GULF & SOUTH ATLANTIC REGIONAL PANEL
ON AQUATIC INVASIVE SPECIES
MINUTES
Tuesday, April 22 and Wednesday, April 23, 2008
San Antonio, Texas

Chairman Earl Chilton called the meeting to order at 9:00 am. The meeting began with introductions of the Panel members and guests. The following were in attendance:

Members

Diane Altsman, EPA/GMPO, Stennis Space Center, MS
James Ballard, GSMFC, Ocean Springs, MS
Harry Blanchet, LDWF, Baton Rouge, LA
Mike Brainard, MDMR, Biloxi, MS
Paul Carangelo, Port of Corpus Christi Authority, Corpus Christi, TX
Earl Chilton, TPWD, Austin, TX
Steven de Kozlowski, SCDNR, Columbia, SC
Pam Fuller, U.S. Geological Survey, Gainesville, FL
John Goolsby, USDA-ARS, Weslaco, TX
Lisa Gonzalez, Houston Advanced Research Center, The Woodlands, TX
Leslie Hartman, AL Marine Resources Division, Dauphin Island, AL
Dewayne Hollin, Texas Sea Grant, College Station, TX
Tom Jackson, NOAA-Fisheries, Miami, FL
Chuck Jacoby, University of Florida/Florida Sea Grant, Gainesville, FL
David Knott, SCDNR, Charleston, SC
Jim Long, National Park Service, Atlanta, GA
Ron Lukens, At-Large Member, High Springs, FL
James Morris, NOAA, Beaufort, NC
Doug Nemeth, US Navy, Jacksonville, FL
Marilyn Barrett O'Leary, At-Large Member, Baton Rouge, LA
Harriet Perry, GCRL, Ocean Springs, MS
Bob Pitman, USFWS, Albuquerque, NM
George Ramseur, Land Trust for the MS Coastal Plain, Ocean Springs, MS
Steve Rider, AL Division of Wildlife and Freshwater Fisheries, Montgomery, AL
Dennis Riecke, MDWFP, Jackson, MS
Lance Robinson, TPWD, Dickinson, TX
Don Schmitz, FDEP, Tallahassee, FL
John Teem, FL Dept. of Agriculture and Consumer Services, Tallahassee, FL
Jay Troxel, USFWS, Atlanta, GA
Keith Weaver, GDNR, Social Circle, GA

Staff

Nancy K. Marcellus, GSMFC, Ocean Springs, MS

Others
Denise Gregoire, US Geological Survey, Gainesville, FL
Jacqueline N. Langston, US Geological Survey, Gainesville, FL
Julie Nachtrieb, USACE LAERF, Lewisville, TX
Pamela J. Schofield, US Geological Survey, Gainesville, FL

Public Comment

Chilton provided the opportunity for public comment. No public comments were received.

Review and Adoption of Agenda

Steve de Kozlowski made a motion to adopt the agenda as presented. Ron Lukens seconded the motion and the agenda was adopted.

Review and Approval of Minutes

Paul Carangelo made a motion to approve the minutes from the October 30 - November 1, 2007 meeting held in Miami, Florida. Ron Lukens seconded the motion and the minutes were approved.

Current Research Efforts for Control of Hydrilla (*Hydrilla verticillata*)

Don Schmitz reported on the FDEP Research Funding Program for Invasive Plants.

DEP Research Funding Program Facts:

1970 - 2008	$17,604,352
Funded	178 projects

1970-2008 Research Projects

• Aquatic plants	$11,479,492
• Upland plants	$4,501,890
• Both	$1,622,670

DEP Funding History fo Invasive Plant Management Research in Florida:

1970s The "Golden Age", physiology, ecology, herbicides, grass carp, mechanical harvesting, biocontrol
$4.0 million (55)

1980s	Fluridone research, defining use of new and existing management tools, biocontrol $1.9 million (13)
1990s	Wetland and upland plant species, biocontrol $2.8 million (31)
2000s	Hydrilla and Old World climbing fern, new herbicides, biocontrol $8.9 million (79)

A new newsletter summarizing DEP funded research in clear and concise language targeting resource managers in the aquatic and upland plant areas is planned for the Fall of 2008.

