

Dedicated to the Memory of
Commissioner Enoch S. "Inky" Moore Jr.



PLAY

Fall
2016

Pennsylvania • League • of • Angling • Youth

FREAKY FISH *of* PENNSYLVANIA

Fall is when many people enjoy celebrating Halloween. We decorate our homes with all things creepy, freaky and spooky. Often, when we think of creepy creatures, we picture spiders, bats and black cats. But, have you thought about freaky fish?

In this issue of *PLAY*, we'll take a look at some freaky fish that live in Pennsylvania. What's your favorite freaky fish feature? Try saying that five times fast.



FREAKY ~ *very odd, strange or eccentric*

VOCABULARY *(Watch for these words!)*

- **Barbel** - long, thin, fleshy strands near the mouth or nostrils on some fish
- **Host** - the plant or animal on which a parasite lives and feeds and is often injured by the parasite
- **Larval** - the immature stage of an organism that does not resemble the adult. They differ by shape or coloration.
- **Metamorphosis** - the process of changing from an immature form to an adult form
- **Parasitic** - living as a parasite, a plant or animal that feeds in or on another plant or animal called a host
- **Spawn** - fish reproduction; eggs or sperm are released directly into the water
- **Swim or air bladder** - a gas-filled sac that some species use in breathing and helps many fish float and adjust position in the water
- **Zooplankton** - very small animal life in the water

PADDLEFISH

Check Out Their Snouts

Paddlefish have a unique snout, called a rostrum. It looks like a canoe paddle—long and flat.

Scientists are still studying why Paddlefish have this feature. The rostrum is covered with



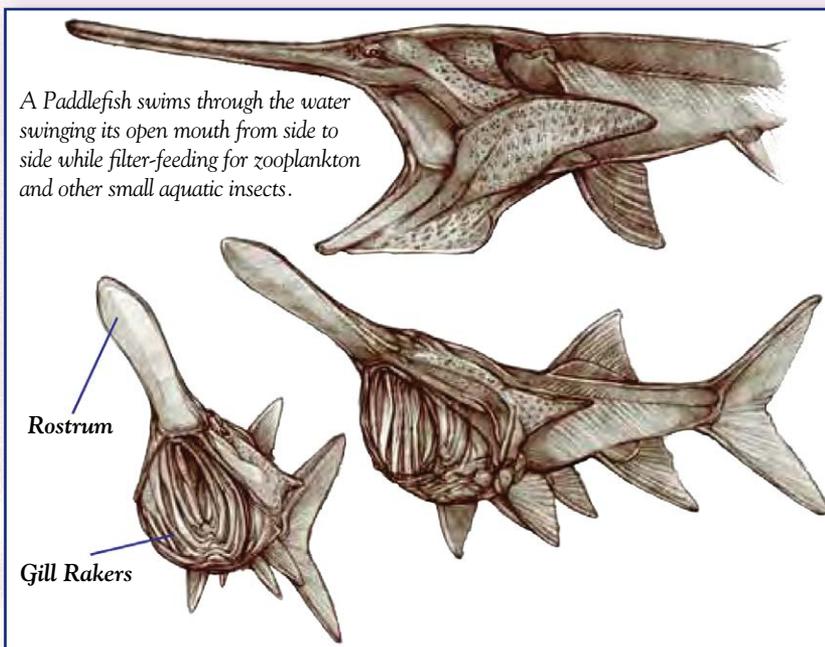
Paddlefish

small pores. Scientists believe these pores can sense the electrical fields created by the tiny animals the Paddlefish eat.

Feeding Time

Paddlefish are large fish that can grow to be 5 feet long. Due to their large size, you may think Paddlefish eat larger meals. However, Paddlefish eat small insects and zooplankton.

Paddlefish have many long gill rakers that act like a strainer. They swim with their mouth open wide, swinging it from side to side. The gill rakers catch the tiny prey while the water filters through.



A Paddlefish swims through the water swinging its open mouth from side to side while filter-feeding for zooplankton and other small aquatic insects.

Rostrum

Gill Rakers

GARS



Longnose Gar

Teeth, Teeth and More Teeth

Gars have a long jaw full of sharp teeth. Gars are voracious predators that mostly eat other fish. These hunters will slowly stalk their prey or wait for prey to get close. Then, they rush in and slash their mouths from side to side, killing or injuring their prey. The gar will then grab prey crosswise in its mouth and turn the fish around to swallow it head first.

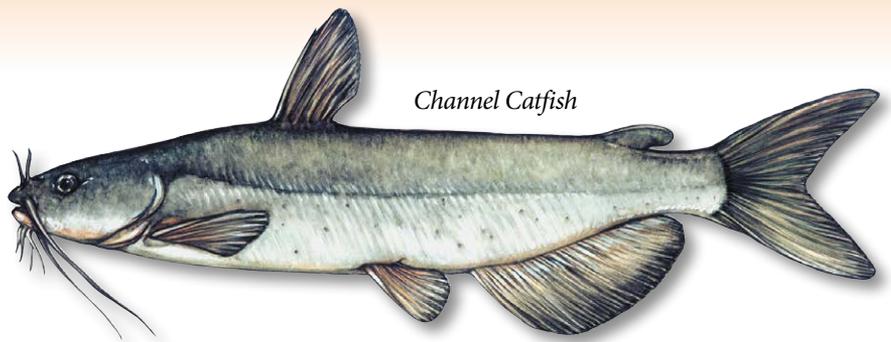
Air Breathers

Most fish can only use their gills to breathe underwater, but gars can use their swim bladders to breathe air. They swim to the surface and take a gulp of air into their swim bladders, which act like lungs.

