



Florida Fish and Wildlife Conservation Commission

2023-2024 Lionfish Education Exhibit Program

Overview

Since the rapid expansion of the lionfish population in 2009, the FWC has recognized this issue as a high priority and made significant strides in educating the public about the potential negative impacts of lionfish on human health and safety, the economy of Florida, and native natural resources. Effective control of the lionfish invasion is highly dependent on cooperative efforts by government agencies, partners, and stakeholders. This collaboration requires the public to understand potential threats that can result from invasive species, and their role in helping prevent or minimize these impacts. The goal is to increase awareness and ensure consistent, accurate messaging about the lionfish invasion in Florida waters by supporting the creation of lionfish educational exhibits in public facilities around the State.

To qualify for funding each facility must submit a blueprint/sketch of a display containing a minimum of the 6 required facts listed below. Each of the three subsequent qualifications increase the amount of funding a facility may receive by increasing the reach and details of the display. Each qualification met equals the dollar value listed to the right of the qualification for a maximum of \$2400 per facility.

- | | |
|--|---------------|
| • All 6 Priority facts listed below included | \$1000 |
| • Display at a facility with 5,000+ visitors a year | \$500 |
| • 3 Additional facts included | \$500 |
| • <u>Live lionfish, preserved specimen for display, or interactive activity*</u> | \$400 |
| | \$2400 |

Facility Requirements:

- All facilities must be open to the public and committed to encouraging public awareness of coastal issues in Florida. Funding may be awarded to facilities with existing lionfish educational exhibits or an interest in creating one. Participants are required to submit a funds request form attached below.
- Exhibits must display FWC-approved information on lionfish and their invasion of Florida waters. Exhibits may contain additional information, but the messaging must not conflict with the agency's nonnative and invasive species initiatives.
- Exhibits must include the following: "Provided with funding from FWC" and the FWC logo.
- Applicants are encouraged to visit FWC's lionfish information page (MyFWC.com/Lionfish). **FWC will not provide lionfish for exhibits.**

Support Funds:

Approved participants may be awarded up to \$2,400 to offset costs associated with the creation of lionfish educational exhibits. Approved vendors are only eligible to receive funds once during the current 2023-2024 fiscal year. If approved and funds are dispersed, vendors will not be eligible again until the 2026-2027 fiscal year. Monetary awards are contingent upon valid submission of required reports and invoice(s) (see "Required Reporting and Invoicing" below).



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Required lionfish facts that must be included in exhibit display (May be arranged to fit your facility's themes)

- Invasive species are animals or plants that are introduced into an area they are not native to and that negatively impact native fish and wildlife, cause damage that is costly to repair, or pose a threat to human health and safety.
- Native to the Indo-Pacific, lionfish are an invasive species first spotted off Florida in 1985 that has become established in the Atlantic Ocean, Gulf of Mexico and throughout the Caribbean Sea.
- Lionfish are a hardy, generalist predator with no known consistent natural predators in the invaded range. They have the capacity to significantly reduce juvenile populations and overall diversity, preying on over 90 species of reef fishes and invertebrates.
- Lionfish possess 18 venomous spines that can cause pain and swelling. There have been no reported deaths from a lionfish sting.
- Lionfish are demersal (bottom-dwelling) and prefer habitat with ledges. The greatest densities of lionfish are generally found below 75 feet of depth.
- Releasing invasive species is prohibited in Florida and can permanently alter native ecosystems. Don't release your pets!

Additional lionfish facts that may be included in exhibit

Reproduction:

- Spawn frequently, about 2-4 days between spawns during warmer months in the summer. Eggs are encased in a floating, gelatinous egg mass.
- Can release up to 30,000 eggs per spawn though most do not reach adulthood.

Biology/Life History:

- 18 venomous spines total, 13 on dorsal (top), 1 on each pelvic fin (bottom front), 3 on anal fin (bottom back). Spines are not hollow like snake fangs. Instead, venomous glandular tissue is housed in grooves along the spine.
- Are not aggressive and use their venomous spines only for defense.
- Neuromuscular toxin can cause pain, swelling, redness, tingling, numbness. Treat stings by immersing the wound in hot (not scalding) water for 30 to 90 minutes and seek medical attention if necessary.
- Can live as deep as 1,000 feet, tolerate salinity as low as 4 ppt (average ocean is 35 ppt), and temperatures as low as 50° Fahrenheit.



