The Florida Senate

COMMITTEE MEETING EXPANDED AGENDA

AGRICULTURE Senator Montford, Chair Senator Dean, Vice Chair

MEETING DATE: Tuesday, October 20, 2015

TIME: 9:00—11:00 a.m.

PLACE: 301 Senate Office Building

MEMBERS: Senator Montford, Chair; Senator Dean, Vice Chair; Senators Bullard, Galvano, Garcia, Grimsley,

and Sobel

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1	Presentation on Animal Pest and Disease Prevention and Response by Dr. Mike Short, State Veterinarian and Director of the Division of Animal Industry		Presented
2	Update on Oriental Fruit Fly Eradication Efforts by Dr. Trevor Smith, Director of the Division of Plant Industry		Presented
3	Presentation on Marketing Lionfish for Co	onsumption	Presented
4	Update on Deepwater Horizon Oil Spill by Protection	/ Mimi Drew, Department of Environmental	Presented
	Other Related Meeting Documents		

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/20/15 (Deliver BOTT	r copies of this form to the Senator t	or Seriale Professional S	itan conducting the meeting)		
Meeting Date			Bill Number (if applicable)		
Topic Animal Pest and Disce		Response	Amendment Barcode (if applicable)		
Name Dr. Mike S	hort		_		
Job Title Director, An	imal Industry				
Address 400 S. Moni	roeSt.		Phone (850) (017-7700		
Street / al/ahcssel	FL	32399	Email Fovor Suith C		
Speaking: For Against	State Information	<i>Zip</i> Waive Sړ	fresh from Florida , com peaking: ☐ In Support ☐ Against		
Representing Flarica	· Department of		ir will read this information into the record.) "and Consumy Services"		
Appearing at request of Chair: Yes No Lobbyist registered with Legislature: Yes No					
While it is a Senate tradition to encour meeting. Those who do speak may be	rage public testimony, time asked to limit their remark	may not permit all s so that as many	persons wishing to speak to be heard at this persons as possible can be heard.		
This form is part of the public recor	d for this meeting.		S-001 (10/14/14)		





Oriental Fruit Fly Eradication Program Miami-Dade County

Senate Agriculture Committee

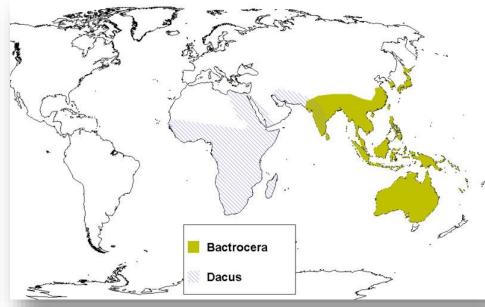
Sen. Bill Montford, Chair October 20, 2015

Trevor Smith, Ph.D. Director, Division of Plant Industry

Oriental Fruit Fly

- Native to southeast Asia
- Introduced into Hawaii 1945
- First found in California in 1960 - detected in California every year since 1966
- First found in Florida in 1964 - appearances in 13 different years







What We Do to Prevent Fruit Fly Establishment

FDACS partners with USDA on:

Statewide trapping program

Monitor 56,000 fruit fly traps statewide checked every 2 to 3 weeks

Sterile Fruit Fly Release Program

Sterile Mediterranean fruit flies released on Florida's gold coast - Miami-Dade into Palm Beach County and in the Tampa Bay area:

82 million sterile flies released per week

37 billion released since program





What We Do When We Find Them



Exotic fruit fly eradication programs run by USDA, FDACS and CDFA are some of the most scientifically rigorous regulatory programs conducted to protect agriculture

Programs are based on the reproductive, dispersal or host-searching-behaviors of the flies

<u>Hundreds of years of research;</u> 90 years in Florida alone

Florida must hold itself to the <u>same standard</u> to which <u>we hold our trading partners</u>; we would never accept host materials from other states or countries if circumstances were reversed

Every host on <u>host list has published literature</u> demonstrating that it has been found to be a host of OFF in the field

Delimiting Survey/Intensive Trapping One fly found

Eradication Program Triggers

Two flies within a 3.5 mile radius and within a time period equal to one life cycle; or

One mated female; or

Larvae or pupae



OFF Previous Florida Detections

- 1964: Pinellas 1 fly
 2-month trapping
 1969: Miami 1 fly \$25K
 2-month trapping
- 1994: Broward 1 fly -\$100k
 3-month trapping
- 1995: Pinellas 3 flies \$530k
 3-month eradication program
- 1999: Hillsborough 16 flies \$100k
 3-month eradication program
- 1999: Volusia 1 fly
 3-month trapping
- 1999: Brevard 2 flies
 3-month trapping
- 2000: Manatee 1 fly
 3-month trapping
- 2001: Orange 1 fly
 3-month trapping

- 2001: Sarasota 2 flies \$100K
 3-month eradication program
- 2002: Orange 2 flies
 3-month trapping
- 2002: Broward 1 fly
 3-month trapping
- 2007: Hillsborough 1 fly
 3-month trapping
- 2007: Orange 1 fly
 3-month trapping
- 2007: Orange 1 fly
 3-month trapping
- 2008: Orange 2 flies
 3-month trapping
- 2010: Pinellas 2 flies
 3-month trapping
- 2014: Broward 1 fly
 3-month trapping



2015: Miami – <u>165 flies</u> - \$\$\$
 Eradication program – duration unknown

OFF Redland Area

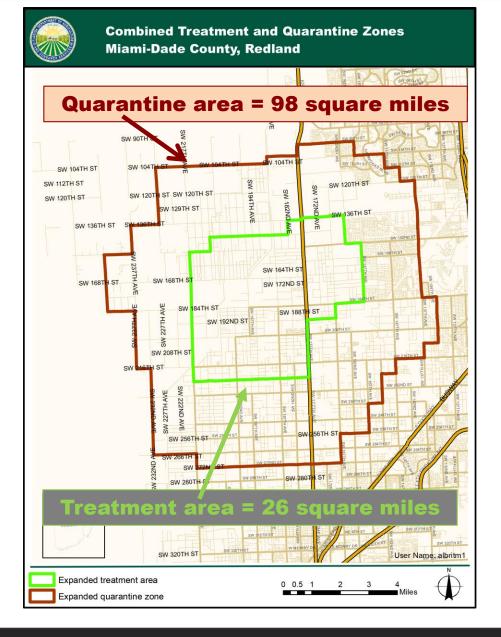
- August 26, 2015, a male Oriental fruit fly was detected in a trap in the Redland area of Miami, Dade County
- On August 27th, after placing additional traps in the immediate area, 45 males were found in a trap an unprecedented amount of flies in one trap
- Eradication program immediately mobilized





Redland Eradication Program

- Number of flies found, triggered eradication program (over 160 as of 10/15/15)
- Broad host range with 430 confirmed hosts
- Area of impact is predominantly agricultural lands
- Crops impacted include:
 - Avocado, mango, mamey, banana, guava, papaya, green beans, nursery plants
- Estimated 2,000 businesses impacted
 - Growers, nurseries/stock dealers, fruit stands, lawn maintenance, packing houses, harvesters







Trapping

Methyl Eugenal traps

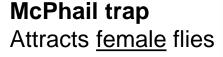
 607 traps checked daily until 0 flies are found seven days in a row.
 Then traps will be checked weekly.

McPhail traps

 245 traps checked every 3 days



Methyl eugenol trap Attracts <u>male</u> flies





Control

Male Annihilation Technique (MAT)

- Adult fly control with male lure bait
- Applied every two weeks to utility poles, tree trunks and other structures out of reach of people and pets
- Product applied is Dibrom (naled), an organophosphate insecticide used to control a number of insect pests including fruit flies and mosquitoes
- 25, 000 bait stations have been applied





Control

Foliar Spot Treatment

Trees/plants around positive finds are spot treated with Spinosad, an insecticide derived from a naturallyoccurring soil organism, commonly used by organic growers

Larval Finds

- Fruit Stripping fruit from host trees within a 200-meter area around larval find properties is removed so flies have no host material to lay eggs (147,625 pounds of fruit removed as of 10/7/15)
- Soil Drenching soil under host trees known or suspected to be infested

with Bactrocera larvae, pupae or a mated female is treated

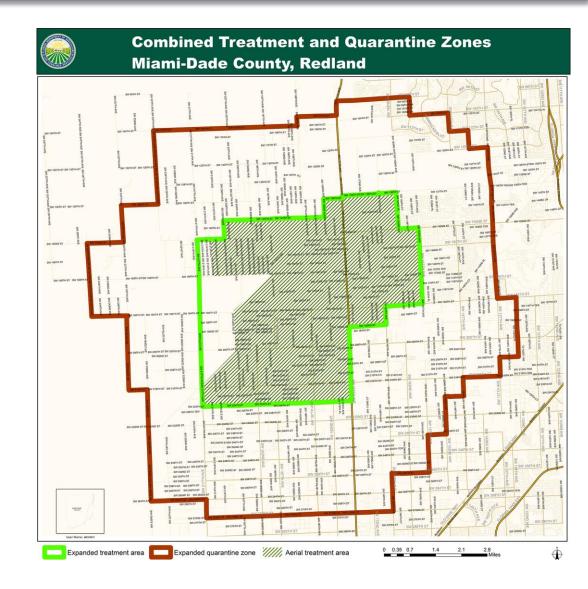


Control

Aerial Treatment

- Conducted the <u>nights</u> of October 2nd and 3rd
- Covered approximately 16 square miles
- Extensive outreach conducted (community used to aerial spraying for mosquitoes and agricultural practices)
- Helpline operational through weekend
- Population of area predominately agricultural
- Growers strongly requested aerial spraying
- Product used was Spinosad, or GF-120 – approved for use on organic crops posing no hazard

to people, pets, livestock, fish or pets



Regulatory Activities

- Businesses (packers, growers, fruit stands, nurseries, harvesters, etc.) handling host material must sign compliance agreements
 - Over 1,300 compliance agreements signed as of October 15th, 2015

