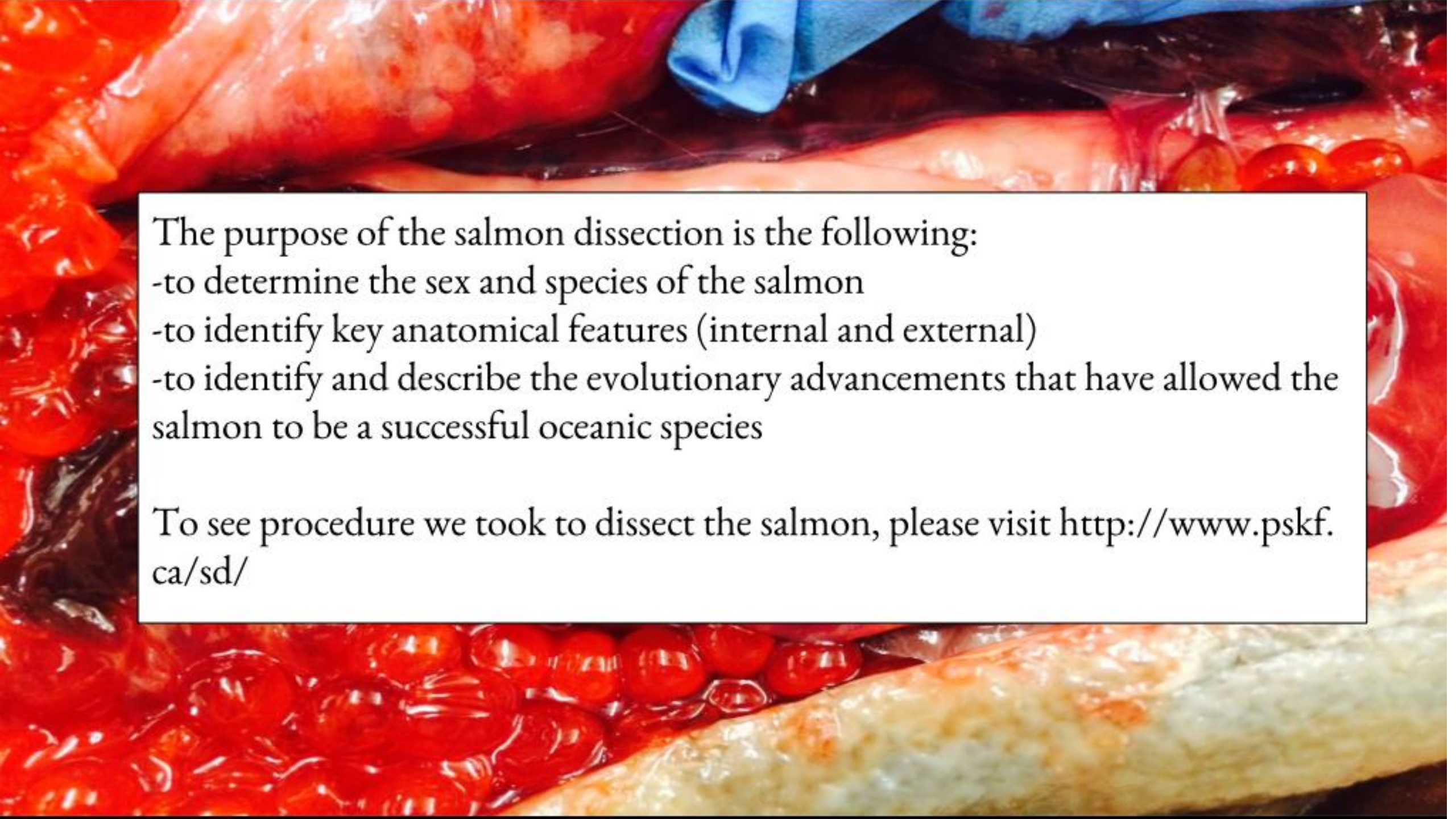




Fish and Evolution Inquiry Presentation

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The purpose of the salmon dissection is the following:

- to determine the sex and species of the salmon
- to identify key anatomical features (internal and external)
- to identify and describe the evolutionary advancements that have allowed the salmon to be a successful oceanic species

To see procedure we took to dissect the salmon, please visit <http://www.pskf.ca/sd/>

Materials Used

Scalpel



Scissors



Tweezers



Probe



About Our Salmon:

The sex of the salmon was apparent due to the eggs it was carrying. The salmon's species was determined by its white gums.

While performing the dissection, we discovered the following:

- the salmon was a female
- the salmon was a coho



Identifying External Anatomical Features



Identifying Internal Anatomical Features

1. Heart
2. Gill rakes
3. Kidney
4. Pyloric Caeca
5. Stomach
6. Liver
7. Gall Bladder
8. Operculum
9. Eggs
10. Brain
11. Skeletal System
12. Muscular System*
13. Swim Bladder**
14. Spleen***
15. Eye

*the picture used only shows a portion of the the muscular system

**the swim bladder ruptured while performing the dissection, so there is no picture of it

***apparently we do not possess a picture of our salmon's spleen

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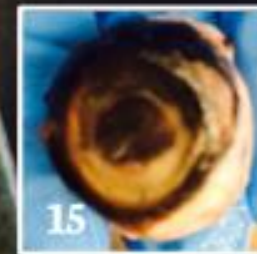
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Evolutionary Advancements

While performing the dissection, we noticed the following as possible evolutionary advancements of the Coho salmon:

- The gill plate was very hard to cut through. A fish's gills are for breathing, so having a hard 'shield' to protect one of its most essential organs was a very beneficial adaptation.
- The salmon's eyes are on the side of its head to improve its field of vision.
- Many strong, large fins were present to assist with swimming. The larger, stronger salmon have an advantage of making it to the breeding grounds.
- Sharp teeth (that cut our gloves) allow it to eat its food easier.
- Many, many eggs to ensure some offspring are to survive.
- Very thick skull (and hard to cut into) to protect brain very well.



Conclusion

After finishing the dissection, we discovered and learned many things about what the species and sex of the salmon was, its various external and internal features, and its evolutionary advancements to ensure the survival of its species. Through out the dissection, we discovered the Coho salmon was a female due to the vast amount of eggs it was carrying. Some of the most interesting features of the salmon to our group were the eggs since we accidentally cut into the egg sack while opening up the stomach of the salmon, the ribs since we took out the entire skeletal system, and the brain since it was very difficult to get to. Exploring the evolutionary advancements of the salmon really opened our eyes towards how strong the fish must be to survive such a tough life in the ocean, then journeying up stream to lay eggs and finally die. Overall, our group found the entire process to be fun, and a great learning experience.