



# 2017 Florida 4-H State Marine Ecology Event



## I. Guidelines and Information

**What is it?** The 4-H State Marine Ecology Event (MEE) provides youth with exciting opportunities to learn about Florida's coastal and ocean habitats, plants, and marine life. This state level competitive event is held each fall and is open to 4-H youth from 8-18 years old. The event is currently supported by funds from the *Guy Harvey Ocean Foundation*.

**When is it?** The 2017 4-H State Marine Ecology Event (MEE) will be held **Saturday, November 4**, at the Osceola County Extension Office in Kissimmee, FL. Location and directions to the Extension office can be found at <http://osceola.ifas.ufl.edu/>. The MEE event schedule can be found at: <http://florida4h.org/mee>. This document provides more information on the MEE, how to register for it, lodging options, event schedule, and study materials. PLEASE read the guidelines carefully as changes have been added.

**Who Can Compete in the MEE?** Participation in the 4-H Marine Ecology Event is open to all 4-H club members, special interest, or school enrichment groups. The only requirement is that all youth be enrolled in 4-H. Three 4-H age divisions compete. Juniors must be between the ages of 8 and 10, Intermediates between 11 and 13, and Seniors between 14 and 18 by September 1<sup>st</sup> of the current program year.

**How are the groups arranged?** All levels compete in the same five sections of the MEE but each age division will have different sets of study materials. Where possible, contest materials will be tailored to fit each age division. Youth can compete in teams and/or as individuals. A team consists of four members, but only the three highest scores in each team are counted in the scoring. That is, the lowest score is dropped from the total. Therefore, a team may be composed of only three members if a fourth is unavailable. Each county can send up to **two teams per 4-H age level** to compete in the state event. This may require some form of county contest to determine the representatives for those counties that have more junior, intermediate and/or senior level participants. Each county may send **two additional youth at each age level** to compete as individuals.

### Please note the following rules concerning the contest:

- **No merging of teams** - Teams from two different counties are not allowed to merge because of lost members. If a team no longer has enough members to remain a team, the remaining youth will compete as individuals. To help prevent this from happening, it is suggested that county teams have alternates (individuals) to replace a team member that fails to show up/check-in for the MEE. Note: Individual 4-H members are also eligible to enter the MEE and compete. A team member is also an individual within the competition.



- **NEW - Advanced Level for Past Senior Winners** – Any Senior who has received a first place award in a past MEE event, as a team member or individual, may still enter the contest as a participant. However all past first place Senior winners can **only compete at the “Advanced Level”** of the MEE. If they wish not to, they may return to the event as a volunteer helper.

For seniors who have won a second or a third place in past MEE contest(s), moving into the “Advanced Level” is optional. They may compete at the senior level or choose to go into the “Advanced Level.” The study materials for the “Advanced Level” are described later in this document and on the MEE webpage.

Youth who compete at the Advanced Level do so as individuals. There are no teams. Their preference/choice must indicated when they register through 4-H online.

### **PRE-REGISTRATION IS REQUIRED!**

Youth who want to compete will need to register individually in **Florida 4-H Online**. Once registered, their county agent will need to note whether they are an individual or team competitor on their profile before approving them to the State level. As such, team leaders will need to make sure to communicate to their county agent who will be participating from their county and on what team if multiple teams are involved.

**Registering Other Adults and Non-competing Youth:** 4-H leaders in charge of teams will need to register themselves as adult participants in Florida 4-H Online. Leaders should also indicate the number of additional people that will be attending from your county. This includes additional youth who are not competing. There is **NO registration fee for adults and/or non-competing youth**, but we do ask that they be included in the headcount for total attendance through 4-H online. **Youth and Team Leader registrations must be approved through the County's Extension office before being considered registered. Registration deadline is Friday, October 20, 2017!** Registrations after this date will be charged a \$30 late fee. **Registrations will NOT be accepted after Thursday, October 26. PLEASE REMEMBER -** Your county extension office may have earlier deadlines so please meet their deadlines first!

**Payment:** **The entry fee is \$12 per youth.** This fee helps cover insurance, contest supplies, and awards. Team entry fees are based on the number of individuals on each team. (Example: If a team is composed of three members, their entry fee is \$36. If a team is composed of four members, the entry fee is \$48.00.)