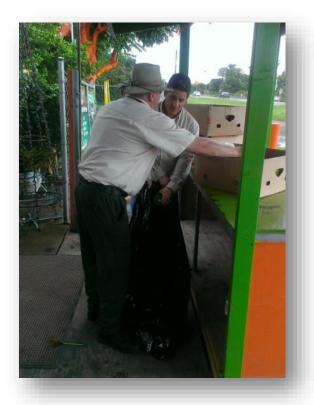




Ag Law Assistance with Violations

Approximately 77,000 pounds of fruit fly host material confiscated

Two "Notices to Appear" issued to repeat violators









Quarantine Requirements

- Movement of host material in regulated area is restricted
- ✓ Businesses required to sign compliance agreements (growers, packers, lawn maintenance, fruit stands, nurseries, flea markets, mobile vendors)
- ✓ Certification process in place allowing host materials to move in and out of quarantine area



Commodities Impacted

1,180 Avocado Acres

Guava 78 Acres

Banana 28 Acres

Annona 22 Acres

Mamey 110 Acres

Sapodilla 45 Acres

Papaya 50 Acres

Lychee 110 Acres

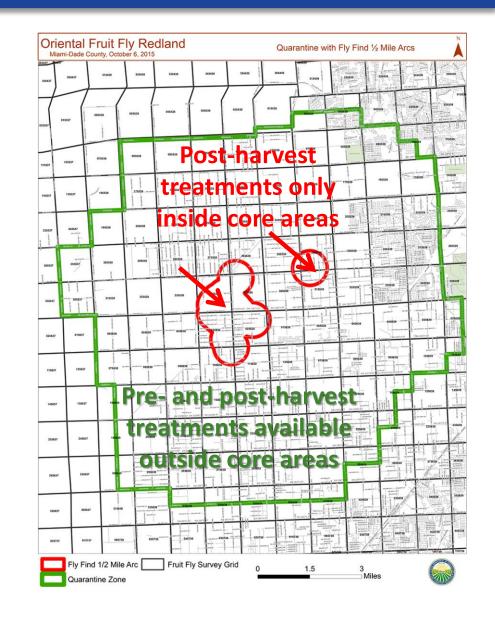
Longan 110 Acres

Dragon Fruit 110 Acres



Quarantine Requirements

- Inside ½-mile arc around positive finds post-harvest treatment only (many crops do not tolerate post-harvest options)
 - **Fumigation**
 - Irradiation
- Within quarantine, but outside core areas, pre- and post-harvest treatment options available
 - 30-day pre-harvest treatment as outlined in compliance agreement





A cooperative effort to eradicate a major threat to Florida agriculture





Commissioner Putnam with Miami-Dade County Mayor Carlos Gimenez



Meetings and Tours with Industry and Elected Officials





Road Signs indicating Fruit fly impact zones

Fruit Fly Impact Area

Do Not Move Fruit

No Mueva Frutas

12 signs positioned in key locations





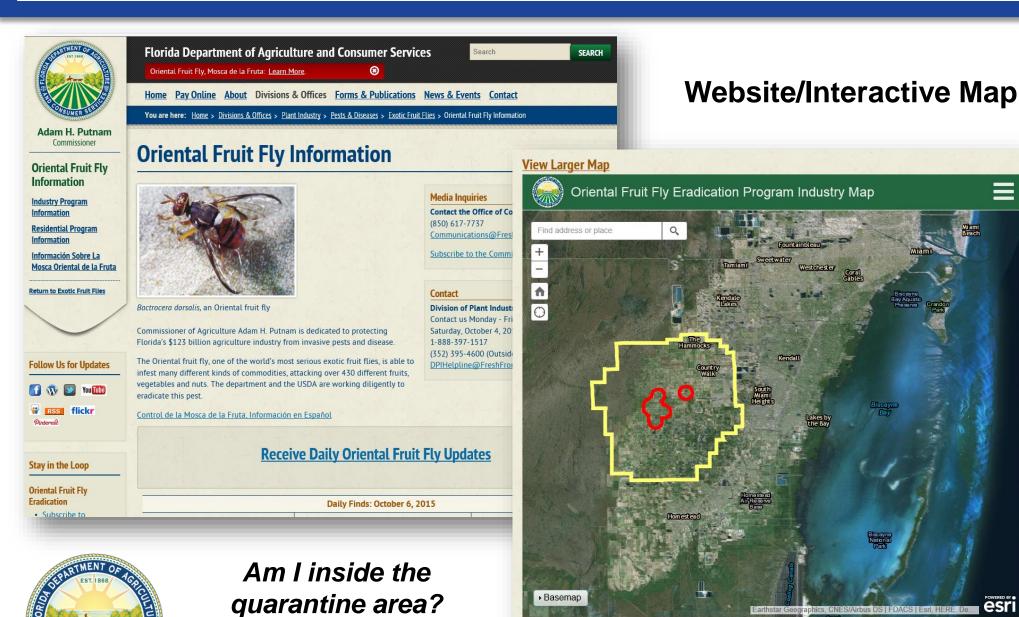
Helpline
Newspaper
Advertisements
Grower Meetings
Information Booth
Industry Updates
Website

Multi-lingual materials









Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner 21

Learn more about the Oriental Fruit Fly Interactive Map

Update Schedule: This map is updated with new boundaries as they are defined. Updated: 9/29/2015

Eradication Program Stats

Incident Command stood up

August 26, 2015

- 120 Personnel assigned
 - 94 state
 - 26 federal
- Program costs
 - \$800,000 thru 11/1/15
 - Requesting \$3 million





Oriental Fruit Fly Life Cycle



Adult pre-reproductive period: 8+ days

Life span: many months



Eggs: 1-3 days



Larvae: 9-16 days



Pupae: 10-12 days



Potential Date for Eradication Declaration

Total	Days	Generation	Date
0	0	Start Date	10/03/15
38	38	Life Cycle 1	11/16/15
85	47	Life Cycle 2	01/02/16
138	53	Life Cycle 3	02/24/16



Giant African Land Snail



Giant African Land Snail Eradication Program

Major landscape and agricultural pest

Public health threat – carries rat lungworm parasite

Eats stucco

Able to reproduce rapidly

No natural enemies





Giant African Land Snail Eradication Program

Program in 4th Year

159,000+ collected

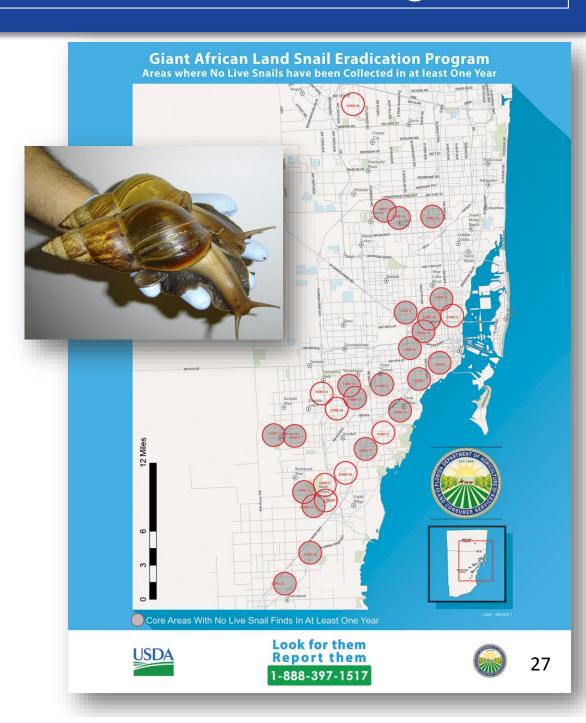
Stronger molluscicide approved

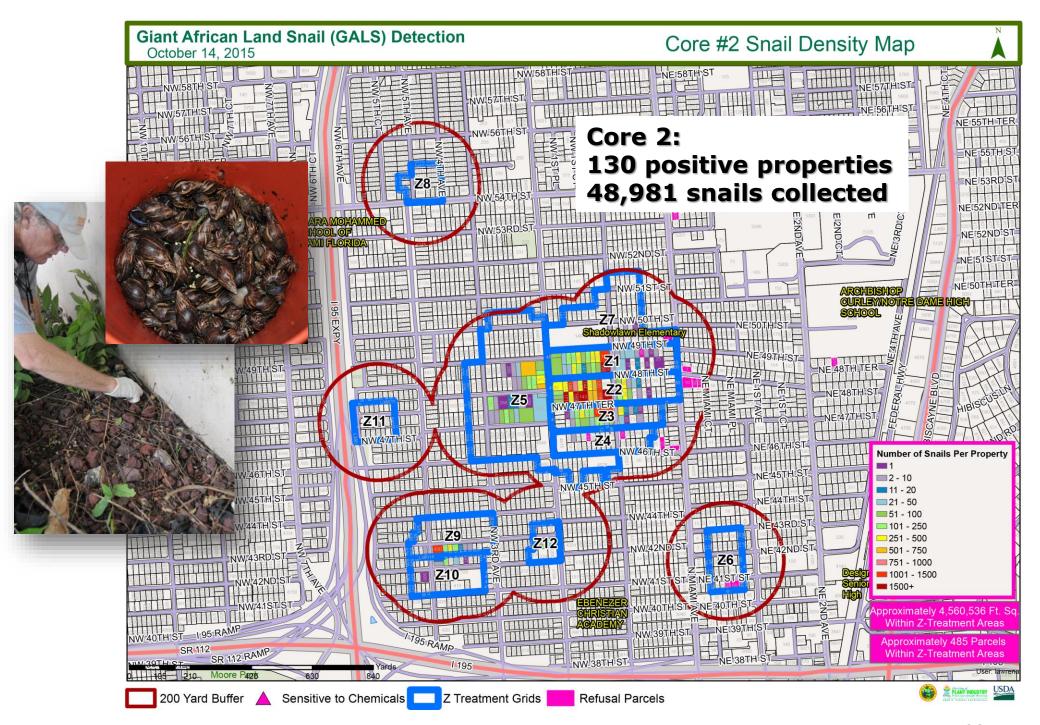
Mortality rate increased significantly / number of snails collected decreased significantly

95% of positive properties from calls to the helpline

19 of 29 properties have not had positive find in over a year

Eradication can be declared two years after last positive find





Management Approach

- 'Boots on Ground' control approach
 - ✓ Survey
 - ✓ Hand collect snails
 - ✓ Treat properties with EPA-approved insecticide added to a snail bait product (Metaldehyde)
 - ✓ Collect and dispose of debris
 - ✓ Detector dogs on duty!



Thank You!



