

Workshop Programme

Monday 27 September 1999

7.00pm Workshop Welcome Function
(Bendigo Art Gallery)

Tuesday 28 September 1999

8.40am Welcome and Introduction
David Smith

Opening remarks from FRDC
Alex Wells

9.00 Overview Address - Unravelling
mechanisms of fish migration:
a 30-year perspective
Geoff Arnold

9.45 Morning Tea

10.00 Session 1 - Techniques for Measuring

Chair's Introduction

John Gunn

Why use radio tags to study freshwater
fish?

John Koehn

Fishways as tools for monitoring
movement patterns of large fish
populations

Ivor Stuart

Is there a role for 'uncontrolled' tagging in
'real' fisheries science?

Julian G. Pepperell

Acoustic tracking

Geoff Arnold

From plastic darts to pop-up satellite tags

John Gunn

Acoustic tracking of small-scale
movement in juvenile southern rock
lobster (*Jasus edwardsii*)

*David Mills, Caleb Gardner, Sam Ibbott
and Simon Willcox*

Shark tagging: a brief history of methods
John Stevens

Application of otolith chemistry to studies
of fish movement and migration
Naomi Clear and John M. Kalish
(Presented by *John Gunn*)

12.45 Lunch

1.30 Overview Address -
Fish movements - the missing piece
John Eiler

2.15 Session 2 - Environmental determinants,
barriers and human interference

Chair's Introduction and Overview

John Koehn

Taking the mystery out of migration
Martin Mallen-Cooper

Environmental cues in the reproductive
migrations of brown trout (*Salmo trutta*)
and rainbow trout (*Oncorhynchus mykiss*)
in Lake Eucumbene, New South Wales
Richard Tilzey

3.00 Tea

3.30 Environmental determinants of the
movement and migration of juvenile
southern bluefin tuna
John Gunn and Jock Young

Overcoming physical barriers to fish
migration
Tim O'Brien

Sampling to detect the impact of barriers on fish movement

Tim Marsden

Characteristics of movement of adult King George whiting (*Sillaginodes punctata*) in South Australian waters

A. J. Fowler and W. A. March

Migration and assessment of glass eels (*Anguilla australis*) in the Snowy River system, south-eastern Australia

Lachlan J. McKinnon, Geoff J. Gooley and Richard J. Gasior

5.15 Close

Wednesday, 29 September 1999

9.00 Session 3 - Analysis, interpretation and spatial models

Chair's Introduction

André E. Punt

Modelling school shark (*Galeorhinus galeus*) movement in the Southern Shark Fishery

Terence I. Walker, André E. Punt, Bruce L. Taylor and Lauren P. Brown

Do Bayesian concepts assist the ability to interpret migration and movement patterns of freshwater fish?

Simon Nicol

Including spatial structure when conducting yield-per-recruit analysis

André E. Punt and Gurong Cui

Directing experiments in freshwater ecology using spatial population models developed for freshwater fish

Charles Todd

10.15 Tea

10.45 Preliminary analysis of migration of adult, red-legged, banana prawns in Joseph Bonaparte Gulf, northern Australia

R. A. Kenyon, D. J. Die and N.R. Loneragan

Computer visualisation of spatial models for communication and management

James Scandol

A spatial representation of the tiger prawn (*Penaeus esculentus*) fishery in Shark Bay, Western Australia

N. G. Hall and R. A. Watson

12.00 Lunch

1.00 Session 4 - Management Implications

Chair's Introduction

Nick Rayns

The fishery for Australian salmon: management issues

Stephen McCormack

Management implications for movement and migration in a rock lobster fishery

Will Zacharin

Managing Pacific tuna fish: an Australian perspective

Dorothea Huber

Fisheries management implications of barriers to movement and migration by fish in New South Wales

Andrew C. Sanger

The challenge of spatially managing fish movement and migration throughout Northern Australia: the experience with tropical snappers

Ray Clarke

Tasmanian whitebait – A multi-species fishery targeting migrating fishes

Wayne Fulton

Management implications of fish movement and migration - the role of the consultant

John McGuckin

3.30 Tea

4.00 General Discussion

5.15 Close