

Optimization of video monitoring of fish for reef assessment and management

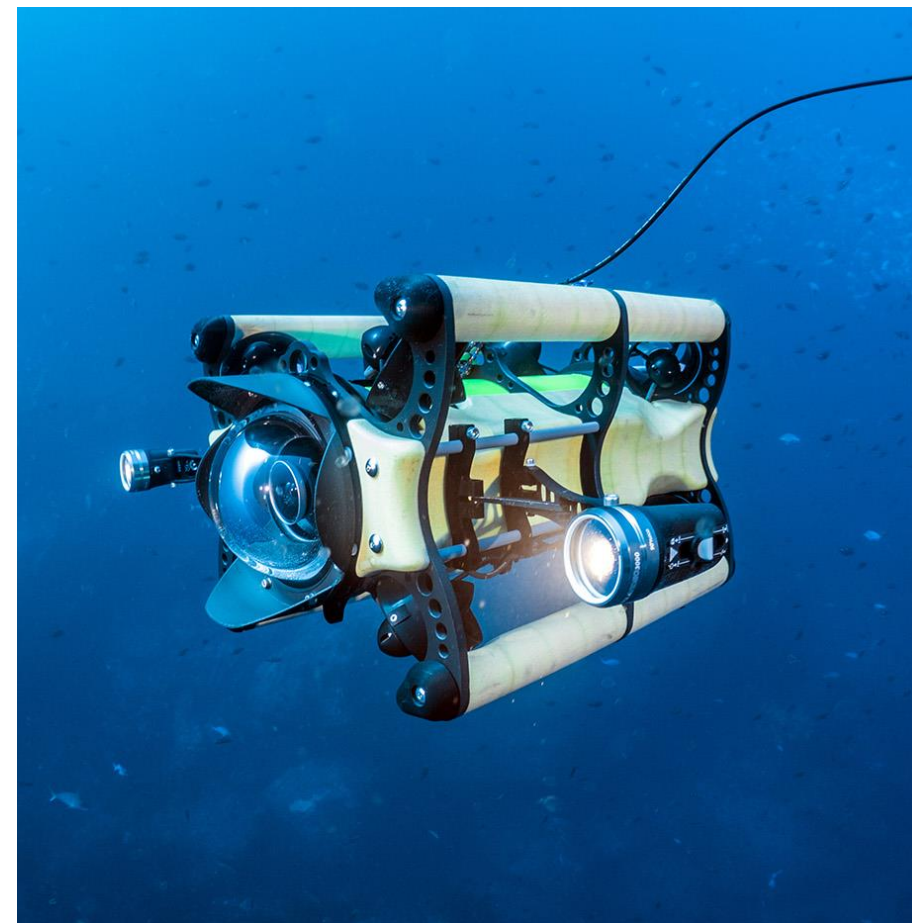
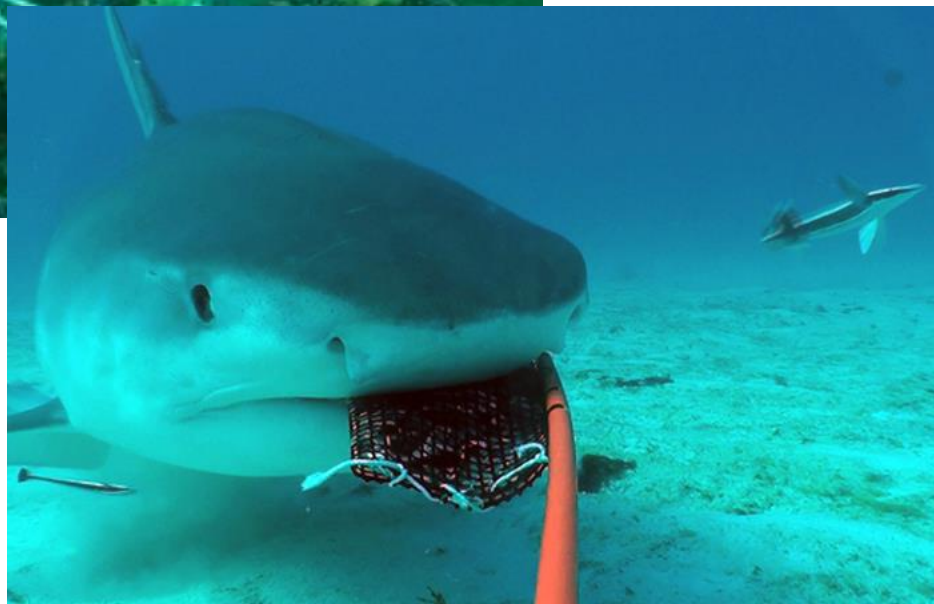
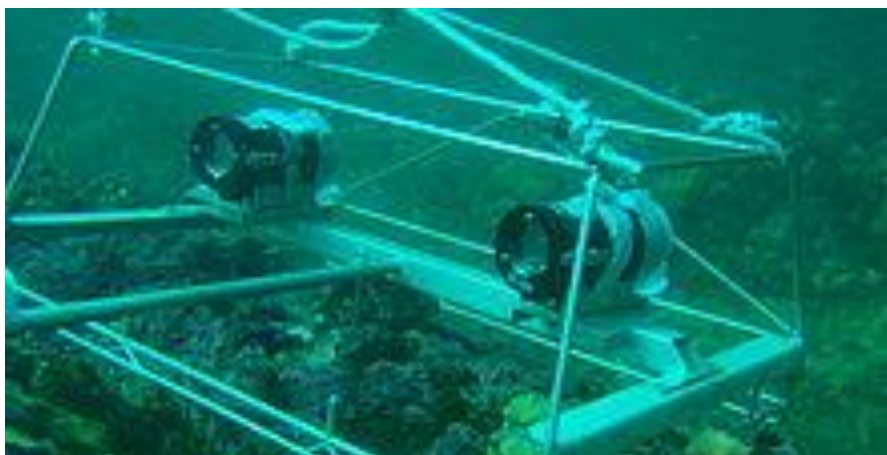
Stijn Bruneel, Amber Schoeters, Heleen Raat, Rafael Bermudez and
Peter Goethals

