

How can we raise the profile of native fish issues in wetlands?

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Abstract

Across Australia today wetlands are rapidly becoming a mainstream environmental and natural resource management issue. Once the poor cousins of rainforests, coral reefs and old growth forests as an issue, wetlands are now taking centre stage. How has this happened?

Until the last 10 years or so, wetlands were the domain of a dedicated few who appreciated their many functions and services. Ironically perhaps, those that appreciated wetlands the most were generally arch enemies; the duck shooters and the bird watchers and ornithologists. However, as the message has gotten out that wetlands are not wastelands, and deliver many important ecosystem services for society, slowly the awakening has been witnessed; wetlands are now a clearly stated priority under the national natural resource management (NRM) program being delivered through 56 regions across the country.

Unlike the high profile campaigns with which rainforests, coral reefs and old growth forests have been promoted as environment issues, wetlands have joined the main game through a less political route. Where the protection of rainforests, reefs and old growth forests has been largely driven by a pure 'green' agenda of conservation, wetlands are seen as less glamorous, more the 'blue collar' type environmental assets that are supporting a range of management outcomes such as water quality improvements, flood mitigation, grazing, water supply and also biodiversity conservation.

To date, wetlands and fish have not had a close association in the public eye. The average punter will mention waterbirds, frogs, reeds and mozzies when you mention wetlands, but rarely associate them with fish. Given that fishing is claimed to be our most popular national recreational activity there would seem to be an opportunity waiting to be exploited to see wetlands and fish intrinsically linked in the psyche of Australians so that these natural assets, the wetlands and fish, are both better off.

Wetlands have also tended to fall through a bureaucratic and administrative 'crack'. The silo-based policy and management effect is alive and well here with fisheries agencies operating in most States and Territories as separate entities to the conservation agencies and primary production agencies. The result is that this has worked against the more integrated approaches that are needed. In most States and Territories, those bureaucrats working to see wetlands protected or managed for long-term sustainability are not doing so arm in arm with the fisheries agencies.

This paper explores ways that we can move to see the wetlands-fish link more firmly established and recognised. This can be done through:

1. better community education and awareness raising;
2. taking more integrated approaches to seeing wetland protection mechanisms, whether national, state/territory or local, undertaken with native fish in mind, and planned at an appropriate scale;
3. introducing more strongly than at present an expectation that regional NRM and catchment bodies are using their integrated planning and investment strategies to address native fish management, through options such as demonstration reaches or more formal habitat protection options;
4. engaging private landholders, community organisations, specialised NGOs and anglers in on-ground management of wetlands and as a united lobby to influence government decision-making, and
5. getting the corporate world supporting the wetland-fish 'partnership' with tangible, long-term resources.



Introduction

Globally the connection between wetlands and the fish they support, help produce or conserve is well established; much more so than here in Australia it seems. The developing world in particular has long recognised this relationship and in many of these countries the protection and management of wetlands is driven to a large extent by the reliance of their people on fish products.

A coffee table book on the wise of wetlands that I assembled a few years ago attracted nearly 8,000 photographs from around 130 countries. About 70 per cent of these illustrated the importance of wetlands as the source of fish.

The growing recognition of the importance of wetlands

Here in Australia, wetlands are fast becoming 'flavour of the month'. Wetlands are rapidly becoming a mainstream environmental and natural resource management issue. Once the poor cousins of rainforests, coral reefs and old growth forests as an issue, wetlands are now taking centre stage. How has this happened?

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less glamorous, more the 'blue collar' type environmental assets that are supporting a range of management outcomes such as water quality improvements, flood mitigation, grazing, water supply and also biodiversity conservation.

Lots of factors have helped raise the profile of wetlands. As mentioned above, there has been growing recognition of their importance in government circles, such the Natural Heritage Trust and Natural Resource Management programs. Across the country there is an almost complete suite of wetland policies and strategies. The Commonwealth has one, which it has to be said seems to be gathering dust on the bookshelves of senior bureaucrats and Ministers these days even though being Cabinet-endorsed in 1996. All States and Territories, with the exception of the ACT, have either a wetland policy or strategy, although Victoria's has been subsumed into its biodiversity strategy.

The last decade has also witnessed the emergence of fishing shows and icons; such a Rex Hunt and Andrew Ettingshausen. These are all feeding off what we are told is our most popular recreational activity; fishing. Then there have been government initiatives to buy out commercial fishing licences and introduce (at least in NSW) fishing licences, the proceeds of which are helping with rehabilitating fish habitats, in large part, wetlands.

Several non-governmental organisations have taken a greater interest in wetlands too over the past decade; most notably, Wetlandcare Australia, WWF Australia and Conservation Volunteers Australia (CVA, through their Revive our Wetlands program). Some of this interest has been supported by sponsors from the business sector, such as BHP-Billiton for CVA's Revive program) and Banrock Station Wines (Hardy's Wine Company) that supports wetland conservation projects both here and in several other countries.

