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Presentation Time: 3:15 PM

CENOZOIC INTER-TIDAL, SUPRA-TIDAL, AND FRESHWATER CRABS FROM TROPICAL AMERICA

LUQUE, Javier, Biological Sciences, University of Alberta, Edmonton, AB T6E 2E9, Canada, HENDY, Austin J.W., Invertebrate Paleontology, Natural History Museum of Los Angeles County, 900 Exposition Blvd, Los Angeles, CA CA 90007, ROSENBERG, Michael, School of Life Sciences, Arizona State University, PO Box 874501, Tempe, AZ 85287-4501, PORTELL, Roger W., Division of Invertebrate Paleontology, Florida Museum of Natural History, University of Florida, 1659 Museum Road, Gainesville, FL 32611 and PALMER, A. Richard, Department of Biological Sciences, University of Alberta, Edmonton, AB T6E 2E9, Canada, luque@ualberta.ca

The transition from fully aquatic to terrestrial/semi-terrestrial habitats is an infrequent event in most plant and animal groups. This might be due to the considerable physical differences between air and water, physiological constraints, being outcompeted by previously established residents, and being exposed to new predators. Higher crabs, or Eubranchyura, are one of the few marine groups that have successfully invaded land and freshwater, although relatively recently in geological time. Unfortunately, the fossil record of terrestrial, semi-terrestrial, and freshwater crabs is very fragmentary, and usually represented by a handful of incomplete specimens. This is principally due to the unlikely preservation of suitable habitats in the geological record (mechanical bias), the geochemistry of their substrates preventing fossilization (chemical bias), and re-working or ingestion of their molts and corpses (biological bias). The discovery of three fossiliferous localities in Panamá and Colombia (Early Miocene to Holo-Pleistocene) has yielded a large collection of freshwater, supra-tidal, and inter-tidal crabs, including the land crab *Cardisoma crassum* (family Gecarcinidae), the 'Sally Lightfoot' crab *Grapsus grapsus* (family Grapsidae), hundreds of articulated adult and juvenile specimens of the heavy-clawed fiddler crab *Uca ornata* (family Ocypodidae), and some of the oldest—and one of the most complete yet known—fossil freshwater crabs (families Pseudothelphusidae and Trichodactylidae). Furthermore, we review the fossil record of fiddler crabs worldwide, and the phylogenetic relationships between the fossil and extant species of fiddler crabs: one of the most speciose, charismatic, and behaviorally complex of all crabs.

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Session No. 164

[T148. Cenozoic Evolution of Tropical Biota and Environments I: A Session Honoring the Contributions of Ann F. Budd](#)
Monday, 2 November 2015: 1:30 PM-5:30 PM

Room 310 (Baltimore Convention Center)

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See more of: [Cenozoic Evolution of Tropical Biota and Environments I: A Session Honoring the Contributions of Ann F. Budd](#)
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