

Aquatic WILD & Hooked on Fishing Not on Drugs





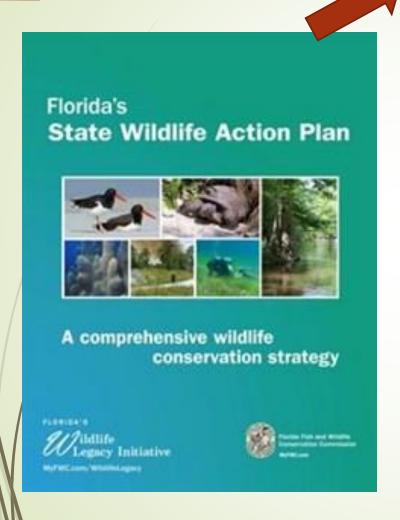




Learning Objectives

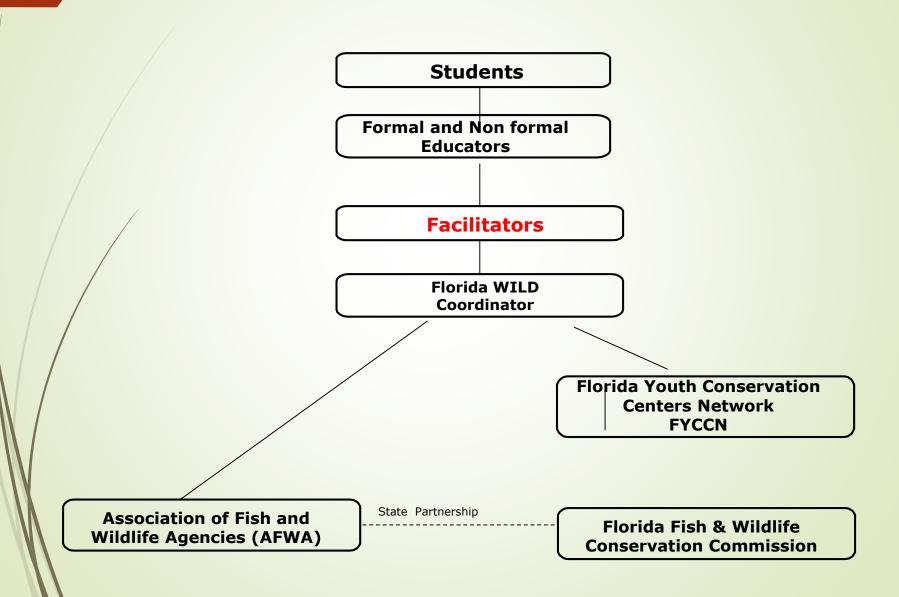
- 1. Experience hands-on aquatic wildlife related lessons.
- 2. Develop knowledge, skills, and confidence to use the lessons.
- 3. Actively participate in a sample lesson of the Hookedon Fishing Not on Drugs youth program.





...Education plays a vital role in conservation of Florida's wildlife and other natural **resources.** The goal of conservation education is to lead individuals from simple awareness to beneficial action and behavioral **changes**. Many residents know little about Florida's natural resources and do not realize how their individual actions collectively contribute to the threats of these resources. The future health of Florida's natural resources will depend on continuous and comprehensive educational efforts designed to promote ecological literacy and the balance between natural resources, wildlife conservation, economic productivity and development....

Florida Project WILD Network



6e+ WILD







Each Activity contains

- Recommended Grade Levels
- Subject/Content Areas
- Method
- Materials
- Duration, Group Size, Setting, etc.
- Key Terms



6e+ WILD





Each Activity Contains continued...

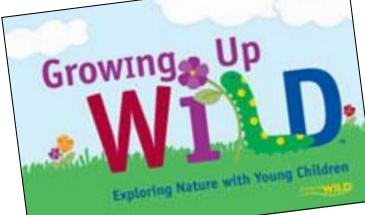
- Objectives
- Background
- Procedures
- Extensions
- Evaluations
- WILD Work
- In Step with STEM
- Copy pages



