

Meetings Report

Midges au madère

Meeting Report: the 16th International Chironomidae meeting, Madeira, July 2006

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For Samantha Hughes and her erstwhile thesis supervisor Declan Murray their regular arrival in Madeira, where the 16th International Chironomidae meeting was held, may be commonplace, perhaps more like going to work in a second, albeit exotic, home. For those who were attending this meeting and, like me, visiting the Atlantic island for the first time, there could not have been a more dramatic introduction. The flight from Portugal's capital, Lisbon, heads south-westward over an ocean dotted with fishing vessels, and after 90 minutes comes the first sight of land – a small island below, surely not Madeira? The descent starts and shortly after, an azure blue coastline appears with white flecks along a rugged and indented strand. Suddenly a mountain range appears below, capped with small clusters of interesting-looking vegetation, and just as quickly we are over the southern coastline. In the span of a few minutes we have crossed the width of the island and are headed out to sea – this is not a big place it seems. Then a view from the window of an ocean and another small, sienna-coloured island is replaced by the sky as we circle sharply and head back to the main island. The island's

spine – the mountain ridge – is no longer below but straight ahead. Another adjustment and small villages of the narrow flat periphery are rushing past the window and then we are down, braking sharply, on a previously unseen runway cut into the slope. I've landed at some interesting places over the years, including the old Kai Tak airport at Hong Kong where the runway used to bisect Chinese housing estates with washing hanging off the buildings just beyond the wingtips. But nothing beats this one.

Still palpitating after the experience, a cluster of delegates get into taxis for the run along the south coast to the main town of Funchal. But the adrenaline rush isn't over yet. Which side of the road do they drive on in Madeira? Its impossible to tell from the trajectory of the taxi. The airport road is the only one on which budding grand prix drivers can practice at speed, and every taxi driver is in training. Driving is on the right, lane discipline is arbitrary, and passing on blind mountain bends is frequent, but traffic in snarled-up Funchal moves at walking pace. The fifty or so biologists that attended the meeting survived their journeys, though not all posters were as lucky.

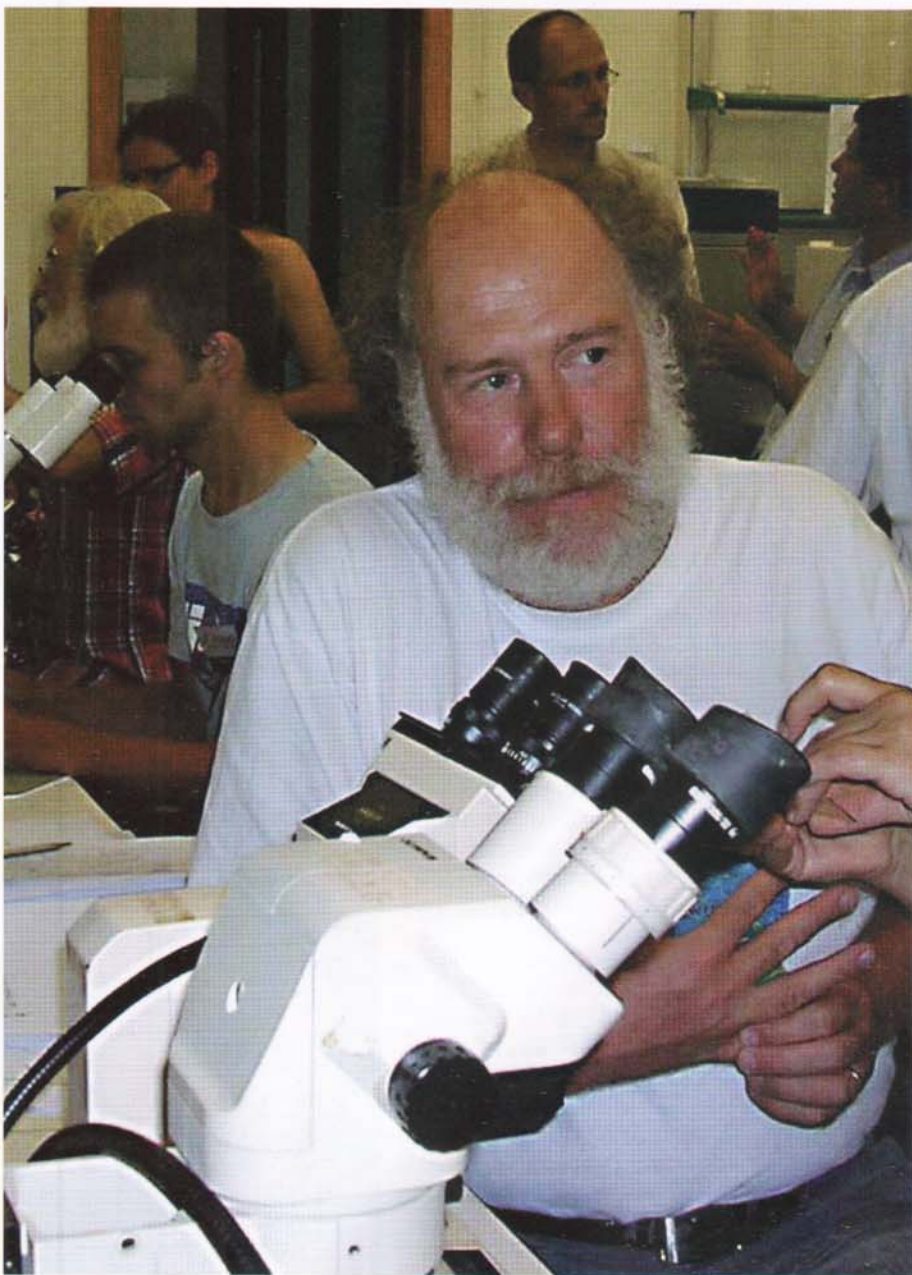
British representation including Steve Brooks from the Natural History Museum and Keith White from the University of Manchester, and the Irish contingent of Paddy Ashe and Jim O'Connor made their presence felt. Scandinavians and North Americans were well represented. An accompanying persons program was reported to have been excellent, with insights provided into the traditional lifestyles, and into oenology, a mainstay of the economy.

