

ESTUARINE ISSUES FROM THE MANAGER'S VIEWPOINT

R.H. Winstanley

*Marine Science Laboratories, Department of Conservation and Environment
PO Box 114
Queenscliff VIC 3225*

Introduction

The ecological value of estuaries and their importance to fisheries have been appreciated for many years. So too has the array of fishing and environmental factors—in the estuaries, their catchments and adjacent coastal waters—that impacts on estuarine fish stocks and ecosystems. Long before the term “ecologically sustainable development” was coined, the concept of “ecological sustainability” of estuaries and their fish resources was well established amongst management agencies, fishers and the wider community.

From a background where the focus was on the exploited fish stocks, management attention has shifted towards managing fisheries in the broader context of estuarine living resource conservation. Clearly, this can only be achieved through understanding the ecological linkages between fish stocks and estuarine habitats and the impacts of polluting and disturbing factors on those habitats and stocks.

In the past, all of this often seemed too hard, the information base too small and the ecological enormity of the task too daunting. The political balance appeared too heavily weighted in favour of commercial activities and economic development goals, most of which are fundamentally incompatible with the long term maintenance of estuary habitats and fish stocks.

In the fields of fisheries management (and here I include aquatic conservation), the manager is the link between the scientists and the politicians in the decision-making and planning processes.

This can be a difficult place to be in any field. It is a difficult place to be in fisheries management. It is a particularly difficult place to be in relation to estuaries where the range of competing interests and pressures operating on the fish resources and their habitats are so numerous and complex.

In this environment, manager must ensure that research effort is focused on the critical long term and short term information-gathering programs.

Without understanding the continuing difficulties, there are a number of factors which have changed in a way that promises real hope that the ecological basis for estuarine fish stock conservation will be achieved.

Where are we today?

Karen Edyvane has outlined the various factors which impact on estuarine (and other) habitats and, over the next two days, we will hear of the importance of estuarine fish stocks and habitats, so I will not detail them here.

In the 1990s, we are mainly dealing with highly modified estuaries. This situation arises from:

- our history, which saw estuaries and marine embayments as the sites of our earliest settlements, and the intensification of population concentrations and associated aquatic impacts ever since; and
- the fact that estuaries are where the impacts of mismanagement in the catchments and hinterland converge.

In addition, while those of us in fisheries agencies have been attending to long-standing problems, we have been overtaken by new factors such as the deliberate development and usage of products (e.g. tributyl tin antifouling paints) and industries (e.g. ecotourism) and the inadvertent spreading of exotic organisms. In some cases, introduced organisms have come to dominate estuarine communities; in other instances, exotic toxic algae have threatened aquaculture and shellfish harvesting industries.

Consequently, fisheries managers have struggled to achieve the proper recognition and effective conservation of estuarine habitats.

We lack basic information on:

- the ecology of fish species at every stage of their life history;
- the critical habitat requirements of these stages;
- the distributing or polluting factors which impact or threaten to impact on those habitats.

This has weakened our ability to put credible and successful cases to ensure that development activities proceed in ways that do not compromise estuarine fish stocks and habitats. The onus of proof in Environmental Impact Statements (EIS) and related planning processes continues to fall on aquatic resource managers—not on developers.

In many instances, the EIS and planning processes are taking place without early input from aquatic resource managers. As our keynote speaker has already pointed out, we must become more assertive and proactive and communicate our message more effectively to ensure that estuarine fish and habitat conservation issues are placed firmly on the agenda of all of the agencies involved in these processes.

We are often constrained by problems of overlapping and fragmented jurisdictions and responsibilities, and the absence of clear overall aquatic conservation strategic plans; this applies at both state/territory and federal levels. Sometimes, we are further constrained by deficient legislation which does not provide the powers needed to underpin effective habitat protection.

For example, in Victoria, we have the Fisheries Act providing the powers for commercial and recreational fisheries management; we have the Flora and Fauna Guarantee Act providing the powers to protect designated species or communities from threatening processes; we have the Environment Protection Act providing the powers to maintain water quality standards; and we have the National Parks and Land Acts providing the powers to manage public land. However, there is a large hole in this legislative combination which severely limits our broad marine and estuarine conservation powers.

