

tive parasitism by a less adapted parasitoid species, in which case such behaviour would help to explain an evolutionarily significant step towards parasitism of mobile spiders that appears to have taken place in the ichneumonid subfamily Pimplinae in the exploitation of clubionid hosts. In this subfamily, genera such as *Tromatobia* oviposit and develop in quite a wide range of spiders' egg sacs, whether or not they are guarded, without harming the adult spider. *Tromatobia* species are not, however, reared from clubionid nests: their place is taken by another genus, *Zaglyptus*, that is presumed to be more derived. *Zaglyptus* species differ in stinging the guarding female spider to death at the time of ovipositing, and the resulting larvae consume the corpse as well as the eggs. Attack on, and consumption of, the adult spider is well on the way towards the biology of the tribe Polysphinctini, whose hosts are mobile spiders which have been only temporarily paralysed to allow an egg to be affixed, and it is probably significant that some of the most primitive polysphinctine genera (e.g. *Dreisbachia* and *Schizopyga*) are associated with clubionids (see Fitton *et al.*, 1988, for further details). Further (more careful!) observations on the circumstances in which clubionids will eat their own eggs, or anything else in their nests, would therefore be of particular interest.

I thank Isobel Baldwin for confirming the identity of the female *C. reclusa*.

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Letter from Indianapolis

by Paul A. Selden

'Fossils! Not pholcids!' I corrected the young lady who had asked what subject I would be speaking about on the following day. Such was the diversity of interests among the participants at the annual meeting of the American Arachnological Society, held this year at Butler University, Indianapolis, yet all were united by a shared fondness for arachnids. I was one of only a handful of visitors from overseas at the meeting, the others being Rob Raven (Australia), Ray Forster (N.Z.), Joo Pil Kim (Korea), and Nikolaj Scharff (Denmark). It was a great pleasure to meet, at long last, many of the faces behind the names I had often impressed, with great cacophony, on so many manilla envelopes during my five years as Distribution Manager for the B.A.S. Before us lay four days of talks and field excursions though, having spent two days travelling through Kentucky to reach Indianapolis, I missed the final field day (when the temperature soared to 100°F) to make the long trip back.

Pholcids were indeed the subject of two speakers: a kitchen-sink drama by Audrey and Nancy Reagan

(Chicago, not late of Pennsylvania Avenue), and a talk which most deservedly was runner-up for the Best Student Contribution Award by Beth Jakob of Davis, California. Beth's was one of many talks on aspects of colonial living in spiders; I particularly liked the review by David Wise (Maryland) of interspecific competition among spiders. He found no good evidence for any at all!

Highlights among the talks included a great many new (for me) and interesting facts about a diverse array of spiders. Joseph Beatty (Carbondale, Illinois) and Jim Berry (Butler, Indianapolis) pointed out that the ecological niche so full of linyphiids in temperate parts of the world is occupied in the tropics by a host of other, less well-known families such as micropholcommatids; linyphiids form only about 4% of the spider fauna on Pacific islands, compared to 28% in New England. Richard Bradley (Ohio State) described how legless lizards are so adept at preying on the Sydney mygalomorph, *Misgolas rapax*, that the spiders keep their trapdoors closed much of the time. Mygalomorphs were also the subject of the talk by Fred Coyle and Tom Meigs (Western Carolina); their orthognath chelicerae are adapted to a downward strike in prey capture. Uloborids were discussed by two speakers from Virginia Polytechnic: Paula Cushing on jerking behaviour as a defence mechanism, and Brent Opell on the comparative efficiency of the book-lungs and tracheal systems in these spiders. Uloborids and dinopids are linked with the araneoid families by Jon Coddington (Smithsonian, Washington) in the Orbiculariae (orb-web weavers), and he presented more evidence for this at the meeting. Relationships among the araneoids were elucidated further by Herb Levi and Jonathan Harrod (Harvard, Mass.), who gave evidence that *Nephila* is a tetragnathid and not an araneid. The pumpkiniform spigot, a new type of silk-spinning apparatus, was described by Jacqueline Palmer (Harvard, Mass.) and Jon Coddington.

Of particular interest to me was the cladogram produced by Jeffrey Schulz (Ohio State), based on locomotory adaptations in arachnids. Most 'other arachnids' came in some fascinating sessions on fossils. The most ancient (by far) pseudoscorpion, and the oldest spinneret (and therefore spider), were described by A.A.S. President Bill Shear (Hampden-Sydney, Virginia) and colleagues, and Bret Beall (Field Museum, Chicago) suggested some curious life habits of the extinct phalangiotarbid arachnids.

Useful tips and new techniques cropped up in a number of talks. Petra Sierwald (Delaware Museum of Natural History) mentioned how contact-lens cleaning fluid can be used to clear epigynes. William Beachly (Nebraska Wesleyan University) demonstrated the use of fibre optics on a video camera to spy on *Antrodiaetus* down its burrow, and the innovative use of miniature TV sets to study image recognition by salticids won Dave Clark (Cincinnati University) the prize for the best student talk.

I will also remember being 'shot' in various poses round Eagle Creek Park by photographers from the *Indianapolis Star*, being one of nine people to guess correctly six of the seven most speciose families of spiders in Norman Platnick's quiz, and the warm and generous hospitality of our hosts Jim and Betsy Berry. Another friendly welcome awaits at next year's meeting in Ottawa, Canada, as guest of Charles Dondale. Future meetings are planned in Oxford (Mississippi), Manchester (New Hampshire), and Costa Rica.

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