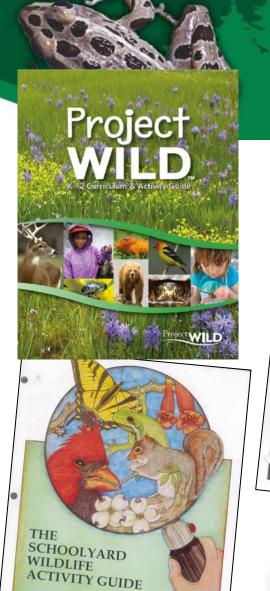


6e+ WILD

Additional Materials



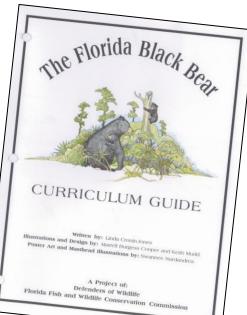




By Linda Cronin – Jones Iliustrated by Swannee Nardandrea

NONGAME WILDLIFF PROGRAM
FLORIDA GAME AND FRESH WATER FISH COMMISSION







Marine Programs

- Youth Fishing Camps
- Kid's Fishing Clinics
- Women's Fishing Clinics
 - Adult Fishing Clinics



Youth Saltwater Fishing Camp

- Single or multi-day programs that provide basic hands-on instruction about saltwater fishing.
- For youth ages 8-15
- Train partners throughout the state of Florida
- Provide camp equipment to partners to host camps







Kids' Fishing Clinic Program

- Partnership between FWC and local coordinators
- Designed to teach kids the basics of fishing, ethical angling and conservation
- Fishing rods provided by Fish Florida and local groups
- Allows kids to practice the new skills they have learned
- Catch and release only
- Stations: Knot Tying, Tackle Good Angler, Habitat Tank, Casting





Women's Saltwater Fishing Clinic

- A free, one day, shore based event offered to women ages 18 and older to introduce them to saltwater fishing and to educate participants on how to be responsible, ethical stewards of Florida's marine resources
- Host sites include: Panama City, Crystal River, Jacksonville, Apollo Beach, Cedar Key, Pensacola, St. Augustine, Sebastian Inlet, Ft. Pierce, St. George Island, Ocala, Tallahassee, and several others
- Topics covered: Inshore fishing, tackle, casting, cast netting, knot tying, fisheries conservation and more!
- FWC is interested in finding partners to conduct these clinics







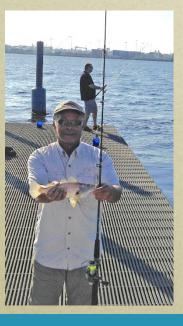


Adult Saltwater Fishing Clinic

- A free, one day, shore based event offered to women and men ages 18 and older to introduce them to saltwater fishing and to educate participants on how to be responsible, ethical stewards of Florida's marine resources
- Host sites include: Panama City, Jacksonville, Apollo Beach, Cedar Key,
 St. Augustine, Ft. Pierce, Tallahassee, and several others
- Topics covered: Inshore fishing, tackle, casting, cast netting, knot tying, fisheries conservation and more!
- FWC is interested in finding partners to conduct these clinics









Freshwater Programs

(that FWC provides instructor trainings for)

- Instructional Fishing Clinics (youth or families)
- Hooked on Fishing Not on Drugs® or HOFNOD (youth)
- Fishing & Basic Boating Skills Camps (youth or families)



Instructional Fishing Clinics

- A 2-hour instructor training that qualifies adults to conduct an approximately two-hour instructional fishing clinic
- The training provides the basics of fishing; the aquatic food chain, keep your fishing spot clean, how do I rig my pole, casting techniques, fish identification, be an ethical angler, and keeping a fishing journal
- The training doesn't supply enough information for an instructor to conduct multiple sessions with the same individuals
- Groups often begin with the Instructional Fishing Clinic instructor training and move ahead with either the HOFNOD instructor training or the camp program



Hooked on Fishing - Not on Drugs® (HOFNOD)

- An 8-hour instructor training for adults who then work with students through multiple contacts that adds up to about 30 to 40 hours of instruction
- This is a long-term and mentor-based program that teaches children and adults about angling skills, conservation, stewardship, aquatic ecology, and other related topics
- Additional emphasis is placed on positive life skills; such as, decision-making, goal-setting, and making positive choices
- Besides teaching adults how to teach fishing, the workshop covers many aspects such as involving the community, partnerships and where to find additional resources



Fishing & Basic Boating Skills Camps

- This instructor training provides camp directors and staff everything they need to offer a week-long program for youth or a weekend program for families
- FWC helps new camp locations to acquire start up equipment
- The 12-hour instructor training covers all of the hands-on skills needed to successfully conduct one of these camps
- The camp focuses on creating self sufficient anglers, teaching basic boating skills and increasing environmental stewardship of participants.



