

Summary of the



Leslie D. Hartman

Gulf & South Atlantic Regional Panel on Aquatic
Invasive Species

Oct 5, 2016

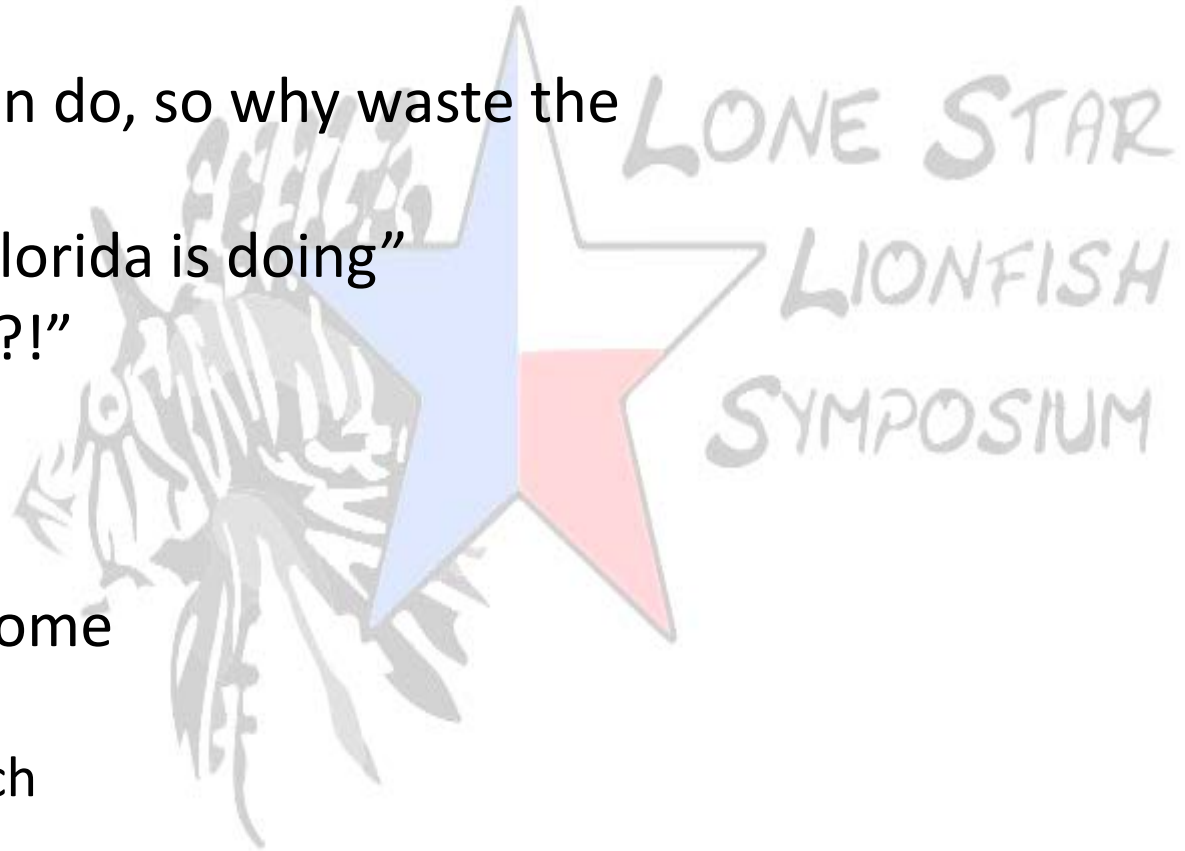
The *Other* Lionfish Challenge...

“Most of wildlife conservation troubles are due to a lack of organization. Wildlife interests remind me of an unorganized army beaten in every battle, zealous and brave but unable to combat trained legions who are organized to get what they want.”

