



Honey Bees and Golf Courses, One Sweet Partnership Part 2

Rebecca Masterman, UMN Bee Squad Coordinator

T&CC Honey Bee Update

Town & Country Club's three bee hives stand like chimneys on the maintenance building roof. Every nine days or so, the University of Minnesota Bee Squad comes to check on them, puffing a little smoke into each, signaling the bees to begin eating honey. This keeps them on the comb instead of flying around too wildly. Still, there's always somewhat of a surge of

golden-brown insects moving like sparks as the beekeepers reach into the boxes to check for brood, eggs, and honey.

At this point in our ridiculously wet summer, the bees are just hitting a much needed "flow" of nectar, where multiple sources, like basswood and white clover are blooming, and can be collected and converted into the bees' winter honey supply. The bees have also been spotted dipping into the late roses

and zinnias in Town & Country Club's many gardens.

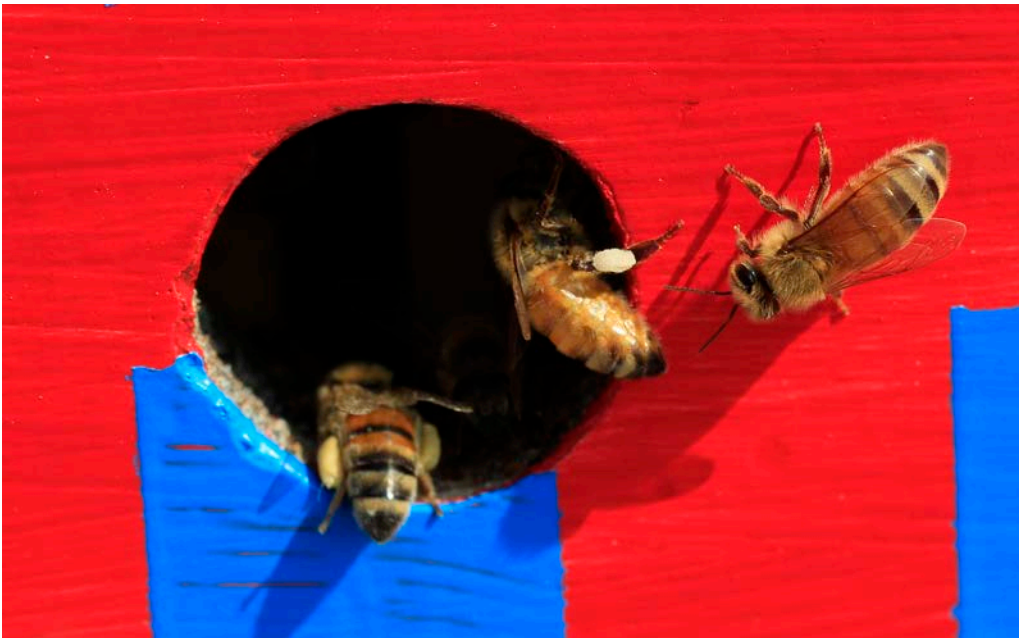
Recently, the Town & Country Club's beehives have gone through a transformation. Although many of us are used to seeing stacks of white-painted boxes clustered in fields or orchards, Town & Country's rooftop bees have begun sporting a more urban aesthetic. General Manager Vincent Tracy's wife and daughter have been working hard to paint new bee boxes with gorgeous blue elephants, tulips, checkers, Buddha's, and spaceships.

In order to switch out the white boxes for the new, more glamorous ones, a bunch of Bee Squad members took the cherry picker, chauffeured by Assistant Turfgrass Supervisor Ryan Browning, up to the roof. Each white box was opened, and its frames (there are ten in each box) were moved carefully to a colorful equivalent. The frames, Bee Squadders were happy to note, were healthy: thick with honey, brood and bees.

After the transition to new boxes was completed, the Bee Squad was transported back to earth once

Blow. The Bee Squad gives the T&CC hives a property face lift.





orful hives, the bees orient themselves using the sun and the earth's electromagnetic fields; they don't actually need hive paintings. However, it is important that beehives are painted with light colors, as the bees are affected

again, began to remove their

Checking out the new "digs"
bee hats and veils, and pack up the van with now-sticky hive tools and extra boxes. An employee stopped by to ask an important question: will the bees recognize their hives now? Or will they get lost in the face of all the new colors and patterns?

