peter Castro
Paul Frederick Clark
Keith A. Crandall
Neil Cumberlidge
Rodney M. Feldmann
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Stefan Richter
D. Christopher Rogers
Bernard Sainte-Marie
Frederick R. Schram
Carrie E Schweitzer
Thomas Shirley
Jörundur Svavarsson
Brian Tsukimura
Christopher Tudge
Les Watling





The Crustacean Society Board Members, 2018

President

Shirley Lim

Nanyang Technical University, Singapore

email: shirley.lim@nie.edu.sg

President-elect

Ingo Wehrtmann

Universidad de Costa Rica, Costa Rica

email: ingowehrtmann@gmx.de

Past-President

Brian Tsukimura

California State University, Fresno, USA

email: briant@csufresno.edu

Treasurer

Jason Williams

Hofstra University, New York, USA

email: jason.d.williams@hofstra.edu

Secretary

Sarah Gerken

University of Alaska, Anchorage, USA

email: gerken.uaa@gmail.com

Editor-in-Chief, Journal of Crustacean Biology

Peter Castro

California Polytechnic University, Pomona, USA

email: jcb@cpp.edu

Business Manager

Brett Burk

Burk & Associates, Virginia, USA

email: BBurk@BurkInc.com

Program Officer

Benny Chan

Academia Sinica, Taiwan

email: chankk@gate.sinica.edu.tw

Executive SICB Liaison Officer

John Zardus

The Citadel, South Carolina, USA

email: john.zardus@citadel.edu

Asian Governor

Tohru Naruse

University of the Ryukyus, Japan

naruse@lab.u-ryukyu.ac.jp

European Governor

Carola Becker

Queen's University, Belfast, UK

email: c.becker@qub.ac.uk

Indo-Pacific Governor

Rachael King

South Australian Museum, Australia

email: rachael.king@samuseum.sa.gov.au

Latin American Governor

Alexandre Oliveira de Almeida

University of Pernambuco, Brazil

aoalmeida.ufpe@gmail.com

North American Governor

D. Christopher Rogers

Kansas University, Kansas, USA

email: branchiopod@gmail.com

The Ecdysiast is published twice yearly in May and November and it is available in electronic form at <http://www.thecrustaceansociety.org/ecdysiast>. 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:

Kelly Merrin,

kellymerrin@hotmail.com



The Crustacean Society Liaison Officers, 2018

The Chinese Crustacean Society

Liaison Officer: Jianhai Xiang
CAS Institute of Oceanology, China
email: jhxiang@qdio.ac.cn

International Association of Astacology

Liaison Officer: Tadashi Kawai
Wakkanai Fisheries Research Institute, Hokkaido,
Japan email: tadashikawai8@gmail.com

The Brazilian Crustacean Society

Liaison Officer: Fernando Mantelatto
University of São Paulo, Brazil
email: flmantel@usp.br

The Carcinological Society of Japan

Liaison Officer: Akira Asakura
Seto Marine Biological Laboratory, Kyoto
University, Japan
email: asakura.akira.6w@kyoto-u.ac.jp

The World Association of Copepodologists

Liaison Officer: Rony J. Huys
Natural History Museum, London, UK
email: r.huys@nhm.ac.uk

International Research Group on Ostracoda

Liaison Officer: Renate Matzke-Karasz
University Munich, Germany
email: r.matzke@lrz.uni-muenchen.de

Latinoamerican Carcinologist Association

Liaison Officer: Michel Hendrickx
Unidad Academica Mazatlan, Mazatlan, Mexico
email: michel@ola.icmyl.unam.mx

Colloquium Crustacea Decapoda Mediterranea Group

Liaison Officer: Enrique Macpherson
Centro de Estudios Avanzados de Blanes, Spain
email: macpherson@ceab.csic.es

Terrestrial Isopod Biologists Group

Liaison Officer: Jasna Strus
University of Ljubljana, Slovenia
email: jasna.strus@bf.uni-lj.si

Large Branchiopod Working Group

Liaison Officer: D. Christopher Rogers
Kansas University, Kansas
email: branchiopod@gmail.com

Amphipod Group

Liaison Officer: Wim Vader
Tromsø Museum, Norway
email: wim.vader@uit.no

German Carcinologist Group

Liaison Officer:
Currently vacant





Treasurer's Report for November, 2018

Treasurer's Report for November 2018

Currently, TCS has 470 members (248 online members, 74 print and online members, 27 patron members, and 121 student members). In terms of investments, the society is in good standing with Schwab account investments presently totaling over US\$600K. In addition, we have projected a slight surplus in 2018 (see 2018 Actuals attached). The Financial Committee of TCS (President Shirley Lim, President-Elect Ingo Wehrtmann, Past-President Brian Tsukimura, Treasurer Jason Williams, Secretary Sarah Gerken, and Program Officer Benny Chan) have completed the proposed budget for 2019 (see attached). Without cutting support for student scholarships and awards (presently totaling \$15,400/year for students) or support for meetings, it does not seem possible to achieve a balanced budget. However, BAI and the Financial Committee are looking into areas to improve TCS standing and plans to use 4-5% unrestricted reserves from Schwab investments to cover the shortfall. Looking to the future, it should be noted that OUP profit share is projected to go up to ~\$50K by 2021; this additional income, combined with other measures including increased memberships numbers, will hopefully lead to positive net income in 2020 and beyond.

