

Pollinator Working Group Meeting

Date: Wednesday October 12, 2016

Time: 4:00 p.m. – 6:00 p.m.

Location: NRCS, Conference Room

60 Quaker Lane,
Warwick, RI 02886

Meeting Minutes

Working Group Members in attendance: Ken Ayars, Meg Kerr, Joel Tirrell, Shannon Brawley, David Brunetti, Lyn Spinella, Ken Payne, Gary Casabona, David Gregg, Lisa Tewksbury, Rafael Nightingale, Don Joslin, Robert Mann

Guests: Terry Meyer, Howard Ginsberg, James Lawson, Nyssa Sky, Judie Sky, Brianna O'Connor, Gail Read, Keith Salisbury and Joseph Masino

Meg Kerr on behalf of Ken Ayars, called the meeting to order at 4:05 PM.

The next meeting will be on Thursday October 27, 2016, NRCS Conference Room, 4:00 p.m. – 6:00 p.m.

Bob Mann and Lyn Spinella made a motion to approve the September 22, 2016 Meeting Minutes. Second by Joel Tirrell. All approved.

Overview of Beekeeping in RI by Don Joslin, RI Beekeepers Association

Don provided an overview of bee biology and beekeeping. The RI beekeepers web site is a source of information for beekeepers and anyone interested in learning about beekeeping: <http://ribeekeeper.org>.

Key points:

- All hives must be managed.
- All hives must be registered with RI DEM.
- There are a number of diseases that affect bees – American Foulbrood, European Foulbrood, Chalkbrood – and there are treatments for these diseases.
- Varroa mites were discovered in 1987 and are the biggest problem for hives –they can be treated. But unmanaged hives breed mites that then spread to neighboring hives. Bees travel 2 – 3 miles searching for pollen.
- Colony Collapse Disorder (CCD) – the bees just leave. Scientists do not understand the cause - it is believed to be a complex of many issues (i.e. lack of habitat, large commercial beehive trucking to large agricultural fields of monocultures, chemical exposure, etc.). This is not a big problem in Rhode Island, but it does occur.
- Most bee deaths are due to beekeeper mismanagement of hives in the winter.

Recommendations:

- Chemical use harms bees and we should control the use of chemicals on the landscape especially educating the home owner and their use. James Lawson (state beekeeper) said that chemicals get incorporated in the wax in the hive. There is use of both chemical and organic chemicals in hives to control for varroa mites.
- Educate people who keep bees about the proper management of hives. Natural management does not work because of the varroa mites.
- The need to increase habitat.
- Increase registration of hives.

Q&A

Q. How can you tell what killed a hive?

A. It is complicated and there are many factors contributing to the hive dying off. Colony Collapse Disorder (CCD) is mostly a problem with large beekeeping operations. The cause is still unknown - there is belief that it is a complex of issues including the nutrition of the bees which could be a contributing factor.

Sub-lethal amounts of pesticides collect in the wax. Beekeepers once re-used the comb, but now replace it every year or every other year because the chemicals affect the bees. Hives and other products associated with beekeeping are also not reused.

Bees that are receiving sub-lethal exposure to pesticides are more susceptible to disease. Behavior changes have also been linked to sub-lethal exposures.

Overview of Pollinators in RI – David Gregg, RI Natural History Survey

David reviewed the myriad species that contribute to pollination – bats, birds, mice, flies, beetles, ants, wasps, spiders. He suggested that the working group acknowledge the diversity of pollinators, but direct recommendations at bees, butterflies and moths.

Key points:

- Though there are a few studies going on of bees in Rhode Island, they are directed at specific agricultural questions and not at inventory. We do not have an accurate inventory of pollinator species in RI.
- From studies in nearby areas, we do know that there is a decline in bees. Feral bees have pretty much been wiped out by varroa mites. The bumblebee *Bombus terricola* was once common, but is not any more. The bumblebee *Bombus affinis* is listed as endangered.
- Reasons why the decline in bees is important – pollination intensity matters. In agriculture, productivity is sometimes related to the intensity of pollination. Some plants require specific pollinators. Bees are food for other species. Important to remember the link between ecological diversity and genetic diversity of pollinators.

- Bumblebee nest density coincides with the area of gardens, secondarily with the area of grasslands. The impact of increased bee populations is seen up to 1 km away.
- Urban habitats can have robust pollinators.
- Need for increased fall flowering habitat.

The Working Group might find the GOALS from UK National Pollinators Strategy (2015) interesting:

- More, bigger, better, joined-up, diverse and high-quality flower-rich habitats (including nesting places and shelter) supporting our pollinators across the country.
- Healthy bees and other pollinators which are more resilient to climate change and severe weather events.
- No further extinctions of known threatened pollinator species.
- Enhanced awareness across a wide range of businesses, other organizations and the public of the essential needs of pollinators.
- Evidence of actions taken to support pollinators.

Q&A

Q. Are we comfortable with David's recommended definition of pollinators for our work together? (bees, butterflies and moths)

A. "General agreement. Gary Casabona mentioned that the NRCS emphasizes conservation of bumblebee species that are important in agriculture. These species can significantly increase yield of certain crops. The way to enhance these pollinators is to increase floral landscapes and ensure that forage is available for bumblebees throughout the growing season."

Ken Payne made the observation that the threats to pollinators can be compared to point and nonpoint source pollution. The threats that we learned about are more similar to non point source pollution – diffuse and complicated. So we need to look at the whole system to manage the health and habitats of pollinators.

RI has small farms are scattered throughout RI landscape and unbeknownst to them their crops are being pollinated by beekeepers who are also scattered throughout RI. An attendee [Howard Ginsberg] noted that where there are diverse natural habitats in an area, native bees can be sufficient pollinators for small farms. During public comment an attendee discussed a pumpkin grower who believed there were plenty of feral bees pollinating his crop but was seeing a decline; once a neighbor brought in bees the farmer saw an increase in pumpkin yield.

Q. Do experts in the room have recommendations on how RI can get more hives registered with the state?

A. The queen give away program that is currently funded by a grant from DEM to the Beekeepers is a good strategy. Keepers who want a free genetically modified queen need to register their hives.

Meeting adjourn: 6:20 PM