Native Habitat Collaborative Meeting 26-4-23

Video Link Mike's Slide Deck

Ted Talk about iNaturalist iNaturalist How To

Key takeaways

Mike Van Clef updated the group on the recently passed invasive species legislation

- Governor Murphy signed the New Jersey Invasive Species Management Act into law in January 2026, culminating a 22-year effort to establish comprehensive invasive species regulation
- The law prohibits sale, distribution, import, export, and propagation of 30 designated prohibited invasive species, with propagation banned by February 2027 and sales by February 2030
- A permanent 19-member New Jersey Invasive Species Council will be established to make recommendations, assess species, and guide policy
- The Strike Team has identified 136 invasive species (50 widespread, 86 emerging) that should be considered for listing, far exceeding the current 30 prohibited species
- Priority should be given to listing emerging species (Stage 0 and Stage 1) where prohibition can prevent future damage, rather than already widespread species
- iNaturalist is being adopted as the primary tool for documenting invasive species populations across New Jersey, with specific projects created for emerging and widespread species
- The legislation resulted from collaborative work between conservation groups, nursery industry, and other stakeholders through Senator Smith's invasive species work group

Discussed topics

Seasonal gardening challenges and invasive species management

Participants discussed their current gardening activities and ongoing battles with invasive species on their properties.

- Details
    - Juanita: Dealing with weeds that grow better than planted species; successfully removed Autumn Olive but continues battling barberry and multiflora rose spread by birds

    - Terry: Husband working on removing Autumn Olive then found garlic mustard in previously neglected areas; paid grandchildren one penny per seedling to remove 900 Norway maple seedlings
    - Juanita: Has sugar maple seedlings available for transplanting; concerned about climate change impacts on sugar maples but seeing abundant reproduction
- Conclusion
    - Invasive species management is an ongoing, labor-intensive challenge requiring creative solutions like engaging family members
    - Deer browsing pressure significantly contributes to invasive species success in the region

Community Conservation Conference and outreach success

Discussion of recent conference attendance and sign-up results for the Native Habitat Collaborative.

- Details
    - Terry: Two pages of people signed up for the Collaborative at the Community Conservation Conference; uncertain how many understood what they were signing up for since I didn't get to talk to everyone who signed up but there was a lot of interest in general
    - Juanita: Also collected three sheets of sign-ups for Bowman's Hill
    - Laurie: Conference featured enthusiastic nature-focused attendees and excellent speakers including Doug Tallamy
    - Juanita: Had private conversation with Doug Tallamy in parking lot; described him as very nice and approachable
    - Terry: Suggested Doug Tallamy as speaker for Garden Club of Trenton regional event in two years – they didn't know who is was so perhaps that will change
    - Juanita: Bowman's Hill hosting Doug Tallamy as keynote speaker for renamed Native Plant Conference (formerly Land Ethics Symposium) at Ryder College in late June
- Conclusion
    - The conference successfully generated interest and sign-ups for multiple organizations

    - Doug Tallamy remains a highly effective draw for native plant and conservation audiences
    - Recording availability of these meetings helps accommodate busy schedules during peak season

Rutgers Environmental Steward Program and DNR Greenways project

Juanita provided updates on her ongoing Environmental Steward project at DNR Greenways.

- Details
    - Juanita: Project experiencing delays due to wetlands issues affecting parking lot and building placement; architectural plans being repeatedly revised
    - Juanita: Unable to proceed with planting until site plans are finalized to avoid having work destroyed
    - Juanita: Wants to establish spring ephemerals (spring beauties, trout lilies, violets) that should naturally occur in Sourland areas
    - Juanita: Considering planting small areas with plants from her property with soil to allow ant dispersal of seeds
    - Juanita: Accumulating volunteer hours through DNR Greenways meetings and donor events
    - Terry: Justine (former coordinator for Environmental Stewards in Mercer County) has left for position at Duke; uncertainty about replacement contact
    - Juanita: Plans to contact Michelle Bakacs about recruiting more Environmental Stewards for her project
    - Terry: has completed her hours for Environmental Steward certification through her work on this group
- Conclusion
    - Wetlands regulations can cause significant project delays but are necessary for environmental protection
    - Finding appropriate contacts after staff transitions is challenging for ongoing projects
    - Creative approaches may be needed to begin ecological restoration while awaiting final site plans

History and development of invasive species legislation in New Jersey

Mike Van Clef presented comprehensive background on how invasive species recognition and regulation evolved nationally and in New Jersey.