Respectfully submitted,

Jason Williams

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@TheCrustaceanSociety



@CrustaceanSoci2



Treasurer's Report for November, 2018

The Crustacean Society—Statement of Activities

REVENUE	Actual Jan-Nov '18
Membership Dues (4090)	
Membership Online	10,925.00
Membership Online and Print	2664.00
Patron Online and Print	925.00
Student Online Member	3,500.00
Total Membership Dues	\$18,014.00
JCB	
OUP Profit Sharing	30,023.00
Page Charges	
Color Plates	
Single Issue Sales	0
Total JCB	\$30,023.00
Contributions — General	100
Meeting Revenue	
Registration — Member	70,277.00
Registration — Non-Member	18,017.00
Registration — Student	11,310.00
Registration — Student Non-Member	5,955.00
Banquet	10,103.00
Sponsorship	4,000.00
Corporate Registration - Sponsorship	6,000.00
Exhibitors	15.00
Special Events Field Trip/Tour	1,554.00
Merchandise Sales	1,695.00
Total Meeting Revenue	\$128,926.00
TOTAL REVENUE	\$177,063.00



Treasurer's Report for November, 2018

The Crustacean Society—Statement of Activities

EXPENSES	Actual Jan-Nov '18
Meetings	
Summer Meeting Support	
Summer Meeting Expense	
Exhibits/Posters/Signs	5,464.00
Food & Beverage	79,687.04
Secretary Travel	4,414.72
Insurance	511.38
Meeting Management	4,500.00
Abstract & Programs	2,380.00
Supplies	3,074.59
Other Meeting Expenses	5,798.03
Total Meeting Expense	\$105,829.76
SICB	
SICB Booth	-
SICB General Expenses	-
SICB Symposium	-
Total SICB Expenses	\$0
BAI	
Intuit fees	35.00
Postage	159.65
Management Fee - BAI	24,750.00
Travel (6350)	1,591.70
Office Supplies (6550)	66.56
Total BAI Expense	\$26,602.91
JCB	
Editor's Stipend	
Editor's Office	
Postage	-
Office Supplies	-
Phone/Internet	-



Treasurer's Report for November, 2018

The Crustacean Society—Statement of Activities

EXPENSES	Actual Jan-Nov '18
Publons Fee	-
Support to JCB Editors Meeting	-
Travel	-
Total Editor's Office	\$0
JCB Printing & Distribution:	
Color Plate Charges	-
Print issue/member charge	-
Printing & Distribution	-
Total JCB Printing & Distribution*	\$0
Awards & Scholarships	\$14,400
Administrative	
Bank Service Charges/Investment Fee (6210)	623.56
Credit card charges	6,255.96
Cash Transfer to PayPal Fee	79.23
Legal Fees (6280)	125.00
Non-Profit Registration	
Dues to Other Organization	125.00
Survey Monkey	
Website	1,125.80
Total Administrative	\$8,334.55
TOTAL EXPENSE	\$155,167.22
CHANGE IN NET ASSETS*	\$21,895.78

*Note: Since JCB Printing & Distribution (estimated at ~\$15K) has not been paid, the surplus will be lower than indicated here.



Treasurer's Report for November, 2018

Proposed Budget 2019

Proposed Budget
2019

REVENUE

Membership Dues (4090)

Membership Online	21,500.00
Membership Online and Print	10,850.00
Patron Online and Print	4,680.00
Student Online Member	3,885.00
Total Membership Dues	\$40,915.00

JCB

OUP Profit Sharing	32,727.00
Page Charges	0
Color Plates	0
Single Issue Sales	
Total JCB	\$32,727.00

Contributions — General	4,500.00
Total Revenue	\$78,142.00

EXPENSES

Meetings

Summer Meeting Support	2,000.00
Summer Meeting Expenses	1,000.00
Meeting travel (President and other officers if needed)	8,000.00
Sub-Total Meeting Exp	\$11,000.00

SICB

SICB Booth	600
SICB General Expenses	1,600.00



Treasurer's Report for November, 2018

Proposed Budget 2019

Proposed Budget
2019

EXPENSES

SICB Symposium	200
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Total SICB Expenses	2,400.00
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Total Meeting Expenses	\$13,400.00
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BAI

Intuit fees

Postage	-
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Management Fee	33,000.00
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Travel (6350)

Office Supplies (6550)

Total BAI Exp	\$33,000.00
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JCB

Editor's Stipend

Editor's Office

Postage	-
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Office Supplies	-
-----------------	---

Phone/Internet	-
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Publons fee

Support for JCB Editors meeting	1,000.00
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Travel	3,000.00
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Total Editor's Office	\$4,000.00
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JCB Printing & Distribution

Color Plate Charges	-
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Print issue/member charge	-
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Treasurer's Report for November, 2018

Proposed Budget 2019

	Proposed Budget 2019
EXPENSES	
Printing & Distribution	15,200.00
Total JCB Printing & Distribution	\$15,200.00
Awards & Scholarships	15,400.00
Administrative	
Bank Service Charges/Investment Fee (6210)	2,600.00
Credit card charges	1,000.00
Cash Transfer to PayPal Fee	-
Legal Fees (6280)	
Non-Profit Registration	85
Dues to Other Organization	125
Survey Monkey	
Total Administrative	\$3,810.00
TOTAL EXPENSE	\$84,810.00
CHANGE IN NET ASSETS	-\$6,668.00



***Journal of Crustacean Biology* Editorial Report for Volume 38 (2018)**

Journal of Crustacean Biology (JCB) continues to reap the benefits of the greater visibility and the quality of online and printed issues being offered by Oxford University Press (OUP). A most important consequence was the increase in the impact factor of our journal from 1.064 in 2016 to 1.119 in 2017. JCB's impact factor is now more than twice the 0.517 impact factor of *Crustaceana*, possibly our most important competitor. Another positive development was an increase in the number of pages budgeted by OUP from 768 (128 per number) in 2017 to 840 (140 per number) starting this year.

