

# Alaska Natural Heritage Program

## Conservation Status Report

---

### *Bombus perplexus* Cresson, 1863

**Common Name:** Confusing Bumble Bee

<b>ELCODE:</b> IIHYM24180	<b>Taxonomic Serial No.:</b> 714829
---------------------------	-------------------------------------

*Synonyms:* *Pyrobombus perplexus* Cresson, 1863

**Report last updated - April 19, 2017**

---

### Conservation Status

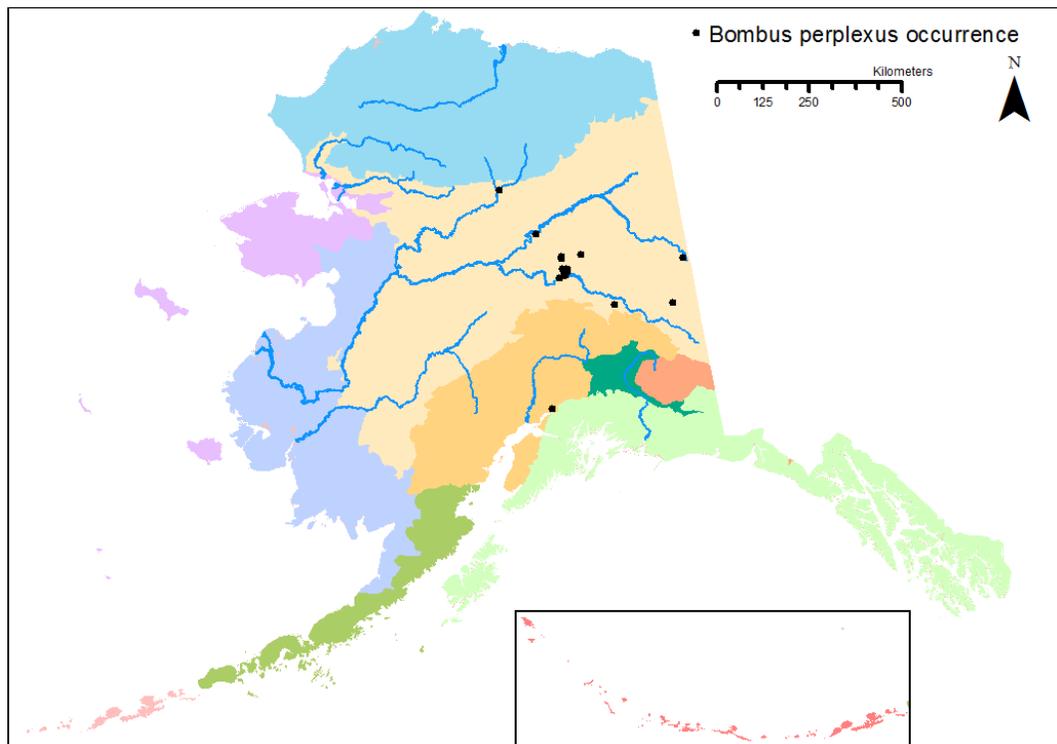
G5 S2	ASRS: not yet ranked
-------	----------------------

### Occurrences, Range

*Number of Occurrences:* 24; number of museum records: 1,474 (Illinois Natural History Survey, University of Alaska Museum Insect Collection, Koch et al. 2015).

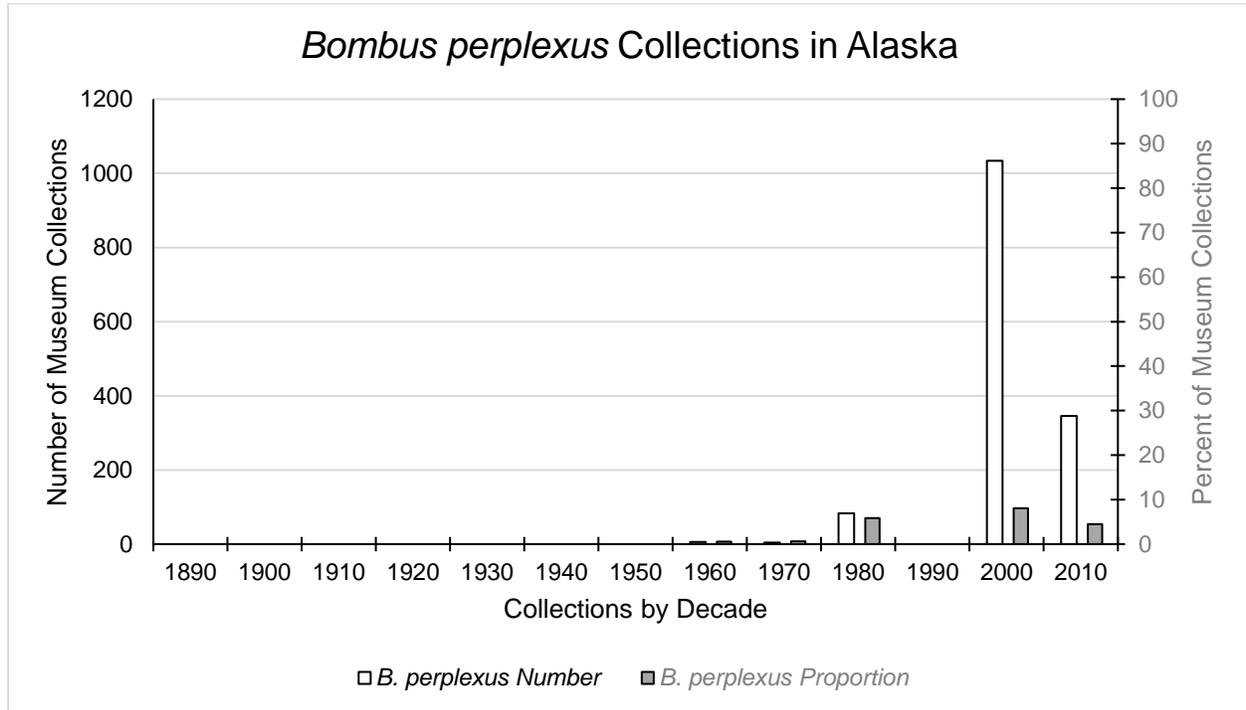
*AK Range Extent:* 127,389 km<sup>2</sup>; 4- km<sup>2</sup> grid cells: 24; Limited distribution in Alaska to the Central and Eastern Interior. One occurrence in Matanuska Valley.

*North American Distribution:* Widespread in eastern U.S. and southern Canada into the Canadian Great Plains toward Alaska.



## 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 perplexus* to all *Bombus* species.



**Short-term:** There has been nearly a 50% decline in the proportion collected of *B. perplexus* in the past two decades.

**Long-term:** Historically there have been relatively few collections with the greatest increase since the 1980s.

## Threats

**Scope and Severity:** Unknown.

## Ecology

**Habitat:** Forests, open parks and gardens

**Known Alaskan Floral Associates:** *Epilobium parviflorum*, *Melilotus albus*\*, *Trifolium repens*\*, *Vicia* spp. \*Denotes non-native species

**Nesting behavior:** underground, rarely observed above ground

**Parasitism:** Known host to *Bombus* species not recorded in Alaska.

*Ecological Integrity of Occurrences*: A majority of occurrences (14 of 24) occur within Fairbanks proper. Other occurrences are remote where landscape intactness and condition is high currently, and projected into the 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 24<sup>th</sup> February 2017).