

# Conservation Forum

For and by members of PGC – Sandy Menke, Conservation Chair



## The Vanishing Honeybee

Every time I see a honeybee in my garden I feel so thankful. It is disturbing to hear of the decline of the approximately 4,000 wild bee species in North America that help pollinate agricultural crops as well as the seeds, nuts, and fruits that are consumed by animals from songbirds to grizzly bears. Scientists have identified the following factors as the most likely contributors to bee decline:

(1) poisoning from an onslaught of toxic insecticides used on field crops and home gardens as well as pesticides used in bee hives to control bee pathogens; (2) loss of habitat from land use change and the widespread use of herbicides like atrazine, glyphosate (Roundup), and 2,4-D that kill off the blooming wild flowers and groundcover like clover that bees rely on for food (see Wikipedia "neonicotinoids" for more information on negative effects of insecticides); (3) diseases from rapidly spreading bee parasites; and (4) climate change that can disrupt the timing between bees and bloom, so that when pollinators come out of hibernation, the flowers they need to start the season are not in bloom. Climate change may also shift the range of bees and plants, creating a mismatch between bees and their food.

Any one of the above factors may be enough to injure and kill bees, but various combinations are almost certain to cause serious harm or death. For example, disease can weaken a colony and make it more susceptible to pesticide poisoning, and vice-versa. Either disease or pesticide poisoning can jeopardize a colony's ability to survive a particularly cold winter or an unexpected heat wave, when bees emerge but food is not available. This situation is compounded with a shrinking healthy habitat for bees.

This is just a brief synopsis of what is being reported on the honeybee collapse disorder. As money seems to drive so much of how humans negatively impact our world, I thought the following statistic was interesting and hopefully will promote a positive change for our future. Bees that are trucked from one major monocrop field to another -- the common practice in commercial farming -- are weakened. Just as we would be sickly if we ate only one food, it is the same with bees having only one major crop to forage. *The New York Times*, biologist Mark Winston says, thanks to increases in crop yields, farmers who plant their entire field would earn \$27,000 in profit from the farm; those who left a third unplanted for bees to nest and forage would earn \$65,000 on a farm of similar size. Next month I will give you information on buying quality honey and its many healing uses.



By **Sandy Menke**, Conservation Chair

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Go to <http://www.nrdc.org/wildlife/animals/files/bee-deaths-FS.pdf> for more information, especially about the "stalled regulatory system."

### DID YOU KNOW?

#### **Starbucks now has a giveaway program called "Grounds for your Garden."**

After brewing, which reduces much of the acidity, used grounds are packaged and placed near the front of the store for you to take home. The grounds have an average ph of 6, a carbon-nitrogen ratio of 20 and can be added directly to the garden as a side dressing for nitrogen-loving plants (test with a small amount first). Or you could add the grounds to a compost pile. Remember, the grounds are free – stop in and take some home with your cup of coffee!