

Nechako White Sturgeon External Anatomy

Form and Function

Form and Function

- Every animal (and plant) has a shape that is made up of a number of body parts.
- Each body part has a FORM or SHAPE.
- The form (eg. shape of the head) of the body or body part determines how the animal will move, eat, mate, protect itself etc. This is the FUNCTION.
- Form influences function and function influences form.
- Over a very long long time form-function can change depending on changes in the environment. If the change in the environment is 'sudden', the animal may go extinct.

The Body of a Sturgeon

What does the shape of its body tell us about where it lives and how it survives?



WATERWAYS WHITE STURGEON



RECOVERY INITIATIVE

The Head

What type of eater is the sturgeon?

Flattened head



Protrusible Mouth

Barbels (there are 4)

The Head

The shape of the head and barbels tells us that it is a bottom feeder.

Flattened head = easy to maneuver over the river bottom



Protrusible Mouth = comes out to grab food off the bottom of the river (like a vacuum).

Barbels = like whiskers, barbels detect the odour of food, useful in dark and murky water.

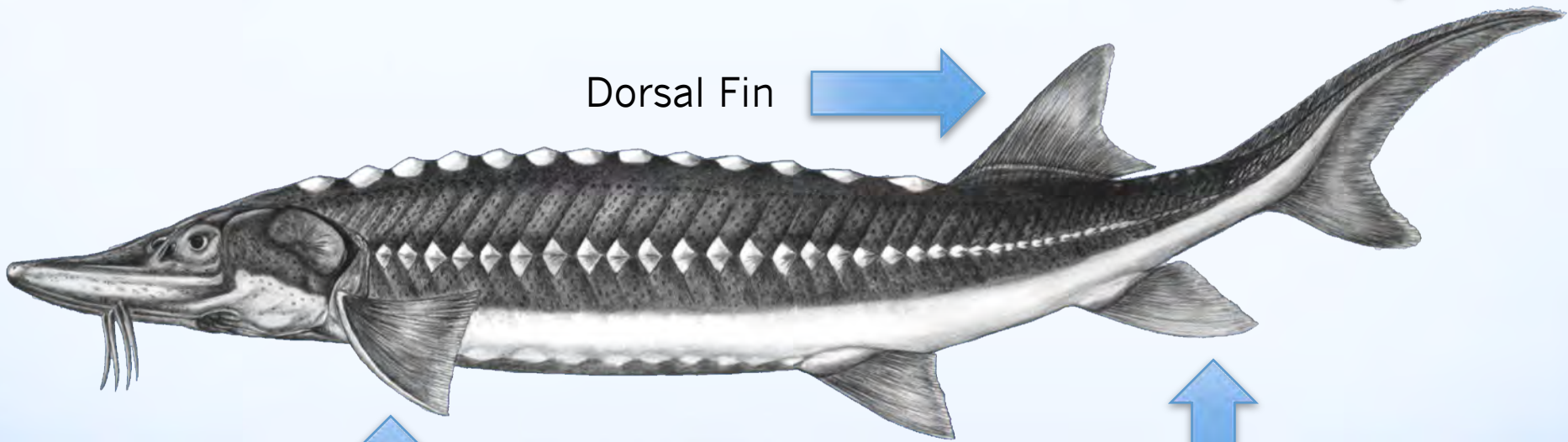
The Fins

Is the sturgeon a strong or weak swimmer?
Where does it live in the river?

