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NEW FOODPLANT AND DISTRIBUTION RECORDS FOR *MEGATHYMUS URSUS* (MEGATHYMIDAE)

Ronald S.¹ Dale and Joseph R. Wielgus ²

3434 West Augusta Avenue, Phoenix, Arizona 85021

On 18 November 1972, while collecting larvae of *Megathymus coloradensis arizonae* Tinkham near the type locality south of Mountain View, Pima County, Arizona, the first two authors found five larvae of *Megathymus ursus ursus* Poling feeding in *Yucca thornberi* McKelvey. Three of the larvae were found in one yucca clone about twenty feet south of the Old Sonoita Road, approximately 3/4 mile east of State Highway 83, another was found in an extremely small plant situated among two others harboring *arizonae* larvae, and another *ursus* larva was found in a medium-sized plant farther south downslope which was partially shaded by mature yuccas. All of the larvae were field-inspected after it became apparent that the burrows of the first three larvae were unpowdered. Sunlight was used to illuminate the larvae in the bottoms of their burrows, and the *ursus* larvae were immediately distinguishable from those of *arizonae*. At the time of year that this collection was made, tents of both taxa were similar except for the presence of fresh frass at the apices of the *ursus* tents.

A review of the literature and personal communication with Mssrs. Don B. Stallings and Lloyd M. Martin indicated the *Y. thornberi* is an heretofore unrecorded larval foodplant of *ursus*. Interestingly, Stallings and Turner (1956: p.8) speculated on the possibility of *Y. thornberi* as an *ursus* larval foodplant.

Two of the five *ursus* larvae were reared through to adults with the following dates of emergence: 1 male, 11 April 1973 and 1 male, 28 May 1973. The other three larvae died in April 1973, one of unknown causes and the remainder from parasitism by a Braconid, *Apanteles megathymi* Riley (our determination). The two reared adult *ursus* males did not appear to differ from those of typical *ursus* in the senior author's collection, and one each will be deposited in the collections of the American Museum of Natural History, and the Allyn Museum of Entomology.

During the winter of 1971, the senior author had the good fortune to read a book written by Carl Kauffeld (1969) in which mention is made of seeing a *Megathymus ursus* while on a snake collecting trip to the Animas Mountains of New Mexico (*loc. cit.*: p. 188). A letter was immediately sent to Mr. Kauffeld inquiring as to the details surrounding this sight record. The following is a direct quotation extracted from a letter of reply from Mr. Kauffeld dated December 13, 1971: "I

¹Museum Associate in Entomology, Natural History Museum of Los Angeles County

²4315 West Las Palmaritas Drive, Glendale, Arizona, 85021

saw the *Megathymus* quite soon after leaving the camp site at the creek, just off the trail, in a rather shaded area. There are yuccas and agaves in abundance throughout the region so if this is a factor "you have it made"! I saw the skipper I mention on the morning of the 24th of July, 1960. I've never seen another." The only thing that remained was the confirmation of this sight record by the actual collection of *ursus*.

Early 1972 was marked by additional correspondence with Mr. Kauffeld and also with Mr. Chuck Hanson, Curator of Mammals at the Arizona-Sonora Desert Museum, Tucson, Arizona, in order to secure more details surrounding the sight record, and to obtain a hand-drawn map and directions to the area from the latter person.

On 8 April 1972, the senior author, in company with Dr. Frank F. Hasbrouck of Arizona State University, collected two larvae of *ursus* feeding in *Yucca schottii* Engelm (a known foodplant of typical *ursus*) which were growing on very steep slopes in upper Indian Creek Canyon, Animas Mountains, Hidalgo County, New Mexico. The larvae were reared to adults and two males were produced in June 1972. These differed slightly from those of typical *ursus*. A subsequent collecting trip to the same locality, in the company of Joseph R. Wielgus, on 27 April 1973, resulted in the collecting of another two *ursus* larvae, and a pupa of an un-named *Megathymus*, all in *schottii* plants! A diligent search of the yuccas that day also revealed that several Megathymid larvae had died in early instars, another pupa of the un-named *Megathymus* was found to be parasitized by a Tachinid, and two old tents were discovered which indicated earlier emergences. The one viable un-named *Megathymus* pupa eclosed a female of the *coloradensis* complex on 1 May 1973 which differed radically from those of *arizonae* in the senior author's collection.

The *Y. schottii* in the Indian Creek locality grows in sparse colonies on open, steep, rocky slopes and also in the mixed oak and pine woodland farther upcanyon. The *ursus* and the un-named *Megathymus*, both utilizing the same foodplant, are nowhere common in this locality, but are probably more widespread in the range than our collecting indicates. It is too soon to tell if the *ursus* occurring in this isolated range is subspecifically distinct from typical *ursus*. At the present time, we are tentatively assigning the Animas Mountains *ursus* population to *ursus ursus*.

We could find no previous records in the literature of the occurrence of typical *ursus* in New Mexico. Correspondence with Dr. Frederick H. Rindge, American Museum of Natural History; Dr. J. F. Gates Clarke, United States National Museum; and Mr. Julian P. Donahue, Los Angeles County Museum of Natural History, revealed (*in litt.*) no typical *ursus* from New Mexico in the collections under their care. Thus, we believe that the *ursus* sighting in 1960 by Kauffeld and our reared male specimens represent the first state records of the occurrence of typical *ursus* in New Mexico, and the easternmost extension of the subspecies.

It is unfortunate that both of the *ursus* larvae collected in the Animas Mountains in April 1973 died of parasitism by a Braconid (determination pending) on 13 June 1973, for we have yet to obtain a female. However, the two specimens obtained in 1972 will be deposited in the following institutions: 1 male, 12 June 1972, Insect Collection of Arizona State University, and 1 male, 15 June 1972, Allyn Museum of Entomology. The un-named *Megathymus* will remain in the collection of the senior author pending further study.

In our paper describing a new subspecies of *ursus* (Wielgus, *et al*, 1972), mention is made of the collection of four larvae of *Megathymus ursus deserti* Wielgus, Wielgus and Wielgus from Thirteen Mile Rock, 13 miles southeast of Camp Verde, Yavapai County, Arizona, on 21 November 1972. These were successfully reared to adults and produced the following: 1 female, 20 May 1973; 1 male, 24 May 1973; 1 male, 27 May 1973 and 1 male, 1 June 1973. One specimen of each, respectively, will be deposited in the collections of the American Museum of Natural History, Los Angeles County Museum of Natural History, United States National Museum and the Allyn Museum of Entomology.

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The authors are deeply indebted to Mr. Carl Kauffeld for his valuable comments and suggestions which led to the verification of the Animas Mountains *ursus* population, and to Mr. Chuck Hanson for the map and directions to that unique area of New Mexico. Thanks are sincerely due Mssrs. Don B. Stallings and Lloyd M. Martin for their unselfish responses to our many inquiries. Without the help of the following individuals, our task would have been far more difficult and we are, therefore, most thankful to Dr. Frederick H. Rindge, Dr. J. F. Gates Clarke and Mr. Julian P. Donahue, for researching the *ursus* collections under their care.

We are again grateful to Mr. A. C. Allyn and Dr. Lee D. Miller of the Allyn Museum of Entomology for making the publication of this paper possible.

CORRECTION

In the description of a new subspecies of *ursus* (Wielgus, *et al.*, 1972) a typesetter's error resulted in the addition of one extra female paratype to the American Museum of Natural History. The correct number of paratypes distributed to this institution should be 2 males and 1 female.

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