IRGO - The International Research Group on Ostracoda

18th International Symposium on Ostracoda (ISO-18)
“Ostracoda - Evolving Witnesses of Changing Environments”

SECOND CIRCULAR

University of California Santa Barbara
August 27-31, 2017

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(version 3-23-2017)
The International Research Group on Ostracoda (IRGO) is pleased to invite you to the 18th International Symposium on Ostracoda (ISO), to be held in Santa Barbara at University of California, Santa Barbara from August 27-31, 2017.

For the first time in over 30 years, since 1982 in Houston, ISO will return to North America and the United States of America.

**Convenors:**
Todd Oakley (University of California, Santa Barbara), Gene Hunt (National Museum of Natural History)

**Organizing Committee:**
Todd Oakley (UCSB), Elisabeth Torres (California State University, Los Angeles), Ajna Rivera (University of the Pacific), Finn Viehberg (University of Cologne), Gene Hunt (NMNH),

**Welcome Committee:**
Emily Ellis (UCSB), Nicholai Hensley (UCSB), Suzie Heidner (SB), Tess Oakley (SB)

**Funding Committee:**
Lisa Park Boush (University of Connecticut)

**Scientific Committee:**
Simone N. Brandão (Brazil)
Dermeval do Carmo (Brazil)
Thomas M. Cronin (USA)
David J. Horne (UK)
Larry Knox (USA)
Renate Matzke-Karasz (Germany)
Koen Martens (Belgium)
Ilaria Mazzini (Italy)
Steffen Mischke (Iceland)
Tinn Oive (Estonia)
Vincent Perrier (France)
Benjamin Sames (Austria)
Isa Schoen (Belgium)
Alison Smith (USA)
Robin Smith (Japan)
Don Van Nieuwenhuise (USA)
Moriaki Yasuhara (Hong Kong)

*IRGO Officers (2014-2017)*
Chair: Finn Viehberg
Vice-Chair: Todd Oakley
Past Chair: Renate Matzke-Karasz
Secretary: Ricardo Lourenco Pinto
Communication Officer: Ilaria Mazzini
Treasurer: Akira Tsukagoshi
### SCHEDULE


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<th>Sat, August 26</th>
<th>Sun, August 27</th>
<th>Mon, August 28</th>
<th>Tue, August 29</th>
<th>Wed, August 30</th>
<th>Thu, Aug 31</th>
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<tbody>
<tr>
<td>morning</td>
<td>African Ostracod Taxonomic Harmonization</td>
<td><strong>NEOTOMA Workshop</strong> 9:00-4:00</td>
<td>Registration Opening remarks Scientific session</td>
<td>Scientific session</td>
<td>Scientific session</td>
<td>Scientific session</td>
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<tr>
<td>afternoon</td>
<td>Workshop 9:00 - open end</td>
<td><strong>NEOTOMA Workshop Symposium Registration</strong></td>
<td>Scientific session</td>
<td>Scientific session</td>
<td>Mid-symposium excursion: Choose 1: Wine tasting or whale watching</td>
<td>Scientific session</td>
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<tr>
<td>evening</td>
<td>Ice-breaker reception 4:30-6:30</td>
<td><strong>IRGO Business meeting</strong></td>
<td><strong>Social dinner</strong></td>
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<td>Farewell</td>
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STUDENT SUPPORT

Please note: Using proceeds from T-shirt sales, we will fundraise scholarships for students to attend ISO-18. To receive support, the student should be in a PhD program studying Ostracoda, and should present research on any aspect of Ostracoda at the symposium. The scientific committee will evaluate the applications from students. Up to 2 scholarships will be issued, each will cover room costs, meal plan, and registration for ISO-18 (transportation must be covered by other sources).

To apply send the following information as a single pdf file to isostracoda18@gmail.com:

a. A brief (1-2 paragraph) description of your overall PhD research
b. A brief explanation of how attending ISO-18 will benefit you
c. A brief statement of other sources that might fund your trip to ISO-18
d. A copy of the abstract (either poster or oral) you will present at ISO-18
e. Your Curriculum Vitae

Deadline: May 1, 2017

ABSTRACTS

We encourage abstracts of work on any aspects of science using Ostracoda, for consideration for oral or poster presentations.

Submit Abstracts before May 1, 2017 at: https://iso18.eemb.ucsb.edu/content/abstract

The organizing committee will program all presentations (oral and poster) using key words selected upon abstract submission.

