

Pollinator Working Group Meeting

Date: Thursday January 12, 2017

Time: 4:00 p.m. – 6:30 p.m.

Location: RIDEM, Conference Room 300,
235 Promenade Street, Providence, RI

Meeting Minutes

Call to order at 4:11 PM

Attendees:

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

Guest: Steve Alm, Howard Cook, Nancy Parker Wilson, Julia Bancroft, Howard Ginsburg, Judie Sky, Bob Vanderslice, Tanner Steeves, Catherine Sparks, Amanda Frietas, Catherine Weaver, William Parker

Minutes: January 5 minutes: Motion by David Brunetti, second by Shannon Brawley, Lyn Spinella and Joel Tirrell recuse themselves. All approve.

Announcements:

Date of Next Working Group Meeting: Thursday January 26, 2016, at the NRCS conference room.

Reflection: thoughts and comments on report outline.

David Gregg sent written comments on the outline that Meg and Shannon received. The comments are consistent with the outline.

Dave Brunetti asked that road sides be added to the section on habitat enhancement

Presentation: Ms. Catherine Sparks, Assistant Director Bureau of Natural Resources, RI Department of Environmental Management and Tanner Steves: An Overview of the RI DEM Forestry/Fish and Wildlife division's work on pollinators.

RI Div of Forestry includes a long standing stewardship program that is focused on private land owners, providing technical assistance for land management. The program is funded by the Forest Service and the state of RI. The program includes enhancing pollinator habitats. Provide messaging to forest land owners. DEM does not have data on how this has changed the landscape or how many projects are implemented.

Div. Fish & Wildlife – Tanner Steves – Pollinator plantings are beginning to be integrated into DEM's restoration efforts. DEM oversees 20,000 acres and participates in oversight of an additional 25,000 acres. Have about 490 acres open upland fields where DEM can do direct work on enhancing pollinators. Have done this 10 – 20 acres/year. In RI, most grassland patches are small. RI doesn't have any native grassland habitats left so these are created grasslands of somewhat low quality. DEM mows every other year to keep it in grassland and also plants pollinator mixes. Sapowet Marsh includes a 9 acre field,

previously a potato field that was planted with a pollinator mix developed in partnership with Xerces Society. For DEM, the funding needs to be directed at birds and mammals, but often can benefit pollinators as well.

DEM also manages some land as wildlife food plots. Some of these plantings benefit pollinators. Aimed at benefiting hunting programs, but also provide benefits to pollinators.

Q. Does DEM collect data on these sites? A. Yes

Q. Why type of monitoring? A. Mostly qualitative information on looking at plantings. DEM has space and funding, but limitations are really based on Tanner's time. DEM has a seed drill – which is a useful tool for planting these larger plots.

Q. Habitat enrichment – what is it aimed at? A. Looking to benefit birds and mammals, not necessarily game.

Kathy Sparks reviewed upcoming programs that are still in the planning stages at F&W:

1) Volunteer coordinator will be hired. DEM hopes to develop a suite of citizen science projects. Have a bat program, duck box program with a core of volunteers that work with biologists. Hope to include a pollinator component in the volunteer program.

2) Wildlife outreach staff person close to being hired. This person will interact with the public, explaining the Division's work. And this job will likely include pollinators (along with herps, owls, etc.)

Monarch joint venture – NE will be well represented at the upcoming national meeting. The cottontail project will be presented as a good example of collaboration amongst diverse entities to protect a threatened species. All states are involved in developing a national monarch protection plan that will be used to develop regional and state plans.

Q. How can this group's report help your work?

A. A strong voice for outreach would benefit DEM's efforts – showing why the volunteer and outreach efforts are important. Metrics on conservation impact are going to be important – DEM likely can't do it, but it could be part of the citizen science effort. Outreach to businesses is also important so as new development happens, the businesses are engaged.

State Wildlife Grants (SWIG) money is there. Monarchs will likely be prioritized – managing for monarchs will benefit other pollinators.

Q. Rusty patched bumble bee is getting listed (30 days from today). State wildlife action plan lists bumble bees as threatened. So we should be in a good position to use funds.

A. Yes

Q. Rare species program is also in F&W. Some pollinators may be rare species.

Q. When do you expect the citizen science will begin?

A. We have started. Expect to see it grow this year. There are a lot of successful programs that DEM will use as models. Birds, bat exit counts, roosting surveys, turkey broods, rabbit pellet collection – are all programs where volunteers are being used. Many are listed on the web site.

