

**Maryland Invasive Species Council
M-NCPPC Office, Prince George's County
Riverdale, MD 20878
Thursday November 21, 2013**

Call to order

Facilitator Dick Bean called the meeting to order at 9:35 am

Introductions

Dick Bean - MDA, PPWM	Sylvan Kaufman -- CCLC
Conor Bell -- USFWS, CBFO	Jay Kilian - DNR, MANTA
Carole Bergmann -- M-NCPPC, Mont. Parks	Kerrie Kyde—MDNR, NHP
Dave Clement - UMD Extension	Mary Kay Malinoski - UMD Extension
Tim Culbreth - DNR, MFS	Rich Mason - USFWS, CBFO
Mike Farley -- EQR	Bud Reaves - Anne Arundel County
Anne Goodman—Rockville NSN	Al Tasker - USDA APHIS
Mike Greenberg -- SHA	Bob Tatman - MDA Forest Pest Mangmt
Anne Hairston-Strang - DNR, MFS	John Peter Thompson- MNLA & NISC ISAC
Ruth Hanessian -- MAPI	Mark Thurmond - USDA APHIS
Marc Imlay, MNCPPC, Sierra Club	Bob Tichenor - USDA APHIS Biocontrol
Carol Jelich - MNPS	Bob Trumbule - MDA Biocontrol
Kirsten Johnson, MNPS, Botanical Heritage WG	Jim Young—USDA APHIS
Jonathan Jones - USDA APHIS Noxious Weeds	

Additions to the Agenda

Discussion of wavyleaf basketgrass
Reinstatement of Bob Tichenor as member

Approval of minutes from July, 2013 meeting

July minutes approved as amended. Anne Goodman appreciated the seed mix recipes.

Memberships

- Rich Mason requested membership, taking over Conor Bell's spot as Conor is leaving for graduate school
- Mike Farley requested membership, MISC will vote at next meeting he attends.
- Carol Jelich has not received the updated membership list from Lane Heimer, but will update the online membership list when he sends it. Dick Bean will check with Lane on progress.

Presentation

Kirsten Johnson, Chair of the Maryland Botanical Heritage Work Group and current Maryland Native Plant Society President, explained the legislative background and task of the BHWG and requested feedback from MISC.

- BHWG was established by statute in May 2013, organized with membership from multiple stakeholder groups, with a broad mission to consider and report by the end of 2013 concerns and protection methods for native plant conservation in Maryland. One portion of the report is about invasive species, with three subsets: conservation of plants in their native habitats, exotic invasive species (EIS) impacts, and use of

native plants in landscaping. The finished report will lay out current conditions, definitions and suggest recommendations for action by the legislature. Two legislators are members of the BHWG and are eager to see legislation develop from this work.

- What recommendations would MISC like to see included in the BHWG report?
Extensive discussion of issues including
 - Legal mandate and organization for MISC -- BHWG senses this is not necessary.
 - Drafting of a state strategic plan for EIS, availability of federal funding for states with aquatic invasive species plans; requires funding for a professional position to do implementation; concern about drafting a "big report" that goes on the shelf
 - Need for funding and staffing to do early detection, rapid response, especially at ports, where interception is done now by DHS, with APHIS used for species ID. Funding for port detections is dropping. Need funding for USDA ARS to get biocontrol and ID tools into the hands of the end users.
 - Use of wavyleaf basketgrass and emerald ash borer as examples in report
 - Need for and use of a State organization similar to weed warriors; APHIS' ability to fund survey but not control work; cost of volunteer networks; Watershed Stewards Academy started in Anne Arundel County and expanding to the Eastern Shore allows counties to use stewards local projects to count toward county-wide watershed protection implementation required by the state – can these groups be leveraged and expanded, can the costs of EIS be demonstrated to counties with estimates of savings from using local groups to do projects.
 - Standard inclusion of EIS curriculum in Master Gardener and Master Naturalist trainings
 - Establishment of BMPs for doing control work
 - Creative sources of funding exist? Concern about diminishment of one funding source to supply another, as for the Forest Emergency Response Fund, which is authorized but unfunded.
 - NISC efforts to create a federal emergency response fund that would be available to states for EIS outbreaks, stymied by inability of NISC's ISAC to meet due to funding shortages
 - International effort to establish guidelines for EIS targets, control mechanisms, goals, markers for transition to different types of management efforts
 - Deer management included in report, weighing EIS presence against having e.g., a forest understory shrub layer at all
 - Conflicting interests for sparse support – when biodiversity is what we want to protect, frustrating that funds go for inappropriate stream restoration projects when adjacent functioning forest needs protection

Kirsten Johnson requested that MISC members get in touch with her with any other suggestions for report recommendations.