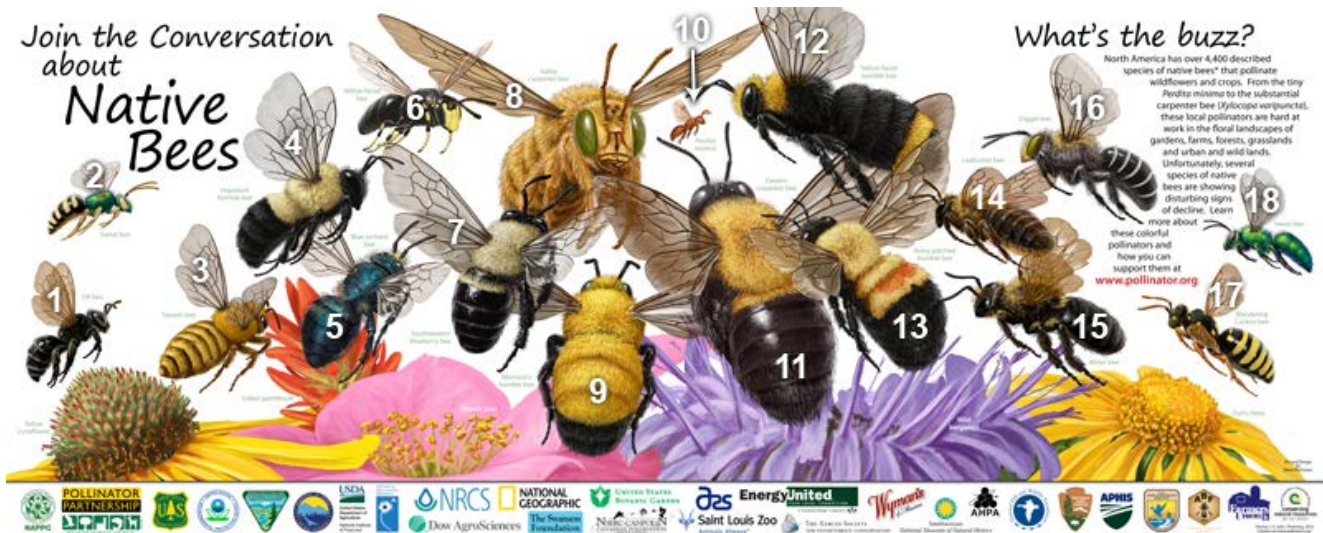
As long as the new boxes are positioned exactly like the old ones, with their entrances facing the same direction, the bees will successfully navigate their way home. Although we enjoy the col-

by temperature, and would have to work extra hard to ventilate and cool a black or dark-colored hive. For more information about the UMN Bee Squad, visit us at www.beesquad.umn.edu.

Honey bee on new wax comb



Identifying the bees on the poster “Join the Conversation about Native Bees”
Written by Stephen Buchmann, Ph.D., Interim NAPPCC Coordinator, Pollinator Partnership



1. ***Macropis nuda***. There's oil in some flowers. Flowers including Spotted Loosestrife (*Lysimachia* spp.) produce energy rich and nutritious floral oils which some female bees (*Macropis nuda*) collect using modified leg hairs like "oil squeegees" to enrich their brood provisions. This happens in some tropical bees (especially the genus *Centris*) but in the northeastern USA, only in these interesting little *Macropis* oil bees.

2. ***Agapostemon texanus***. US sweat bee (a male *Agapostemon texanus*) is especially colorful. Males of this species have a shiny green/brassy head and thorax but a wildly contrasting black and yellow-banded abdomen. Look for these bees on sunflowers and other common plants in the late spring and summer.

3. ***Peponapis pruinosa***. Squash and gourd bees (like our *Peponapis pruinosa*) are common bees across much of the United States. They are specialist pollinators preferring the pollen and nectar of squashes, gourds and pumpkin flowers. The genus *Peponapis* is a colorful bee about the size of a honey bee. They are solitary; each female constructs her own nest with no help from kin, and nest a foot or more underground, usually in or near patches of their favorite cucurbits.

4. ***Bombus impatiens***. The Impatient Bumble Bee (*Bombus impatiens*) is the preferred bumble bee of commerce. Since it can buzz pollinate, while honey bees never do, it is reared in large numbers and its colonies flown to distance localities, greenhouses needing pollinators. Since it does not naturally occur west of the Mississippi, efforts are underway to only allow it to be used in the eastern states as a managed pollinator. Its colors are muted, the yellow hair bands are often more white than a bright yellow. Compare with Morrison's bumble bee of the western states.

5. ***Osmia lignaria***. The Blue Orchard Bee (*Osmia lignaria*) is a member of the leafcutter and mason bee family (Megachilidae). Its distribution includes the Pacific Northwest USA where it is a common visitor to fruit trees in gardens and yards. This bee is often first noticed as females searching for just the right size beetle or nail hole in which to nest and raise their brood. Blue orchard bees are specialists on trees in the rose family and superb pollinator of sweet cherries and other orchard crops. They are currently being tested as pollinators of almonds in California. This bee can be very easily provided for by drilling 7-8 mm diameter holes 5 inches deep into scrap lumber. These "bee condos" can be attached to a garden shed, fence or tree. Nesting females will take up residence and you will be rewarded with bountiful fruit harvests.

The Pollinator Partnership is a 501(c)(3) nonprofit organization that works to protect the health of managed and native pollinating animals vital to our North American ecosystems and agriculture. To join the P2 action team, make a donation or learn more about us, please visit www.pollinator.org.

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