THE FLORIDA SENATE

APPEARANCE RECORD

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Meeting Date					
Topic Opdate on Oriental Fruit Fly Eadjoution	Bill Number				
Name Dr. Trevor Smith	(if applicable) Amendment Barcode				
Job Title Director, Plant Industry	(if applicable)				
Address HOD S. Monroe St.	Phone (850) (617-7700				
Street Iallahassel FL 32399	E-mail Trevor, Snith @				
City State Zip	Fresh from floride, com				
Speaking: Against Information					
Representing Florida Department of Agriculture and Consumer Services					
	registered with Legislature: Yes No				

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10/20/15

S-001 (10/20/11)



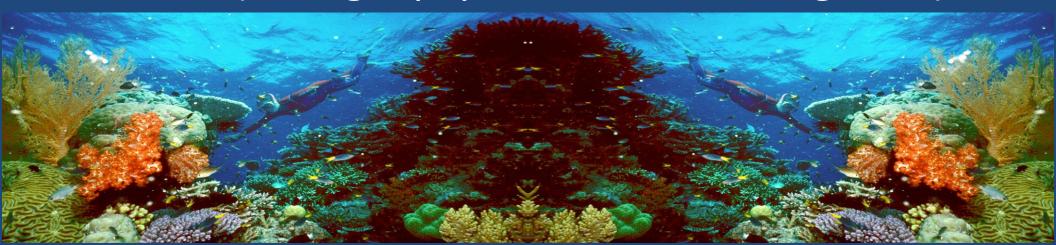
Proposal for the creation of the Florida Lionfish Education and Research Consortium

F.L.E.R.C.



FLERC Members

- Nova Southeastern University
- University of North Florida
- University of South Florida
- REEF
- FWC
- DEMA (Diving Equipment & Marketing Assn)





DEMA, the Diving Equipment & Marketing Association, is an international organization dedicated to the promotion and growth of the recreational scuba diving and snorkeling industry. With more than 1,300 members, this non-profit, global organization promotes scuba diving through consumer awareness programs and media campaigns such as the national Be a Diver campaign; diver retention initiatives such as DiveCaching; and an annual trade-only event for businesses in the scuba diving, action watersports and adventure/dive-travel industries, DEMA Show.



R.E.E.F. is the Reef Environmental Education Foundation, Inc., a non-profit 501(c)(3), located at 98300 Overseas Highway, Key Largo, FL 33037. REEF was founded in 1990 by Lad Akins, out of growing concern about the health of the marine environment, and the desire to provide the SCUBA diving community a way contribute to the understanding and protection of marine populations. REEF is recognized as a world leader on addressing the lionfish invasion.





Dr. Eric Johnson

- Assistant Professor, Department of Biology, University of North Florida (2011-present)
- Postdoctoral Researcher and Research Associate, Smithsonian Institution (2004-2011), Ph.D., North Carolina State University (2004)
- Active in state and federal management of coastal fishery resources
- Expertise in fisheries, marine ecology, invasive species and stock assessment. Current research focus on the life history of lionfish in Florida.



Dr. Christopher Stallings

- Assistant Professor, University of South Florida, College of Marine Science (2011-present)
- Postdoctoral Researcher, Florida State University (2007-2011), Ph.D. Oregon State University (2007)
- \$1.25M in external research funding since 2011
- >20 peer-reviewed publications
- Expertise in fisheries, field experiments, invasive species, and experience in high-profile studies



Dr. Matt Johnston

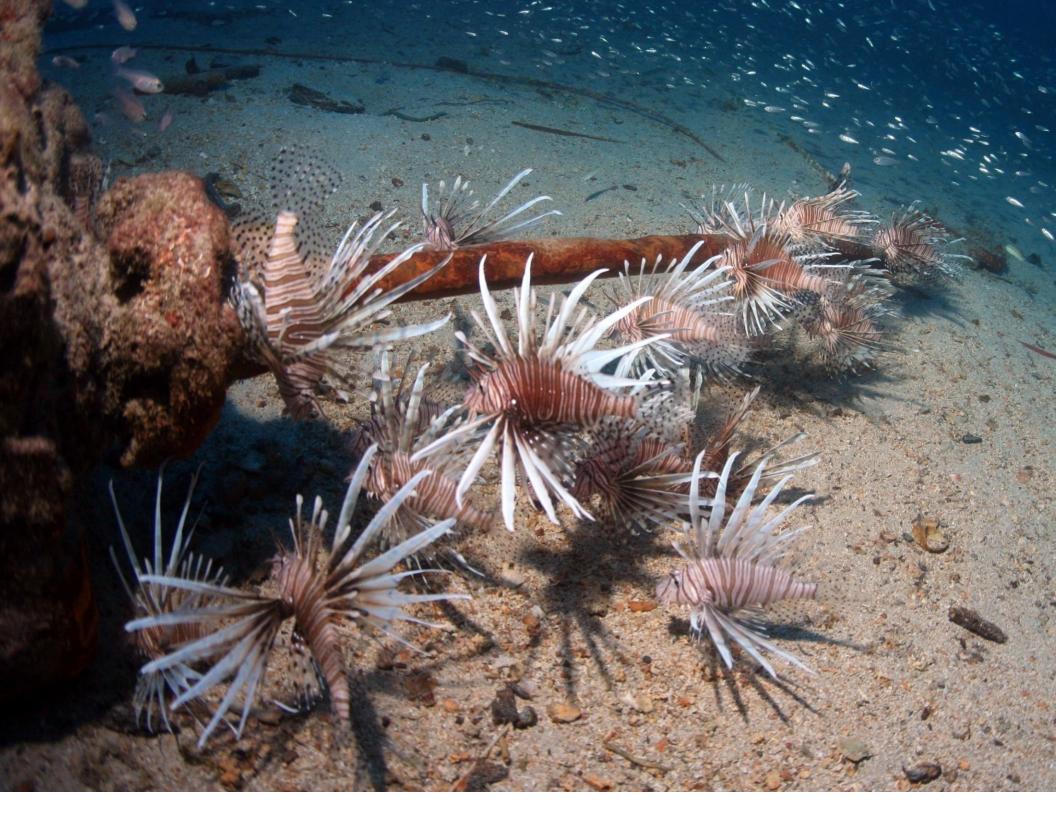
- Research Scientist, Nova Southeastern
 University, Halmos College of Natural
 Sciences and Oceanography (2011- present)
- 13+ years of computer programming experience, Ph.D. Nova Southeastern University (2015)
- 10 peer-reviewed publications on lionfish/invasive species
- Expertise in computer simulation, ocean connectivity, invasive species, GIS, and web technologies

HERE IS THE PROBLEM

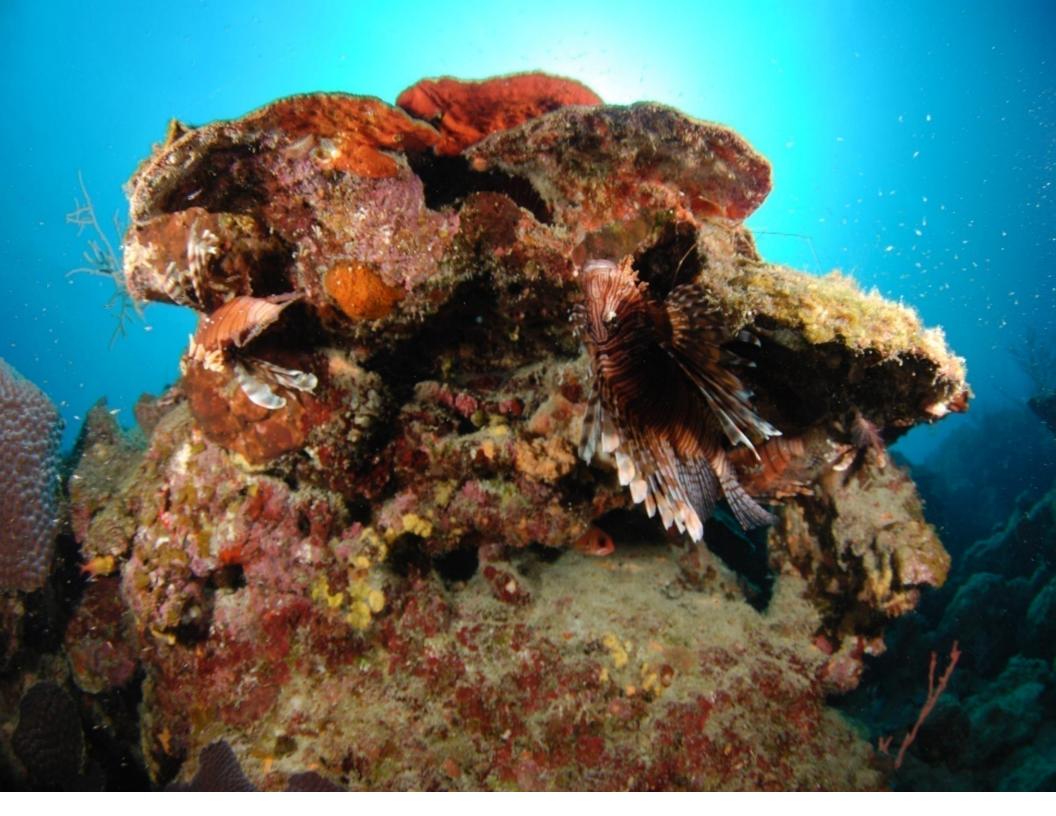














Lionfish are the problem

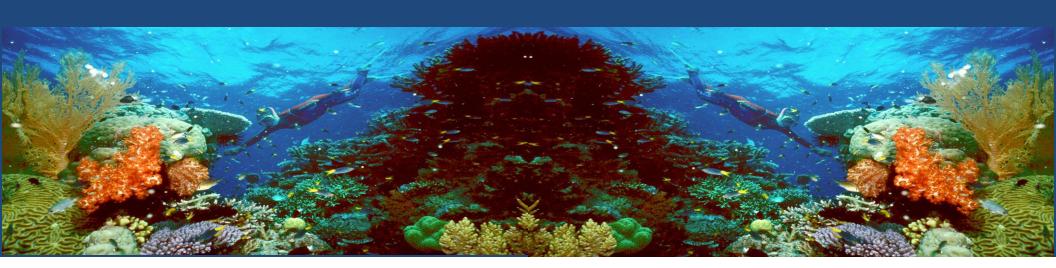
- Florida and its Caribbean neighbors have become infiltrated with Lionfish. This invasive fish is the first to become **established** in the Atlantic and coastal waters off of Florida's beaches
- And, unlike other species in Florida's waters, lionfish have no known natural predator in our waterways to control the species