**The 4-H State Headquarters will invoice each county AFTER the event for the amount owed.**

Please consult your local extension office for any county based deadlines for payment. Counties will be expected to pay via one county check made payable to the **Florida 4-H Foundation**. Checks should be sent to the **4-H State Headquarters, PO Box 110225, University of Florida, Gainesville, FL 32611-0225**. Mark it to the attention of the "MEE."

**Event Volunteers/Observers:** The MEE needs the help of volunteers to be successful! Those who come to the event are encouraged to volunteer in some role. These roles are described online at [http://florida4h.org/programsandevents\\_/marine/](http://florida4h.org/programsandevents_/marine/). Team leaders are asked to send a list of volunteers and the role they would like to have at the event to [kblyler@ufl.edu](mailto:kblyler@ufl.edu). Only designated volunteers will be allowed in the contest area during the actual MEE.



**Lunch and Lodging:** Lunch is NOT provided on-site. Counties are responsible for their own lunches. Eating establishments are limited in the area so please plan ahead! **Coffee and other refreshments will be provided to those who sign up in a volunteer role.**

If your group requires lodging for Friday, November 3 and/or Saturday night, November 4, a limited block of rooms has been reserved at the **FLAMINGO WATER PARK RESORT**. The website is <http://flamingowaterpark.com/resort/>. The hotel is a mile or so down the road from the MEE location. A special group rate of **\$53 PER NIGHT** has been arranged. This is a room with two queen beds based on a max of 4 people per room. To get this rate, you will need to make your reservations by **October 24**. After this date, rooms are on a space and rate availability basis only. The rate does NOT include breakfast. However, the resort should be able to provide you a map that shows where restaurants and markets in the area are located, as well as where the Osceola Heritage Park is. **Rooms are limited in number, so book early! For room reservations call 407-846-2221.** When making reservations make sure you mention that you are with "**4-H State Marine Ecology**" and ask for the block rate.

**Note** - There is a water park on the property! If your group would like to get there on Friday in time to use the water park, please let the reservation desk know. However, an additional resort fee of \$21 will be added to the cost of a room. This fee covers up to four people for entry into the waterpark. The water park is open from 11am to 5pm in November.

#### **Other Activities at the MEE!**

- **Marine and Aquatic Photography Contest** - Photographs taken by 4-H youth will be on display at the MEE. For more information on this photo contest and how to enter it, go to: <http://florida4h.org/programsandevents/marinephoto/>
- **Sea Perch Mini-Challenge** – This event will take place at the Osceola County Extension office after the MEE rotations are done. A series of pools will be set-up outside. Youth/clubs working with Sea Perch or other underwater ROVs will have the opportunity to navigate their ROV through a series of underwater obstacles. For more information see the flyer on the MEE website.
- **Club Share Tables** - If your club has done a **service learning project** related to marine, aquatic, or water education, your club is invited to share what they did through pictures, portfolios, displays, or give brief presentations. Displays should be able to sit on half of a six foot table. *If your club needs table space, please indicate this when you register or e-mail Dr. Blyler at [kblyler@ufl.edu](mailto:kblyler@ufl.edu). If youth would like to present a project this should be made through special arrangements by calling Dr. Blyler at 352-294-2903*
- **Educational Activities** - Other educational activities may be offered during or after the contest. See the MEE schedule for what might be happening and where.



## II. Description of Event Sections, Awards, and Study Materials

### A. TENTATIVE EVENT SCHEDULE for November 4, 2017

Check-in	8:30 am - 9:00 am
Volunteer assignments	9:00 am - 9:15 am
Introduction to Event	9:15 am - 9:45 am
Event	9:45 am - 12:00 noon
Lunch	12:00 pm - 1:30 pm
Educational Activities*	10:00 am – 1:45 pm
Recognition Program	2:00 pm - 3:15 pm
Evaluations/Group Pictures	3:15 pm – 3:30 pm

\*See "Educational Activities" section of the guidelines.



County teams and individuals participating in the contest must be on the grounds and checked-in between 8:30-9:00 a.m. If a county group arrives late or after the event has started, they may not be able to compete. **Make sure youth bring pencil(s), a sharpener, and a flat (no compartment) clipboard.**

**INTERESTED IN VOLUNTEERING?** If you would like to help on site, please check the volunteer role descriptions on the MEE webpage (<http://florida4h.org/>) and indicate what role you would like to have when you register online. You may also contact Dr. Karen Blyler at 352-294-2903 (or email [kblyler@ufl.edu](mailto:kblyler@ufl.edu)) with questions or information.

