

Transect Lines

Transect lines are used frequently to estimate the population size of sessile organisms. String is stretched in straight lines (“transects”) through the study area. Then, one meter square quadrats are set at a prescribed distance along the transect lines—for example, every 10 meters—and all individuals of the species under study are counted within each quadrat. At least 30 quadrats are needed within the study area to yield a statistically acceptable estimate of the population size. After all quadrats have been examined along all transect lines, an average number of individuals per quadrat is calculated, yielding an average number of individuals per square meter. This number is then multiplied by the total square meters in the study area to estimate total population size. Note that this value is an estimate, not an actual count of total individuals.