Need for a National Center for Invasive Species

Don Schmitz discussed the need for a National Center for Biological Invasions. He described the fragmented and piecemeal response by government agencies to biological invasions in the United States, some useful national models that help coordinate multi-jurisdictional responses, and how a national center could enhance existing federal, tribal, state and local programs.

Our nation is at great risk for new invasions because of present national policies that regulate the importation of non-native species arriving at our ports:

- By not requiring that all imported non-native species be pre-screened for their potential invasiveness.
- By making it difficult and time consuming to add new invasive species to existing federal prohibited lists because of industry pressure and a lack of a sense of urgency about the economic and environmental harm these invaders cause.
- Because no one agency is responsible for compiling detailed economical and statistical information about invasive species across the nation.

Specific Federal Initiatives:

- National Invasive Species Council (NISC)
- Aquatic Nuisance Species (ANS) Task Force
- Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW)
- Midwest Natural Resources Group (MNRG)
- National Plant Diagnostic Network (NPDN)
- 100th Meridian Initiative
- Plant Conservation Alliance
- TAME Melaleuca

There are 176 federal agencies/institutions with entities that have authority, and/or have divisions or programs pertaining to non-native and invasive species.

In 2007 there were 20 proposed Congressional Bills that deal with invasive species.

Online databases that contain information about invasive species:

143 - U.S. information systems on invasive species (identification, digital images, maps, references, management and control information).

4 - U.S. based general flora databases that contain information on invasive plants.

When including global information systems, there are approximately a total of 252.

Benefits of a National Center for Biological Invasions:
- No one agency's agenda dominates
- When asked, the National Center provides a service to federal, tribal, state, and local governments to help improve prevention, eradication, research, and management activities.
- Staff eats, breathes, and sleeps for enhancement between federal, tribal, state, and local government programs.

A National Center enhances existing federal and state programs by:
- Helping to coordinate surveillance activities (between states and feds).
- Tracking invasive species range expansions owing to global climate change.
- Helping to coordinate early detection and rapid response efforts.
- Maintaining a taxonomic expertise database for the purpose of assisting state agencies in the identification of non-native species.
- Developing national standards and guidelines.
- Coordinating U.S. policy with other countries with regard to trade.
- Tracking invasive species expenditures.
- Producing economic impact studies along with risk analyses.
- Being a national repository of accurate invasive species information.

How could a National Center help local and regional efforts?
- Avoid duplication of efforts by tracking management and research efforts.
- Help increase funding for control and prevention (economics, risk analyses).
- Better coordination for current prevention activities.
- Help target those species that lack an affected constituency.
- Provide useful management models.
- Work with importers and plant and pet industries.
- Provide and Emergency Contingency funding source, or grants to federal and state agency eradication 1st year efforts on public conservation lands and waterways.

Schmitz agreed to put together a paper on this topic and send out to the other Panels for their review and comments. Schmitz would then present this again at a future Task Force meeting.

Politics Involved with Utilizing Herbicidal and Biological Controls

Earl Chilton provided a PowerPoint presentation entitled "Politic Involved with Utilizing Herbicides and Biological Controls". Chilton discussed the competition between competing interest groups or individuals for power and leadership.

Salt Cedar and Russian Olive Control Demonstration Act (SCROCDA)

- Public Law 109-320 on October 11, 2006
- Administered by the Secretary of the Interior through the Bureau of Reclamation and the USGS - in cooperation with the Secretary's of Agriculture and Defense
- $20 million for fiscal year 20066 and $15 million for each of fiscal years 2007 through 2010 - 75% maximum cost share for NON-Federal lands
- Senator Domenici (NM) - Chaired Energy and Water Development Appropriations Subcommittee and Committee on Energy and Natural Resources.

The Texas Invasive Species Coordinating Committee was formed to facilitate information exchange and to help acquire federal funds.

