



CORALFISH 2010 Cruise Report: CF0510-ROV

23-29th May 2010

Eastern Ionian,
Cephalonia Island

**Dr. Chris Smith & Shipboard Scientific Crew
Hellenic Centre for Marine Research**

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Expedition Objectives

The general objective of the expedition was to undertake underwater surveys in relation to cold water coral species in the Eastern Ionian sea. More specific objectives included:

- To undertake fixed video transect surveys of the seabed with remotely operated vehicle at depths of 400-800 m in pre-defined areas off the island of Cephalonia (CoralFish WT3.4).
- To undertake replicate transects in areas both with corals and without corals
- To identify areas to be targeted for long line fishing (CoralFish WT3.3).

Cruise Participants

For a full list and dates of participation see Table 1.

- HCMR, Institute of Marine Biological Resources: Chief Scientist, scientific staff
- HCMR, Institute of Oceanography: scientific staff.
- HCMR, Underwater Activities: technical staff (ROV support and diver).

Area of Operations

The area of operations was in the Ionian Sea off the West coast of Greece and included (see Fig 1):

- South West and West of Cephalonia Island

Principal Equipment Deployed

RV Philia (26 m)

ROV: DSSI Max Rover, 2000 m rated.

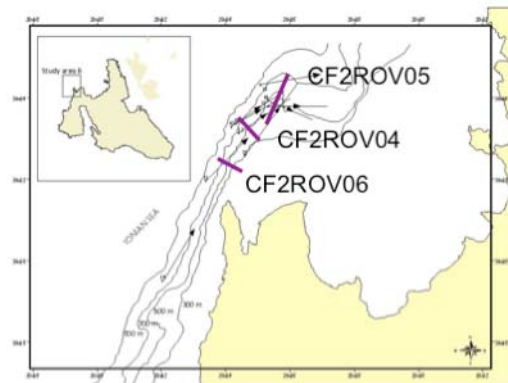
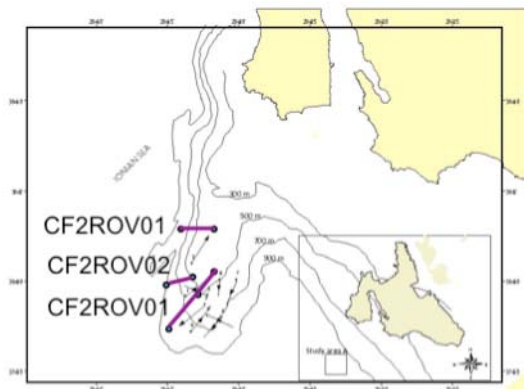
Summary of Scientific Activities

The cruise was split divided between two different sampling areas; an area of low fishing intensity with corals present and an area of very low fishing intensity and no corals. These areas were defined after the June 2009 mapping cruise. Individual transects were defined in each of the areas. For each transect, the ROV was deployed close to the start point. It reached the bottom and drove onto the start position. The transect was then run with attention paid to constant speed and altitude. Video recording was accomplished on DVD through the pilots camera (with graphics overlay) and also on a separate self contained HD Video recorder. The Max Rover ROV was involved in 6 transect dives for a total duration of 1410 minutes (23.5 hours). See Table 2 for summary. A total of 3 dives were completed in each of the sampling areas. Transects were generally from 800 to 300 m depth. The full activities diary is recorded at the end of this report.

Figure 1. CoralFish May 2010 Eastern Ionian Sampling Areas



Ionian Sea Sampling Sites



"Coral In" and "Coral Out" sites off SW and W Cephalonia, showing different ROV dives

Table 1. CoralFish May 2010 Participants and Dates on Board

No.	Name	Institution	Position	23-29
1	Smith, C.	HCMR/IMBR	Chief Scientist	X
2	Maroulakis, S.	HCMR/IO	Geologist	X
3	Fotopoulos, T.	HCMR	Deep Tow/ROV	X
4	Kallergis, M	HCMR	ROV	X
5	Manousakis, L.	HCMR	ROV	X
6	Katsaros, K.	HCMR	ROV	X
				10

Table 2. ROV: Max Rover Dive Summary

No.	Date	Site	Position	Depth	Duration
CF2ROV01	25.05.10	SW Cephalonia	37 59.1203 20 15.8982	742-401	445
CF2ROV02	26.05.10	SW Cephalonia	38 00.3450 20 15.4560	749-450	210
CF2ROV03	26.05.10	SW Cephalonia	38 02.6961 20 15.9780	841-390	220
CF2ROV04	27.05.10	W Cephalonia	38 23.3041 20 24.2631	783-293	143
CF2ROV05	27.05.10	W Cephalonia	38 24.8440 20 25.8959	746-363	220
CF2ROV06	28.05.10	W Cephalonia	38 22.1973 20 23.9984	795-270	172
				Total	1410

CoralFish May 2010 Diary

22.05.10 Saturday

Heraklion harbour: Loading ROV system on Philia, set-up and system trial.

