

Maryland Invasive Species Council

Thursday, July 19, 2012

Adkins Arboretum

Ridgely, Maryland

MINUTES

Call to order 9:33 a.m. AI Tasker, Facilitator

Introductions

Carole Bergmann, M-NCPPC

Timothy Culbreth, MD Forest Service

Nevin Dawson, UME

Jane De Briyn, Talbot Master Gardener

E. N. Escobar, UMES

Anne Goodman, Rockville NSN

Ruth Hanessian, Md. Assoc. Pet Industries

Joanne Healey, Adkins Arboretum

Mike Hemming, Easter Shore Nurseries

Marc Imlay, M-NCCP

Alice Imlay, Guest

Carol Jelich, MNPS

Sylvan Kaufman, CCLC

Patrick Kelly, Anne Arundel County

Wesley Knapp, MDNR Heritage

Kerrie Kyde, MDNR

Carolyn Puckett, Carroll County FCB

Bud Reaves, Anne Arundel County Forestry

Kim Rice, MDA

AI Tasker, USDA APHIS

Bob Tatman, MDA

John Peter Thompson, MNLA

Matthew Travis, USDA APHIS PPQ

Additions to the Agenda

Add IPAC update

Approval of minutes

Marc Imlay noted correct spelling of Dr. Tony Koop's name. Approval of May meeting minutes held pending corrections from Kerrie Kyde.

Noted that Carol J's term as Recording Secretary ends with July meeting. Kerrie Kyde will assume duties of recording Secretary in September.

Membership

- Attendees requesting membership: Kim Rice, MDA.
- Pending members attending second meeting, eligible for vote: None.
- Attendees should review their membership status at www.mdinvasivesp.org/active_members.html

Presentation: Goats as an Alternative Method to Control Pest Plant Species

Nevin Dawson, Forest Stewardship Educator, Wye Research and Education Center, University of Maryland Extension.

Handout: UME Fact Sheet DRAFT (not for circulation but publication imminent), "Goats and Sheep: Weapons against Weeds"

Primary provider of goats for invasive control in Maryland is Brian Knox, forester, of Eco-Goats; www.ecogoats.com, 443-458-5237. Does a great job, though Nevin hopes for other vendors in MD.

Others involved: Susan Schoenian, UMD Extension Keedysville in western Maryland; Dr. Enrique Escobar, UMD Eastern Shore, Professor, enescoabar@umd.edu; Dr. Sylvan Kaufman, supervising goat project at Adkins Arboretum.

Discussion of goats:

Benefits: Goats good for sites where other methods are not successful. Perceived as more “natural” by public. Baby goats are good promoters, do frolic and play, fun to watch. Events in upscale residential subdivision: have wine & goat cheese party to welcome goats into community. Goat use reduces chemical uses. They are good at clearing thickets so spot treatment follow-up is then possible.

Drawbacks: Labor intensive; eat everything; need to clear 4 foot swath to put in electric fence, using walk behind brushcutter. They are broad-spectrum solution, will eat natives plants if present in the treatment area: “herbicide with legs” “strippers” – tend to strip bark off trees. Most goats will debark if other plants depleted.

Cost comparison – goats more expensive than herbicide: \$1600-2,000 per acre cost.

Choosing animals: Goats – browsers, top down, selective, individuals have varying favorite plants; agile, can reach 4 to 6 feet by climbing trees or other goats; can destroy young trees, can be hard to contain/handle though somewhat trainable. Goat behavior differs with individuals so large group pool is good. Only send out effective goats; some individuals are more likely to strip trees, e.g.

Sheep – grazers; eat closer to ground; prefer grass and forbs; easier to handle and contain. Goats need solid fence, sheep just need a wire. Sheep better with pasture area; goats better with closed canopy forest.

Nevin’s presentation included selection and management issues including breed, gender, personality, horns, transportation, containment/fencing, training, needs for shelter, nutrition, health, predator control.