Louisiana State Report: Update on Transport of MARAD Vessels to Louisiana

Harry Blanchet reported on actions taken since the last meeting:

- In July, 2007, LAIS Council and Task Force received presentations on issues regarding the MARAD fleet of obsolete government vessel.
- Subcommittee organized to develop recommendations for action.
- LDWF used input from subcommittee and LDEQ, drafted and sent letter on August 17 to MARAD outlining "interim plan".
- Intent was to allow Louisiana facilities to participate in ship dismantling program without creating undue risks to Louisiana ecosystems.
- Would allow transport of ships from Beaumont fleet only, under specified conditions.

Louisiana Interim Plan for MARAD Vessels:

- Intended to be used to limit potential for introducing AIS until more complete assessment of biota and issues could be developed and reviewed.
- Only pertains to Beaumont (Texas) fleet - James River (Virginia) and Suisan Bay (California) fleets not accepted at this time.
- 5 Point Plan
  - Survey ship before transport to Louisiana waters
  - If non-native species on hull, document information on species, including potential to impact Louisiana ecosystems.

- If non-native species with potential to impact Louisiana ecosystems, implement mitigation measures.
- Clean all external surfaces of fouling growth.
- Internal areas that may hold water and organisms, including ballast tanks and bilges must be treated to minimize transport of those organisms to Louisiana waters.

Results:
- MARAD had solicited bids on 4 Beaumont fleet vessels on July 23.
- Louisiana sent letter to MARAD on August 17.
- Louisiana contractor bid on vessels from Beaumont, Texas fleet was not allowed by MARAD in bid opening of August 30.
- Louisiana contractor agreed to abide by Louisiana "interim plan", but MARAD said those conditions not acceptable since Louisiana has imposed unacceptable conditions, but other bidders were eligible.
- Louisiana contractor appealed MARAD decision.
- Legal and administrative procedures still ongoing for results of August 30 bid opening.

Additional Actions:
- MARAD began development of plans to sample Beaumont fleet, beginning in September 2007.
- Seasonal sampling for 1 year, with final report in about 18 months from beginning of project.

New Bid Solicitation by MARAD:
- On November 19, MARAD solicited bids on 3 ships.
- Louisiana ship dismantler provided plan to meet criteria of Louisiana "interim plan", including sampling and evaluation of fouling organisms.

Further Actions:
- Louisiana ship dismantler located biologist and dive crews to assess benthic biota on a ship from the Beaumont fleet.
- LDWF reviewed sampling protocols to ensure consistency with prior studies on MARAD fleet from James River, Virginia and Suisan Bay, California.
- Beaumont sampling occurred in December.
- Draft report provided to LDWF in mid-February.
- Draft report reviewed by DWF staff, based on comparison to criteria of Louisiana "interim plan".
- Corrections and modifications to report through end of February.

Results of Biological Sampling:
- Low numbers of species found in samples.
- Platyhelminthes and Nemerta not identified below major taxa.
- Species accumulation curves indicate that more species would be found with additional sampling (this is consistent with findings from other fleet sites).

- Most species found were either native to region, or have been established and recorded in Louisiana for some time.
- One species identified which could have been new to region - final identification provided to LDWF last week.

Texas State Report: Update on Transport of MARAD Vessels

Lance Robinson reported on Post-Voyage Analysis of Hull Biofouling on the Vessels *Point Loma* and *Florence* after Transit from California to Texas.

- Pre- vs. post transit photographic survey - most striking observation was reduction of bryozoan mat (2-5 cm during pre-transit survey)
- 23 distinct species recorded during post-transit survey (5 not encountered in post-transit survey).
- 51 distinct species recorded during post-transit survey. Live specimens observed for at least 25 or the 51 species.
- 2 barnacles (*Balanus amphitrite* and *Lepas pacifica*) recorded from post-transit survey only.
- Of species found in Texas but not Suisan Bay, many were rare (< 5% of samples); may not have been detected in pre-transit surveys or attached during transit.
- Of the species recorded on the hulls in Texas, at least 8 were non-native to the western Gulf of Mexico. Two of these are known to be already established, however introduction of different genotypes may cause shifts in ecological characteristics and community dynamics.

