

ICHTHYOLOGY

DESCRIPTION: Competitors will be tested on their knowledge of ichthyology (the study of fish) as well as their knowledge of Texas fish, including knowledge on how to catch them

A TEAM OF UP TO: 2

APPROXIMATE TIME: 50 minutes

EVENT PARAMETERS: Each team may bring a standard 3-ring binder of any kind alongside two calculators of any type, including graphing calculators.

THE COMPETITION: The event will be comprised of a test covering the 4 topics listed below, all weighted about equally. Note that the subtopics under each topic are there as guidance for what could be tested on and aren't exhaustive; so long as a subject falls under one of the topics it can be tested on. Furthermore, the "Texas Fish" section will ask competitors to answer various questions about only fish on the attached Texas Fish list. Invitationals can make minor modifications to this list, but should communicate these changes at least 2 weeks in advance.

Fish Biology

- a.) Bodily Systems (e.g. skeletal, cardiovascular, gas bladder)
- b.) Sensory Systems (e.g. electroreception, chemoreception, sight)
- c.) Homeostasis and Physiological Processes

Fish Behavior

- a.) Foraging and Feeding (e.g. predatory strategies, scavenging behavior, diel migration)
- b.) Social Behavior and Communication (e.g. schooling, territorial behavior, symbiosis)
- c.) Avoidance Behavior and Habitat Selection

Fish Spawning

- a.) Reproductive Behavior (e.g. migration, courtship, spawning strategies)
- b.) Egg and Larval Development (e.g. egg types, life styles)
- c.) Aquaculture and Controlled Spawning

Texas Fish

- a.) Fish identification (based on picture, description, etc.)
- b.) General questions about the species (e.g. feeding habits, preferred habitat, etc.)
- c.) Fishing Strategies (how would you go about catching one)

SAMPLE QUESTIONS:

Which type of fish can protrude their jaws from their mouths?

What is the name of planktonic fish larvae?

Where and at what time of day would I fish if I wanted to catch a largemouth bass? (specifically describe your fishing spot)

SCORING: The test writer should ensure a roughly even spread of points across the sections and assign tie breakers accordingly. Teams will be ranked based on test score and, if necessary, tiebreakers.

TEXAS FISH LIST

Freshwater

Alligator Gar (*Atractosteus spatula*)
American Eel (*Anguilla rostrata*)
Bigmouth Buffalo (*Ictiobus cyprinellus*)
Black Crappie (*Pomoxis nigromaculatus*)
Blue Catfish (*Ictalurus furcatus*)
Bluegill (*Lepomis macrochirus*)
Channel Catfish (*Ictalurus punctatus*)
Grass Carp (*Ctenopharyngodon idella*)
Largemouth Bass (*Micropterus salmoides*)
Smallmouth Bass (*Micropterus dolomieu*)
Striped Bass (*Morone saxatilis*)

Saltwater

Black Drum (*Pogonias cromis*)
Gulf Flounder (*Paralichthys albigutta*)
Gulf Kingfish (*Menticirrhus littoralis*)
King Mackerel (*Scomberomorus cavalla*)
Marbled Grouper (*Dermatolepis inermis*)
Rainbow Trout (*Oncorhynchus mykiss*)
Red Drum (*Sciaenops ocellatus*)
Red Snapper (*Lutjanus campechanus*)
Sheepshead (*Archosargus probatocephalus*)
Speckled Trout (*Cynoscion nebulosus*)
Tarpon (*Megalops atlanticus*)