The main scientific meeting was held in the Casa da Luz Museum – an interesting venue in which the modern lecture theatre was surrounded by electricity-generating equipment, since the displays concern the bringing of light to the island, surely a must-see for visiting anoraks. An elevated mezzanine area provided space for the many posters and for coffee, and overlooked the ground level where ancient generators nearly obscured a well-stocked bar that opened regularly each evening. The venue in 'downtown' Funchal was placed perfectly both for lunch in the local Old Town, where *espada* ('black fish') proved as delicious as Doug Williams had claimed, and to allow the exercise of a waterfront stroll to the more distantly-located tourist accommodation that many delegates had chosen.

The conference proceedings were organised into 7 themes covering the areas in which research on chironomids has wider influence, namely Palaeolimnology, Toxicology and Biomonitoring; Ecology; Taxonomy, Morphology & Systematics; Physiology; and Biogeography and Biodiversity. As is usual, a longer plenary lecture on a particular theme opened the proceedings. This lecture is named for the eminent limnologist August Thienemann, whose early 20th century studies led to the development of a lake classification system that remains basically in place today, and whose life-long interest in chironomid ecology and classification forms the launching pad for contemporary studies. In Funchal, Professor Ian Walker, of the University of British Columbia,

Okanagan, dedicated his Thienemann Honorary Lecture to the use of chironomids as environmental indicators, with particular emphasis on palaeoecology. With the modesty we associate with his countrymen, Ian, a Canadian, surveyed how everyone else's use of chironomid subfossils as climate surrogates had enhanced our ability to determine past climates, while minimising his own major leadership in this area. The palaeolimnology session that followed was excellent, with case studies from around the globe, and

Steve Brooks (NHM, London) straddling the ornithological / entomological divide with a tale of Slavonian grebes and midges. The organisers and all attenders were grateful that this subdiscipline had broken with their regular narrower focus palaeo meeting to join the 'wider' world of chironomidology. This was especially valuable at a post-conference day-long workshop in which the palaeontologists and the neontologists and students of both got together to view and discuss their 'dead heads'.



Ian Walker, plenary speaker at a 'dead heads' workshop.

As is normal in modern meetings, prizes were provided for best student posters and oral presentations. Judging always proves rewarding, especially with a glass of Madeira wine in one hand (at least for the posters). Generally systematic work was presented in the form of posters – it is really difficult to get this across in a spoken presentation – as were those whose work was preliminary and sought feedback. Judges were unanimous on the best student oral presentation: Tobias Kaiser of the University of Leipzig described the use of genetic markers to assess the significance of the populations / putative species of *Clunio* midges around the eastern margin of the North Atlantic. These midges are famous in a wider context in being the model organisms for understanding their 'adaptive' life cycles that vary with lunar tidal rhythms according to local conditions. In contrast to most US entomological meetings, the molecular approach was balanced, and many excellent scientific natural history presentations were made.

Of course the island was explored – a magnificent program allowed spouses to become experts in the local food and customs, and a mid-conference break encouraged delegates to explore. Having heard so much about the levadas, I joined a mid-conference hike along one of the better-maintained footpaths along a central irrigation canal. Knowing only two entomological facts about the island: that cochineal had been introduced for cultivation, and that the island was invaded by Argentine and big-headed ants, my expectations were modest. Thus on the high slopes where the native *Echium fastuosum* ('Pride of Madeira') was in spectacular bloom on the disturbed roadside, I expected aphid-tending ants to be aliens. However, my colleague Phil Ward tells me that they are *Lasius grandis* Forel, a native that apparently is one of the few island formicids that can resist the invasives (Wetterer *et al*, 2006). Also at the roadside, but at lower elevation on *Opuntia* and unattended by any ants, were the cochineals (*Dactylopius coccus* (Linnaeus)), relicts of the past Macaronesian dye industry. My ethanol vial extracted the deepest



Cochineal on Opuntia

hue when just a few of these insects fell into the liquid; may their genes be informative!

British entomologists are rather familiar with this island, ever since the days of Thomas Wollaston, concerning whom a small display was prepared in the 'Museum of Light'. Doug Williams gave me plenty of advance advice, both entomological and gastronomic for one of his favourite haunts. As a first time visitor I was most impressed with the persistence of ancient laurel forests among the plethora of alien plants from around the globe, the invasives and the natives (both ants and humans), and the deep history of a maritime people. Although I resisted a dark night, post-banquet venture to (perhaps) see a Zino's petrel, a rare

Madeira endemic, bird life was much evident everywhere.

The next meeting will be hosted by Zinhua Wang in China in 2009. Thanks to the organisers of the meeting, especially to Énio Freitas, and Samantha Hughes who is now researching and living on the mainland in the Departamento de Engenharia Florestal, of the Universidade Técnica de Lisboa. I can now understand the fixation of Wollaston and subsequent biologists: island biogeography is in your face in Madeira!

Reference

Wetterer, J.K., Espadaler, X., Wetterer, A.I., Aguin-Pombo, D. & Franquinho-Aguiar, A.M. (2006) Long-term impact of exotic ants on the native ants of Madeira. *Ecological Entomology*, 31: 358-368.



Torbjorn Ekrem (Norway) and Xinhua Wang (China) talk about the venue for next (17th) meeting