Invader of the Month

- Bud Reeves reported that IOTM is back on track, waiting for an article on Ravenna grass from John Peter Thompson and Jil Swearingen for December posting.
- Marc Imlay is part of a working group within MA-IPC producing an update on available and in-process biocontrol agents for EIP, will produce a shorter version of this report for IOTM.
- Carol Jelich requested that authors submit 2-3 quality photographs with their write-ups, for web posting.

- Topics for next year needed. Some suggestions were made: *Pinellia ternata*, which is a weed in nursery stock, but is not known out of garden conditions, although it does produce fruit.

Agency Updates

APHIS -- Jim Young:

- Passed out new finds sheet and reported a new "bunch of pests." See attached sheet for ID. Bark beetle brought in from Israel on wood shavings, a common pest of olives; Thrips major on cut flowers – this is an actionable pest, from the Netherlands; Baltimore got its first report of egg masses of *Asian* gypsy moth, with a second shipment just found, though the eggs might be dead; bollowworm; *Monarcha* snail spp, a pest of agricultural fields, esp. beans, was traced to an Asian container that originated from the Middle East NINE months ago, and the snail was still alive! Sespid from African yams; unidentifiable caterpillar – need pupal form to ID.

USFWS -- Conor Bell:

- Continued seedling Callery pear spray treatments using Thinvert, about 40 acres worth, at the Naval Dairy Farm in Gambrills. Funding came from Chesapeake Bay Trust fund on water quality. Spent \$60K on hack and squirt treatment, and foliar application on the resprouts. Follow-up work will be completed next summer.
- Drove amphibious ATV for high volume treatment of six acres of *Phragmites australis* at Parkers Creek for DNR, under an MOU. FWS will be using Hurricane Sandy restoration money to treat a couple hundred acres of *Phragmites* in various locations.

-- Bob Tichenor:

- Biocontrol unit has had new regulations in production for five years; revisions to NEPA regulations are still in the works. Several new biocontrol agents are in the pipeline for Cape ivy, swallow-wort (Canada has already released the agent), knotweed (a not highly sp-specific psyllid). These are all listed on the Technical Advisory Group website, a new webpage within APHIS. The URL is: http://www.aphis.usda.gov/plant_health/permits/tag/index.shtml

-- Jonathan Jones:

- Worked with the Plant Epidemiology and Risk Analysis Laboratory group of APHIS to produce a weed risk assessment; wants to get the completed assessments up on the website as PDFs. Several of them have been proposed for noxious weed listing for 2014. There is a general lack of funding, but control of witch weed has been funded.
- USDA was asked to weigh in on allowing biofuel carbon credits for two invasive plants – *Pennisetum purpureum* and *Arundo donax*. Before a biofuel producer applies to EPA for carbon credit, it must certify that it has addressed the risk of spread of the biofuel stock. Rules were passed in July, including APHIS' requirements of practices to control spread. John Peter Thompson's blog on this issue got a lot of attention – the industry seems to be targeting anybody who expresses concern about biofuels, and is attempting to confuse the issue about invasivity with sidetracks about cultivars, trademarked plants and straight species.

-- Mark Thurmond:

- Is training Baltimore Customs and Border Patrol agents to recognize noxious weed seed; Baltimore has McCormick Spice, which gets tons of seed annually. Dulles airport is next; trying to customize the seed list to what typically is shipped into Dulles. The trainings take about 2 hours, with anything suspicious sent to regional botanical seed identification experts at the National Seed Examination Facility, whose staff were on the job during the government shut-down.

