

Pollinator Working Group Meeting

Date: Wednesday October 27, 2016

Time: 4:00 p.m. – 6:00 p.m.

Location: NRCS, Conference Room

60 Quaker Lane,

Warwick, RI 02886

DRAFT 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: Howard Ginsberg, Howard Cook, James Lawson, Nyssa Sky, Judie Sky, Keith Salisbury and Catherine Weaver.

Ken Ayars, called the meeting to order at 4:09 PM.

The next meeting will be on on Thursday November 3, 2016, NRCS Conference Room, 4:00 p.m. – 7:00 p.m. Guest speakers will be Dr. Frank Wong, Senior Regulatory Affairs Consultant, Bayer Crop Science and Dr. Nancy Ostiguy, Associate Professor of Entomology, Penn. State University.

David Brunetti made a motion to approve the October 12, 2016 Meeting Minutes. Second by Don Joslin. All approved.

Overview of pollinators and habitat restoration in New England/RI Gary Casabona, State Biologist, NRCS RI

The presentation started with an overview of NRCS. The agency was formed in response to the dust bowl and initially focused almost entirely on soil management. The mission was later expanded to embrace natural resource management.

Colony Collapse Disorder was first documented in 2006 and the 2008 Farm Bill made pollinator habitat enhancement a priority for NRCS. Pollinators are considered in all programs.

Gary used the EQIP (Environmental Quality Incentives Program) as an example.

“EQIP is a voluntary conservation program that helps agricultural producers in a manner that promotes agricultural production and environmental quality as compatible goals. Through EQIP, agricultural producers receive financial and technical assistance to implement structural and management conservation practices that optimize environmental benefits on private land.” (NRCS web site)

NRCS covers 75 – 90% of the estimated project cost. They encourage the use of pollinator seed mix for conservation cover. When farmers are looking for cover crops, NRCS encourages the use of pollinator species like clover, mustard, buckwheat, alfalfa, oilseed and radish.

NRCS partners closely with the Xerces Society (<http://www.xerces.org/pollinator-conservation/>). Xerces staff are integrated into NRCS programs.

More than 80% of flowering plants require insects to pollinate them. There are 400 species of native bees in Rhode Island. Bumble bees are especially important because they vibrate rapidly (buzz pollination) to collect pollen and do a more thorough job than other pollinators. There are 45 bumblebee species in the US.

The life cycle of the bumblebee: in the winter, the queen hibernates. In spring the queen establishes a nest and lays eggs. She needs an abundance of early season pollen. Examples of early pollen producers are maples, pussy willows, shads, birches, and black cherry. In early summer, the worker bees grow the colony which peaks in summer. In fall, the bees leave the nest. Each colony dies at the end of the growing season. Only the new queens survive to begin new colonies the following spring.

Ground nesting bees are about 70% of native bee species. 30% nest in hollow plant stems and in snags and brush piles (examples of plants: blackberry, sumac, elderberry, etc.).

Farm management recommendations:

- Spray chemicals at night and when conditions are dry
- Don't spray on flowers in bloom
- Leave bare ground so there is habitat for ground nesting native bees
- Maintain some brushy habitat for bees

Recommendations for planting pollinator seed mixes

NRCS looks for seed mixes that provide good forage and are also robust in the field.

Native forbs (A wildflower, also called a forb, is a native plant that grows without human care) are suited for nutrient and moisture poor soils so it is important to not use lime or fertilizer when planting. The seeds are planted by broadcasting on a clean seedbed and then lightly incorporated by dragging a chain harrow or chain-link fence. If the seeds are buried more than a half inch, they may not germinate. Once the plant start growing, land owners are encouraged to not mow more than half the area in any one year or every other year. Mowers must be set to a height of at least 8 inches to avoid disturbing the basal rosettes of growing perennial plants.

