Exercise – Basics & Terminology

Answer the following questions with R code by creating (*and editing if you make a mistake*) an R script and iteratively running the code in RStudio.

1. Load the `FSA` library (*even though it is not required for this exercise*).

2. Use an expression to compute the CPE (number of fish per net) if three nets captured 87 fish.

3. Assign (and view) the result of an expression that calculates the CPE (number of fish per 300 m of gillnet per night) if 1400 m of gillnet fished for two nights captured 87 fish.

4. Create an expression that uses the result saved in the previous step to modify the CPE to be per 1000 m of gillnet per night (i.e., don't re-create the previous expression, simply modify by starting with the saved result.)

5. Enter the following observed catches into a vector called `ct` – 87, 54, 12, 98, 45, 5, 78.

6. Enter the following efforts (number of nets) into a vector called `ft` – 3, 3, 2, 5, 2, 2, 4.

7. Compute a vector called `cpe` that contains the CPE (number of fish per net) computed from the previously entered catch and effort data.

8. Find the mean CPE.

9. Use R code to find the third CPE.

10. Use R code to simultaneously find the third and fifth CPEs.

11. Use R code to eliminate the seventh CPE (but retain the other six CPEs).

12. Use R code to find the CPEs for ONLY the days when two nets were fished.

13. Find the mean CPE for ONLY those days when three or more nets were fished.

14. Save your R script, close RStudio, open RStudio, and re-run your script.