-- Al Tasker:

- Obtained authority to revitalize about 80 fact sheets on weeds, which contain information on the biology, looking for image copyright permission for many.
- The third round of NAPPRA (Not Authorized Pending Pest Risk Assessment) species listings are moving forward; APHIS may need to reopen the comment period as some stakeholders have raised concerns. About 18 weed and 20 pests and diseases have been completed. Al passed out the draft data sheet for *Oplismenus hirtellus* subsp. *undulatifolius*. Species are candidates for listing if 1) the taxonomy is understood and the plant can be ID'd, 2) if it is a potential quarantine pest, not widely distributed or in commercial sale, and 3) there are peer-review publications documenting its invasiveness elsewhere in the world.
- An APHIS cross-functional group including Jonathan Jones, Al Tasker, Tony Koop, are discussing a streamlined process for running WRAs and a process to set priorities for which assessments move forward. OHU, for instance, has a fairly high need to be moved forward to listing, but the NAPPRA designation is just for propagative material. If no one is propagating a plant, it can be listed but nothing happens.

University of Maryland Extension – Dave Clement

- Holding a pesticide recertification conference in Carroll County on December 12th where Kelly Ivers from N.C. will speak about boxwood blight. She is at the forefront of the research about this disease. Contact Suzanne Klick for registration info.

-- Mary Kay Malinoski:

- We have a 3-year NIFA grant to work with Bugwood on a smartphone app for reporting discovered insects and disease outbreaks. It began as a reporting system for EIP, called MAEDN (Mid-Atlantic Early Detection Network), and all the data is run through and posted via EDDMapS. It's free, easy to use. We need species report verifiers for the mid-Atlantic states, esp. PA and NY. Dave and I are the initial verifiers for MD; if something is suspicious, we send the report to Dick Bean or other regulatory personnel. Reports can upload up to three geo-referenced photos. Contact Chuck Barger at Bugwood (CISEH) if you'd like to be a verifier for the region.

Maryland Department of Agriculture – Bob Trumbule

- MDA has developed an eradication protocol for boxwood blight that gives producers or growers options: 1) MDA oversees destruction of all boxwoods, or 2) all symptomatic plants are given 6-month holds on sale, with MDA checking them every 2 to 4 weeks – any new symptomatic plants are destroyed. No PCR test exists for boxwood blight, so the organism must be cultured in order to ID. Fungicides merely suppress symptoms, which become visible again after fungicide application is halted. Two commercial nurseries positive for boxwood blight are under eradication management and intense monitoring. One location received plants from an infested OR nursery that had destroyed all boxwoods at the initially infested site and started anew at a second site. The production nursery in MD destroyed a large number of boxwoods and will not use fungicides for the mandatory 6-month hold period on the remaining boxwoods on site. Bi-weekly monitoring will be performed by MDA before release is considered. Boxwoods are a significant plant in the industry as they are deer resistant, long lived, and a traditional landscape plant. The other site is a boxwood germplasm developer who shares with other growers. Eradication efforts are underway.
- On the lookout for Japanese cedar long-horned beetle, which has limited distribution in MD but is spreading along the I-95 corridor.

- European pepper moth has shown up in greenhouses, feeding on poinsettias, but is omnivorous. Will feed on vegetable crops, but may not survive winters here. Surveys are planned for 2014.
- Biocontrol work for mile-a-minute continues; have now released weevils as far west as Garrett County, as far south as Wicomico. Looking for sites in Calvert and St Mary's counties. 90% of our funding comes from SHA; 10% from APHIS..

-- Bob Tatman:

- Finished 12K ac of gypsy moth spraying this spring, interrupted by a freeze during application where foliage was lost to frost as far east as Frederick. Expected the weather to hammer the gypsy moth population, but it's still increasing, although more slowly. Was a great year for Entomophaga, but it didn't do a good job of controlling gypsy moth.
- HWA suppression almost completed. The hemlock woolly adelgid is revving up in Garrett County; we can't treat all of the hemlocks, even those on public land, but have a new grant to support the effort.
- Canker worm is a big problem this year, especially in St. Mary's City; expected to move to Calvert County
- We are documenting salt water intrusion damage on the Eastern Shore
- Found ash rust in Harford County; usually lives on Spartina, but is now defoliating ashes, resulting in 5-10% mortality
- Odds and ends: Surveys for Sirex wood wasp were negative; southern pine beetle population is very low; winter moth, which has to be ID'd using genetic tools because it is very difficult to ID, is not here, and can be controlled with a fly biocontrol agent.