### B. EVENT SECTIONS AND FORMAT

The contest has five sections, each in a different location. Youth move as a group from section to section guided by a group leader. Separate contest materials are given to each age level. Advanced Level seniors have additional materials. Each section is described as follows.

#### **Section 1 - Identification of Marine and Coastal Plants of Florida**

Youth will identify a variety of plants on tables using a list of common names. (15-25 plants).

#### **Section 2 - Identification of Marine Invertebrates of Florida**

Youth will identify a variety of invertebrate animals on tables, using a list of common names. (20-30 invertebrates).

#### **Section 3 - Identification of Marine Vertebrates of Florida**

Youth will identify a variety of vertebrate animals on tables, using a list of common names. (20-30 vertebrates).

**Preparing for these sections:** Each correctly identified specimen is worth 1 point. In some cases, the same specimens may be used for all age divisions; however, older 4-Hers may have more challenging specimens to identify. Every effort is made to use real specimens (live and dead) in the contest. To prepare for these sections, youth should review/study the MEE Species Identification PowerPoint (on the web or CD) and use the Species ID Companion Guide. Juniors have their own guide, separate from Intermediates and Seniors. The Companion Guide can be downloaded from the 4-H website.



**Advanced Level Seniors:** Youth who qualify for the advance level have additional specimens to know for sections 1, 2, and 3. The Advanced Level Specimen list is on the MEE website.

#### **Section 4 - Natural History Scavenger Hunt**

This section focuses on the natural history of selected organisms found on the species list. This information can be found in the Species Identification Companion Guide after phrase **“Did You Know?”** Not all organisms on the list will have this additional information. This information will describe unique features, interesting behavior, and lifestyles for selected marine life. This information will be turned into descriptive “clues” for Section 4.

In this section, youth will be given a sheet of approximately 20-25 clues to “match” with a specimen in the room. A sample clue sheet(s) can be downloaded off the 4-H MEE website. Each correctly matched clue will be worth one point. This section will be worth a total of 15-25 points depending on the age group. Juniors will only be required to learn about the natural history of organisms found on their species list.

**Advanced Level:** There are no additional materials for this section (at least for this year!).

#### **Section 5 - Multiple Choice Study Questions**

The **first part** of this section will include a selection of approximately 25 multiple choice questions taken from the original set of multiple choice study questions provided, but different for each age level. To help youth research the answers for the multiple-choice questions they should use the "additional resources" mentioned in the "Study Materials" document.

The **second part** of Section 5 is **only for Intermediates and Seniors**. Approximately 5-8 questions in Section 5 will come from *Lesson 4 – Coastal Ecosystems: Beach, Estuary, Marsh, and Swamp*. Lesson 4 comes from the Aquatic and Marine Ecosystems Leader's Guide. Youth should read over the lesson and know the vocabulary and answers to the questions given about the lesson.

Another 5-8 questions will come from this year's *Special Topic – Sea World's Sharks and Rays*. (Each question = 1 point or 25-35 points for this section depending upon the level.)

**Advanced level:** There are additional multiple choice questions to study. These questions can be found on the MEE webpage. A complete list of the requirements for this level can be found at [http://florida4h.org/programsandevents\\_/marine/](http://florida4h.org/programsandevents_/marine/).

**Total Scores:** The total possible score for all five sections will be approximately 100-145 points depending on age group.

### **C. AWARDS AND RECOGNITION**

During the awards and recognition ceremony, the top scoring teams and individuals will receive:

**Team Awards** - Senior, Intermediate, and Junior Divisions

1<sup>st</sup> Place trophies plus small scholarship award for marine related educational program.



2<sup>nd</sup> Place trophies and 3<sup>rd</sup> Place trophies

**Individual Awards** - in Senior, Intermediate, and Junior Divisions. *Advanced Level award TBD.*

1<sup>st</sup> Place trophies plus small scholarship award for marine related educational program.

2<sup>nd</sup> Place trophies and 3<sup>rd</sup> Place trophies

Scholarships may be used to defer costs for marine camp registrations for team members OR used for some other approved marine education activity. Team scholarships can only be used as a group. All activities must first be approved by 4-H State Headquarters before scholarships are sent to counties. All requests for scholarships must go through the county 4-H agent first. All participants are considered individuals and therefore a team member can win an individual award as well as a team award. Announced winners will be final. *Awarded Scholarships must be used within one year or they will expire.* All youth who complete the contest receive *Certificates of Achievement*. All are welcomed to take pictures during and/or after each award presentation.