Jay Norwood “Ding” Darling

LSLS Initial Hurdles

- Interest
 - “Nothing we can do, so why waste the time?”
 - “Just do what Florida is doing”
 - “Pro-active?!?!?!?”
- Funding
- Expectations
 - Pragmatic outcome
 - Invitation only
 - Public Outreach



Creation of the



LSLS Sponsors



LSLS Statistics

- 60 Invitations
 - Federal Agencies (2)
 - State Agencies (3)
 - 7 Divisions
 - 4 Branches
 - Non-governmental Agencies (9)
 - Universities (6)
 - 8 Campuses
 - Public Corporations (3)
- 39 Attendees (varied expertise)



LSLS Participants



LAMAR UNIVERSITY



UNIVERSITY of HOUSTON



Lone Star Lionfish Symposium

- Day 1: Presentations
- Day 1: Public Outreach
- Day 2: Facilitated Break-out Topics
 - Priority Areas
 - Outreach
 - Research
 - Policy
 - Control / Management
 - Funding
 - Uses / Markets



Day 1: Presentations

- REEF
- The Nature Conservancy
- Texas A&M University – Corpus Christi
- Oceaneering
- Texas Parks and Wildlife Department
- NOAA – Flower Garden Banks Marine Sanctuary
- Environmental Law Institute



Day 1: Public Outreach

- Press Releases
- Venue – Texas State Aquarium
- Radio
- Social Media
- TV (CBS – Corpus Christi)
- Experts Panel



Break-Out Topics



Results

Day 2: Facilitated Break-Out Session

- Priority Areas
- Outreach
- Research
- Policy
- Control / Management
- Funding
- Uses / Markets



Priority Areas

- Rank areas by access, impacts and economic importance (70.21%)
- Passes, inlets or anything that leads into estuaries (54.25%)
- Identify source population locations → focused control / management (39.36%)
- Cost benefit analysis of priority target areas (36.17%)
- Marine Protected Areas (27.66%)
- Nurseries and important life stage habitats (24.47%)
- Density distribution maps (25.53%)
- Recolonization rates (17.02%)
- Target removal on oil rigs and other artificial reefs (15.96%)

Outreach

- Co-ordinate and focus current outreach materials (51.08%)
- Social media kit – Paid campaign #lionfishtexas (38.04%)
- Lionfish table at festivals and events (35.87%)
- Prominent signs at boats ramps, jetties and fishing piers (34.78%)
- Target spearfishing groups specifically (31.52%)
- Media kit for community use (30.43%)
- One stop shop for lionfish information (28.26%)
- Add page on lionfish to TPWD regulation book (15.22%)
- Pet store education at point of sale (15.22%)
- Science kits for K-12 (15.22%)
- In-reach: continue dialog thru LSLS (10.87%)

Research

- Impacts on Texas native species (59.57%)
- Controls in native range (37.23%)
- Develop traps and attractants (27.66%)
- Life cycle (26.60%) –
 - interruptible larval development (18.08%)
 - tagging/tracking different life cycle (14.89%)
- Compile existing research (23.40%)
- Recruitment and recolonization after removal effort (20.21%)
- Habitat preferences in Texas (19.15%)
- Economic impact study (15.96%)
- Coordination of effort to minimize duplication of effort (15.96%)
- Identify egg predator species (11.70%)
- Effects of turbidity on hunting efficiency (10.64%)

LONE STAR
LIONFISH
SYMPOSIUM

Policy

- Federal elevation to Injurious Species (61.46%)
- Identify current policies and gaps (41.67%)
- Add lionfish to existing state harmful fish regulations (31.25%)
- Encourage interfacing with state representatives (21.87%) and incorporate ideas into current legislation (30.21%)
- Review Magnuson-Stevens Act to avoid MSY (28.12%)
- Aquarium trade → local sourcing (18.75%)
- Streamline permitting to help develop a market (17.71%)
- Create platform for commercial dive operators to share information with scientists (17.71%)
- Prevent the importation of other harmful species (11.46%)
- Create economic incentives to increase removal efforts (11.46%)

Control/Management

- Determine threshold population for management by habitat (52.83)
- Encourage Industry to report / eliminate (45.28%)
- Local control at specific sites (42.45%)
- Offer handling classes around the state (partnerships) (37.74%)
- Control methods research (21.70%)
 - Create a vacuum collection device (12.26%)
 - Support studies on CRISPR, a genetic technology to produce non-viable offspring (10.38%)
- Hire divers to target priority areas (20.75%)
- Host rodeos to help reduce populations (18.87%)
- Encourage commercial fishers to harvest and report catch (18.87%)
- Create a certification to identify volunteers with removal experience (11.32%)

