CMEC\_HaidaGwaii\_monitoring\_database\_MASTER key

For further information, contact Kyle Demes ([kyle.demes@gmail.com](mailto:kyle.demes@gmail.com)) or Anne Salomon ([anne.salomon@sfu.ca](mailto:anne.salomon@sfu.ca))

Sampling overview

This database contains data from kelp forest ecosystem annual monitoring in Haida Gwaii (Northern Central coast of British Columbia, Canada) from 2009-2012. Each year, the same regions (called region or area in database) of Haida Gwaii were sampled (East Kunghit, West Kunghit, Lyell, and Louise). 15 sites were sampled among these regions and at each site, a shallow and a deeper site were sampled. ‘Shallow’ and ‘deep’ categories (data$depth.cat) were not consistent across sites, so depth (data$depth.m) was recorded for each transect.

Abiotic data

The tab titled ‘survey metadata’ contains nuances about the data collected and explanation of some of the codes used in the database along with the number of transects/quadrats at each site each year. Rugosity was measured for each transect in 2010 and 2012 and is reported in the ‘rugosity’ tab. GPS coordinates for each site (along with conservation status of sites) are reported in the ‘site data’ tab. The ‘length\_weight\_data’ tab contains the equations (and source of equations) used to convert length data of each species fish species into biomass data. ‘Lynn Lee Codes’ tab contains the nomenclatural information for species and their reference names in our database.

Biotic data

At each site, data were collected from 3 separate transect methods for different biota and are presented in the 4 first tabs. Fish belt transects at each site were 30m long by 4m wide (i.e. 120 m2 total area sampled per transect) and were replicated 6-9 times per site- the labels in this tab are either straight forward or are present in the metadata tab, with the exception of ‘pcbm.g’, which is the per capita biomass, in grams, of each fish (converted from length to weight equations). Large mobile inverts were recorded in belt transects (‘Invert Belt Transects’ tab) of 10m by 2m (20 m2 total transect area)- urchins were not counted in these transects, except in 2012 because of logistical constraints. Urchins in 2009-2011 were sampled in 10 replicate 1m2 quadrats at each site- these data are present in the ‘Urchins Quadrat’ tab, again excluding 2012 data which are present in the inverts tab. The final biotic tab is ‘Kelp Quads’ which contains data on the abundance of kelp species in 2011 only sampled from the urchins quadrats (1m2)