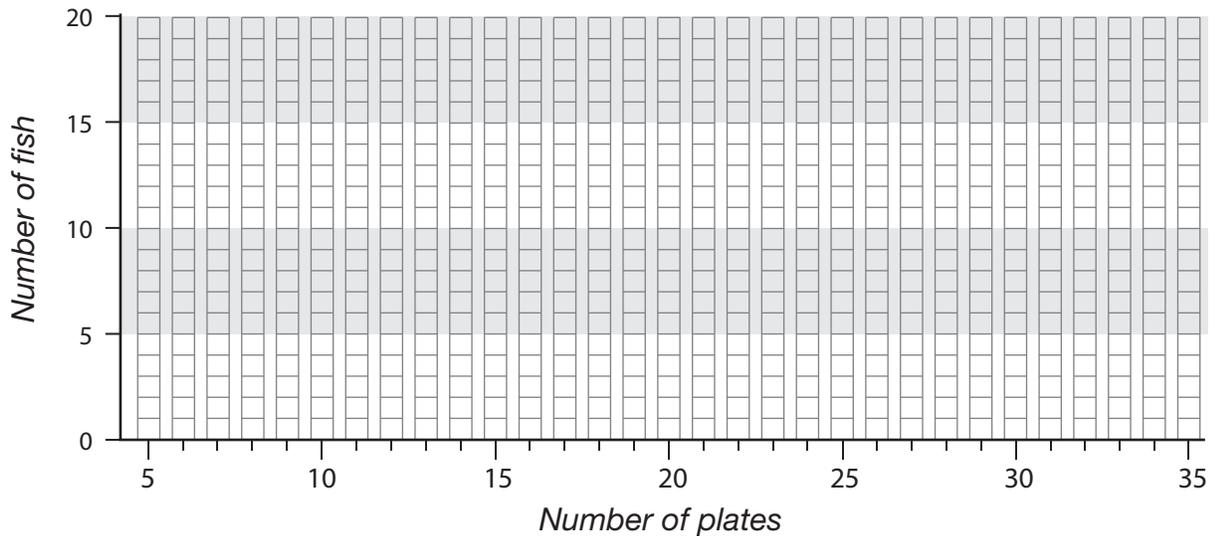


# Stickleback Sampling

## Instructions

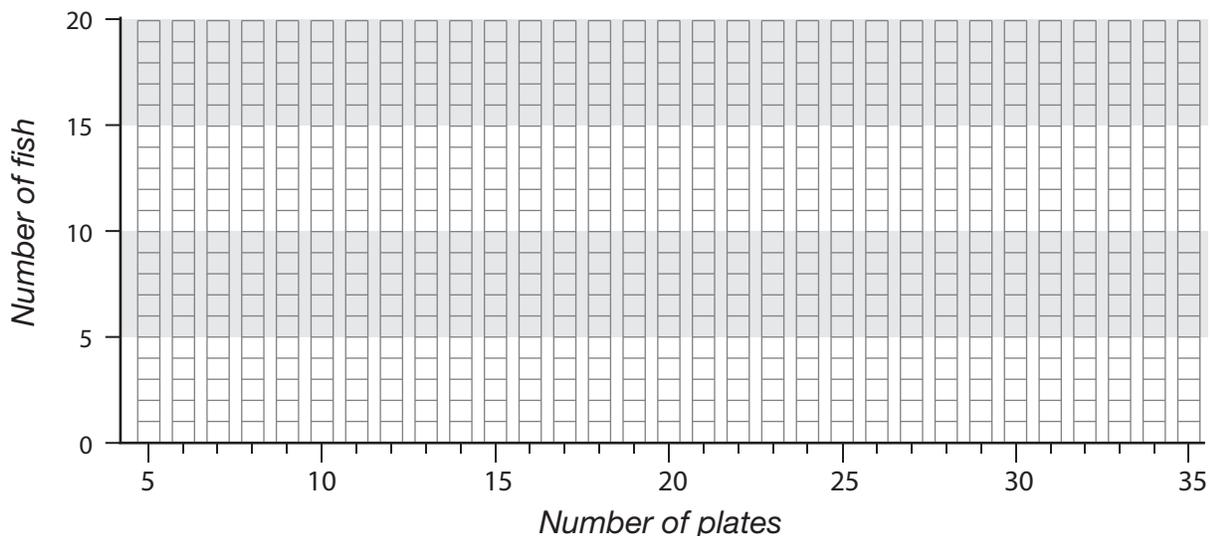
1. Randomly choose 10 fish each from the 1990, 1996, and 2002 sample piles, OR use this organizer as you go through the online stickleback data collection.
2. For the 1990 sample, sort your fish by number of plates, then fill them in on the graph below. Each square should represent one fish.

