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## RESEARCH NEWS

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### Observations of *Mexalictus arizonensis* in Millers Canyon

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A second objective to the major escapade outlined above (page 4) was to try and collect (for molecular studies) and observe (and hopefully find nests of) *Mexalictus arizonensis*. The previous year I had caught two males of this species at Millers Canyon, Huachuca Mountains, on August 2nd and another at Bog Springs, Madera Canyon, Santa Rita Mountains, on August 5th. It was clear that the very beginning of the month was the very beginning of this species' flight activity. Consequently, in 1994 I planned to visit Millers Canyon a little later in the season.

Tim (see my previous article in this issue) and I drove to the car park at the top of the road leading to the Millers Canyon site on the 23rd of August, having driven across from the Chiricahua's, via the Dragoon Mountains and Tombstone on the way. We arrived late and set up our tents on the edge of the car park. We woke early, packed up and headed upwards on foot. It is quite a hike before reaching the canyon proper but it was fairly cool and there were few insects flying. Seeing that it was cool and early we were in no great hurry as we walked up the footpath along the side of the canyon.

We were approximately half way up the path before we saw the first *Mexalictus*, foraging from a small yellow composite (this and all my other botanical collections were lost before returning to Canada so no more detailed plant identification is possible). Along a length of 100 metres or so of the path we saw a couple of dozen females, collected 10 of them and observed the remainder to see if we could detect where they nested. Sunlight reached ground level in this area only in isolated patches and the bees seemed to show no preference for shade or sun.

These bees flew and foraged rather slowly and after over one hour of observation it became clear that we were not going to find a nest. Further, as it approached 11am, the activity levels had clearly decreased markedly suggesting that this is rather an early flying bee.

The one firm conclusion I can make concerning this species' behavioural ecology is that it has an annual phenology with males and females emerging in August. Thus, unlike many other halictines, there is no overwintering only of mated females. Although I have only been in *Mexalictus* habitat in August, the late George Eickwort, who described the genus, made repeated trips to *Mexalictus* habitat in 1992 and failed to find any. Thus, this species remains unusual but not unique among halictines in its phenology as there are comparatively few other species where males and females emerge, mate and females forage without entering a hibernal or aestival period. *Lasioglossum pallens*, *Lasioglossum xanthopum* (sometimes)

and some *Andrena*-attacking *Sphecodes* are some examples of species with a similar lack of an inactive period between mating and egg laying, although all are spring fliers.

The genus *Mexalictus* remains poorly understood and infrequently collected. I have seen a specimen from northern Panama which indicates that the genus is far more widespread than has been hitherto recognised (until now it has been recorded only from Mexico and Arizona). Given its apparent early morning flight period and preference for cool, damp and shady places, perhaps these bees have been overlooked by bee collectors who prefer warm, sunny locations. Additional species of *Mexalictus* should be looked for, especially between northern Guatemala (from where I have seen one specimen) and northern Panama, in less bee-friendly habitats.

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### Foresis de *Caenocara* sp. (Coleoptera: Anobiidae) en *Anthophora atrata* (Hymenoptera: Anthophoridae).

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Una hembra de la abeja *Anthophora (Mystacanthophora) atrata* Cresson, capturada en la zona de nidificación, en Bacunayagua, Matanzas (24. v. 93), tuvo adherido a los pelos de la superficie posterior del propodeo, un ejemplar del coleóptero *Caenocara* sp.

Existen ejemplos de escarabajos foréticos en abejas (Roubik y Wheeler, 1982; Roubik, 1989; Chavarría, 1994), sin embargo no conozco ninguna cita que relacione a los géneros mencionados en este trabajo. La forésis le permite al organismo forético la dispersión hacia otros nidos donde encuentra refugio y alimentos. Es necesario un mayor número de observaciones para dilucidar la relación entre ambas especies. El material de referencia está depositado en la colección del autor.

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#### Referencias:

- Chavarría, G. 1994. Phoresy on a Neotropical bumblebee (Hymenoptera: Apidae) by *Antherophagus* (Coleoptera: Cryptophagidae). *Psyche* 101:109-111.
- Roubik, D.W. 1989. Ecology and natural history of tropical bees. Cambridge Univ. Press. 514 pp.
- Roubik, D.W. & Q.D. Wheeler. 1982. Flightless beetles and stingless bees: phoresy of Scotocryptine beetles (Leiodidae) on their Meliponine hosts (Apidae). *J. Kansas Entomol. Soc.* 55:125-135.