# S3 Appendix: Stratified analysis equations

Standard notation for use in the analysis of stratified-random survey data [17]:

|  |  |
| --- | --- |
| **Equation** | **Description** |
|  | Number of strata () |
|  | Area of the stratum |
|  | Area covered by a standard trawl |
|  | Total number of sample units in the stratum |
|  | Total number of units sampled in the stratum () |
|  | Total number of sample units in the survey |
|  | Total number of observations in the survey |
|  | Stratum weight |
|  | Sampling fraction in the stratum |
|  | Sample mean in the stratum, where is the observation in the stratum |
|  | Sample variance in the stratum |
|  | Estimate of the population mean per unit (i.e. stratified mean catch per tow) |
|  | Estimate of the variance of the stratified mean |
|  | Estimate of the population total over the survey area |