

## **Notification of Research Cruise**

### **Programme ARROD 2019 MARMARES Bottom Trawl Selectivity Cruise**

#### **Part A:**

**1.- Vessel name:** MAR MARES

**2.- Cruise period:** 1 September to 13 October (Around 15 days at sea inside that period depending on sea conditions)

**3.- Institute in charge of the cruise:** AZTI Tecnalia (Spain)

**4.- Vessel owner:** LAGUN TALDE S.A.

**5.- Characteristic of the vessel:** Stern Bottom Trawler

**Name:** MAR MARES

**Nationality:** Spanish

**Total length:** 38.5 m

**Draft maximum:** 4,2 m

**Gross Tonnage:** 409.1 GT

**Horse Power:** 964 HP

**Call Signal:** E.C.E.O. 3VI 2-3-03

**Telephone:** (Owner office) (34) 946831306

**Telefax:** (34) 946833327

#### **6.- Crew**

**Name of the Captain:** Txomin Bilbao and Salvador Badiola

**Crew members:** 12

#### **7.- Scientific Crew:**

**Name and address of the researcher responsible of the cruise:**

Luis Arregi

AZTI - Tecnalia / Itsas Ikerketa Saila

Txatxarramendi Ugarteia z/g

48395 Sukarrieta (Bizkaia)-SPAIN

e-mail: [larregi@azti.es](mailto:larregi@azti.es)

Nº telephone: (34) 94 6574000

Nº telefax: (34) 94 6572555

**Number of researchers:** 2

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**8.- Geographical area of the cruise (given by latitude and longitude):**

The cruise will be carried out in the ICES division VIa, where Spanish trawlers carry out their commercial fishing activity. This is, between 59° 00' N and 57° 00' N in latitude and between 07° 38' W and 09° 00' W in longitude and out of the cod fishing exclusion areas.

**9.- Brief description of the Cruise objectives**

To test, under commercial fishing conditions, the ability of selective devices in reducing the catch of non-desired fish (discard).

**10.- Dates and name of the stopover harbours planned**

According to the current planning, the cruise is expected to start and finish in Lochinver (Scotland).

**11.- Any logistical requirement in the stopover harbours**

Nothing particular

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## **Part B:**

### **1.- Name of the vessel:**

MAR MARES, E.C.E.O. 3VI 2-3-03.

### **2.- Period concerned:**

Between the 1st of September and the 13th of October. In total around 15 days at sea inside mentioned time period, to be specified depending on the sea weather conditions, as well as the presence of the vessel in the area.

### **3 – Objective of the Cruise and general methods of work:**

The overall objective of this cruise is the minimization of discards in the trawl, with special attention to the species subject to a TAC in relation to the new EU regulation on discard reduction.

In addition, the following specific objectives will be explored:

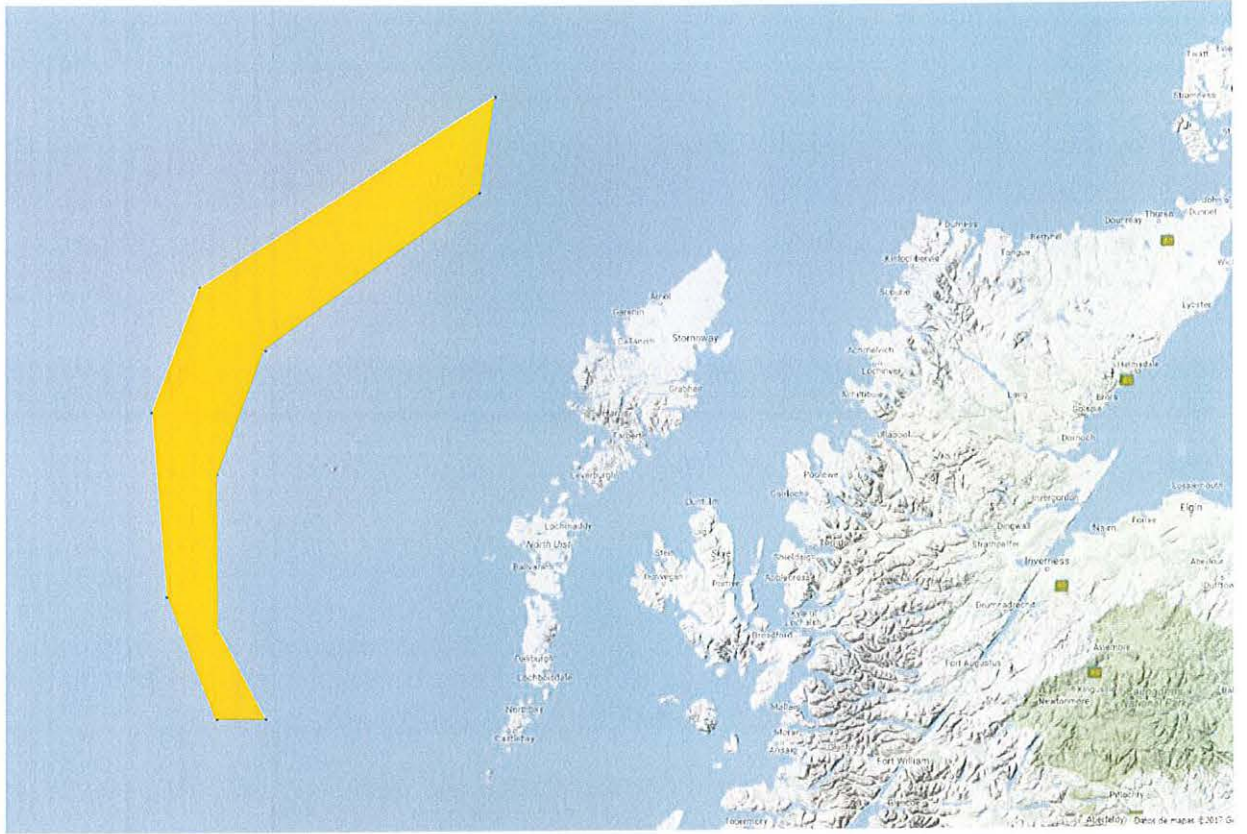
- Characterize the behaviour of different species within the trawl, and main parts that make up the trawl.
- Based on observed fish behaviour, design selective devices to be set inside the trawl, taking into account the most suitable position.
- To analyse the technical and economic effectiveness of the selective devices designed.

### **Methodology**

It is expected to use a small meshed inner (about 50 mm mesh size) for the codend. Besides, a Square Mesh Panel will be inserted in the upper panel of the trawl and a small mesh cover will be set to collect all the fish escaping through the SMP in order to measure quantify and characterize the escapement. In essence, the selectivity properties of the SMP will be analysed.

Underwater cameras, will be attached to the trawl to observe the behaviour of the fish inside the net, and in relation to the selective devices.

4 - Include a map showing (at a suitable scale) the geographical area in which the work proposed will be conducted.



The cruise will be carried out in the division VIa, within the area defined by the yellow polygon in the map and delimited by the points in the following table:

59° 00'	58° 40'
07° 38'	07° 40'
58° 25'	58° 10'
09° 25'	09° 00'
58° 00'	57° 50'
09° 40'	09° 20'
57° 25'	57° 20'
09° 35'	09° 20'
57° 00'	57° 00'
09° 15'	09° 00'

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## **5 - Type of studied samples:**

The samples will be fish of various species (commercial and non-commercial) in order to obtain size selection of the trawl with selective devices and thus determine the selectivity of the trawl.

## **6 – Details concerning the equipment used in the Cruise**

In addition to the typical trawl used by commercial Spanish vessels operating in the area VIa, composed by a trawl with a 100 mm codend, underwater cameras will be fixed for observation of the behaviour of the trawl and the fish in the vicinity of the selective devices.