- Details
    - Earliest invasive species regulations began in late 1890s focused on rangeland weeds affecting livestock
    - In 1950s New Jersey, Japanese honeysuckle was the only species mentioned as invasive in botanical descriptions
    - Charles Elton's 1958 work provided early academic recognition of invasion problems
    - Federal government simultaneously distributed multiflora rose and autumn olive while academics recognized problems
    - By 1999, Wilcove from Princeton identified invasive species as second biggest threat after habitat destruction
    - Australia acted first internationally due to severe invasive animal problems
    - Clinton signed National Invasive Species Council law in 1999; St. Louis Declaration followed in 2001
    - Connecticut was first Northeast state to pass legislation but created bad feelings by not consulting industry
    - By 2023, only New Jersey and Rhode Island in Northeast lacked invasive species legislation
- Conclusion
    - Recognition of invasive species as a major problem took decades to translate into policy action
    - New Jersey was significantly behind other states in addressing invasive species through legislation
    - Collaborative approaches with industry stakeholders proved more effective than top-down mandates

New Jersey's 22-year journey to invasive species legislation

Mike detailed the specific timeline and challenges of passing invasive species legislation in New Jersey.

- Details
    - Governor McGreevey signed executive order in 2004 establishing council and directing state plan development
    - Mike authored the 2009 state invasive species plan while contracted by the council
    - Friends of Hopewell Valley and Raverton Headwaters created Strike Team in 2008, before plan was finalized, recognizing state was unlikely to act
    - New Jersey Aquatic Invasive Species Management Plan approved in 2024, making NJ one of last states to have this
    - Senator Greenstein introduced legislation in 2018 that didn't gain traction
    - Senators Greenstein and Smith reintroduced legislation 2022-2025
    - Senator Smith's forest task force unanimously agreed invasives were major problem, leading to invasive species work group
    - Work group included landscape, nursery, conservation, and farm bureau representatives who negotiated acceptable bill language
    - Bill passed with unanimous bipartisan support in 2023 but was vetoed due to regulatory coordination conflicts
    - Revisions in 2024-2025 improved the bill and addressed implementation concerns
    - Governor Murphy signed the law in January 2026
- Conclusion
    - Collaborative stakeholder engagement was essential to creating legislation all parties could support
    - The veto and subsequent revisions ultimately resulted in stronger, more implementable legislation
    - Grassroots efforts like the Strike Team filled gaps while waiting for state action

Key provisions and definitions in the new invasive species law

Mike explained the important distinctions and mechanisms within the legislation.

- Details
    - Law distinguishes between invasive species and prohibited invasive species
    - Invasive species are those that cause or may cause economic/environmental harm or threaten natural resources
    - Prohibited invasive species must be: 1) listed as invasive by Council, 2) accepted by DEP and Department of Agriculture, and 3) moved through Administrative Procedure Act at governor's discretion
    - Thirty species are initially listed as prohibited
    - Propagation of prohibited species banned at one year (approximately February 2027)
    - Sales of prohibited species banned at four years (approximately February 2030)
    - Phase-in period allows nurseries to avoid economic harm by selling existing inventory
    - Cultivar exemptions included for scientifically proven sterile varieties based on New York State research
    - Barberry and silvergrass cultivars exempted based on University of Connecticut research
    - Juanita: Expressed skepticism and concern about sterile cultivars, noting past experience with dwarf red barberry that eventually hybridized with wild populations
- Conclusion
    - Two-tier system allows scientific assessment separate from regulatory prohibition
    - Phase-in periods represent fair compromise with nursery industry
    - Cultivar exemptions are controversial but based on scientific research and helped secure industry support

Invasive species assessment and prioritization approach

Discussion of how many species should be considered and which should be prioritized for prohibition.

