

# Alaska Natural Heritage Program

## Conservation Status Report

### *Bombus neoboreus* Sladen, 1919

**Common Name:** Active Bumble Bee

<b>ELCODE:</b> IIHYM24420	<b>Taxonomic Serial No.:</b> 714825
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*Synonyms:* *Alpinobombus neoboreus* Sladen, 1919; *Bombus strenuus* Cresson, 1863

*Taxonomy Notes:* The newly described (2016) species, *B. kluanensis*, is most similar to this species so all historical specimen records should be restudied to ascertain identity.

**Report last updated** – June 12, 2017

### Conservation Status

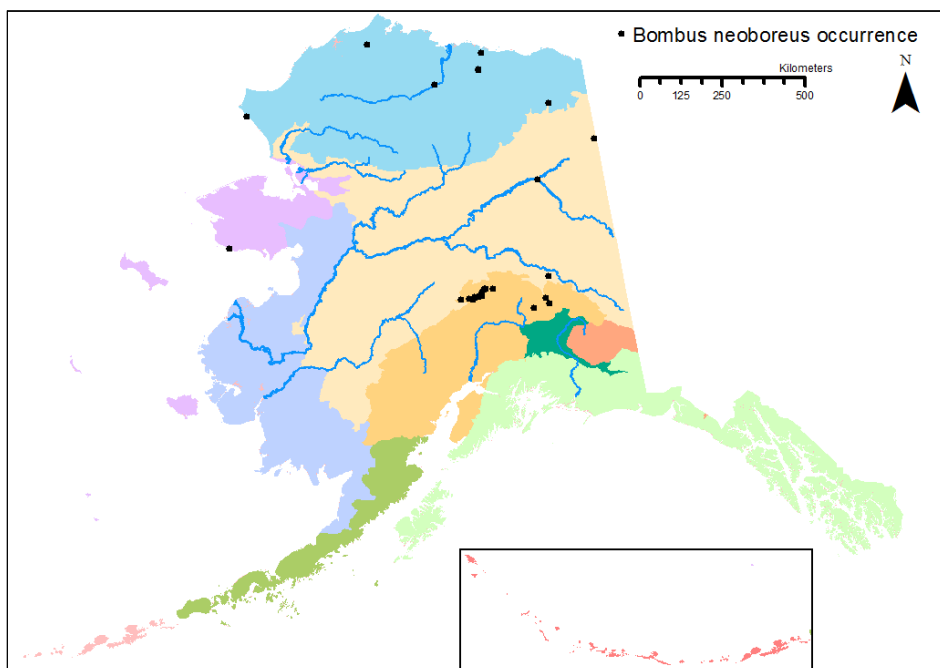
G4G5 S3S4	ASRS: not yet ranked
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### Occurrences, Range

*Number of Occurrences:* 27; number of museum records: 51 (Canadian National Collection, U.C. Riverside, Illinois Natural History Survey, Univ. of Kansas, University of Alaska Museum Insect Collection.).

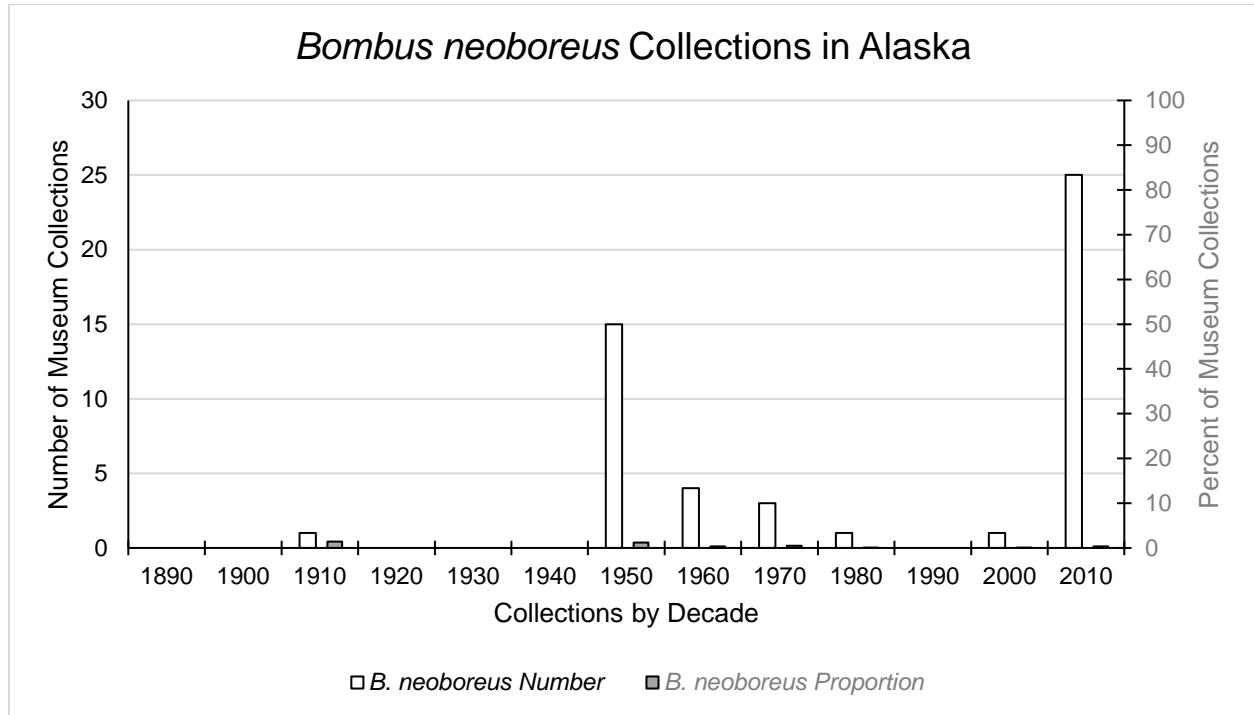
*AK Range Extent:* 601,226 km<sup>2</sup> ; 4-km<sup>2</sup> grid cells: 26; North Slope and Seward Peninsula south to Interior and Alaska Range Transition.

