

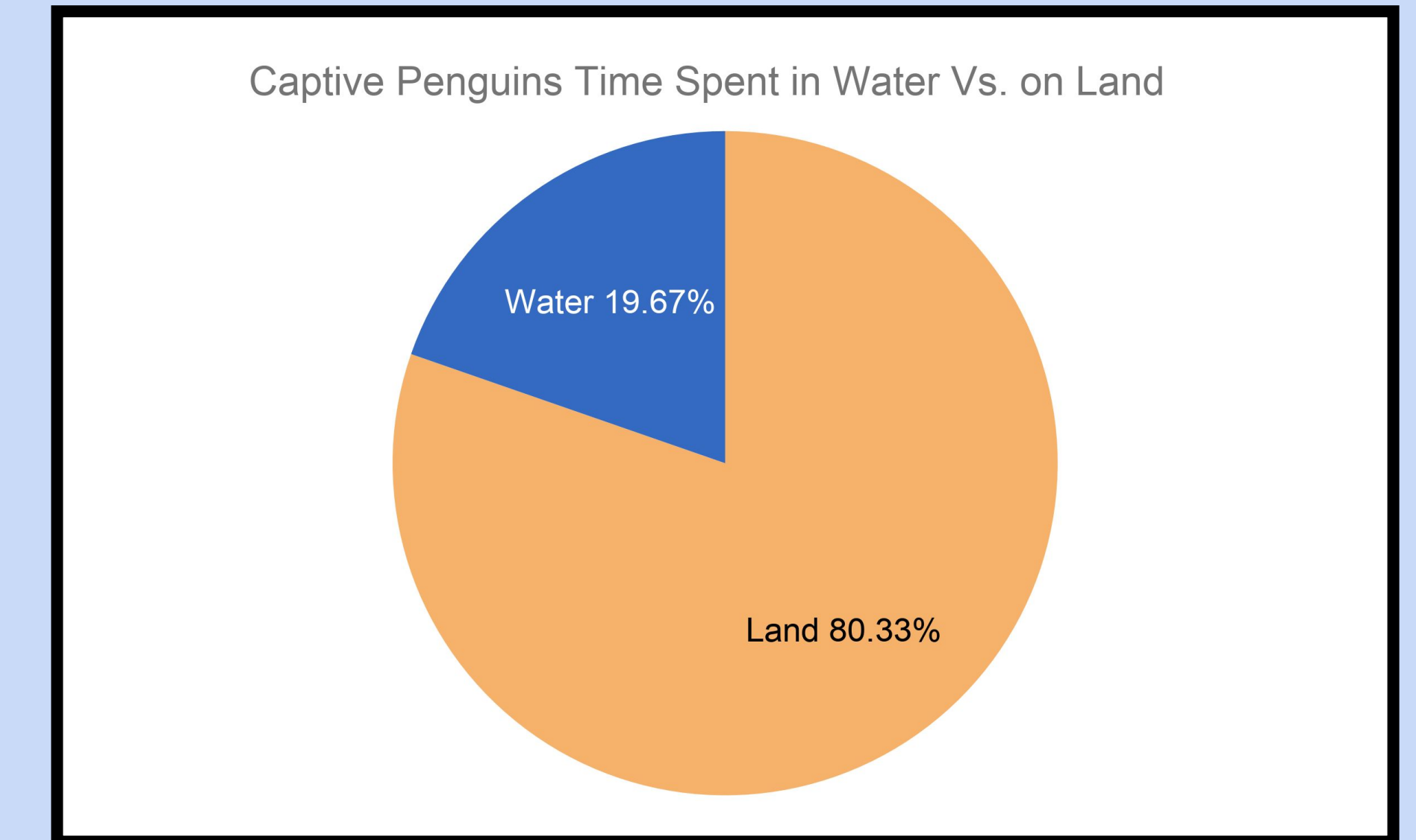
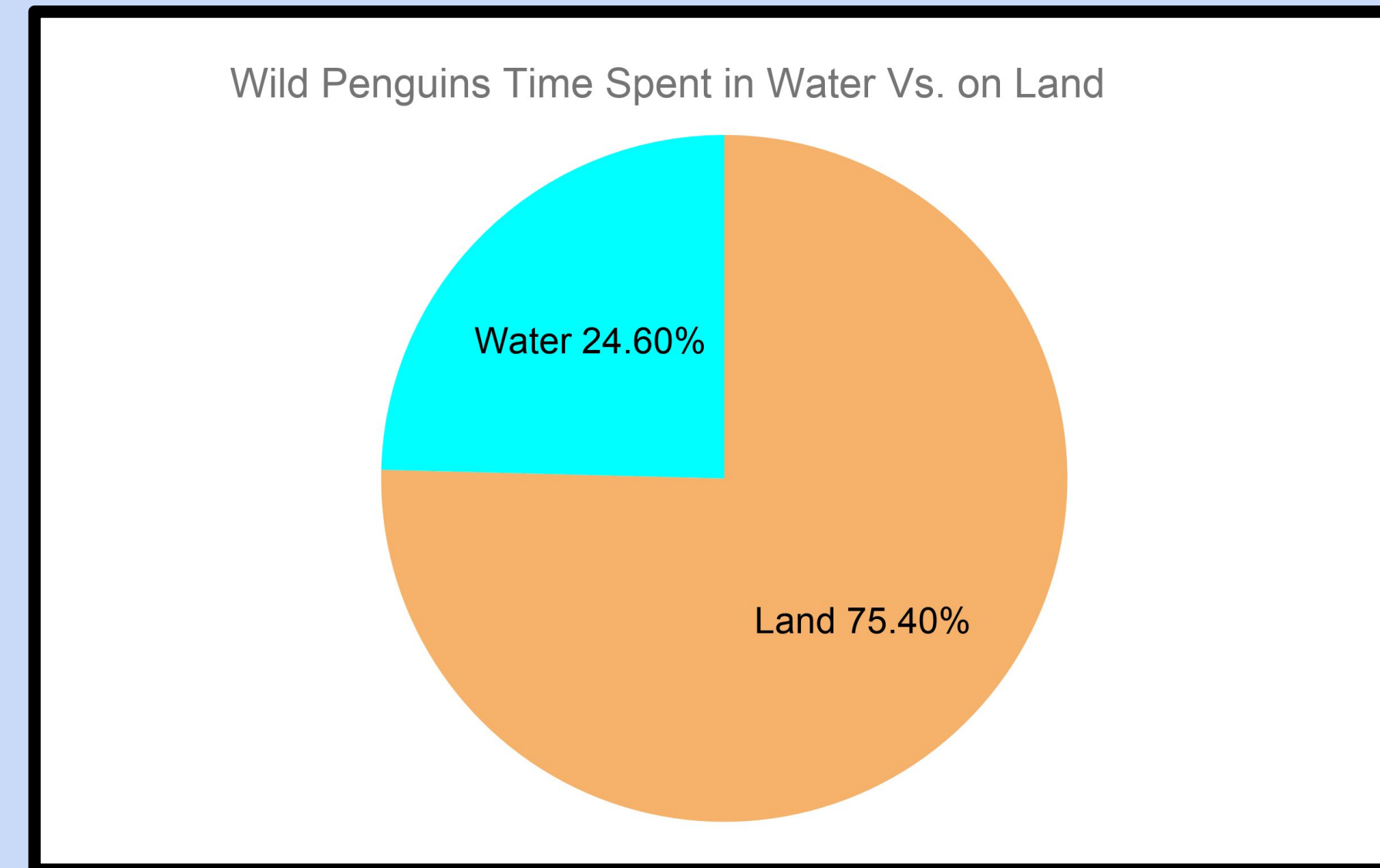
Humboldt Penguin Swimming Behaviors in Captivity