- Details
    - Strike Team's Technical Advisory Committee identified 50 widespread invasive plants and 86 emerging invasive plants (136 total)
    - Current legislation lists only 30 prohibited species
    - Number of concerning species increases annually as new invasives are discovered
    - Stage 0 species have fewer than 10 known populations in New Jersey
    - Stage 1 species have 11-100 known populations
    - Species above Stage 1 cannot realistically be eradicated from the state
    - Strike Team recommends heavily weighting prohibition toward early emerging species (Stage 0 and Stage 1)
    - Banning widespread species has marginal ecological benefit since they're already established
    - Banning emerging species can prevent future damage - working smarter rather than harder
    - Emphasized getting ahead of problems rather than waiting for them to become unmanageable
- Conclusion
    - Priority should be given to emerging species where prohibition can make a real difference
    - Resources for fixing existing damage are minuscule; prevention is the only viable strategy
    - The council will need to significantly expand the prohibited species list beyond the initial 30

Structure and responsibilities of the new Invasive Species Council

Mike outlined how the permanent council will be organized and what it will do.

- Details
    - Council will have 19 members total
    - Six members will be state employees from DEP, Agriculture, Treasury, Transportation, Health, and State Forester

    - Thirteen members will be from the public, split roughly 50-50 between industry and conservation/research representatives
    - Conservation and trade groups made joint recommendations for the 13 public positions
    - Unclear yet whether recommendations will be followed; will know when council is named
    - Council responsibilities include: making recommendations to state agencies, coordinating with federal partners, identifying research needs, reviewing state control efforts, identifying educational programs, developing partnerships, identifying funding sources, examining legislative needs, handling conditional use waivers, and revising the 2009 plan
    - Council cannot accomplish all tasks alone and will need support from non-council members
    - Department of Agriculture will enforce provisions through annual nursery inspections
    - DEP's Joe Balinsky has already created much of the required central clearinghouse website
- Conclusion
    - Council structure balances state agency oversight with stakeholder input
    - Collaborative recommendation process for appointments reflects continued spirit of cooperation
    - Council will require significant volunteer and professional support to fulfill its mandate

Implementation timeline and next steps

Mike detailed the schedule for implementing the new law and establishing the council.

- Details
    - Council appointment and rulemaking process should have begun by end of March (60 days after signing) but is delayed
    - New administration transition may explain delays; urged patience

    - Within 12 months (approximately February 2027), council must develop list of invasive species and list of recommended prohibited invasive species
    - Delays in council formation may push these deadlines later in 2027
    - Lists should be updated every three years after initial publication
    - Public can help by reporting prohibited species sales to AG and DEP after four-year phase-in
    - Widespread monitoring will be needed to ensure compliance
- Conclusion
    - Implementation is slightly behind schedule but progressing
    - First major milestone will be council's publication of invasive and prohibited species lists in 2027
    - Public participation in monitoring compliance will be essential

iNaturalist as primary documentation tool

Mike and participants discussed adopting iNaturalist for documenting invasive species populations.

- Details
    - Strike Team adopting iNaturalist database as primary collection tool
    - Lena Strew from Rutgers created iNaturalist projects for Strike Team's emerging and widespread species lists
    - iNaturalist far surpasses old EdMaps app in quality and usage
    - Only iNaturalist has durable database quality with review features
    - Council will need population data to determine which species to list as invasive or prohibited
    - Recommends taking multiple pictures from different angles showing leaves, flowers, bark
    - New version provides probability percentages for identifications
    - Urged people to submit observations even with uncertain identifications - reviewers will correct

    - Strike Team will verify every Stage 0 and Stage 1 species observation to ensure research grade status
    - Critical to mark observations as captive versus wild to avoid counting planted specimens
    - Terry: Has used iNaturalist for years; knows founders from UC Berkeley master's project
    - Juanita: Also long-time user; finds it wonderful
    - Terry: Suggested encouraging bioblitzes to familiarize people with the tool
    - Juanita: Recommended Scott Loarie as speaker on iNaturalist's development and capabilities
    - Kelly: Planning summer program at Roebling Park teaching iNaturalist use paired with invasive species law education
    - Kelly: Will include botany basics for taking effective identification photos
    - Juanita: New version allows in-camera identification as photos are taken
    - Mike: Shared links to four iNaturalist projects: emerging invasive plants, widespread invasive plants, emerging invasive animals, and emerging invasive pathogens – however joining the projects is not necessary for your data to be available to the Strike Team
- Conclusion
    - iNaturalist is now the standard tool for invasive species documentation in New Jersey
    - Proper use requires understanding of captive versus wild designations and basic botanical photography
    - Educational programs and bioblitzes can help build user base and data collection capacity

Volunteer stewardship opportunities and coordination

Discussion of how individuals can get involved in invasive species management work.