Research Category Key Words - Genetics; Physiology, Behavior, or Development; Ecology or Paleoecology; Evolution; Phylogenetics / Taxonomy; Paleontology; Paleoclimate; Geoarcheology; Geochemistry; Freshwater; Marine

In addition, the committee is encouraging 5 Thematic Sessions. If your abstract fits with the session, please check the appropriate session box on the abstract submission site, in addition to choosing keywords.

1. Taxonomy, phylogeny, and palaeoecology of South American Ostracoda: In memory of Robin Whatley
   Robin Whatley was a superb teacher and the author of well over 300 papers, but will likely be best remembered for his taxonomic work. What Robin was most proud of was his connection with South America, particularly Argentina, as a Member of the Argentinan Academy of Sciences in 1985. He also published on various aspects of Brazil and the Amazon Basin.

2. Ostracods and biostratigraphy
   Different aspects of using the ostracods in biostratigraphy. Creating ostracod scales on the phyletic basis: the principles, the defects and achievement. Ostracod-stratigraphy on changing the paleogeographic
situation or other events: the principles, the defects and achievement. Correlation of the remote areas on ostracods. Various methods of increasing the detailed stratigraphy of ostracods.

3. Neotropical Ostracods: Complexity and Unknown diversity
   The Neotropics are considered to have the highest biodiversity, but knowledge on aquatic invertebrates such as ostracods is very restricted. Due to the limited understanding, spatial and temporal distribution of ostracods are often oversimplified. The intention of the session is to introduce ostracod-related research in the Neotropics. Topics will cover taxonomy and systematics as well as biogeographical and biostratigraphical, and ecological research on freshwater ostracods.

4. Brackish Water Ostracoda
   Waters with a salinity between 0.5 and 30, i.e. in between fresh and marine water, are called brackish. They are characterized ecologically by strong variability of salinity and other environmental factors, but also by osmoregulation problems challenging aquatic organisms. Salinity is the most important ecological factor in such settings. Brackish water ecosystems are mainly situated at the transition between ocean and continent, hence they may provide a link between the fields of marine and continental life science or geoscience. Typical natural environments are bays, lagoons and estuaries. But also man made spaces like harbours are potential habitats lying within the most densely populated and most exploited regions of the world. Besides those marginal marine ecosystems some brackish waters are located on the continents; these are athalassic brackish or salt lakes or inland water bodies with saline phases. They are excellent palaeoclimatic archives.

5. Bioluminescent Ostracods
   The luminescence of myodocopid ostracods has a long, storied past. Early work of the last century focused on the biochemistry of light production, of which mydocopids are ideal organisms because luminescence is a simple extracellular 1st order chemical reaction. Since the early days, many advances in our understanding of these organisms have been made in the fields of systematics, evolution, ecology, life history, and behavior. New technology and sampling techniques have pushed our understanding of the complex world of tiny marine crustaceans to new limits, including the discovery of many new species. This session would provide the stage for presenting these various advances in a single setting.

MID-SYMPOSIUM FIELD TRIP

All delegates and Participating Persons will choose between two different excursions on August 30 (by ticking a box at registration). One of the trips is included in the registration fee.

1. Whale watching (up to 90 people, first to register)

The Best Whale Watching in Southern California On The Condor Express!

Welcome aboard the Condor Express. Located in Santa Barbara, the Condor Express and Condor Cruises have offered the best whale watching trips and ocean
adventures in Southern California for over 25 years. The Santa Barbara Channel and Channel Islands National Marine Sanctuary are premier whale watching areas and offer a spectacular variety of whales, marine mammals and pelagic birds. Annual whale migrations bring hundreds of whales through the Santa Barbara Channel and Channel Islands Marine Sanctuary within just minutes of Santa Barbara Harbor.

Enjoy your whale watching experience aboard the Condor Express, one of the most advanced whale watching boats on the West Coast. Specially designed for stability and comfort, the Condor Express offers a scenic observation deck perfect for photography and cozy indoor seating along with a well stocked galley for drinks and snacks. Whale watching is one of the most fun things to do in Santa Barbara all year around. The captain and crew have over 30 years experience in escorting visitors through the Santa Barbara Channel to experience the annual migration of some of the most amazing whales in the world. Experienced naturalists aboard the Condor Express are available to enhance your trip with information about whale migration, marine life, the Channel Islands, and more.

