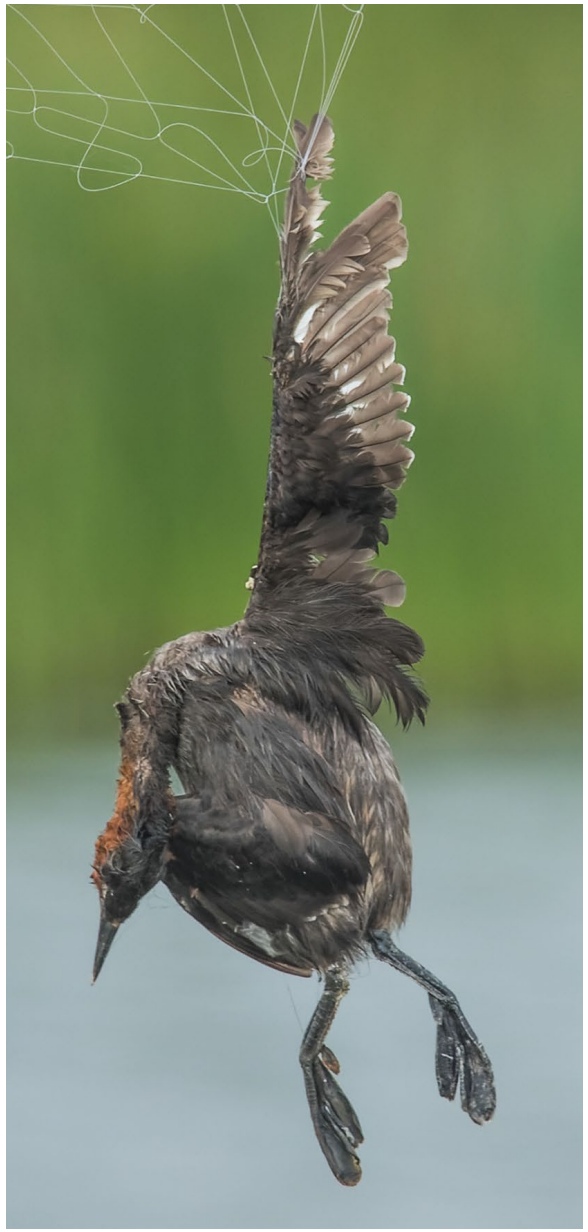
Best Practices for Surveys

7 August 2023

Overview

- Market surveys
- Net surveys
- Motivation surveys
- Online surveys



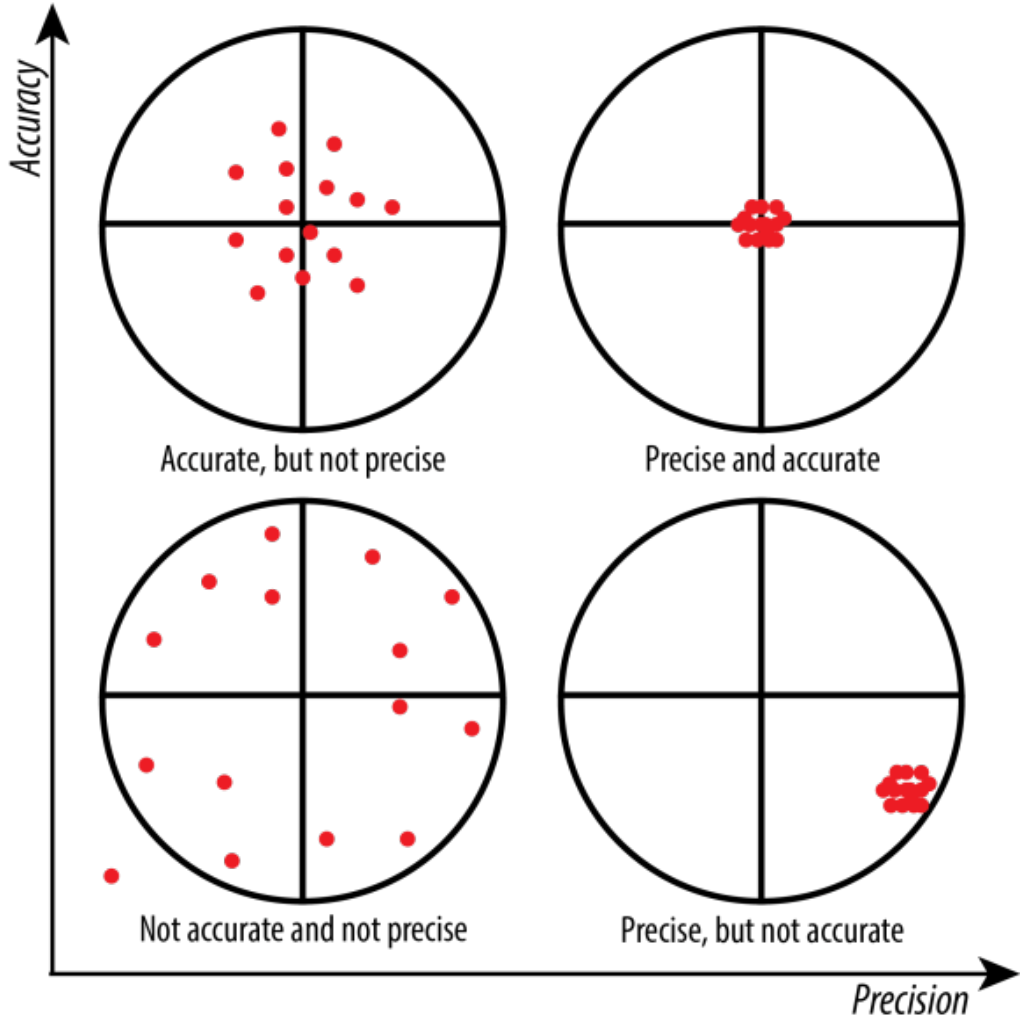
Define survey objectives at the outset

- Understand what questions monitoring is intended to answer
- Understand what data are needed to answer these questions
- Who is involved in illegal take of birds?
- Who will be engaged in monitoring?
- Who will use the results and how?

