F. Trematode-Killifish-Bird Interaction (Lafferty & Morris, 1996)

1. Life-cycle
   a. Metacercariae in killifish, *Fundulus*
   b. Predatory wading birds get infected when they eat killifish

2. Parasitized killifish exhibited conspicuous behavior
   a. Parasitized fish spent more time at surface than did unparasitized fish
   b. Parasitized fish underwent behaviors such as “flashing” and “shimmying”
   c. The higher the intensity of parasites in a fish, the more conspicuous behaviors it exhibited (Fig. 1)

3. Differential predation experimental design
   a. Two large cages built
      (1) One covered to prevent bird access to fish
      (2) Other uncovered, birds could feed on fish
   b. Stocked each cage with equal numbers of parasitized and unparasitized fish
   c. Ran experiment for 20 days and then sampled fish to determine relative numbers of parasitized and unparasitized fish
   d. Results (Fig 2)
      (1) Enclosed pen (no bird predation, but natural mortality)
         (a) Unparasitized fish went from 53 to 50
         (b) Parasitized fish: 95 to 91
      (2) Open pen (bird predation and natural mortality)
         (a) Unparasitized fish: 53 to 49
         (b) Parasitized fish: 95 to 44
   e. Conclusion:
      (1) Parasitized fish were 31 times more likely to be eaten than unparasitized fish in the same habitat.
      (2) Heavily parasitized fish were more likely to be eaten than lightly parasitized fish (Fig. 3)
   f. Implications
      (1) Trematode parasites might benefit birds by acting as a delivery system that enables birds to eat fish that are otherwise difficult to capture
      (2) Parasites might allow the persistence of a predator in areas where one could not previously exist.