
Common Name: Black and gold bumble bee *SPCN*
Scientific Name: *Bombus auricomus*
Taxon: Bees

Federal Status: Not Listed **Natural Heritage Program Rank:**
New York Status: Not Listed Global: G4G5
New York: S1
Tracked: Yes

Synopsis:

Black and gold bumble bee (*Bombus auricomus*) belong to the subgenus (Bombias), which are not experiencing higher susceptibility to the *Nosema bombi* pathogen like *Bombus* and *Thoracobomus* are, but may be experiencing other threats of habitat loss, pesticides, and urbanization (Schweitzer et al. 2012) as well as pollution and invasive species.

This species is only known from 10 locations since 1899 and appears to never have been common in New York. Since 1980, there is a single museum record from Rochester in 2010 and three records from Ithaca in 1999. New York is on the northern and eastern range margins for this species (Richardson 2013, Yanega 2013). They are distributed in many states and provinces across the U.S. and Canada, but many of these have not yet assessed their conservation status (NatureServe 2013).

Bumble bees are generalist foragers and need nesting habitat in the spring, flowers for adult and larval nutrition throughout the spring and summer, and sites for queens to overwinter. Suitable habitat can occur in natural, agricultural, and urban areas and some species require forested habitat (Schweitzer et al. 2012). *B. auricomus* is known to nest underground and feeds on clovers, bee balms, Solanum, Hypericum, and Eupatorium (Colla et al. 2011). Bumble bees are an indicator of ecosystem health and function (i.e. are susceptible to habitat fragmentation) (Kevan 1999, Hatfield et al. 2012).

Distribution (% of NY where species occurs)		Abundance (within NY distribution)		NY Distribution Trend	NY Abundance Trend
0% to 5%	X	Abundant		Unknown	Unknown
6% to 10%		Common			
11% to 25%		Fairly common			
26% to 50%		Uncommon			
> 50%		Rare	X		

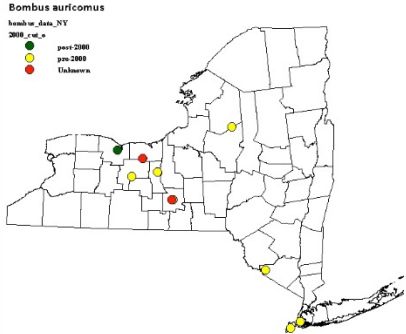
Habitat Discussion:

Various terrestrial communities (both natural and otherwise) including but not limited to meadows, fields, grasslands, pasturelands, gardens, and orchards that can support a diversity of wildflowers with variable phenology throughout the warm seasons.

Primary Habitat Type
Pasture/Hay

Distribution:

Since 1980, there is a single record from Rochester in 2010 and three records from Ithaca in. NY is on the northern and eastern range margins for this species (Richardson 2013).



Occurrence records of black and gold bumble bee in New York (Richardson 2013).
 Distribution of black and gold bumble bee in the United States (Discover Life 2013):
<http://www.discoverlife.org/mp/20m?kind=Bombus+auricomus>

Threats to NY Populations				
Threat Category	Threat	Scope	Severity	Irreversibility
Invasive & Other Problematic Species & Genes	Invasive Non-Native/Alien Species (introduced pathogens from managed bee populations in greenhouses)	P	V	V
Climate Change & Severe Weather	Habitat Shifting & Alteration	W	L	V
Residential & Commercial Development	Housing & Urban Areas (habitat loss)	W	L	H
Pollution	Agricultural & Forestry Effluents (pesticides)	R	L	H

References Cited:

Colla, S., L. Richardson, and P. Williams. 2011. Bumble bees of the eastern United States. USDA Forest Service and the Pollinator Partnership. 104 pages.

Discover Life. 2013. *Bombus terricola*. [Online]. Available: http://www.discoverlife.org/mp/20m?act=make_map&kind=Bombus+terricola. [Accessed: 24-Oct-2013].

Hatfield, R., S. Jepsen, E. Mader, S. Black, and M. Shepherd. 2012. Conserving Bumble Bees. Guidelines for Creating and Managing Habitat for America's Declining Pollinators.

Kevan, P. G. 1999. Pollinators as bioindicators of the state of the environment: species, activity and diversity. *Agriculture, Ecosystems & Environment* 74:373–393.

Richardson, L. 2013. Compilation of specimen records for *Bombus* species of North America from the American Museum of Natural History, Harvard Museum of Comparative Zoology, among several other museums.

Schweitzer, D. F., N. A. Capuano, B. E. Young, and S. R. Colla. 2012. Conservation and Management of North American Bumble Bees.

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