Tropical Territorial Damselfishes: Is Density Limited by Aggression or Recruitment?
Peter Doherty

1) This study provided strong evidence that WHAT process may act to limit density?

2) How do the life-histories of reef fish differ substantially from many terrestrial species?

3) Why is this important in considering what limits the density of local populations?

4) What are the 3 hypotheses that Doherty presents that could explain density limitation of reef fishes?

5) Which hypotheses assume that species exist at saturation for the available resources?

6) What is density-dependence?

7) How does this serve to regulate populations?

8) At what life-history stages may DD operate (list 3 stages at which DD could occur)? (not in paper just think about it)
9) What are some mechanisms that may result in DD? (not in paper- thought question)

10) For each experiment, provide the (1) Null Hypothesis, (2) The Experiment (3) The Result, and (4) the Interpretation. Keep it simple. I don’t care about replicates or where or when. I just want to know the basic idea and the basic conclusions.

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11) Doherty and Sale had conflicting results. Doherty found that rates of recruitment were independent of the existing density. Why does Doherty think that Sale’s opposite findings don’t indicate density dependence at recruitment?

12) Assessing whether densities are at equilibrium is only one way of addressing resource limitation. What else can be used? What evidence did Doherty present to demonstrate that P wardi was not likely resource limited?

13) The 2 equilibrium hypotheses were rejected in this study based on what evidence?

14) Do you think that recruitment limitation is the rule? Why or why not?