

**MINISTRY OF AGRICULTURE, FISHERIES AND FOOD  
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND.**

**1996 RESEARCH VESSEL PROGRAMME**

**RV CIROLANA CRUISE 2**

**STAFF:** J Casey (SIC)  
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M W Etherton  
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T Woods  
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**DURATION:** 7 - 16 February 1996

**LOCALITY:** Celtic Sea, South-western Approaches, western English Channel

**AIMS:**

1. To carry out an acoustic search and fishing survey of the restricted area commonly referred to as the south-west mackerel box to obtain information on:
  - a) Distribution, size, age and maturity of mackerel.
  - b) Distribution and size composition of other pelagic species.
  - c) Size composition of other species caught.

**NARRATIVE:**

Cirolana sailed from Lowestoft at 1130h but while heading towards the Stanford Channel, a problem with the starboard engine developed and all power on the ship was lost. The Master ordered the anchor to be lowered to prevent drifting with the flood tide. Power to the remaining two engines was restored after about 15 minutes and Cirolana weighed anchor and dodged northwards towards Great Yarmouth where two Engineers joined the ship at 1600h.

Surveying commenced at 1603 h on 8 February in the region between Portland Bill and Start Point and continued until 1046 h on 9 February when Cirolana headed for Torbay to take shelter from severe weather and put ashore the two engineers that joined the ship shortly after embarkation. The survey resumed at 0625h on 11 February in Eddystone Bay and continued until 1016 h on 11 February when Cirolana headed for a sheltered anchorage in Mevagissey Bay to avoid severe weather.

Surveying resumed at 0840 h on 13 February in the area between the Lizard and Start Point, but due to a failure of the main trawl winch, the survey was terminated at 1745 h on 14 February, and Cirolana set a course for Lowestoft, where she docked at 0632h on 16 February.

**RESULTS:**

**Aim 1.** The area between Portland Bill and the Lizard North of 49° 55'N was surveyed for pelagic fish concentrations. Large concentrations were observed between 10 and 15 miles South of Start point, 5 miles north of the Eddystone Light and about 10 miles South of Dodman Point. A survey track chart is shown in Figure 1. The 800 Engels mid-water trawl

was shot on 5 occasions to identify shoal composition. Catches comprised mainly horse mackerel and mackerel, with some pilchard and a small amount of herring. The data collected are too few to be of any value and the sole aim of the survey was not accomplished.

The total catch of each species was as follows:

	kg
<i>Scomber scombrus</i> , Mackerel	117.5
<i>Trachurus trachurus</i> , Horse mackerel	688.6
<i>Sardina pilchardus</i> , Pilchard	23.08
<i>Engraulis encrasicolus</i> , Anchovy	0.13
<i>Clupea harengus</i> , Herring	83.0
<i>Belone belone</i> , Garfish	0.43
<i>Sprattus sprattus</i> , Sprat	0.08

A total of only 105 mackerel otoliths were taken for ageing purposes.

#### MISCELLANEOUS:

1. Fifty herring hearts were examined for the disease *Ichthyophonus*. No incidence was noted.
2. Seabird observations and counts were made by the Channel Seabirds Research Group Observer; see separate report attached.

J. Casey.  
10 April 1995.

#### SEEN IN DRAFT:

R Graham (SFM)  
M Willcock (Master)

INITIALLED: J W Horwood (Deputy Director)

#### DISTRIBUTION:

Basic list +

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Devon Sea Fisheries Committee  
Isles of Scilly Sea Fisheries Committee  
Eire, via Foreign Office  
France, via Foreign Office

## Channel Seabirds Research Group.

### Summary of Observations made aboard RV CIROLANA 2/96

A total of 22 hours of survey was carried out on four days: 8, 11, 13, 14/2/96. For most of the time wind and sea state were on the limits of those acceptable. Wind speeds in excess of force 5 and sea states in excess of 4 reduce the detectability of birds, particularly those sitting on the water. Despite the generally marginal conditions 2,251 birds of ten species were recorded. Of these 1,676 were 'in transect', i.e. they were recorded within a nominal 300 x 300 m box forward and to the side of the ship. By far the most numerous species was guillemot with almost 1,000 birds recorded. The greatest density of birds was found in the sea area south and east of the Lizard.

#### Species recorded

	in transect	total
Fulmar	119	158
Gannet	76	158
Bonxie		1
Common gull	5	14
Lesser black-backed gull	56	58
Herring gull	139	213
Greater black-backed gull	61	104
Kittiwake	139	205
Guillemot	858	999
Razorbill	97	108
Guillemot/razorbill	11	87
Large gulls	115	145

S. Colombé  
15 February 1996

Figure 1 - Echo Sounder Survey Cirolana 2/96

