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## SCIENTIFIC NOTE

### **Plant associations for adult *Moneilema michelbacheri* Linsley (Coleoptera: Cerambycidae), including a new host plant record, the Barrel Cactus (*Ferocactus gracilis* Gates), in Baja California, México**

Four species of *Moneilema* are known from Baja California, México (Hovore 1988). Blom (1987) listed the known plant hosts of *Moneilema michelbacheri* Linsley for Baja California. At that time, the beetle was only known to feed on the cactus *Cylindropuntia* as host plants (*C. ganderi* (C.B. Wolf) Rebman and Pinkava, *C. molesta* (Brandege) F.M. Knuth, *C. cholla* (F.A.C. Weber) F.M. Knuth, *C. prolifera* (Engelm.) F.M. Knuth, and *C. bigelovii* (Engelm.) F.M. Knuth. Blom (1987) found *M. michelbacheri* on several cacti (*Echinocereus* sp., *Mammillaria* sp., *Pachycereus pringlei* S. Wats.) that appear not to be host plants but may indicate more incidental usage.

On August 19, 2006 at 0530 hr, we observed an adult female *Moneilema michelbacheri* (2.75 cm total body length) near the apex of a 1.5-m tall barrel cactus, *Ferocactus gracilis* Gates. The observation was made in the Cataviña area of the Central Desert, Valley de los Cirios, Baja California, México at a site approximately 9 km northwest of Rancho Santa Inés (29°46'N Lat., 114°46'W Long.) at an elevation of about 550 m. The area is located in an extensive Cretaceous granitic boulder field characterized by plants and animals typical of the Vizcaíno subdivision of the Sonoran Desert (Sankey *et al.* 2001). The beetle was feeding on the cactus in the groove between two ribs and was completely beneath the spines (Fig. 1). She was in a position facing downward and was well protected by the mats of spines above her. We collected the beetle (WHC #11,176) and confirmed feeding damage to the plant at the base of areole. Digital photographs were taken to document the specimen on the cactus (Fig. 1). The beetle was first noticed by the shine of its dorsal side in the illumination of a pre-dawn headlamp. The area was still dark but we could just detect the inklings of first daylight. The air temperature was about 20°C. During many nights observing *M. michelbacheri* at this (*e.g.*, Blom and Clark 1980) and other study sites we have not seen the beetle on this cactus. Thus, we presume that the plant is not a major food source for the beetle but may be an alternative when other plants are not available. This is the first non-cylindropuntia reported to serve as a food source for the beetle. Out of six known host plants for the beetle, four are found at the Cataviña site (Table 1).

The voucher specimen has been placed in the collection of Museo de Entomología del CICESE, Departamento de Biología de la Conservación, Centro de Investigación Científica y de Educación Superior de Ensenada, Ensenada, Baja California, México (CICESE) [ALBRCIDA accession number 33,815, Orma J. Smith Museum of Natural History, Albertson College of Idaho, Caldwell].

This paper is dedicated to the memory of Frank T. Hovore, friend and colleague, who encouraged our work on documenting the biodiversity of Coleoptera in the desert of Baja California, México. Permits to conduct the research in Valle de los Cirios were granted by C.



**Fig. 1.** Female *Moneilema michelbacheri* Linsley (Coleoptera: Cerambycidae), feeding on the barrel cactus, *Ferocactus gracilis* Gates, August 19, 2006, 0530 hr, Cataviña, Valle de los Cirios, Baja California, México. Scale: beetle length is 2.75 cm. Digital photo: W.H. Clark #0394.

Adrián Aguirre Muñoz, the Director del Area de Protección de Flora y Fauna, Valle de los Cirios. Collection and research permit #SGPA/DGVS/03389/06 was provided by Dirección General de Vida Silvestre, México, D.F. Valerie Ward, Daniela Ramirez, and Horacio de la Cueva assisted with field logistics. Thomas R. Van Devender and Jon P. Rebman kindly

**Table 1.** Plant associations of *Moneilema michelbacheri* Linsley (Coleoptera: Cerambycidae), Valle de los Cirios, Baja California, México. Host plant records demonstrate documented feeding by the beetle. Incidental records indicate that the beetle was found on the plant but not observed to feed at the time of observation.

Plant taxon	Host plant	Incidental record	Cataviña record
<i>Ferocactus gracilis</i> Gates	X		X
<i>Cylindropuntia ganderi</i> (C.B. Wolf) Rebman & Pinkava*	X		X
<i>Cylindropuntia bigelovii</i> (Engelm.) F.M. Knuth	X		
<i>Cylindropuntia cholla</i> (F.A.C. Weber) F.M. Knuth	X		X
<i>Cylindropuntia molesta</i> (Brandeggee) F.M. Knuth	X		X
<i>Cylindropuntia prolifera</i> (Engelm.) F.M. Knuth	X		
<i>Echinocereus</i> sp.		X	X
<i>Mammillaria</i> sp.		X	X
<i>Pachycereus pringlei</i> S. Wats.		X	X

\* Reported as *Opuntia echinocarpa* Engelm. & Bigel. (Blom 1987). (See Rebman (1995) and Pinkava (1996) for a summary of current taxonomy.)

assisted with cactus taxonomy questions. Daniela Ramirez kindly provided the Spanish abstract.

**Resumen.** La biznaga, *Ferocactus gracilis*, se ha encontrado ser una nueva planta huésped para el adulto de *Moneilema michelbacheri* Linsley (Coleoptera: Cerambycidae), en Baja California, México. Este registro hace un total de nueve Cactáceas con las que este escarabajo ha sido asociado (seis como plantas huéspedes y tres como registros incidentales).

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