Fish Scale Tale(Ice-breaker) Activity

- 1. Draw a dot to mark your birth in the center of the paper
- 2. Draw one ring for each year of your life
- 3. Label the "thicker rings" of your life by year and event



Fish Scale Tale Activity

Scaly Facts:

- Most fish are born without scales
- Fish scales begin to form immediately after hatching
- Once formed, a fish has the same amount of scales throughout its life
- Fish scales will grow until a fish dies



Fish Scale Tale Activity

More Scaly Facts:

- Each scale will form multiple rings (circuli) per year for the entire life of the fish
- •Slow growth periods (winter time in the north) will produce little space between rings and faster growth periods (summer time) will produce more space between rings



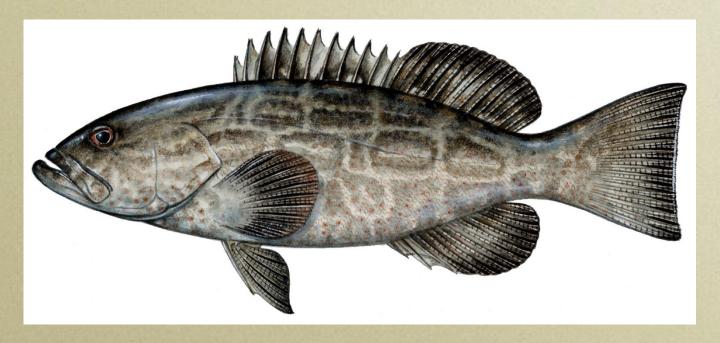
Fish Scale Tale Activity

- What conditions would cause a fish to have "thinner" rings? "thicker" rings?
- What are some influences of <u>your</u> environment on your growth?
- hat conditions would cause a <u>person</u> to have "thinner" rings? "thicker" rings?
- How can we help to prevent "thin" years in a fish in our local habitat?



Anatomy of Fishes





Fusiform

Streamlined and football shaped; can swim very fast and for long distances





Depressed

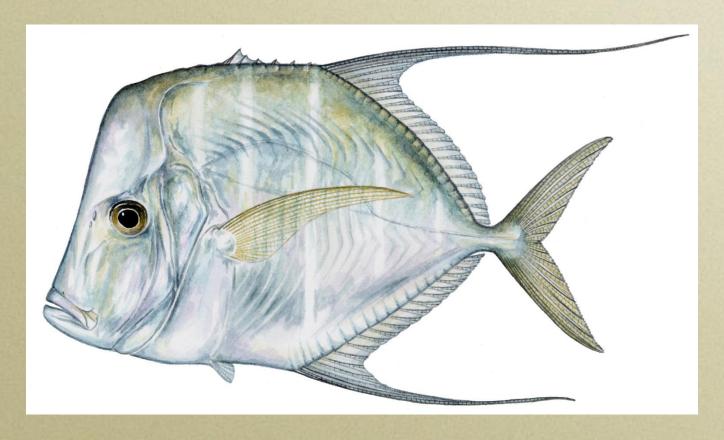
Flattened from top to bottom like a pancake





Spherical Rounded like a ball; very slow swimmers





Compressed Flattened side to side





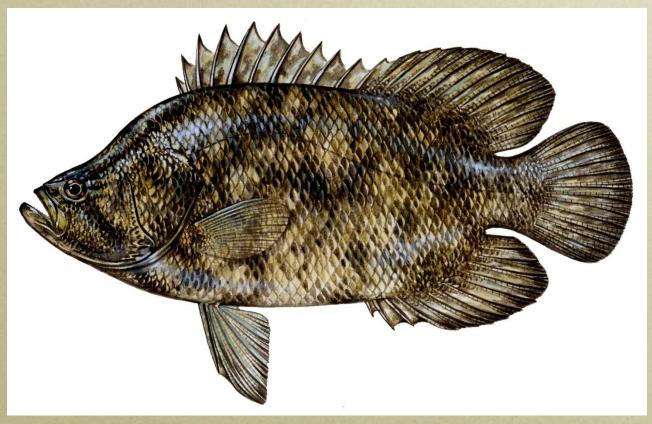
Photo Credit: Joseph R. Tomelleri Ribbon-like Long and thin like a snake





