

Alaska Natural Heritage Program

Conservation Status Report

Osmia nigriventris – (Zetterstedt, 1838)

Synonyms: *Anthophora nigriventris* Zetterstedt, 1838; *Osmia baicalensis* Radoszkowski, 1867; *Osmia corticalis* Gerstäcker, 1869; *Osmia frigida* Smith, 1853; *Osmia hudsonica* Cresson, 1864

Common Name: Large black-bellied mason bee

ELCODE: IIHYMA2090

Taxonomic Serial No.: 715593

Report last updated – August 21, 2023

Conservation Status

G5 S3S4

Occurrences, Range

Number of Occurrences: 38 occurrences, 74 voucher records (University of Alaska Anchorage Entomology Collection; University of Alaska Museum Insect Collection; USDA-ARS Bee Biology and Systematics Laboratory)

AK Range Extent: 422,002 km²

Occupancy 4 km² grid cells: 38 occupied grids

Nowacki Ecoregions: Arctic tundra, Intermontane boreal, Alaska Range transition, Coastal rainforests

North American Distribution: Holarctic species. In the Nearctic, it is known from Alaska east across the Yukon and Northwest Territories in Canada (*Figure 1*) to Ontario, Quebec, and Newfoundland. In the lower United States, it ranges from Washington and Oregon east to Montana, Wyoming, and Michigan (Ascher and Pickering 2023).

Ecology

Habitat: In Alaska, this species is found in a variety of habitat types, including sand dunes and bluffs, muskeg, dry tundra, and forest margins.

Host Plants: *Chamerion angustifolium*, *Hedysarum boreale*, *Oxytropis campestris*, *O. kobukensis*, *Rosa acicularis*

Life History: This is a solitary bee species, with individual females nesting in wood, including bark and old stumps (Cane et al. 2007).

Trends

Short-term: N/A, insufficient data

Long-term: N/A, insufficient data

Threats

Scope and Severity: Approximately half of the known AK occurrences are from protected areas: Kobuk Valley National Park, Denali National Park and Preserve, Gates of the Arctic National Park and Preserve, and Wrangell-St. Elias National Park and Preserve. Among the remaining occurrences, some are in disturbed habitats such as a logged aspen stand in Fairbanks and the APU campus in Anchorage, where populations could be vulnerable to physical disturbance.

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 22, 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)

Integrated Taxonomic Information System (ITIS). <https://www.itis.gov> (accessed August 22, 2023)

NatureServe Explorer. <https://explorer.natureserve.org/> (accessed August 22, 2023)

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

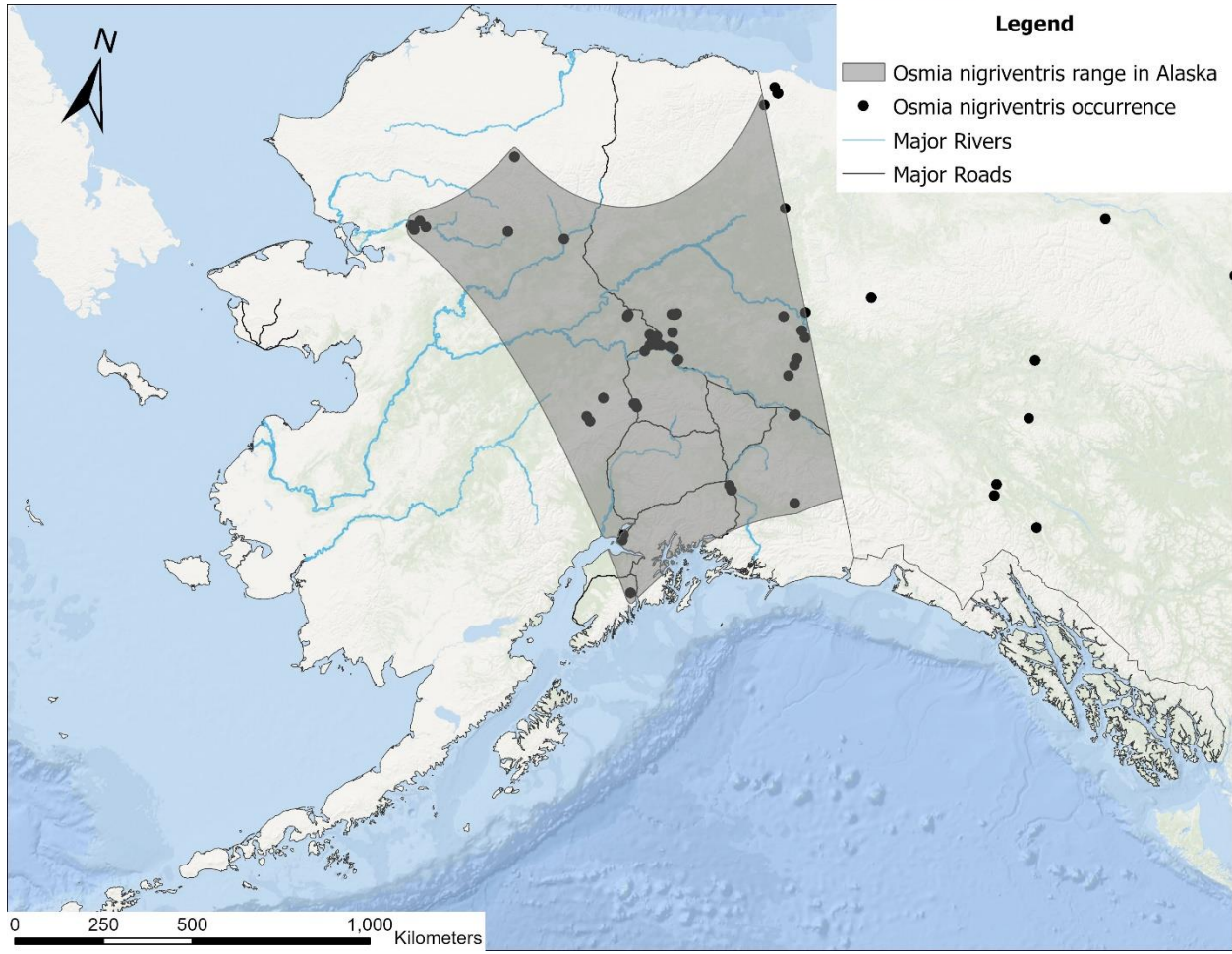


Figure 1 Range and occurrence of *Osmia nigriventris* in Alaska

Photo Reference



Figure 2 © Copyright Laurence Packer 2014