*North American Distribution:* Alaska and arctic Canadian Territories



## Trends

Trends are based on museum voucher collections of all *Bombus* species. Short-term trends are focus the past two decades (2000's and 2010s), whereas long-term trends are based on all years. Data originate from museum voucher collections only and are summarized by decade. White bars indicate the number of voucher collections for the species. Grey bars indicate the percent of *Bombus neoboreus* to all *Bombus* species.



*Short-term:* There has been a significant increase in proportion of *Bombus neoboreus* collected from 2000s to 2010s (0.007% compared to 0.32%).

*Long-term:* Appears to be a significant decrease (~25% decline) in proportion of *Bombus* collected since the 1910s.

## Threats

*Scope and Severity:* Unknown.

*Intrinsic Vulnerability:* Restricted to arctic and alpine habitat which are sensitive to climate change.

## Ecology

*Habitat:* Collections have been limited to arctic and alpine habitat.

*Known Alaskan Floral Resources:* *Hedysarum alpinum*, *Oxytropis* spp.

*Nesting behavior:* underground.

*Parasitism*: unknown

*Ecological Integrity of Occurrences*: Most collections are on protected lands (e.g., Denali National Park) or remote areas such as the North Slope. Most of Alaska has high ecological intactness and condition in current and long term future.

## Literature

GBIF.org (7th April 2017) GBIF Occurrence Download <http://doi.org/10.15468/dl.nvc9vf>

idigbio.org. (2017), 43395 records, accessed on 2017-03-01T21:39:42.991495, contributed by 10 Recordsets, Recordset identifiers:

<http://www.idigbio.org/portal/recordsets/a6eee223-cf3b-4079-8bb2-b77dad8cae9d> (43165 records); <http://www.idigbio.org/portal/recordsets/271a9ce9-c6d3-4b63-a722-cb0adc48863f> (56 records); <http://www.idigbio.org/portal/recordsets/4f436daa-01d5-4be6-b5c3-fdd255677536> (51 records); <http://www.idigbio.org/portal/recordsets/ea5f19e-ff6f-4d09-8b55-4a6810e77a6c> (37 records); <http://www.idigbio.org/portal/recordsets/5e893602-84ca-4c8c-bac1-99111c777582> (27 records); <http://www.idigbio.org/portal/recordsets/da67ebd9-52de-444d-b114-e23c03111ac6> (27 records); <http://www.idigbio.org/portal/recordsets/69037495-438d-4dba-bf0f-4878073766f1> (12 records); <http://www.idigbio.org/portal/recordsets/6539877e-82dc-485c-ad3d-038f383d5431> (9 records); <http://www.idigbio.org/portal/recordsets/db4bb0df-8539-4617-ab5f-eb118aa3126b> (6 records); <http://www.idigbio.org/portal/recordsets/fc628e53-5fdf-4436-9782-bf637d812b48> (5 records)

Koch JB, Cordes N, Solter LF, Griswold TL, Ikerd HW, Cameron SA, Lozier JD, Strange JP, Stewart I (2015): US *Bombus*, contemporary survey data of North American bumble bees (Hymenoptera, Apidae, *Bombus*) distributed in the United States. v2.4. ZooKeys. Dataset/Occurrence. <http://ipt.pensoft.net/resource?r=usbombus&v=2.4>

Pampell, R., Sikes, D., Pantoja, A., Holloway, P., Knight, C., Ranft, R. 2015. Bumble Bees (Hymenoptera: Apidae: *Bombus* spp.) of interior Alaska: Species composition, distribution, seasonal biology, and parasites. *Biodiversity Data Journal* 3: e5085. doi: 10.3897/BDJ.3.e5085

Williams, P. H., Thorp, R. W., Richardson, L. L., & Colla, S. R. 2014. Bumble bees of North America: an identification guide. Princeton University Press.

Woodard, H. (Feb. 28, 2017). Personal communication, email of collection data.

University of Alaska Museum Insect Collection. <http://dx.doi.org/doi:10.7299/X75D8S0H>. (Records Accessed 24th February 2017).