Choose appropriate sampling strategy

- Reliability = Accuracy + Precision

- Accuracy = How close is estimate to the true value
- Precision = How close is estimate samples are to one another



Choose appropriate sampling strategy

- Sampling method should try to be representative sample
- Random sampling – units have equal chance of being sampled
- Regular sampling – units sampled at a fixed interval

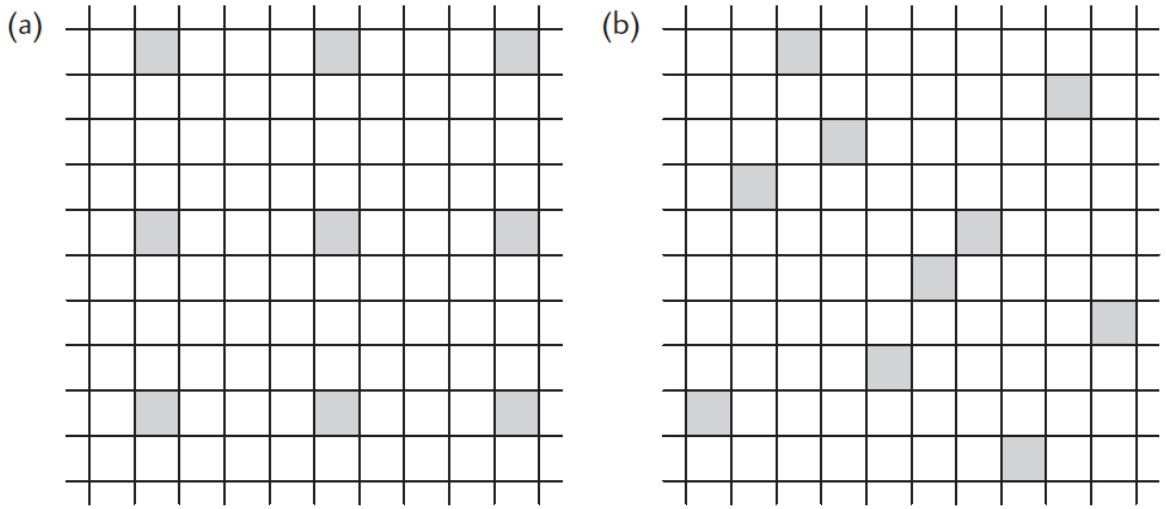
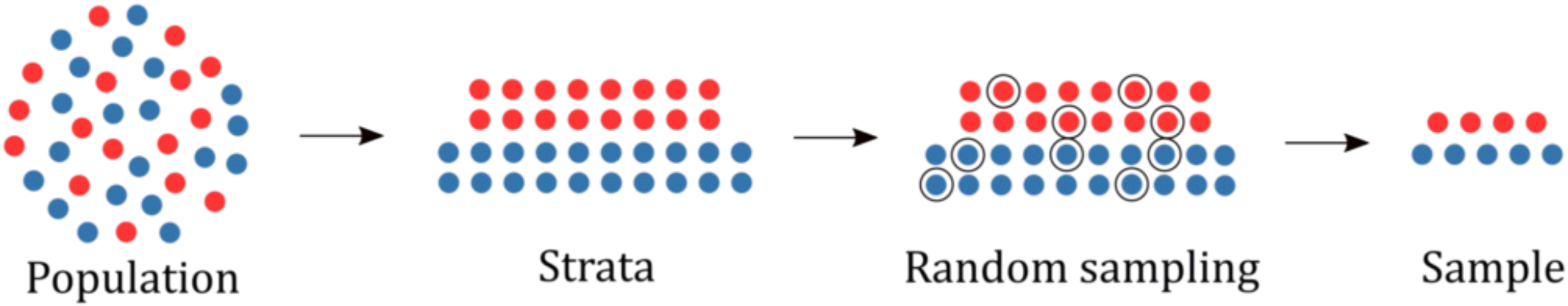


