Abundance-Biomass Comparison curves

ABC curves plot abundance and biomass *k*-dominance lines on the same plot, and are interpreted in the literature as indicating an *undisturbed* community if the biomass curve is above the abundance curve, *gross disturbance* if the abundance curve lies above the biomass and *moderate disturbance* if the two largely intersect. This is based on the observation that for climax communities of soft-sediment macrobenthos the biomass dominants are large-bodied but do not dominate abundance, and are the more susceptible species to impact, whereas gross disturbance, especially from organic enrichment, leads to abundance dominance by a few, small-bodied opportunist species. (A very different example is given by Smith WH & Rissler LJ, 2010, *Restor Ecol* 18, 195-204, who show that ABC curves for herpetofauna track succession after forest fires).

Restore the full set of samples for Linnhe macrofauna abundance by **Select>All** (and **Edit>Clear Highlight** if you wish, though the latter is unnecessary since all routines – with the exception of **Pre-treatment>Transform (individual)** – operate on the current selection, not the highlights). The eleven ABC plots, one for each sample (year), are generated by a single run of **Analyse>Dominance Plot**, and placed in a multi-plot. The active sheet must be the abundance matrix and the Linnhe macrofauna biomass matrix must be available in the workspace as the secondary sheet.

Revision #2
Created 9 November 2024 02:22:00 by Arden
Updated 26 February 2025 03:14:33 by Abby Miller