23.05.10 Sunday

Weather NW, F3, clear

11:10 Depart Heraklion for Corinthiakos, (forecast not good for East Peleponese route)

On Board:

C. Smith – Chief Scientist, IMBR

S. Maroulakis – IO

L. Manousakis, IMBR

M. Kallergis, HCMR

12:00 Further system installation, troubleshooting underwater navigation recording.

20:30 Passing north of Milos NW F5

24.05.10 Monday

Weather NW, F3, clear

07:30 Arrive at Corinth Canal

08:30-08:50 Passing through Corinth Canal

15:45 Pass Rio Bridge

20:00 Arrive in Kylini port

On board: K. Katsaros – HCMR

T. Fotopoulos – HCMR

20:30 Depart Kylini

23:00 Berth Ag. Nikaloas, NE Zakynthos

25.05.10 Tuesday

07:15 Depart Ag. Nikaloas for SW Cephalonia Area 1

09:55 On station

10:42 Deploy ROV - CF2ROV1: 37 59.1203 20 15.8900

11:24 On bottom, 717 m, moving to start of transect

12:25 Start Transect, W of Target CF4 heading NE. 37 59.2367 20 15.8286 735 m

17:45 End Transect, coming up, 38 00.9385 20 17.8517 401 m

18:07 On deck

18:20 Heading for Cephalonia

20:00 Berth Lixuri, Cephalonia

26.05.10 Wednesday

07:30 Depart Lixuri for Area 3

09:30 On station

10:15 Deploy ROV - CF2ROV2: 38 00.3450 020 15.4560, Close to target CF6

10:47 On bottom, 724 m, moving to start of transect

11:09 Start Transect, 38 00.5151 020 15.4106, 749 m

13:20 End Transect, coming up, 38 00.9385 20 17.8517 450 m

13:45 On deck

14:20 Deploy ROV - CF2ROV3: 38 02.6961 020 15.9780,

14:56 On bottom, 796 m, moving to start of transect

15:03 Start Transect, 38 02.6976 020 16.0089, 806 m
17:36 End Transect, coming up, 38 02.5814 020 17.5083 390 m
18:00 On deck, Depart for Cephalonia
19:30 Berth Lixuri, Cephalonia

27.05.10 Thursday

07:30 Depart Lixuri for Area 1
10:10 In Area, running sonar transect lines
11:05 Deploy ROV - CF2ROV4: 38 23.3041 020 24.2681,
11:41 On bottom, 724 m, moving to start of transect
11:09 Start Transect, 38 23.3583 020 24.2915, 748 m
13:20 End Transect, coming up, 38 22.9428, 02025.0980, 293 m
13:32 On deck
14:04 Deploy ROV - CF2ROV5:
14:35 On bottom, Start Transect, 38 24.7587, 020 25.8510, 746 m
17:36 End Transect, coming up, 38 22.4514, 020 25.3796 m
17:44 On deck, Depart for Fiskardo, NE Cephalonia
19:15 Berth Fiskardo, Cephalonia

28.05.10 Friday

07:30 Depart Fiskardo for Area 3
09:15 Deploy ROV - CF2ROV6: 38 22.1973, 020 23.9984
10:12 On bottom, 795 m, Start Transect, 38 22.8662 020 23.8665
11:59 End Transect, coming up, 38 22.2940 020 24.2713
12:19 On deck
12:30 Depart for Lixuri
15:00 Berth Lixuri, Disembark S. Maroulakis
15:07 Depart Lixuri for Antikythira
24:00 At sea en-route for Antikythira and next scientific mission.

Activities Captured During the CoralFish May 2010 HCMR Cruise



Fiskardo Port in Cephalonia



Departing Port for Dive Area, ROV and Winch



Deploying Max Rover



Deploying Max Rover



Antipatharian coral on unstable slope sediment/rock



Antipatharian coral on crust rock