Why videomonitoring?



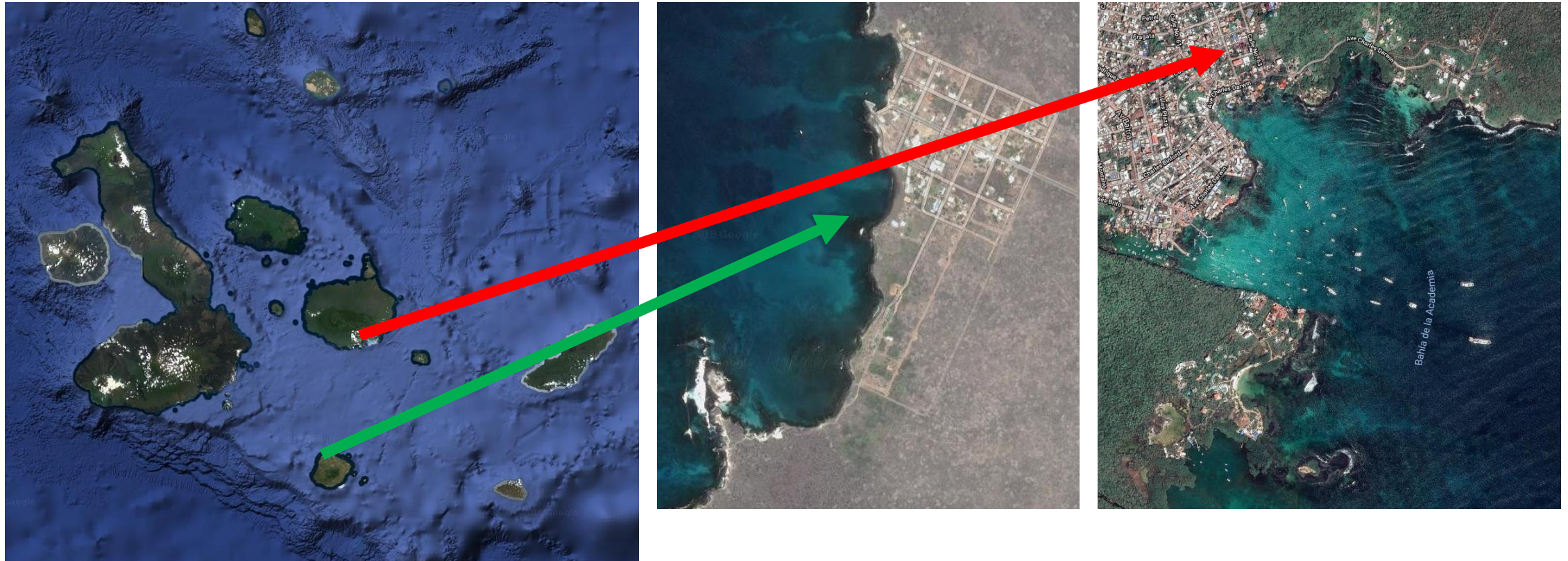
Field work

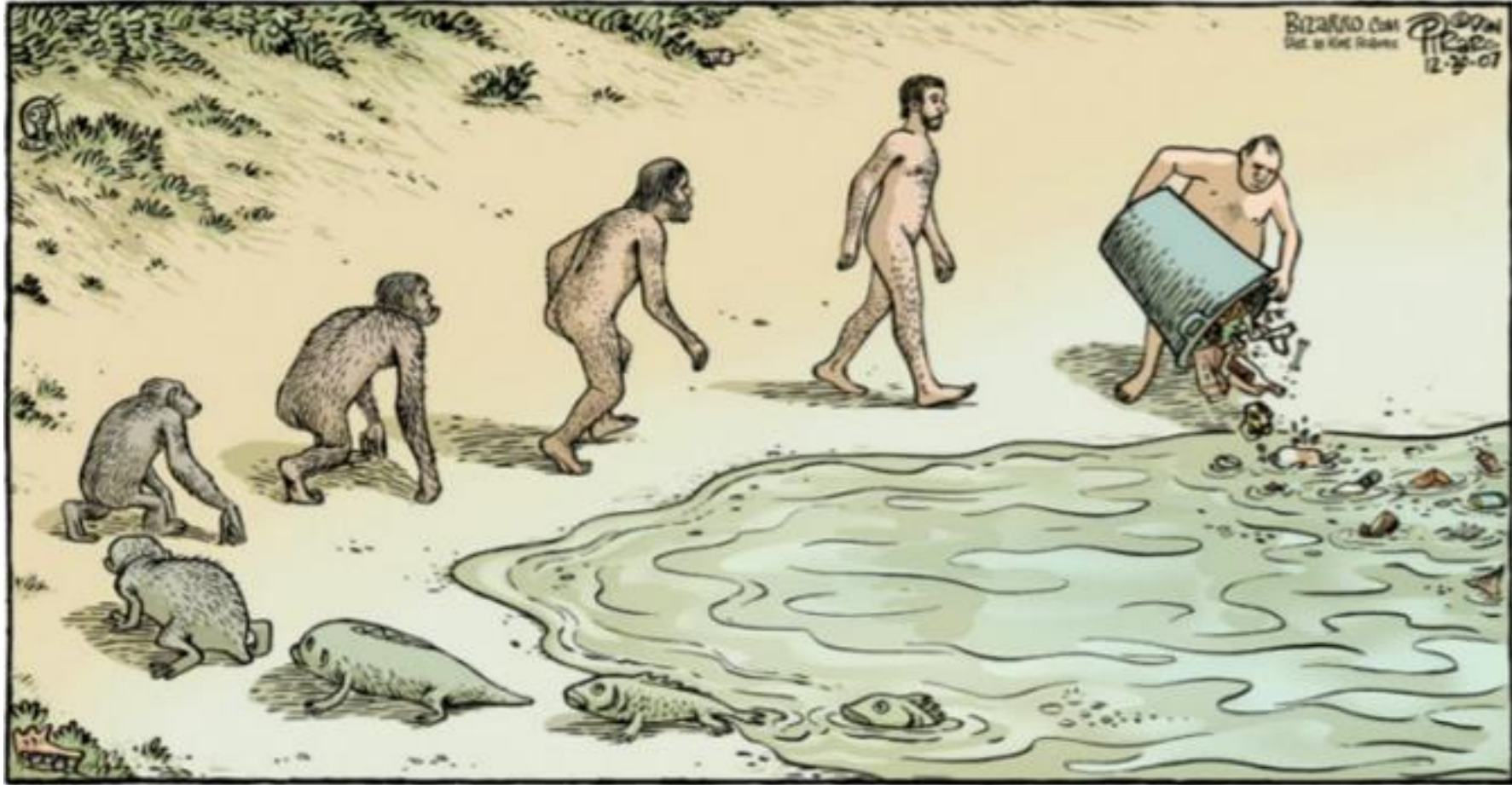


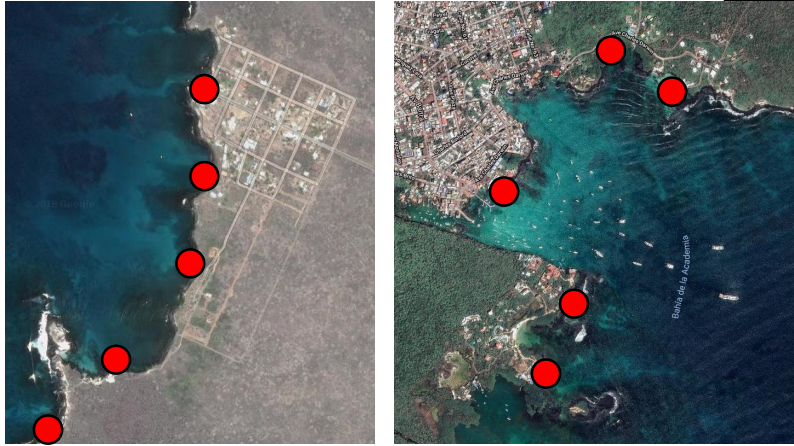




Study Area: Galapagos archipelago (Ecuador)

