



Maryland Invasive Species Council

June 22, 2006

Adkin's Arboretum

Ridgely, MD

Call to Order: ~9:10 a.m. Bob Tichenor

Presentation: *Pet Re-Homing: A Practical Partnership Response to Introduction of the Northern Snakehead in Maryland*, Andy Lazur, Ph. D., Center for Environmental and Estuarine Studies, Horn Point Lab, Cambridge MD

- <http://www.mdapi.com/goldcircle.html> - Gold Circle Dealer information and list of pet stores that have agreed to re-home pets
- partnership poster campaign
 - 653 animals re-homed in 2004-05
 - ~201 due to poster campaign - 1 African frog, 1 snake, 5 crabs, 2 birds, 192 fish
- Discussion
 - Q: cost to pet store to re-home? A: some stores doing this anyway,
 - Q: MISC's role? A: Subcommittee to explore opportunity to partner to expand concept of re-homing through Humane Society, Habitatitude
- Attachment A. for pdf of slides

Additions to the agenda

Membership Update

PLS PTI

Introductions

Jaime Amirault, MDA

Dick Bean, MDA

Carole Bergmann, MNCPPC

Rachel Cliche, USFWS

Eric Duce, SHA

Tom Elliott, USFS

Anne Hairston-Strang, MDNR

Ruth Hanessian, MAPI

Mike Hemming, Eastern Shore Nurseries, Inc.

Carol Holko, MDA

Larry Hurley, Behnke Nurseries

Marc Imlay, MAEPPC

Carol Jelich, MNPS

Sylvan Kaufman, Adkins Arboretum

Kerrie Kyde, MD DNR

Andy Lazur, Sea Grant

Fred Mann, USDA APHIS PPQ

Betty Marose, MCE

Bill Pruden, MDNR

AI Tasker, USDA APHIS PPQ

Interns:

Tommy Jones, Oklahoma City Univ. ,
Oklahoma City, OK

Shane Bombader, Texas A&M,
Galveston, TX

Brittany DeKnight, Furman Univ,
Greenville, SC

Sarah Tasker

John Peter Thompson, NISAC, MNLA

Julie Thompson, USFWS

Bob Tichenor, MDA

Bob Trumbule, MDA

Sarah Widman, MDNR

* indicates new attendee

Membership

Motion to accept Marc Imlay, Sarah Widman as voting members. Motion approved.

Approval of Minutes, April 2006 meeting

"Mark" Imlay should be "Marc"

Motion to approve minutes as corrected. Motion approved.

Updates:

MDA - R. Tichenor, C. Holko, D. Bean, B. Trumbule

- Gypsy moth - treated over 25K acres, northern tier of counties, some calls from Montgomery and Prince George's Counties; New Jersey has major defoliation
- Cankerworm outbreaks - in developed area of AA County; worse where gypsy moth is a problem; trees will recover
- Imported fire ant (IFA) - found in resort establishments in rootballs of tropical foliage (palms) from Florida nursery; palms were not treated for IFA according to federal quarantine requirements; MDA is surveying and eradicating all known positive sites
- Boxwood rust, *Puccinia buxi* - detected in Pennsylvania on boxwood cuttings from Greece collected in 2005; no positives in Maryland but material from same trip/accessions have been destroyed; commingled material on stop sale; questions about importation process, previous trips to E. Europe - federal investigation ongoing
- Hosta virus X, http://www.inthecountrygardenandgifts.com/articles/hosta_virus_x.php, and daylily rust incidents on the rise in nurseries
- Pine shoot beetle - Survey complete, no new sites, building up in western Maryland; next year will survey more along PA border; not a problem in well-managed plantations, but can be problematic in cut greens and ancillary products from minimally managed trees
- Emerald ash borer - has expanded to IL; MD will declare eradicated this fall if no positive sites this summer
- *Sirex noctilio* - PPQ is surveying ports; MDA has ~30 survey sites around state
- Karnal bunt - fungal pathogen on wheat; MD participating in national survey
- *Phytophthora ramorum* - surveying 22 nurseries in MD; one traceforward from Oregon to MD landscaper; cooperated with PPQ on National Survey at National Arboretum in D.C. - all samples negative; Kerrie/Tooley results on Eastern oak species is being published; MDA Plant Pathology lab is now provisionally approved for *P. ramorum* (testing negatives only) under the National Plant Pathology Laboratory Accreditation Program (NPPLAP)