-One of the main purposes of zoos is to simulate natural environments and behaviors
 -For captive animals to be released into the wild again, their behaviors must resemble wild behaviors

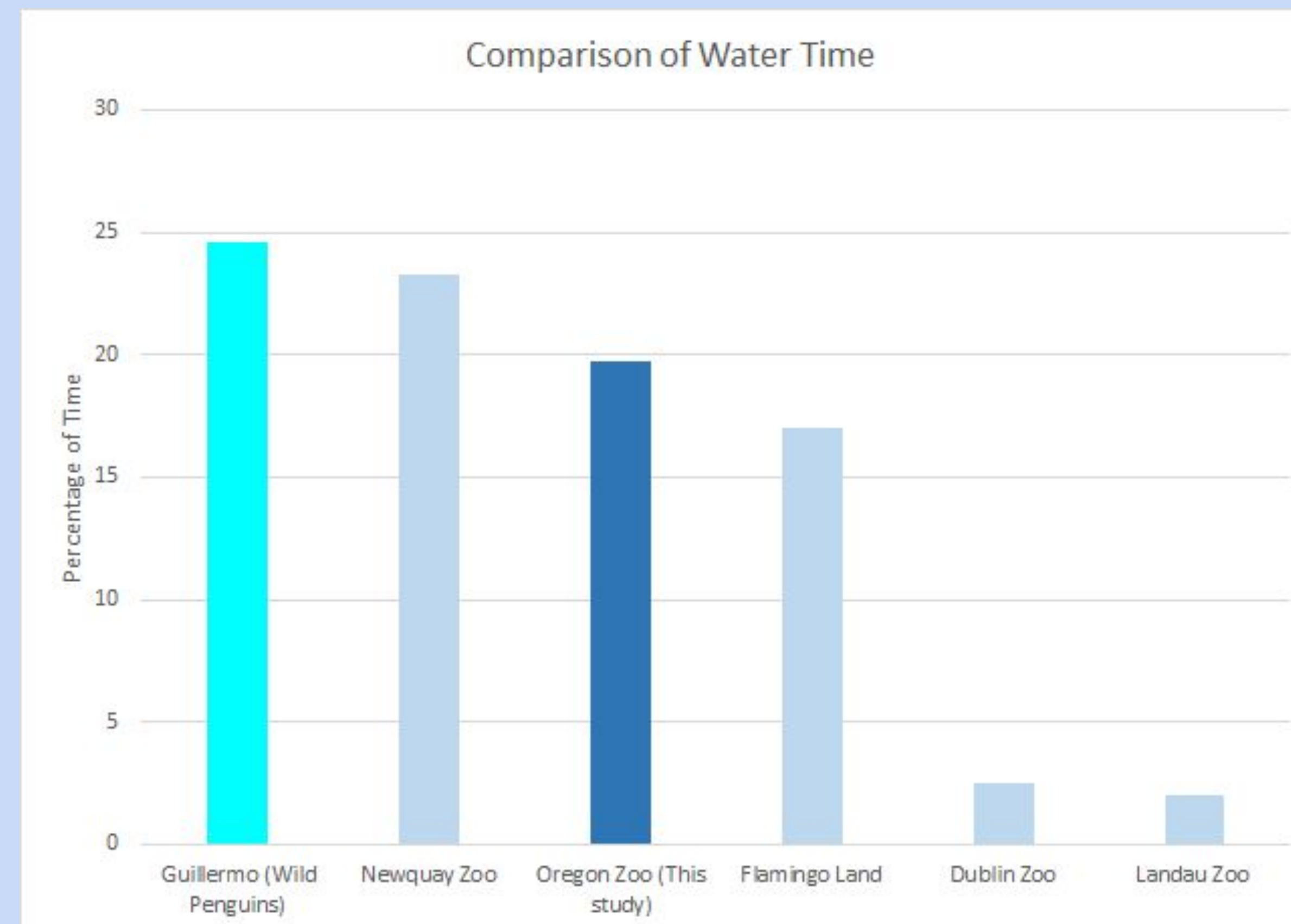
Do Humboldt Penguins in captivity at the Oregon Zoo show the same swimming patterns as other penguins?

