

# Nebraska Invasive Species Advisory Council

## Meeting Notes

**Date:** Friday, February 8, 2019     **Time:** 10:00AM-12:00 PM

**Location:** Hardin Hall Room 901, 3310 Holdrege St. Lincoln, NE 68583, University of Nebraska-Lincoln

### I. **Featured Presentation:** Japanese beetle biocontrol program for 2019, Presenter: David Nielsen, Nebraska Department of Agriculture State Survey Coordinator

- Ohio and Indiana is as close as they have come to Nebraska
- **Tiphia veranalis**-spring tiphia-has been used in cold climates—it looks like a winged carpenter ant-digging wasp. Has been used from 1920-1950s in many states-kills larvae of the Japanese beetle (JB)- egg is laid on the larvae, wasp larvae feed on the JB larvae. Overwinters so it is a 1 year life cycle. It is timed up when it hatches with JB larvae exist so that is likely why they haven't attacked other species
  - Looking at release in Nebraska- 30 foot by 30 foot-for field release-need a good number of JB larvae to choose a release site.
  - Right now looking at 2-3 sites to start.
  - Food plants it uses-wild carrot, pine trees, tulip poplar and choke cherry
  - Area must have low pesticide use
  - Will do 25-40 samples May-June 7-10 day window (based on growing window) for sampling, when the JB emerge
    - Give it one year to sample so the life cycle was completed
  - Wasp can parasitize 1-2 grubs daily during their 30-40 day lifecycle
- **Winson Fly**-been here for 60 years but isn't synchronizes with the JB lifecycle. So it targets adult JB but they have already laid eggs so this is a less successful
  - 1300 native species in North America-can control sawflies and grasshoppers in check
  - Lighter in color than house flies but similar in look
  - Early summer adults emerge-lay eggs on adult JB-Eggs hatch in 24 hours-larva drill hole in JB exoskeleton
  - Adult will go back underground-4-14 days larvae pupates in the skeleton and overwinters as pupa and comes out next year.
  - Examine adults in JB traps to see if they have eggs.
  - 7-20% mortality in JB-so if add it to an area that has the wasp could up the mortality of JB
- Nebraska Department of Ag (NDA) getting coop agreement with Oregon Dept of Ag=Spring/summer of 2019 to determine sites-100 spring wasps or winson flies per site for releases
  - In subsequent years NDA will monitor sites
  - Could collect them and release to other sites in the state if the first introduction is successful.
- Colorado, South Dakota and Nebraska are all planning
  - Insects are growing in Tennessee, are high enough natural exist on their own so don't need to rear them.
- Early on we quarantined this pest but now NDA only regulates JB at airports- for interstate-national JB harmonization map-everything east of Nebraska is infested-for regulatory-other states in the Midwest are not sampling as much as we do and that is likely why we have them in 41 counties-Colorado is doing eradications-most of the western states have enacted quarantines-Oregon is very aggressive when JB get sent to them in airplanes. They understand JB move on vehicles, planes and on plants.
  - Oregon-decided to get funded to put the biological control fly and wasp to put them in

the midwestern states to reduce populations-so there are fewer JB getting sent to Oregon it is worth them funding the biocontrol

- There is a nematode parasite that APHIS is testing to control JB, has been doing this for 3 years- did find some JB infested with nematodes so they will continue to track that to see their success
- Infestation cycle is they crescendo-in Lincoln we are only on the front side of the curve because it can take 8 years to reach that and crash

## II. Coordinator Updates (Allison Zach)

A. Estimating bighead carp populations through images

B. 4<sup>th</sup> Floor of Morrill Hall opening Feb. 16<sup>th</sup>-

C. **New Invasive Plant ID guides are available** **contact Allison if you want copies,** it is also available online here: <http://neinvasives.com/documents/Plant%20Guide%202018.pdf>.

## III. Council Member Updates

- **Cindy**-Found wheat from Russia being sold for planting and she had it seized. MREs were confiscated because they had meat and eggs from other countries
- **Rick**-getting closer to getting approval for filling the Aquatic invasive species coordinator at the Nebraska Game and Parks Commission-Dave Tunink's job closes next week and it is the assistance district administrator for fisheries management.
- **Brent**- The weed control association meeting will be next week at Lied lodge. Next year it will be in North Platte in February. Riparian management task force-watching the legislature, the governor left the funding in the prelim budget-so appropriations may cut the fundings-but those hearings have not even being schedule. Normally have 80 people to attend the conference. to see if it surfaces and an independent study \$14 million-for the cranes-and part of that could fund the riparian –water conveyance is always something that senators talk about-need to stress how important controlling invasive species in waterways is important.
  - North American weed association rebranded themselves as north American invasive species conference-NAISMA conference next year will be in up state New York will be a good meeting to attend.
- **Julie**- close to downtime-have been working to get surveys ready to go for the season-have 15 events coming up.
- **Justin**- American fisheries society meeting this week-paddlefish fishing at gavins point dam someone has been fishing for them 20 years. 5-7 years have seen paddlefish that are thinner and less healthy-in the last 10 years is when the silver and bighead are 80% biomass-could be correlation that the paddlefish aren't getting enough food. Paddlefish-go out of the lake are fat and happy but in the MO river there isn't enough food
- **Justin**-DEQ got permission to hire workers for the upcoming summer, this summer in the loup and Sandhills basin and the EPA national rivers and stream assessment
- **Jeremy**: Republican river basin plan was approved (which is different than the proposed transbasin diversion project). Each of the NRDs is required to have a basin wide plan if you are in an over appropriated area. It was a 2 year process where the stakeholders met and identified solutions which included reducing ground water usage and increasing surface water supplies.
  - The proposed transbasin diversion was identified in the basin plan. For status of the application for that project visit this site: <https://dnr.nebraska.gov/surface-water/transbasin-diversion>
- **Craig**-got a grant to monitor bats with drones-challenge with detecting bats so acoustics can pick up their calls. Usually at a (50 feet area of sample by detector). NE and WY-

drive at 25 mph to sample them acoustically. But you are restricted to roads. Can't be getting bat detection in riparian coordinators or up in canopy to detect bats-so can run river coordinators and above tree canopies and in ag fields. Estimates like 4-20 billion dollars for bats benefits-have been looking at homestead monument to see bat usage of it.

- **DOD meeting on eastern redcedar** invasion- have detected a biome shift from gulf of Mexico to Canada border-real shift is from southern KS, can detect the ERC shift and the shift north, is moving faster than the southern change which matches climate change. Now mapping the entire western US, gives you early detection-have data from 1930 to 2014. Can now do early detection of the Fort Riley-have now surrounded around ERC-now trying to maintain ERC. DOD have too manage lands from endangered and threatened species so they need to.
  - Paper has been accepted in nature climate change and Craig will be
  - Google earth engine can scale firing points like in the flint hills.

#### **IV. The Next Meeting is March 8, 2019**

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