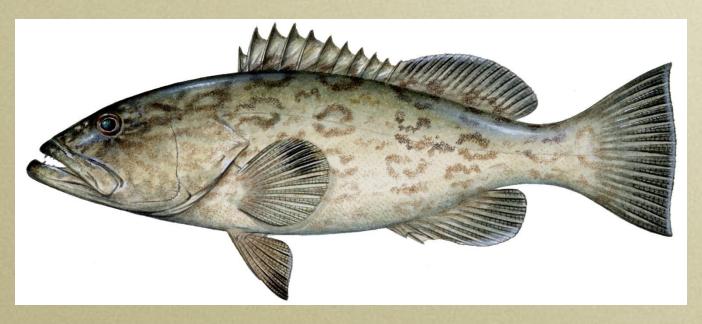
Tapered Slow swimmers





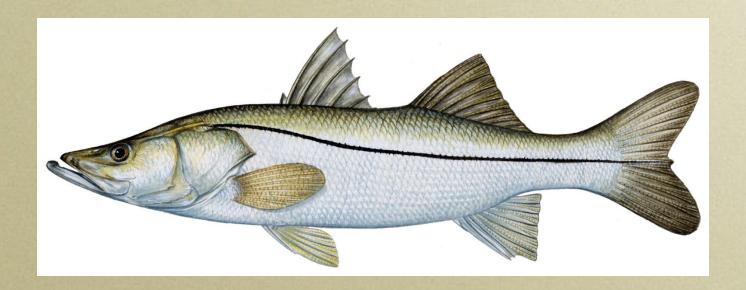
Rounded
Capable of short bursts of speed





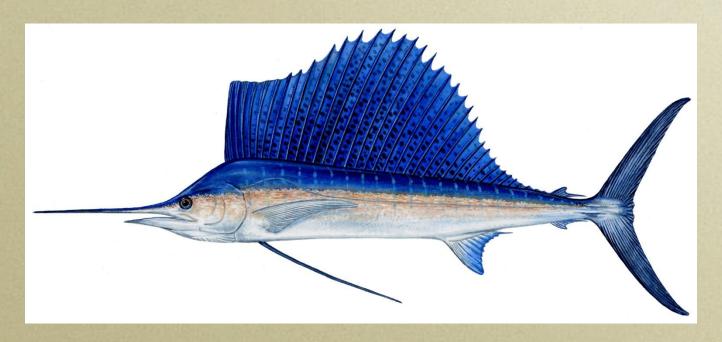
Squared
Capable of short bursts of speed





