



Alaska Natural Heritage Program

Conservation Status Report

Colletes nigrifrons – Titus, 1900

Synonyms: *Colletes polemonii* Cockerell, 1906; *Colletes florissantia* Cockerell, 1906

Common Name: Black-faced plasterer bee

ELCODE: IIHYM96180

Taxonomic Serial No.: 654928

Report last updated – September 28, 2023

Conservation Status

G5 S1

Occurrences, Range

Number of Occurrences: 4 occurrences, 18 voucher records (University of Alaska Anchorage Entomology Collection; University of Alaska Museum Insect Collection)

AK Range Extent: 256 km²

Occupancy 4 km² grid cells: 4 occupied grids

Nowacki Ecoregions: Alaska Range transition

North American Distribution: Known distribution in Alaska limited to four occurrences in southcentral Alaska, between Copper Center and Chitina, (*Figure 1*) all from steppe bluff habitat. From Alaska east across Canada to Newfoundland, including Yukon and Northwest Territories. In the lower United States, primarily in the west: Washington, Idaho, California east to Montana, Wyoming, Colorado, and New Mexico. One historical (1951) disjunct occurrence in Louisiana (Ascher and Pickering 2023, GBIF accessed 9/28/2023).

Ecology

Habitat: Known habitats in Alaska are limited to steppe bluff.

Host Plants: No host plant data from Alaska, all specimens collected in bee bowls.

Life History: This is a solitary species that nests in the soil. *Colletes* are known as “polyester” or “cellophane” bees because they line their nests with a clear covering made from saliva and glandular secretions that is durable and resistant to mold and water (Wilson and Messinger Carril 2016).

Trends

Short-term: N/A, insufficient data

Long-term: N/A, insufficient data

Threats

Scope and Severity: 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 September 28, 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 and September 28, 2023)
- Integrated Taxonomic Information System (ITIS). Available online: <https://www.itis.gov> (accessed September 28, 2023)
- NatureServe Explorer. Available online: <https://explorer.natureserve.org/> (accessed September 28, 2023)
- University of Alaska Museum Insect Collection. <http://dx.doi.org/doi:10.7299/X75D8S0H> (records accessed March 8, 2023)
- Wilson, J.S. and O. Messinger Carril. 2016. The bees in your backyard. Princeton University Press. Princeton, New Jersey. 288 pp.

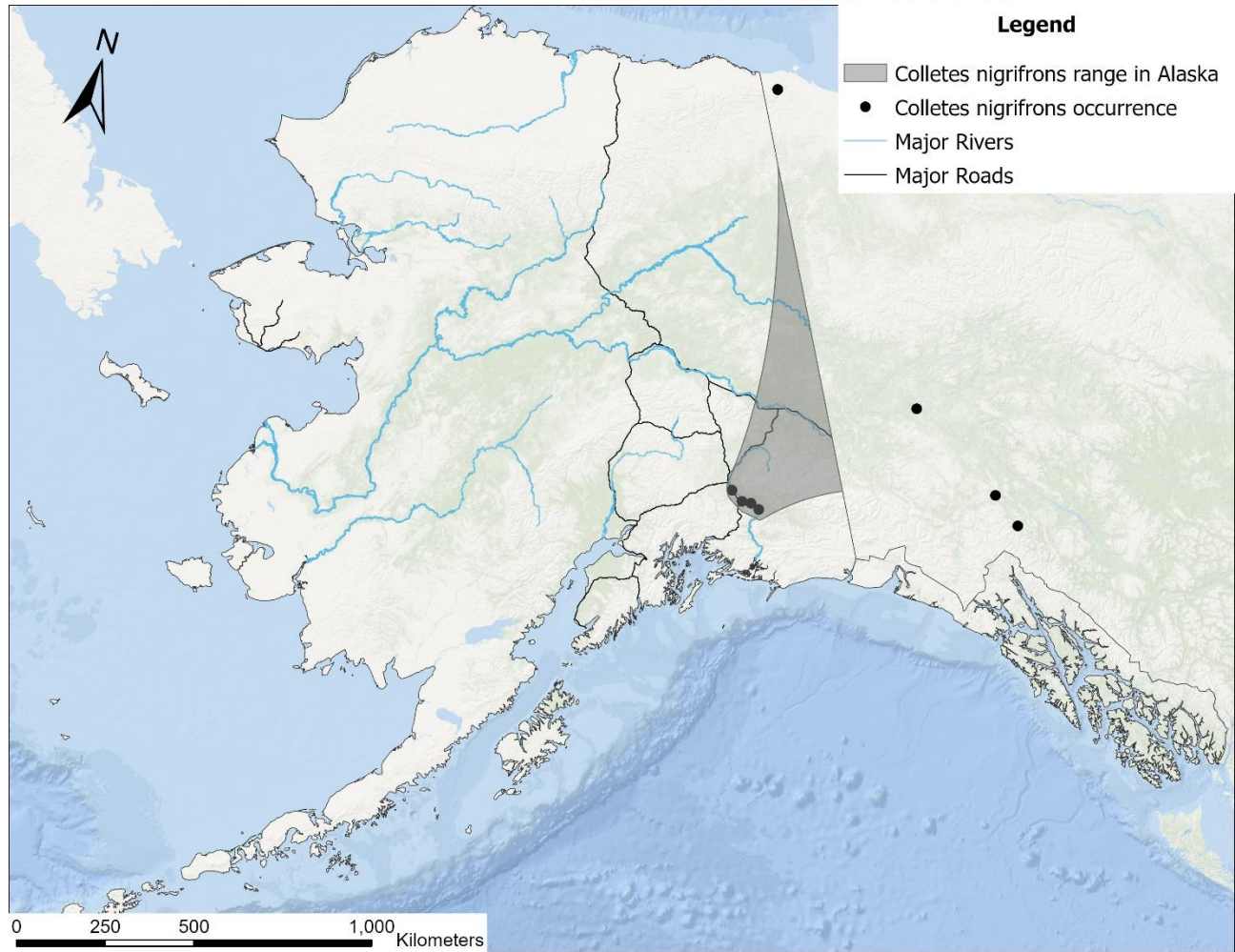


Figure 1 Range and occurrence of *Colletes nigrifrons* in Alaska

Photo Reference



Figure 2 © Copyright Laurence Packer 2014