

# SKAPHION

The Weekly Newsletter of the *Platygastridea* Planetary Biodiversity Inventory

## Caught in the act – *Echthrodesis* laying eggs

by Simon van Noort (*Iziko Museums of Cape Town*)



Female *Echthrodesis* ovipositing on eggs of spider *Desis formidabilis*.

We are about to launch an exhibition on the “Wonderful World of Wasps” (see page 2) at the Iziko South African Museum in Cape Town and in a quest to capture further images of *Echthrodesis lamorali* in action I returned to Kommetjie to collect fresh spider eggs of the host *Desis formidabilis*.

This time around I managed to get some close up shots of a female in the act of oviposition, a task she was fairly laid back about, taking lengthy breathers in between laying eggs even though there was competition from other females for spider egg resources. She extended her ovipositor, which is as long as her metasoma, and sunk it almost up to the hilt into the host spider egg while holding onto an adjacent egg for support. With *Echthrodesis* only being 1 millimeter in length it was a rather tricky exercise to get these shots.

Last week I presented a paper on this fascinating interaction at the Entomological Society of Southern Africa congress held in a freezing cold Bloemfontein:

van Noort, S., L. Masner, O. Popovici, C. Taekul, N. Johnson & A. Austin. “Unraveling the biology and evolutionary relationships of the bizarre maritime parasitoid wasp *Echthrodesis lamorali* Masner (Hymenoptera: Platygastridae: Scelioninae).” ESSA XVII, University of the Free State, Bloemfontein, 3-6 July 2011.

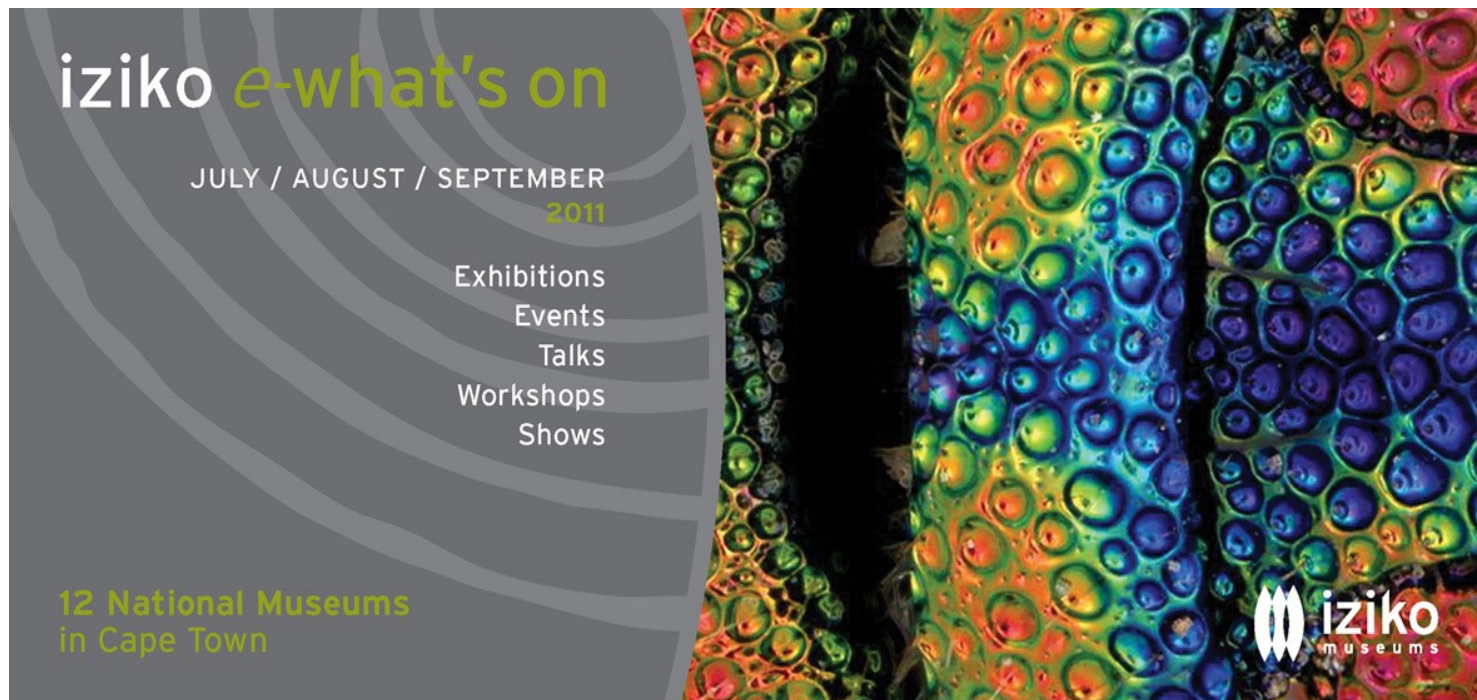
The presentation stimulated plenty of interest including firing up a Rhodes University student, Candice Owen, with passion to take on further investigation of the behaviour and physiology of *Echthrodesis* for an MSc degree. She is currently busy with her BSc Honours degree, but is already planning excursions to determine whether *Echthrodesis* is present on the Eastern Cape coast. The range of one of the host spiders extends up the east coast of South Africa as far north as East London, so we are hoping to find further populations. The type locality on the Cape Peninsula still represents the only known hang out of this bizarre wasp.

## Associated literature

Lamoral, B.H. 1968. On the ecology and habitat adaptations of two intertidal spiders, *Desis formidabilis* (O P- Cambridge) and *Amaurobioides africanus* Hewitt, at The Island (Kommetjie, Cape Peninsula), with notes on the occurrence of two other spiders. *Annals of the Natal Museum* 20: 151–193.