The notable thing about most of these policy and other wetland-related initiatives is that they have not focussed on fish management or conservation as a primary driver. In fact, the strongest indication of this nexus comes through the Native Fish Strategy of the Murray-Darling Basin, which is what brings us here today.

Wetlands and fish management still not strongly connected issues in Australia

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Wetlands have also tended to fall through a bureaucratic and administrative 'crack'. The silo effect is alive and well here with fisheries agencies operating in most States and Territories as separate entities to the conservation agencies and primary production agencies. The result is that this has worked against the more integrated approaches that are needed. In most States and Territories those bureaucrats working to see wetlands protected or managed for long-term sustainability are not doing so arm in arm with the fisheries agencies. There is a need for integrating mechanisms that will see this overcome. One way to achieve this is to ensure that Commonwealth and State/ACT wetland and fish management policies are being implemented in an integrated way and that this meshes (in this context) with the NFS of the MDB. This integrated policy framework in turn needs to be reflected in the regional NRM and catchment plans being prepared and implemented by catchment management authorities and similar bodies across the Murray-Darling Basin. Such policy coherence would greatly strengthen the coordinated management actions being called for by the Action Plan this workshop has developed.

Another area of bureaucratic 'silo-ism' relates to protected areas. Australia has been enthusiastically pursuing a national system of marine protected areas for several years and in most cases applies complex zoning schemes to allow a continuation of a range of human uses within such areas. Examples include the Great Barrier Reef Marine Park and the Solitary Islands Marine Park. However, once we move to the non-marine biome, the National Reserves System (NRS) has tended to overlook aquatic

ecosystem; focussing instead on terrestrial landscapes in general. It seems that aquatic protected areas are in the 'too hard basket', presumably because of expected opposition from a range of water users or those people that enjoy our rivers for a range of recreational activities.

From a planning perspective rivers are simply skinny oceans and it would seem that we need to be considering how to transfer some of the zoning-type management models from the marine biome into freshwater systems.

Another glaring example of government 'silo-ism' relates to the declaration of Wetlands of International Importance, otherwise referred to as Ramsar sites. Australia has 64 of these at present; most being somewhat cynical 're-badging' exercises of already established protected areas. It is only recently that some private landholdings have been Ramsar-listed, this being initiated by the landholders themselves or NGOs working with them, WWF Australia most notably.

Under the Ramsar Convention there are eight criteria against wetlands (which can also include river reaches!) can be qualified. A site need only satisfy one of the criteria to be listed under the Convention. Two of these criteria (see below) relate to fish biodiversity, habitat values and productivity (numbers 7 and 8). To date there are but a handful of Australia's sites that qualified under these criteria; more by accident than design. There is no systematic effort to see these criteria applied, and I hazard to guess that most of our fisheries agencies don't even know they exist. Globally, there are 1,425 Ramsar wetlands (as of yesterday) and 39 of these qualified against criterion 7 (21 of these being inland sites) and 54 sites qualified against criterion 8 (22 of these being inland sites). Australia needs to grasp this opportunity and begin to use Ramsar listing as part of the suite of tools available for seeing our most important fish habitats recognised. It should be remembered that Ramsar's core principle is 'wise use' or ecologically sustainable development and so Ramsar listing a floodplain wetland or river reach does not necessarily see it 'locked up' and all users excluded. Witness the Banrock Station Wetland of International Importance in the Riverland of South Australia and even The Coorong where commercial fisheries continue within a Ramsar site.



Criterion used to qualify Ramsar sites

In order to qualify a site must satisfy one or more of the following. Why is Australia neglecting criteria 7 and 8?

- **Criterion 1:** Contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate bioregion.
- **Criterion 2:** Supports vulnerable, endangered or critically endangered species or threatened ecological communities.
- **Criterion 3:** Supports populations of plant and/or animal species important for maintaining the biological diversity of the region.
- **Criterion 4:** Supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
- **Criterion 5:** Regularly supports 20,000 or more waterbirds.
- **Criterion 6:** Regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.
- **Criterion 7:** Supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.
- **Criterion 8:** Is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend.

Returning to the context of the Native Fish Strategy, it refers to the development of a system of Habitat Management Areas across the Basin. There is a project underway at present that will scope out how this might be taken forward, but it is clear that some of the key issues will be how such a system would work with existing Commonwealth and State/ACT Government options that already exist, such as heritage river listing, Ramsar listing, fisheries reserves etc. A second threshold issue will be how to design such a system to deliver the desired outcomes for native fish. And, thirdly, how to gain political and community support for such a system. The latter is a major challenge since these waters have already been muddied (so to speak) by some ill-informed and rather

reactionary views expressed by those who feel threatened by the idea of a national parks system for the rivers. Selling the benefits of such a system to these stakeholders will have to be a very high priority, and is considered further in the following section.

