

NEW RECORDS OF POLLINATORS AND OTHER INSECTS ASSOCIATED WITH ARIZONA MILKWEED, *ASCLEPIAS ANGUSTIFOLIA*, AT FOUR SITES IN SOUTHEASTERN ARIZONA

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Abstracto

Asclepias angustifolia es un talayote mexicano con distribución apenas tocando Estados Unidos. Sus polinizadores y otros insectos visitantes no han sido investigados. Los insectos fueron fotografiados en 2018 y 2019 en una población nativa y en tres jardines en las montañas Huachuca y área adyacente, en el sureste de Arizona. Un total de 216 visitas a los sitios produjeron al menos 369 especies de insectos en siete órdenes. Las imágenes revelaron 140 polinizadores potenciales con una preponderancia de las órdenes Hymenoptera, Lepidoptera y Diptera. Se discuten las órdenes de insectos, así como la fenología de la floración, los polinizadores potenciales en grupos funcionales, los insectos introducidos, y el valor de *A. angustifolia* para la mariposa monarca y otros insectos en los jardines de polinizadores y en las parcelas de restauración.

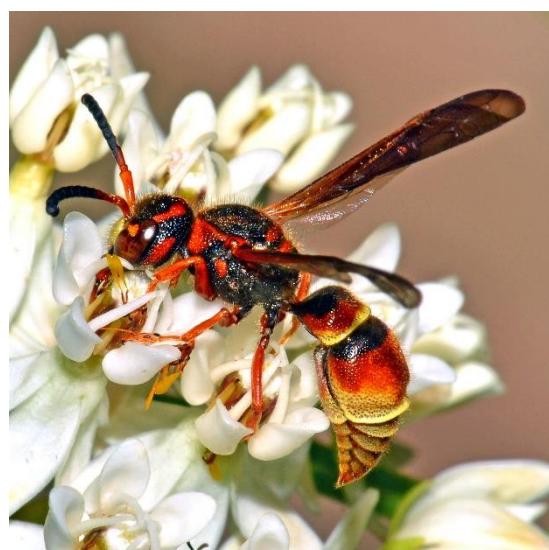
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Arizona milkweed is a Mexican species barely entering the United States. Small populations inhabit moist canyons in isolated "Sky Island" mountain ranges hosting numerous other tropical plants and animals. Its flowers attract a huge assortment of butterflies and other insects, and, unlike some other Southwestern milkweeds, the plant is easily propagated, making it a valuable addition to pollinator gardens and habitat restoration sites. Its value for monarch butterflies has been suggested but is unclear. Of the many insects attracted to its nectar, those serving to pollinate its flowers have not been identified.

During two years, insect visitors were photographed at a native population of Arizona milkweed, and on introduced plants

in three pollinator/habitat gardens. Three sites were located in pine-oak woodland in the Huachuca Mountains; one was lower on the floodplain of the San Pedro River.

At least 369 kinds of insects were documented, representing seven orders: grasshoppers, thrips, true bugs, beetles, bees and wasps, butterflies and moths, and flies. Among them, 140 species had milkweed pollen sacs (pollinia) attached to their legs, suggesting their potential role as pollinators. Prominent among them were the groups best known as pollinators of New World milkweeds: bees and wasps (68 species), butterflies and moths (41 species), and flies (20 species). Large butterflies, wasps, and bees (including the introduced Western Honey bee) carried the largest loads of pollinia. The plant's long flowering season, unusual number of insect visitors, and other characteristics suggest it is a valuable addition to native habitat gardens and restoration sites.



The rarely encountered wasp *Smeringodynerus morelios* transfers pollinia as it takes nectar from Arizona milkweed.