- Details
    - Mike: Shared link to volunteer stewardship teams on FoHVOS website

    - FoHVOS: When individuals volunteer, typically directs them to existing volunteer stewardship teams
    - FoHVOS: Most teams adopt a specific park and focus efforts there
    - FoHVOS: Sourland Conservancy's stew crew is unique in that they roam to multiple sites rather than focusing on one location
    - Laurie: Sourland stew crew focuses on sites with deer fencing or recent plantings
    - Laurie: Core group attends twice monthly without fail; provides quality snacks to maintain energy
    - Laurie: Work is social, therapeutic, and satisfying
    - FoHVOS: Starting a new team is possible for ambitious individuals in areas without existing teams
    - FoHVOS: Coordinated group efforts are more effective than individual volunteers working alone
    - Kelly: Planning to direct program participants to volunteer opportunities
    - Terry: Proposed building out volunteer opportunities page on collaborative website with links to various options
    - Terry: Page could categorize opportunities by frequency (daily, ongoing, one-time)
- Conclusion
    - Existing volunteer stewardship teams provide best entry point for new volunteers
    - Coordinated efforts are more effective and sustainable than individual actions
    - Centralized listing of volunteer opportunities would help connect people with appropriate activities

Educational programming and outreach strategies

Kelly and others discussed plans for invasive species education programs.

- Details
    - Kelly: Planning summer program about invasive species law paired with field work at Roebling Park
    - Kelly: Will teach iNaturalist use and basic botany for effective photography

    - Kelly: Wants to provide participants with action items and ways to get involved
    - Kelly: Needs to improve own iNaturalist skills; switched to Seek app for quick identification with kids
    - Terry: Suggested topic would be good for education group discussion
    - Terry: Noted two versions of iNaturalist (Classic and new) with different interfaces but same database
    - Juanita: Did iNaturalist program for Bowman's Hill just before system changed
    - Juanita: Uses both versions; Classic easier for accessing location history of observations
    - Juanita: New version's in-camera identification is major advantage
    - Mike: Shared iNaturalist Educator's Guide link
    - Terry: Suggested scheduling could be improved; some educational events like lichen talks should happen in winter when people are less busy rather than during peak spring season
- Conclusion
    - Educational programs should combine invasive species law information with practical skills training
    - iNaturalist training is becoming essential component of conservation education
    - Better seasonal scheduling of educational events could improve participation

Challenges with planted versus wild species documentation

Discussion of difficulties distinguishing between planted specimens and naturally occurring invasive populations.

- Details
    - Critical to mark iNaturalist observations as captive versus wild
    - Don't want to erroneously count planted Main Street specimens as invasive populations
    - Strike Team uses GIS to clip iNaturalist data against land use layers to identify likely planted specimens near houses
    - No perfect method since most people don't mark captive versus wild

    - Laurie: Suggested value in recording captive populations in case they become invasive with climate change
    - Terry: Noted difficulty determining if plants in her woods were planted by previous master gardener owner or naturally occurring
    - Juanita: Suggested plants appearing after invasive removal in wooded areas likely wild
    - Mike: Old homesteads in woods often have daffodils, rose of Sharon, and lilac that persist for 150+ years
    - Juanita: These botanical artifacts sometimes provide only nectar sources in heavily invaded areas
    - Laurie: Term botanical artifact describes these historical plantings
- Conclusion
    - Distinguishing planted from wild populations is challenging but essential for accurate assessment
    - GIS analysis can help but isn't perfect
    - Historical land use creates ongoing ambiguity about plant origins

Persistent non-native ornamentals and removal challenges

Participants shared experiences with difficult-to-remove non-native plants.