Presentation: Dr. Howard Ginsburg, University of Rhode Island: "Vector-borne disease management and pollinator protection."

North American pollinator campaign helped start the pollinator partnership. This partnership has a task force looking at vector borne disease. The group identified vector control practices – water management, biological control, etc. then looked at possible impacts on pollinators.

Invasive species, habitat loss and fragmentation, and pesticides are seen as 3 biggest threats to pollinators.

How to you protect public health and also pollinators? Tends to be very location specific.

1. Consider pollinators when develop vector control program.

This is very site specific. Floral diversity through the season links to pollinator diversity. Specific species are found in different seasons, often adapted by their foraging behaviors to specific parts of the season and types of plant species. Ticks in leaf litter can be targeted with granular applications and this will not affect bees. But it is important to realize that bee and pest phenology differs in different regions of the county.

2. Develop approaches for efficient management.

We need to promote well targeted management of vector-borne pathogens. Public health practices stress the need to apply resources efficiently to ensure fewer people get sick. For pollinator protection, targeted management minimizes the need to broad scale, environmentally damaging pesticide applications.

How can pesticide application be targeted? It depends on the vectors and the location.

3. Research: How to do vector management more efficiently.

Need to start with a model or theory of how vectors are moving in the environment. This allows exploration of where interventions would be most effective and would allow consideration of pollinators.

Research on well-targeted control technologies like trapping methods. Microbial control using *Wolbachia*. (According to <http://www.eliminatedengue.com/our-research/wolbachia>, *Wolbachia* is a natural bacterium present in up to 60% of all the different species of insects around us, including some mosquitoes. However, it is not usually found in the *Aedes aegypti* mosquito, the primary species responsible for transmitting human viruses such as dengue, chikungunya, and Zika.

For many years scientists have been studying *Wolbachia*, looking for ways to use it to potentially control the mosquitoes that spread human diseases.

Genetic approaches. Create mosquitoes with genetic mutation that makes offspring die. Also genetic manipulation that makes it not take up the vectors.

Ticks – looking at genome hoping to find highly specific targets for control.

4. Implementation. Collaborative approaches are best, but can be challenging finding the necessary expertise and bring it together. RI mosquito control is collaboration between DEM, Health and URI. West Nile in RI found most in Providence. Targeted approach – larval management, surveillance, advice to towns. Mosquitoes at highest levels in August. Honeybees and bumblebees are the most frequent bees, but not found so much in the city.

Diurnal targeting – some mosquitoes most populous in the evening. Spraying then has much less impact on pollinators.

How is this information shared?

Xerces, North American Pollinator Protection Campaign, National Association of State Departments of Agriculture have guidance but more geographically specific guidance is needed.

Q. What about applicators treating homes?

A. This is a problem. Guidance would be to avoid flowers, treat at night.

Q. Timing of flowering plants is already changing from changing climate.

A. A few papers have recently been published suggesting that the flowering plants are changing but the bee species are not. Seed mixes have lots of variety.

Q. In Florida, considering banning bromeliad plants to address Zika.

A. *Aedes aegypti* is an African species which does well in open cups, tires, etc. And they fly right into the house.

Working Group Discussion - We are creating this document, what do we envision for monitoring implementation?

DEM, DOT are already working on these issues, which is an advantage.

How can the report be delivered to the general public and schools. This can drive demand and awareness. Acknowledge work happening in the private sector. Identify and highlight great work that is going on. We could devote a chapter in the report to these strategies. Need to make it attractive.

Start at the State House lawn as public demonstration sites.

Regulations for vector control applicators to time correctly.

Continue to check in periodically on progress – report on implementation.

Visibly launch a goal – x acres of habitat by y year. And then recognize people who participate.

Connect with food plan and other efforts.

Farmers markets as location for showcasing information and projects.

Signage to highlight. Connect with Green Infrastructure Coalition.

Funding needed, especially if we really scale up. We need to think about partnerships, opportunities to use stormwater funding (once utilities are in place), etc. F&W money requires match. Jen Brooks is DEM staff person who is tracking volunteers.

Would we want to consider more regulation of pesticides for ticks and mosquitoes around residential areas. Tends be indiscriminant application – often using a mist blower – that has a lot of impacts. State is conservative in application but homeowners are not.

As we promote pollinator habitat, keep native species.

6:45 p.m.: Adjourn Meeting