Oregon Zoo Penguin Time Budget Resembles Wild Penguin Time Budget



Our observational data from Oregon Zoo Humboldt penguins, compared with data from wild Humboldt penguins.
 Average difference of 5%.

Oregon Zoo Data vs Other Zoo Data



Next Steps



Follow up for this experiment would be to broaden our study to multiple zoos and investigate how zoo care policies affect swimming behaviors.

Acknowledgments

Suzy Renn, Jill from Oregon Zoo, Reed

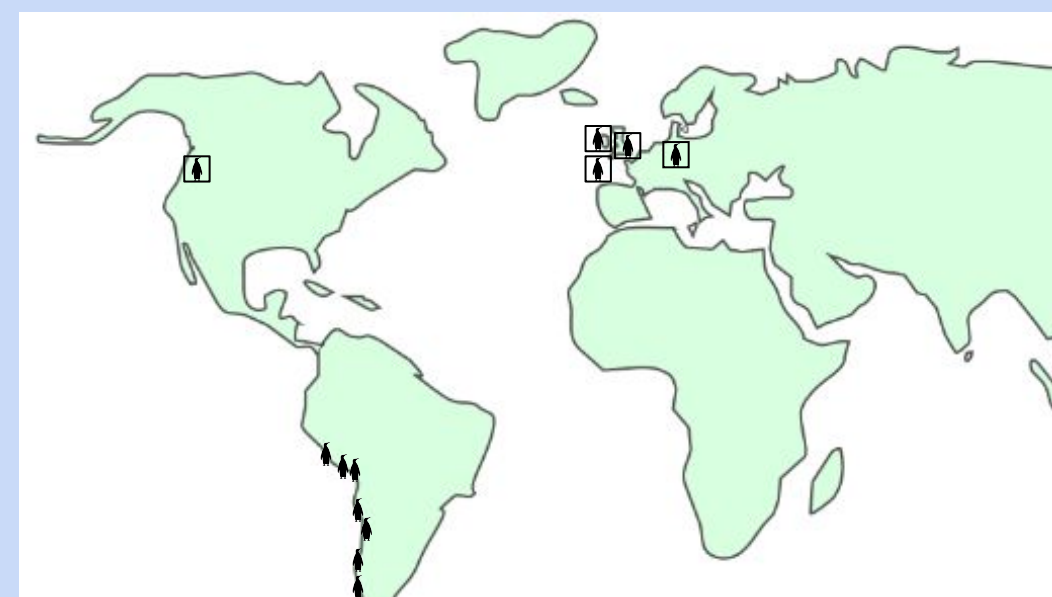
Biology Stockroom

Literature Cited

Marshall, Andrew R., et al. "Husbandry and Enclosure Influences on Penguin Behavior and Conservation Breeding." *Zoo Biology*, vol. 35, no. 5, 2016, pp. 385-397. doi:10.1002/zoo.21313.
 Guillermo Luna-Jorquera, Boris M. Cutiki. 1999. Diving behavior of Humboldt Penguins *Spheniscus humboldti* in northern Chile. *Marine Ornithology* 27: 67-76.

Sampling Methods

OBSERVATION MINUTE	PERIOD	#	3:50pm	20181120	
1	LAND	III	SURFACE	UNDERWATER	OTHER
2	LAND	II			
3	LAND	II			
4	LAND	II			
5	LAND	II			
6	LAND	II			
7	LAND	II			
8	LAND	II			
9	LAND	II			
10	LAND	II			



Research penguin swimming time budgets in the wild and in captivity at other zoos

Develop an ethogram, go to the zoo and decide how best to collect our scan samples

Compare data, analyze, and make this poster!