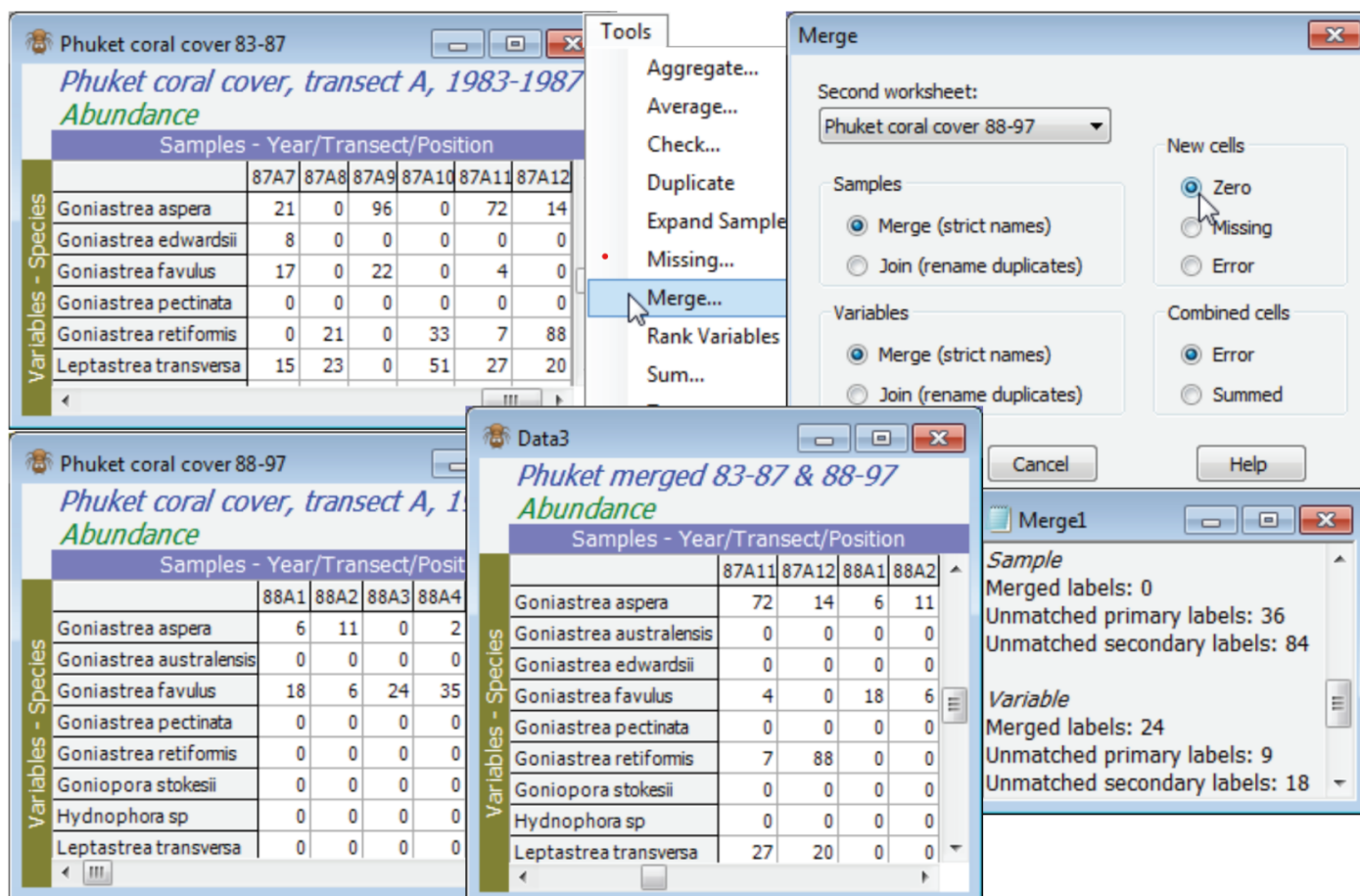


Merging non-uniform species lists; (Phuket coral reefs); (Clyde dump- ground study)

Perhaps the greatest benefit of the strict label matching in PRIMER is the ability to **Tools>Merge** assemblage data when two sets of samples, taken at different times or places, are not recorded on a common data sheet, with predetermined taxonomic categories. Species names, or other operational taxonomic units, must be consistently spelt (even to spaces) in the separate lists, so that the strict matching of variable names can take place. But there is then no necessity that the two sheets hold the same set of species, in the same order. Typically, lists will be of different length, with some species in each list not appearing in the other. Using (**•Merge (strict names)**) copes automatically with this, filling any spaces created in the merged array either with (New cells**•Zero**), relevant for assemblage-type data, or with (New cells**•Missing**), more appropriate for environmental variables. A third option (New cells**•Error**) stops the procedure with an error message if any new cells are created. This can be a useful safeguard if the intention was to join two data sheets with exactly the same set of variables – an error alerts you to the fact that there may be variable names misspelt.

The Ko Phuket coral reef assemblage data was introduced in Section 8 and the workspace **Phuket ws** last seen in Section 9. In each sampling year, 12 plotless line-samples were taken along a fixed onshore-offshore transect (A) and area cover determined of each coral taxon. From the directory C:\Examples v7\Phuket corals you will need to have open the three *.pri files of data for different runs of sampling years: **Phuket coral cover 83-87**, **88-97** and **98-00**, only the first two of which were opened in earlier sections. (The early years straddle sedimentation impact from dredging operations for a new deep-water port, 1986/7, and the later ones a sustained Indian Ocean high pressure period with desiccation from lowered sea levels, 1998, with a more stable environment in between). Note the different (but overlapping) species lists of these three sheets. With the active matrix of 83-87, **Merge** this with 88-97, and merge the result again with 98-00, choosing zeros for the new cells, and tidying up the new sheet appropriately (e.g. renaming the window, amending the title with **Edit>Properties** and sorting the species in the merged sheet with **Edit>Sort>Rows >•By labels**).



Save and close the workspace (Phuket ws), and from C:\Examples v7\Clyde macrofauna open Clyde environment, of 11 abiotic sediment variables (Cu, Mn, Co, Ni, Zn, Cd, Pb, Cr and %carbon and %nitrogen, plus water depth) sampled in 1983 at each of 12 sites (S1 to S12) along an E-W transect across the Garroch Head sludge dump-ground in the Firth of Clyde – see Fig. 1.5 of CiMC (data from Pearson TH, Blackstock J, 1984 Dunstaffnage Lab Report, Oban, Scotland). We will use these data (seen often in CiMC) for the rest of this section and most of the next one.

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