Lionfish are the problem

- Invasive lionfish are impacting Florida's ecology, economy and recreation
- Left unchecked, the large population of lionfish already in Florida's waters could result in a serious decline to Florida's seafood industry and its related economies of recreational and commercial fishing
- Marine ecosystems are being negatively impacted across a broad scale by this invader which could have a serious impact on tourism experiences for visitors who come to enjoy Florida
- Native fish stocks are down as a direct and identifiable result of lionfish predation. Commercial fisheries and the lobster industry in Florida are being impacted by invasive lionfish

How did this get started

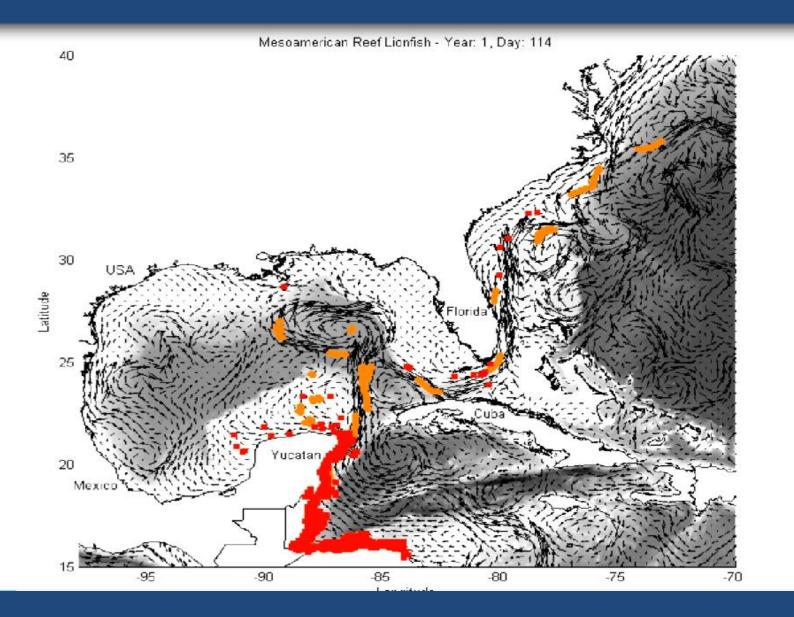
Lionfish were first reported off Florida's Atlantic Coast near Dania Beach in 1985, and have now spread north up the Atlantic Coast, into the Gulf of Mexico, and throughout the Caribbean

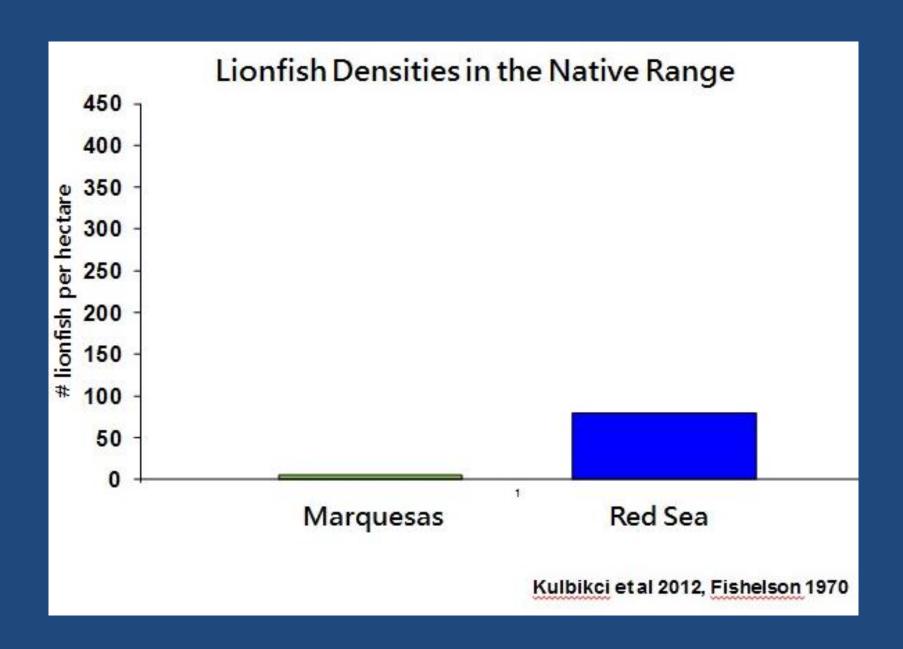


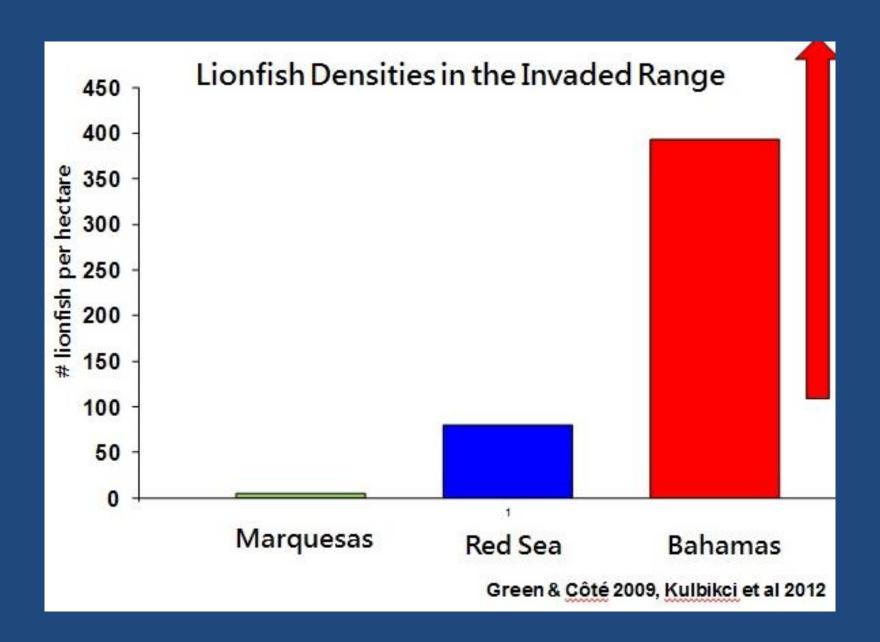


Research Concentrations

- Modeling: Computer simulation to help us understand how lionfish spread via ocean currents
 - Evaluate population connectivity between regions and deep/shallow waters in Florida and internationally
 - Coupled with field research, simulation useful to virtually test where, when, and how to control lionfish
 - Also useful to evaluate controls methods before deployment
- Deep surveys: Deep habitats beyond the reach of divers will be surveyed for lionfish using manned submersibles
- Genetics: Sequencing the genome can identify why lionfish are successful and help develop genetic techniques to control them







Lionfish are the Problem Reproduction Rate

- They reproduce at an alarming rate
- Lionfish can spawn 15,000-30,000
 eggs every four days in warmer
 climates, releasing thousands of
 eggs, and up to 2 million per year

Lionfish Reproduction





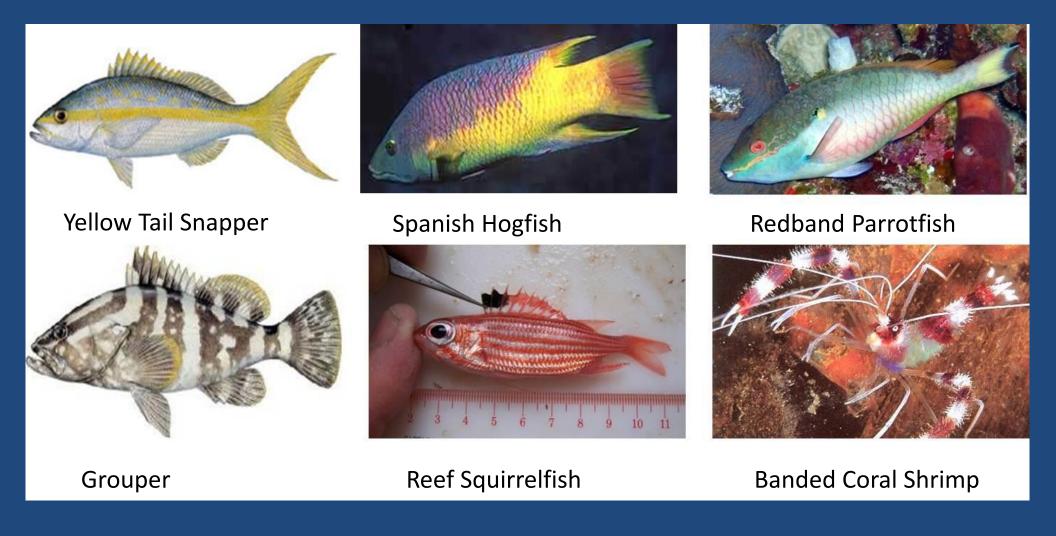
- > Early reproduction
- Spawn in pairs
- Female releases two buoyant egg masses
- > 15-30,000 eggs per spawn
- Every four days
- Year Round

Reproduction Rate



Lionfish are the Problem "They like to eat"

- Lionfish can consume tens of thousands of prey fish every year
- A lionfish stomach can expand up to 30 times the normal volume
- They will eat anything that moves, and have been found to have more than 100 different species consumed
- They eat the same fish we like to eat



Over 100 species of different prey have been found in lionfish stomachs. They can consume prey over half their size.

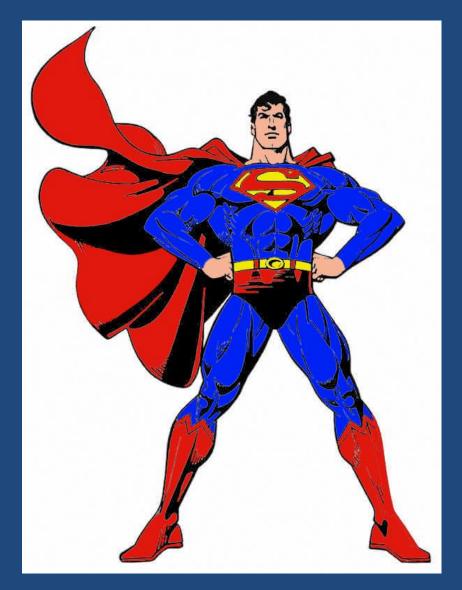
64 prey fish and 1 shrimp!





Where is Superman?