DNR - K. Kyde

- Landowner Incentive Program - controlling invasive species on private land;
 - Purple Loosestrife Pulling Together Initiative (PLS PTI) activities
- Presentation: Purple Loosestrife in Maryland - Threat and Response, Bill Pruden
- <http://www.dnr.state.md.us/wildlife/PurpleLoosestrife/purplels.asp>
 - On-line submission form, training ppt and other materials available on Website

APHIS

AI Tasker

- Interim rule - listing of South African Ragwort and Madagascar Ragwort, comment @ <http://regulations.gov>, docket ID APHIS-2006-0019, document ID APHIS-2006-0019-0001, comment on or before August 21, 2006
- NPAG Reviews ongoing - handed out examples: *Cissus verticillata*, *Oenanthe javanica*, *Echium planagineum*, *Brachypodium sylvaticum*
- Weed rules and regulations summary - Attachment B.

Fred Mann

- Giant hogweed in D.C. on State Department property under eradication
- National Arboretum, D.C. - will survey pond water for *P. ramorum* in cooperation with MDA; imported boxwoods seized in boxwood rust importation incident
- Baltimore Biological Risk Assessment Committee (BBRAC) composed of CBP/PPQ/MDA - CBP has requested monthly report on pest detections of interest

Other news and updates

Sara Widman

- ANS regulations - received comments, putting into proposal form, public comment process within next few weeks; please comment to Sara, swidman@dnr.state.md.us, for

information go to <http://www.dnr.state.md.us/fisheries/>, scroll down page to "Potential Proposal To Address Specific Nonnative Species"

Q: Where definitions came from?

A: Date derived from first non-native American human settlements, prior to 1500 B.C.; 10 years changed to 50 years for "naturalized" because it may take time to detect (e.g. snakehead)

Q: Where will survey data for 1500 come from?

A: Will have data for any species proposed for listing,

Q: Does "transport" mean incidental or deliberate?

A: Incidental is not in the spirit of the regulation.

Anne Hairston-Strang - funding approved for control of Japanese hops; invasive weed control underway in Frederick City Watershed

Julie Thompson - Maryland and Virginia are moving ahead with Asian oysters; MARP meeting September 13, 14 in Annapolis - wants MISC engagement

Rachel Cliche - released @500 mile-a-minute predators on Garrett Island last week; IVM Partners to manage invasive plants on Eastern Neck; workshop in September; managing phragmites throughout complex

Mark Imlay - Mile-a-minute in Little Paint Branch; wants informal workshop on garlic mustard and Japanese stiltgrass - will send message out on listserv

Ruth Hanessian - concern about conflicting information, MDA Premise ID - next year anyone with 4 or more pet birds need to be listed - need to educate constructively

John Peter Thompson - ISAC White paper on definition of "invasive" is now public, contact John Peter for copy; MNCPPC, Prince George's County landscape manual recommends Callery pear and Japanese barberry - government needs to lead by example; new Marine Corps commandant has declared that there will be no invasive plants allowed on any Marine Corps base

Future meetings

BARC will host winter meeting w/tour of systematics program

Field trip - September 12? Green Pharmacy Garden, Fulton, MD, Jim Duke

August meeting TBA

~Adjourn 1:00 p.m.~

Respectfully submitted by: Carol Holko, Recording Secretary

Pet Re-Homing: a Proactive Partnership Response to Introductions of Northern Snakehead in Maryland

Andy Lazur, University of Maryland
and
Ruth Hanessian, Maryland Association of Pet Industries



Overview

- Background of snakehead introduction
- Press reaction
- Threats to the industry
- Industry/partner response
- Education efforts/impact
- Industry reflection