Plants to include:

Elderberry – good forage, nesting sites, food for migratory song birds
Arrowwood viburnum – good for pollinators and migratory song birds
Beardtongue (*Penstemon digitalis*)
Monarda fistulosa – in the mint family and one of the best
Butterfly milkweed (*Asclepias tuberosa*)
Partridge Pea (*Chamaecrista fasciculata*)
Virginia mountain mint (*Pycnanthemum virginianum*)
Boneset (*Eupatorium perfoliatum*) – this is toxic to livestock

NY Ironweed (*Vernonia noveboracensis*)
NE Aster (*Symphotrichum novae-angliae*)

Mitigating climate change impacts:

- Continued research is needed
- Increase species diversity of high value forage plants (broad range because we don't know what will thrive)
- Recognize benefits of low cost non-native plants as cover crops
- There is no minimum size – every bit helps for pollinators

Jeremy Kerr at the U of Ottawa is studying species shifts. His research suggests that butterflies are adjusting their range, but bees aren't. This suggests that managers might consider assisted migration of native bees in response to climate changes.

Insecticide use

- Avoid use as much as possible
- Use chemicals with low toxicity
- Follow label directions
- Recognize that organic approved pesticides like pyrethrins and spinosad are dangerous to bees.
- Techniques to address weeds on organic farms during site preparation
Solarization – cover area with clear plastic for a year to kill pests
- Use buckwheat as a smother crop – needs to be planted 2 successive times

Other resources

US F&W school yard habitats program

Xerces Society

Lady Bird Johnson Wildlife Center

Pollinator Partnership: <http://www.pollinator.org>

Q & A

Q. Does NRCS have concerns about non-native species?

A. NRCS offers choices including non-native mixes. The customer can choose based on cost. NRCS recommends natives over non-natives, but we also recognize that cover crops and other non-natives can have some benefits in providing forage for pollinators.

Q. Where do seed mixes come from?

A. NRCS EQIP program calls for the least cost alternative. Customers can choose local genotypes, but the payments do not change. NRCS **cannot** recommend specific vendors who sell seeds. NRCS Customers must contact and negotiate with seed companies on their own. There are currently seed shortages across the East region because of increased demand with the growth of pollinator

conservation programs. The RI NHS has also found that a small local enterprise can not compete with the large national seed companies.

Q. Do you know how many acres NRCS has enhanced for pollinator habitat?

A. No, but I can find out. We have averaged about 25 acres per year for the past 4 years.

Q. Can NRCS work with public agencies like DOT?

A. NRCS can not bring financial assistance on public lands but can provide technical assistance.

There are ways to work around this restriction. If a farmer has a lease to manage state land, and there is a written agreement in place, NRCS can work with the farmer.

If a third party entity was given management control, NRCS could provide funding and technical assistance. David Gregg mentioned that a challenge is that the third party has to front the money and can not charge for overhead.

Q. Does NRCS work with DEM's F&W Division?

A. Yes, we provide some technical assistance.

Q. Does NRCS do much work at the residential scale?

A. We do work on parcels as small as 0.1 acre. However, these parcels do not rank highly. We have been working with the Town of North Kingstown, helping with training workshops and outreach. Most of our financial assistance work on pollinators is with farmers and land trusts.

Q. Do you work on corporate office parks?

A. We did provide technical assistance to FM Global.

Q. What would you recommend if you were promoting pollinator habitat on DOT rights of way?

A. We would use a different mix of seeds. Clover would work well. Shannon mentioned that there is a manual for pollinator plantings on road sides that she will share with the group.

Q. Do we have monitoring to show how the pollinator enhancements are working?

A. We have some studies, but do not have data specific to the work that is going on in RI. There is no regular monitoring program in place. Howard Ginsberg mentioned that native bee populations are so variable that it is difficult to see trends. There have also not been standardized methods – but this is changing. Ken Ayars said that he and others are participating in strategic planning for URI. Monitoring so we have data on pollinator health and habitats could be a recommendation.

Meeting adjourn: 6:10 PM