

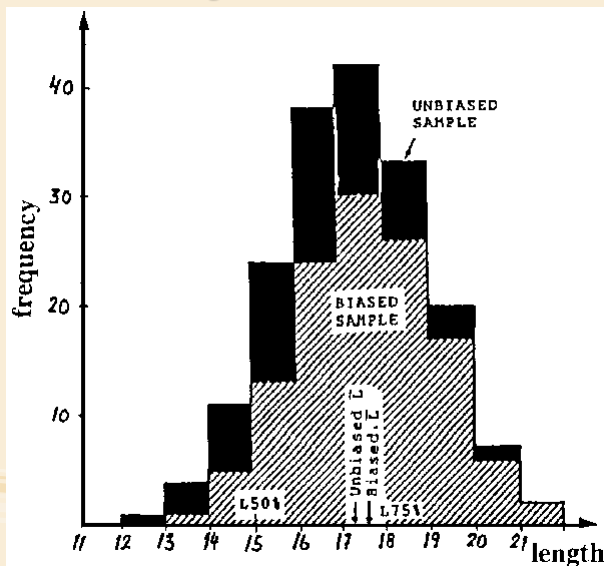


Using a Selection Curve to Adjust Length-Frequency Samples

Length-Frequency Data (LFD)

- Generally useful for Population Dynamics Study: Growth, Mortality, Maturity etc.
- Biased samples due to selectivity of fishing gears
- The effect of trawl selection:
 - Over-estimation of mean length
 - Under-estimation of standard deviation
 - Under-estimation of cohort (=generation age group) size

Bias created by selection



The sequence of analyses:

- Estimate the growth parameters (L_{∞} , K , t_0) by any methods (*Bhattacharya, Powell-Wetherall, Age determination etc.*)
- Estimate the total mortality coefficient (Z) by any methods (*Jones & Zalinge, Linearized ctch curve*)
- Adjust new LFD by selection Ogive curve
- **Two-tailed selectivity is not available.**