Masner, L. 1968. A new scelionid wasp from the intertidal zone of South Africa (Hymenoptera: Scelionidae). *Annals of the Natal Museum* 20: 195–198.

van Noort, S. 2009. The maritime platygastriid *Echthrodesis lamorali* Masner. *Skaphion* 3(40): 1-3. ❖



iziko *e-what's on*

JULY / AUGUST / SEPTEMBER  
2011

Exhibitions  
Events  
Talks  
Workshops  
Shows

12 National Museums  
in Cape Town

iziko  
museums

### IZIKO SOUTH AFRICAN MUSEUM

#### **Wonderful world of wasps**

16 July to 25 September

This exhibition showcases the diversity of wasps from a structural as well as a biological perspective. The species-rich insect group, *Hymenoptera*, which includes wasps, ants and bees, encompasses a vast range of lifestyles, from primitive plant feeding species, through to parasitoids and predators. The 5000 or so South African species play valuable roles in all ecosystems, providing important pollination services, controlling insect populations, and recycling nutrients.

*Wonderful world of wasps* includes over 100 photographs illustrating the spectacular diversity of form, colour and biology present in this group of ecologically and economically important insects. Three intricate interactions are featured in detail: the pollination of figs by tiny fig wasps; Africa's

only marine wasp that parasitises intertidal spider eggs; and plant modifying gall wasps with their associated suite of parasitic wasps.

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Above: Fig wasp pollinators (*Courtellia* species) entering *Ficus modesta*. Photograph by Simon van Noort.

Cover Image: Close-up of the cuticle of the Splendid Cuckoo wasp, *Chrysis splendens* (*Chrysididae*). Photograph by Simon van Noort.

Photos by Simon van Noort

*Inquiring minds want to know!  
Send news to Skaphion.*

# Calendar of Events – Updated July 2011

## 2011

- ◆ *Hennig XXX. São José do Rio Preto, São Paulo, BRAZIL. 29 July-2 August, 2011.*  
<http://www.cladistics.org/meetings.html>
- ◆ **Ento'11, The Royal Entomological Society's Annual National Meeting.** Natural Resources Institute, University of Greenwich, Medway Campus, Chatham Maritime, Kent. 7-9 September, 2011.
- ◆ **2011 TDWG Annual Conference.** Astor Crowne Plaza Hotel, New Orleans, Louisiana, 16-21 October, 2011.
- ◆ **GBIF (Global Biodiversity Information Facility) 18 Meeting.** Buenos Aires, ARGENTINA, 18-20 October, 2011.
- ◆ **Entomological Society of Canada and the Acadian Entomological Society. Joint Meeting.** Westin Nova Scotian Hotel, Halifax, Nova Scotia, CANADA. 6–9 November, 2011.
- ◆ **Entomological Society of America Annual Meeting.** Reno, Nevada, 13-16 November, 2011.  
<http://www.entsoc.org/entomology2011>

## 2012

- ◆ **International Congress of Entomology.** Daegu, SOUTH KOREA. 19-25 August, 2012.
- ◆ **Entomological Society of America Annual Meeting.** Knoxville, Tennessee. 11-14 November, 2012.

**Skaphion** is the weekly newsletter of the **Platygastridea Planetary Biodiversity Inventory Project (PlatyPBI)**. The term *skaphion* [*Gr. skaphion: a small bowl or basin; a bowl shaped like a boat; a hemispherical vase*], refers to an anterior subdivision of the mesoscutum which is unique to the Scelionidae.

The **PlatyPBI** is funded by a grant from the **US National Science Foundation** (<http://www.nsf.gov/>) to Norman Johnson (*The Ohio State University, USA*) and Andrew Austin (*University of Adelaide, Australia*).

The 3 broad objectives of the project are:

- **species description,**
- **collecting** in areas where fauna of Platygastridea is poorly known,
- and **phylogenetic analysis** of a monophyletic group.

### PlatyPBI Collaborators, Graduate Students, Associates & Staff (July 2010):

**AUSTRALIA:** Andrew Austin, John Jennings, Roger Burks, Sarah Mantel (*University of Adelaide*); Marc Dowton (*The University of Wollongong*); **BRAZIL:** Alexandre Aguiar (*UFES*); Beatriz Coelho (*INPA*); **CANADA:** Lubomir Masner (*Canadian National Collection of Insects, Ottawa*); Chris Darling, Antonia Guidotti (*Royal Ontario Museum, Toronto*); **ENGLAND:** Andrew Polaszek (*Natural History Museum London*); **HUNGARY:** István Mikó (@*North Carolina State University*); **INDIA:** Rajmohana K. (*Zoological Survey of India, Calicut*); **ITALY:** Ferdinando Bin, Eric Conti, Roberto Romani, Giancarlo Salerno (*University of Perugia*); **NEW ZEALAND:** John Early (*Auckland Museum*); **SOUTH AFRICA:** Simon van Noort, Aisha Mayekiso, Beryl Goci (*Iziko Museums of Cape Town*); **USA:** Norman Johnson, Hans Klompen, Luciana Musetti, Alejandro Valerio, Elijah Talamas, Charuwat Taekul, Sara Hemly, Joe Cora; *Undergraduate student associates:* Brian Crenshaw, Laura Shaffer, Elizabeth Alvarez, Emily McDermott, Mike Cassidy (*The Ohio State University, Columbus*); Matt Buffington (*Systematic Entomology Laboratory, USDA, Washington, DC*); Matt Yoder (*North Carolina State University*); Hans Clebsch (*Cleveland Museum*).

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