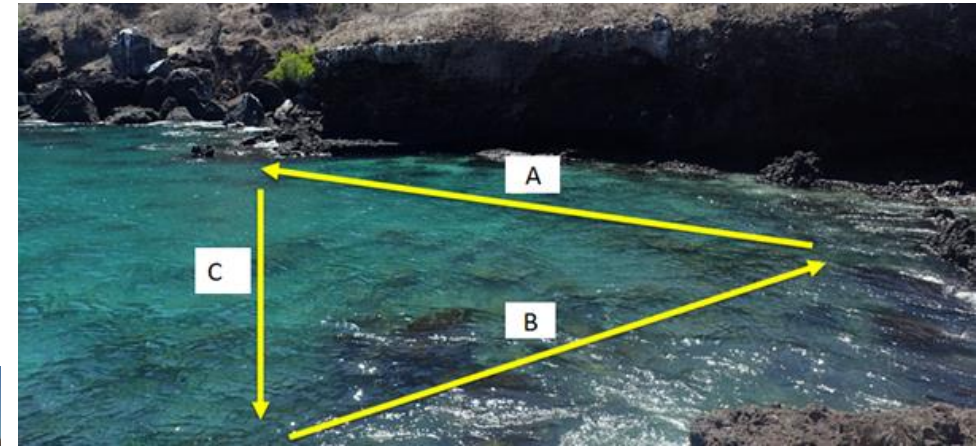






10 locations on 2 islands

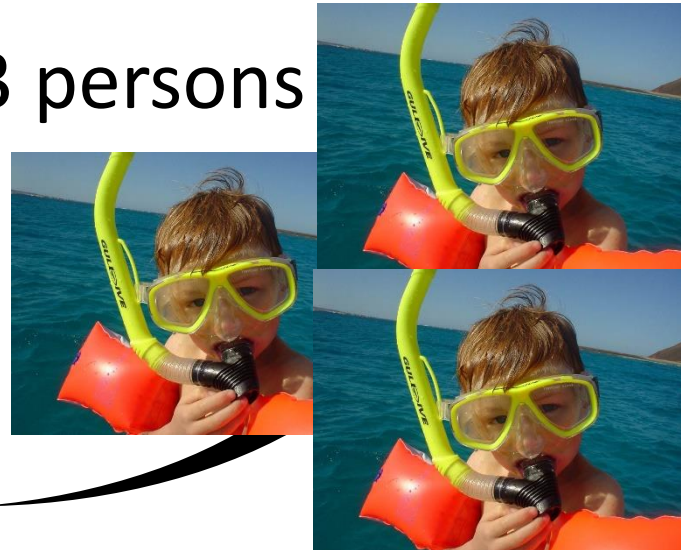
3 transects



6 repeats



3 persons



Objective

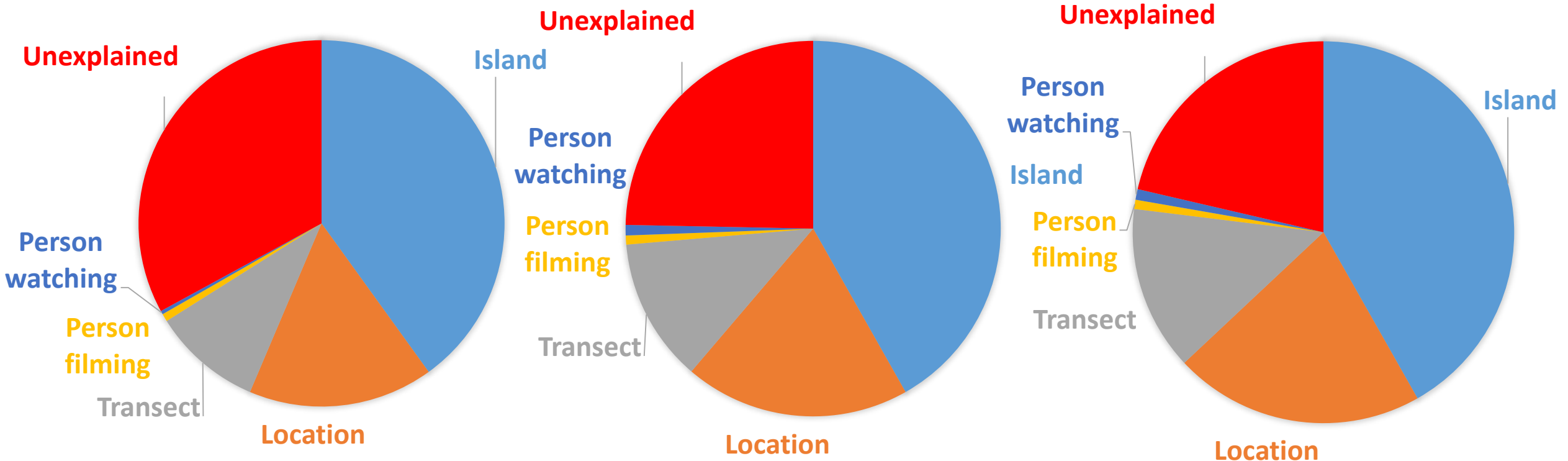
- How to get the highest precision at the lowest cost?
- How many repeats, different persons and different transects are necessary to assess fish communities?
- What is an appropriate sample distance?