Current Status - 2008

"Vessels from Beaumont fleet may be relocated to scrapping facilities in Brownsville without scamping. This decision is based on the best available information and the lower potential risk of invasive issues between these two Texas ports. This determination could change with new information or if concerns are raised by either Louisiana or Mexico because of their proximity to the Texas ports in question."

"Vessels from Suisan Bay, California and James River, Virginia fleets may be brought into state waters provided they are scamped before coming into the Gulf of Mexico. It is also advised that any vessel originating from the Pacific should be scamped before entering the Caribbean via the Panama Canal."

The Invasive and Nonindigenous Fauna of Coastal South Carolina

David Knott discussed the production of the brochure: The Asian Green Mussel - Unwelcome Addition to Fouling Communities of South Carolina. A grant of $1,000 was received from the GSMFC to produce 2,500 brochures. 2,250 have been distributed at a variety of venues.

Objective of the South Carolina Aquatic Invasive Species Management Plan:

- Educate public and private stakeholders about impacts and how they can help.
- Identify and implement needed research.
- Monitor occurrence and spread of AIS.

Non-Native Pet Amnesty Day - February 23, 2008

Scott Hardin reported on the Non-Native Pet Amnesty Day which was created to prevent illegal introductions, increase awareness, and promote adoption network.

Attendance: 400-500
148 Surrenders - 21 Post Event

"Day-Of" Cost:
Exhibitors: $800
Tents, Tables, Chairs: $1,420
Supplies: $150
Signs, Banners: $220
Food: $290
Volunteer Gifts: $400
TOTAL: $3,280

Staff Commitment:
FWC - 84 Days
Cooperators - 68 Days

Media Value:
Audience: 28.6 million
Publicity Value: $1,280,500

Next? A Mobile Unit for Local Sponsors.

Risk Analysis of Ornamental Trade

Scott Hardin presented a PowerPoint presentation entitled "Pathway Risk Analysis for Exotic Marine and Estuarine Species in Florida's Pet Trade". To determine conservation threats from the release of invasive animals, they initiated a project to conduct a risk assessment on all commercially available exotic marine or estuarine animals in Florida's pet trade.

Funds were provided by the Florida Fish and Wildlife Conservation Commission, Florida's Wildlife Legacy Initiative, and the U.S. Fish and Wildlife Service's State Wildlife Grants Program (T-11(R)).

The process included:

- Literature Review
  - 20 books
  - 14 journal articles
  - 13 websites
  - 12 government/university reports
  - 5 online databases

- Knowledgeable Stakeholders
  - state (4) or federal agencies (1)
  - national or state universities (2)
  - commercial aquaculturists (2)
  - marine ornamental fish importers (3)
  - wholesale and retail businesses (5)
  - marine hobby aquarists (1)

- Workshops
  - Methodology
  - Pathway description

What did they learn?
- Trade data is out-of-date and deficient
- Socio-economic data anecdotal
- Species occurrence data is deficient
- Ecological effects uncertain
- Focus is on fish

Future -
- High level of trade participation
- Focus on public education

For more information on this project: FloridaAquaculture.com/pub.htm
or Paul Zajicek zajicep@doacs.state.fl.us.

Use of *Hydrellia* Flies as Biocontrol Agents for Management of Hydrilla

Julie Nachtrieb
U.S. Army Engineer Research and Development Center (ERDC), Environmental Laboratory, Lewisville, Texas

Mass-rearing
- Began in 2000
- Cost
  - Laboratory & Greenhouse $0.50/fly

  - Pond rearing (mass rearing) $0.0018/fly
- From 2000 - 2007
  - > 28 million released
  - 6 states - Texas, Florida, North Carolina, Virginia, Georgia, Arkansas
- High establishment success
  - Present in 78% of sites in years following initial release

Conclusions
- Flies suppress hydrilla by causing reductions in
  - Ability to photosynthesize
  - Biomass
  - Tuber numbers
  - Turion numbers
  - Fragment establishment
- Success at field releases
  - Reductions in surface coverage
  - Weakened competitive ability