Forked Fast swimmers for short bursts

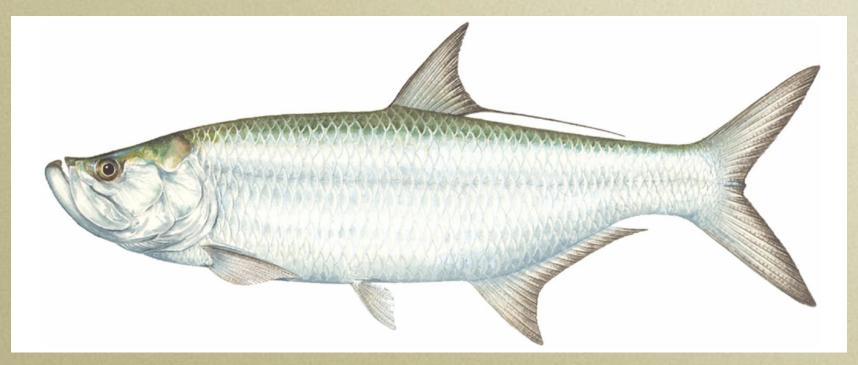




Lunate
Very fast swimmers for long distances



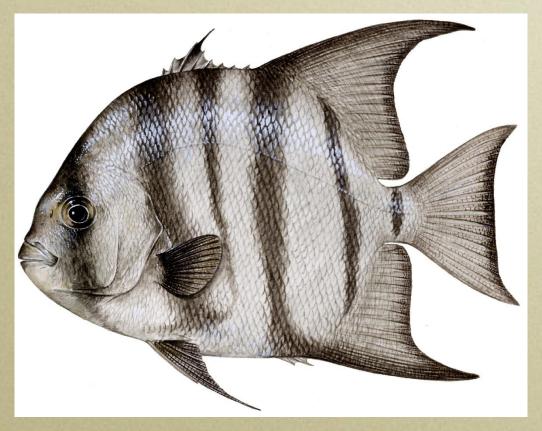
Mouth Orientation



Superior Points upward to eat from the surface



Mouth Orientation

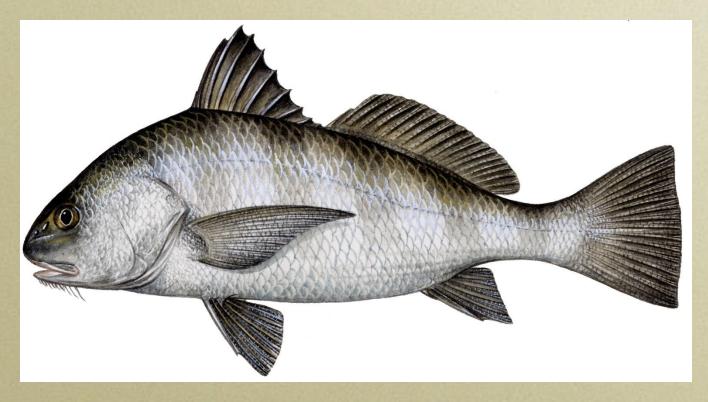


Terminal

Points straight forward to feed anywhere in front of them



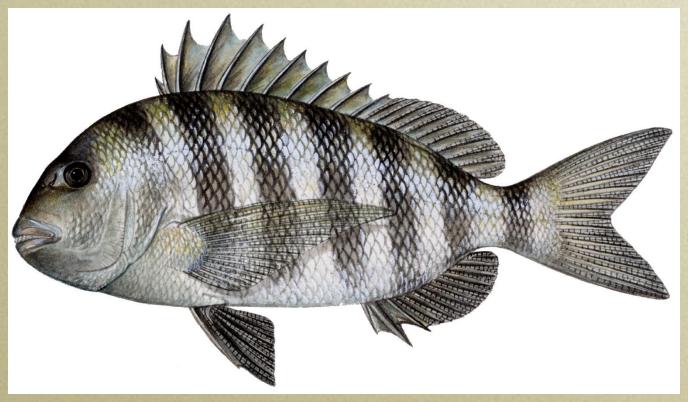
Mouth Orientation



Inferior
Points downward to eat from the bottom



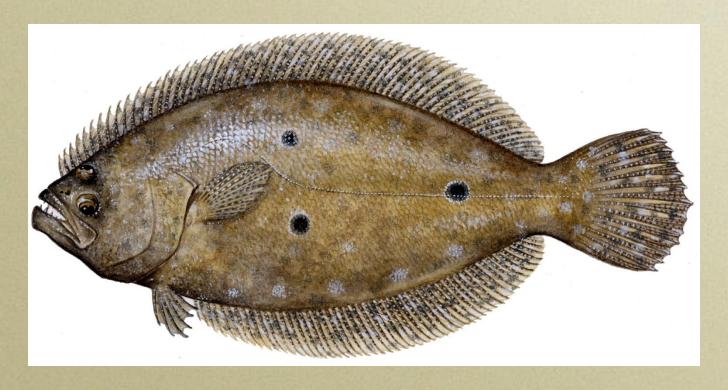
Body Color



Disruptive
Spots and stripes diffuse the fish's outline



Body Color



Camouflage

Matches surroundings to blend in and hide



Body Color



Counter Shading

Dark back blends in with the ocean bottom, light belly blends in with the sky



Body Color



Deceiving
False eyespots confuse predators





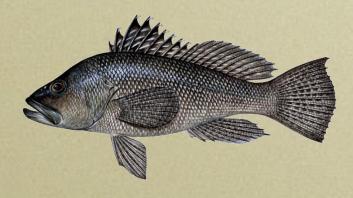


Recreational Angling: Catch and Release

Florida Fish and Wildlife Conservation Commission Division of Marine Fisheries Management

Overview

- Florida Fish and Wildlife Conservation Commission (FWC)
 - Division of Marine Fisheries Management
- Sport Fish Restoration (SFR)
- Catch and Release
- Get Involved





The FWC

The agency manages 575 species of wildlife, 200 species of freshwater fish, and 600 species of saltwater

fish and invertebrates

Divisions

- Marine Fisheries
- Freshwater Fisheries
- Law Enforcement
- Hunting & Game
- Boating & Waterways
- Habitat & Species Conservation
- Fish & Wildlife Research Institute
- Licensing and Permitting





"Managing Fish and Wildlife Resources for Their Long-Term Well-Being and the Benefit of People"

FWC- Division of Marine Fisheries Management (DMFM)

- Division activities- regulate recreational and commercial marine fisheries, outreach and education, artificial reef deployment and monitoring.
- Recreational Outreach and Education
 - Promote fisheries conservation
 - Curriculum based fishing programs
 - Publications
 - Angler Recognition Programs





Fishing Capital of the World

- #1 recreational fishing destination in the United States
- Commercial and recreational fishing businesses add up to \$6.6 billion annually in Florida
- Healthy fish populations are important to Florida's economy