Invader profile

Species: *Channa argus argus*; 1 of 28 species
Common Name: Northern snakehead ; aka: “Frankenfish”, “Chinese thug-fish”, “X-files fish”, and “pit bull fish”
Maximum size: 33 inches and 13.5 pounds
Distribution: Asian – China, Korea, Thailand, Japan, and USA (introd.)
Environment: freshwater, tolerates 0-30°C; 14-22°C optimum
Reproduction: Dominant spawn in Spring, capable of 2-3X/yr.; 5-15,000 eggs/spawn
Population doubling: minimum 1.5-4.5 years
Feeding habits: juveniles - plankton, crustaceans, fish larvae; adults - fish, frogs, crustaceans, insects
Commercial Importance: Asian food fish

Press’s Reaction to Pond Introduction

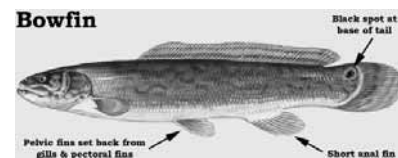


Early Notable Quotes

- “I would not swim in a pond with that fish”
- “It can crawl on land”
- “Its like a bad horror movie and it can eat any small animal in sight”
- “Back home we eat them, they’re delicious –why all the fuss”
- “We need to improve it not destroy it – think of what this could do for sport fishing. Think of how would one of those smug TV fishing pros would react to a fish that fights back – it time these fishermen had to play defense”



False Sightings and Positive Identification



Introduction Info




Location: Crofton, MD –
4 acre private pond near a shopping mall
(with a pet shop)

Introduction verification: July 2002

Known introduction date: Fall 2000

Source: 2 fish purchased at New York City live fish market

Survival and establishment: juveniles found in shall water -August 2002

Response to Crofton Pond Introduction

- Formation of Maryland Snakehead Advisory Committee
 - Assess population
 - Identify risk to native species
 - Investigate likelihood of spread- take containment action
 - Evaluate eradication options
 - Evaluate current legislation and draft recommendations
 - Proposed ban on all non-native fish imports
- Treat pond to eradicate fish
- USFWS Ban on snakehead importation
- Education efforts


Management Profile

Action Criteria	Low	High
Ability to prevent escape and establishment		
Ability to eradicate		
Ability to manage population		
Ability to control spread to new locations		
Ability to prevent and control spread of pathogens		
Ability to rehabilitate and recover ecosystems impacted by introduction *		

Other state responses to introductions extremely valuable

Proactive partnership poster campaign

Posted in petshops and fishing license centers







Re-Homing Impacts

- 653 animals re-homed in 2004-05
 - of which 201 estimated to be due to poster campaign
 - of the 201 animals: 1 African frog, 1 snake, 5 crabs, 2 birds and 192 fish
 - 38 fish species re-homed – 30 freshwater species: snakehead (3), oscars, pacu, eel, tetras, cichlids, goldfish and 8 marine species: clownfish, lionfish, triggerfish, grouper, puffers

Poster Program Evaluation

- 6 of 14 shops responding
- 5 of 6 shops re-homed animals
- 92% rating for benefit to association and industry
- 76% rating for ability to educate consumer on dangers of releases
- 92% rating for ability to gain attention of consumer
- 94% rating for poster function of highlighting re-homing program
- 3 of 6 shops suggested use of additional educational materials on dangers of releasing non-native species
- Other needed educational material:
 - Definitions of non-native/exotic species
 - Expanded emphasis on cruelty of releasing animals into environment



Educating the Key Source – DC are a Asian live food markets

Reflections on the Snakehead Introduction

- Need exists for quicker and more accurate information on species and threat: science-based information over internet reports
- Need for response protocols and improved action time
- Immediate stakeholder involvement essential in understanding issues, making sound recommendations and educating public
- Media attention and ban had impact on supply and environmental vandalism
- Involvement of recreational fishing community and resource agency leadership in fishing tournaments and education important
- Re-homing exotics a valuable proactive mechanism
- Pet industry committed to expanding “responsible pet ownership” education programming

Information Sources

MD Association of Pet Industries: www.mdapi.com

HabitatTude Partnership: www.habitattitude.net

MD DNR: www.dnr.state.md.us/fisheries

MD Sea Grant: www.mdsg.umd.edu

FEDERAL NOXIOUS WEED AND SEED LAWS (June 16, 2006)

Authority: 7 U.S.C. 7711-7714, 7718, 7731, 7751, and 7754; 7 CFR 2.22, 2.80, 301.80-301.80-10, 360, and 371.3. The Plant Protection Act (PPA) was signed into law in 2000. The Federal Noxious Weed Act of 1974 was superseded by the Plant Protection Act (except that sections 1 and 15 are incorporated in the PPA and renumbered). APHIS also administers import provisions of the Federal Seed Act – 7 U.S.C. 1551-1611; 7 CFR 2.22, 2.80, 361, and 371.3.