## D. STUDY MATERIALS

The following study materials youth should use in preparation for the MEE. The materials marked with an \* are on a CD that can be obtained from the State 4-H Headquarters.

### Juniors:

1. Marine Organism Identification List for Juniors
2. Species Identification Guide CD – Juniors PPT\*
3. Junior Species Companion Guides (supports the CD)
4. Junior Multiple Choice Study Questions
5. Answer Key to MC Questions

### Intermediates and Seniors

1. Marine Organism List for Intermediates/Seniors
2. Species Identification Guide CD – Intermediates and Seniors PPT\*
3. Intermediate and Senior Species Companion Guides (supports the CD)
4. Intermediate Multiple Choice Study Questions
5. Senior Multiple Choice Study Questions
6. Answer Key for all Multiple Choice Questions
7. Lesson 4: Coastal Ecosystems (BOTH)
8. Special Topic – Sea World – Sharks/Rays (BOTH)

### Advanced Level Seniors

1. Senior materials above PLUS...
2. Advance Level of Multiple Choice Questions (M/C Key given to leader upon request)
3. Advanced List of Marine Organisms (to know)

*\*NOTE: The CD can be obtained by e-mailing Dr. Karen Blyler at [kblyler@ufl.edu](mailto:kblyler@ufl.edu). Guidelines and study materials (except the CD\*) can be downloaded off the Florida 4-H website at: <http://florida4h.org/mee>. In addition, the website has links to preparation aides such as an overview of the MEE, sample answer sheets, and more. If you have any difficulty downloading the materials or you have any questions, please contact Dr. Karen Blyler at State 4-H Headquarters by calling (352) 294-2903 or e-mail her at [kblyler@ufl.edu](mailto:kblyler@ufl.edu).*





**Note:** There are informal learning centers/aquariums around Florida that host learning opportunities to help prepare youth for the MEE. Please check the MEE website for these opportunities. If you are in a coastal county, ask your local **Sea Grant Extension agent** for assistance! For a listing of Sea Grant agents go to: <http://www.flseagrant.org/>

## E. ADDITIONAL RESOURCES

The following resources can be used to help youth identify organism and may provide additional information on natural history/habitats. The **MEE Companion Guide** has additional references.

1. National Audubon Society Nature Guides: Atlantic & Gulf Coasts, by W. Amos and S. Amos, Alfred A. Knopf, New York, 1997
2. Peterson Field Guides: Southeastern and Caribbean Seashores, by E.H. Kaplan, Houghton Mifflin Company, 1988
3. Florida's Living Beaches – Guide for the Curious Beachcomber. Blair and Dawn Witherington, Pineapple Press, 2007.
4. Marine Science by Thomas F. Greene. AMSCO Publications, New York, 1998
5. Marine Biology by Herbert Webber and Harold V. Thurman. Harper Collins Publisher, 1991
6. Marine Biology by Peter Castro and Michael E. Huber, Mosby Year Book, 1992
7. Katz, Cathie. The Nature of Florida's Beaches. Great Outdoors Publishing Company, 2001.
8. Allen, Ralph. *A Tackle Box Guide to: Common Saltwater Fishes of Southwest Florida*. Florida Sea Grant, SGEB-25, University of Florida. 1993.

### Helpful Websites

Florida Fish and Wildlife Conservation Commission:

- <http://myfwc.com/wildlifehabitats/profiles/saltwater/>
- <http://myfwc.com/education/wildlife/sea-turtle/>
- <http://myfwc.com/viewing/where/>
- <http://myfwc.com/research/habitat/seagrasses/>
- <http://myfwc.com/research/habitat/coral/>

Florida Museum of Natural History

- <http://www.flmnh.ufl.edu/fish/southflorida/pisces.html>
- <http://www.flmnh.ufl.edu/fish/>

Salt Marsh Plants

- [https://www.dep.state.fl.us/water/wetlands/delineation/wetcomm/docs/fg\\_smnf.pdf](https://www.dep.state.fl.us/water/wetlands/delineation/wetcomm/docs/fg_smnf.pdf)
- <http://stjohns.ifas.ufl.edu/SEA/documents/SaltmarshPlantsofNEFlorida.pdf>