Appropriate site selection – best for this tool are sites with thick, dense vegetation, steep slopes, site that needs clearing for accessibility for lighter chemical/mechanical control by people. Sites with many beneficial plants not appropriate for goats. Wet sites can cause hoof rot, animals need access to high ground to keep feet from being consistently wet.

Plant species preferred: goats like kudzu, though may take 3 yrs+ for full control. They will eat poison ivy, bittersweet, multiflora rose, stiltgrass, greenbrier, kudzu, mile-a-minute, wineberry, sweet gum, tulip poplar, maple, oaks, red cedar, pin flag (orange flags). Will pull English ivy from trees but will only eat at ground level if site completely de-vegetated. Don’t mind eating briars.

Plants toxic to goats: goats and sheep good at avoiding toxic plants. Do need to assess site. Johnsongrass is good forage, but toxic when less than 12 inches tall and damaged by frost or drought. Wild cherry leaves toxic when wilted. Plants have different levels of toxicity.

Must monitor treatment to stop process at the right point, before stripping bark, etc.

Number of animals per acre can vary. Usually 60 per acre, on quarter to half acre lots, 20-35 goats in small area, then pick up fence and move it. Give them small space to work. They have herd mentality; competing for food makes them work faster. If there are fewer than 5, they start to lose the herd mentality. A quarter to half acre takes 3 to 5 days. They tend to start on outside and work inward.

Expected outcomes: defoliation; leaf and small stems up to 6 to 7 feet tall; flower buds and seeds next, will chew till not viable. Bark and stripping stems comes last. This treatment will eliminate seed, improve access and visibility, and reduce need for chemical treatment. Root system is exhausted with repeated grazing.

Cornell has handbook for woodland based management w goats.

Nevin's current and planned work includes pilot project with 7 goats in private land; 5 lecture/demo programs for 103 people; fact sheet; webinars; upcoming 3 to 5 demo areas; one day workshop for producers.

Impacts: some are taking up business; goats as invasive removers plus market for meat and goat products.

Adkins project – June 2011, Eco-Goat brought 65 goats. South meadow, reduce cover of woody plants. Along forest edges, goats will reduce over of woody vines and saplings. Soil fertility levels will not be changed. Adkins herd started with Lily, born to the Eco-Goats herd and left here, and 5 other goats have been acquired.

Q&A ensued on how to use goats, Adkins' project, and ideas for other projects.

Update on progress of the IPAC and APHIS WRA – Kerrie Kyde

IPAC looked at various methods of assessing risk of plant invasiveness, and selected the APHIS screening tool, a Weed Risk Assessment (WRA) spreadsheet with formulas. APHIS /Tony Koop and his team developed a logistical regression model that looks at 4 characteristics – impact, geographic potential, entry potential, spread potential. Also did careful analysis of series of questions, starting with Australian Risk Analysis tool, statistical analysis of importance of each question in model and predictive value, threw out ones with no or low predictive value. Establishment/spread potential single most important question in the model. When APHIS modelers tested it, they used only international info, no U.S. info. IPAC will use MD info/data.

Kerrie K, John Peter T, and Sylvan K attended training on using the APHIS tool. Kerrie showed the tool using *Lythrum salicaria* as an example. When answer Q's, mostly yes or no, a value is assigned for that question. Uncertainty factor is added for each question. Species you know nothing about automatically are assigned high uncertainty. Geographic factors include cold hardiness, precipitation bands, Koppen-Geiger climate classes. WRA determines the overlap of these three characteristics in the species' native range, and then determines where that overlap occurs within the US, to give an estimate of the portion of the country at risk from the species. WRA also includes questions on sociological impact – is plant thought of as a weed? Do people do something about it? Is it spread through recreation? Then impacts are assessed. If it is not already here; when will it get here? Model does the calculation. If Q not answered properly, the WRA will flag it. Includes a secondary screen as a tiebreaker to aid in final assessment for plants in Evaluate Further category

Model shows that *L. salicaria* is high risk invader. With this result, IPAC has to translate risk assessment into ranking as a Tier 1 or 2 plant.