How has this problem been combatted so far?





Spearing







How do we successfully do this?











2015 Jacksonville Lionfish Derby



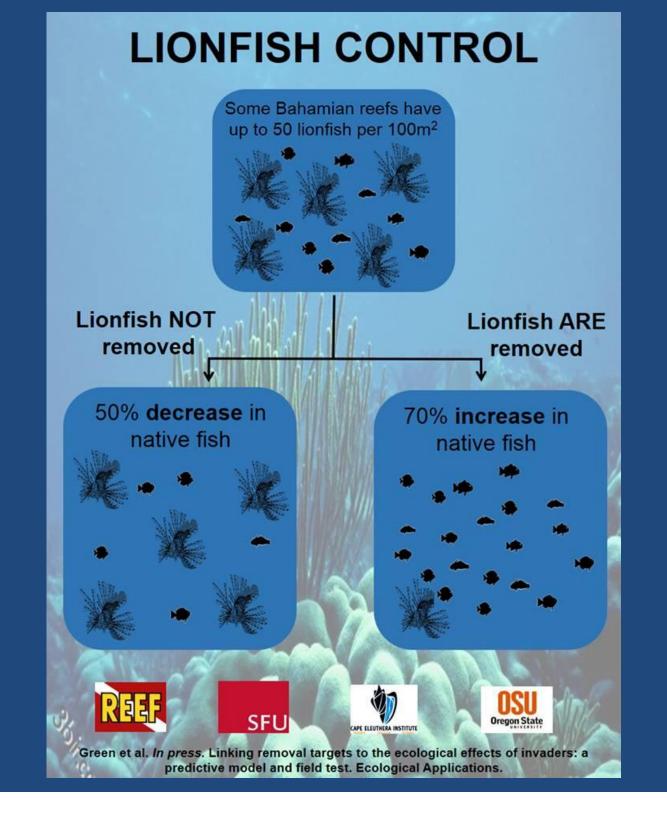
Over 2,500

lionfish removed in a single day

Those lionfish would have eaten

2 to 8.8 million

prey fish in the next year.



Lionfish Population is Increasing

• "FWC staff confirmed they are seeing a very large increase in lionfish numbers - particularly in deeper water and in the panhandle region. They've also noted that mid-western shelf lionfish seem to be breeding more often and produce higher numbers of eggs than in the panhandle and Louisiana."

Dr. Matt Johnston, Nova Southeastern

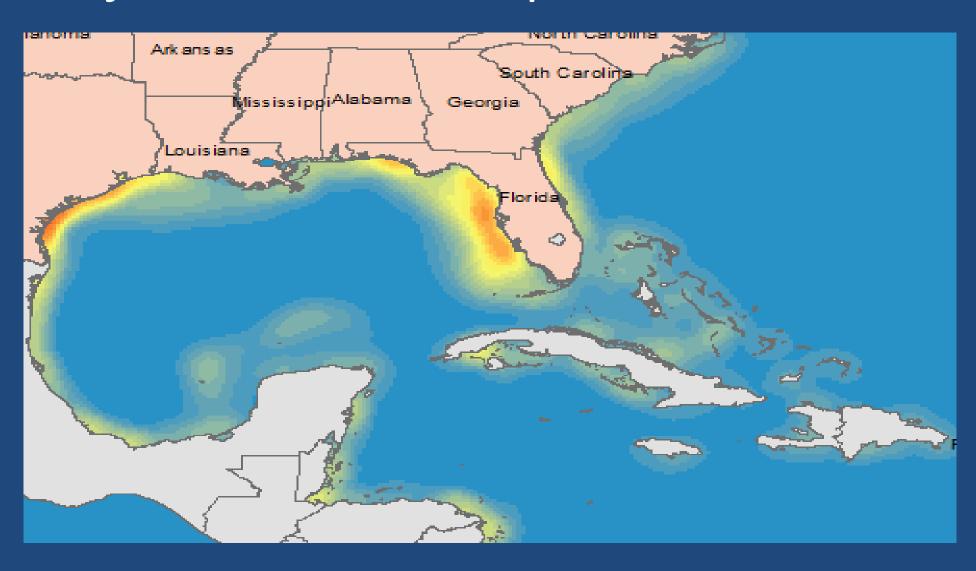
 "Our local Lionfish tournaments have seen a doubling in the number of landed fish each year, in some cases despite fewer teams participating. The winner of this years summer derby (2 man teams) collected 800 Lionfish in one day (4 dives) the tournament total last year was 1100."

Dr. Eric Johnson, University of North Florida

 "I am currently analyzing data from Biscayne National Park's Lionfish Removal Program (2010-2015). Despite a heroic amount of effort, catch per unit effort (a proxy of abundance) has increased by over 2000% from 2010-2015."

Dr. Chris Stallings, University of South Florida

Western Shelf of Florida Projected Lionfish Population Densities

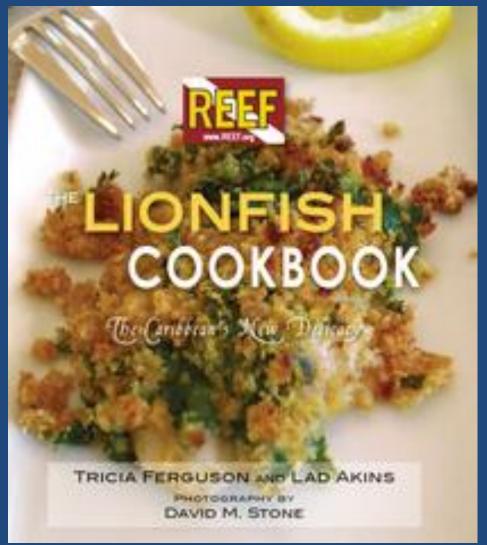


What should be done?

- Need more <u>research</u> on other tools that can be created to track, remove and control the species spreading in Florida waters
- Develop a <u>fisheries</u> in Florida, increasing both supply and demand for lionfish and lionfish products, i.e., Fresh from Florida approach
- Work with local governments and other neighboring countries to <u>control</u> the population shifts and movement patterns
- Continue to <u>educate</u> the public on this issue





