

FRV *Southern Surveyor*

1991 Research Vessel Program

Cruise Plan 5/91

18 November–4 December 1991

CSIRO Division of Fisheries
Marine Laboratory
PO Box 120
Cleveland, Qld 4163

Telephone (07) 286-8222
Telex AA 42-240
Fax (07) 266-2582



CSIRO Division of Fisheries
Marine Laboratories
GPO Box 1538
Hobart, Tas 7001
Australia

Telephone (002) 20-6222
Telex AA 57-812
Facsimile 24-0530

Staff

J. Salini (Scientist-in-charge)
D. Brewer
B. Long
D. Milton
T. Wassenberg
J. Cordell
C. Liron
S. Cook (Queensland Museum)
J. Johnson (Queensland Museum)
S. Bruce (Northern Territory Museum)
R. Williams (Northern Territory Museum)
S. McKinnon (Queensland Fisheries)

Duration

Depart Gove: 1900 h Monday, 18 November 1991

Arrive Cairns: 0800 h Wednesday, 4 December 1991

Locality

1. The northern management zone in the northern half of the Gulf of Carpentaria, and its buffers on the east and west.
2. Shallow stations (10-20 m) in the same areas.
3. Inside and outside the far northern closure area of the Great Barrier Reef.

Aims

1. To determine the composition, distribution and abundance of demersal fish species in the study areas of the Gulf of Carpentaria and the Great Barrier Reef.
2. To collect samples for estimating fish population parameters.
3. To search for juvenile *Lutjanus malabaricus* in shallow areas on the eastern and western borders of the northern Gulf of Carpentaria.
4. To determine the benthic invertebrate fauna, using a 3 m dredge.
5. To measure water temperature, depth and turbidity at every station.
6. To collect sediment samples to determine the structure of the substrate and the composition of the infauna.

Cruise Plan

This cruise will be studying the fish resources and habitat of the above sites.

The vessel will leave Gove and work the Gulf of Carpentaria region first and then steam around Cape York to complete the Great Barrier Reef component of the cruise. For the Gulf of Carpentaria component of the first aim, 44 stations are planned, including 10 stations each in the eastern and western buffer zones. For the second aim, 20 stations are scheduled in the shallow-water stations. All 64 stations will be worked with a cruise track from the west to the eastern Gulf in a random sampling pattern. The vessel will then steam to the Great Barrier Reef study area and work for two days (15 stations) before the 36 hour steam to Cairns.

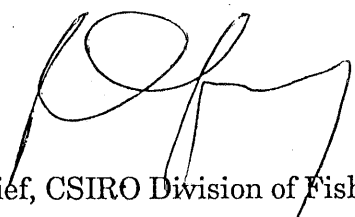
All stations will follow the same protocol during this cruise.


During the fishing operations in the Gulf, an attempt will be made to compare the performance of an "environmentally friendly" net on board a Raptis vessel and the Frank and Bryce nets on *Southern Surveyor*. This component of the cruise is dependent on considerable cooperation and could be omitted if negotiations fail.

The cruise will end in Cairns on 4 December.

(Scientist-in-charge)

Date


Chief, CSIRO Division of Fisheries


Date