MASTS award SG94: Water mass variability in the Faroe Shetland Channel 2009-2013, based on stable isotope analysis of historic samples

Bee Berx (Marine Scotland) and William Austin (StAndrews/SAMS)

Award: £500 (direct transfer of funds from MASTS to StAndrews isotope laboratory account)

A MASTS small grant was used to fund the isotopic analyses of archive seawater samples, provided by Marine Scotland from their collections from the Faroe Shetland Channel (FSC). The results of these analyses, together with their wider significance in the understanding of mixing in the FSC, were presented at the MASTS 2014 Annual Science Meeting (http://www.st-andrews.ac.uk/gsd/news/title,249301,en.php). Our research project led to a very successful, jointly-supervised final year dissertation project by Christine McKenna (University of St Andrews), which won the Challenger Society's tripartite prize for the UK's best final year undergraduate dissertation in Marine Science 2014 (http://www.st-andrews.ac.uk/gsd/news/title,249633,en.php). Building on the MASTS-funded analyses and our collaborative work, we have recently submitted (January 2015; attached) a manuscript for review in *Deep Sea Research*. This was a highly successful pilot, which allowed Austin to successfully bid for capital equipment funding support to purchase a new Picarro water isotope analyzer at SAMS and for Berx and Austin to extend their collaborative work on novel isotope tracers in seawater and the FSC, in particular.