Caudal Fin
'heterocercal tail'



Dorsal Fin



Pectoral Fin



Pelvic Fin



Anal Fin

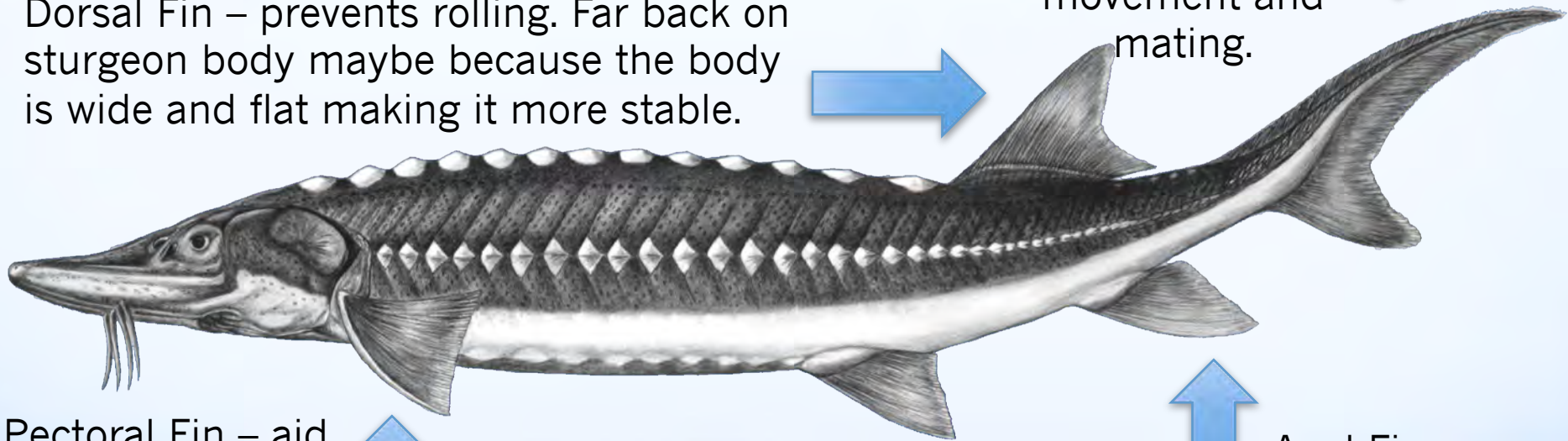


The shape and size of the fins tell us that the sturgeon can swim in strong currents, but prefers deep waters.

The Fins

Caudal Fin – Large heterocercal shape aids in keeping the sturgeon on the bottom of the river, and is efficient for propulsion for movement and mating.

Dorsal Fin – prevents rolling. Far back on sturgeon body maybe because the body is wide and flat making it more stable.



Pectoral Fin – aid in keeping the sturgeon in deep water. These are large likely because the sturgeon prefers deep water.

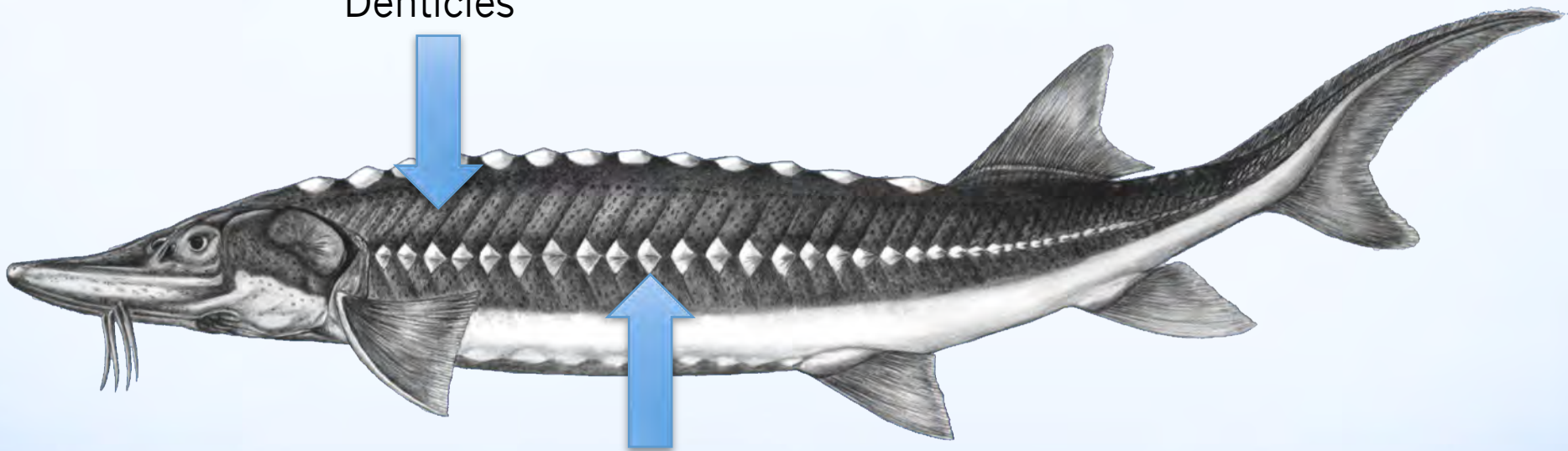
Pelvic Fin – used to move up and down in the water and in turning and stopping.

