

# R.V. FRANKLIN

## NATIONAL FACILITY OCEANOGRAPHIC RESEARCH VESSEL

*RV FRANKLIN*

RESEARCH PLAN

CRUISE FR 6/89

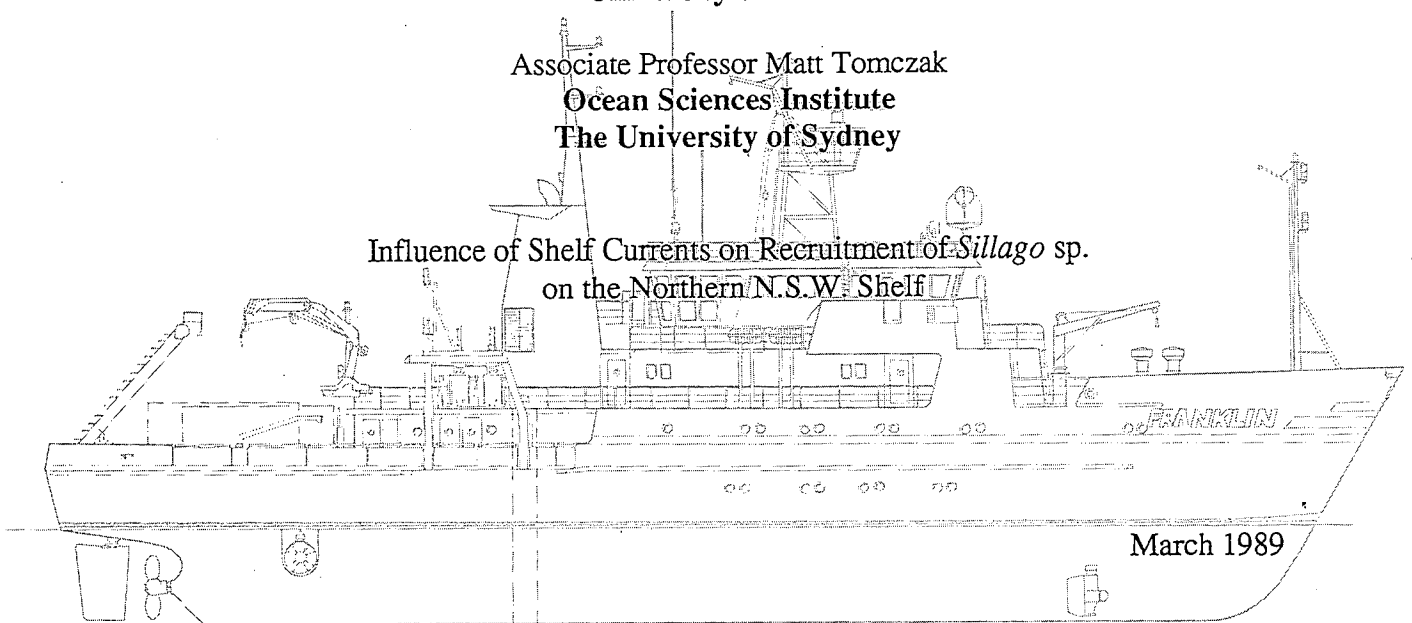
Sails Coff's Harbour 1100 Thursday 11 May 1989  
Arrives Sydney 1100 Monday 15 May 1989

### Principal Investigators

Dr Pat Dixon  
Centre for Marine Studies  
University of N.S.W.

Associate Professor Matt Tomczak  
Ocean Sciences Institute  
The University of Sydney

Influence of Shelf Currents on Recruitment of *Sillago* sp.  
on the Northern N.S.W. Shelf



For further information contact

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R.V. FRANKLIN IS OWNED AND OPERATED BY CSIRO

## RESEARCH CRUISE PLAN

R.V. FRANKLIN  
CRUISE FR 6/89

### ITINERARY

Sail	Coffs Harbour	11.00	Thursday 11 May
Arrive	Sydney	11.00	Monday 15 May

### SCIENTIFIC PROGRAM

- To collect samples of whiting larvae (plankton) on the continental shelf off northern N.S.W.
- To study the water masses off the coast in the same region.

### PRINCIPAL INVESTIGATORS

Dr. Patricia Dixon  
Centre for Marine Science  
The University of New South Wales  
P.O. Box 1, KENSINGTON NSW 2033

Dr. Matthias Tomczak  
Ocean Sciences Institute  
The University of Sydney,  
SYDNEY NSW 2006

### RESEARCH PLAN

The overall program aims to determine the genetic relatedness of samples of fish larvae (whiting) from different patches of water on the continental shelf off northern N.S.W.

In order to achieve near-synoptic mapping of the environment and distribution of plankton we will combine hydrographic stations, acoustic doppler current meter profiling and plankton tows according to the attached cruise track. Particular attention will be given to the occurrence of current boundaries or shear zones and eddies.

Fish larvae will be collected along the oblique legs of the track using many 10 minute horizontal and oblique plankton tows. Most of these will be taken in waters of depths between 20 and 50 metres. Once collected the samples will be kept cool then the fish larvae removed and placed into liquid nitrogen as soon as possible. Larvae will be subject to genetic analysis in the laboratory, at the University of New South Wales, later in the year.

## CRUISE TRACK

The proposed cruise track is shown in Figure 1.

