

FRANKLIN

National Facility
Oceanographic Research Vessel

CRUISE SUMMARY

R/V FRANKLIN

Fr 07/98

Depart: Portland 1000h, Saturday, 30 May 1998
Arrive Melbourne 1200h, Monday, 8 June 1998

Principal Investigator
Dr Francisco Neira
Marine and Freshwater Resources Institute

June, 1998

For further information contact:

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CRUISE SUMMARY - O.R.V. FRANKLIN
CRUISE Fr 07/98
MAY - JUNE 1998

Itinerary:

Depart:	Portland	1000h, Saturday, 30 May 1998
Arrive	Melbourne	1200h, Monday, 8 June 1998

Project :

Spawning and larval recruitment processes of commercially important species in coastal waters off Victoria - May/June 1998 Cruise.

Personnel

MAFRI (Vic):

Dr Francisco J. Neira – Chief Scientist (Principal Investigator) - Ichthyoplankton
Mr David MacKeown – Technical Officer - Ichthyoplankton sampling
Mr Paul Hamer – Marine Scientist
Mr Simon Conron – Marine Scientist
Mr Geoff Nicholson – Marine Scientist - Chemistry
Mr Martin Lourey – Marine Scientist - Chemistry

CSIRO (Hobart):

Mr Lindsay Pender – ORV Franklin Cruise Manager / Computer Systems
Mr Erik Madsen – Electronic Engineer - EZ net
Mr Alan Poole – EZ technician
Ms Val Latham – Hydrochemist

ORV Franklin:

Capt Neil Cheshire – Master
Arthur Staron – Chief Mate
Allan McCarthy – Mate
Ernie Watkins – Chief Engineer
Gordon Gore – 1st Engineer
Andrew McLagan – Electrical Eng
Jannick Hansen – Bosun
Wayne Browning – AB
Norm Marsh – AB
Kevin "Scouse" Furlong – AB
Phil French – Greaser
Gary Hall – Ch Cook
Tom Condon – Cook
Ron Cullinay – Ch Steward

1. Sampling area

The area sampled during the May/June 1998 *Franklin* cruise comprised the Victorian coast between Gabo Island (149°55' E; 37°36.0'S) and Portland (141°40' E; 38°57.0'S), south to 32 nautical miles (nm) offshore.

2. Cruise track

The May-June 1998 ichthyoplankton survey covered 35 stations along seven parallel transects namely Portland, Port Campbell, Port Phillip Heads, Cape Liptrap, Seaspray, Cape Conran and Gabo Island. Transects were located 65 nm apart, each containing five sampling stations located at 2, 4, 8, 16 and 32 nm offshore (see enclosed summary table). *Franklin* departed Portland on May 30 at 10.00 hrs and sampling commenced the same day at the inshore-most station (2 nm) off Portland at 12:00 hrs. Upon completion of the sampling off Gabo Island on Saturday June 6, the vessel tracked west and docked in Melbourne's Station Pier on June 8 at 12:00 hrs where MAFRI personnel disembarked (see track on map enclosed).

3. Sampling

Sampling was conducted mostly during daylight hours and commenced daily at 07:30 hrs. Sampling along Portland was replicated at night from the offshore-most (32 nm) to the inshore-most station (2 nm). Day sampling along the transect off Cape Conran was carried out from the offshore-most to the inshore-most station, whereas the remaining transects were sampled from the inshore-most to the offshore-most station. The transect off Port MacDonnell (SA) was omitted during the May/June survey since it was sampled by SARDI (SA) scientists at the same time.

