

FILE

16-253-GA-BTX



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4/12/2019

Max Butler, Public Information
Ohio Power Siting Board
180 E. Broad St.
Columbus, OH 43215

r.e.: Central Corridor Pipeline Extension; # 253-GA-BTX, regarding my previous submission and what you sent me in return

Dear Max;

It's rather astounding that neither the CH2M firm, nor, surprisingly, the U.S. Fish & Wildlife Service, has made any mention of the Federally-endangered Rusty-patched bumble bee (*Bombus affinis*). Bumble Bees of North America (which I mentioned in my previous letter) has the insect territorially mapped as being within Hamilton County. See P.2 of the Appendix that I have inserted herein.

The Fish & Wildlife Service did not discuss this species, possibly because: 1) It's newly Listed. 2) Bumble bees are rather small critters. 3) To date biologists have not been motivated to give bumble bees much survey time. 4) The backyards and byways of Hamilton County haven't been surveyed because of trespassing concerns on private property. 5) That's why there's been so few reports back to them about this one.

The CH2M firm does not appear to have looked for this, although such a role would be expected of them.

This firm, in its 9/21/ 2016 letter to the Fish & Wildlife

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Service, was able to identify common species of plants that have broad distribution. But I'm doubtful that they have the knowledge and expertise to identify many of Ohio's rare Listed plants. ODNR's Rare Native Plant List has 254 Endangered, 157 Threatened, 111 potentially-threatened, and 4 Unassigned on it.

There are two local groups with members who possess the necessary expertise-- if they could be motivated to send a crew out with this purpose. They are: The Cincinnati Wildflower Preservation Society and the Midwest Native Plant Society. Contacting either of these groups could give you the right individuals to form a crew that could make authoritative plant identifications of the rare stuff that not easy to find. Chances are that nobody has ever surveyed the two pipeline routes seriously, who know enough to get the job done right.

There are a number of trees on Ohio's Rare Native Plant List. In the absence of proper identification, would these generally be mowed down along the ROW?

Some bird species are on Ohio's Threatened & Endangered List. For other birds, there is the Migratory Bird Treaty Act. Page 39 of OPSB's "Amended Staff Report of Investigation" mentions a mere two bird species that they're interested in protecting. And for those two species, it's stated, "Suitable nesting habitat not found in project area" (!) So whether birds nest on the ground, in low shrubs, or in taller trees, such areas

are plentiful in woodlots and the residents' yards.

As to there only being two species that can be found in Hamilton County, in my previous letter I mentioned The Second Atlas of Breeding Birds in Ohio, which has the relevant information. So don't be giving many birds short shrift!

Duke's man, Stephan R. Lane, in his direct testimony to your group of 3/26/19, states that, "Due to the urban density along the project routes, other species of concern are unlikely to be found along the project routes . . ." (P.7 L 15-16).

Contrary to that statement of his, there are a number of Listed moths, butterflies, dragonflies, damselflies, other bat species besides the Indiana bat and Northern long-eared bat, for example. For him to make a statement like that, there is much that he wants us to forget.

There are other contaminated properties besides those of the Pristine Inc. Superfund site. So other properties along the proposed routes need to have the correct procedures for detecting contamination followed, where they plan to dig those trenches. Otherwise stormwater will spread that contamination to other properties.

Other contaminated properties are known about, to various degrees. Consider the Vegan Industrial property, the land behind the Reading Public Library, the PMC Chemical plant, and various places near the Mill Creek.

Yours,

W. H. Montgomery

BOMBUS AFFINIS CRESSON, 1863
RUSTY-PATCHED BUMBLE BEE



LEFT: Queen *Bombus affinis*. SCAR

BELOW LEFT: Male *Bombus affinis*. GZ

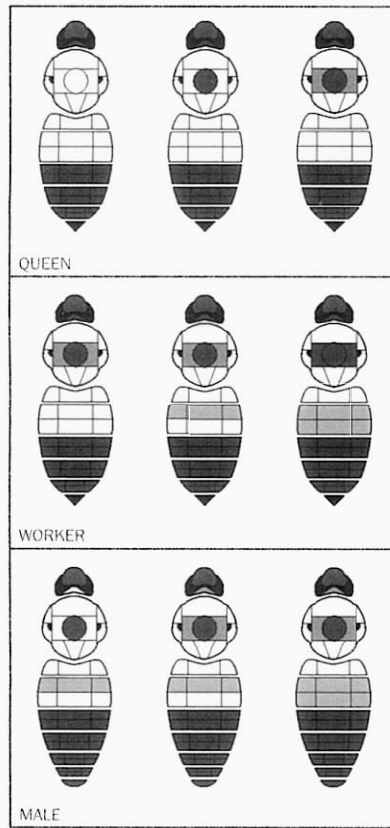
BELOW RIGHT: Worker *Bombus affinis*. CS