- Details
    - Juanita: Lily of the valley extremely difficult to eradicate; regrets accepting gift plants
    - Juanita: Scilla siberica (Siberian squill) spreads everywhere from single plant
    - Juanita: Scilla can crowd out other plants in raised beds and garden areas
    - Terry: Asked if these species need to be removed or can be left in place – are they a threat to natives nearby
    - Juanita: They can displace other desirable plants and spread aggressively
- Conclusion
    - Some common ornamental plants become persistent problems even if not officially listed as invasive

    - Early removal of first individuals is much easier than dealing with established populations

Prescribed fire as management tool

Brief discussion of using prescribed fire for ecological management.

- Details
    - Terry: Tina Notas gave talk about burning on one of their properties at recent event
    - Terry: Fire is becoming more important management tool; someone from PSE&G knows additional fire practitioners
    - Juanita: New Jersey Forest Fire Service conducts professional prescribed burns
    - Juanita: Attended burn and was impressed by professional execution and safety measures - All confounding factors measured and controlled; no risk to nearby structures
    - Juanita: Noted fire service personnel really enjoy fire, joked about channeling pyromaniac tendencies productively
    - Terry: College roommate became California fire expert 50 years ago; fire management more complicated in California due to dryness
    - Laurie: Agreed fire service provides good outlet for channeling that energy
- Conclusion
    - Prescribed fire is professionally managed in New Jersey with strong safety protocols
    - Topic warrants future presentation for the collaborative
    - New Jersey Forest Fire Service would be good speaker source

Collaborative website updates and logo refinement

Terry provided updates on website improvements and branding.

- Details
    - Terry: Sent email requesting members update their website listings; received some responses

    - Terry: Next step is creating volunteer opportunities page where people can post opportunities
    - Terry: Will set up email list for volunteer opportunity announcements rather than posting all on website
    - Terry: Annette from Washington Crossing (graphic artist) volunteered to help with logo after reading meeting notes
    - Terry: Experimented with adding birds and butterflies to logo but it complicated design
    - Terry: Annette recommended simplifying logo further
    - Terry: Annette currently in Italy; will finalize logo upon return
    - Terry: Final logo will be basically the same but simplified and refined with professional graphic design
- Conclusion
    - Website improvements progressing with volunteer opportunities page as next priority
    - Email list approach for volunteer opportunities more practical than centralized posting
    - Logo will be professionally refined while maintaining current design concept

Upcoming collaborative meeting topics

Terry outlined planned presentations for future meetings.

- Details
    - Terry: Next month Olivia from Watershed will present on rain gardens installed at schools in Trenton and Hopewell, including lessons learned
    - Terry: Following month (June) Marianne Borge will present about Lambertville projects
    - Terry: Invited members to suggest other projects or people doing interesting work
    - Terry: Noted collaborative takes about three hours per month to manage now that it's established

    - Terry: Gave lightning talk about collaborative at national conference as model others could replicate
    - Terry: Considers it low-hanging fruit for significant benefit
- Conclusion
    - Collaborative provides valuable platform for sharing practical project experiences
    - Model is replicable and efficient for regional coordination
    - Members encouraged to suggest future presentation topics

Action items

- Terry
    - Send out email about volunteer opportunities page and gather listings from members
    - Set up email list for volunteer opportunity announcements
    - Follow up with Justine about how to list Master Gardener contacts on website
    - Finalize logo with Annette after she returns from Italy
    - Share TED talk about iNaturalist in follow-up materials
    - Put iNaturalist project links in meeting follow-up
- Mike (FoHVOS)
    - Share exact names of iNaturalist projects for Strike Team emerging and widespread species lists
    - Have Alyssa coordinate with Kelly about bioblitz planning
- Kelly
    - Develop summer program at Roebling Park teaching iNaturalist use and invasive species law
    - Include botany basics for effective photography in program
    - Improve personal iNaturalist skills before leading program
    - Talk with Laurie about Sourland stew crew experiences to inform development of similar program

    - Advertise Strike Team iNaturalist projects and volunteer stewardship team opportunities
- Juanita
    - Contact Michelle about recruiting Environmental Stewards for DNR Greenways project
    - Consider planting spring ephemerals in small areas at DNR Greenways site while awaiting final plans
- All members
    - Update listings on collaborative website as requested
    - Use iNaturalist to document invasive species populations, especially emerging species
    - Mark observations as captive versus wild correctly
    - Report sales of prohibited species to Department of Agriculture and DEP after four-year phase-in period (February 2030)
    - Suggest future presentation topics and projects for collaborative meetings