

Not to be cited without prior reference to Marine Scotland, Marine Laboratory, Aberdeen

MRV Scotia

Survey 0622S

PROGRAMME

13 May – 2 June 2022

Ports

Loading: Aberdeen, Fri 13 May 2022

Half Landing: Galway, 22 May 2022 (TBC)

Unloading: Aberdeen, Thu 2 June 2022

In setting the survey programme and specific objectives, etc the Scientist-in-Charge needs to be aware of the restrictions on working hours and the need to build in adequate rest days and rest breaks as set out in Marine Scotland's Working Time Policy (Lab Notice 34/03). In addition, the Scientist-in-Charge must formally review the risk assessments for the survey with staff on-board before work is commenced.

In the interest of efficient data management it is now mandatory to return the Survey Report, to I Gibb and the Survey Summary Report (old ROSCOP form) to M Geldart, within four weeks of a survey ending. In the case of the Survey Summary Report a nil return is required, if appropriate.

Out-turn days: 21 – MACEGG

Fishing/Sampling Gear

PT160 pelagic trawl

BT 237 demersal trawl

Gulf VII plankton sampler

Objectives

1. To complete a mackerel and horse mackerel egg survey (as part of the ICES Triennial Survey), on the western shelf and shelf edge in the area from 53°N to 60° N (see Figure 1).
2. To collect samples of adult mackerel, by trawling, for atresia and fecundity analysis back at the laboratory.

Procedures

Scotia will depart from Aberdeen on 13 May and proceed North, heading through the Pentland Firth to the first plankton station at 58°45'N 4°45'W. *Scotia* will then continue sampling on this latitude utilising the adaptive survey methodology (described below). Survey transect spacing will typically be at 30' intervals latitudinally with stations on the transects at 30' E/W intervals. Plankton stations will be undertaken using the Gulf VII sampler with sampler mounted RBR duo CTD that will record salinity and temperature during the deployments. The plankton tows will require the vessel to deploy at and maintain a steady speed of four knots. The sampler will be lowered at a steady rate (6 m/min) from the crane to within 5 m of the seabed or 200 m – whichever is shallower. The sampler will then be recovered at the same speed. Once aboard, plankton samples will be washed into the sampler net before being removed, fixed in 4% formalin and scored for egg abundance. Trawl samples will be taken at the discretion of

the scientist in charge. There should be a maximum of ten trawls for the whole survey, and will usually be taken at or adjacent to the shelf edge. The adaptive design means that the precise length of each survey transect cannot be defined in advance and instead sampling continues on the transect until zero or very small numbers of newly spawned mackerel eggs are found.

Sampling and processing of samples will be undertaken in accordance with the protocols and procedures as laid down in the WGMEGS Sampling at Sea manual, SISP 6, V2.3.

Scotia will proceed to survey in a southerly direction to the west coast of first Scotland and then Ireland. During recent mackerel egg surveys the spawning behaviour of mackerel has required *Scotia* to steam well beyond Rockall Bank and onto Hatton Bank in an attempt to fully delineate the mackerel spawning boundary during this survey period. The expectation is that this situation will continue during this survey in 2022 albeit the adaptive survey protocols will generally be adhered to. The southern survey boundary is at 53°N, which is almost level with Galway Bay. The half landing is expected to be around 22-23 May. Following the half landing the survey will proceed back over the area covered in the first half with transects interlaced between those carried out during the first half.

Normal contact will be retained with the laboratory throughout, and with other vessels taking part in the survey.

Submitted:
F Burns
24 April 2022

Approved:
I Gibb
10 May 2022

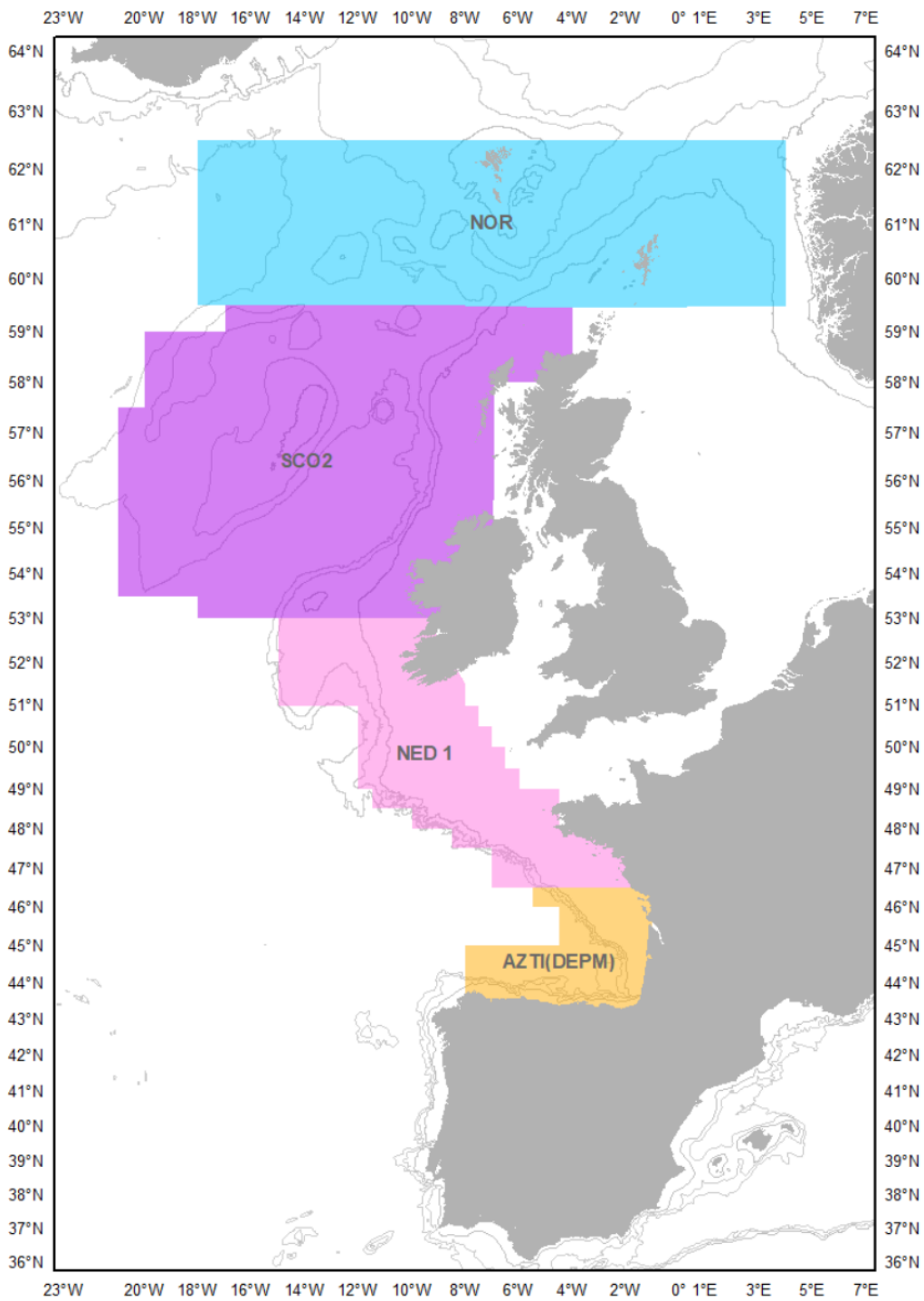


Figure 1: Map showing survey coverage for MEGS Period 5 and proposed survey area for 0622S is denoted as SCO2. Map also shows survey areas allocated to other MEGS partners.