

Proposed Lionfish Gear and Modification of Allowable Gears

Presented by:
Lionfish International, LLC



Contact Information:

2

Bruce McCormack
CEO, Lionfish International, LLC (LFI)

1709 SE 26th Terrace
Cape Coral, FL 33904

(850) 630-9801

bmccormack@guscenter.com

Description of the Gear:

3

Harvesting Vessel

40 ft. customized Stamas fishing vessel

ROV

modified Deep Ocean Engineering T-5 Including:

- i. Umbilical
- ii. Control station
- iii. Cameras and acoustics
- iv. Slurper
- v. Corral

Launch and Recovery System

mini crane electric davit - 800 lb.

Harvesting Vessel

4

- New construction 40 ft. vessel
- Power, twin Suzuki 350 A, 6.5 Kv generator
- Electronics: Radar, chart plotter, GPS, EPIRB, Sat phone, AIS
- Dynamic Positioning Systems using joy stick control and bow thruster
- 1200 lb. boom for launch & recovery
- 2000 lb. chilling box for catch



ROV Lionfish Harvester - designed to harvest, monitor and provide research of lionfish

- Weight in Air: **87 lbs.** (39.5 kg)
- Length: **35 in.** (889mm)
- Width: **22 in.** (559mm)
- Height: **16 in.** (406mm)
- Forward thrust: **139 lb.** (63.0 kgf)
- Lateral thrust: **30 lb.** (14 kgf)
- Vertical thrust: **37 lb.** (17 kgf)
- Depth rating: **1000 ft.** (300 meters)
- Speed at surface: **4 knots**
- Configuration: **4 vectored horizontal,**
1 vertical



ROV Lionfish Harvester - components

6



Umbilical

- Copper 300 m standard length
- Neutral in freshwater
- Slightly buoyant in saltwater



Control station

- Open architecture NMEA 2000 allows integration of sensors
- Electronic compass, Doppler and GPS to navigate and map
- Precise identification and location of lionfish



Cameras & acoustics

- Camera tilt lighting Sony HD camera (1920 x 1080)
- Rear auxiliary camera
- Front facing LED lights
- Flotation frame auto functions

ROV Lionfish Harvester - components

- Slurper and Corral



Fishery in which gear to be used.

There is no directed lionfish fishery in the United States.

Landings come from bycatch in the commercial spiny lobster trap fishery, minimal commercial spearing and small spearfishing derbies held around Florida to help control the species.

LFI intends to harvest lionfish for commercial sale.

Information obtained will provide different data points including: local densities of lionfish, currents, temperature, depth, GPS and Doppler navigation. Additional biomass will be identified in video.

This information will be available to support stock assessments of important reef fish species, as well as provide geographic information system (GIS) and benthic-habitat information over the entire harvesting area.