Fig. 2.2 *Example of (a) regular and (b) random sampling method, survey squares are shaded (from Gregory et al. 2004)*

Choose appropriate sampling strategy

- Stratified sampling – method that allows you to reduce sampling error if you have information already about subgroups (higher precision)



Usually, choose strata definitions that minimize variation within a strata but maximizes variation between strata

Choose appropriate sampling strategy

- Stratified sampling – method that allows you to reduce sampling error if you have information already about subgroups (higher precision)

If strata are heterogenous, can choose to sample proportionally to size of strata

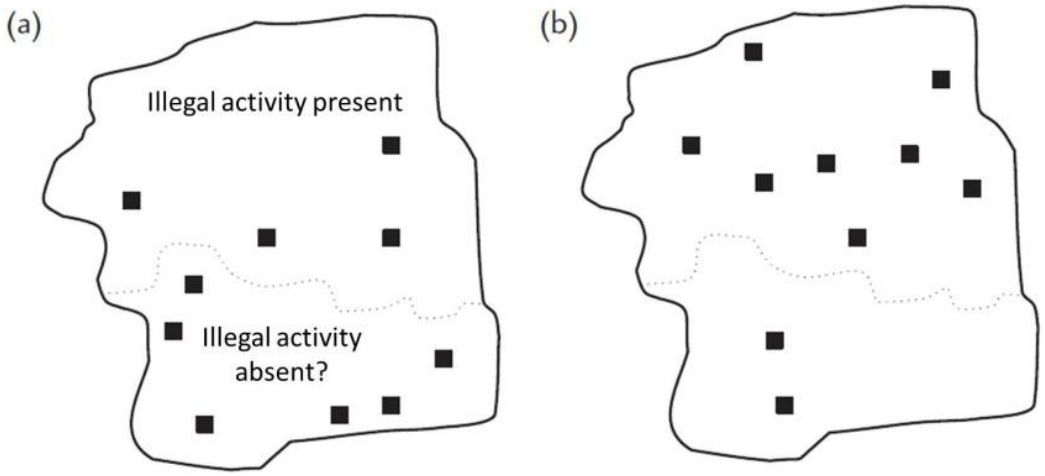
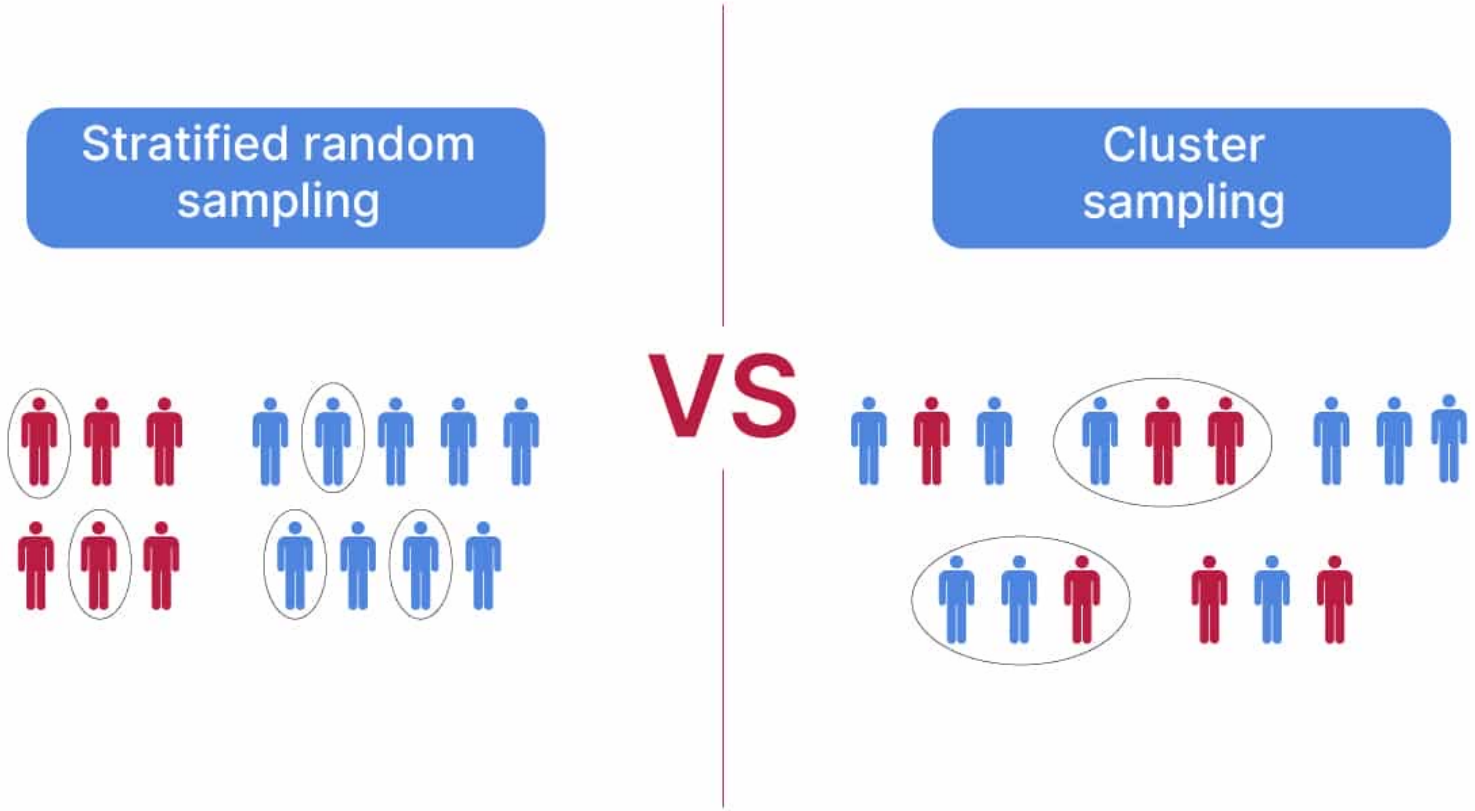