The publication of the printed issues of the current Volume 38 has so far been on schedule, although some of us are receiving the issues with some annoying delay. Full issues have nevertheless been published on schedule at <https://academic.oup.com/jcb>. Most importantly, all articles have been published much earlier than the printed issue in OUP's online Advance Access (<https://academic.oup.com/jcb/advance-articles>), in some cases four months before the online publication of the complete issue and much longer than the printed issue. Members should sign up to receive automatic announcements of Advance Access articles at <https://academic.oup.com/jcb>. Articles in JCB's website include links to OUP's Altmetric Data, which provides information on online views, downloads, new-outlets pickups, blogs, and citations. We regularly highlight particular articles as a "Feature Article," which has resulted in much higher views and downloads of the articles.

The Editor-in-Chief and the other 21 members of JCB's Editorial Board continue to successfully and efficiently work with OUP's team, which includes the Editorial Manager, Production Editor, Publisher, and Marketing Manager. Nine board members met during the June 2018 summer meeting in Washington, DC and recommended, among other resolutions, to solicit invited review articles on subjects related to the biology of crustaceans. Suggestions (and volunteer prospective authors) are welcome from TCS members.

The current Volume 38 (2018) will surpass Volume 37 (2017) in both number of articles and total number of pages. The November issue will consist of a record 21 articles, including a special section of articles resulting from the 2017 Third International Symposium on Krill held at the University of St. Andrews, Scotland.

We continue to publish "News from the Crustacean Society" as part of every issue, providing information on forthcoming meetings, research fellowships, and travel awards. *The Ecdysiast* publishes full articles on the excellence in research (TCSERA) awardees as well as full-length obituaries.

My deep appreciation goes to the hard-working Associate Editors for their expert and always-efficient work: Antonio Baeza, Ray Bauer, Carola Beker, Neil Bruce, Ka Hou Chu, Oliver Coleman, Keith Crandall, Rod Feldmann, Mark Grygier, Rafa Lemaitre, Colin McLay, Elena Mente, Paul Moore, Don Mykles, Christopher Rogers, Bernard Sainte-Marie, Tomer Ventura, and Darren Yeo. Special thanks to Andy Brierley and



Journal of Crustacean Biology Editorial Report for

Volume 38 (2018)

Keith Reid, Guest Associate Editors, for their outstanding work handling submissions from the Krill Symposium. Todd Oakley is a Guest Associate Editor already working with the submissions resulting from the Eighth Ostracoda Symposium, which we plan to publish in 2019.

.....continued next page

Article Subjects 2011-2018

	2011	2012	2013	2014	2015	2016	2017	2018
Phylogeny & taxonomy	5	13	7	16	13	9	14	17
Ecology	24	19	23	20	15	15	14	14
Special sections	5	4	3	2	14	15	-	9
Reproductive biology	-	-	-	-	-	7	11	9
Genetics & genomics	5	5	5	5	1	5	2	7
Research Notes	5	6	5	4	2	2	9	7
Aquaculture	-	1	8	7	4	6	1	6
Behavior	6	5	2	2	4	8	7	5
Physiology	1	10	6	8	8	1	8	4
Techniques & methods	-	-	-	-	-	15	9	4
Functional morphology	10	8	3	6	5	-	7	3
Paleobiology	3	6	2	1	5	5	3	3
Conservation	-	1	4	-	2	2	3	2
Developmental biology	-	-	-	-	-	-	-	2
Historical memorial	-	-	-	-	1	-	-	1
Larval development	7	6	4	7	2	5	-	-
Evolution & biogeography	10	9	8	3	2	-	-	-
Subject reviews	-	-	1	2	-	-	-	-
[Book reviews]	3	4	6	2	2	-	[-] **	[-] **
[Obituaries/history]	-	-	-	3	2	4	[-] **	[-] **
Total	84	97	87	88	92	99	88	93

** Moved to *The Ecdysiast*; short obituaries and TCSERA included in "News from TCS"



Journal of Crustacean Biology Editorial Report for

Volume 38 (2018)

Nations represented by authors of articles

	2011	2012	2013	2014	2015	2016	2017	2018
USA	70	74	99	65	77	87	79	85
China	14	-	24	40	35	28	42	36
Australia	6	13	2	5	5	16	14	34
Mexico	5	21	7	25	4	2	11	31
Brazil	13	28	32	39	36	22	15	20
Japan	31	27	5	12	24	19	30	18
Norway	1	-	1	-	2	6	5	13
India	3	4	1	7	-	-	18	11
Germany	10	17	14	14	12	4	6	10
South Korea	2	3	7	22	16	4	2	9
UK	8	11	4	11	17	9	11	9
Taiwan	10	9	2	8	6	8	11	7
Canada	11	4	6	7	4	7	13	6
Philippines	-	-	-	-	-	-	-	6
South Africa	1	2	4	4	-	1	1	6
Argentina	8	24	10	15	2	16	13	4
Denmark	1	2	1	1	5	3	2	4
Italy	-	-	12	11	17	4	-	3
New Zealand	2	-	6	-	-	1	2	3
Iran	-	-	-	-	-	-	6	2
Ireland	-	-	-	-	4	3	-	2
Singapore	4	3	-	-	7	3	2	2
Austria	-	-	-	-	-	-	-	1
Costa Rica	2	2	5	1	-	2	-	1
Ecuador	-	-	-	-	-	-	-	1
Greece	-	-	-	-	-	-	1	1
Hong Kong	-	-	-	-	-	-	-	1



***Journal of Crustacean Biology* Editorial Report for**

Volume 38 (2018)

