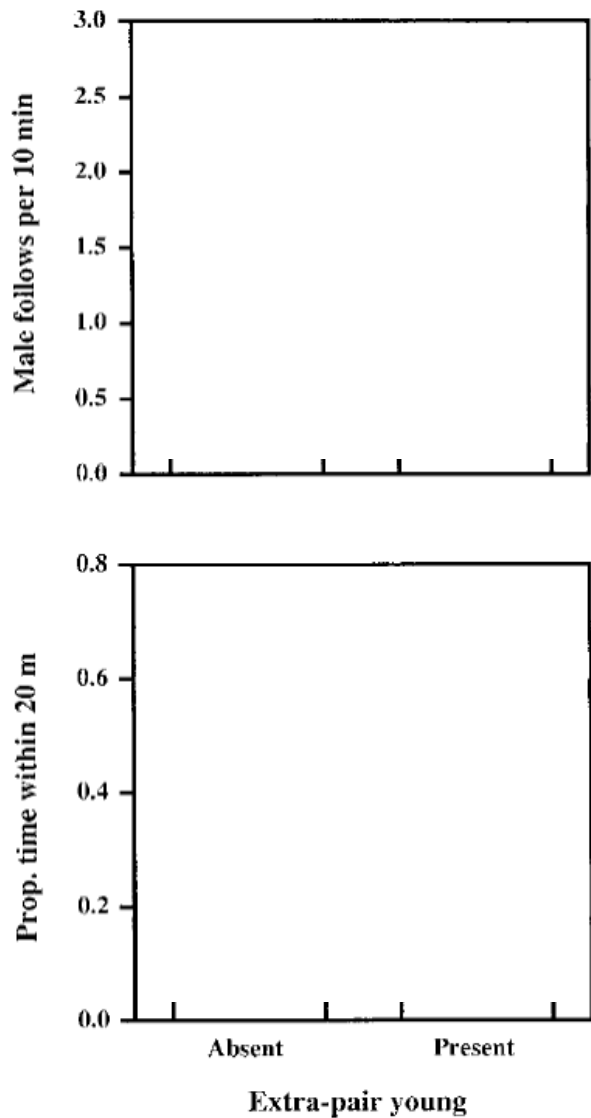


Part 1. The initial observation

- 1- Complete the graphs using the information on the original observation that led the scientists to formulate a hypothesis and develop their study.

Figure 1

Intensity of male mate guarding, as measured by (a) the rate at which males followed females and (b) the proportion of time the male spent within 20 m of his mate, for broods with ($n = 2$) and without ($n = 6$) extrapair young.



Part 2. The authors find a method to attack the problem

The scientists collected behavioral observations and monitored breeding on a 100 hectare (Ha) study plot (observation plot) at Hubbard Brook (see Chuang-Dobbs et al., 2001, *Behavioral Ecology*). All adults breeding on this plot ($n = 75$ in 1998) were color banded for individual identification. At the time of banding, they collected a small (ca. 20 μL) blood sample for genetic analyses. They visited all nests on the plot approximately once every 3 days. They banded and collected a blood sample from all nestlings 6 days after they hatched.

The scientists now began a test of their hypothesis.

- 2- What do you expect they might do?
- 3- What variables might they measure? What predictions would you make?