Angling for Conservation

Pre-Fishing

Handling Fish -

Releasing Fish



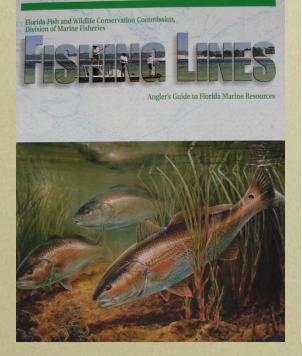
Sustainable Fisheries



Pre-Fishing

 Know how to identify fish in your area and have a resource to help identify fish





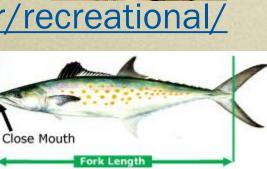




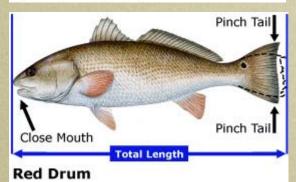
Fishing Regulations

- Fishing licenses
 - Shoreline and boat
- Monthly "Fishing In The Know"
 http://myfwc.com/fishing/saltwater/recreational/
- Check out these Apps:
 - Fish/Hunt Florida (MyFWC)
 - Fish Rules
 - Pro Angler
 - Gulf Fisheries Management Council Regulations
 - FL Saltwater Fishing Companion











Pre-Fishing

- Use tackle heavy enough to bring the fish in quickly
- Avoid using multi-hook rigs or lures, or remove some of the hooks





Flatten barbs on all hooks





Circle Hooks

- •Gulf of Mexico Gear Rule-Use circle hooks when fishing with natural baits and targeting reef fish.
- Flatten barbs on all hooks.











Why Use Circle Hooks?

- •For most species, circle hooks set in the jaw of the fish more than 90% of the time, which increases the survival of released fish.
- Decreased handling time.





Handling Fish

- Minimize handling to prevent slime loss
- Use wet hands if you need to handle fish
- Support the weight of the fish horizontally
- Practice <u>Catch Photo Release</u> (CPR)









Proper Fishing Handling



















Handling Fish

- Do not drag a large fish over the gunwale
- Do not lift a large fish vertically





Handling Tools











Dehooking: Reef Fish Gear Rules

- Dehooking Devices to possess and use a dehooking device to remove hooks embedded in Gulf reef fish with minimal damage
 - Hook to be secured and the barb shielded without reengaging during the removal process
 - It must be blunt and all edges rounded, and it must be of a size appropriate to secure the range of hook sizes and styles used in the Gulf reef fish fishery
 - If you can't see the hook, it's probably better to cut the line close as to the hook as possible







Dehooking



- Use a dehooking tool to release fish
- If you can't see the hook, it's better to cut the line close as to the hook as possible





How to dehook a fish

Step 1: Grab the leader in one hand and place the dehooking tool around the leader with the



Step 2: Slide the dehooking tool down the leader until it engages the hook



Step 3: Pull the dehooking tool and the leader apart until they form a straight line.



Step 4: Raise the dehooking tool while lowering the leader, keeping them in a taut, straight line. Jiggle the dehooking tool gently to release

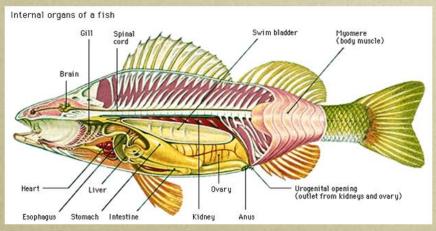




Barotrauma

- Occurs around 50 ft + depth
- Signs of barotruama before venting







Venting

- Lay pectoral fin on body
- Align venting tool at tip of pectoral fin
- Slide venting tool under scale at a 45° angle
- Insert until you hear the gas escape







Descending Devices

- Reverses effects of barotrauma
- Based on individual angler preference
- Weighted and attached to fishing line
- Increases survival of released fish









Releasing Fish

- Only gaff fish you intend to keep, never lip gaff
- Release fish head first into the water
- Revive exhausted fish by moving them forward in the water
 - Never "toss" a fish back
- Never boat or drag large fish over the gunwale







Monofilament Recycling

- Avoid entanglement
- Recycle only monofilament, not braid
- Used to make artificial habitat









Angler Tag Return

- What do you do if you catch a tagged fish in Florida waters?
 - Record capture information
 - -Tag number, fish length, catch location
 - -Call the Angler Tag Return Hotline:
 - **1**-800-367-4461
 - For More information:

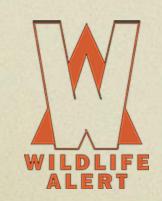
http://www.myfwc.com/research/salt water/fishtags/hotline/





Wildlife Alert

If you suspect a fish, wildlife, boating, or environmental law violations



- Call 1-888-404-FWCC
- If your information results in an arrest, you may be eligible for a reward of up to \$1,000
- Examples of violations
 - Illegal hunting
 - Taking saltwater fish out of season
 - Taking protected wildlife species
 - Boating under the influence
 - Illegal tire dumping