Indonesia	1	-	-	1	-	-	1	1
Kuwait	-	-	-	-	-	-	-	1
Malta	-	-	-	-	-	-	-	1
Russia	-	2	1	1	4	1	-	1
Portugal	-	4	4	-	1	-	-	1
Slovenia	1	-	-	-	-	-	2	1
Venezuela	-	-	-	-	-	-	-	1
Belgium	3	-	3	5	6	5	2	-
Chile	12	13	4	5	2	2	-	-
Croatia	-	-	-	-	4	9	3	-
Egypt	-	-	-	-	-	2	1	-
France	4	5	-	-	5	1	3	-
Malaysia	-	-	-	-	-	1	4	-
Netherlands	-	1	1	1	3	1	1	-
New Caledonia	-	-	-	-	-	-	2	-
Poland	-	-	-	-	2	2	-	-
Spain	6	14	10	17	3	4	2	-
Sweden	-	3	-	-	-	-	1	-
Thailand	3	4	2	-	2	5	3	-
Tunisia	-	-	-	-	-	-	5	-

Peter (Pedro) Castro

Editor-in-Chief



Reflections on the 9th International Crustacean Congress from National Science Foundation and Paleontological Society grant recipients

Author affiliations:

Tashman, J.N., Department of Geology, Kent State University, Kent, OH, USA, jtashman@kent.edu

Maguire, E.P., Department of Geology, Kent State University, Kent, OH, USA, emaguire@kent.edu

Klompmaier, A.A. Department of Integrative Biology & Museum of Paleontology, University of California, Berkeley, California, USA, aklopmma@berkeley.edu

Andrada, A. M. Department of Geological Sciences, Faculty of Exact and Natural Sciences, University of Buenos Aires, Argentina, maru.andrada@gmail.com

Kornecki, K.M., Griggs-Lang Consulting Geologists, Inc., Troy, NY, USA,
krysia.kornecki@gmail.com

Luque, J. Department of Biological Sciences, University of Alberta, Edmonton, Alberta, Canada, luque@ualberta.ca

In paleontology, there are generally two different approaches to the science: geological, and biological. The background and training of most paleontologists will fall into one of these two categories, and whichever one is focused on likely determines the type of research in which one engages. As paleontologists with an interest in attending the Ninth International Crustacean Congress (ICC 9) in Washington D.C. this year, our background and education is strongly skewed toward geology rather than biology. Some of us may, therefore, regard paleontology from a geologist's perspective. One of the key characteristics of "thinking like a geologist" is the way time is perceived. To a geologist, millennia pass by in the blink of an eye, and organisms are often not thought of as individuals, but as enduring populations, entire species or clades which persist through geologic time. This type of thinking is necessary if you wish to study the complex and long-lived interactions between geological and biological processes, but it can also begin to obscure the biology of living organisms. When thinking of organisms as concepts such as species, instead of tangible, living, breathing, and feeling en-

Reflections on the 9th International Crustacean Congress from National Science Foundation and Paleontological Society grant recipients

tities, we may lose sight of important aspects of their being. From this viewpoint, it is easy to start seeing fossils simply as rocks; inanimate stone tableaux instead of the complex biological beings that they once were.

The ICC 9, organized by members of The Crustacean Society (TCS), was the first crustacean meeting to be held in the Americas since the inception of these symposia in 1965. From May 22-25, 2018, Washington D.C. was home to over 260 scientists from around the world studying crustaceans and related groups. Apart from many biologists, over 25 paleontologists participated in the event, so that the TCS organizers were able to schedule paleontological research in its own session for the first time.

We are six paleontologist recipients of travel grants supported by the National Science Foundation (NSF) and Paleontological Society (PS) that provided us the opportunity to share our research at the ICC 9. This financial support also allowed us to interact with and learn from biologists who focus on extant representatives of our studied fossil groups. Not only were we able to present our research among professionals at the symposia, but an additional benefit as awardees of these travel grants was to visit Miocene-aged fossil outcrops along the Maryland coast on a guided field trip. Learning about the research of other crustacean scientists in different biological and ecological fields, and from different parts of the world, has helped us gain diverse perspectives on fossilized representatives of the Crustacea.

For many of us, visiting the ICC 9 provided a rare opportunity to share our research results with other arthropod experts from around the world, including scientists whose work we recognized from the literature. Not only was it the first crustacean congress for several of us, but it also allowed us to discuss current and future collaborations among colleagues with whom we would not have been able to meet without the support of the National Science Foundation and the Paleontological Society.

KMK: At the time of the meeting, I was a month away from defending my dissertation on Holocene microfossils, and I was so excited to have the opportunity to dive back into crustacean work. Building upon my master's thesis, I gave a talk on using taphonomy and functional morphology to determine the community of organisms living together at my study site.

JNT: Although chelicerates are not crustaceans, I appreciated that those of us working on the group had a presence at the ICC 9. I presented my recent PhD work on Paleozoic horseshoe crabs during the poster session, and the very first visitor to my poster was a scientist whose work I have studied for years. It was a pleasure to discuss our projects together, which would have been unlikely without the generosity of the National Science Foundation.

JL: This is the first time I have had the opportunity to attend a The Crustacean Society international meeting. The timing was ideal to present some of the results from my PhD work on the early origins and evolution of

Reflections on the 9th International Crustacean Congress from National Science Foundation and Paleontological Society grant recipients

true crabs, which I defended a few weeks before the ICC 9. However, traveling to this type of meeting is beyond the budget of many graduate students and early postdoctoral researchers worldwide, myself included. The generous support provided by The Crustacean Society, the National Science Foundation, and The Paleontological Society via their student travel awards, greatly benefitted my career by making attendance at the possible. This opportunity allowed me to share my work with the community of crustacean researchers, network with key scientist in the field, learn firsthand about different crustacean research fronts across disciplines via thought-provoking talks and posters, and to start several collaborations with old and new friends and colleagues. Moreover, attending the ICC 9 allowed me to solidify a postdoctoral fellowship on crab evolution using fossil, morphological, and molecular approaches, by bringing me and the researchers with whom I will be working together. All this was possible thanks to the funding provided by the NSF, TCS, PS, and the people who donate to them, whose generous support made possible this life-changing experience with long-lasting repercussions.

