

Be AIS AWARE: Amazing AIS Adaptations





What is an adaptation?

A physical, chemical, or behavioral trait that helps an organism to survive in a particular environment.



ZEBRA MUSSEL:

Physical - Planktonic larvae, razor sharp shells

Chemical - Byssal protein threads

Behavioral - Filter feeds at all hours



NORTH AMERICAN BULLFROG:

Physical - Big eyes, webbed feet, camouflage

Chemical - Slime on skin

Behavioral - Ambush predation



Pick one animal and list its adaptations...



Yves Hoebeke



Clean, cold, connected, and complex aquatic habitats support life!



Lakes
Ponds
Wetlands



Rivers and
streams



Benthic
Zone
(BOTTOM)

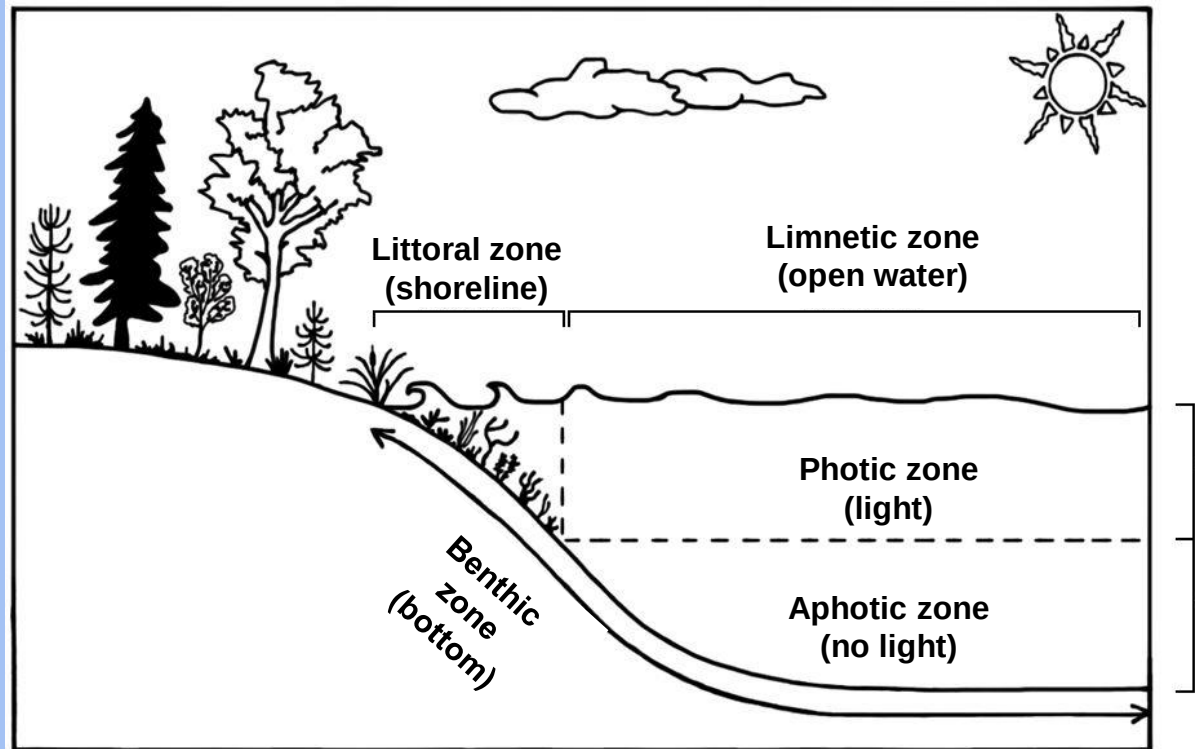
Each habitat is unique! Be sure to design your organism so it can survive!



Lake Zones

- Divided into 3 “zones” determined by light intensity/depth
 - Photic zone (light)
 - Aphotic zone (no light)
 - Benthic zone (bottom)

- Divided into 2 “zones” determined by distance from the shoreline
 - Littoral zone (shoreline)
 - Limnetic zone (open water)





Create your own AIS...



Design your AIS

1. Write a story

2. Draw a
portrait



References

- Slide #1: [Photo of osprey by Bill Doherty](#)
- Slide #2: [Photo of zebra mussels on shell by Randy Westbrooks \(Bugwood.org / Public Domain\)](#)
[Photo of North American Bullfrog by Carl D. Howe \(CC BY-SA 2.5\)](#)
- Slide #3: [Photo of bobcat by Wayne Dumbleton \(Wikimedia Commons / CC BY 2.0\)](#)
[Photo of long-eared owl by Tony Hisgett \(Wikimedia Commons / CC BY 2.0\)](#)
[Photo of grizzly bear by Gregory "Slobirdr" Smith \(Wikimedia Commons / CC BY-SA 2.0\)](#)
[Photo of long-toed salamander by Tompsma \(Wikimedia Commons / Public Domain\)](#)
[Photo of wolf by Isster17 \(Wikimedia Commons / CC BY-SA 4.0\)](#)
[Photo of Western \(boreal\) toad by Andrew Johnson \(Wikimedia Commons / CC BY 3.0\)](#)
[Photo of Westslope cutthroat trout by Johnny Armstrong \(USGS\)](#)
[Photo of bald eagle by Yves Hoebeke \(Wikimedia Commons / CC BY 2.0\)](#)
- Slide #4: [Photos of Yellow Bay & White Salmon River by Holly Church at FLBS](#)
[Photo of pond in near the base of Bugle Mountain in the Scapegoat Wilderness by Forest Service Northern Region \(CC BY 2.0\)](#)
[Photo of Western \(boreal\) toad by Andrew Johnson \(Wikimedia Commons / CC BY 3.0\)](#)
[Photo of adult cutthroat trout by National Park Service \(public domain\)](#)
[Photo of periphyton](#)
[Photo of flatworm by Ernie Cooper](#)
[Photo of tadpole snail](#)
- Slide #5: [Diagram of lake zones created by Holly Church at the Flathead Lake Biological Station](#)



References

Slide #6: [Photo of flowering rush by Dominicus Johannes Bergsma \(CC BY-SA 4.0\)](#)
[Photo of zebra mussel by Bj.shoenmakers \(CC0 1.0\)](#)
[Photo of Eurasian Water-milfoil by Fungus Guy \(CC BY-SA 3.0\)](#)
[Photo of North American Bullfrog by Carl D. Howe \(CC BY-SA 2.5\)](#)
[Photo of Rusty Crayfish by Cgoldsmith1 \(CC BY-SA 3.0\)](#)