

## Chrysina woodi (Wood's Jewel Beetle)

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### Taxonomy

- **Class:** INSECTA
- **Order:** COLEOPTERA
- **Family:** SCARABAEIDAE
- **Genus:** Chrysina
- **Scientific Name:** *Chrysina woodi* (Horn, 1885)
- **Common Name:** Wood's Jewel Beetle
- **Synonyms:** Plusiotis woodi Horn, 1884 Horn, 1884
- **Taxonomic Name Source:** Moore, M.R., M.L. Jameson, B.H. Garner, C. Audibert, A.B.T. Smith and M. Seidel. 2017. Synopsis of the pelidnotine scarabs (Coleoptera: Scarabaeidae: Rutelinae: Rutelini) and annotated catalog of the species and subspecies. ZooKeys 666: 1-349. <https://doi.org/10.3897/zookeys.666.9191>

### Agency Status

- **NMDGF:**
- **Federal Status:**
- **BLM Sensitive:**
- **USFS:**
- **IUCN Red List:** [Not Evaluated](#)
- **Nature Serve Global:** [GNR](#)
- **NHNM State:** S2
- **NM Endemic:** NO

### Description

Like other *Chrysina* species, adult Wood's Jewel Scarabs are large (about 3 cm in length), bright iridescent green beetles. This species can be distinguished from other species by its purplish blue tarsi.

### Habitat and Ecology

Adult Wood's Jewel Scarabs fly in summer from June to October (Maddox 2017). They are diurnal, and have been observed feeding on Walnut trees and flying in the late morning in appropriate habitat (D. Thomas pers. comm. 2024). Their adult activity is dependent on high humidity, and in dry conditions they will burrow into the soil (Fullington and Harrington 1979). The host plant is *Juglans macrocarpa* (Texas walnut) and perhaps various species of oaks (*Quercus* spp.) as well (Fullington and Harrington 1979, Maddox 2017). These hosts tend to grow in dry, rocky ravines, hillsides

and along stream banks (Lady Bird Johnson Wildflower Center 2022). They may sequester toxic compounds from their walnut hosts, which may deter predation. They rest on the underside of leaves and branches (Maddox 2017). Mating occurs in late summer (Fullington and Harrington 1979). Oviposition sites are selected in decomposing wood and larvae feed on wood and plant material (Maddox 2017). Pupation occurs in the soil (Ritcher 1966). In captivity development from egg to adult is eight months long (Maddox 2017).

## Geographic Range:

Wood's Jewel Scarab (*Chrysina woodi*) occurs in several mountain ranges of the southwestern United States and northern Mexico, where it has been recorded from New Mexico, Texas, and Chihuahua (Fullington and Harrington 1979). It is generally restricted to montane regions under 1,830 m (6,000 ft.) (Fullington and Harrington 1979). There are scattered occurrences outside of mountain ranges, which may represent migrants that have strayed from their breeding habitats (D. Thomas pers. comm. 2024). Well established populations are known from the Davis Mountains, Guadalupe Mountains, and Big Bend National Park of Texas (Fullington and Harrington 1979, GBIF.org 2024), but there are also scattered observations from the Sacramento and Capitan Mountains in New Mexico (Lewis 2022, Moran 2020).

## Conservation Considerations:

The two most well-studied populations of *Chrysina woodi* occur in protected lands in Texas, at Guadalupe Mountains National Park and the Davis Mountains State Park (Fullington and Harrington 1979). Fullington and Harrington (1979) suggests that both *C. woodi* and *C. gloriosa* populations could be quickly depleted and that both species merit protection. Additional research on population trends and habitat trends is needed to ensure populations are stable.

## Threats:

It is proposed that species of *Chrysina* in the US and northern Mexico, including *C. woodi*, *C. gloriosa*, *C. beyeri*, and *C. lecontei*, are relicts of once common tropical *Chrysina* that have been mostly extirpated from the Southwest region due to increased aridity since the last glacial maximum, and as such they are now restricted to cooler high elevation areas in the southwest (Young 1957). *Chrysina woodi* emergence is dependent on moisture and humidity (Fullington and Harrington 1979), and so as frequency and duration of drought in the southwest increases (USGRCP 2018), this species may experience a shift in suitable habitat. Mountaintop habitat specialization makes this species a potential victim of "escalator to extinction", which describes the upslope movement of high-elevation species in response to warming temperatures or decreased rainfall into smaller and smaller areas of suitable habitat (Urban 2018).

## Population:

Population size and trend are not known for this species. Because of its ecology, mature individuals can be present in relatively high numbers for short periods of time (Fullington and Harrington 1979). One study estimated population size at a single site in the Davis Mountains; in 2015 and 2016, about 1,900 and 2,100 individuals were counted, respectively, with the highest counts in August and September (Maddox 2017).

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## More Information