Anal Fin – used to stabilize fish when swimming.

The Body

How does the sturgeon protect itself?

Denticles



Scutes



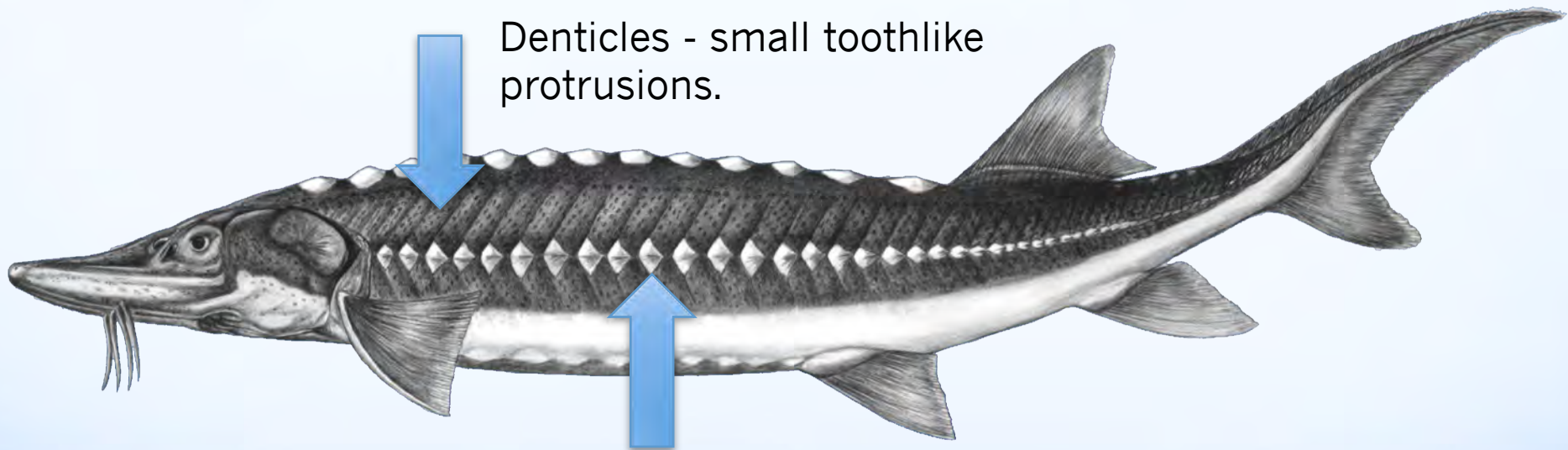
AMERICAN WHITE STURGEON



RECOVERY INITIATIVE

The Body

Denticles and scutes create an armour on the body. The dark back and light belly (counter-shading) camouflage the sturgeon in the water.



Denticles - small toothlike protrusions.

Scutes – sharp bony plates, there are five rows of scutes on the sturgeon’s body.

The sturgeon skeleton is made of cartilage – NO BONES.

External Anatomy Review