The Condor Express also offers the best charter boat trips including public party cruises, sunset cruises and dinner cruises, and private whale watching trips, wedding cruises, kayaking trips and Channel Islands pelagic birding trips. Catering and music can be arranged for private events. A full-service bar can be either hosted or no-host. Special wines and champagne are also available on request, complete with a wine steward. We can customize your trip to make it the very best charter boat experience in Santa Barbara.

**Santa Barbara Whale Watching**

The Santa Barbara Channel is home to more than 30 species of whales, dolphins, seals, sea otters, seabirds and sea lions that visit throughout the year. It is one of the most consistent locations found anywhere to offer Blue Whale watching, Gray Whale watching, Humpback Whale watching and for Orca, aka Killer Whale watching. Santa Barbara whale watching trips are among the best whale watching trips in Southern California.

The “Wonders of Our National Parks” on the Discovery Channel highlighted the outstanding abundance of marine life in the Santa Barbara Channel and named it “One of the 10 Best Places in the World to View Wildlife.” The Channel Islands, on the migration path of the California Gray Whale, offer an opportunity to watch the whales on their way to Baja where, they give birth, and then again as they migrate north with their babies.
The height of the Southern California whale watching season is the annual California Gray Whale migration, from December through April. Ocean temperatures are warmer from May through November and feature more blue whales, finback whales and humpback whales, along with killer whales, huge pods of dolphins, seals, sea lions, sea otters and many other marine mammals.

2. Wine Tasting

FESS PARKER WINERY
Situated among 118 planted acres of estate vineyard on the beautiful Foxen Canyon Trail, Fess Parker Winery was started in 1989 by Fess and his son Eli. Specializing in Pinot Noir, Chardonnay, Syrah, Riesling & Viognier.

PRE AND POST SYMPOSIUM FIELD TRIPS
Pre-symposium Field Trip -- Barstow Formation (Aug 24-25. Extra $300. No deposit necessary, pay at registration)
We will travel to the site of a Barstow formation Konservat Lagerstätte in Southern California. This desert site will be very hot in August. We will search for nodules that often contain freshwater fossils, including ostracods and other arthropods. The cost is US$300, includes transportation, overnight stay in modest hotel, and food. We can depart from Santa Barbara, or pick up people from Los Angeles (including LAX or nearby hotels). We will return people to Santa Barbara for the conference. Minimum of 8 people is required for field trip to occur. We will depart Santa Barbara early on Thursday August 24, picking up in LA late morning (to be arranged individually). We will proceed to hotel near Barstow formation from LA and check in. We will visit sites Thursday evening and Friday morning. We will return to Santa Barbara Friday night, August 25.

Post-symposium Field Trip -- Catalina Island Wrigley Marine Lab (Sept 1-3 Extra $450. Deposit of $90 required by April 15 to IRGO. Pay remainder at registration.)
We will travel to Catalina Island and visit Wrigley Marine Lab, where we will be able to collect many types of marine ostracods. We will leave UCSB early Saturday morning September 1. We will travel to San Pedro, and take the Catalina Express Boat to the island. There, we can collect in different habitats, and find many Podocopa and Myodocopida, most may be endemic to the island.

We will return Monday morning to LA, and can take people back to UCSB if they prefer. Price is US$450 includes transportation (van and boat) and lodging at Wrigley Marine Lab. Food is not included, but there is a grocery store and a kitchen at the lab, and restaurants on the island. We must have a US$90 deposit (non-refundable) paid through the IRGO site by April 15 to reserve the marine lab. We need a minimum of 7 participants.

PROCEEDINGS OF THE SYMPOSIUM
JOURNAL OF CRUSTACEAN BIOLOGY

Deadline for manuscripts: September 15, 2017
Publication Fee: Free for TCS members ($95 membership fee, $35 for students)
Impact Factor: 0.922 5-year Impact Factor: 1.029
Manuscript Types: Research, review articles, research notes
Publication Target: March and May 2018 issues

Details: March 2018 issue – manuscripts must be transmitted to Oxford University Press by the Editor In Chief (already edited and accepted) by 12 Jan. 2018; published online 15 March;
printed number out 6 April.
May 2018 issue - manuscripts must be transmitted to Oxford University Press by the Editor In Chief (already edited and accepted) by 12 March 2018: published online 17 May; printed number out 8 June.