Committee is looking at plants that are here or not yet here. IPAC has chosen 30 plants as starting point, on DNR do-not-plant list, including 17 that APHIS has already done assessments for, and 14 that DNR wants to know about, including bamboo. Will re run assessments including US data, expecting no significant differences in risk probabilities.

Once a species has a risk factor calculated by the WRA, high risk species will be run through a Maryland specific filter, to determine whether they are Tier 1 or Tier 2 plants. Ask, e.g., what is potential for distribution in MD? If narrow, will be Tier 1. Does it impact rare species here?

Doing one assessment is a 3-day project. Preparing 30 assessments will be lots of work, and there are only 3 plant people on IPAC.

Al T noted that the model does not give management options. It's about risk potential.

After 30 plants tested, next steps:

- Continue to do assessments on many more plants. This is just target list to get started.
- By October 1, 2013, are supposed to have Tier 1 and 2 division established.
- Also by then will set up for public input on Tier 1 and 2 tool.
- IPAC will also determine the wording for signage that will designate Tier 2 plants.

MISC members are invited to submit plants for assessment, including literature search. Committee could use assistance in assembling lit reviews. Assessments need to be done by horticulture professionals. If anyone is interested in helping pull together written material about listed species, let IPAC know.

Q: Other states using it?

A: NE policy, not reg. VA looking at using it. Carol H has invited Tony Koop to next Plant Board meeting. She is hoping to combine resources for funding from Plant Board, to create shared database for other states to use.

Invader of the Month Updates

Month	2012 IOTM	Author
July	Clean your gear	Jay Kilian
August	Mile-a-minute weevil	Kelsey Branch/Bob Trumbule
September	Destroy your science supplies	Ruth Hanessian
October	Chronic wasting disease	Brian Eyler
November	Groundnut ring spot virus	Scott Adkins
December	Japanese Cedar longhorn beetle	Bob Trumbule

- Al T: Kelsey will get in touch with Bob Trumbule about their lotM.
- List is provided as reminder to authors. No updates at this time. If there are any changes, notify Bud Reaves.
- Note correction of longhorn, one word, and kudzu bug, not weevil.
- Members commended Mary Kay M. for the good work on May lotM, which was posted.

- Discussion: kudzu bug – how many legumes does it consume? Generalist; not well-studied yet. Matt T. reported that there was an interception on ship deck from southern port, not sure which kudzu bug. Some countries (Honduras, Chile) are starting to prevent ships from US due to stinkbug, kudzu bug. Could be developing problem. Forest Service starting to look at kudzu bug, concern about trees – no control on the horizon, major legume problem. Said to cause skin problems? See www.Bugwood.org. Though that impact is not documented in literature. John Peter T: If Chile regulating our shipments relative to kudzu bug, are they also regulating China? Is it ecological, or marketing?
- Carol J offered to do posting on MISC web site starting in the fall.
- Current listing - http://www.mdinvasivesp.org/invader_of_the_month.html

