ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Invertebrate Abstract **Element Code:** IIHYM31010
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Microdynerus arenicolus*
COMMON NAME: Antioch Potter Wasp; Antioch Eumenid Wasp
SYNONYMS:
FAMILY: Eumenidae

AUTHOR, PLACE OF PUBLICATION: *Leptochilus arenicolus,* Bohart, 1955:299.

TYPE LOCALITY: Antioch, California.

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS:

DESCRIPTION: Most potter wasps are 0.4 to 0.8 in (10-20 mm) long, and are black with yellow or white markings. The middle tibiae has one apical spur and the mandibles are elongated and knifelike. The markings of the Arizona and New Mexico specimens are ivory-white whereas California specimens tend to be a creamy-yellow. For the males frons, vertex densely pitted, margin of macropunctures connected in profile, tergite I without subapical indentation; pronotal lamella raised medially. And for the females, the vertex is swollen between lateral ocelli, depressed medially; median clypeal lobe with v-shaped notch, upper propodeal lamella broad; blody is black with yellow to white markings.

AIDS TO IDENTIFICATION: The markings of the Arizona and New Mexico specimens are ivory-white whereas California specimens tend to be a creamy-yellow.

ILLUSTRATIONS: Black and white drawing (Borror, 1970: pp. 347).
Black and white drawing (Parker 1970)

TOTAL RANGE: California, southern Arizona and New Mexico.

RANGE WITHIN ARIZONA: Southern Arizona.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: The females have stingers but are very docile.

REPRODUCTION: It is the nests of the potter wasps that make them conspicuous. These are solitary wasps, each female constructing nests and provisioning them for her own offspring. Each nest looks like a small jug, about half an inch in diameter, with a short sealed neck. When the female decides to make a cell, she selects a sheltered place, and then carries dollops of mud there for construction. This is a precision process with a thin walled pot resulting. When the pot is almost completed, with just room for her to get her head in, she starts to provision the cell with hairless caterpillars, which she has paralyzed by stinging them in the central nervous system. Once the cell is full she lays an egg on the prey and restarts the cell making process. She adds mud to the edges of the nearly spherical pot. Closing the sphere presents problems that are solved by simply adding extra mud and leaving a small neck. The larva that hatches from the egg eats the prey, spins a cocoon inside the pot and pupates. When the new adult is ready to leave the pot, it simply makes a hole in the side and leaves. Using the neck would be logical but that is where the pot is the thickest.

FOOD HABITS: Unknown

HABITAT: Unknown

ELEVATION: Unknown

PLANT COMMUNITY: Unknown

POPULATION TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1991)
[C3 USDI, FWS 1989]

STATE STATUS:

OTHER STATUS: Forest Service Sensitive (USDA, FS Region 3 1999)

MANAGEMENT FACTORS: Unknown

PROTECTIVE MEASURES TAKEN: Unknown

SUGGESTED PROJECTS: Unknown

LAND MANAGEMENT/OWNERSHIP: Unknown

SOURCES OF FURTHER INFORMATION

REFERENCES:

Borror, D. J. et al. A Field Guide to Insects: America north of Mexico. Houghton Mifflin Company, Boston, MA. pp.347.

NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virgina, USA: NatureServe. Available: http://www.natureserve.org/explorer. (Accessed: May 22, 2002).

Parker, F.D. 1970. The Pan-Pacific Entomologist. Vol 46 number 4, pp. 252.

USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.

USDI, Fish and Wildlife Service. 1989. Endangered and Threatened Wildlife and Plants; Review of Vertebrate Wildlife; Notice of Review. Federal Register 54(4): 574.

USDI, Fish and Wildlife Service. 1991. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species; Proposed Rule; Notice of Review. Federal Register 56(225): 58804-58836.

Werner, F. et al. 1994. Learning About and Living With Insects of the Southwest. Fisher books, pp 55.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

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