AAK: This NSF travel grant has allowed me to participate in a meeting of The Crustacean Society for the very first time. As a result, I have been able to give two talks and co-authored another one to a mostly new audience of crustacean biologists! A presentation on the first day focused on the prevalence of isopod parasitism in decapod crustaceans throughout the Meso-Cenozoic. The next day, I presented a review of crustaceans in modern but mostly fossil cold seep environments. This work, indirectly supported by the travel grant, was subsequently published as a preprint at <https://paleorxiv.org/tws6m>. The co-authored talk on the remarkable diversity of fossil galatheoids during the Late Jurassic was presented the same day by Dr. Cristina Robins. After the talks, a number of people including biologists approached me and kindly shared their thoughts, which has been really useful. I also talked to various people I had not met before for the first time about their presentation, poster, and/or potential research projects and ideas in addition to reconnecting with crustacean paleontologists and discuss (ongoing) research during and after the conference. Another outcome of this conference is that I learned many new aspects about crustacean biology by going to varied talks each of the three days, which I would not have learned otherwise most likely. Finally, I went to a general business meeting of The Crustacean Society to learn more about the activities of the society and news regarding its journal, the *Journal of Crustacean Biology*.

AMA: This is the first time that I attended an international congress outside my country and the first time I participated in a conference organized by The Crustacean Society. I am starting my research on fossil decapod crustaceans during the Early Cretaceous in the Argentinian Andes. Because of this, attending the ICC 9 allowed me to learn about different areas and methods of research in biology and paleontology that I didn't

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know about. During the congress, I attended a variety of sessions, which included topics of paleobiology (the discipline that I work in) but also about extant and extinct marine and continental crustaceans, ecology, taxonomy, phylogenetics and others. Additionally, it is the first time I have presented a poster that included part of the results of my BSc thesis. In the poster session, it was very gratifying to interact with biologists and paleontologists that showed interest in my thesis and gave me feedback with comments, opinions, and recommendations. It was nice for me to get in contact with scientists and students from all over the world and learn how and where they carry out their research.

EPM: Although there was an exceptional constituency of paleontologists, the ICC 9 was predominantly a biology conference. Being a geologist by training, I had never gone to a biological conference before, opting instead attend the annual Geological Society of America meetings most of the time. That's why the ICC 9 was such a positive, eye-opening experience for me: it reminded me to start thinking of my fossils as animals again. Part of my research has been on fossil isopods, which have a fascinating, but fragmentary, and rather incomplete fossil record. Thinking only as a geologist, I might misunderstand the poor nature of the isopod fossil record. I might conclude that their low abundance represents a peculiar pattern of evolution, and that they only very recently exploded in diversity and abundance. But if I understand them as animals and know that their unique molting behavior can be destructive to cuticular elements, drastically reducing their likelihood of entering the fossil record, I can better understand the nature of that record, and draw different conclusions from it. That kind of biological thinking can be hard to come by for a geologist, but I hope to keep in tune with it by continuing to attend conferences like the ICC.

One of the most intriguing aspects of this year's International Crustacean Congress was that so many researchers began their oral presentations with morphological diversity. The variability of form is one of many reasons why the Crustacea continue to inspire numerous scientific studies, and that is precisely what the ICC 9 recognized: not only morphological diversity, but the diversity of crustacean science across the globe.

JNT: I appreciated having the opportunity to meet biologists and paleontologists from all over the world who work on projects ranging from behavior to the potential for ageing individuals using gastric mill growth bands. It was particularly valuable learning which questions are being asked regarding extant species, since I have worked primarily with extinct species, and it allowed me to get a sense of what is happening beyond the walls of our lab. Scientific diversity is what I took from this year's International Crustacean Congress, and I sincerely thank the National Science Foundation for granting me the opportunity to explore it.

KMK: The paleobiology session was incredibly informative and diverse in topics. Likewise, I was able to attend a wide variety of sessions. I was exposed to completely new crustacean groups, like the Remipedia,

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learned about the inspiring legacy of Horton H. Hobbs III, and delved into the complex and fascinating world of crustacean reproduction. These brilliant studies gave me new ideas and methodologies for both my work on decapods and on testate amoebae.

EPM: It was incredibly helpful to talk to biologists and other paleontologists who looked at my research from a different viewpoint – something I strive for. Learning about the research perspectives of other scientists in different fields, and from different parts of the world has helped me gain a fresh perspective on my own work.

Because this year's International Crustacean Congress was held in Washington D.C., scientists attending the conference were able to take advantage of the nearby Smithsonian Museum wet and dry collections. This convenient proximity of the National Museum of Natural History was not lost on us, and their collections offered materials for current and future biological and paleontological research.

AAK: Although not a direct result of the congress itself, I spend two days in the Smithsonian collections prior to the conference to photograph and study fossil decapod crustaceans for various ongoing projects, which would not have been possible otherwise and speeds up this research on fossil crustaceans.

AMA: I had the opportunity of visiting the paleobiology collections of the National Museum of Natural History where I could take a look and photograph different taxa and then compare them with the ones found in Argentina. This helped me for my PhD thesis.

JL: I also spent a week visiting the Paleobiology collections of the Smithsonian Institution to work on projects ranging from decapod phylogenetics and systematics of new fossil taxa, to the evolution of visual systems using the fossil record.

The end of the conference culminated in a field trip to two classic Miocene fossil collecting localities, led by John Nance of the Calvert Marine Museum in Maryland. These were localities which were frequented by some of the most legendary scientists in crustacean biology, including Mary Jane Rathbun.