At each site, a CTD profile and water samples for nutrient and other variables were obtained at various depths. After the retrieval of the CTD rosette, the EZ-net sampler fitted with four 500 µm mesh nets was deployed from the stern of the vessel and lowered to the maximum permissible depth (in waters < 100 m deep) or to a 100 m (in waters > 100 m deep). Samples were obtained in the strata 100-75, 75-50, 50-25 and 25-0. Each of the EZ nets was opened for 15 minutes in the strata sampled. In stations ≤30

m deep, the 25-0 depth strata was sampled using the MAFRI bongo sampler which consists of two 0.6 m diameter, 3 m long, 500 μ m mesh nets. The bongo net was deployed using the oceanographic winch and associated A-frame on the starboard side and towed obliquely for 15 minutes. Neuston (surface) samples were also obtained at each of the 35 stations by towing the bongo nets for 15 minutes. Upon completion of each tow, EZ and bongo nets were washed down and the cod-end contents fixed with either 10% formalin-seawater or 98% ethanol, and subsequently stored in 1-2.5 litre capacity jars in the wet laboratory on board *Franklin*.

4. Data and samples obtained

A total of 35 CTD profiles (sigma-t, temperature, dissolved oxygen, fluorescence), and 110 water samples for nutrient analysis were collected with the CTD rosette throughout the cruise. Ichthyoplankton samples totalled 152 which included 82 EZ net samples (14 night replicates), 11 bongo oblique tows in the stratum 25-0 m, and 59 bongo neuston samples, the latter including 21 additional samples collected during night time between transects.

SUMMARY O.R.V. FRANKLIN CRUISE Fr 07/98 MAY-JUNE 1998

Transects, station positions east - west and no. of samples

Distance offshore nautical miles	Transect							Total samples
	1	2	3	4	5	6	7	
	Location	Gabo Island	Cape Conran	Seaspray	Cape Liptrap	Barwon Heads	Port Campbell	Portland
	Longitude	149° 55'	148° 33'	147° 10'	145° 48'	144° 26'	143° 04'	141° 40'
2	Latitude	37° 36.0'	37° 50.5'	38° 26.0'	38° 44.5'	38° 19.0'	38° 41.0'	38° 27.0'
	Max depth (m)	95	29	20	16	30	50	52
	Neuston samples	1	1	1	1	1	1	2 (N=1)
	Bongo 25-0 m	1	1	1	1	1	1	2 (N=1)
	EZ samples	3					2	5
	Subtotal samples	5	2	2	2	2	3	4 (N=2)
4	Latitude	37° 38.0'	37° 52.5'	38° 28.0'	38° 46.5'	38° 21.0'	38° 43.0'	38° 29.0'
	Max depth (m)	101	50	20	40	49	64	60
	Neuston samples	1	1	1	1	1	1	2 (N=1)
	Bongo 25-0 m	4	2	1	1	2	2	4 (N=2)
	EZ samples	5	3	2	2	3	3	6 (N=3)
	Subtotal samples	5	3	2	2	3	3	6 (N=3)
8	Latitude	37° 42.0'	37° 56.50'	38° 32.0'	38° 50.5'	38° 25.0'	38° 47.0'	38° 33.0'
	Max depth (m)	101	54	30	72	63	67	78
	Neuston samples	1	1	1	1	1	1	2 (N=1)
	Bongo 25-0 m	4	2	1	3	2	2	6 (N=3)
	EZ samples	5	3	2	4	3	3	8 (N=4)
	Subtotal samples	5	3	2	4	3	3	8 (N=4)
16	Latitude	37° 50.0'	38° 04.5'	38° 40.0'	38° 58.5'	38° 33.0'	38° 55.0'	38° 41.0'
	Max depth (m)	139	63	41	77	77	76	140
	Neuston samples	1	1	1	1	1	1	N=1
	Bongo 25-0 m	4	3	2	3	3	3	N=4
	EZ samples	5	4	3	4	4	4	N=5
	Subtotal samples	5	4	3	4	4	4	N=5
32	Latitude	38° 06.0'	38° 20.5'	38° 56.0'	39° 15.5'	38° 49.0'	39° 11.0'	38° 57.0'
	Max depth (m)	272	361	60	70	80	84	1760
	Neuston samples	1	1	1	1	1	1	1
	Bongo 25-0 m	4	4	2	3	3	3	3
	EZ samples	5	5	3	4	4	4	5
	Subtotal samples	25	17	12	16	16	17	28 (N=14)
	Total samples							131 (N=14)

* = EZ not employed due to bad weather

N = night tows

Fr07/98 Cruise Track