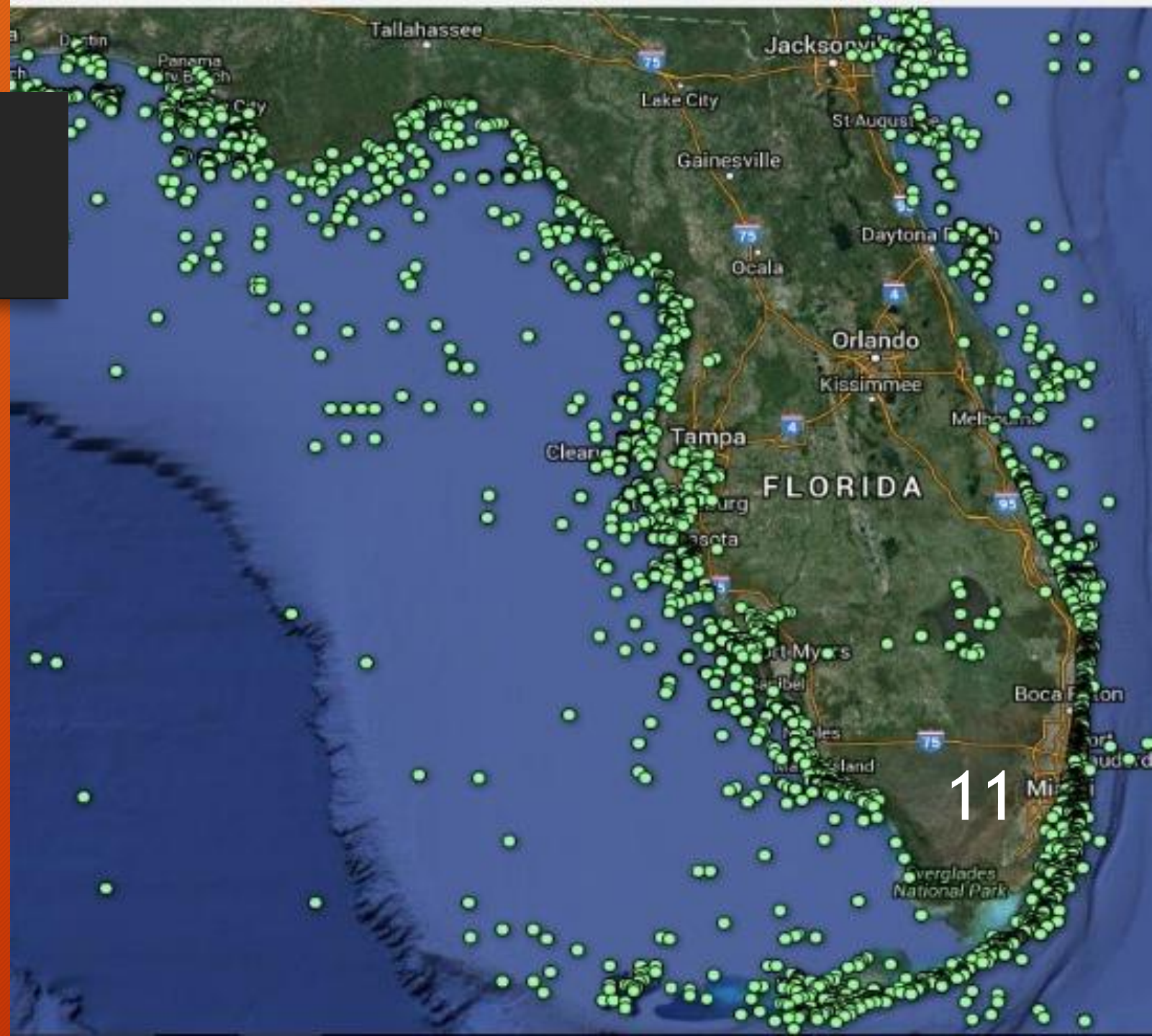
Seasons in which to harvest Lionfish

10

- 12 months a year
- Projecting 200 days a year per boat
- (allowing for weather and other conditions beyond our control)
- Begin operations with 1 vessel
- Projections to increase the number of vessels to 10 within 5 years

Areas in which the gear will be fished

LFI intends to harvest lionfish 12 months a year, projecting 200 days per year per vessel. LFI will begin operations with 1 vessel, with projections to increase to 10 vessels within 5 years.



Anticipated bycatch species associated with the gear

The harvesting gear is designed & engineered to catch **ONLY** lionfish.

The operator:

The gear will release any small bycatch through 1.5 inch mesh.

LFI Operational Procedures ensure the ROV will be under a vigilant eye to protect all species listed under the ESA.

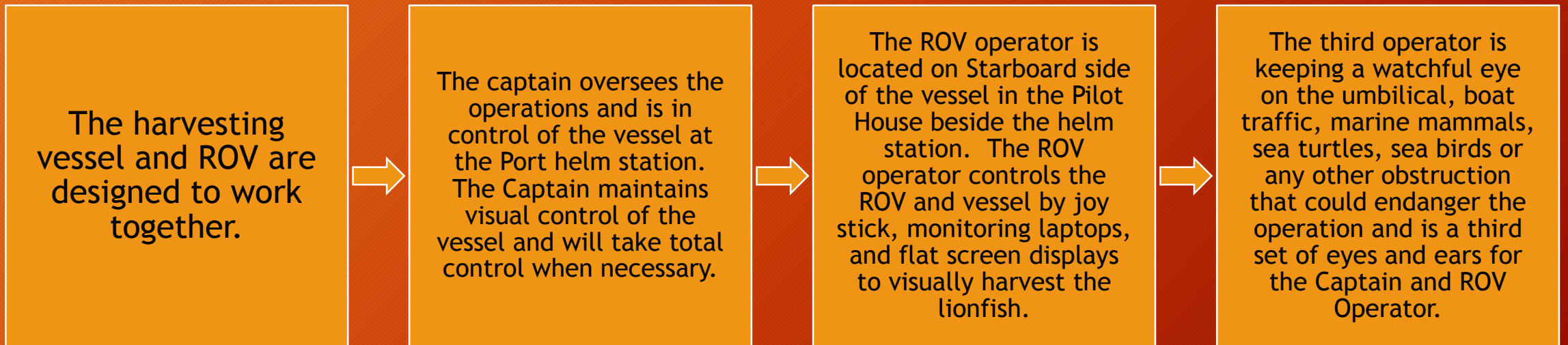
LFI will only anchor under extreme conditions.

identifies the lionfish by camera and imaging sonar.

Activates a foot pedal to engage the slurping device

How the gear will be deployed and fished

13



“ LFI is dedicated to harvesting lionfish, an invasive species that is not recognized as a fishery. LFI has dedicated private investment dollars for the design and engineering of a system of systems approach to the harvest and monitoring of the lionfish to help insure keeping our natural populations of fish, shrimp, spiny lobster and underwater habitat that lionfish prey on. In addition, we will help rid our waters and put these invasive fish in restaurants, grocery stores and on dining room tables. ”

Bruce McCormack, CEO Lionfish International, LLC

Conclusion

14

Questions?

15

Bruce McCormack
CEO, Lionfish International, LLC (LFI)

1709 SE 26th Terrace
Cape Coral, FL 33904

(850) 630-9801

bmccormack@guscenter.com

Proprietary Information of Lionfish International, LLC