



SAWSHARK VS. SAWFISH ACTIVITY

OBJECTIVES

In this activity students will:

- become aware of sawfish and sawsharks.
- learn the differences and similarities between the two.
- be challenged to identify the key characteristics of each using a Venn diagram.
- gain an understanding of species that look alike but are actually very different.

INTRODUCTION: Sharks have been around for over 400 million years. Through this time, they have evolved into all sorts of shapes and sizes. While most sharks are obvious at sight, with strong body lines and big teeth, many others are often confused for other marine life. Most people reading this now will probably be thinking sawfish and sawshark are the same thing? In fact, they are not! If you look at their genetic lineage, they diverged around 210 million years ago so that would be like comparing humans and platypuses! However, while they are genetically different, physically they look quite similar.

SET UP: Print the Venn diagram page and the list of characteristics pages of this packet (page 2-3).

DIRECTIONS

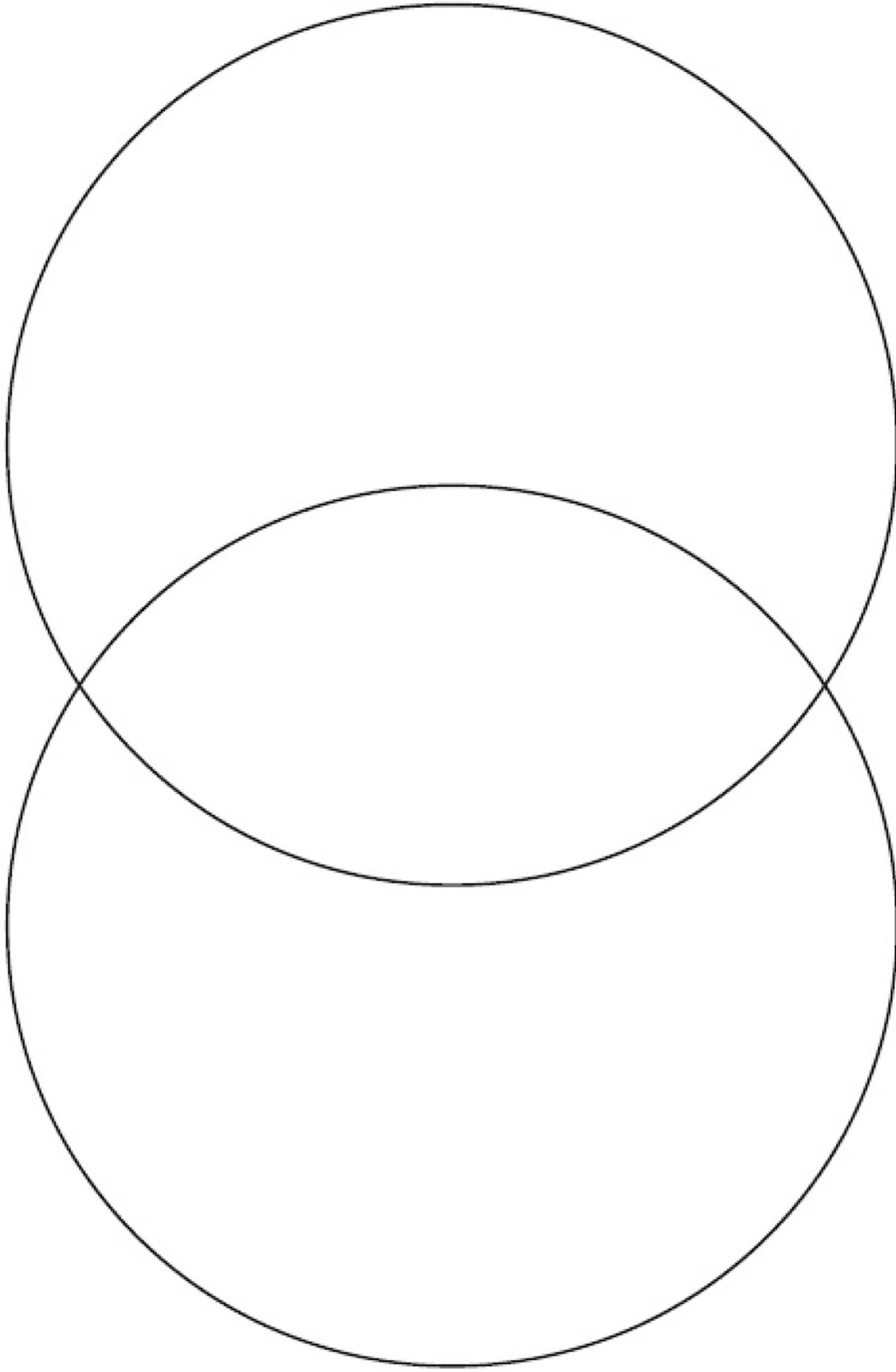
1. Write each characteristic on the side you believe it belongs, matching to either the sawshark or the sawfish. You can also write in the middle section of the diagram (circles overlap), which means both animals have this characteristic.
2. Review the answer sheet and discuss (page 4). Were certain characteristics obvious? Were some harder to match than others? Why did you place each characteristic where you did?
3. Review the fact sheet for the Common Sawshark (*Pristiophorus cirratus*) (page 5)
4. Review the fact sheet for the Smalltooth Sawfish (*Pristis pectinate*) (page 6)
5. Make additional observations. Do you notice the difference in their physical features now?