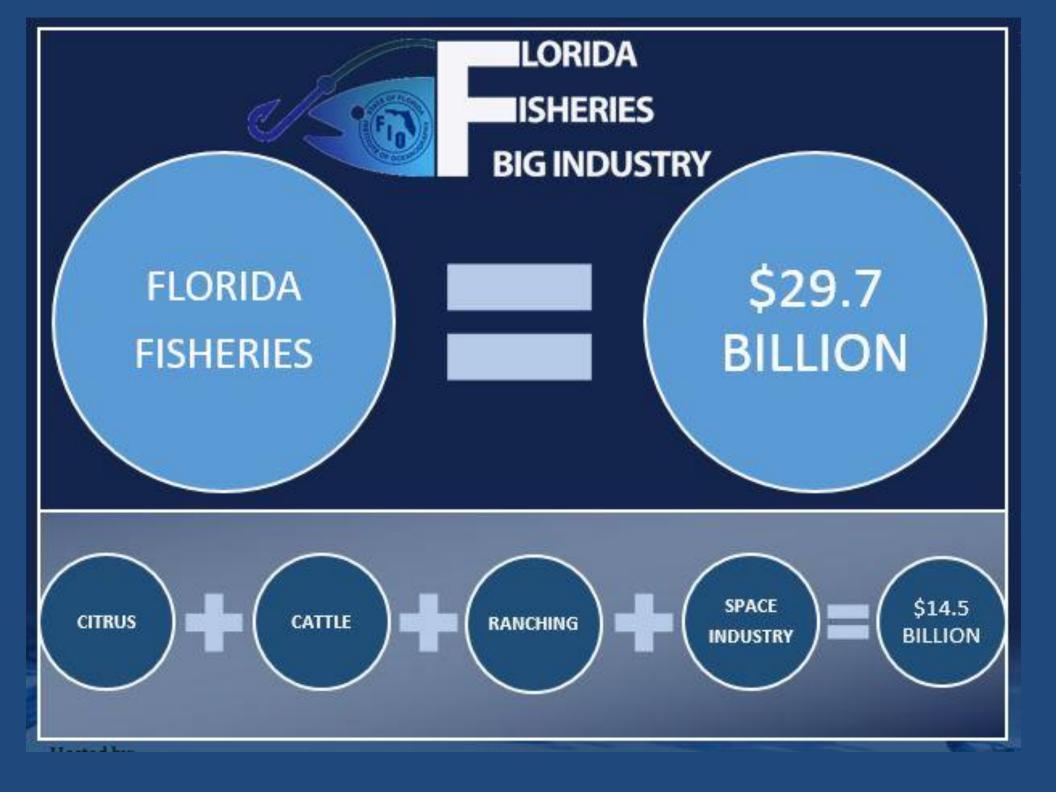


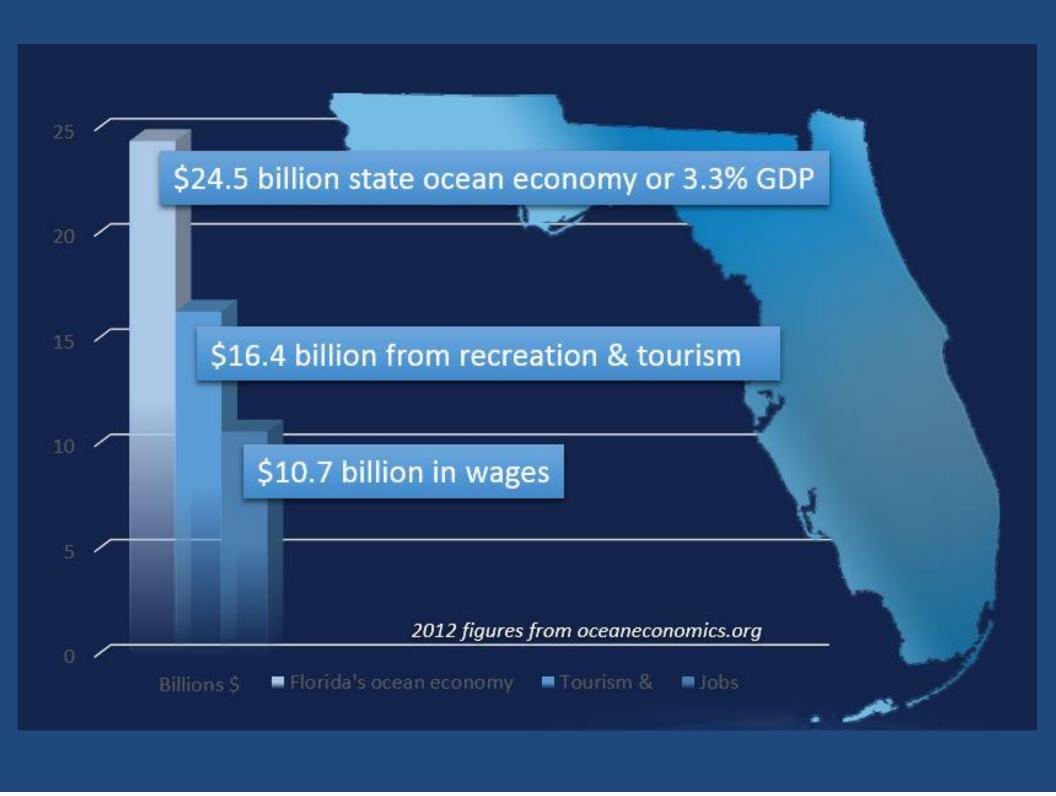












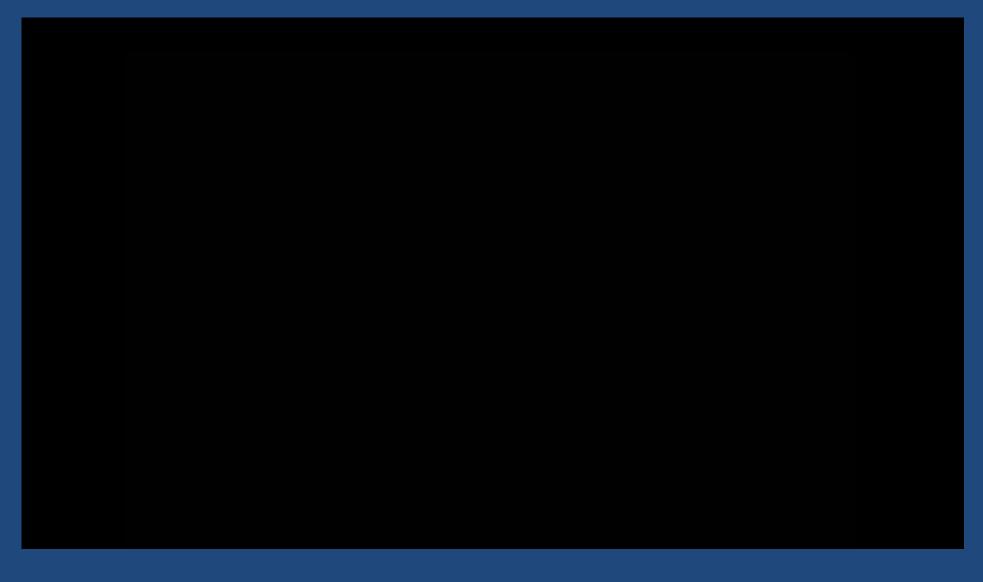
Lionfish Jewelry







Marketing Lionfish for Consumption "If you can't beat them, eat them"



Proposal

In collaboration with Florida's Fish and Wildlife Conservation Commission (FWC), funding would be allocated to: R.E.E.F., and several Florida university partners, including the University of North Florida College of Arts and Sciences-Biology, the University of South Florida College of Marine Science, and, Nova Southeastern University Halmos College of Natural Sciences and Oceanography. The Guy Harvey Research Institute at NSU has agreed to manage any funding received for this project.

Funding is being sought in four specific areas to assist in this effort:

Research Control

Market Development Public Awareness/Education

Research

- Research and studies that quantifies the economic and ecological impacts of invasive lionfish on Florida's coastline communities.
- Research and studies to develop methodologies and tools to eliminate and/or control invasive lionfish species (i.e., trapping, attractants, etc.).
- Research and studies to determine priorities for directed lionfish removals including locations, timing and frequency of removal effort.
- Research and studies to determine the effectiveness of removal efforts and direct efforts to high priority areas.
- Risk assessment of other potential marine invasive species in Florida waters

Control

- Sponsorship of lionfish derbies, or other focused removal events.
- Supporting and encouraging ongoing removal efforts by individual divers.
- Developing a commercial harvest model for lionfish
- Training divers, snorkelers and fishermen in safe and effective collecting
- Identification of and creation of partnerships with bordering countries to help reduce lionfish abundance due to ocean currents (i.e., modeling)

Market Development

- Promotion of lionfish as viable seafood products
- Developing non-traditional uses for lionfish products (i.e. jewelry from fins, export market, medical or drug purposes, etc.)
- Minimizing regulatory hurdles for sale of harvested lionfish
- Working with restaurants and chefs to familiarize them with handling and preparation of lionfish dishes

Public Awareness and Education

- Public education/outreach and data gathering projects regarding the invasive species.
- Facilitating continuing media coverage of the lionfish issue.
- Developing messaging and materials to aid in public awareness.
- Promoting best practices to prevent other non-native species invasions.
- Organizing conferences and workshops to bring together key stakeholders to share latest research and control information.
- Demonstrating correlation between STEM careers and marine biology

For more information...

The Lionfish Hunters- A 3-part story

http://mashable.com/2015/09/08/lionfish-invasion/?utm_cid=hp-hh-pri

Cayman Islands video- proof of demand.

https://www.facebook.com/411128245627075/videos/9 58563574216870/

CBS Good Morning Show 10.11.15

http://www.cbsnews.com/news/lionfish-from-maliciousto-delicious/

Funding

FLERC will be seeking funding for the purposes of this project, with reports back to the Governor, and the Florida Legislature, on July 1st and January 1st of each year, on progress made on the objectives of the Consortium.

We will be happy to answer any questions you might have.

Florida's Lionfish Education and Research Consortium (FLERC)

Lad Akins lad@reef.org phone number

Dr. Christopher Stallings stallings@usf.edu phone number

Dr. Matt Johnston johnmatt@nova.edu phone number

Dr. Eric Johnson e.johnson.147778@unf.edu phone number

Florida Fish and Wildlife Conservation Commission (FWC)

APPEARANCE RECORD

0 20 15 (Deliver BOTH copies of this form to the Senator	or Senate Professional St	aff conducting the meeting)
' Meeting Date		Bill Number (if applicable)
Topic <u>lion fish</u>		Amendment Barcode (if applicable)
Name Bob Humis		·
Job Title Lobby ist		
Address 2418 Centennial Place Street	· · · · · · · · · · · · · · · · · · ·	Phone 222-0270
Tallahassee Fi	32308 Zip	Email bhanis@lawfla. Com
Speaking: For Against Information		peaking: In Support Against r will read this information into the record.)
Representing DEMA, REGE, UNF, USF,	Nova { linf	ish (unsortium)
Appearing at request of Chair: Yes No Lobbyist register		ered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time meeting. Those who do speak may be asked to limit their remark	may not permit all	persons wishing to speak to be heard at this persons as possible can be heard.
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Meeting Date Bill Number (if applicable)
Topic
Name LAD AKINS
Job Title Director of Special Dioject
Address 98300 Oversens Huly Phone 305 852 0030
Key 1A180 FL 35037 Email LADE REFF, ORG
Speaking: For Against Information Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing Reaf ENVIONMENTAL Education Foundation inc
Appearing at request of Chair: Yes No Lobbyist registered with Legislature: Yes No
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Meeting Date				Bill Number (if applicable)
Topic AND PEST AND Name ERIC JOHNSON	Disense Prev	ENTE (Co	INFISH)	Amendment Barcode (if applicable)
				,
Job Title ASSISTANT PRO	FESSOR, UNI	NERS ITY OF A	JORAN FL	sriph
Address / UNF BRIVE		'	Phone (904)620.5764
JACKSONVILLE City	PU State	3222 4 Zip	Email 🖭	ic. johnson Qunf. edu
Speaking: For Against	Information	Waive Sp (The Chai	peaking: ir will read this	In Support Against s information into the record.)
Representing UNF				
Appearing at request of Chair:	Yes No	Lobbyist registe	ered with Le	egislature: Yes No
While it is a Senate tradition to encourage meeting. Those who do speak may be a	je public testimony, tin sked to limit their rema	ne may not permit all arks so that as many	persons wish persons as po	ing to speak to be heard at this ossible can be heard.
This form is part of the public record	for this meeting.			S-001 (10/14/14)

RECORD

	1		AFFEARANCE
10	20	15	(Deliver BOTH copies of this form to the Senator or Senate I

Professional Staff conducting the meeting) Meeting Date Bill Number (if applicable) Amendment Barcode (if applicable) Name Dr. Chris Stallings Job Title Assistant Professor Address USF College of Marie Science: 140 7th Aves. Phone 727-553-3371 X For Speaking: Against Information Waive Speaking: | In Support Against (The Chair will read this information into the record.) Representing Lobbyist registered with Legislature: Appearing at request of Chair: While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

(Deliver BOTH copies of this form to the Senator or Senate Professions	al Staff conducting the meeting)
Meeting Date	Bill Number (if applicable)
Topic Lion fish	Amendment Barcode (if applicable)
Name_Matthew Johnston	
Job Title Research Scientist	
Address 8000 N O Cean Dr.	Phone 954-262-3641
Don'th Beach FL 33114 City State Zip	Email johnmal @ novas edn
V v v v v v v v v v v v v v v v v v v v	Speaking: In Support Against hair will read this information into the record.)
Representing Noun Southeastern University	
Appearing at request of Chair: Yes No Lobbyist regi	stered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time may not permit meeting. Those who do speak may be asked to limit their remarks so that as mai	all persons wishing to speak to be heard at this ny persons as possible can be heard.
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Florida Department of Environmental Protection

Deepwater Horizon Oil Spill

Senate Committee on Agriculture



Drew Bartlett
Deputy Secretary for Ecosystem
Restoration

October 20, 2015













Deepwater Horizon Oil Spill

April 20, 2010 - Explosion and oil spill

July 15, 2010 - Well capped

April 20, 2011 - BP agrees to \$1 billion in NRDA early

restoration

July 6, 2012 - RESTORE Act signed into law

Early 2013 - Transocean civil settlement and criminal plea

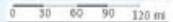
agreements with BP and Transocean. NFWF Gulf