-- Dick Bean:

- Maryland Cooperative Agricultural Pest Survey (CAPS) meeting is scheduled

MDNR – Anne Hairston-Strang

- Under our USDA Forest Service grant, completed six acres of Phragmites control work in Parkers Creek Heritage Conservation Fund site
- Continuing to do ash survey work; EAB Forester and technician are working 100% in Garrett County and LaPlata; including flyer in tree experts' and forest product operators' license renewal letters as outreach
- Nevin Dawson will be moving to a Sustainable Ag Outreach position

-- Jay Kilian

- Closed-system aquaculture facility on Eastern Shore requested permission to import, raise and sell Barramundi, a catadromous fish related to Nile perch, widely cultured in Australia. Literature indicates that they may not survive Maryland winters. Given permission to ship them dead on ice, the facility then requested permission to sell them live. DNR in-house committee reviewing literature and USFWS temperature studies to get recommendations to the Director of Fisheries by mid-December.
- DNR staff pulling buoy markers found live adult zebra mussels attached to the anchor blocks from the lower Susquehanna near the RR bridge upstream from Havre de Grace. Baltimore City DPW staff found settled mussels attached to the walls of the drinking water intake canal in the Susquehanna. Although low in density, the numbers, including veligers found at Peachbottom, are going up. For more information, see: www.dnr.state.md.us/invasives/pdfs/zebra_mussels2013.pdf

News and New Business

Anne Arundel County – Bud Reaves

- Still trying to get our EAB management plan approved and implemented; we are doing ash inventories.

M-NCPPC – Marc Imlay

- Prince George's County Parks is working with Anacostia Watershed Society to host Eco-goats on an AWS site, to do EIP control work
- Kudzu bug found in Maryland. Not reported to be especially effective at controlling kudzu. They may use other leguminous hosts such as redbud, wisteria, black locust

Next Meeting

The next meeting will be held at MDA offices in Annapolis from 9:30 to 12:30 on Thursday, January 16th.

Meeting Adjourned: 12:15 pm

Respectfully submitted,
Recording Secretary Kerrie Kyde
Attachments: Jim Young's pest ID handout
Kim Rice's CAPS report



Handout for
November 2013 MISC

Maryland Cooperative Agricultural Pest Survey Committee Kim Rice, State Survey Coordinator, Maryland Department of Agriculture **2013 Surveys**

Exotic Wood Boring Beetle Survey

- ❖ Lindgren Funnel Trap Survey
 - March 26, 2013- September 19, 2013 (*Sirex noctilio* added May 30, 2013)
 - 16 sites with 3 Lindgren funnel traps per site = 48 traps, after May 30 total of 64 LF traps
 - 8 Counties Surveyed and Baltimore City
 - Anne Arundel-1 , Baltimore-4, Baltimore City-2, Carroll-2, Frederick-2, Harford-1, Montgomery-1, Prince George's-2, Washington-1
 - Targets:
 - *Ips typographus* (European spruce bark beetle)
 - *Hylurgops palliatus* (lesser spruce shoot beetle)
 - *Orthotomicus erosus* (Mediterranean pine engraver)
 - *Hylurgus ligniperda* (redhaired pine bark beetle)
 - *Ips sexdentatus* (sixtoothed bark beetle)
 - *Pityogenes chalcographus* (sixtoothed spruce bark beetle)
 - *Sirex noctilio* (sirex woodwasp)
 - Lures Used: *Ips typographus* lure, Chalcosan, and UHR α -pinene plus UHR ethanol lure.
- ❖ Blacklight Trap Survey (visual survey)
 - 2 sites (Baltimore county-1, Baltimore City-1)
 - March 26, 2013- September 19, 2013
 - Targets:
 - *Anoplophora glabripennis* (Asian longhorned beetle)
 - *Anoplophora chinensis* (citrus longhorned beetle)

- *Anoplophora malasiaca* (white-spotted longicorn beetle)
- ❖ 432 EWBB samples and 80 Sirex samples were processed. Gaye Williams, MDA Taxonomist, screens the EWBB samples and sends samples to Dr. Jim Young, PPQ Identifier, Baltimore who would send on selected specimens to Dr. Bobby Brown, National PPQ Identifier @ Purdue University for further confirmation.
- ❖ Results are pending, no targets found to date.