Current Research
- Competition & Biocontrol
  - Large ponds with native plant preemption
  - Field Sites
- Overwintering behavior of flies
- Biocontrol Agent Mass-rearing
  - Salvinia weevil *Cyrtobagous salviniae*
  - Waterlettuce weevil *Neohydronomus affinis*

Overview of 2005-2009 Strategic Plan for Work Groups

James Ballard led a section by section review of the strategic plan:

Early Detection/Rapid Response
1. Completed yearly
2. Have the start of the plan but needs to be revisited.
   The plan needs to have info from NC, SC & GA added. Ron received info from SC before he left but not the others.
   It is mostly background on how states have dealt with problems; it needs to be more of a step by step procedure for carrying out a Rapid Response.
   Incorporate ICS?
3. Not completed.
   Look at Pam's website as a model.
4. Have done a lot of this, but it needs to be revisited.
5. Completed

6. Not completed
7. Not completed

Research/Development

1. Completed yearly
2. Completed yearly
3. Completed yearly
4. Not completed
   Would be a good thing for the work group to do at this time
   Develop a funding document for the ANSTF (b/c there are funding source gaps).
   The NISC website would be a good starting point. They have a list of funding sources.
5. Not completed
   Harriet is working on this
6. Completed
7. Not completed
   It is up to the work group to see if there is any use in still updating this document
   Just needs to be looked at in detail
   The original document is available on the GSARP and EPA websites

Education/Outreach

1. Completed yearly
2. Completed yearly
3. Completed yearly
4. Completed some
5. Completed some
   Have looked into this with Sea Grant, however, more could be done
6. Not completed
   This is a follow up to #5. At this time not organized enough to contact agencies and suggest what they should do.
7. Not completed
   There is a new National Plan available that can be looked at.
8. Completed some but not a targeted effort
   We can start adding the panel's materials to the WRP database to help keep track of what we have done (or set up a database at GSMFC?)
   Need to have more consistency in our outreach materials throughout out region
   Look into "Wonders of Wildlife" program to get our outreach materials and information incorporated into schools curriculum
9. Add new task: Develop educational materials addressing the human health risks involved with the Rat Lung Worm in the Channeled Apple Snail in New Orleans

Pathways/Prevention

1. Completed yearly
2. Completed some

3. Remove from tasks, this is being completed by other organizations
   Use the section in LA state plan dealing with vessel pathways as a model?
4. Not completed
5. Not completed
   Nicole is gathering this information. When Ron left, she was still waiting on states to send in their lists
6. Not completed
   The group needs to determine if there is still a concern about shrimp virus in the GOM and if there should be a more thorough study performed on this issue.
7. Remove from tasks, this is being completed by other organizations
8. Add new task: Look at possible pathways and ways to prevent VHS in our region
9. Add new task: Review the pathways document that Pam is finalizing.

Information/Management
1. Completed yearly
2. Need to update
3. Need to update
4. Need to update
5. Not completed
   Nicole is gathering this information. When Ron left, she was still waiting on states to send in their lists
6. Not completed
   Can use A&M Corpus Christi's Heart Research Institutes database of researchers as a model or a section in it for AIS researchers
   Under R/D this task has been completed?

Eradication/Control/Restoration
* This work group has never met; therefore, none of the tasks have been completed.

This activity will be discussed that the next Panel meeting.

Expert Database Demonstration

As requested at the last meeting, Pam Fuller provided a demonstration on the expert's database.

Applesnails and Other Exotic Mollusks: Status in Texas and the Gulf Coast

Robert G. Howells
BioStudies, Kerrville, Texas

Exotic Mollusks in Texas:
- Cheatum collected applesnails (*Pomacea*) of at least two species in Texas waters early in the 20th century.

- By the 1950s and 60s, an array of aquatic and terrestrial gastropods began to appear in Texas, as did Asian clam.
- More recently, populations of *Pomacea insularum* have been documented at numerous sites, *Perna perna* invaded, and a report of giant African snail (*Achatina* sp.) remains unconfirmed in the Houston area.