Environmental Benefit Fund established

July 2, 2015 - BP Agreement in Principle - \$18.7 billion

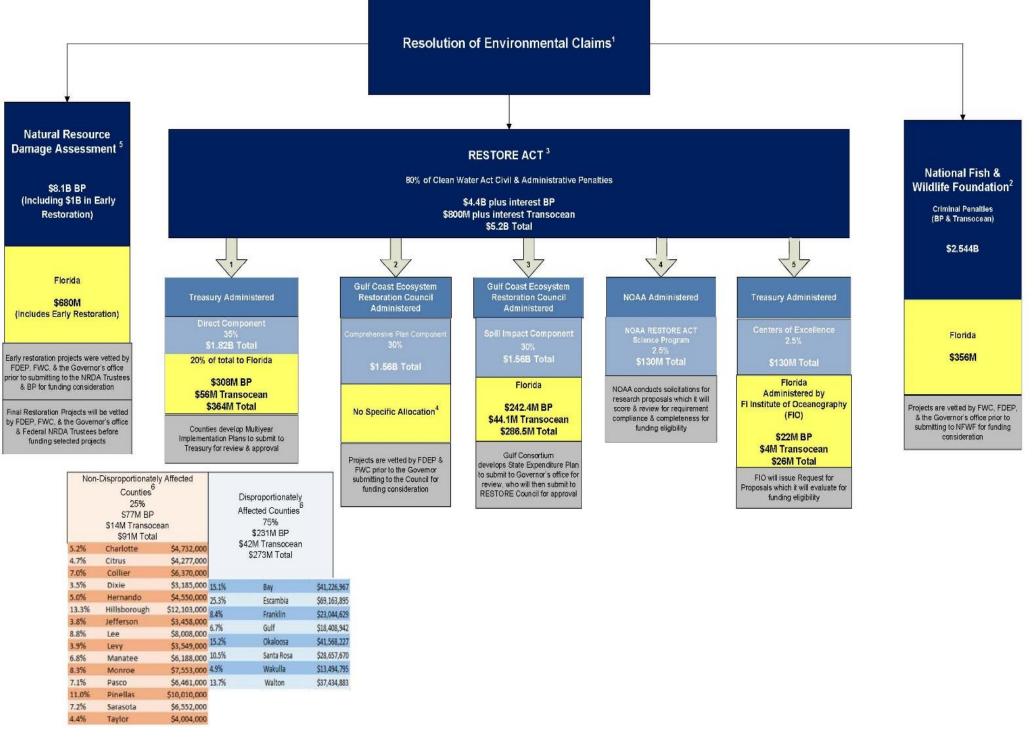
October 5, 2015 - NRDA Trustees propose

comprehensive Gulf Restoration Plan and Consent Decree



TCNNA SAR Composite

43,300-square-mile cumulative area of detectable oil slick during the Deepwater Horizon spill, based on satellite images.



Natural Resource Damage Assessment ⁵

\$8.1B BP (Including \$1B in Early Restoration)

Florida

\$680M (Includes Early Restoration)

Early restoration projects were vetted by FDEP, FWC, & the Governor's office prior to submitting to the NRDA Trustees & BP for funding consideration

Final Restoration Projects will be vetted by FDEP, FWC, & the Governor's office & Federal NRDA Trustees before funding selected projects



Phase I – 2 projects totaling \$5.7 million



Phase II – 2 projects totaling \$6.3 million



Phase III and IV – 31 projects totaling >\$88 million

80% of Clean Water Act and Administrative Penalties \$5.2 billion total:

\$4.4 billion plus interest BP; \$800 million plus interest Transocean

1

Treasury Administered

Direct Component 35% \$1.82B Total

20% of total to Florida

\$308M BP \$56M Transocean \$364M Total

Counties develop Multiyear Implementation Plans to submit to Treasury for review & approval

Non-Disproportionately Affected

Counties ⁶ 25% \$77M BP \$14M Transocean \$91M Total			
5.2%	Charlotte	\$4,732,000	
4.7%	Citrus	\$4,277,000	
7.0%	Collier	\$6,370,000	
3.5%	Dixie	\$3,185,000	
5.0%	Hernando	\$4,550,000	
13.3%	Hillsborough	\$12,103,000	
3.8%	Jefferson	\$3,458,000	
8.8%	Lee	\$8,008,000	
3.9%	Levy	\$3,549,000	
6.8%	Manatee	\$6,188,000	
8.3%	Monroe	\$7,553,000	
7.1%	Pasco	\$6,461,000	
11.0%	Pinellas	\$10,010,000	
7.2%	Sarasota	\$6,552,000	
4.4%	Taylor	\$4,004,000	

Disproportionately
Affected Counties
75%
\$231M BP
\$42M Transocean
\$273M Total

15.1%	Bay	\$41,226,967
25.3%	Escambia	\$69,163,895
8.4%	Franklin	\$23,044,629
6.7%	Gulf	\$18,408,942
15.2%	Okaloosa	\$41,568,227
10.5%	Santa Rosa	\$28,657,670
4.9%	Wakulla	\$13,494,795
13.7%	Walton	\$37,434,883

80% of Clean Water Act and Administrative Penalties \$5.2 billion total:

\$4.4 billion plus interest BP; \$800 million plus interest Transocean



Gulf Coast Ecosystem Restoration Council Administered

Comprehensive Plan Component 30%

\$1.56B Total

No Specific Allocation⁴

Projects are vetted by FDEP & FWC prior to the Governor submitting to the Council for funding consideration



7 Florida Sponsored Projects –

\$18.5 million



4 Federal Agency Projects – \$12.1 million



8 Gulfwide Projects with Florida benefits – \$7.4 million

80% of Clean Water Act and Administrative Penalties \$5.2 billion total:

\$4.4 billion plus interest BP; \$800 million plus interest Transocean



Gulf Coast Ecosystem Restoration Council Administered

Spill Impact Component 30% \$1.56B Total

Florida

\$242.4M BP \$44.1M Transocean \$286.5M Total

Gulf Consortium develops State Expenditure Plan to submit to Governor's office for review, who will then submit to RESTORE Council for approval

80% of Clean Water Act and Administrative Penalties \$5.2 billion total:

\$4.4 billion plus interest BP; \$800 million plus interest Transocean



NOAA Administered

NOAA RESTORE ACT
Science Program
2.5%
\$130M Total

NOAA conducts solicitations for research proposals which it will score & review for requirement compliance & completeness for funding eligibility

80% of Clean Water Act and Administrative Penalties \$5.2 billion total:

\$4.4 billion plus interest BP; \$800 million plus interest Transocean



Treasury Administered

Centers of Excellence 2.5%

\$130M Total

Florida
Administered by
Fl Institute of Oceanography
(FIO)

\$22M BP \$4M Transocean \$26M Total

FIO will issue Request for Proposals which it will evaluate for funding eligibility



2013 Funding Cycle – 6 projects totaling \$15.1 million



2014 Funding Cycle – 9 projects totaling \$34.3 million



2015 Funding Cycle - developing a restoration strategy and key projects

National Fish & Wildlife Foundation²

Criminal Penalties (BP & Transocean)

\$2.544B

Florida

\$356M

Projects are vetted by FWC, FDEP, & the Governor's office prior to submitting to NFWF for funding consideration

- Total Deepwater Horizon projects "authorized" to date (MOEX, NFWF, NRDA Phases 1- 4)
 - > 70 projects
 - > \$170 million
 - Restore Council Draft Funded Priorities List
 - Expected to become final in December 2015
 - \$38 million in projects that benefit Florida

For more information: www.dep.state.fl.us/deepwaterhorizon



Contact Information

Drew Bartlett

Deputy Secretary for Ecosystem Restoration Department of Environmental Protection (850) 245-2030

Drew.Bartlett@dep.state.fl.us







APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senato	or or Senate Professional Staff conducting the meeting)
Meeting Date	Bill Number (if applicable)
Topic Deepwater Harizon	Amendment Barcode (if applicable)
Name Drew Bartlett	
Job Title Deputy Secretary	
Address	Phone
	Email
Speaking: For Against Information	Zip Waive Speaking: In Support Against (The Chair will read this information into the record.)
Representing FOEP	
Appearing at request of Chair: Yes No	Lobbyist registered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony time	ne may not permit all persons wishing to speak to be heard at this

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APPEARANCE RECORD

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10/20/20		- tall conducting the most nigh
Meeting Date		Bill Number (if applicable)
Topic Deepwater Harizon		Amendment Barcode (if applicable)
NameMimi Drew		_
Job Title <u>Special</u> Assistant	DEP	_
Address		Phone 850 9330202
		Email Mini, dreve dep. state. Fly
City State	Zip	
Speaking: For Against Information		peaking: In Support Against air will read this information into the record.)
Representing FPEP		
Appearing at request of Chair: Yes No	Lobbyist regis	tered with Legislature: Yes No
While it is a Senate tradition to encourage public testimony, time meeting. Those who do speak may be asked to limit their remark	e may not permit a rks so that as many	Il persons wishing to speak to be heard at this persons as possible can be heard.
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Tallahassee, Florida 32399-1100

COMMITTEES:

Agriculture, *Vice Chair*Appropriations Subcommittee on Education
Appropriations Subcommittee on General
Government Education Environmental Preservation and Conservation Military Affairs, Space, and Domestic Security

JOINT COMMITTEE:

Joint Administrative Procedures Committee

October 19th, 2015

SENATOR DWIGHT BULLARD 39th District

Chairman Montford,

I am requesting to be excused from our Agriculture Committee meeting on Tuesday, October 20th, 2015 due to an event that is being held in my district. Thank you for your consideration.

Sincerely,

Dwight M. Bullard

State Senator, District 39

□ 218 Senate Office Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5039

CourtSmart Tag Report

Room: SB 301 Case No.: Type:

Caption: Senate Agriculture Committee **Judge:**

Started: 10/20/2015 9:05:37 AM

Ends: 10/20/2015 10:50:08 AM Length: 01:44:32

9:05:45 AM Meeting called to order.

9:05:55 AM Roll call.

9:06:14 AM Quorum present.

9:06:55 AM Introduction of new staff.

9:07:36 AM Comments from Chairman Montford.

9:08:04 AM Special meeting of Agriculture committee on November 12 in Sebring.

9:08:57 AM Chairman Montford recognizes Dr. Mike Short (State Veterinarian) to present on Tab 1.

9:09:22 AM Dr. Mike Short presents on Animal Pest and Disease Prevention & Response

9:11:19 AM Dr. Short speaks to two bureaus within Division of Animal Industry.

