



Alaska Natural Heritage Program

Conservation Status Report

Osmia grindeliae – Cockerell, 1910

Common Name: Gumweed mason bee

ELCODE: IIHYMA2370

Taxonomic Serial No.: 715555

Report last updated – August 29, 2023

Conservation Status

G4 S2

Occurrences, Range

Number of Occurrences: 10 occurrences, 23 voucher records (University of Alaska Anchorage Entomology Collection; University of Alaska Museum Insect Collection)

AK Range Extent: 6,571 km²

Occupancy 4 km² grid cells: 11 occupied grids (see comment above)

Nowacki Ecoregions: Intermontane boreal, Alaska Range transition

North American Distribution: In Alaska, the known distribution is currently limited along road system in eastern Interior and near Copper Center (*Figure 1*). Relatively intensive collecting in Denali area did not yield this species. Future bee surveys in other parts of Alaska will improve our understanding of geographic range and habitat requirements.

Western United States from Washington south to California and east to Montana and Colorado. One occurrence from South Dakota. Only one occurrence from Canada, in southern Alberta (Ascher and Pickering 2023). Thus, presence in Alaska indicates disjunct distribution.

Ecology

Habitat: In Alaska, this species has been documented in various habitat types including dwarf tree scrub, dry forb/graminoid herbaceous, shrub-aspen, spruce forest, and steppe bluff.

Host Plants: *Penstemon* (most records come from bee bowls with no host plant data)

Life History: This is a solitary bee species. *Osmia* bees typically nest in pre-existing cavities in the soil, wood, or other substrates, but nesting substrate has not been recorded for this species.

Trends

Short-term: N/A, insufficient data

Long-term: N/A, insufficient data

Threats

Scope and Severity: There could be some threat from traffic or road construction. Steppe bluff habitat faces threats of encroachment from invasive and native plant species (Flagstad et al. 2019). Climate change is likely to decrease the habitat size and range of the steppe bluff in Interior Alaska (Boucher et al. 2016).

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 29, 2023)
- Boucher, T.V., J. R. Fulkerson, B. Bernard, L. Flagstad, T. Nawrocki, M. L. Carlson, N. Fresco. 2016. Terrestrial Coarse-filter Conservation Elements. In: Trammell, E.J., T. Boucher, M.L. Carlson, N. Fresco, J.R. Fulkerson, M.L. McTeague, J. Reimer, and J. Schmidt, eds. 2016. Central Yukon Rapid Ecoregional Assessment. Prepared for the Bureau of Land Management.
- Flagstad, L.A., K.W. Boggs, T.V. Boucher, M.L. Carlson, M.A. Steer, B. Bernard, M. Aisu, P. Lema, and T. Kuo. 2019. Assessing the gap between conservation need and protection status for select rare ecosystems in Alaska. *Conservation Science and Practice* 1:e47.
- 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 29, 2023)
- NatureServe Explorer. <https://explorer.natureserve.org/> (accessed August 29, 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 grindeliae* in Alaska

Photo Reference

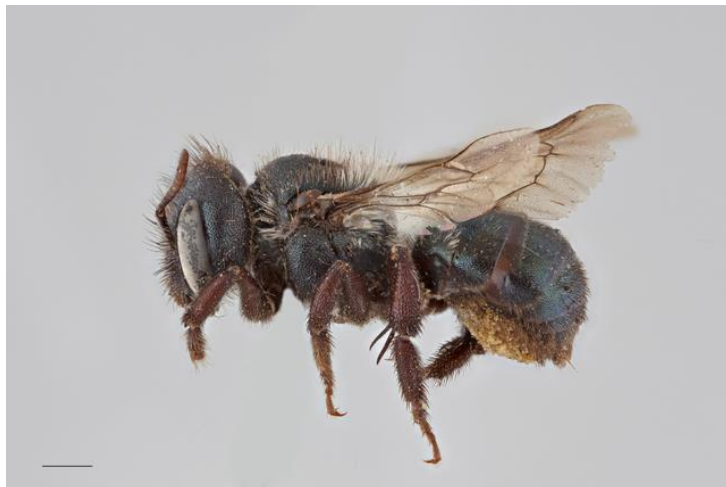


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