



Alaska Natural Heritage Program

Conservation Status Report

Osmia inermis – (Zetterstedt, 1838)

Synonyms: *Anthophora inermis* Zetterstedt, 1838; *Osmia globosa* Cresson, 1864; *Osmia vulpecula* Gerstäcker, 1869; *Osmia globosiformis* Cockerell, 1910

Common Name: Unarmed mason bee

ELCODE: IIHYMA2270

Taxonomic Serial No.: 715562

Report last updated – August 29, 2023

Conservation Status

G5 S3

Occurrences, Range

Number of Occurrences: 15 occurrences, 43 voucher records (University of Alaska Anchorage Entomology Collection; University of Alaska Museum Insect Collection; USDA-ARS Bee Biology and Systematics Laboratory)

AK Range Extent: 126,223 km²

Occupancy 4 km² grid cells: 15 occupied grids (see comment above)

Nowacki Ecoregions: Intermontane boreal, Coastal rainforests

North American Distribution: To date, this species has a fairly limited distribution in Alaska, with all but one occurrence from interior Alaska, and a disjunct record, collected in 1951, from the Kenai Peninsula (*Figure 1*) (this specimen was examined by M. Rightmyer). It has been found in a range of habitats, including sandy steppe bluffs. Continued surveys will likely expand the known range of this species.

Holarctic species. In the Nearctic, it is known from Alaska east across Canada to Newfoundland, including north to Northwest Territories and Nunavut. In the lower United States it ranges through much of west to South Dakota and Colorado, and in the Great Lakes Region and northeastern states (Ascher and Pickering 2023).

Ecology

Habitat: In Alaska, this species has been documented in various habitat types including sandy steppe bluffs, shrub, spruce forest, and dry herbaceous.

Host Plants: *Vaccinium vitis-idaea*, *Hedysarum*, *Rosa acicularis*.

Life History: This is a solitary bee species. Individual females have been documented to nest in clusters under rocks or in preexisting cavities in rocks and stones, with brood cells constructed of chewed leaves (Cane et al. 2007; Rightmyer et al. 2010 and references therein).

Trends

Short-term: N/A, insufficient data

Long-term: N/A, insufficient data

Threats

Scope and Severity: Four (of 15) occurrences lie within Denali National Park and Preserve.

References

Ascher J.S. and J. Pickering. 2023. Discover Life bee species guide and world checklist (Hymenoptera: Apoidea: Anthophila). <https://www.discoverlife.org/> (accessed August 28, 2023)

Cane, J.H., T. Griswold, and F.D. Parker. 2007. Substrates and materials used for nesting by North American *Osmia* bees (Hymenoptera: Apiformes: Megachilidae). *Annals of the Entomological Society of America* 100:350-358.

Global Biodiversity Information Facility. <https://www.gbif.org>. GBIF occurrence download <https://doi.org/10.15468/dl.qdbe6u> (accessed April 20, 2021 and August 28, 2023)

Integrated Taxonomic Information System (ITIS). <https://www.itis.gov> (accessed August 28, 2023)

NatureServe Explorer. <https://explorer.natureserve.org/> (accessed August 28, 2023)

Rightmyer, M.G., T. Griswold, and M.S. Arduser. 2010. A review of the non-metallic *Osmia* (*Melanosmia*) found in North America, with additional notes on palearctic *Melansomia* (Hymenoptera, Megachilidae). *ZooKeys* 60:27-77.

University of Alaska Museum Insect Collection. <http://dx.doi.org/doi:10.7299/X75D8S0H> (records accessed March 8, 2023)

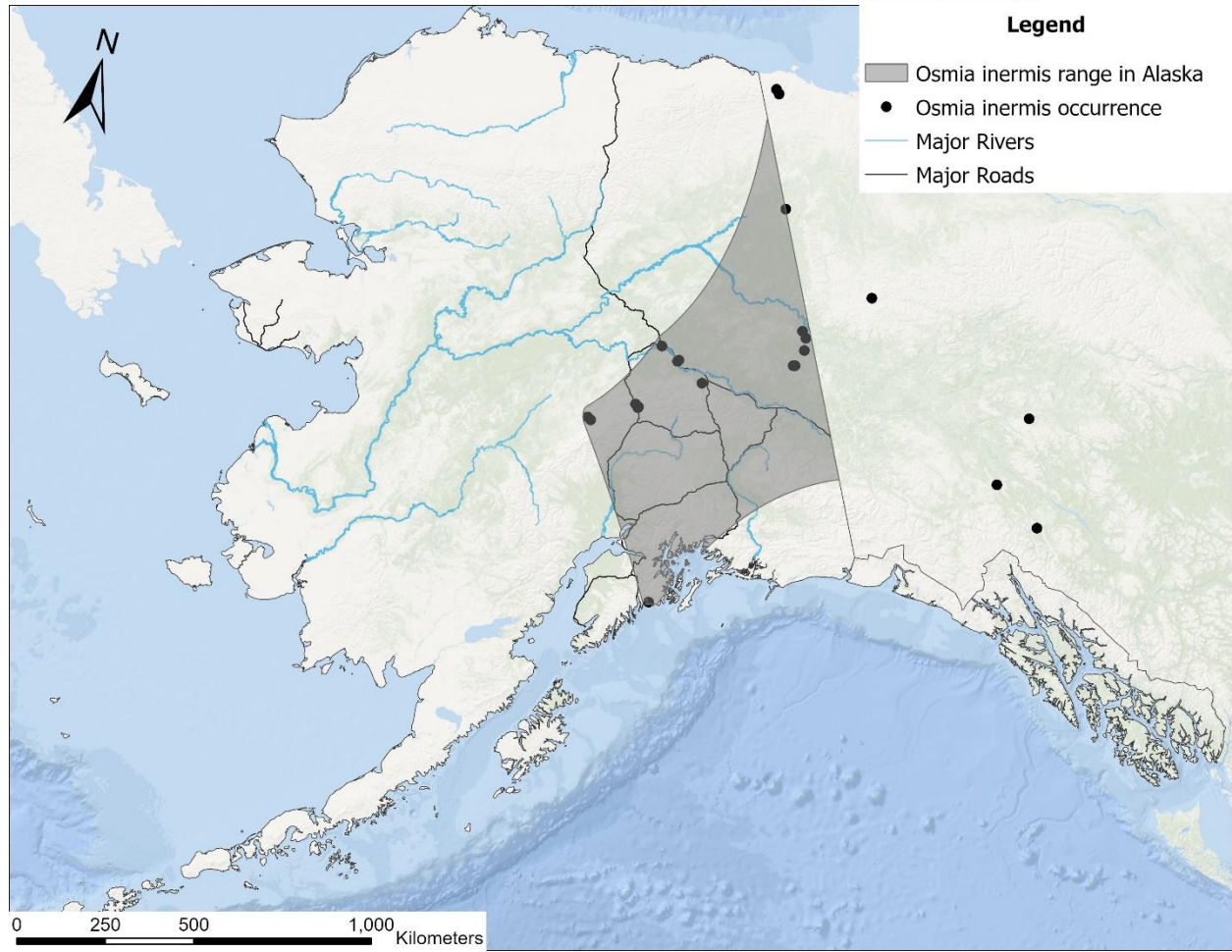


Figure 1 Range and occurrence of *Osmia inermis* in Alaska

Photo Reference



Figure 2 © Copyright Laurence Packer 2014