Alaska Natural Heritage Program
Alaska Center for Conservation Science
University of Alaska Anchorage

Alaska Natural Heritage Program Conservation Status Report

Colletes phaceliae – Cockerell, 1906

Synonyms: Colletes salicicola geranii Cockerell, 1906

Common Name: Scorpionweed plasterer bee

ELCODE: IIHYM96210

Taxonomic Serial No.: 654959

Report last updated – September 28, 2023

Conservation Status

G5 S1

Occurrences, Range

Number of Occurrences: 4 occurrences, 48 voucher records (University of Alaska Anchorage Entomology Collection; University of Alaska Museum Insect Collection)

AK Range Extent: 5,727 km^2

Occupancy 4 km^2 grid cells: 5 occupied grids

Nowacki Ecoregions: Alaska Range transition

North American Distribution: Known distribution in Alaska limited to relatively few occurrences in southcentral Alaska, most from sites between Copper Center and Chitina (Figure 1). Occurrence in Palmer agricultural fields extends range considerably.

Throughout much of western North America. Alaska and Northwest Territories in the north, British Columbia east to southern Manitoba, southwards throughout the western states to southern California, Arizona, and New Mexico, east to Minnesota, Iowa, Kansas, and Colorado (Ascher and Pickering 2023, GBIF accessed 9/28/2023).

Ecology

Habitat: Known habitats in Alaska are limited to steppe bluff, shrub-aspen, and agricultural fields.

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

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: Some risk of pesticide exposure in Palmer. 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

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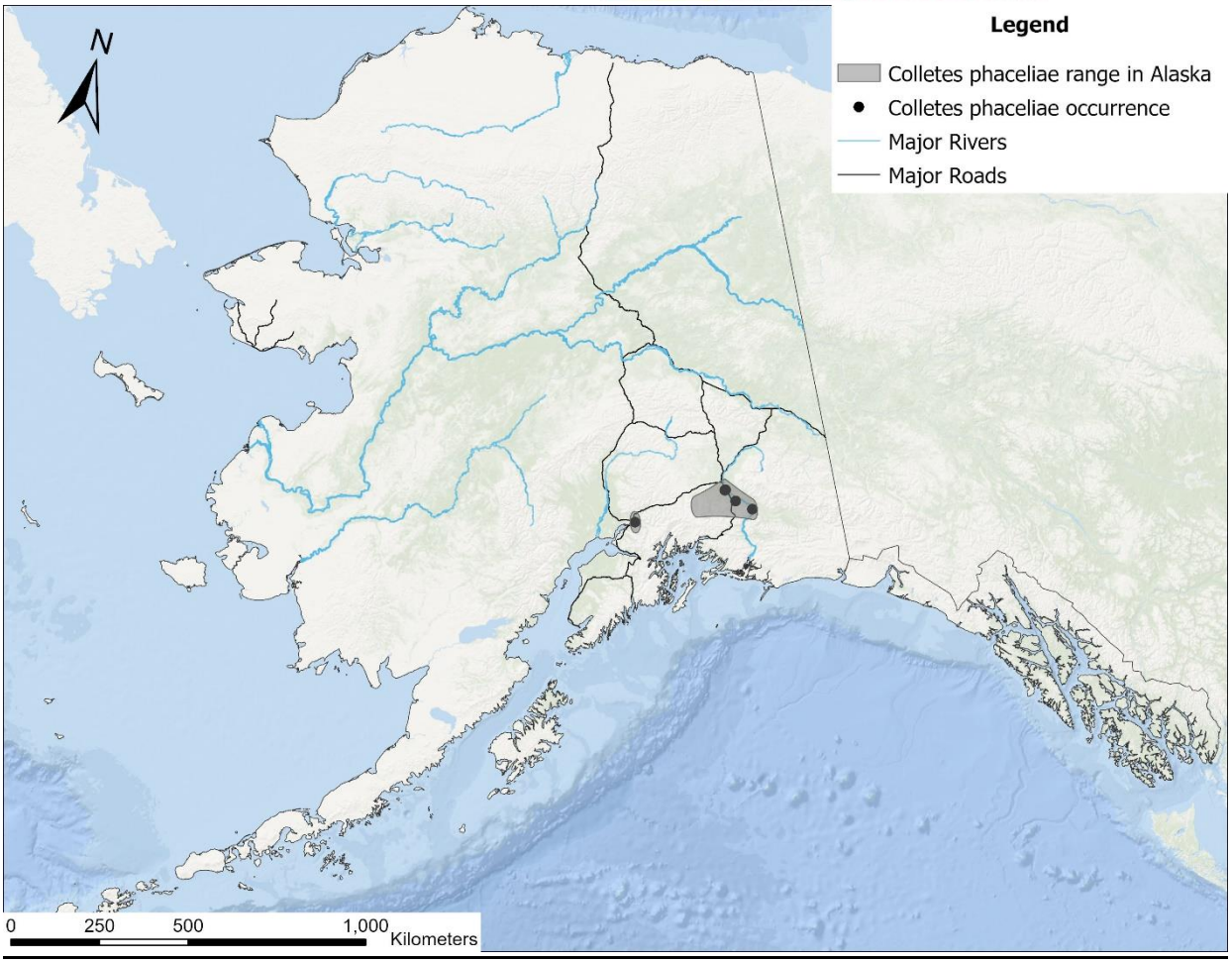

Figure 1 Range and occurrence of Colletes phaceliae in Alaska

Photo Reference

Figure 2 © Copyright source/photographer

Figure 3 © Copyright source/photographer