REGISTRATION COSTS
REGISTRATION FOR CONFERENCE AND HOUSING WILL OPEN MAY 1. While the registration fee already a good price, this cost is further offset by the excellent bargain of the on-campus housing and meal plan, which will be an additional cost above registration. Early Registration Deadline June 1. Standard Registration Deadline July 1.

Senior Participants (With permanent position):
- Early US$325
- Standard US$350
Postdoctoral Fellows:
- Early US$275
- Standard US$300
Junior Participants (before PhD):
- Early US$225
- Standard US$250
Accompanying Persons
- US$100
  (Accompanying access to ice-breaker and mid-symposium excursion)

SYMPOSIUM VENUE AND ACCOMMODATION
Affordable and very high quality accommodations is available in student-apartment-style accommodations at UCSB’s Manzanita Village, which also includes a meal plan. We very strongly encourage this affordable and convenient option, which will increase interaction among conference delegates. Participants may choose single or double occupancy rooms.
Surrounding Manzanita Village are vernal pool habitats that fill with water in the winter and teem with ostracods and other animals.

Another advantage of choosing on-campus housing is that booking will go directly through UCSB Conference Services together with your Registration. **Registration and Booking for Housing will open May 1.** Estimated Housing Fees:

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<tr>
<th>DESCRIPTION</th>
<th>NET TOTAL</th>
<th>GROSS TOTAL</th>
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<tbody>
<tr>
<td>Housing Collection Package - 2017 Adult Single</td>
<td>$394.53</td>
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<tr>
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<td>$458.02</td>
<td>$469.21</td>
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Applicable Sales Tax shall be assessed on all adult food functions.

Any additional approved lodging and meal costs shall be assessed accordingly and the contract may be updated using revised matrices to reflect these changes. Signature verification is required. All participants shall be charged a package rate. If a participant's actual length of stay does not conform exactly to any package, s/he shall be charged for the approved package (with the same arrival date) that is closest to the actual length of stay. The package charged shall be for a number of nights greater than or equal to the participant's actual stay.

Note that the Sponsoring Department shall be billed the children's meal rate of $9.00 per meal (plus Room fees, if applicable) for ALL children aged 4-12 who stay in the Residence Halls. Only children aged 3 and under may enter the dining commons at no charge.

**NOTE:** Individuals will be charged a $50/person cancellation fee for all reservations cancelled after the original reservation is made.

* we are negotiating a Friday check-in package for those attending the African Harmonization workshop and/or Barstow field trip.

The Symposium will be held at the University of California, Santa Barbara. UCSB is adjacent to the beach town of Isla Vista, and a bus ride away (Bus number 24x) from downtown Santa Barbara. International Flights connect to Santa Barbara through LAX (Los Angeles) and SFO (San Francisco). There are also multiple options for traveling from LAX (the closest international airport) to Santa Barbara. The Santa Barbara AirBus (~US$100 round trip per person) ([http://www.sbairbus.com/](http://www.sbairbus.com/)) is a convenient, comfortable and scenic drive. UCSB conference services has shuttles from the Airbus stop to UCSB. In addition, an option is to rent a car at LAX (~US$50/day for car, 2 hours drive from LAX to UCSB, parking costs will be extra).

**VISA REQUIREMENTS**

Send email request to isostracoda18@gmail.com for a letter of invitation for a visa.
SUMMARY OF DEADLINES

Deposit for Post-Symposium Field Trips ($US to IRGO website)  
April 15

Abstract Submission Deadline  
May 1

Registration Opens  
May 1

Application for Student Support  
May 1

Early Rate Registration Ends  
June 1

Last day for presenters to register (or else abstract removed)  
July 1

Late or onsite registration  
until meeting

Deadline for manuscripts  
September 15

WORKSHOPS AND SPECIAL ANNOUNCEMENTS

I. **Explore Quaternary Non-marine Ostracod Data in the NEOTOMA Database**  
   ([www.neotomadb.org](http://www.neotomadb.org))

   with Alison Smith*, Brandon Curry**, and Dave Horne***

   * Dept. Geology, Kent State University, Kent, Ohio, USA, alisonjs@kent.edu
   ** Illinois Geological Survey, 615 E. Peabody St., Champaign, IL, USA, bcurry@illinois.edu
   *** School of Geography, Queen Mary University of London, U.K, d.j.horne@qmul.ac.uk

This full day workshop will provide 1) training in the use of the Neotoma Paleoeconomy Database ([www.neotomadb.org](http://www.neotomadb.org)) to access and analyze paleoecological data and 2) an introduction to GIS mapping using the free software DIVA-GIS.