Applesnails - Genus *Pomacea*

In the 1950s, heat tolerant *Pomacea* began to replace heat and low DO intolerant *Cipangopaludina* (*Bellamya-Vviparus*) in the aquarium trade. Note: the name mysterysnail (from viviparids) was retained for *Pomacea* in the aquarium industry.

Ultimately, native Florida applesnail and several channeled applesnails were rejected due to damage to aquarium plants and spiketop applesnail became the primary gastropod in aquarium culture (periphyton feeder).

Channeled species (3) and spiketop applesnails were released or escaped captivity and Florida applesnail was introduced outside its native range.

Genetic studies (2005-present) helped clarify the species involved in U.S. waters and around the world.

Florida Applesnail - *Pomacea paludosa* - Texas

Reported by Fullington (1978) based on collections earlier in the century.

Neck (1984a, 1986) confirmed the identifications.

No evidence of existing populations in the past. Were these shells aquarium introductions?

No evidence of this species in Texas since.

Florida Applesnail - *Pomacea paludosa* - U.S.

In addition to native populations in the Florida peninsula, Florida applesnail is present at sites in the Florida panhandle, Georgia, and Alabama.

Spiketop Applesnail *Pomacea diffusa* (*bridgesii*) - Texas

Genetic studies by Rawlings, Hayes, Cowie, and Collins in Florida and Hawaii (2007) confirmed the species involved in the U.S. was *P. diffusa* and not *P. bridgesii* as long believed.

Two recently-dead specimens were found in the Brazos River, Waco, Texas, in January 2004 during a cold, low-water period (Howells et al. 2007).

Not known to be established in Texas.

Spiketop Applesnail *Pomacea diffusa* (*bridgesii*) - U.S.

First reported in Florida (as *P. bridgesii*) in Florida in 1966 (Clench 1966), but may have been present since the 1950s and other populations found in subsequent years (Thompson 1984; Strange 1998).

An introduction in Mobile, Alabama, has not been examined since Hurricane Katrina and current status is unknown there.

Apparently not sufficiently cold tolerant to allow wide-scale establishment.

Insularum (Island) Applesnail *Pomacea insularum* & Others With Channeled Shells - Texas

Applesnails with channeled shells that have not been examined genetically have been reported (historically - present) at scattered sites in Texas, but none "currently" support populations.

P. insularum (originally called *P. canaliculata* or *P. canaliculata*-complex) currently occurs in six Texas counties and has been expanding its range for at least 10 years.

Giant Rams-Horn Snail - *Marisa cornuarietis* - Texas

First observed in Texas in the headwaters of the San Marcos River in 1981; then reported in 1983 (Neck 1984b; Horne et al. 1992).

Found in the headwaters of the Comal River in 1984 (Horne et al. 1992).

Found in the headwaters of the San Antonio River in 2000 (Howells 2001).

Reported present in the San Marcos and Comal rivers, but not in the San Antonio (Karatayev and Burlakova 2007).

Giant Rams-Horn Snail - *Marisa cornuarietis* - U.S.

First reported in southern Florida in 1957 (Hunt 1958); now established.

Reported at two sites in Texas 1980s and at a third in 2000; established in the headwaters of the San Marcos and Comal rivers, but apparently no longer in the San Antonio River headwaters.

Reported in a heated spring in Idaho in 1992 (Frest and Bowler 1992); current status uncertain.

Listed by California Department of Fish and Game (2003), but without details.

Chinese Mysterysnail - *Cipangopaludina chinensis* - Texas

Early reports in Texas from Waco (two sites) and Kidd Spring, Dallas (Clench and Fuller 1965; Dundee 1974; Fullington 1978).

Another population found in Bachman Lake, Dallas, and a shell in Lake Sweetwater, Nolan County (Howells 2001).

Bachman L. population apparently lost by 2000-2001 (Howells 2001); none reported alive by Karatayev and Burlakova (2007).

Kidd Spring population still present (Karatayev and Burlakova 2007).

Status in Waco undetermined, but none reported in recent years.