Fig. 2.3 *Imagine a survey of an illegal activity in an area divided into two distinct habitats. The filled squares represent survey plot. (a) A pure random sample of the whole area could, by chance, result in 60% of samples failing in the southern habitat – which may have very little, if any illegal activity. This would be wasteful of time and resources. (b) Far better would be to use prior knowledge to stratify the sample: 80% of the random samples are taken from the habitat where the illegal activity is known to be present and 20% from the habitat where the illegal activity may be absent. Note that, although the sample is smaller in the southern area, it is still vital that it is surveyed (from Gregory et al. 2004)*

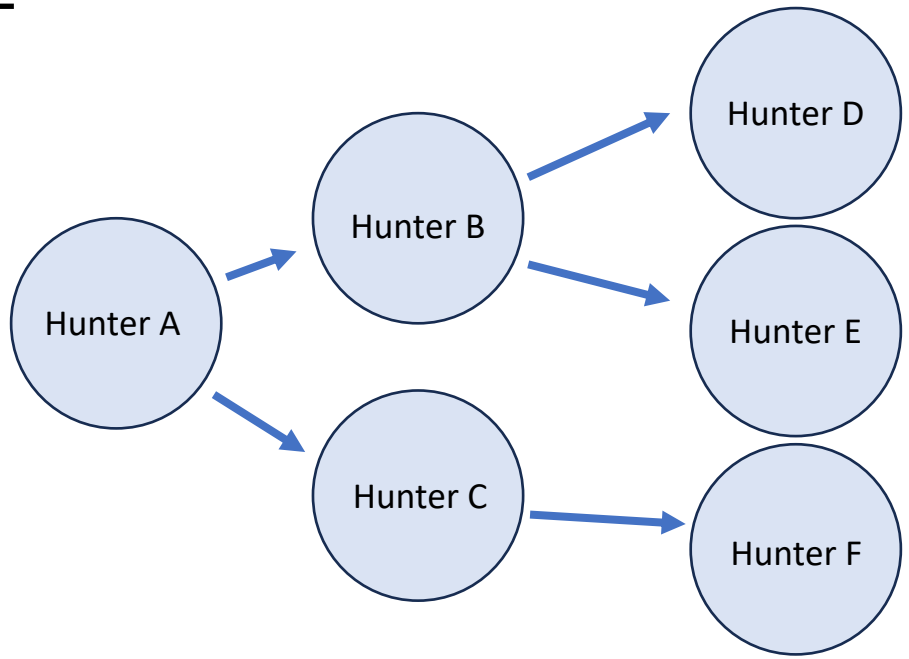
Choose appropriate sampling strategy

- Cluster sampling – divide population into smaller groups (clusters), then randomly select among these clusters to form a sample



Choose appropriate sampling strategy

- Snowball sampling – non-random sampling method where samples have unique characteristics
- Useful as a method for **hard to access populations** and/or **research on a sensitive topic**



Train the surveyors

- Ensure they understanding of **what is legal** and **what is illegal**
  - Have protocol for if they encounter illegal activity
- Ensure they understand and can explain rationale behind the study and its value for conservation
- Ensure understanding of basics of survey design and interviewing
- Include sessions on administrative and securities issues
- Discuss and share experiences