

SCIENTIFIC NOTE

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MISCHOCYTTARUS MEXICANUS CUBICOLA: MAJOR EXTENSION OF ITS RANGE TO TEXAS (HYMENOPTERA: VESPIDAE)

Mischocyttarus mexicanus cubicola Richards is a paper wasp hitherto known from the southeastern U. S. A. and the Bahamas, Cuba and Puerto Rico. In the U. S. A., it has not previously been recorded from west of Alabama. We here report that it is established in Texas, and we also record it from Missouri.

We observed females flying above a small pond in Bellaire, Houston, Harris Co. Texas (17.5 m, 29°41'49"N 95°27'08"W) during summer 2005, but were unable to collect any adults. At the same location we collected several females from near a 54-cell nest under an *Aspidistra elatior* leaf on 29 October 2006; these specimens are now deposited in the American Museum of Natural History. By 30 November 2006 the females had left the nest and huddled between two leaves before dispersing. This aggregation contained 37 females.

The subspecies has also been collected in Alamo Heights, San Antonio, Bexar Co. Texas (280 m., 29°28'57"N 98°28'12"W, 8 July 2005, JMC). Numerous nests were on the porch of a house; one nest and its inhabitants were collected, as well as several foragers; these specimens are deposited in the American Museum of Natural History. A number of the nests were old and abandoned, indicating the wasps had probably been nesting there for at least a year.

There is also a single record for this subspecies from Missouri. Three females were present in a Malaise trap sample that contained specimens from the two weeks preceding the collection date of 7 October, 1998. The trap was at Washington University's Tyson Research Center, near Eureka, St. Louis County, Missouri: 38°31'N, 90°33'W. It was sited in a 10 m wide strip of second-growth herbaceous vegetation along a dirt road through mature upland mixed deciduous forest. The presence of three specimens in the trap is evidence that a nest was nearby, but extensive searching

failed to reveal the nest. No additional specimens have been collected or seen at the site. Vouchers are deposited in the University of Missouri-St. Louis and the American Museum of Natural History. Tyson Research Center was home at that time to the Raptor Rehabilitation and Propagation Project (RRPP), which housed numerous birds of prey and parrots. It seems possible that *M. mexicanus cubicola* could have been imported with a wildlife transfer from somewhere in the previously known range of the wasp to the RRPP. Because the malaise trap was ca. 1 km from the RRPP, however, it seems clear that the wasp(s) had founded a nest and successfully reared offspring, and establishment in Missouri—although unlikely in view of the climatic difference between the Southeast and Missouri—cannot be ruled out.

Mischocyttarus mexicanus cubicola was described from Cuba and Florida (Richards, 1978); it has also been recorded from Georgia, South Carolina, Alabama, the Bahamas, Cuba and Puerto Rico (Hermann and Chao, 1984b). Hermann *et al.* (1985) sought it in Mississippi and Louisiana but did not find it, and they suggested that it was prevented from spreading westward along the Gulf coast by two possible factors, namely cold winters or heavy winds along the Gulf Coast. The latter does not seem likely to be important for a wasp whose entire native range is subject to hurricanes. Perhaps it has been imported into Texas from Florida with a planting of tropical or semi-tropical ornamentals; Litte (1977) and Clouse (1995, 1997) found nests of this taxon only on saw palmetto (*Serenoa repens*) or cabbage palm (*Sabal palmetto*), but it has also been found nesting on oaks (Hermann *et al.*, 1985), Spanish moss (Bequaert, 1933) and on human constructions (Hermann and Chao, 1984a). A variety of agents are thus possible for its introduction.

Another subspecies of *Mischocyttarus mexicanus* is known from Texas: *M. mexicanus mexicanus* (de Saussure) has been recorded from Brownsville, first introduced with bananas (Bequaert, 1940) and then collected in the field (Bequaert, 1942). This subspecies otherwise ranges from Mexico to Costa Rica, and does not appear to have spread north. We are not aware of further collecting records in Texas.—*James M*

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LITERATURE CITED

- Bequaert, J. C. 1933a. The nearctic social wasps of the subfamily Polybiinae (Hymenoptera, Vespidae). *Entomologica Americana* (new series) 13: 87–150.
- Bequaert, J. C. 1940. *Mischocyttarus cubensis* var. *mexicanus*, another stowaway in bananas. *Bulletin of the Brooklyn Entomological Society* 35: 140.
- Bequaert, J. 1942. *Mischocyttarus cubensis* var. *mexicanus* (de Saussure), native in the United States. *Bulletin of the Brooklyn Entomological Society* 38: 75.
- Clouse, R. M. 1995. Nest usurpation and intercolonial cannibalism in *Mischocyttarus mexicanus* (Hymenoptera: Vespidae). *Journal of the Kansas Entomological Society* 68(1): 67–73.
- Clouse, R. M. 1997. Are lone paper wasp foundresses mainly the result of sister mortality? *Florida Scientist* 60(4): 265–274.
- Hermann, H. R. and J.-T. Chao. 1984a. Nesting biology and defensive behavior of *Mischocyttarus (Monocyttarus) mexicanus cubicola* (Vespidae: Polistinae). *Psyche* 91: 51–65.
- Hermann, H. R. and J. T. Chao. 1984b. Distribution of *Mischocyttarus (Monocyttarus) mexicanus cubicola* in the United States. *Florida Entomologist* 67: 516–520.
- Hermann, H. R., J. M. Gonzalez and B. S. Hermann. 1985. *Mischocyttarus mexicanus cubicola* (Hymenoptera), distribution and nesting plants. *Florida Entomologist* 68(4): 609–614.
- Litte, M. 1977. Behavioral ecology of the social wasp, *Mischocyttarus mexicanus*. *Behavioral Ecology and Sociobiology* 2: 229–246.
- Richards, O. W. 1978. *The Social Wasps of the Americas, Excluding the Vespinae*. British Museum (Natural History), London.

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