Other undocumented records likely.

Red-Rim Melania - *Melanoides tuberculatus* - Texas

First found in Texas in the headwaters of the San Antonio and Comal river in 1963 (Murray 1964), but may have invaded earlier.

Additional waters invaded since (summaries in Howells 2001; Karatayev and Burlakova 2007).

Present at most invaded sites in 2007 (Karatayev and Burlakova 2007), including Diamond-Y Spring (J. Karges, TNC, March 2008; pers. comm.).

Taxonomic status of an odd morph in Salado Creek, Bexar Co. remains unclear.

Quilted Melania - *Tarebia granifera* - Texas

Introduced upper San Antonio and Comal rivers in 1963-64 (Murray 1971); possibly much earlier (Murray and Wopschall 1965).

Found in the upper San Marcos River 1977-78 (Lindholm and Huffman 1979).

No additional populations found in Texas since (Howells 2001; Karatayev and Burlakova 2007).

Still present at all three original introduction sites (Karatayev and Burlakova 2007).

Aplexa Snails - *Stenophysa* spp. - Texas

Tawny and Marbled aplexa were reported by Te (1978) as collected in Texas, but without details (Burch 1989; Howells 2001 and others).

Tawny aplexa specimens taken in 1949 in Cameron and San Jacinto counties are listed among the Florida State Museum collection.

Marbled aplexa is not currently listed by FSM.

Neither species has been found in Texas since despite collection efforts in these areas.

Asian Clam - *Corbicula fluminea* - Texas

First reported in Texas near El Paso in 1964 (Murray 1966); but with specimens in the Houston Museum of Natural Sciences taken there several months earlier and another from the Neches River in 1958 (Howells et al. 2004).

Texas distribution summarized by Karatayev et al. (2005). But, since then, one report from Chambers County was found to actually refer to Harris County.

Dreissenid Mussels - Native and Exotic - Texas

Zebra mussel has been found on boats brought to Texas on three occasions: Once at L. Grapevine (1999) and twice at L. Texoma (2006-07). All were detected before launch; none are known from Texas waters.

Reports of quagga mussel in Texas are based on native dark falsemussels.

Dark falsemussel has caused alarm at several sites in lower drainage basins around the state and at Lake Texoma.

Mytilid Mussels - Marine and Freshwater - Texas

Brown mussel was found in Texas waters in 1990 and spread from the central coast south (Hicks and Tunnell 1994).

Green mussel has become established in Florida and is likely to expand its range westward.

Asian lake mussel (also golden mussel) has invaded South America and may well appear in Texas in the future.

Exotic Land Snails

A variety of terrestrial Old World gastropods are well established in Texas including Asian tramp snail, several helicids, and several slugs. All are agricultural and horticultural pests.

Mediterranean decollate snail is particularly problematic because it is sold to control garden snails and slugs. However, it also consumes native gastropods and garden plants themselves.

Results of Rat Lung Worm Study

John Teem presented a PowerPoint presentation entitled "Human Health Risks Associated with Channeled Apple Snails in the GSARP Region".

The predominant channeled apple snail in the GSARP region is *Pomacea insularum*.
Angiostrongylus cantonesis - the life cycle of *A. cantonesis* requires infection of a rat host in addition to a snail host.

Assessing the health risks associated with channeled apple snails in the GSARP region:
- Collect apple snails from New Orleans and Miami, send samples to the CDC in Atlanta to assay for the presence of the rat lung worm using DNA-based detection assays (PCR).
- Develop an in-house capacity to detect the rat lung worm using PCR. Test channeled apple snails from a third location (to be determined).
- Develop a mathematical model to predict the spread of channeled apple snails.

Conclusions:
- Snails were collected at sits in Miami and New Orleans and samples sent to the CDC in Atlanta for DNA analysis.
- No snails from New Miami Zoo were found to be positive for parasite.
- 5 snails from New Orleans were found to be positive for parasite.

What Next?
- Survey additional *P. insularum* snails from Miami, Tallahassee, and Texas.
- Complete invasion modeling software using Florida as a template spatial domain.
- Information transfer (publication and education).