Cyst Nematode Survey

- ❖ October 16, 2013 - November 13, 2013
- ❖ Second year of survey - Baltimore, Carroll and Frederick counties
- ❖ 9 samples per each county with a total of 27 samples
- ❖ Samples processed by MDA Plant Disease Specialist, Ramesh Prokharel
- ❖ Targets
 - *Globodera pallida* (potato cyst nematode)
 - *Globodera rostochiensis* (golden nematode)
 - *Heterodera cajani* (pigeonpea cyst nematode)
 - *Heterodera ciceri* (chickpea cyst nematode)
 - *Heterodera filipjevi* (cereal cyst nematode)
 - *Heterodera glycines* (soybean cyst nematode)
 - *Heterodera latipons* (Mediterranean cereal cyst nematode)
 - *Heterodera sacchari* (sugar cane cyst nematode)
 - *Heterodera zea* (corn cyst nematode)
 - *Punctodera chalconensis* (Mexican corn cyst nematode)

Khapra Beetle (*Trogoderma granarium*) & Noxious Weed Survey

- ❖ One site in Baltimore City
- ❖ 39 nyger seed samples were collected from January 1, 2013 – November 12, 2013
 - Samples were tested at MDA Turf & Seed lab to verify 0% germination
- ❖ 8 wall mounted Storgard Khapra beetle traps were used
 - April 3, 2013 – October 22, 2013
 - Monitored on a bi-weekly bases, checked 13 times
- ❖ Visual noxious weed survey was conducted on August 12, 2013, nothing unusual detected.
- ❖ No targets were detected

Red Imported Fire Ant (*Solenopsis invicta*)

- ❖ Survey started on June 11, 2013 and ended on October 24, 2013.
- ❖ 94 total sites surveyed in 9 counties (Anne Arundel, Baltimore, Charles, Calvert, Kent, Prince George's, Queen Anne, Washington, Worcester) and Baltimore City
 - Ocean City Survey was June 11-12, 2013
 - 66 sites were surveyed
 - 1 positive site
 - Additional Surveys were conducted throughout the summer and fall
 - 28 sites in 8 counties and Baltimore City
 - 1 positive site - UMD-CP

- ❖ The positive Ocean City site was issued a treatment order and required to treat for the fire ants, resurvey was completed and the site was found to be negative.
- ❖ The positive UMD-CP site was issued a treatment order, treatment has been completed, resurvey will occur in the near future as weather permits

Emerald Ash Borer (*Agilus planipennis*)

- ❖ 347 Purple prism traps surveyed
- ❖ National Survey FHTET Model (Eastern Shore)- 158 traps
- ❖ High Risk Survey (Allegany, Anne Arundel, Baltimore, Baltimore City, Calvert, Carroll, Frederick, Garrett, Harford, St. Marys), 189 traps
- ❖ 2 new positive counties in 2013: Frederick and Calvert; only NEGATIVE counties on western shore are Carroll, Baltimore, Harford and Baltimore City
- ❖ In 2013 MDA worked with USDA, APHIS, PPQ Methods Development, on an EAB/Buprestid survey. This survey consisted of 8 sites, 2 of each site were placed in ash, pine, maple and red oak. All sites were known to be infested with EAB. Each site was checked biweekly throughout the trapping season. All samples collected from the USDA test sites were sent to USDA-OTIS lab for final identification and research.
 - The trap/lure combination included:
 - 1 unbaited "new" purple prism sticky trap
 - 1 unbaited purple multi-funnel trap
 - 1 unbaited green multi-funnel trap
 - 1 baited (Z-3 hexanol lure) green multi-funnel trap
- ❖ Eight biocontrol release sites (Anne Arundel-1, Charles-3, Howard-1, Saint Marys-1, Washington-2). A total of 41,246 parasitoids were released at 8 biocontrol sites.
- ❖ To date in 2013 the production room has shipped 7,774 adult EAB to the USDA ARS lab in Newark, DE for continued biocontrol work
- ❖ An additional 325 adult EAB's were caught in the environment and shipped to the USDA ARS lab in Newark, DE.
- ❖ MDA's Annapolis greenhouse has approximately 425 tropical ash (*Fraxinus uhdei*) for leaf production to assist in the continued USDA biological control program. Ash bolts and leaves will be shipped to EAB's Brighton, MI lab as requested.