9:14:35 AM Dr. Short speaks to current disease issues within the State of Florida.

9:16:03 AM Economic Impact of Animal Disease Outbreaks

9:20:05 AM Concern that the vaian influenza may be introduced in the south due to bird

9:20:06 AM migration; no detection since June 2015

9:21:04 AM Florida ranks 14th nationally in egg production

9:21:54 AM State conducting surveillance, testing, training/exercises and meetings/workshops

9:23:52 AM Legislative budget request for \$10.3 billion for new diagnostic facilities

9:24:40 AM Chairman Montford thanks Dr. Short for his presentation.

9:25:03 AM Chairman Montford recognizes Dr. Trevor Smith, Director, Division of Plant Industry.

9:25:29 AM Dr. Plant presents update on recent Oriental Fruit Fly discovery.

9:27:09 AM Division partners with USDA to prevent fruit fly establishement in Florida.

9:28:02 AM Chairman Montford asks Dr. Smith if release of sterile flies works.

9:28:07 AM Dr. Smith responds.

9:28:30 AM Dr. Smith continues with the presentation.

9:30:05 AM Dr. Smith presents previous Florida detection of fruit flies.

9:31:38 AM Dr. Smith talks about quarantine impact to businesses and agriculture lands.

9:34:19 AM Dr. Smith presents information regarding control of fruit flies.

9:34:53 AM Chairman Montford asks Dr. Smith about control efforts within neighborhoods.

9:35:12 AM Dr. Smith responds that outreach is key.

9:35:31 AM Senator Galvano responds.

9:35:47 AM Senator Garcia recognized.

9:36:05 AM Senator Garcia asks Dr. Smith regarding guarantine areas and farmers - what

9:36:11 AM happens to produce that is lost?

9:36:20 AM Dr. Smith responds there is no compensation at this time.

9:36:47 AM Ad must be run in paper for 48 hours before quarantine - then shut down.

9:37:36 AM Harvest has to be destroyed, kept in quarantine area or produced (post harvest).

9:37:57 AM Dr. Smith continues presentation.

9:38:58 AM Dr. Smith speaks to regulatory activities with businesses.

9:39:48 AM Only two repeat violators.

9:40:51 AM Quarantine requirements - post- and pre-harvest.

9:41:17 AM Dr. Smith speaks to outreach efforts.

9:43:45 AM Life cycle is key to eradication process.

9:44:36 AM Senator Garcia recognized.

9:44:51 AM What happens with quarantine areas?

9:44:57 AM Dr. Smith responds.

9:45:35 AM Dr. Garcia for follow up.

9:45:41 AM Dr. Smith responds.

9:46:39 AM Senator Garcia for follow up question.

9:46:58 AM Dr. Smith responds.

9:47:29 AM Senator Garcia - at what point do they have to dispose of their produce?

9:47:44 AM Dr. Smith responds.

9:48:10 AM Senator Garcia for additional follow up.

9:48:18 AM Dr. Smith responds.

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9:48:38 AM
                Senator Garcia - no subsidies?
9:48:51 AM
                Dr. Smith responds - no.
9:49:06 AM
                Senator Garcia to Chairman Montford regarding subsidies.
                Chairman Montford responds.
9:50:09 AM
                Chairman Montford asks Dr. Smith about screw worms - what about mosquitoes and
9:51:05 AM
                yellow flies?
9:51:07 AM
                Dr. Smith responds - the same process doesn't work.
9:51:26 AM
9:51:54 AM
                Dr. Smith recognized to present on giant african land snail eradication program.
                Dr. Smith concludes his presentation.
9:54:42 AM
                Bob Harris recognized to present Marketing Lionfish for Consumption.
9:55:05 AM
9:56:27 AM
                Lad Akins introduced to assist with presentation.
9:57:21 AM
                Mr. Harris introduces scientists who are assisting to committee.
9:58:24 AM
                Mr. Smith proposes creation of a lionfish consortium.
9:59:09 AM
                Diving community is aware of the lionfish issue.
                Mr. Smith speaks to problem of lion fish - most invasive species.
10:00:25 AM
10:00:56 AM
                No natural predators in Atlantic or Gulf waters.
                Mr. Akins speaks to widespread area of lionfish in waters.
10:02:50 AM
                Mr. Smith speaks to reproduction rate of lionfish.
10:03:53 AM
                Lionfish like to eat - consume anything that moves.
10:04:35 AM
10:05:53 AM
                Mr. Akins adds additional information.
10:06:51 AM
                Only targeted way to take lionfish is one at a time.
                Mr. Akins adds information regarding lionfish - need for educated divers.
10:07:24 AM
10:08:00 AM
                Mr. Smith states there needs to be additional methods to catch fish.
10:08:26 AM
                One way is a Lionfish Derby - to assist in eradication.
10:09:42 AM
                Control studies from other areas information presented to committee.
10:10:55 AM
                What should be done?
10:11:04 AM
                Need for research.
10:11:25 AM
                Develop a fisheries.
10:12:19 AM
                Work with local governmentsw and other countries.
10:12:26 AM
                Educate public.
10:13:47 AM
                Florida fisheries is $29.7 billion industry in Florida.
                Mr. Smith speaks to Shark Tank episode regarding lionfish consumption/issue.
10:14:47 AM
                Proposal introduced.
10:15:39 AM
10:16:22 AM
                Other countries working to address issue.
10:17:59 AM
                Senator Dean recognized.
10:18:06 AM
                What's largest lionfish you've seen?
                Mr. Akins - 477 mm - 19"
10:18:24 AM
10:18:43 AM
                Chairman Montford thanks presenters.
10:19:00 AM
                Chairman Montford recognizes Drew Bartlett.
10:19:27 AM
                Drew Bartlett, Deputy Secretary, DEP, re: Deepwater Horizon Oil Spill.
10:20:30 AM
                Slick was approximately size of Virginia - after spill.
10:20:44 AM
                Tarball is what is left.
                Mr. Bartlett hands out tarballs to senators.
10:20:56 AM
                Federal laws took effect after spill.
10:21:44 AM
                Mr. Bartlett speaks to timeline of oil spill.
10:22:31 AM
10:23:34 AM
                References graphic - which was handed out to Senators.
10:24:06 AM
                Attorney General taking lead on economic penalty.
10:25:28 AM
                15 payments will be made to State of Florida with settlement funds.
10:25:49 AM
                Chairman Montford asks about projects that may be recommended.
                Mr. Bartlett responds - oyster bed reconstruction.
10:26:00 AM
10:26:15 AM
                Chairman Montfords asks series of follow up questions.
10:26:22 AM
                Mr. Bartlett responds.
10:26:32 AM
                Senator Sobel recognized.
                How many counties effected by spill?
10:27:14 AM
10:27:21 AM
                Mr. Bartlett responds.
10:27:47 AM
                Environmental damages mainly in Panhandle area; but other areas suffered
10:27:50 AM
                economic damages.
10:27:58 AM
                Senator Sobel for follow up.
10:28:05 AM
               Mr. Bartlett responds.
               Chairman Montford for question.
10:28:20 AM
10:28:30 AM
                Mr. Bartlett responds.
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Recreation losses is equated to economic damages in Florida.

10:28:52 AM

- 10:29:04 AM Chairman Montford for follow up.
- **10:29:18 AM** Boat ramp can be justified under settlement?
- 10:29:30 AM Yes. Due to recreational losses.
- **10:29:42 AM** Montford who makes the decision as to whether a project is approved?
- 10:29:58 AM The trustee council.
- 10:30:20 AM Montford Where does local government fit in?
- **10:30:40 AM** Mr. Bartlett they make decisions and become local partners.
- **10:30:56 AM** Senator Sobel recognized.
- **10:31:29 AM** Mr. Bartlett continues with presentation.
- **10:31:49 AM** Civil penalities funding streams on handout provided.
- **10:32:31 AM** Portion of money goes to counties. Counties submit plan. Approved by feds.
- **10:32:38 AM** Chairman Montford for question.
- **10:32:50 AM** Mr. Bartlett responds.
- **10:33:26 AM** Mr. Bartlett continues.
- **10:35:06 AM** Chairman Montford for question.
- **10:35:11 AM** Mr. Bartlett responds.
- 10:35:25 AM Chairman Montford for follow up.
- 10:35:38 AM Mr. Bartlett answers.
- **10:36:16 AM** Senator Montford can money be spread out through state?
- **10:36:46 AM** Must be related to Gulf Coast environmental issues.
- 10:36:50 AM Mr. Bartlett continues.
- **10:37:49 AM** Gulf Consortium Council establishes their own expenditure plan.
- 10:39:16 AM Chairman Montford.
- 10:39:28 AM Mr. Bartlett responds.
- **10:39:39 AM** Chairman Montford for follow up.
- **10:40:04 AM** Departmental staff responds to Chair Montford.
- **10:41:23 AM** Funding payments go through 2018.
- **10:41:34 AM** Chairman Montford poses question to Mr. Bartlett.
- **10:41:48 AM** Mimi Drew, DEP staff, responds.
- **10:42:05 AM** Chairman Montford for follow up.
- 10:42:14 AM Ms. Drew responds.
- **10:42:41 AM** Economic settlement handled by Attorney General's office.
- **10:42:54 AM** Mr. Bartlett to summarize presentation.
- 10:43:48 AM Authorized projects in Florida.
- 10:44:44 AM Chairman Montford Is there a "czar" over all the spill?
- **10:45:06 AM** Mr. Bartlett responds FWC and DEP work together to provide leadership.
- **10:45:25 AM** Chairman Montford for follow up regarding interaction with local governments.
- 10:45:36 AM Mr. Bartlett responds "we can't do it without local governments."
- 10:45:52 AM Chairman Montford does any money go directly to county commission?
- 10:45:59 AM Ms. Drew responds.
- **10:46:14 AM** Chairman Montford for follow up.
- 10:46:18 AM Ms. Drew responds.
- 10:47:36 AM Chairman Montford for follow up.
- **10:47:48 AM** Does state have any veto power over what counties decide to do with money?
- **10:48:00 AM** Ms. Drew decision made by counties.
- 10:48:33 AM Chairman Montford for follow up.
- 10:48:43 AM Ms. Drew responds.
- **10:49:40 AM** Chairman Montford for comment.
- **10:49:59 AM** Meeting adjourned.