



Alaska Natural Heritage Program

Conservation Status Report

Osmia tarsata – Provancher, 1888

Synonyms: *Osmia hendersoni* Cockerell, 1907; *Osmia kenoyeri* Cockerell, 1915

Taxonomy Notes: Sheffield and Perron (2014) synonymized *Osmia kenoyeri* Cockerell 1915 with *O. tarsata* Provancher 1888 based on examination of specimens.

Common Name: Broad-legged blueberry mason bee

ELCODE: IIHYMA2100

Taxonomic Serial No.: 715629

Report last updated – June 30, 2023

Conservation Status

G5 S3

Occurrences, Range

Number of Occurrences: 15 occurrences, 150 voucher records (University of Alaska Anchorage Entomology Collection; University of Alaska Museum Insect Collection; USDA-ARS Bee Biology and Systematics Laboratory)

AK Range Extent: 53,989 km²

Occupancy 4 km² grid cells: 19 occupied grids

Nowacki Ecoregions: Intermontane boreal, Alaska Range transition

North American Distribution: The vast majority of known occurrences are from protected areas: Kobuk Valley National Park, Denali National Park and Preserve, Koyukuk National Wildlife Refuge, and Selawik National Wildlife Refuge (Figure 1). More surveying in sandy sites across the state will likely yield additional occurrences and further expand the range of this species.

Range extends from Alaska to the Yukon in Canada and east to Nova Scotia. In the lower United States, it is known from mountains in Washington and Montana south to California and Colorado, and further east in Michigan and Maine (Ascher and Pickering 2023, GBIF 2023).

Ecology

Habitat: In Alaska, this species has been collected almost exclusively in sand dunes and steppe bluff habitats, including three Pleistocene relict dune areas: Great Kobuk sand dunes, Nogahabara sand dunes, and Selawik dunes.

Host Plants: *Astragalus alpinus*, *Oxytropis kobukensis* (endemic to Kobuk Valley sand dunes), *Hedysarum alpinum*, *Dryas integrifolia*, *Chamerion* sp., *Eurybia sibirica*, *Minuartia* sp., *Packera agotorukensis*.

Note that in the eastern part of its range (e.g., Maine, Quebec), *Osmia tarsata* is strongly associated with *Vaccinium* (Rust and Osgood 1993, Sheffield et al. 2015) but this does not appear to be the case in Alaska.

Life History: This is a solitary bee species, with individual females nesting in the soil or sand.

Trends

Short-term: N/A, insufficient data

Long-term: N/A, insufficient data

Threats

Scope and Severity: The vast majority of known occurrences are from protected areas: Kobuk Valley National Park, Denali National Park and Preserve, Koyukuk National Wildlife Refuge, and Selawik National Wildlife Refuge. 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). Interior sand dunes face encroaching vegetation and habitat shrinkage, though at a low rate (Boucher et al. 2016).

References

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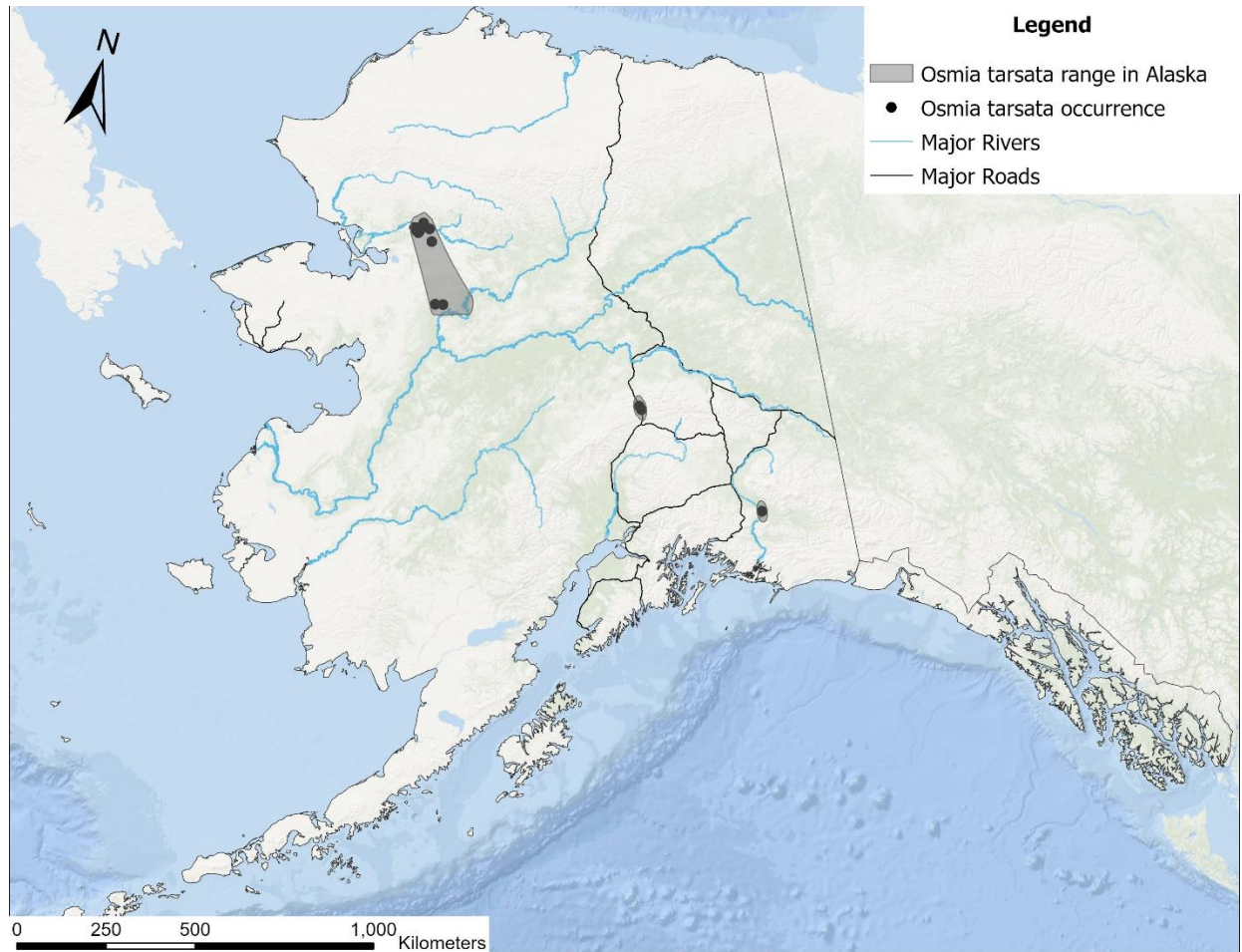


Figure 1 Range and occurrence of *Osmia tarsata* in Alaska

Figure 2 © Copyright Laurence Packer 2014