**Loberg Lake Sticklebacks – 1990**



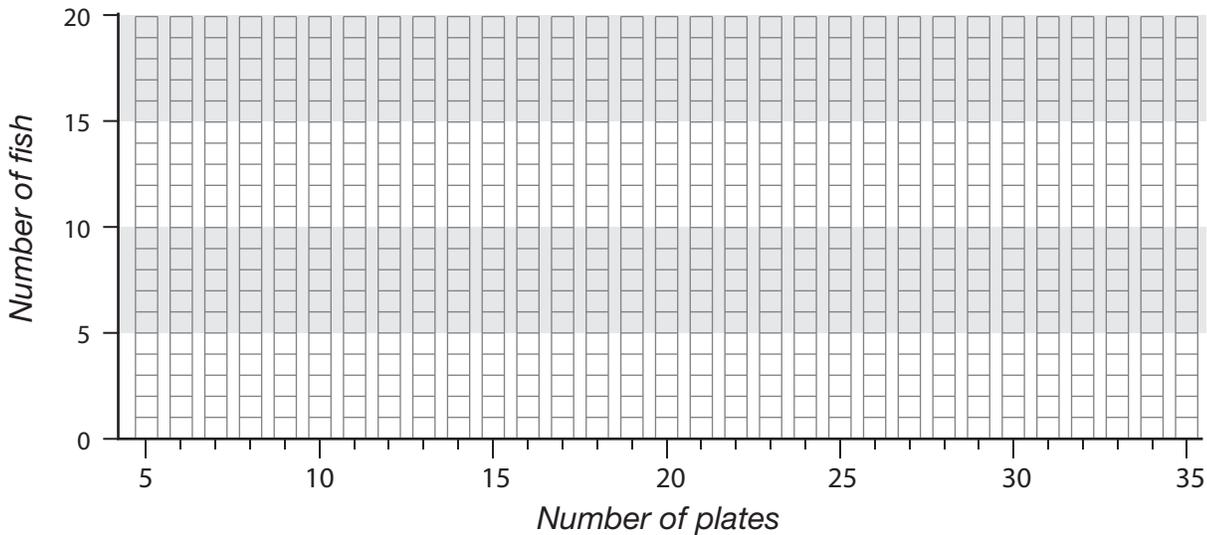
3. When your teacher tells you to proceed, plot your fish from the 1996 sample below:

**Loberg Lake Sticklebacks – 1996**



4. When your teacher tells you to proceed, plot your fish from the 2002 sample below:

### Loberg Lake Sticklebacks – 2002



### Questions

1. Compare your graphs with other students'. Are all of the graphs identical? What are some reasons they could be different?
2. Look at the aggregate graphs for each sample year and compare them to your own. Are your graphs similar in range (number of plates) and shape (most frequent numbers of plates) to the aggregate? Explain.
3. What is the main reason they could be different?

4. Circle the best summary for the lateral plate trait in the sample population for each year:

Sample year	General number of lateral plates		
1990	Low	Medium	High
1996	Low	Medium	High
2002	Low	Medium	High

5. Do the aggregate graphs show an overall change in lateral plate number over time? If yes, what is the change?