

## Mark-Recapture Problems and Questions

Conservation Biology

Spring 2009

**Problem:** Suppose that you capture 10 individuals of a rare subspecies of brook trout from an impounded watershed. You place a pit tag (a very small radio activated tag) in the body cavity of each individual and then release these fish. You come back a month later and capture 20 fish and find that four of these are individuals that you had previously captured and released. What is your best estimate of the population size,  $N$ ?

**Question:** List two likely means that would bias your estimate. Which direction (high, low or possibly either way) would these biases act? Explain your answer.