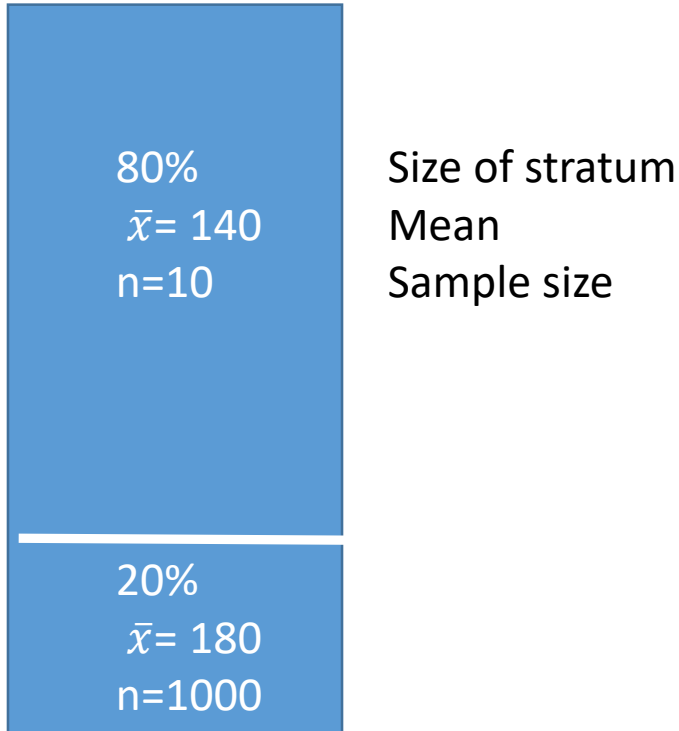


Stratification – weights and variances



Here, we sampled the big stratum with very low intensity to get an imprecise estimate. But, it is unbiased (can't say if it's too big or too small).

$$\hat{\mu} = w_1 \bar{x}_1 + w_2 \bar{x}_2$$

$$= .8 \times 140 + .2 \times 180$$

n's don't enter into it

$$S_{\hat{\mu}}^2 = w_1^2 V(\bar{x}_1) + w_2^2 V(\bar{x}_2)$$

$$= .8^2 \frac{S_{x_1}^2}{10} + .2^2 \frac{S_{x_2}^2}{1000}$$

Mean does not change systematically with increased sample size, but variance of the mean and variance of the total decrease with increasing sample size

Bases	N	Max N	Standard error	Mean per 100 m2	Areal extent of habitat (km 2)	Estimate
Original Analysis GRSC Only	32	8.48	1.8	2.02	211	4,265,539
GRSC plus all randomly selected sites since 2018	59	8.36	1.2	2.00	211	4,230,119