

# Alaska Natural Heritage Program

## Conservation Status Report

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### *Bombus jonellus* Kirby, 1802

**Common Name:** Heath Humble-bee, White Tail Bumble Bee

<b>ELCODE:</b> IHHYM24410	<b>Taxonomic Serial No.:</b> 714815
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*Synonyms:* *Pyrobombus jonellus*

*Taxonomy Notes:*

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

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### Conservation Status

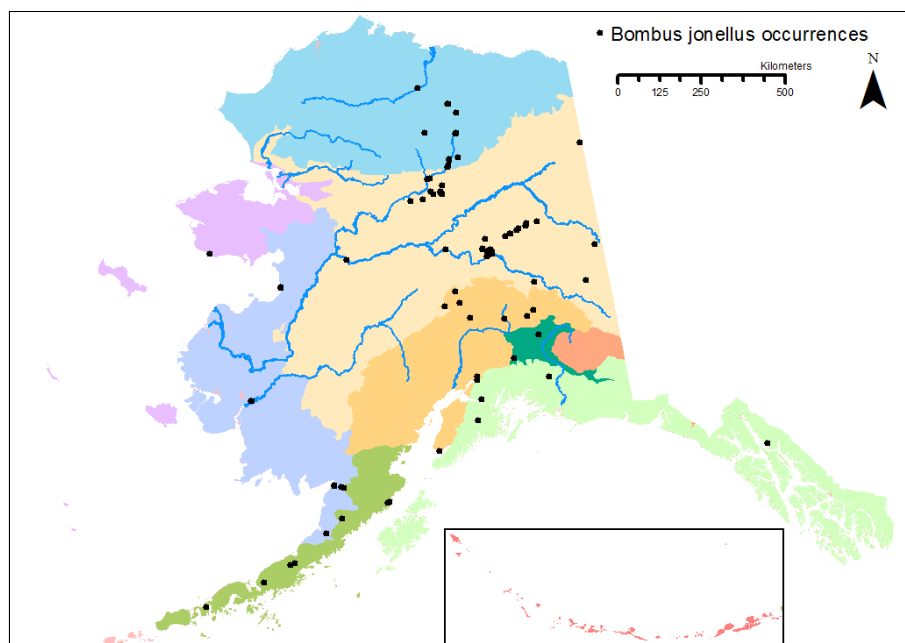
G5 S4	ASRS: not yet ranked
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### Occurrences, Range

*Number of Occurrences:* 83; number of museum records: 3042 (Canadian National Collection, U.C. Riverside, Illinois Natural History Survey, University of Alaska Museum Insect Collection, Koch et al. 2015, Yale Peabody Museum).

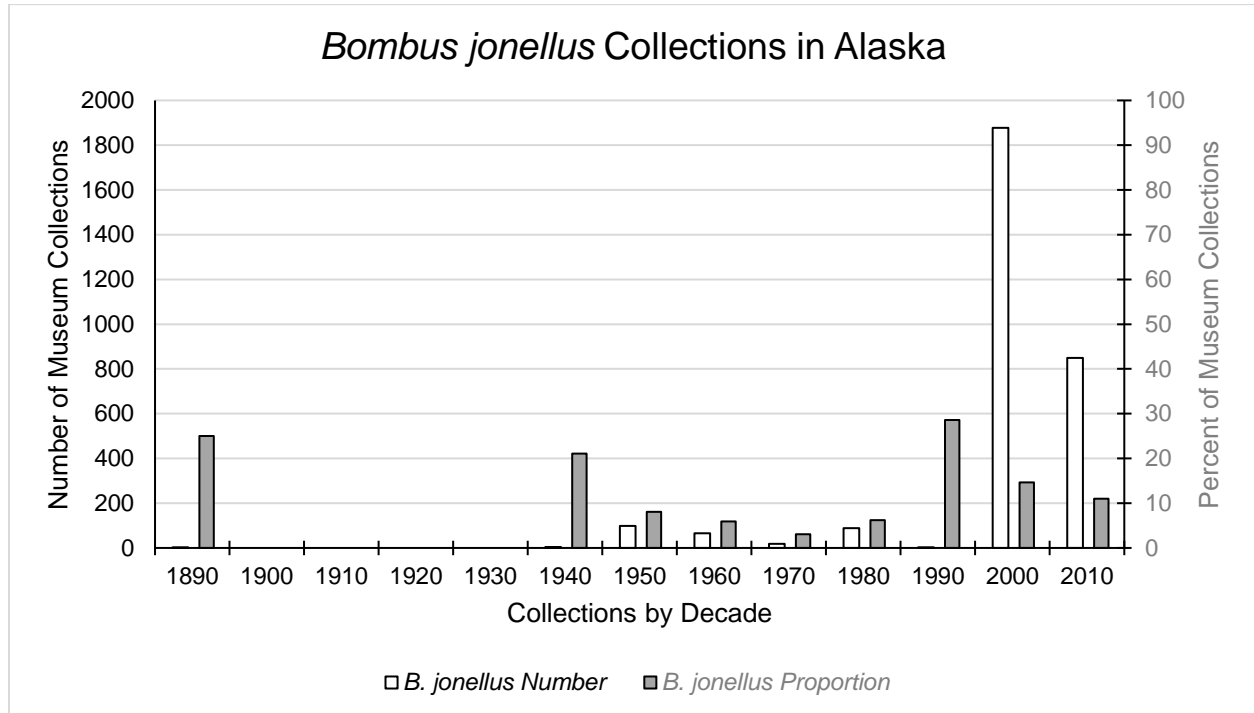
*AK Range Extent:* 1,088,581 km<sup>2</sup>; 4-km<sup>2</sup> grid cells: 85; Wide distribution and common species. Found from the Low Arctic south to the Interior, Alaska Range, Alaska Peninsula, Coastal Rainforest, and Kenai Peninsula. Few scattered occurrences in YK Delta and Juneau.

*North American Distribution:* Limited distribution to Alaska and northern Canadian Territories and Provinces.



## 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 jonellus* to all *Bombus* species.



*Short-term:* Appears to be stable with a decline in the last two decades. The 1990 decade is artificially inflated as there were a total of seven *Bombus* collections.

*Long-term:* Appears to be nearly stable (<10% change) since late 1800's, but about 13% decline in proportion collected.

## Threats

*Scope and Severity:* Unknown.

*Intrinsic Vulnerability:* Not intrinsically vulnerable. Found widespread in Alaska and associated with multiple floral resources.

## Ecology

*Habitat:* tundra and boreal forests,

*Known Floral Resources:* *Chamerion angustifolium*, *Chamerion latifolium*, *Epilobium parviflorum*, *Hedysarum alpinum*, *Hedysarum mackenzii*, *Linaria vulgaris*, *Melilotus albus*\*, *Pedicularis sudetica*, *Polygonum bistorta*, *Rosa acicularis*, *Senecio lugens*, *Taraxacum officinale*\*, *Trifolium repens*\*, *Vicia* sp.\*, \*denotes non-native species

*Nesting behavior:* Underground

*Parasitism:* Unknown.

*Ecological Integrity of Occurrences:* Current and future Landscape Condition Models have occurrences intact with high ecological integrity.

## 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).