EPM: It was the perfect way to end the conference for me, after seeing so many results from different studies, and it was a great experience to go out into the field to do what brought so many of us together in the first place: collecting fossils. No matter what avenues it takes, and whatever endless and laborious analyses are undertaken, all paleontological research finds its beginnings in the field. Sharing a field experience with so many scientists whose work I had read and admired over the years was incredibly rewarding. There is something about being out in the field which compels us all to continue returning, even to locations which have been frequented since the time of Rathbun or even Darwin, to search for new discoveries.

JNT: Visiting the St. Mary's Formation with other fossil enthusiasts was enjoyable, particularly because our group consisted of people from all paleontological backgrounds, and yet we had this opportunity to explore

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classic sedimentary deposits together. I especially want to thank the Calvert Marine Museum and their collections manager, John Nance, for dedicating their time and space to us for this field trip. The museum offers an exceptional collection of vertebrate and invertebrate fossils to the public, and its displays are thoughtful and relevant to local geology, paleontology, and biology. It was a wonderful day, during which I was able to collect fossils that will be useful for teaching invertebrate paleontology in the future, in addition to collecting horseshoe crab cuticle for the purposes of my dissertation. I should also mention that members of our group helped me find practically every horseshoe crab that returned to our lab, and I could not have done it without them!

Although paleontology and biology are different fields in name, they share an appreciation for life on earth, whether extinct or extant. The ICC 9 offered a rewarding opportunity for those passionate about ancient and modern members of the Crustacea and their relatives to explore both fields.

KMK: I am so grateful to have had the opportunity to attend the ICC 9, and would not have been able to without the generosity of the NSF travel grant. I look forward to working with and learning from this generous, passionate, and vigilant community of researchers and to seeing them again at the next ICC.

AAK: I very much thank the generosity of the National Science Foundation for this valuable travel grant! I will definitely consider going to a Crustacean Society meeting again in the future to reconnect with friends and colleagues.

AMA: I consider this type of event to be crucial to my education as much as it is for scientific communication, and it was possible thanks to the travel grant that the National Science Foundation and the Paleontological Society kindly granted me and other people that couldn't afford this travel.

EPM: I left the conference feeling newly invigorated about my research, and eager to get back to work. I sincerely thank the NSF and the Paleontological Society for providing funding which made it possible for me to attend this conference.

Without the generosity of the National Science Foundation and Paleontological Society, sharing our paleontological research with friends and colleagues would not have been possible, and we are looking forward to continuing our work with insights acquired at the ICC 9 now and into the future.

Acknowledgments:

Travel funding to Washington D.C. for the Ninth International Crustacean Congress was provided by the National Science Foundation (#1802718 to Feldmann and Schweitzer), the Paleontological Society (to Feldmann), and The Crustacean Society. We are grateful to them for securing these funds, and to John Nance

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and the Calvert Marine Museum in Solomons, Maryland, for kindly providing their time and space for the purposes of the post-congress paleontological field excursion. AAK, JL, and AMA thank Mark Florence for access to the Smithsonian collections, and we are all grateful to Rodney Feldmann for his review of this work.



Field trip attendees. *Back row from left to right:* Mario Schädel, John Nance, Amanda M. Windsor, Rodney M. Feldmann, Sylvain Charbonnier, Derek E.G. Briggs, Marcos Tavares, Javier Luque, Evin P. Maguire; *Middle row:* Carrie E. Schweitzer, William Santana, Allyson P. Pinheiro; *Front row:* Murilo Z. Marochi, Cristina M. Robins, Krystyna M. Kornecki, A. Mariel Andrada, Jessica N. Tashman; *Not pictured:* Adiël A. Klompmaker.

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NSF and PS grant recipients. *Back row from left to right:* Evin P. Maguire, Javier Luque; *Front row:* Krystyna M. Kornecki, A. Mariel Andrada, Jessica N. Tashman; *Not pictured:* Adiël A. Klompmaker.

The X Brazilian Crustacean Congress was held from November 11 and 14, 2018, at Mar Hotel Conventions, Recife, State of Pernambuco, northeastern Brazil. The meeting was promoted by the Brazilian Crustacean Society and organized by researchers of the Federal University of Pernambuco, Federal Rural University of Pernambuco and University of Pernambuco. Two hundred and seventy carcinologists attended to the meeting, most of them undergraduate and graduate students. A total of 310 abstracts were submitted to the meeting, on several aspects of crustacean biology such as: ecology, behavior and conservation (145); ecotoxicology (9); teaching and ethnocarcinology (5); physiology, reproduction and development (63); genetics and phylogeny (11); fisheries and aquaculture (7); systematics, taxonomy and biogeography (70). Of these, 79 were presented in oral form and 231 as posters. Dr. Paula Beatriz Araujo, Dr. Charles Oliver Coleman, Dr. George Wilson and Dr. Hans Dam were the meeting conferencists. Finally, nine round tables on several aspects of the crustacean biology were carried out. Two outstanding musical rhythms of the state of Pernambuco, "Frevo" and "Maracatu", were presented to the meeting attendants during the opening ceremony. In the closing session, three carcinologists were honored for their contributions to the study of crustaceans: Dr. Marilena Ramos-Porto (retired professor of Federal Rural University of Pernambuco, Recife, Brazil), Dr. Sigrid Neumann Leitão (professor of Federal University of Pernambuco, Recife, Brazil) and Dr. Charles Oliver Coleman (curator of the Crustacean Collection of the Museum fur Naturkunde, Berlin, Germany). The next edition will be held in Santos, state of São Paulo, in 2020, joined with a TCS Meeting. We are looking forward to see you there!

By Flavio de Almeida Alves-Júnior



....photos continued on the next pages....

