

Populations and samples

- **population:** the set of (biological, environmental,...) material to which you hope your work is relevant
- **sample:** the (much smaller) set of material on which you actually base your work

Design and inference

- **design:** how you choose your sample
- **inference:** using results from your sample to reach conclusions about the population

Parameter estimation

- **parameter**: an unknown constant whose value is scientifically interesting
- **point estimate**: a guess at the true value of a parameter (presumably informed by your data)
- **interval estimate**: a range of values which is, in some sense, likely to include the true value of a parameter (again, informed by your data)

Hypothesis testing

- **hypothesis**: a statement about a parameter
- **statistical test**: a way of assessing whether your data are or are not reasonably consistent with a pre-specified hypothesis