Agency Updates

APHIS PPQ – AI Tasker, Matt Travis

- Forest service and Bowie are teaming on a project on Emerald Ash Borer (EAB), using NASA photography to find dead or dying ash trees in Bowie.
- Giant hogweed eradication in DC
- National summit and publication on strategies to manage herbicide-resistant weeds; AI will be on task force.
- “Sheriff AI” has been active with youth at recent events.
- PPQ reorganization is underway to consolidate regional operations, both sci/tech and policy. Discussion underway, more details forthcoming. Implementation still scheduled for Oct 1.
- Matt T – passed around pest interception report and will post on list serve. Email Jim Young with any questions.
- Had Tig and Maggie, canine snail detection lab team, deployed this week in warehouses. They work short days due to hot weather. Did pick up a few specimens, submitted for ID. Tile, granite, marble industry into Baltimore warehouses. Canine team will fly to Atlanta next.
- Brown marmorated stinkbug (BMS) -- Chile has added restrictions on Baltimore and any port with BSM, requiring treatment. Not sure treatment is effective. Fumigator is fumigating used clothing, surface treating tractors and harvesters, lot of treating. Likewise, other South American countries starting to restrict things from US due to kudzu bug, found in luggage holds in passenger planes. US does not regulate these bugs, but we are being regulated by other countries.
- Monitoring for gypsy moth. Small pocket in June in and around ports, no Asian gypsy moth. This month had 2-3 trace forward notifications on *P. ramorum*, shipped to MD, taking samples of plants. Last 2 incidents were sent to homeowners, visited several homeowners, took samples.
- In August Baltimore is approved to use in addition to methyl bromide, new fumigant, Sulfuryl fluoride. China so far the only one approving that.
- Surveys underway – black light trap at 15 sites for EAB. One is at Antietam National Battlefield, not a new county but they have 2 historically significant ash trees. Referred them to NE IPM Center on treatment options, also to MDA. Might also want to talk to DoD on their strategy.

DNR – Kerrie Kyde, Tim Culbreth

- Heritage program (RTE) – loss of some funding, halving of money in next fiscal year. They will reorganize to do a different job. Will take data compiled over 30 years of program on site by site basis, compiling and bringing it into format to be publicly accessible to county planners, to support protection decisions for ecologically significant habitat. Will be web-based, over next couple of years. Core team in charge, will work with species experts. Immediate focus will be western Maryland sites.

- Tim C – getting basic homeowner fact sheets out to homeowners on forest pests, working on # 4, will work with MCE. Useful information will be available.
- Kerrie K – invasive plant control on sensitive sites – good control of mile-a-minute on eastern shore. Working with MDA, Forest Service team.

UMD MCE – Nevin Dawson

- Mid Atlantic Early Detection Network –Continuing to develop smartphone app with Bugwood.
- On Aug 1 hosting at MDA with MDA for municipal and county officials, to prepare for arrival of EAB and develop a management strategy. They are targeting a narrow audience, but let him know of any others to invite.

MDA – Kim Rice, Bob Tatman

- Dick Bean reported 3 new positive counties for EAB – Montgomery, Garrett and St Mary’s. Will be sent to USDA for confirmation. Al T has link.
- Thought Maryland was on beginning of outbreak of gypsy moth, but it crashed, same in adjacent states.

News and New Business

Al Tasker

Mary Travaglini left TNC and has started an invasives management company. See <http://www.eastcoastexoticscontrol.com/>

Marc Imlay

- PG County is doing a good job controlling invasives at nature centers with volunteers.
- Spoke with Bernd Blossey, weevil studies on *L. salicaria* are concluded. Should release of the weevils be facilitated in Maryland? Consult with Minnesota, re their weevil work, see if their information supports proceeding. Marc recommended forming a MISC committee to investigate feasibility. Include Marc, John Peter Thompson, John Lydon, others who are interested. Marc will follow up.

Sylvan Kaufman

All work in the art exhibit in the meeting room is of invasive plants. The artists are looking for other places to exhibit, and pieces are for sale. Sylvan can provide contact information.

Carole Bergmann

Carole B is teaching about ID and natural history, wants to include what is being done with regulation in Maryland. Can MISC members share digest of what is being done, or sources of such information? Recommendations: Look on NISC web site, Kerrie K can send link. Other resources – MD noxious weed law; DNR Do-not-plant list; link to DNR plant and animal regulations. Al T can send summary about how they regulate.

Adjourn 12:04 p.m.

Following the meeting, Sylvan K led a walk on the Arboretum grounds to see the goats, mile-a-minute vine weevils, and Asian Longhorn beetle traps.

Next meeting Thursday, September 20, 2012, 9:30 – location, host?

Bud R will see about hosting at AAC, Carol J will help
Respectfully submitted, Carol Jelich, Recording Secretary