Photos from the X Brazilian Crustacean Congress



Dr. Stefano Cannicci, Dr. Luis Ernesto Bezerra and Dr. Tania Costa

Opening session



Dr. William Santana, president of the Brazilian Crustacean Society

Photos from the X Brazilian Crustacean Congress



Dr. Oliver Coleman and Dr. Buz Wilson



Maracatu presentation during the opening session



Opening session

Photos from the X Brazilian Crustacean Congress



Dr. Paula Araújo and Dr. Juan Antonio Baeza

Dr. Fernando Mantelatto, Dr. Rogerio Caetano da Costa and Dr. Fernando Zara



Dr. Paula Araújo during her plenary lecture

Photos from the X Brazilian Crustacean Congress



Maracatu presentation during the opening session (Dr. Alexandre O. Almeida on the right)

Past and future editors of Nauplius Journal (Dr. Tânia Costa, Dr. Paula Araújo, Dr. Chris Tudge, Dr. Luis Ernesto Bezerra, Dr. Alexandre O. Almeida and Dr. Antônio Leão Castilho)



Members of Brazilian Crustacean Society Directory and Nauplius Editorial Team

Photos from the X Brazilian Crustacean Congress



Prof. Marcelo Leão (Vice-Dean of Federal Rural University of Pernambuco, Dr. Alexandre O. Almeida, President of the X Brazilian Crustacean Congress. and Dr. William Santana, President of the Brazilian Crustacean Congress in the opening session)

The Organizing Committee of the X Brazilian Crustacean Congress in the closing session.



Why the TCS is Important

The Crustacean Society is important, beyond having access to JCB, because it provides a platform where crustacean scientists exchange information and meet regularly with each other. To us, both past-presidents of the society, the more important aspects of the TCS lie beyond this. We both realize that most of the younger scientists at undergraduate, graduate and even postdoc levels may not continue to work with crustaceans or even stay in science. Moreover, even if they stay within the group they may well radically shift their approaches. Therefore, to us, the key task of TCS is to facilitate and promote the career of our younger members. WE say this also, because we have both experienced how the TCS could help us along in our personal careers. This happened when our society met with scientists in fields of biology beyond taxonomy and systematics, such as the former American Society of Zoologists (ASZ), the current Society for Integrative and Comparative Biology (SICB). At these events, crustacean biologists have the opportunity to engage not only with carcinologists, but also with colleagues junior and senior from all possible fields of biology, thus vastly increasing your opportunities from a positive feedback. One of us (JTH) sees one such event as the main reason he stayed in research. I was invited to speak at a special symposium organized by the TCS at a joint TCS/ASZ meeting at a time where I was lacking any salary or funding. Thanks to the prestigious invitation, I decided to "hang on", write another eventually successful grant application, and the enormously stimulating environment at this big, cross-disciplinary meeting convinced me to "bite my teeth" and stay in research. Some argue that these larger events are too big and bustling and that you easily lose sight of Crustacea and colleagues in the field. True to some extent, but the SICB offers the best possible means of organizing forward-thinking symposia with all sorts of support and the option that non-carcinologists will attend talks and this vastly increase your networking opportunities. Furthermore, such meeting offers endless opportunities for graduates and postdocs to "go hunting" for new contacts and inspiration; and vendor booths and special events serve that very end. What we say here goes not only for the SICB, but exist at other conferences when they meet with other carcinological societies; a strategy that can be pursued more. These events integrate ecology, evolution, physiology, larval biology, general marine biology with crustacean biology to offer greater opportunities for the TCS membership. Therefore, we are convinced that both the TCS and its members, not least the junior ones, are best served whenever the TCS goes beyond its own field to meet with other biological societies. After all, the grass may be greener at the other side of the fence?

Respectfully

Jens T Hoeg and Brian Tsukimura

New book on Decapod Crustaceans

POUPIN J. 2018. — Les Crustacés décapodes des Petites Antilles : Avec de nouvelles observations pour Saint-Martin, la Guadeloupe et la Martinique . Muséum national d'Histoire naturelle, Paris, 264 p. (Patrimoines naturels ; 77).

The book, 269 figures, 246 colour photos, 12 tables, 210 x 297 mm, paperback with flaps, is in French (captions of figures translated in English) with associated documented list of species in English. It is presented and can be purchased at this link:

<http://sciencepress.mnhn.fr/en/collections/patrimoines-naturels/les-crustaces-decapodes-des-petites-antilles>

At the same link the readers will find access to free of charge 'Related Documents', including the documented list and the EXCEL table of the 1056 species considered.





After Portugal (Aveiro, 2015) and Italy (Trapani, 2017)...

... we are happy to announce the 18th International Colloquium on Amphipoda (ICA), which will be held at Dijon (France), from 26 to 30 August 2019.

As in all the preceding editions, the colloquium will hosts every aspects of studies upon amphipod crustaceans (systematics, ecology, biogeography, physiology, genetics, ecotoxicology etc.)

Above all, following a long lasting tradition, the International Colloquium on Amphipoda will be an exciting forum for scientific exchanges among researchers, where students find a unique environment to meet and connect with senior researchers.

Three plenary lectures will open each conference day. Invited speakers are:

- *Pr ALEX FORD (University of Portsmouth, United Kingdom) ;*
- *Dr NICOLAS PUILLANDRE (Museum National d'Histoire Naturelle, France) ;*
- *Dr JOSE MANUEL GUERRA GARCIA (University of Sevilla, Spain)*

On the sidelines of this conference, **a Mini-Workshop around DNA barcoding and BOLD** will take place on Friday afternoon. This Mini-Workshop is specifically targeting Amphipodologists who are already using DNA-barcodes and who are interested in using or improving their current use of BOLD.

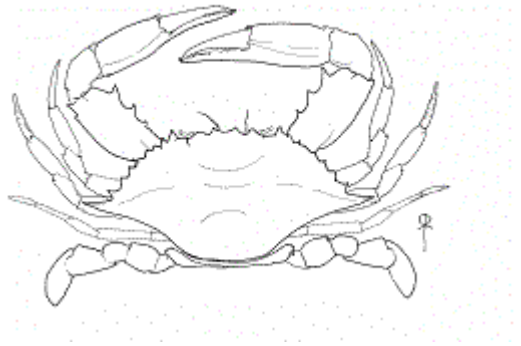
Further details can be found on the [18th ICA Dijon 2109 website](#).