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Invasion:

- The lionfish invasion refers to 2 species: Red Lionfish (*Pterois volitans*) and Devil Firefish (*P. miles*).
- The source of the invasion is unknown, but it was likely from an aquarium release of some kind. Though sometimes blamed, it is unlikely that a release from ballast water was the culprit, as very little shipping from the lionfish's native range to our waters occurs without the exchange of ballast water beforehand.
- Harvest by recreational and commercial divers is currently the best means of controlling lionfish and minimizing unwanted ecological impacts.
- Lionfish predation on grazers could lead to increase of algal cover on coral reefs. Lionfish could be competing with native predators for food and space

Harvesting Lionfish:

- There are no minimum size limits, closed seasons or bag limits for recreational or commercial harvest, and a recreational fishing license is not required to harvest lionfish when using dip nets, pole spears, Hawaiian slings or any spearing device designed and marketed exclusively for lionfish. Care should be taken to not damage reefs when spear fishing. Please safely remove lionfish whenever possible and consider participating in lionfish derbies and tournaments.
- The practice of feeding lionfish to other predatory species while diving should be avoided because it is dangerous and prohibited in state waters.

*Interactive Activity Examples:

- Set up tablet station to allow for virtual lionfish dissection and lionfish hunting activity on Gone Fishin' (https://floridafishing.pubbly.com/v4/variable-FWC_Dashboard-Menu_page.html)
- Create hands on lionfish hunting activity with stuffed animals and toy "spears"



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Funds Request Form Submission

A. Payment Information: To be eligible for payment by the state of Florida, the organization must be a registered vendor in the state of Florida purchasing system with a valid W-9 on file. If you have already done so, proceed to Facility Information, otherwise follow steps below:

1. Register as an eVerify Employer: <https://www.e-verify.gov/>
 - a. Note: Enrolled entities only update quarterly, so please submit a Memorandum of Understanding. This may be accessed upon completed enrollment.
2. Register as a vendor with the state of Florida at https://www.dms.myflorida.com/business_operations/state_purchasing/myfloridamarketplace.
3. Complete a separate registration (from step #2) and upload an active W-9 at <https://flvendor.myfloridacfo.com/>. Note: It usually takes 3-5 days for system processing.

B. Facility Information: Please submit the information and materials requested in Sections B and C to Lionfish@MyFWC.com no later than **April 5, 2024**. Information must match **My Florida Marketplace Vendor Profile**.

Vendor Name	
FEIN Number	
Vendor Address	
Contact Name	
Phone Number	
Email Address	

☐ Organization is registered with https://www.dms.myflorida.com/business_operations/state_purchasing/myfloridamarketplace.

☐ Valid W-9 is on file with <https://flvendor.myfloridacfo.com/>.

☐ Vendor is an e-Verify Employer: <https://www.e-verify.gov/>

1. How many annual visitors at your facility? _____

2. Describe how the proposed exhibit will increase awareness of the lionfish invasion (Use additional pages, if necessary):



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C. Materials Required for Submission with Funds Request Form: In addition to the funds request form above, applicants must submit by email the following documentation for proposed exhibit displays:

1. Blueprint/sketch of proposed exhibit or photos of existing exhibit(s) (if any)
2. Copy of text and photos to be displayed in the exhibit
3. A proposed itemized budget for fund spending (i.e. materials and/or services).

After the funds request is processed and approved, you will receive an approval email notification with a purchase order number. **Do not begin assembling display before receiving purchase order approval.**

No payments will be approved without prior funds request approval and receipt of purchase order number. *Payments will only be dispersed to approved vendors.*

D. Required Reporting and Invoicing

1. Display Report: All assembly must be completed with a display report submitted by **June 7, 2024**. *The display report must include an itemized list of materials for the completed exhibit display, copies of any receipts for materials purchased, description of work completed including information on displays, and photos of completed exhibit.*

2. Final Invoice(s):

Invoice(s) MUST use FWC template and include:

- Dates of service
- Date and invoice number (start with 1 and increase for multiple invoices)
- Vendor name and address
- FWC name and address (FWC Lionfish, 1875 Orange Ave E, Tallahassee, FL 32311)
- Purchase order number (included in notification email of approved purchase order)
- The sum total of expenditures

Please submit display reports and invoice(s) to Lionfish@MyFWC.com. Final Invoice(s) must be received **no later than June 7, 2024** to be eligible for payment.

FWC reserves the right to deny payment if the participant fails to fulfill the requirements for payment processing or provide all required reporting and invoicing by given deadline.

I acknowledge that I have read and agree to the requirements for this program.

Printed Name: _____ Date: _____

Signature: _____



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Send funds request and required materials to Lionfish@MyFWC.com. Please direct all questions regarding the program to Emily Robicheaux (Emily.Robicheaux@MyFWC.com)