Southeast Bumble Bee (Bombus) Females

A – red hairs present
B – thorax mostly yellow, T3-5 black
C – thorax mostly yellow, T3 yellow
D – thorax mostly black, T2-3 yellow
E – cuckoos
F – T3 black and T4-5 yellow

- CR – critically endangered (IUCN)
- EN – endangered (IUCN)
- VU – vulnerable (IUCN)
- H – historical (not observed in the southeast for at least 80 years)

*Species with more than one graphic represent common variations
Identification Tips

1. **Get familiar with general bumble bee anatomy:** Like all insects, bumble bees have segmented bodies, with a head, thorax, and abdomen. The top part of the abdominal segments are called “terga” (often abbreviated as “T”). Note that field guides will generally use anatomical location terms to refer to the front, back, top, and bottom of animals and their parts.

2. **Male or Female?** Females have 6 abdominal segments and 12 antennal segments.

3. **Hair color patterns:** This guide shows typical color patterns for female bumble bees found in North Carolina, South Carolina, Georgia, and Tennessee. Examine the hair color on the front and top (vertex) of the face, the thorax, and the terga. Note that many species have variable color patterns, and males are not depicted here. Compare with a field guide and online images!

4. **“True” or cuckoo bumble bee?** “True” bumble bee females have a concave, hairless patch (corbicula) on the hind leg, used for carrying pollen. For cuckoo bumble bee females, this area is convex and hairy.

5. **Other features:** Cheek length, wing color, eye placement, and hair length may be necessary to confidently identify to species.

**Distinguishing tricky species:**
- **B. vagans vs. B. sandersoni:** The cheek of *B. vagans* is slightly longer than broad. *B. sandersoni* cheek is comparatively shorter.
- **B. pensylvanicus vs. B. auricomus:** *B. auricomus* has yellow hairs at the top of the head, compared to black in *B. pensylvanicus*.

*Full-body photo by Sheila Colla; Leg and face photos by Sam Droege: USGS Bee Inventory and Monitoring Lab; Illustrations by Paul Williams (identification and color patterns), Elaine Evans, Rich Hatfield (body design)*