Funding

- Economic impact assessment (59.59%)
- Increase funder interest in lionfish (34.34%)
- Create a regional habitat plan with location specific cost estimates (34.34%)
- Create a list of cost for control, outreach, research efforts (34.34%)
- Create funding / mitigation opportunities (26.26%)
- Create a funding source similar to duck stamps (20.20%)
- Create an earmarked trust fund (20.20%)
- Grants such as RESTORE (19.19%)
- Add a donation check off box to forms and licenses (11.11%)
- X-prize funding (11.11%)
- Find out more about Rider 34 funding (10.10%)
- Seek funding thru NSF (10.10%)

Uses/Markets

- New Harvest Technology (63.16%)
- Alternative Uses (Agriculture & Biomedical?) (34.74%)
 - Find an application for venom/anti-venom (14.74%)
- Avoid the need to establish MSY (32.63%) while meeting the challenge of a consistent supply (11.58%)
- Reasonable Regulations (29.47%) including imports and distributions (15.79%)
- Consistent marketing message (28.42%)
- Ecotourism promoted to the diving community to increase public awareness and removals (13.68%)
- Rodeos and tournament (12.63%)
- Decide the appropriate time to create, support and endorse a market (10.53%)

Expectations

- April Complete Summary of Topic Areas
- April – May Write up of Topic Areas with Action Items
- May Follow up Webinar
- June – Sept. Consolidate into document
- November Make available to Public
- February 2017 Review efficacy / accomplishments / direction changes to Action Items