Poison Eggs

Female gars lay eggs that are poisonous to humans and other mammals. What a great tactic for survival.

CATFISH



Channel Catfish

Weird and Wonderful Whiskers

Catfish get their name because of the long barbels around their mouths that resemble cat whiskers. Many people think these whiskers

are harmful, but they are not. Catfish use their fleshy whiskers to find food. They can feel and taste with their whiskers.

Creatures of the Night

Another feature that catfish share with cats is that they are most active at night. Those whisker-like barbels are great for finding food in the dark.



Naked Fish?

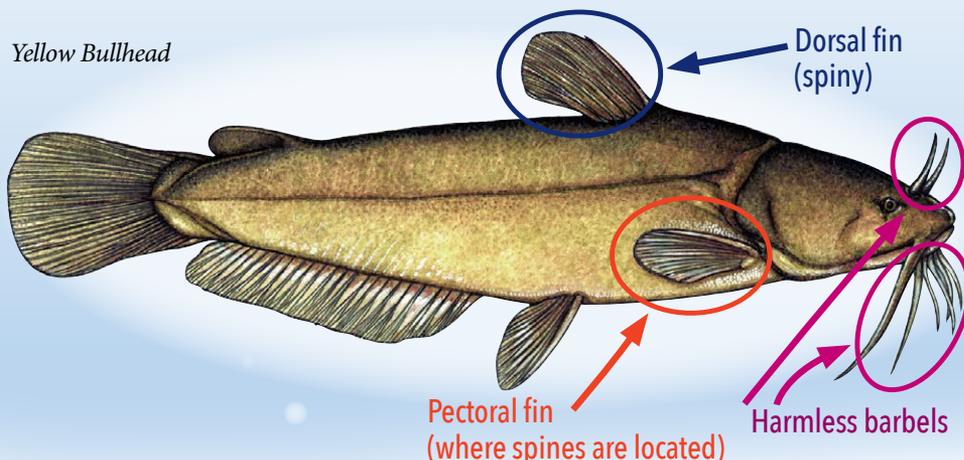
Catfish lack scales, so you might say that they are naked. They are missing the scales that help protect most other fish. But, their lack of scales help some catfish species do something that most other fish cannot do—breathe through their skin. This allows them to survive in muddy or low water conditions.

Beware of the Spines

Catfish have three sharp spines on their body that they use to protect themselves. One spine is on the dorsal fin. The other two spines are on each of the pectoral fins. When

they feel threatened, catfish can stick their spines straight up and lock them. Some catfish species have a mild venom that they can eject from their spines.

Yellow Bullhead



PARASITIC LAMPREYS

Ohio Lamprey

Is that Really a Fish?



Lampreys may not look like fish, but they are fish. They have long snake-like bodies and don't have as many fins as most fish. Their

mouths are different too. Lampreys do not have jaws to open and close their mouths. They have round, sucking mouths with teeth.



I Want to Suck Your Blood!

There are two types of lampreys found in Pennsylvania: parasitic and nonparasitic.

Parasitic lampreys feed on the blood and body fluids of other fish. Parasitic lampreys use their sucker mouths and many sharp teeth to attach to their host fish while feeding.

Growing Up Lampreys

Lampreys have an unusual life cycle for fish. After hatching from eggs, lampreys have a larval stage. They grow for several years before they go through metamorphosis and transform into adults. While lampreys are a larvae, they burrow into the river bottom and eat decaying plants, animals and bacteria.

Sea Lamprey

Alien Invaders



In Pennsylvania, Sea Lampreys are parasitic lampreys that naturally live in the Lower Susquehanna and Delaware rivers. They swim up from the Atlantic Ocean to spawn. However, Sea Lampreys have also been introduced into Lake Erie and the streams flowing into Lake Erie.

The Sea Lamprey's invasion into Lake Erie has been a big problem. It has caused

great declines in Lake Trout, Rainbow Trout, Whitefish and Walleyes.

Sea Lampreys are not harmful to Pennsylvania fish in their native range. Once they are adults, they migrate to ocean waters.

Parasitic lampreys native to Pennsylvania, such as the Ohio Lamprey, are smaller than Sea Lampreys. They do not have a big impact on their host fish.

NORTHERN SNAKEHEAD

Northern Snakehead



Frankenfish

Frankenfish and Fishzilla are two nicknames that have been given to the Northern Snakehead. These nicknames come from the Northern Snakehead's menacing

looks and voracious appetite. Its head is flattened, which makes it look somewhat like a snake. Northern Snakeheads also have a mouthful of sharp teeth.

