

# Alaska Natural Heritage Program

## Conservation Status Report

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### *Megachile lapponica* – Thomson, 1872

*Synonyms:* *Megachile nivalis* Friese, 1903; *Megachile santiamensis* Mitchell, 1933; *Megachile lapponica baicalica* Cockerell, 1928; *Megachile lapponica fuscifrons* Cockerell, 1930; *Megachile melanopyga amaguella* Cockerell, 1924; *Megachile lapponica kurbati* Cockerell, 1928; *Megachile lapponica ishikawai* Hirashima and Maeta, 1974

*Taxonomy Notes:* In North America this has been known as *Megachile nivalis* Friese 1903 which Sheffield et al. (2011) synonymized with the Palearctic *M. lapponica*.

**Common Name:** Lapland leafcutter bee

**ELCODE:** IIHYMA9470

**Taxonomic Serial No.:** 761675

**Report last updated – June 2, 2023**

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### Conservation Status

G5 S4

### Occurrences, Range

*Number of Occurrences:* 13 occurrences, 22 voucher records (University of Alaska Anchorage Entomology Collection; University of Alaska Museum Insect Collection; Denali National Park and Preserve Natural History Collection; Kansas University Biodiversity Institute and Natural History Museum Entomology Collection).

*AK Range Extent:* 348,223 km<sup>2</sup>

*Occupancy 4 km<sup>2</sup> grid cells:* 13 occupied grids

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

*North American Distribution:* This species is Holarctic. This species has a wide distribution in Alaska (*Figure 1*). Widespread across Canada and northern United States, including Maine, Great Lakes region, and western states south to Colorado, Utah, and Oregon (Ascher and Pickering 2014).

### Ecology

*Habitat:* Occurs in a variety of habitats, including steppe bluffs, weedy roadsides, and coastal rain forest. Nests in cavities (Sheffield et al. 2011).

*Host Plants: Chamerion angustifolium, Hedysarum boreale, Oxytropis campestris, Prenanthes alata, Solidago multiradiata*

*Life History:* This is a solitary bee species, with individual females nesting in pre-existing cavities. Females line their nests with circular discs of plant leaves which they cut with their mandibles. Thus, females have three habitat requirements for successful reproduction: cavities for nest establishment, nest lining materials, and enough suitable food plants for nectar and pollen (Sheffield et al. 2011).

## Trends

*Short-term:* N/A, insufficient data

*Long-term:* N/A, insufficient data

## Threats

*Scope and Severity:* About half of occurrences are in protected areas (national parks and wildlife refuges). There are several occurrences in villages and along highways that could be exposed to physical disturbance of nest sites.

## References

Alaska Bee Atlas. 2023. Alaska Center for Conservation Science, University of Alaska Anchorage.

Ascher J.S. and J. Pickering. 2014. Discover Life bee species guide and world checklist (Hymenoptera: Apoidea: Anthophila). <https://www.discoverlife.org/> (accessed June 2, 2023)

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 June 2, 2023)

NatureServe Explorer. <https://explorer.natureserve.org/> (accessed June 2, 2023)

Sheffield, C. S., C. Ratti, L. Packer, and T. Griswold. 2011. Leafcutter and mason bees of the Genus *Megachile* Latreille (Hymenoptera: Megachilidae) in Canada and Alaska. Canadian Journal of Arthropod Identification No. 18, 29 November 2011.

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

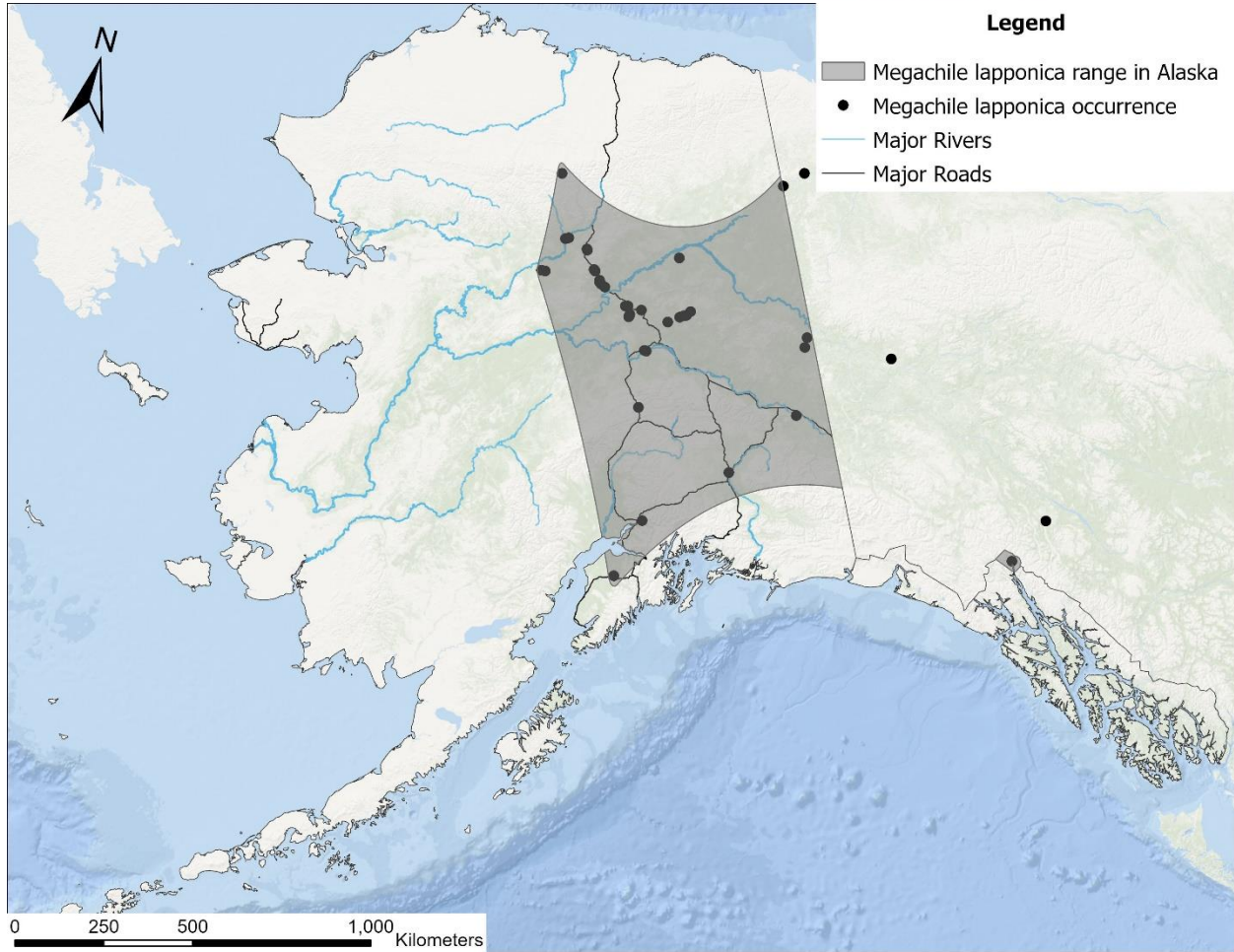


Figure 1 Range and occurrence of *Megachile lapponica* in Alaska