

Notes - Population Sampling

Why do we do population sampling?

- Population size and density
- Indices (standards to measure against for change detection)
- Fitness (survival rates)
- Spatial extent (habitat range)

General methods

Direct sampling - counting actual organisms by some method

Indirect sampling - based on other factors than the actual organism (feces, footprints, food cache...)

These can be in-person observations or use remote sensing (wildlife cameras, audio recordings, satellite/drone imagery...)

They might involve capture, which can be passive (traps with or without bait, static nets) or active (driving animal towards trap, cannon nets, active seeking)

They can involve marking (paint/dye/tattoo, tagging/banding/collaring, GPS tagging)

Additional Concerns:

Sessile or mobile - do they move or not?

Rarity - "elusive species"

Accessing habitat - extreme climates, depth, rough landscapes, biotic and abiotic barriers

Species specific behaviors - avoid people, time of day when active

Budgets and time