Now are open:

- 1) Registration** (early bird fees are a lot cheaper!!!).
- 2) Application for PhD student Grants** (ca 20 free registration offered)
- 3) Application for attending 1st BOLD Mini-Workshop** (25 places available)
- 4) Submission of abstracts** (both for oral communications and posters)

We look forward to see you at the 18th ICA!

Thierry Rigaud & Rémi Wattier, coordinators



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

CRUST-L@VIMS.EDU is the email listserver 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. It has around 850 members that span a wealth of knowledge! You can subscribe or unsubscribe to the list by following the links below. Use CRUST-L@VIMS.EDU to post messages to CRUST-L. The sympla software includes several features such as searchable archives, and a digest mode for intermittent mailings. If you have trouble with your subscription or settings, send a help request to jeff@vims.edu.

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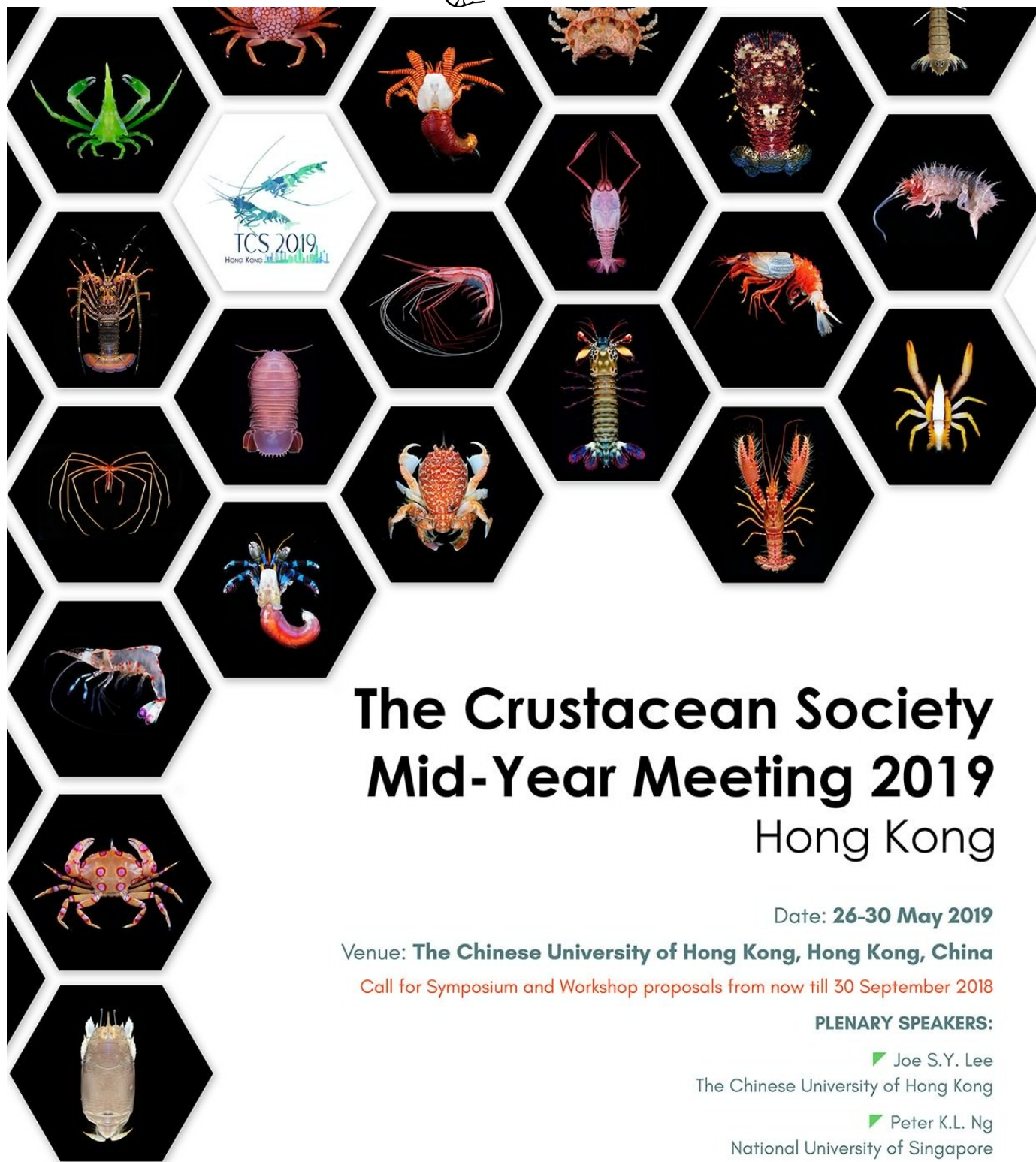
The Annual TCS and SICB Meeting

Jan 3-7, 2019

Tampa, Florida, USA



#SICB2019



The Crustacean Society Mid-Year Meeting 2019 Hong Kong

Date: **26-30 May 2019**

Venue: **The Chinese University of Hong Kong, Hong Kong, China**

Call for Symposium and Workshop proposals from now till 30 September 2018

PLENARY SPEAKERS:

✓ Joe S.Y. Lee

The Chinese University of Hong Kong

✓ Peter K.L. Ng

National University of Singapore

✓ Pei-Yuan Qian

Hong Kong University of Science and Technology

✓ Jianhai Xiang

Institute of Oceanology, Chinese Academy of Sciences



The Chinese University of Hong Kong



The Crustacean Society

Website: <http://tcs2019.net>