

Case Study 4: Eagle wing flaps

for February 17, 2012

Your client today is studying bald eagles at a local nature preserve, and are interested in how the patterns of their flight are related to weather patterns. They have recently completed some data collection and came to you for suggestions on how to analyze it.

They visited the preserve weekly for the last six months, and for one hour each week, recorded the temperature and the number of wing flaps for the first thirty seconds that they saw each bird for. That is, when they first saw the bird, they started a stopwatch and counted the number of times the bird flapped its wings in the next thirty seconds. They want to know if the number of flaps is associated with temperature.

They are particularly concerned because a significant number of the birds did not flap at all in those thirty seconds; they were just soaring through the air. He guesses maybe 25% of the data looks like that. When birds were actively flapping, though, 10–40 flaps were generally observed.

Questions for consideration: What questions do you have for the client? Is there anything in particular that worries you about the design or data collection? What methods might you use to analyze this data?

Groups: Here are the groups that will work together on this case. The first student on each list will present the group's findings and should also organize group meetings. The groups should get together in the coming week and consider the case.

Group 1, Presentation:		Group 2, Presentation:		Group 3, Report:		Group 4, Report:	
Name	Email	Name	Email	Name	Email	Name	Email
Garrett	lepa0050	Felipe	acosta	Jie	renxx034	Rachel	vonb0035
Bryan	mcca0828	Lindsey	diet0146	Jenny	dokke040	Joel	bear0201
Chris H	hulme005	Yu-Feng	chang648	Xin	zhan0648	Zhou	fang0157
Greg	schae029	Matt	stear067	Qi	yanxx195	Alain	vando026
Chris D	desja004	Xiaoyi	zhuxx212	Sarah	jaco0654	Emily	pech0081
Wen	fanxx102						

Presentation groups: The presenter will have 12 minutes of class time to say what the team thought about the problem. To ease switching between groups, we will use my computer for all presenters, so if you choose to make a digital presentation, please email the slides to me by 2pm, or bring them on a thumb drive and arrive five minutes early. PDF format is preferred.

Report groups: Please email your report to me (PDF format preferred) by 2pm so I can make copies for the class. Your report should be at least one page long, but no more than two pages.