



Florida Fish and Wildlife Conservation Commission

2024-2025 Lionfish Education Exhibit Program

Objective Overview

Since the rapid expansion of the lionfish population in 2009, the Florida Fish and Wildlife Conservation Commission (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 this invasive species, and the role of the community in helping prevent or minimize these impacts.

The goal of this education and outreach support initiative 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.

Qualifications

To qualify for funding each facility must:

___ Submit a blueprint/sketch of a display containing a minimum of the six (6) required facts listed on the last page of this application. Suggested additional facts are included but not required.

___ Provide a detailed budget for goods or services the funding will purchase (wage and travel expenses are prohibited).

___ Be open to all members of the public, regardless of race, religion, ideology, or disability.

___ Be willing to work with the FWC Lionfish Coordinator to provide adequate advertising through either local publications or social media.

___ Allow FWC representatives to review any lionfish facts stated in addition to the six required, and edit, if needed, for scientific accuracy and consistency in messaging.

Preference for funding will be given to facilities that:

___ Host more than 5,000 visitors per year

___ Host environmental awareness programs and ongoing education opportunities for the community and/or local schools that increase awareness of coastal habitat or reef conservation best practices.

___ Have an active lionfish awareness program in place at the time of application.

___ Are dedicated to the conservation of reef or coastal habitats, or already actively addressing exotic species in general and their special concerns for the state of Florida



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___ Display facts in addition to the six (6) required, and the approval discretion of the FWC Lionfish Coordinator or their representative.

Funding

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 state fiscal year. If approved and funds are awarded, vendors will not be eligible to apply again for two (2) years after the finish of the original project date.

Monetary awards are contingent upon valid submission of a complete application, vendor eligibility per the State of Florida, and the timely submission or required reporting date and invoice(s).

Submission

A. Payment Information

To be eligible for payment by the State of Florida, the applying organization must be a registered vendor in the State of Florida My Florida Marketplace (MFMP) purchasing system with a valid W-9 on file.

As a vendor for the State of Florida, complete all of the steps below:

1. Register as an e Verify Employer: <http://www.e-verify.gov/>
 - a. Enrolled entities only update quarterly on the site search engine, and can only be searched if they have four (4) or more employees. If you are newly enrolled or representing a small business, please submit a screen shot of your completed vendor profile or the complete Memorandum of Understanding (MOU) once completely signed off by the Department of Homeland Security from the registration site.
 - b. Per State of Florida statute, we cannot provide funding to employers that are not participating in e Verify.
2. Register as a vendor to do business with the State of Florida via My Florida Marketplace at: https://www.dms.myflorida.com/business_operations/state_purchasing/myfloridamarketplace.

Complete a separate registration (from Step #2) and upload a complete W-9 at <https://flvendor.myfloridacfo.com/>

NOTE: It usually takes 3-5 business days for purchasing system processing, but can take up to two(2) weeks depending upon the time of year applying.

Unless all steps are completed, no funds can be dispersed by the State of Florida per statute.

We cannot administer partial payments for partial enrollment.



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B. **Facility Information:** Please submit the information and materials requested in Sections B and C to Lionfish@MyFWC.com Applications will be accepting on a continuing basis.

| | |
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| Name of Business (include DBA name if applicable) | |
| FEIN Number | |
| Vendor Address | |
| Project Contact Name | |
| Phone Number | |
| Email Address | |

Please answer the following questions to complete your application:

1. How many annual visitors are typical at your facility? _____
2. Describe how the proposed exhibit will increase awareness of the lionfish invasion (Use additional pages, if necessary)

3. Timeframe/Period of Performance:
 - a. Proposed start date of exhibit? _____
 - b. Proposed completion date of exhibit? _____
 - c. How long will the exhibit be open to the public (please note any seasonal closures, if ongoing)? _____
4. If your business participates in social media, the exhibit must be advertised within 30 days of completion of the final exhibit. The announcement must tag or be shared publicly to the FWC Reef Rangers Facebook page.
5. Awardees will be required to maintain receipts from exhibit goods and services for a minimum of one year after the display has been constructed. Receipts must be furnished at the time of final invoice submission.
6. In addition to the funds request form above, applicants must submit by email the following documentation for proposed exhibit displays:
 - a. A blueprint or sketch or proposed exhibit or photos of existing exhibit(s)
 - b. Copy of text and photos to be displayed in the exhibit (will be reviewed for scientific accuracy and messaging consistency)



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- c. A proposed itemized budget for fund spending (i.e. materials or services). Links for materials must be provided. **We cannot pay hourly wages nor travel expenses.**

Approval

After the funds request is processed and reviewed, you will receive an approval email notification with a purchase order number. **Do not begin assembling the display before receiving the purchase order approval. Any work started, supplies purchased, or expenses incurred prior to the receipt of the purchase order will not be considered payment for reimbursement. Funds can only be dispersed to vendors who have completed the steps to become eligible, we cannot provide third party support.**

Final Reporting and Invoicing

1. Deliverable: 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 as well as any advertising performed.
2. Final Invoice(s): All final invoices must be remitted to Lionfish@MyFWC.com and include the following information to be remitted in a timely manner:
 - Dates of service (start of production, end of production – start of display, end of display)
 - Invoice date and number
 - Vendor name and address, physical address of exhibit.
 - FWC name and address:
 - Division of Marine Fisheries Management
 - ATTN: FWC Lionfish Coordinator
 - 1875 Orange Ave E
 - Tallahassee, FL 32311
 - Purchase order number must be on the final invoice (included in notification email of project approval)
 - Itemization of items purchased and sum of expenditures.

Signature and Notice

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

Projects completed outside of the timeframe agreed upon may not be eligible for funding.

If you anticipate a delay due to an act of nature or extraordinary circumstances, please contact the FWC Lionfish Coordinator immediately to discuss options.



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By signing below, I acknowledge that I have read and agree to the requirements for this program:

Printed Name: _____

Date: _____

Signature: _____

Send completed application and required materials to Lionfish@MyFWC.com for consideration.

Invoice(s) MUST use FWC template and include:

- Dates of service
- invoice Date and number
- Vendor name and address, physical address of exhibit
- 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, by date agreed upon 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: _____

Send funds request and required materials to Lionfish@MyFWC.com.



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Required lionfish facts that must be included in exhibit display

- Invasive species are animals or plants that are introduced into an area they are not native to (did not originate from) 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 have 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 fish 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. While 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!

Suggested Lionfish facts that may be included in exhibit, by category

Lionfish:

Reproduction

- Spawn frequently, about 2-4 days between spawns during the 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

- Have 18 venomous spines total, 13 on dorsal fin (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 considered aggressive and use their venomous spines only for defense.
- Neuromuscular toxin can cause pain, swelling, redness, tingling, numbness. If stung, immediate medical attention should be sought.
- 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 degrees Fahrenheit.



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Invasion

- Invasion refers to 2 species: Red Lionfish (*Pterois volitans*) and Devil Firefish (*P. Miles*)
- Were likely introduced from an aquarium display or some other form of captivity. It is unlikely that a release from ballast water started the invasive populations as very little shipping from the lionfish's native range to our waters occurs without ballast water being exchanged beforehand.
- Are thought to be best harvested by recreational and commercial divers as currently the best means of controlling populations and minimizing unwanted ecological impacts.
- 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

- Have 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 not to damage reefs when spearfishing.
- Should not be fed to other predatory species while diving and the practice should be avoided because it is dangerous and prohibited in state waters.

Interactive Activity Examples

- Set up a 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 a hands-on lionfish hunting activity with stuffed animals and toy "spears".