The following times have been allowed:

A - B	no sampling	3 hrs.
B - C	physical measurements	7 hrs.
C - D	no sampling	1 hr .
D - E	plankton tows and some physical measurements	18 hrs.
E - F	as B - C	7 hrs.
F - G	plankton tows, mainly on shelf, some physical measurements	15 hrs.
G - H	as B - C	7 hrs.
H - I	as F - G	15 hrs.
I - J	as B - C	7 hrs.
J - K	no sampling	<u>12 hrs.</u>
		92 hrs.

## ORV EQUIPMENT & FACILITIES REQUIRED

CID

ACDP

Thermosalinograph

Windspeed & direction

Air Temperature

GPS

Hydrographic winch

Satellite image on Thursday 11, or Friday 12 May if possible.

General purpose laboratory

Power for microscope lights

## Personnel

Patricia Dixon	University of NSW	Chief Scientist
Anthony Miskiewicz	"	
Neil Sims	"	
Matthias Tomczak	Sydney University	
John Luick	"	
Kate Walms	"	
Caesar Villanoy	"	
Andrew Forbes	CSIRO - ORV	Cruise Manager
Dave Edwards	"	
Jeff Butt	"	
Bob Griffiths	"	

This research plan is in accordance with the directions of the National Facility Steering Committee for the Oceanographic Research Vessel *Franklin*.



A.D. McEwan  
CSIRO Division of Oceanography



D.H. Green  
National Facility Steering Committee

March 1989

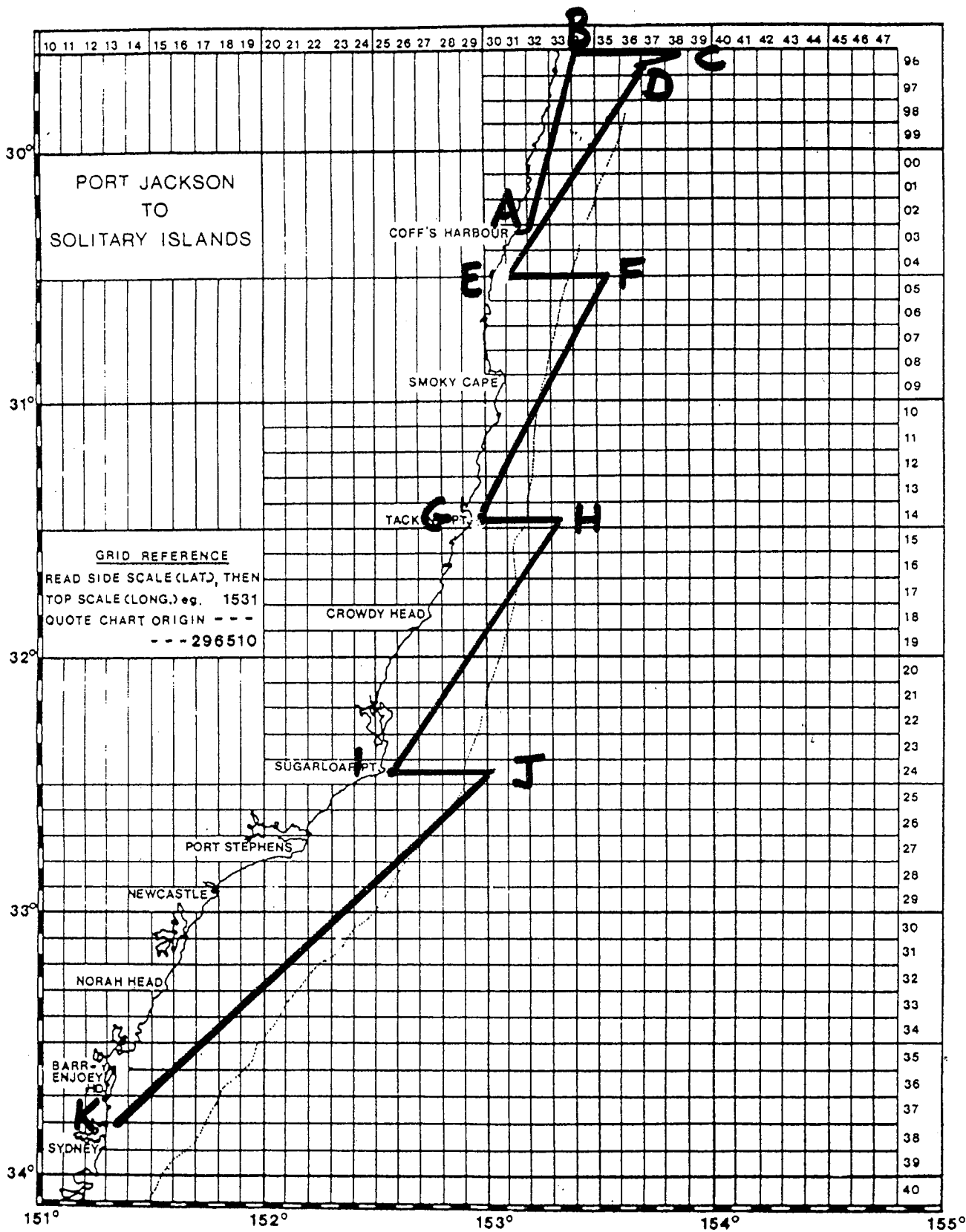


FIGURE 1 CRUISE TRACK