IDENTIFICATION

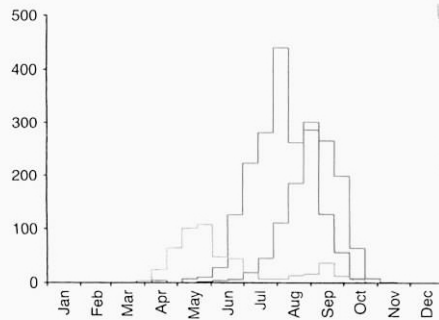
Eastern, short-tongued species. Most similar to *B. griseocollis*, *B. fraternus*, *B. morrisoni*, and *B. rufocinctus* (see also *B. perplexus*, *B. vagans*, *B. bimaculatus*, *B. impatiens*, and *B. sandersoni*).

HAND CHARACTERS Body size large: queen 19–23 mm (0.75–0.92 inch), worker 9–16 mm (0.37–0.64 inch). Hair moderately long (contrast *B. griseocollis*, *B. fraternus*, *B. morrisoni*, *B. rufocinctus*) and even. Head short with the cheek (oculo-malar area) just shorter than broad (contrast *B. perplexus*, *B. vagans*, *B. bimaculatus*, *B. impatiens*, *B. sandersoni*, *B. rufocinctus*), midleg basitarsus with the back far corner rounded, hindleg tibia outer surface flat without long hair but with long fringes at the sides, forming a pollen basket (corbicula). Hair of the face black, hair of the upperside of the head black (contrast *B. morrisoni*, *B. rufocinctus*) or with only a few yellow hairs intermixed, thorax predominantly yellow including the sides (contrast *B. fraternus*, *B. morrisoni*), or upperside of the thorax with a black spot or band between the wings, metasomal T1–2 yellow or the worker T2 often extensively brownish with more yellow at the edges (contrast *B. fraternus*, *B. morrisoni*, *B. rufocinctus*), T3–5 black (contrast *B. morrisoni*). Rarely the hair of



T2-5 orange-red at the back, although this may be from damage at the pupal stage. Male 14-17 mm (0.55-0.66 inch). Eye similar in size and shape to the eye of any female bumble bee. Antenna short, flagellum just over 2× longer than the scape (contrast *B. perplexus*, *B. vagans*, *B. bimaculatus*, *B. impatiens*, *B. sandersoni*). Hair color pattern similar to the queen/worker, but metasomal T2 usually brownish (one individual has extensive orange-yellow hair on T4).

MICROSCOPIC CHARACTERS Queen/worker mandible with a deep notch in front of the back tooth (contrast *B. griseocollis*, *B. fraternus*, *B. morrisoni*, *B. rufocinctus*), clypeus strongly swollen in its upper part, ocelli small and located on a line between the back edges of the eyes (contrast *B. griseocollis*, *B. fraternus*, *B. morrisoni*, *B. rufocinctus*), hindleg basitarsus with the back edge strongly and evenly curved (contrast *B. griseocollis*, *B. morrisoni*, *B. fraternus*, *B. rufocinctus*). Male genitalia with the penis-valve head greatly broadened from the upperside to the underside and flared outward to form (half of) a broad funnel (contrast *B. griseocollis*, *B. fraternus*, *B. morrisoni*, *B. rufocinctus*).



OCCURRENCE

RANGE AND STATUS Northeastern US and adjacent Canada in Eastern Temperate Forest and Boreal Forest regions, south in a narrow band at higher elevations along the Appalachian Mountains, west to the margin of the Great Plains in SD, MN, IA. Formerly common in the Northeast, but after 1996 this species went into rapid and severe decline and is currently very rare. Recent records are mostly from the US Midwest (IL, IN, WI) and southern ON, with very few individuals seen each year since 1997.

HABITAT Close to or within woodland, urban parks and gardens.

EXAMPLE FOOD PLANTS *Aesculus*, *Agastache*, *Dalea*, *Eupatorium*, *Helianthus*, *Impatiens*, *Lonicera*, *Monarda*, *Prunus*, *Solidago*, *Vaccinium*.

BEHAVIOR Nests underground in deserted mammal burrows (such as those of chipmunks or Eastern cottontail rabbit). A frequent nectar robber of long-corolla flowers. Males patrol circuits in search of mates.

PARASITISM BY OTHER BEES Host to *B. bohemicus* (= *ashtoni*), confirmed breeding record.

An Identification Guide

Bumble Bees

of North America

Paul H. Williams, Robbin W. Thorp,
Leif L. Richardson & Sheila R. Colla

(2014)

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