Creating stronger policy coherence

To summarise the foregoing, the following are recommended as actions that would greatly help to provide policy coherence between layers of government, the various natural resource management agencies at the State/ACT level and the catchment management bodies:

1. Promote policy linkages and coherence at the Commonwealth and State/ACT levels so that fisheries management, wetlands management, biodiversity conservation, water resources management etc are working in a united way for pursuing the NFS targets.
2. Seek to have native fish management a higher priority through the NRM program with regional and catchment bodies expected to specify targets, including in relation to managing wetland habitats, as part of integrated plans and their associated investment strategies.
3. Create a training and information sharing initiative to support cross-fertilisation of experiences and lessons learned between regional/catchment NRM bodies and site managers.
4. Escalate efforts to use existing habitat management tools (heritage rivers, fish habitat reserves, Ramsar listings etc) as an integrated 'toolkit' for enhancing native fish habitat availability and management. Support the efforts of regional and catchment bodies in applying these tools.
5. Once the current project examining the concepts and issues for developing Habitat Management Areas or similar is completed, seek ways to move ahead with building a coherent system of protected areas for aquatic biodiversity conservation, and community benefit.

Getting the community empowered and actively engaged in site planning and management

As highlighted at the conclusion of the preceding section, a key aspect of advancing the agenda of improved wetland management to benefit native fish will be to gain support for and direct involvement from the community.

A key part of community empowerment will be through promoting the message that:

'healthy wetlands = more fish = happy anglers = smiling regional communities'

In other words, stress that wetlands and fish are intrinsically linked management issues, and that by protecting or rehabilitating wetlands there will be more fish to catch and this will bring local economic benefits to regional centres through the anglers it attracts to the rivers.

Ideally, a campaign to raise awareness of these issues would be helped by the fishing icons of television fame. While they already convey some messages about habitat management, this could be stronger and more focused on the issues of maintaining healthy wetlands for fish. A related issue is that of alien fish management, and there would seem to be merit in also involving these fishing 'gurus' in promoting the right messages about responsible behaviour.

To date there has not been great attention given to using some of our more charismatic fish to raise awareness of the management issues. Yes, there is the big Murray cod at Tocumwal, but we need to be using these fish icons more to carry take home messages about fish habitat management. Fish and chip shops are a central feature of most country towns and even in the suburbs of the larger urban areas. Why aren't we using them to carry message about fish conservation and habitat management?

As was noted earlier, the last decade has seen several Australia NGOs switch on to wetlands as an environmental issue. It would be fair to say that today only Wetlandcare Australia promotes a strong fish management theme through its logo, web site and project base. Others need to do likewise if we are to see a shift in community understanding and awareness

on these issues. This is not a criticism, simply a recognition that more needs to be done given the dire circumstances of the native fish within the Murray-Darling Basin especially. Greater investment in 'fish-care' or 'angler-care' programs, with similar ethos to Landcare, would seem long overdue.

Selling the native fish-wetlands link will also be greatly assisted if some science can be used to show the dollar value of a hectare of floodplain wetland for its fish production. In 1990, work done in Queensland estimated that a hectare of mangroves in Moreton Bay produced \$1,846 worth of fish per year. This was a powerful tool in planning decisions where mangroves were under threat, and would be similarly useful in mobilising community, government and business sector support greater investment on managing floodplain wetlands.

Yet another area that deserves consideration is that of offering incentives, financial and other, to encourage greater private sector and landholder investment in wetland management. There are numerous tax and other incentives offered for so-called 'landcare' activities. In 2002, a report done by myself and several colleagues (Whitten *et al*, 2002) highlighted a range of possible incentive options for the management of freshwater ecosystems. This report included fact sheets for private landholders and a detailed critique of possible policy options for the Commonwealth and States/Territories to consider. While these can still be found buried away in the web site of the Commonwealth Department of Environment and Heritage, to my knowledge they have never been promoted or acted on.

Finally, there would seem to be many opportunities to engage the corporate sector in sponsoring wetland management to benefit fish. As our number one recreational activity, and a multi-billion industry, it is perhaps surprising that we don't see more obvious signs of the business sector being involved here. Why not signs at rehabilitated wetlands saying such as "this precious native fish nursery rehabilitated with the support of Daiwa" (or some other well known fish tackle manufacturer).

To summarise the above, the following are recommended as actions that would assist to provide get strong community support and engagement in improved wetland management



to benefit native fish:

1. More promotional-awareness raising materials, activities. Promote wetlands as a community asset.
2. Use fishing icons and icon species more, including to raise awareness of alien species.
3. Give priority to wetland rehabilitation that helps native fish and makes life difficult for introduced species. Get the locals and anglers involved in 'fish-care' or 'angler-care' programs.
4. Demonstrate the productivity of wetlands. This many hectares of well managed wetland produces (on average)? Murray cod and? Callop per year.
5. Give incentives to private landholders to improve wetland habitats for native fish.
6. Site signage – “this wetland is a vital native fish nursery.. care for it” and get the business sector involved with this badging.

References

Whitten. S, Bennett. J, Moss. W, Handley. M and Phillips. W, 2002. *Incentive measures for conserving freshwater ecosystems. Review and recommendations for Australian policy makers.* Environment Australia

