

# Alaska Natural Heritage Program Conservation Status Report

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## *Bombus insularis* Smith, 1861

**Common Name:** Indiscriminate Cuckoo Bumble Bee

<b>ELCODE:</b> IIHYM24340	<b>Taxonomic Serial No.:</b> 714813
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*Synonyms:* *Psithyrus insularis* Smith, 1861

*Taxonomy Notes:*

**Report last updated** – November 10, 2017

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### Conservation Status

G3 S4

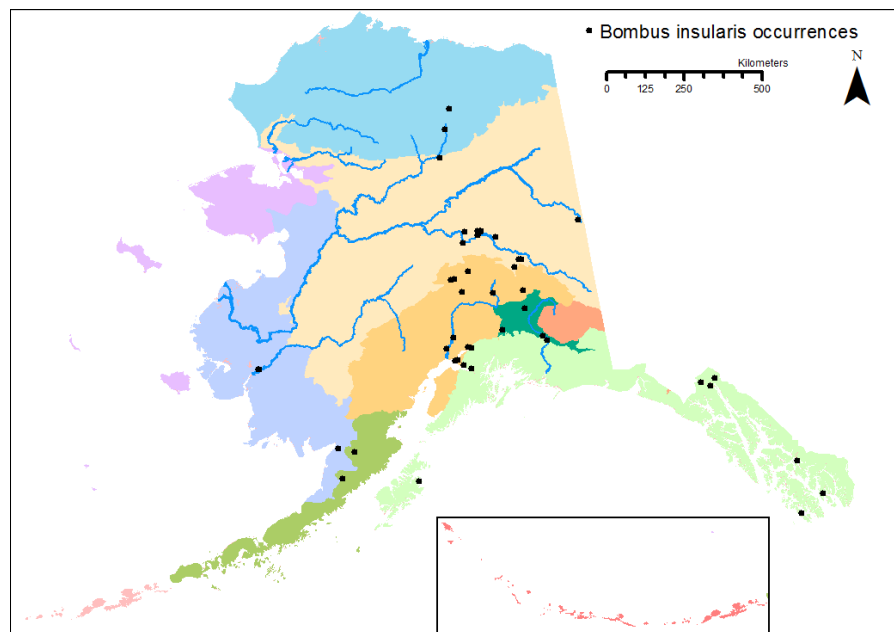
### Occurrences, Range

*Number of Occurrences:* 46; number of museum records: 485 (American Museum of Natural History, Ohio State University, Canadian National Collection, U.C. Riverside, Illinois Natural History Survey, Univ. of Kansas, University of Alaska Museum Insect Collection, Koch et al. 2015).

*AK Range Extent:* 965,458 km<sup>2</sup>; 4- km<sup>2</sup> grid cells: 49; Found from Brooks Range south to Interior and Alaska Range Transition into the Copper River Basin and Matanuska Valley.

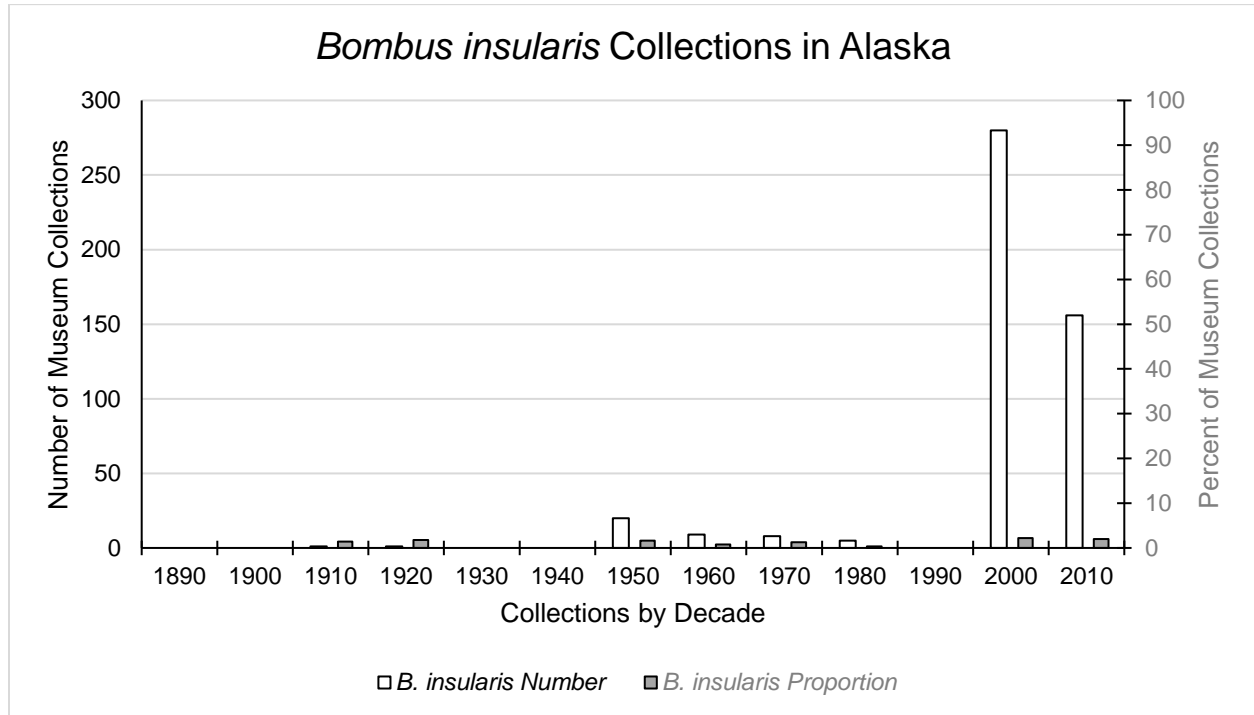
Sporadic occurrences in YK Delta, Alaska Peninsula, Haines, and south end of Southeast Alaska.

*North American Distribution:* Canadian Great Plains and maritime northeastern U.S. Alaska south to B.C and Pacific Northwest, California coast and Sierra Mountains. Great Basin, Rocky Mountains south to Arizona/New Mexico/Mexico border.



## 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 insularis* to all *Bombus* species.



*Short-term:* No significant change (< 10% change).

*Long-term:* No significant change (< 10% change). Proportionally has remained stable since early 1900s.

## Threats

*Scope and Severity:* Unknown.

## Ecology

*Habitat:* Unknown.

*Known Alaskan Floral Resources:* *Chamerion angustifolium*, *Epilobium parviflorum*, *Geranium* sp., *Melilotus albus*\*, *Potentilla* spp., *Solidago* spp., *Trifolium repens*\*, *Vicia* spp.\*

\*denotes non-native species

*Parasitism:* Social parasite of *B. fervidus*, *B. flavifrons*, *B. nevadensis*, *B. ternarius*, *B. occidentalis*, *B. terricola*

## 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.

Williams, P. H., A. M. Byvaltsev, B. Cederberg, et al. 2015. Genes Suggest Ancestral Colour Polymorphisms Are Shared across Morphologically Cryptic Species in Arctic Bumblebees. PLOS ONE 10:e0144544.

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).