FARM BILL Funded Surveys

Honey Bee Survey – Farm Bill

- ❖ Survey is in collaboration with ARS, and is geared at establishing the absence of exotic pests, such as the Asian honey bee (*Apis cerana*) and parasitic mites in the genus *Tropilaelaps* in the US. Other diseases and parasites, if found, will be documented to establish their distribution in the US.
- ❖ Survey Date: July 1, 2013 - June 30, 2014
- ❖ To date 6 sites have been surveyed, the additional sites will be completed in spring 2014.
- ❖ All samples are sent to either USDA ARS Beltsville lab or University of MD, per protocol.
- ❖ Results are pending for all 2013 surveys.

National Tomato Survey - Farm Bill

- ❖ Survey Date: June 17, 2013 - September 27, 2013
- ❖ Surveyed 10 sites in 5 counties (Caroline-3, Queen Anne-2, Somerset-2, Talbot-1, Wicomico-2)

- ❖ Field sites were a mixture of large production fields (canning facilities) and smaller fields (local produce stands)
- ❖ Targets:
 - *Chrysodeixis chalcites* (golden twin-spot moth)
 - *Helicoverpa armigera* (old world bollworm)
 - *Spodoptera littoralis* (Egyptian cottonworm)
 - *Spodoptera litura* (cotton cutworm)
 - *Thaumetibia leucotreta* (false codling moth)
 - *Tuta absoluta* (tomato leaf miner)
- ❖ 302 samples, all negative. MDA taxonomist, Gaye Williams, screened all samples for targets

National Stone Fruit Survey - Farm Bill

- ❖ Survey Date: June 25, 2013 - October 18, 2013
- ❖ Surveyed 12 sites in 9 counties (Calvert-1, Caroline-1, Carroll-2, Cecil-2, Frederick-1, Harford-1, Montgomery-1, Queen Anne-1, Washington-2)
- ❖ Targets:
 - *Adoxophyes orana* (summer fruit tortrix moth)
 - *Enarmonia formosana* (cherry bark tortrix)
 - *Epiphyas postvittana* (light brown apple moth)
 - *Helicoverpa armigera* (old world bollworm)
 - *Lobesia botrana* (cotton cutworm)
 - *Spodoptera litura* (cotton cutworm)
 - *Thaumetibia leucotreta* (false codling moth)
- ❖ 585 samples, all negative. MDA taxonomist, Gaye Williams, screened all samples for targets

OTHER SURVEYS/FINDS – 2013

Spotted Wing Drosophila (*Drosophila suzukii*) – Cecil county (stone fruit survey samples)
 Boxwood Blight (*Calonectria pseudonaviculata*) – Queen Anne & Wicomico counties
 Kudzu Bug (*Megacopta cribraria*) - Anne Arundel (MDA); Calvert, Charles, Howard, Prince George's, St. Mary's (UMD-CP); Dorchester (Luke McConnell)

2014 Surveys

Exotic Wood Boring Beetle Survey

- ❖ Workplan approved pending USDA budget

Cyst Nematode Survey

- ❖ Workplan approved pending USDA budget

Khapra Beetle/Nyger Seed Survey

- ❖ Workplan approved pending USDA budget

Fire Ant Survey

- ❖ Workplan approved pending USDA budget

Emerald Ash Borer

- ❖ Waiting for workplan approval

2014 Farm Bill Surveys - PENDING APPROVAL

- ❖ Tomato Commodity Survey
- ❖ Stone Fruit Commodity Survey (including PPV)
- ❖ Nursery Survey (exotic insect pests & *P. ramorum*)
- ❖ National Honey Bee