In short, fisheries and aquatic conservation managers frequently lack both the information and the authority to properly protect the fish and aquatic habitats for which they are responsible.

Too often, managers and interest groups have been preoccupied with symptoms rather than causes of fish habitat problems. In some instances, anglers push artificial reef proposals while agencies struggle to protect threatened productive natural reef habitats.

Too often, governments are facing up to problems only when they have deteriorated to crisis point, for example:

- the recent focus on national blue-green algal blooms in inland and estuarine waters;
- improvements to Sydney's sewage treatment and disposal;
- responses to public health scares over Georges River oysters.

In each case, the problems have been known for years. In instances like the current plan for treating the eutrophication problems of the Peel-Harvey Inlet, the costs of belated treatment of the symptoms are huge.

Fisheries managers still face the widespread and dangerous misconception that, provided we establish representative Marine Protected Areas and protect designated threatened species and communities, we are doing a thorough job of habitat conservation.

Government responses

In the face of these challenges and impediments, state and territory fisheries agencies have increasingly focused resources on estuarine habitat research and management programs. For example, the NSW Fisheries biennial report of fisheries indicates a large commitment to this area during the 1989–1991 period.

Increasingly, fisheries agencies are giving prominence to aquatic habitat protection as a cornerstone of their corporate plans (e.g. SA Department of Fisheries) and strategic research plans (e.g. NSW Fisheries).

To assist with planning and management at all levels of government, information and guidelines for the conservation of estuarine habitats are being produced.

Managing agencies are producing estuary-specific management plans which:

- recognise the full range of community benefits arising from the estuaries;
- consider the cumulative impacts of polluting and disturbing factors;

- involve all interested agencies and groups;
- are supported by legislation.

As an aside, it is interesting to note that what has been happening nationally is mirrored in this Society: the shift from a focus on fin-fish and their biology, to a wider range of aquatic species, to fisheries issues, and now to fish and aquatic habitat conservation—hence this workshop! Clearly, this professional society has a significant role to play in leading agencies, governments and community responses to these issues.

Wider community responses

On a wider front, there are a number of promising signs.

We have noted the upsurge in community concern about marine and estuarine conservation issues in the last few years.

Commercial fishing industry organisations are moving away from reacting to specific environmental issues (e.g. coastal discharges, pulp and paper mill proposals) towards proactive campaigning for fish habitat protection. In NSW, the industry has established Ocean Watch to advise it and to act as its advocate on marine conservation issues. Similarly, the Queensland Commercial Fishermen's Organisation has engaged professional assistance to promote fish habitat protection, particularly in estuaries.

Recreational Fisheries bodies are increasingly taking an active part in water and land management reviews and in marine and estuarine planning processes.

Broad strategic planning frameworks

We should take further encouragement from the increased attention to broad marine and coastal strategic planning.

For example, at a national level, the Ocean Rescue 2000 program and Resource Assessment Commission coastal zone enquiry will provide a

broad framework for the future of marine conservation and coastal management planning.

At the state level, the Victorian Land Conservation Council, a public land management planning body, is preparing a strategic planning framework for coastal management and marine conservation in Victoria.

The promise of the national Ecologically Sustainable Development program is that it will encourage and lock in all levels of government and all areas of public and private enterprise into a set of principles that place due emphasis on the conservation of estuarine resources.

If we look at current national initiatives in areas such as Landcare, salinity control and catchment management, we see references to “holistic approaches”, “whole ecosystem management” and “total catchment management”. This indicates that there is a widespread convergence occurring in the mindset and goals of all those involved in the usage and management of natural resources across Australia. By adopting proactive strategies, fisheries managers should be able to capitalise on the momentum of this movement to make new allies in addressing the task of protecting fish habitat.

In conclusion, many people are sceptical and these current aquatic and wider conservation initiatives may prove to be mainly rhetoric—or passing fads. We must recognise that no habitat protection policies and strategies can be relied upon to have the desired effect if they are based on inadequate knowledge or if they lack total commitment by all parties.