The Noxious Weed Control and Eradication Act of 2004. Public law 108-412.
(authorized, but currently no funds appropriated).

Purpose: To protect the health and value of American agriculture and natural resources.

Administrator: Animal and Plant Health Inspection Service, Plant Protection & Quarantine, Department of Agriculture.

Definitions:

Noxious Weed – any plant or plant product that can directly or indirectly injure or cause damage to crops (including nursery stock or plant products), livestock, poultry or other interests of agriculture, irrigation, navigation, the natural resources of the United States, the public health, or the environment. (Plant Protection Act) – State definitions vary (see summary of State laws/quarantines at <http://nationalplantboard.org/laws/index.html>).

Plant pest: means any living stage of any of the following that can directly or indirectly injure, cause damage to, or cause disease in any plant or plant product: a protozoan, nonhuman animal, parasitic plant, bacterium, fungus, virus or viroid, or an infectious agent or other pathogen, or any article similar to or allied with any of the articles specified in the PPA.

Noxious Weed Seeds - for foreign commerce, Seeds of the plants listed in 7 CFR 361.6 paragraph (a)(1) and (a)(2) regulated by APHIS; for interstate movement regulated by U.S.D.A. Agricultural Marketing Service – State definitions vary (see summary of State laws/quarantines at <http://nationalplantboard.org/laws/index.html>).

Integrated Management System – a system for the planning and implementation of a program, using an interdisciplinary approach, to select a method for containing or controlling an undesirable plant species or group of species using all available methods. For plant management, sometimes called Integrated Vegetation Management.

Quarantine pest – a pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled. (International Plant Protection Convention)

Regulatory authority: Authority under the PPA allows APHIS Plant Protection & Quarantine (PPQ) to require a permit for the importation, entry, exportation, or movement in interstate commerce of noxious weeds, and also extends to any plant, plant product, biological control organism, noxious weed, article, or means of conveyance, if PPQ has decided that restriction is necessary to prevent such introduction or interstate dissemination. A violation allows imposition of remedial measures upon any plant pest or noxious weed that is new to or not known to be widely prevalent or distributed within

and throughout the United States. APHIS PPQ may “hold, seize, quarantine, treat, apply other remedial measures to, destroy, or otherwise dispose of any plant, plant pest, noxious weed, biological control organism, plant product, article, or means of conveyance” found in violation of the movement permit requirement. Any progeny of a regulated organism moved in violation is also subject to remedial measures. If APHIS PPQ orders an owner to treat or destroy the commodity, the owner bears the cost. Violators may be subject to civil or criminal penalties.

States (and U.S. territories) maintain authority over Federally regulated taxa within their boundaries unless a Federal quarantine is established or a Federal violation is proven, in either case usually with state cooperation. State authority covers regulation of sales, movement, and seizing of regulated species within state boundaries in the absence of a Federal quarantine. APHIS has authority for inspection and warrantless searches in case of suspected Federal violations. State regulatory actions within state boundaries after detection of a listed Federal Noxious Weed are limited if the state does not specifically include within their state authority the taxa on the Federal Noxious Weed list (7 CFR 360.200). States are not required to regulate the Federally regulated species, although some states regulate some or all taxa from the Federal list.

How to list or delist noxious weeds: A petition or proposal to list or delist may come from outside APHIS. Details of the petitioning process are posted at <http://www.aphis.usda.gov/ppq/weeds/listingguide.pdf> and <http://www.aphis.usda.gov/ppq/weeds/delistingguide.pdf>. Providing requested information is voluntary on the part of the petitioner, but providing this information can speed up the review process, and help APHIS determine whether or not the specified plant species meets the criteria for regulation or deregulation.