**Neotoma** is a multiproxy paleodatabase ([www.neotomadb.org](http://www.neotomadb.org)) that stores different kinds of paleoecological & paleoenvironmental data. One of the strengths of Neotoma is the ability to compare one data type with other proxies; currently, fossil pollen, vertebrates, diatoms, non-marine ostracods, insects, charcoal, and geochemical data are archived in the database. In addition, the database is structured to relate absolute dates to taxon occurrences and to allow the creation and storage of age models built on absolute dates from stratigraphic sections. Neotoma is a public-access, community-supported database that is emerging as the standard repository for Pliocene and Quaternary paleoecological data. Half of the workshop will be devoted to lecture and hands-on work with paleoecological data, focusing on Quaternary ostracods. Although Neotoma ostracod data are currently dominated by North American sites, it is possible and expected that datasets from other areas of the world will be uploaded in future. Come learn how to use this multi-proxy database!

**DIVA-GIS** is freely available software ([http://www.diva-gis.org/](http://www.diva-gis.org/)) for mapping and geographic data analysis. Climate data can also be downloaded and installed. We will introduce you to the mapping of ostracod distributions, show you how to prepare and map your own distributional datasets, and demonstrate the use of a climate dataset for species’ temperature range calibrations to use in paleotemperature reconstructions.
Participants should bring a laptop computer and ideally should have downloaded and installed R and RStudio (which work on multiple platforms) and DIVA-GIS (which runs only in Windows; Mac users may have difficulty), in advance of the workshop. All are free to download. Familiarity with R is helpful but not required.

When*: Sunday August 27th, 9 am - 4 pm  
Where: NCEAS in beautiful downtown Santa Barbara  
Cost: $50.00 Extra (Includes transportation, facilities, coffee breaks)  
*Minimum 8 people, otherwise workshop will be canceled

II. African Ostracod Taxonomic Harmonization Workshop
Finn A. Viehberg1 & Koen Martens2  
1 Institute of Geology and Mineralogy, University of Cologne, Cologne, Germany,  
   finn.viehberg@uni-koeln.de  
2 Royal Belgian Institute of Natural Sciences, Brussels, Belgium,  
   darwinula@gmail.com  

This is a hands-on workshop open to all colleagues working or intend to work on Afrotropical Neogene and Quaternary non-marine ostracods.

In the past decades, the number of Neogene and Quaternary palaeoenvironmental studies in Africa increased promisingly. Several lacustrine archives were analyzed in multi-disciplinary projects using various proxies including ostracods. Likewise, modern studies increased in numbers and document the diversity of the extend African ostracod fauna that resulted in proposing new species. As seen in other geographical areas, it is of uttermost importance to work on taxonomic harmonization, which is understood as a joint effort of all actively involved working groups.

The aim of the first workshop is the identification of Afrotropical species or higher taxa level with known conflicts in nomenclature. Further, existing species lists are reviewed and special emphasis is put on taxa descriptions with wide biogeographical ranges and potential indicator value for (paleo-)ecological studies. The participants are encouraged to discuss their findings based on their own material (images or originals). Eventually, it is planned to establish a collaborative online space with controlled access to stimulate discussions after the workshop and initiate a series of future workshops.

Please send further inquiries to:
finn.viehberg@uni-koeln.de  
When: Saturday August 26th  
Where: Life Sciences Building Room 1003 on UCSB campus.  
Cost: active participation
- Journal of Micropalaeontology, 36 part 1, January 2017, is a special issue devoted to Cyprideis torosa (Jones) and the contents list can be seen via The Lyell Collection; copies are available at the reduced price of GBP17/US$20* (plus shipment).
- The book 'Ostracods in British Stratigraphy' (2009) is also available at the reduced price of GBP20/US$24* (plus shipment) and provides an overview of ostracod evolution of interest and relevance beyond NW Europe.
- Place orders via www.geolsoc.org.uk/catalogues (scroll to bottom of page and download form) citing 'ISO 18' on the form. (*billed in UK pounds, US$ or other currency price depends on card provider).

Further information: Alan Lord (alan.lord@senckenberg.de).