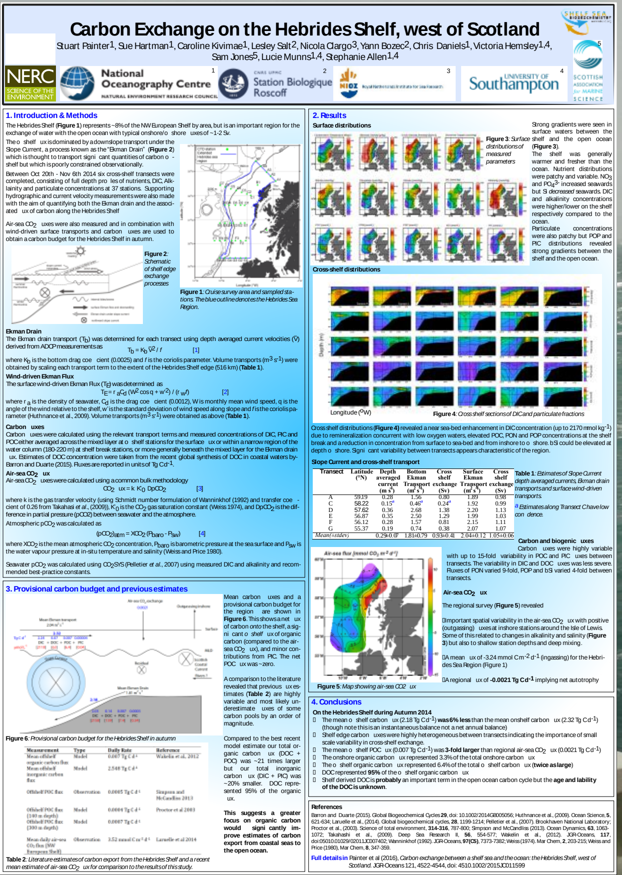
The Hebrides Shelf



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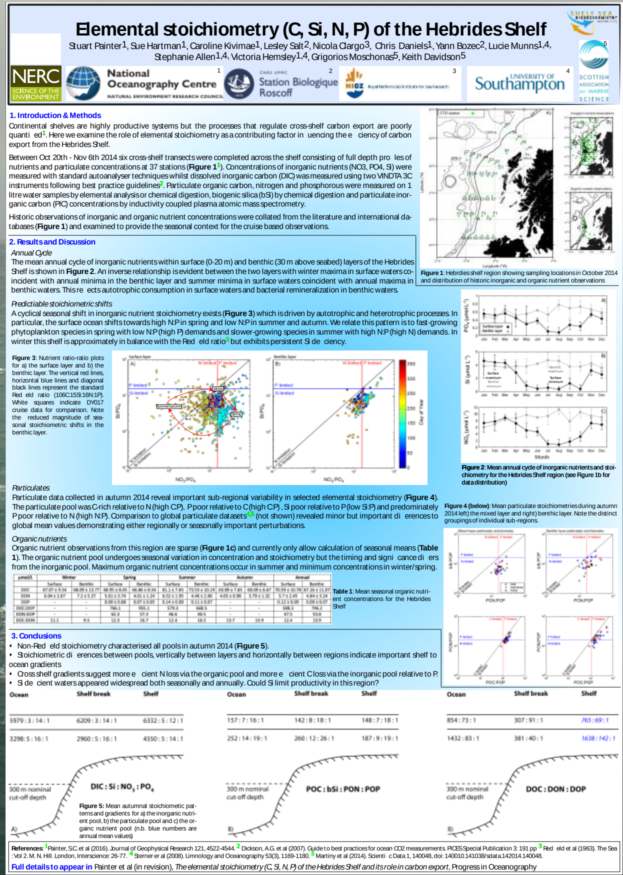
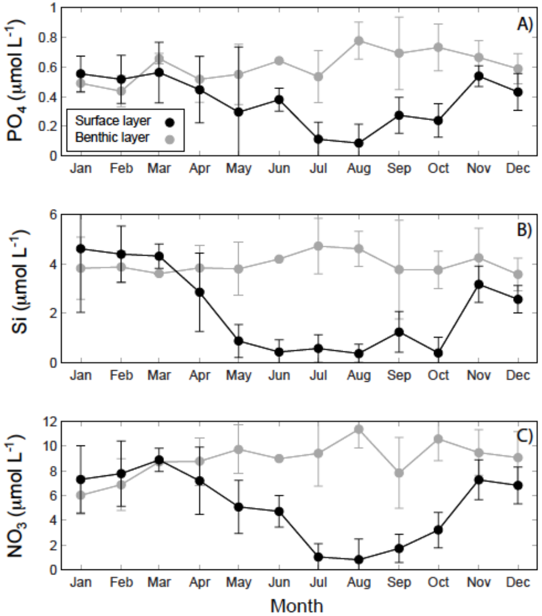


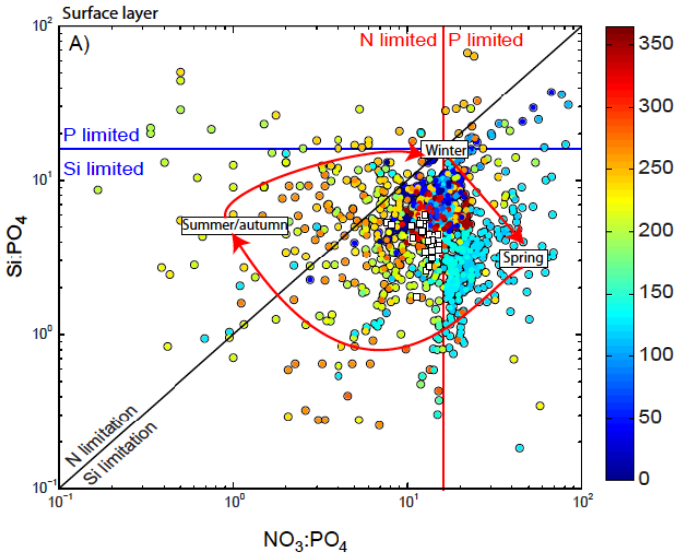
Elemental stoichiometry (C, Si, N, P) of the Hebrides Shelf

1) Opposing annual cycles in surface and benthic water inorganic nutrients – auto-/heterotrophic activity



~70% of Si, ~30% of NO3 & PO4, “lost” from system

2) Cyclical trends in nutrient stoichiometry – inversely linked to autotrophic demands



Potential P limitation in spring,
N limitation in summer.
Widespread Si deficiency

3) Significant lateral and vertical gradients in stoichiometry

Ocean	Shelf break	Shelf
5979 : 3 : 14 : 1	6209 : 3 : 14 : 1	6332 : 5 : 12 : 1
3298: 5 : 16 : 1	2960 : 5 : 16 : 1	4550 : 5 : 14 : 1