VOCABULARY

- **Elasmobranch:** any of a subclass (Elasmobranchii) of cartilaginous fishes that have five to seven lateral to ventral gill openings on each side and that comprise the sharks, rays, skates, and extinct related fishes
- **Cartilaginous:** Having a skeleton made of cartilage (no bones).
- **Rostrum:** Elongated nose found on sawfish and sawsharks.

SAWSHARK

SAWFISH



NAME: _____

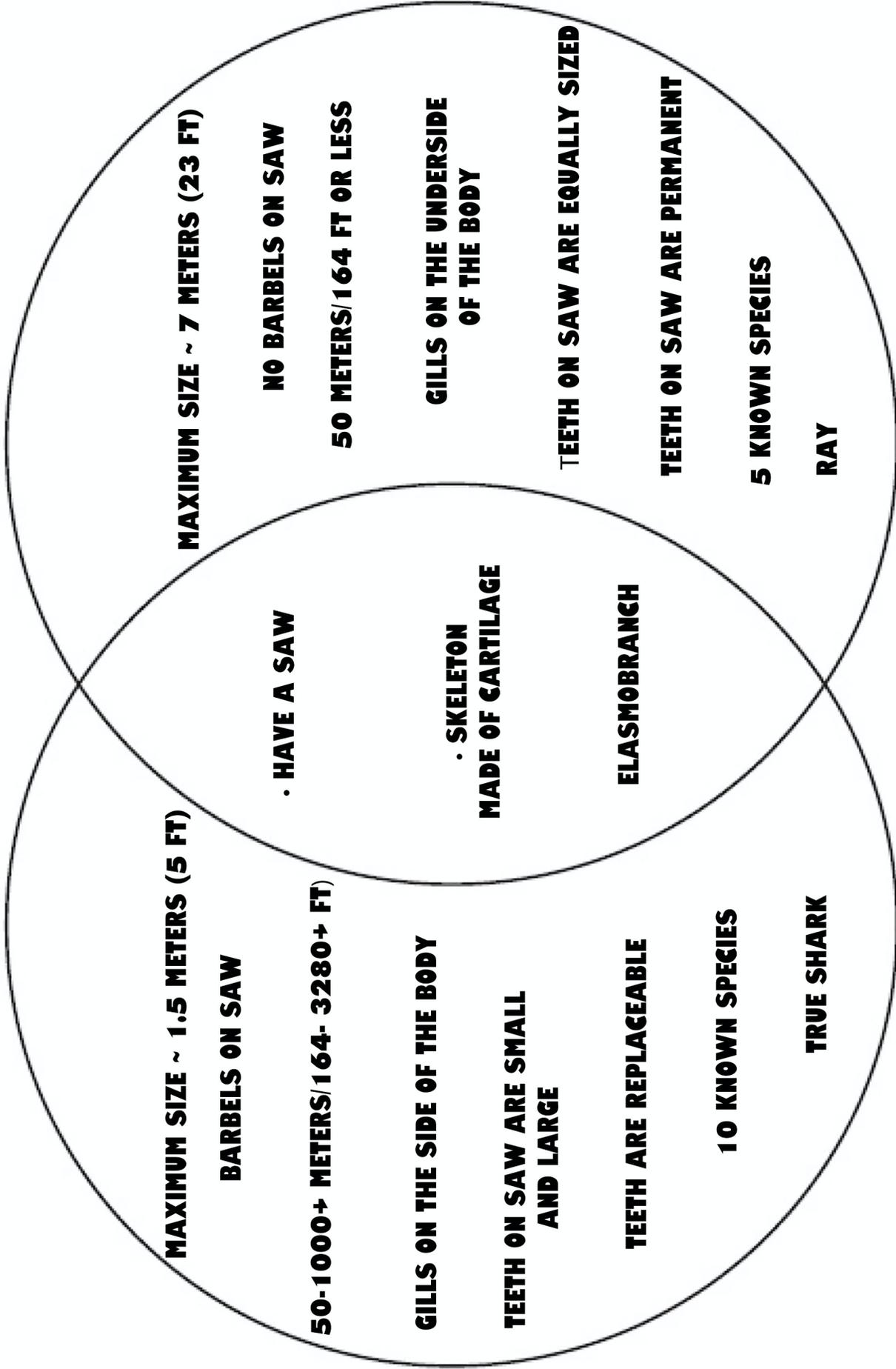
Sawshark and Sawfish Characteristics

Place each item on one side of the Venn diagram or in the middle (if both have)

- Maximum size ~ 7 meters (23 ft)
- Maximum size ~ 1.5 meters (5 ft)
- Have a saw
- Barbels on saw
- No barbels on saw
- Found in deeper water (50-1000+ meters/164- 3280+ ft)
- Found in shallow water (50 meters/164 ft or less)
- Gills on the underside of the body
- Gills on the side of the body
- Skeleton made of cartilage
- Teeth on saw are equally sized
- Teeth on saw are small and large
- Teeth on saw are permanent
- Teeth are replaceable
- 10 known species
- 5 known species
- Ray
- True shark
- Species of Elasmobranch

SAWSHARK

SAWFISH



COMMON SAWSHARK FACT SHEET



Scientific name: *Pristiophorus cirratus*

Size:

Female: Maximum size ~1.25 m/4.1 ft

Mature at ~ 0.90 m/2.9 ft

Male: maximum size ~1 m/3.3 ft

Mature at ~ 0.80 m/2.62 ft



Distribution: Found along the continental shelf and slope down to depths of 600m/1,968 ft.

Lifespan:

Thought to live up to 15 years.



Sawshark 'saw' teeth are replaceable, so when they lose them through feeding or defense they will be replaced



Reproduction:

They are aplacental viviporous (bear live young). They are thought to have 5 – 20 pups with a biannual reproductive life history. Sawsharks are born with their rostral teeth however, they lay flat against the rostrum until after birth.

SMALLTOOTH SAWFISH FACT SHEET



Scientific name: *Pristis pectinata*

Size:

Maximum size ~5.5 m/18 ft



Distribution: Found along the southwest coast of Florida and in The Bahamas.

Lifespan:

Thought to be several decades.



Sawfish 'saw' teeth are equally sized and permanent

The rostrum/saw can be 21-30% of their total length.



Reproduction:

They are "yolk-sac viviparous." They give birth to 7-14 pups per litter. The newborn pups have a sheath over their saw to protect the mother.

It dissolves shortly after birth.