There are five steps to listing an additional plant species;

1. Identify a weed that meets the definition of “quarantine pest”.
2. Prepare a risk assessment
3. Publish a proposed rule in the Federal Register
4. Analyze and respond to public comments
5. Publish a final rule in the Federal Register.

The six steps to delisting a plant species, replace step one above with identifying a Federal noxious weed that may no longer meet the definition of “quarantine pest”. The remaining steps vary from the listing process by adding an additional step “prepare an environmental assessment if warranted.” If needed, environmental assessment may be a time-consuming process.

NOTE:

To be eligible for listing, a species must meet the definition of noxious weed in the PPA, and the further PPA restriction of having been determined to be new to or not known to be widely prevalent or distributed within and throughout the United States.

If the following list of noxious weeds are not well known to you, it is because many of them are either not present (interdiction targets) or new to or not widely distributed in the US (mostly eradication targets).

State definitions of noxious weed vary (see summary of State laws/quarantines at <http://nationalplantboard.org/laws/index.html>).

Resources: Alan V. Tasker, 301-734-5708
APHIS – www.aphis.usda.gov

Terrestrial Weeds Only (Federally regulated aquatic plant and parasitic plant lists are on the APHIS PPQ weeds website <http://www.aphis.usda.gov/ppq/weeds/weedlist2006.pdf>):

<i>Ageratina adenophora</i> (crofton weed)	<i>Mikania cordata</i> (Mile-a-minute)
<i>Alternanthera sessilis</i> (Sessile joyweed)	<i>Mikania micrantha</i>
<i>Asphodelus fistulosus</i> (onionweed)	<i>Mimosa invisa</i> (Giant sensitive plant)
<i>Avena sterilis</i> (wild oat)	<i>Mimosa pigra</i> (Catclaw mimosa)
<i>Carthamus oxyacantha</i> (Wild safflower)	<i>Nassella trichotoma</i> (Serrated tussock)
<i>Chrysopogon aciculatus</i>	<i>Opuntia aurantiaca</i> (Jointed prickly pear)
<i>Commelina benghalensis</i> (Benghal dayflower)	<i>Oryza longistaminata</i> , <i>O. punctata</i> , <i>O. rufipogon</i> (Red rice)
<i>Crupina vulgaris</i> (Common crupina)	<i>Paspalum scrobiculatum</i> (Kodo-millet)
<i>Digitaria scalarum</i> (African couchgrass, fingergrass)	<i>Pennisetum spp.</i> including (Kyasumagrass, missiongrass, African feathergrass & Kikuyugrass)
<i>Digitaria velutina</i> (velvet fingergrass, annual conchgrass)	<i>Prosopis spp.</i> (25)
<i>Drymaria arenariodes</i> (Lightening weed)	<i>Rottboellia cochinchinensis</i>
<i>Emex australis</i> (Three-cornered jack)	<i>Rubus fruticosus</i> (Wild blackberry)
<i>Emex spinosa</i> (Devil's thorn)	<i>Rubus moluccanus</i> (Wild raspberry)
<i>Galega officinalis</i> (Goatsrue)	<i>Saccharum spontaneum</i> (Wild sugarcane)
<i>Heracleum mantegazzianum</i> (Giant hogweed)	<i>Salsola vermiculata</i> (Wormleaf salsola)
<i>Homeria spp.</i>	<i>Setaria pallide-fusca</i> (Cattail grass)
<i>Imperata brasiliensis</i> (Brazilian satintail)	<i>Solanum torvum</i> (Turkeyberry)
<i>Imperata cylindrical</i> (Cogongrass)	<i>Solanum viarum</i> (Tropical soda apple)
<i>Ischaemum rugosum</i> (Murainograss)	<i>Spermacoce alata</i>
<i>Leptochloa chinensis</i> (Asian sprangletop)	<i>Tridax procumbens</i> (Coat buttons)
<i>Lycium ferocissimum</i> (African boxthorn)	<i>Urochloa panicoides</i> (Liverseed grass)
<i>Melastoma malabathricum</i>	