Saltwater Angler Recognition

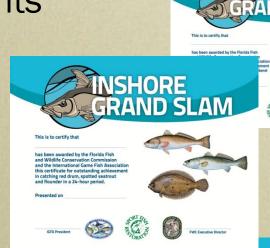
- Engage anglers and instill a conservation ethic
- Educate anglers about the importance of conserving marine fisheries resources
- Give anglers the chance to target more than one specific species
- Entice anglers to learn more about Florida's diverse marine resources
 - Grand Slam Program
 - Life List
 - Reel Big Fish





Saltwater Grand Slams

- Encourages catching a variety of species
- Recognition for catch during a 24 hour period
- Certificate, t-shirt, bragging rights
- The New Grand Slams:
 - Inshore-red drum, seatrout, flounder
 - Family-any three fish in same family
 - Blue Water-dolphinfish, sailfish, wahoo
 - Florida-permit, tarpon, bonefish
 - Shoreline-sheepshead, kingfish, pompano
 - Reefs & Rubble-black sea bass, gag, gray triggerfish
 - Nearshore-cobia, tripletail, king mackerel
 - Bay & Estuary-gray snapper, snook, spanish mackerel
 - Small Fry (15 and under)- pinfish, grunt, catfish







Look For...

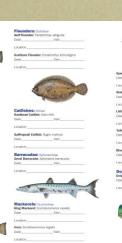


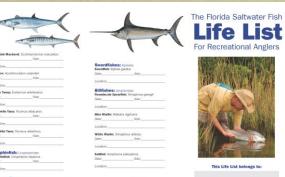
Saltwater Angler Recognition

Reel Big Fish

Life List

Man Carrell Mannes in	Silver		
ion:			1
gerfish: Savor	00		
Triggerffalt: Dallade	сартноз		
	500:		
ion:			D
L A			BI
ATTEN A	T 141		De
100	Miller		6.0
	0.000	0	Re
	C2//239	E-E-E	Di
	-		Lo
			Se
gies: Spartine	a prototocephalus		Di
	Sile		10
ion			
			W.
Porgy: Pagrus pages	A		U
	SUL	-	1.0
ion:			Gi
nts: Newsylster			Di
Grunt: Haemulon	planied		10
	Ster		
e e			Se Ov
	n Life List in in Angles		Lo
am and to encount	to you to keep at it, we	've imade	
	To find out incre shi		
	arm go to Angludinos; sor on catch and roles	se, Florida's	
afer halo or the first	oral Aid in Sport Fish I	Peadocation	
att please vall 10pl	Wilcom.		
Distalon of Marks	Flaberies Manageme	et	- 1
Executive Center D	HALE.		











application to: Florida Fish and Wildlife Conservation Commission; Attention; Outreach & Education; 2590



The application and photographs can be submitted to Angler Recognition @MyFWC.com or mail the completed Executive Center Circle E., Suite 204, Tallahassee, FL 32301. Contact Marine Fisheries at (850) 487-0554.

Ethical Angler Photo Contest

- Submit photo at <u>EthicalAngler@MyFWC.com</u>
- Properly handling fish (no fingers in eyes, gills, no gaff and fish held with wet hands) and large fish should not be "boated".





Questions?





Anita Forester

Project WILD Coordinator

anita.forester@myfwc.com



Rebecca Lucas

Youth Saltwater Fishing Coordinator

rebecca.lucas@myfwc.com



Steve Marshall

Youth Freshwater Fishing Coordinator/FYCCN

Partner Coordinator

steve.marshall@myfwc.com







For more information about the Florida Recreation and Park Association visit www.frpa.org.



Aquatic WILD and Hooked on Fishing-Not on Drugs@ (HOFNOD) Workshop Agenda

Tuesday August 28, 2018 1:15pm to 5:30pm
2018 Annual FRPA Conference
Omni Orlando Resort at Champions Gate
1500 Masters Boulevard, Champions Gate, FL 33896

https://goo.gl/maps/rCpgtYTFbWt

Facilitators: Rebecca Lucas, Steve Marshall, Anita Forester

1:15 Start

Sign-in, register for incentive gift raffle

Introduction of Instructors

Overview: Agenda and Outline of FWC's Project WILD and Youth Fishing Programs/Camps

Ice Breakers: Scale Tale (HOFNOD) and Are You Me? (Aquatic WILD)

Anatomy of Fish and Function with Fashion a Fish (Aquatic WILD)

<u>Mechanism of Fishing</u>: Bottle casting rig creation, learning a knot and practice:

(HOFNOD and FWC Materials) http://myfwc.com/media/1316038/fishing-florida.pdf

Break

Practice casting with rods and reels: (FWC Materials)

<u>Proper Handling for Well Being of Fish and Angler</u>: Catch and Release, proper handling a fish, reading regulations, and hands on practice with dehooking tools (FWC Materials)

Heathy Habitats and Food Chains: Water Canaries and Pour a Pond (Aquatic WILD and FWC Materials)

Distribute Guides: HOFNOD Curriculum Guide and Aquatic WILD Activity Guide

Wrap-up, survey, incentive gift drawing, certificates

5:30 Adjourn









Can/Bottle Casting Rig

Relationships to other fishing methods

A. Handline (yo-yo)

- 1. Hand held line and line control
- 2. Simple and inexpensive
- 3. Bait or lure pulls line out
- 4. Effective fishing method

B. Spinning

- 1. Fixed spool (the can)
- 2. Lure or bait pulls line out
- 3. Retrieve by wrapping line on fixed spool

Making a casting rig

- A. Select sound can or plastic bottle
- 1. No sharp angles and surface free of nicks or sharp edges
- 2. Remove pull tab

B. Select the fishing line

- 1. Medium weight line for easy handling (8 to 20 pound test monofilament)
- 2. Cut into 15 to 20 foot lengths

C. Attach line to top rim or narrow portion with an improved clinch knot

- 1. Wrap line multiple times around can or bottle
- 2. Attach practice casting plug to free end of line using improved clinch knot

Pour A Pond Activity

Group Size: any size, but 6-10 for each leader works well

Suggested Age: 9 and up

Time: 30-50 minutes

Location: a freshwater pond, lake, or canal with not too steep or slippery banks. Pre-sample the site with your collecting equipment to be sure the site contains a variety of small aquatic organisms. Sample around and through vegetation. Have participants work in groups of three to five.

Materials:

For each group: a dip net with 3/16 inch stretch mesh and a white dish pan or 3 to 5-gallon bucket. For the whole group (6 to 10 participants): a white or clear (with a white surface to place it on) cafeteria tray or cookie sheet with sides or small hula hoop with a sheet of white plastic to make a liner out of, aquatic organism identification guides, hand lenses or magnifying boxes, blank paper and pencils to record what organisms were found and how they might work as fish bait.

*Materials can be purchased from: Acorn Naturalists https://www.acornnaturalists.com/store/index.aspx Memphis Net and Twine https://www.memphisnet.net/product/3430/nets-dip-minnow-bait-shop Any "Dollar Type" retail store

Summary: In this activity, the participants collect organisms from the water's edge and the bottom using the dip nets. If there is limited time, instructors can collect the organisms and bring them to the classroom setting. In the classroom or lab setting, pour the pond water (the first collecting bucket) into a white or clear cookie sheet or cafeteria tray or the hula hoop and white plastic liner located in the middle of a small round table. Don't put more than about half an inch of water into this classroom pond. The small round table is best for participants to gather around the edges of the "poured pond" and make discoveries. Organisms can be viewed using a hand lens or they can be removed from the classroom pond using a plastic spoon, with some water accompanying the organism on the spoon, and placed into a magnifying box. Participants can then identify what organisms are present and decide which fish might be interested in eating them and which organisms might be good to use for fish bait.

More Background: Allow the participants to explore however they wish. Don't be concerned if they can't identify the organisms they find. It is important that they enjoy finding and appreciating the life in the water. When investigating a water body, most students will not notice anything smaller than a frog or very large insect. Have participants look for the smallest of critters. Check on vegetation. Placing the collecting bucket contents into a shallow, large surface area, white background container makes organisms much easier to see. When you are finished identifying organisms and making notes, place the contents of your "poured pond" back into the first collecting bucket(s) and return contents to the pond that they were collected from.

Source

Adapted from Mark Stephens, MSU Fisheries and Wildlife Department, Brandon Schreoder, Michigan United Conservation Clubs, and Carl Richardson from the Pennsylvania Fish and Boat Commission, Bureau of Boating and Education.

Online Locations to Find Information

Fishing Florida Activity Booklet: http://myfwc.com/media/1316038/fishing-florida.pdf

Instructor Trainings Related to Freshwater Fishing: http://myfwc.com/education/educators/aquatic/

 $Hooked\ on\ Fishing-Not\ on\ Drugs @:\ \underline{http://www.futurefisherman.org/f3programs/hooked-on-fishing-not-ondrugs-hofnod/}\\$

file: FRPA 2018 resources.doc