Brown Treesnake Prevention Strategies on the Receiving End of Pathways to CONUS

S.S. Wisniewsik, S. W. Henke, and B. Pitman
Texas A&M University-Kingsville and the U.S. Fish and Wildlife Service

The brown tree snake (*Boiga irregularis*) is an invasive species which has caused economical, ecological and human health issues on Guam. Brown tree snakes have been found in CONUS: Corpus Christi, Texas and McAlester, Oklahoma. The U.S. is at risk for BTS establishment.

North American Brown Tree Snake Control Team (NABTSCT):

- Compliment group of Aquatic Nuisance Species Task Force
- Formed to inspire and facilitate communication, cooperation, and understanding within and between agencies and organizations and to provide coordination of efforts between agencies concerning brown tree snake issues.

Mission - "To prevent the invasion of brown tree snakes into continental North America through education and awareness and through rapid response assessments of potential sightings via a partnership of stakeholders."

What Does NABTSCT Do?

- Maintains a coordinating website
- Develops educational material that can be downloaded from website
- Conducts rapid response to investigate potential brown tree snake sightings
- Represents NABTSCT at scientific meetings
- Provide a forum to share information between agencies, cooperators, and organizations.

Website: www.nabtsct.net

- Re-vamp to make more accessible and intuitive for the public
- Addition of the interactive snake ID system
- Addition of maps to define military bases and port authorities.

Stop Aquatic Hitchhikers Brochure (Revision)

Dennis Riecke distributed a spreadsheet containing the brochure revision data. Some information is still needed from the states. The remaining details on the brochure revision will be handled by email.

Nutria Distribution and Status in the United States. Information for the ANSTF Nutria Management Plan

Denise R. Gregoire
U.S. Geological Survey, Gainesville, Florida

Nutria in the NAS Database
- 373 records from over 70 references
- Records from 1899 to 2007
- Records from 27 states.

States where nutria are established: Alabama, Arkansas, Florida, Georgia, Idaho, Louisiana, Maryland, Mississippi, North Carolina, Oregon, Texas, Tennessee, Virginia, and Washington.

States where nutria were introduced but failed to establish: California, Iowa, Indiana, Kansas, Michigan, Minnesota, Montana, Nebraska, Nevada, and Ohio.

States with unknown status and/or limited data in the database: Delaware, Missouri, New Mexico, New Jersey, Pennsylvania, and Oklahoma.

Nonindigenous Aquatic Species Database: http://nas.er.usgs.gov.

MRBP Concerns with Proposed Trophy Carp Regulations

James Ballard discussed an email he had received regarding carp control in Lady Bird Lake. It was noted that the Panel does not have the authority to send a recommendation to the State of Texas. The topic can be discussed and if the Panel has any recommendations they can be forwarded to the Task Force. Earl Chilton indicated that he had responded to their email.

Ron Lukens made the motion to authorize James Ballard to respond that the Panel discussed the issue with TPWD at this meeting and have no action to recommend. The motion was seconded and passed.

Other Business

James Morris made the motion to accept the request of membership for Trish Murphey from the North Carolina Department of Natural Resources as a Panel member. Ron Lukens seconded the motion. Without objection the motion passed.

Lukens indicated that the Panel logo would need to be changed to include the State of North Carolina. He added that he would speak to Don Schmitz to see if his graphics department could make those changes.

The Panel discussed key points to address at the upcoming ANSTF Meeting:

- Current status of marine ornamentals project
- Progress of brown tree snake control team
- Progress of rat lung worm study
- Concept of a National Center and make a recommendation that the joint panels discuss the possibility of establishing a center for invasive species
- Progress of states on management plans
- Accepted North Carolina as a Panel member
- Giant salvinia in Texas and Louisiana
- Movement of obsolete Navy ships and MARAD issues.

The next meeting will be held in Savannah, Georgia the week of November 17, 2008.

Public Comment

Chilton provided the opportunity for public comment. No public comments were received.

There being no further business the meeting adjourned at 5:03 pm.