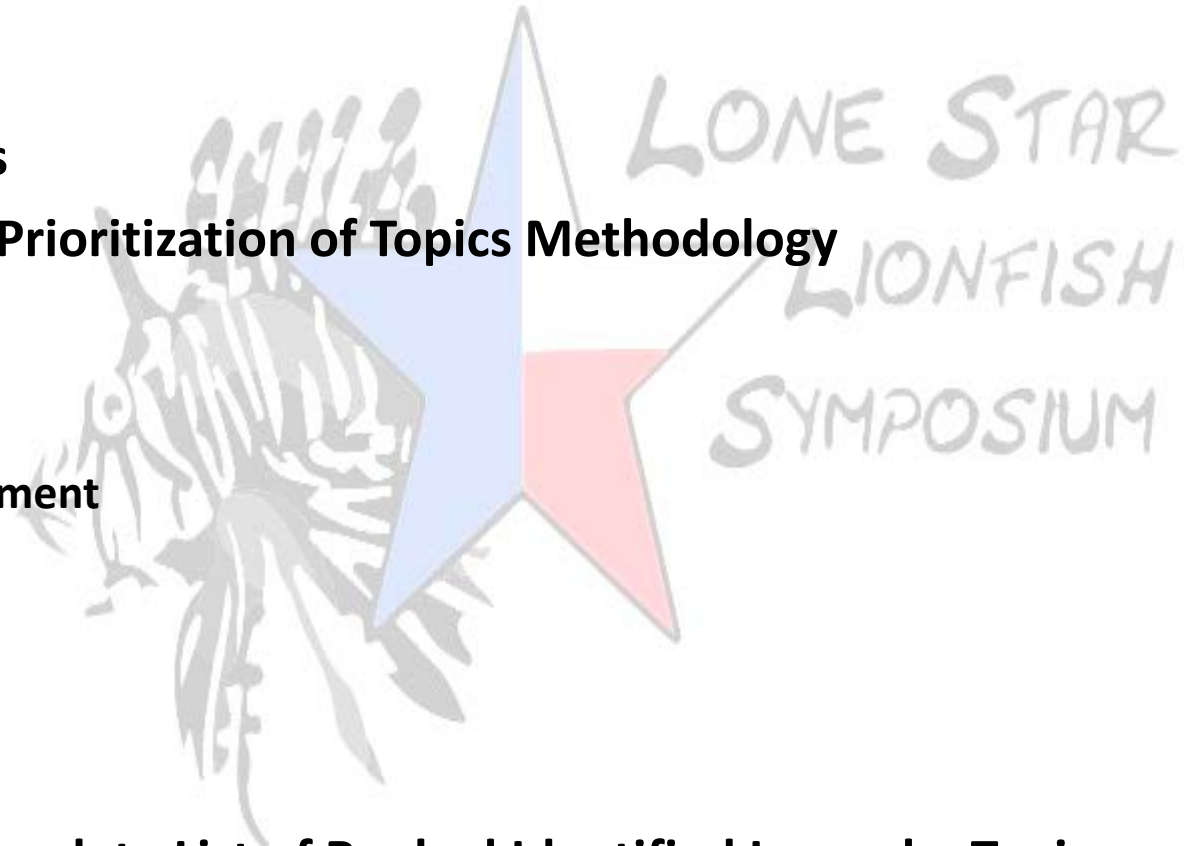
Actualities

~~Expectations~~

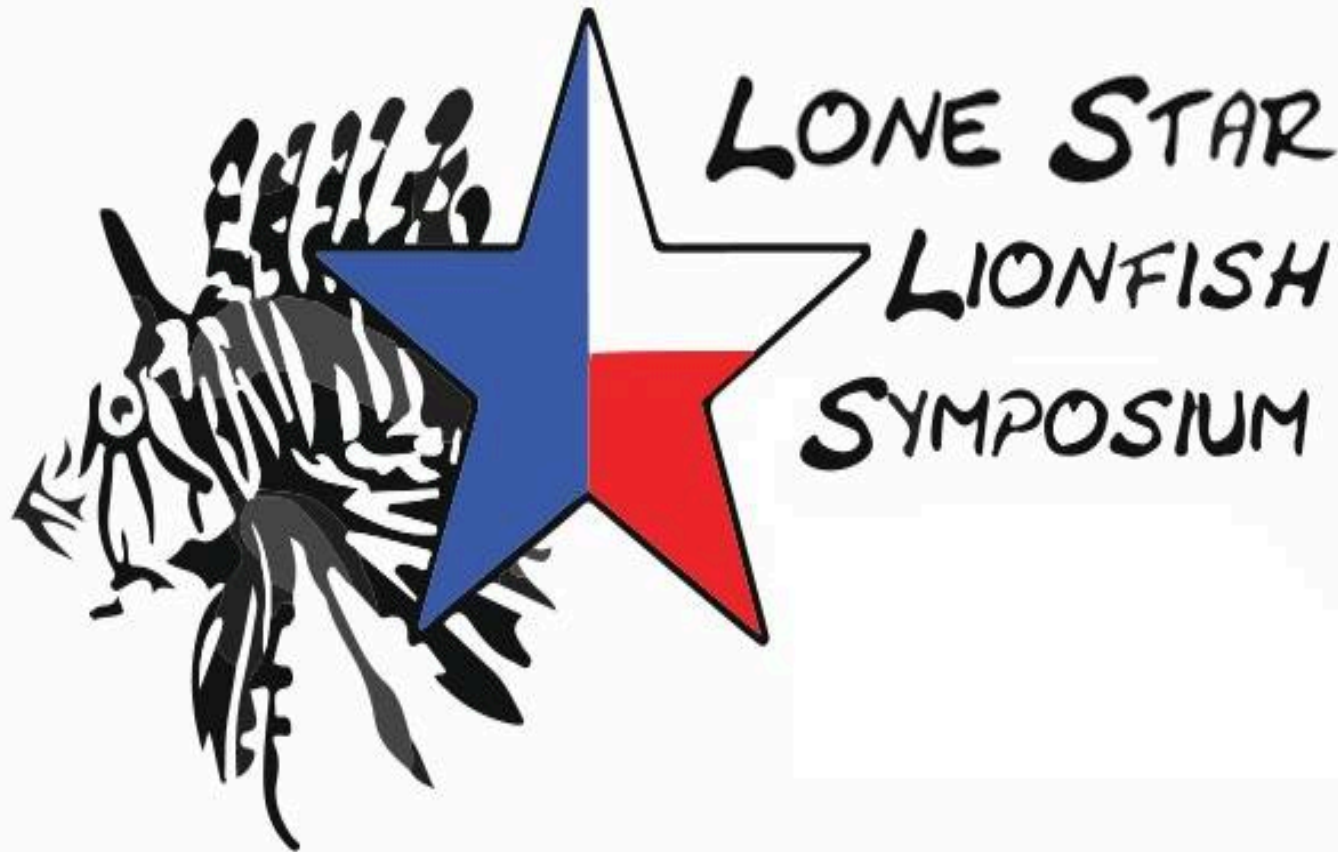
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1st LSLS Report - Table of Contents