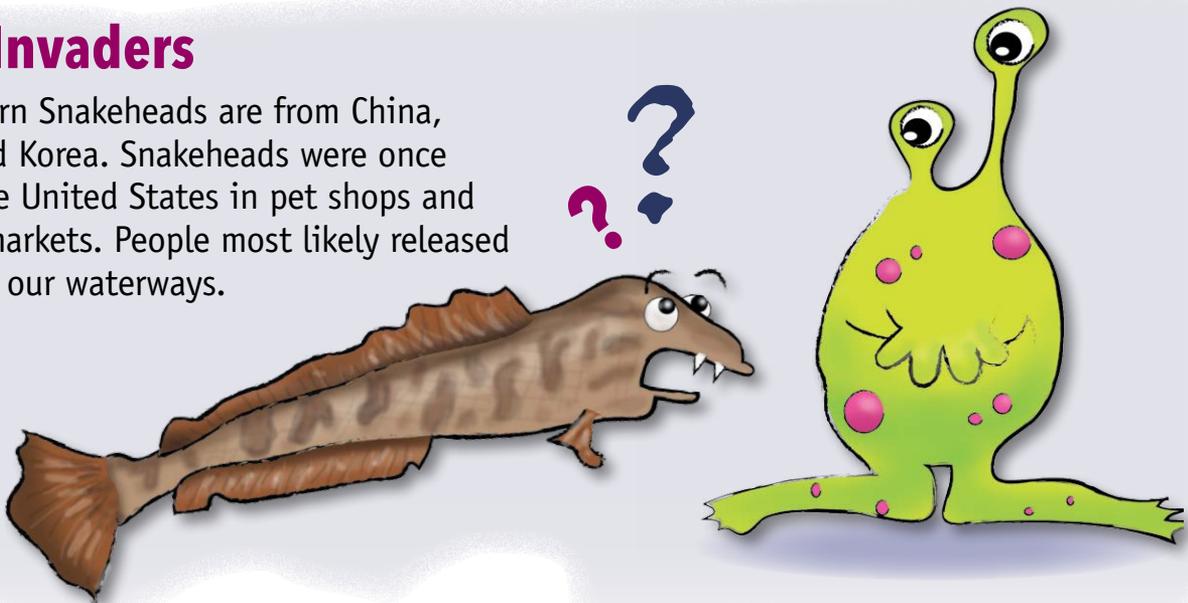
Monster Moves?

Northern Snakeheads can breathe air by using a series of chambers in their heads. But, can they move across land breathing only air? Not really. Young Northern

Snakeheads may be able to wiggle their bodies across land for short distances. However, this can only be done under wet conditions.

Alien Invaders

Northern Snakeheads are from China, Russia and Korea. Snakeheads were once sold in the United States in pet shops and live fish markets. People most likely released them into our waterways.



Northern Snakeheads are a problem, because they:

- Are aggressive predators
- Can transmit parasites and diseases
- Compete with popular sportfish, such as Largemouth Bass
- Reproduce rapidly
- Do not have natural predators to control their numbers

Mistaken Identity

The Bowfin and Burbot are native fish of Pennsylvania that can be mistaken

for Northern Snakehead. Look for the differences below.

Aquatic Invasive Species: Northern Snakehead



Native Species: Bowfin



Native Species: Burbot

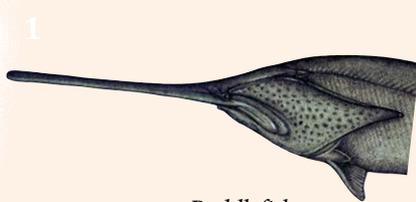


CREATE YOUR OWN FREAKY FISH

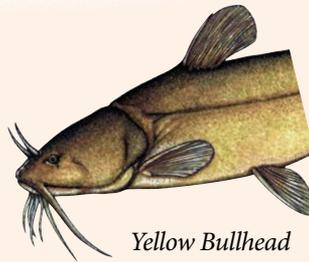
Combine the body parts of the freaky fish that you have learned about in this issue to create your own freaky fish. Or, use your imagination to think of some other freaky features that you'd like to give your fish!

Where would your fish live? How would its freaky features help it to survive? Finally, give your newly created freaky fish a name.

Use the fish heads and bodies below to guide you in your drawing.



Paddlefish



Yellow Bullhead



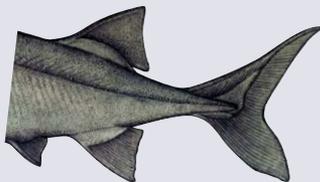
Northern Snakehead



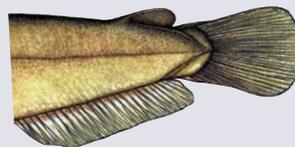
Longnose Gar



Ohio Lamprey



Paddlefish



Yellow Bullhead



Northern Snakehead



Longnose Gar



Ohio Lamprey

PLAY

Written by: Miranda Smith, Southwest Regional
Education Specialist

Editor: Spring Gearhart

Design and Illustrations: Andrea Feeney, Ted Walke, PFBC archives

Photos: Pennsylvania Sea Grant and Mark Giovannetti

© Pennsylvania Fish & Boat Commission