Differences in fish community composition

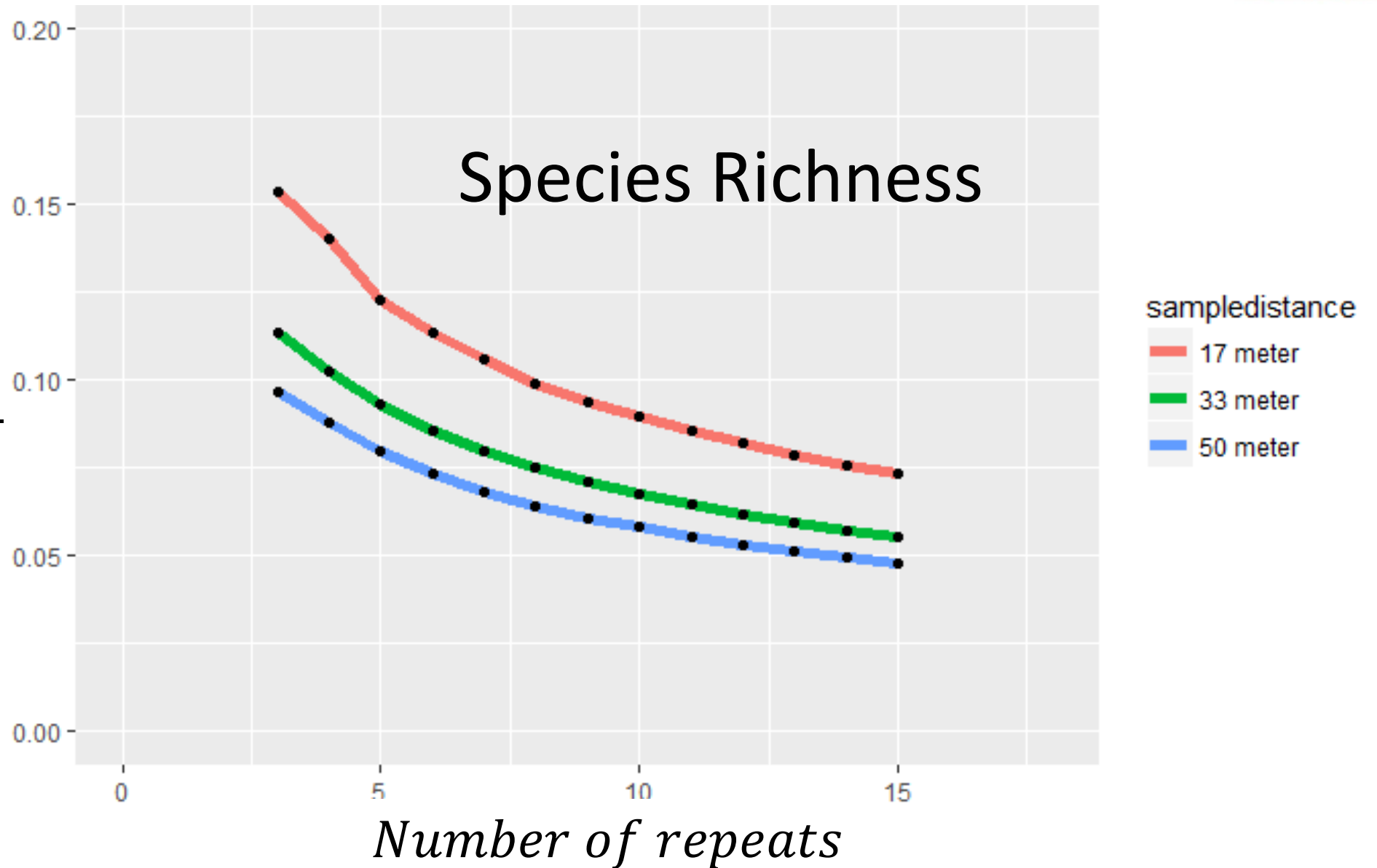
17 METER TRANSECT

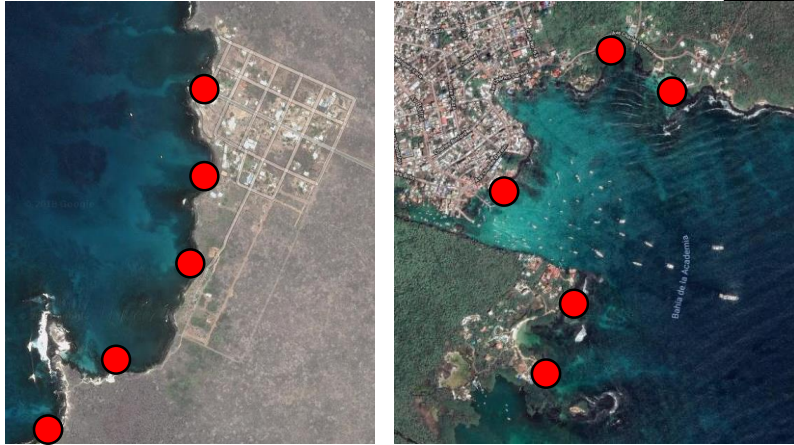
33 METER TRANSECT

50 METER TRANSECT



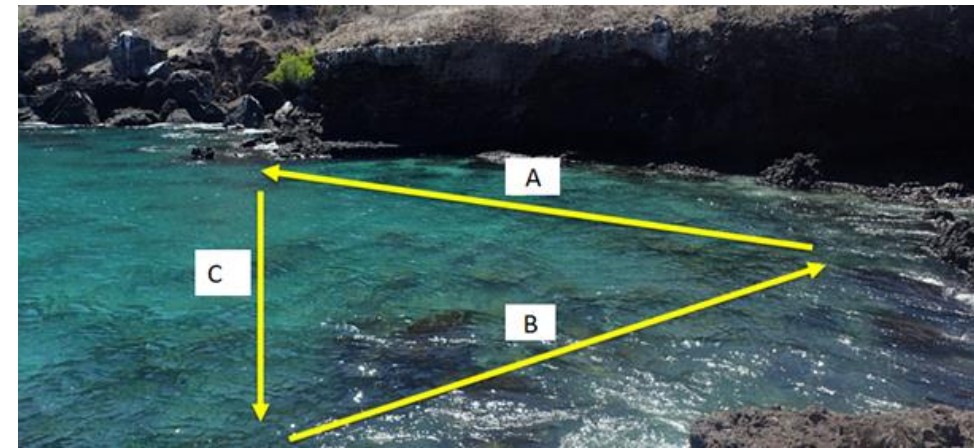
*Standard
error
Mean*





10 locations on 2 islands

3 transects



5 repeats

1 person



Conclusion

- Personal bias is negligible
- Within site variability is important
- Higher sample distance provides better insight into fish community compositions
- Benefit of time investment depends on time allocation