- **Executive Summary**
- **Contents**
- **Introduction**
- **Biological Synopsis**
- **Identification and Prioritization of Topics Methodology**
 - **Priority Areas**
 - **Research**
 - **Policy**
 - **Control / Management**
 - **Funding**
 - **Uses / Markets**
- **Future Activities**
- **1st LSLS Statistics**
- **Appendix XXX Complete List of Ranked Identified Issues by Topic Area**
- **Appendix XXX Participant List**



Next Event



Current 2nd LSLS Planning Status

- Locations:
 - NOAA Galveston Laboratory
 - Moody Gardens IMAX
- Date:
 - February 15-16, 2017



Current 2nd LSLS Planning Status

- Schedule:

- Day 1

- Lionfish Updates
 - Public Venue

- Day 2

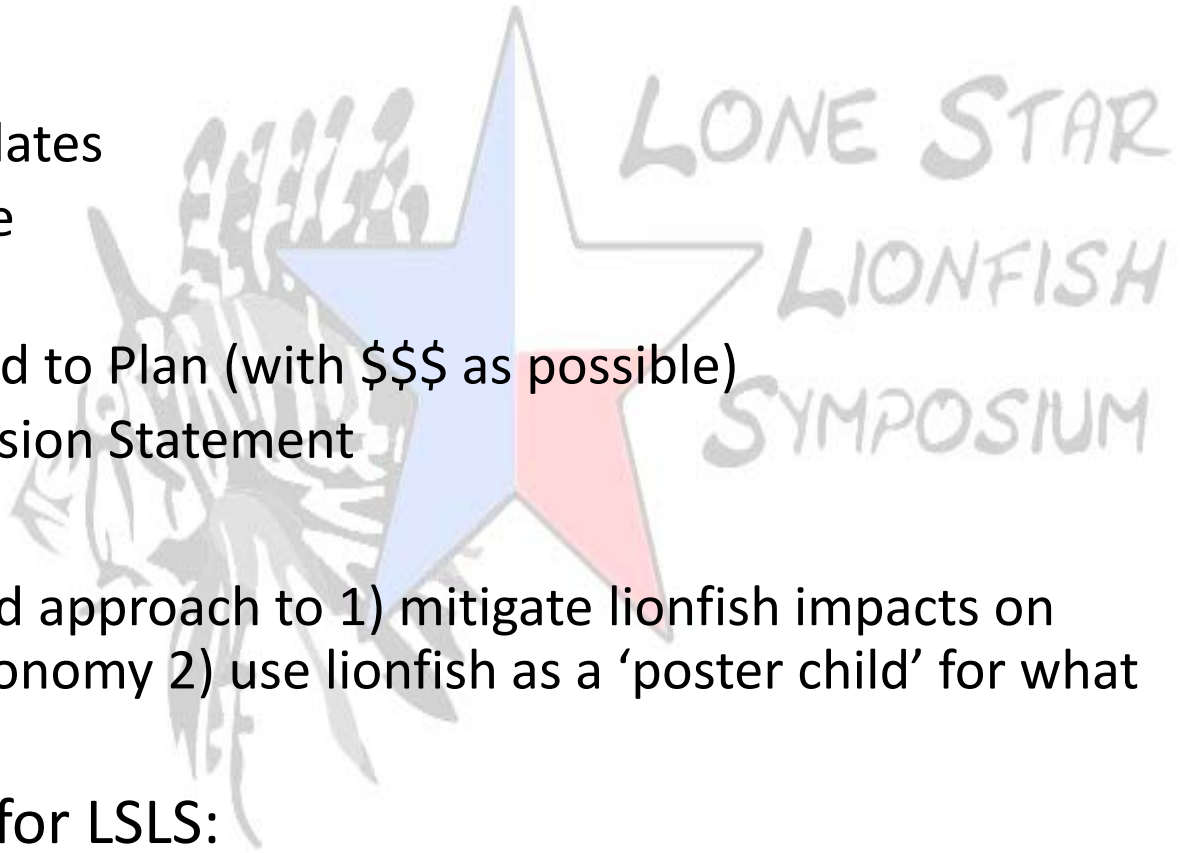
- Action Added to Plan (with \$\$\$ as possible)
 - Critique Mission Statement

- Goal:

- A multi-pronged approach to 1) mitigate lionfish impacts on ecology and economy 2) use lionfish as a 'poster child' for what NOT to do

- Long-term plan for LSLS:

- Every 2 – 3 years?



The LSLS Team -



Questions?



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TPWD'S Employee Recognition Award - Team

