



Murray-Darling Basin Alien Fish Plan



Heleena Bamford September 2008

Why manage alien fish?

Alien fish in the MDB

- up to 70% of the numbers
- 80-90% biomass
- Alien fish are a growing problem in Australia

ALIENS IN THE BASIN

An introduction to alien fish in the Murray-Darling Basin!

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Healthy native fish populations are vital parts of healthy waterways in the Murray-Darling Basin. Native fish also provide significant cultural, environmental, recreational and economic benefits. However, over the past 150 years, native fish numbers have dramatically declined. The Murray-Darling Basin *Native Fish Strategy* has been developed to address this decline. A major threat to rehabilitating native fish is the ongoing invasion and spread of alien fish.

While community understanding about carp is growing, there is relatively little awareness about the impacts of other alien fish. Impacts include competing with native fish for food or space; eating native fish and their eggs; spreading disease; affecting water quality; and degrading habitats. Some alien fish are symptoms of our stressed river systems; some need better management; while some have the potential to become significant pests.



Basin Alien Fish Plan

- Consistent & coordinated approach
- Builds on previous strategy for carp
- Taskforce
 - States and ACT representation
 - Commonwealth
 - Invasive Animals CRC
 - Vertebrate Pests Committee
 - Community Stakeholder Taskforce
 - Catchment Management Authority
 - Native Fish Strategy



What are we trying to achieve?

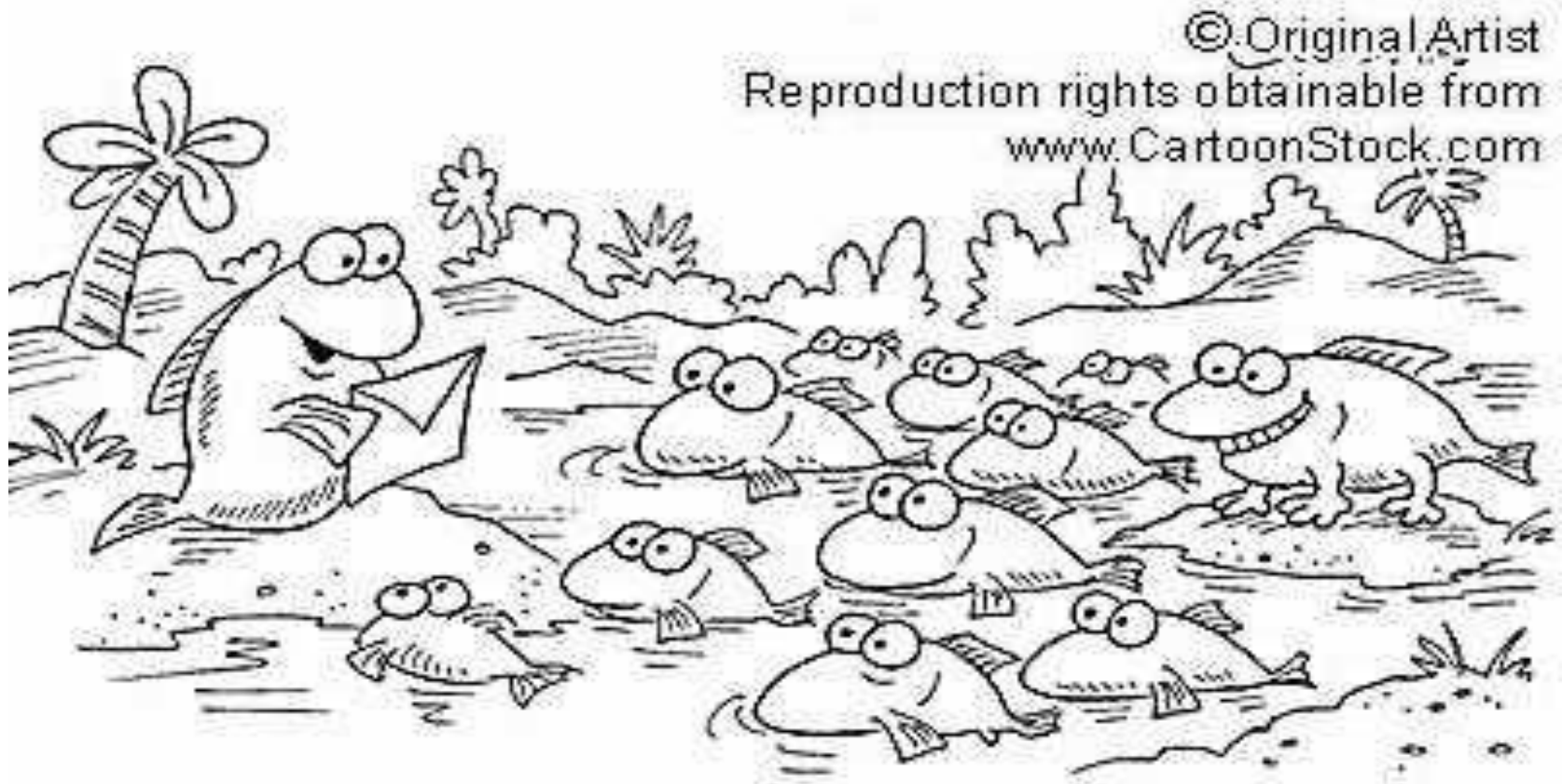
- Stop the introduction of new alien fish
- Slow or prevent the spread of existing aliens within and from the Basin
- Rapidly respond to eradicate new introductions
- Manage the negative impacts of existing alien species in key areas within the Basin

Main Components

- Prevention & Preparedness
 - Pathways
 - Social research
 - Targeted education and awareness
- Rapid Response
 - Early detection programs
 - National Rapid response plan
 - Testing and simulation
- Management & Control
 - Control for priority species
 - Minimising impacts
 - Targeted to key areas

Prevention is the best cure

Number 1 Priority is to prevent new introductions!



'...and the award for best new-comer goes to...'

Next Invader?

Photo Wade Micke Queensland DPI



Photo Queensland DPI

Prevention

- Prevention is mostly about people
 - Pathways - understanding how alien fish are moved
 - Human behaviour - understanding why people move alien fish
 - Communication, awareness and education

Pathways

- Pathways – how are alien fish introduced & moved?
 - Natural pathways – not much we can do
 - Most other pathways require human intervention
- Need a better understanding of pathways
 - How they operate
 - What factors are involved
 - Who are the stakeholders involved
 - How big is the risk
- Ways to reduce the risk

Human Behaviour

- Better understanding of human behaviour
- Social research
- People know about Carp – what about other aliens?
- Getting the message out there



Photo G Schmida

Prevention

- Many recent introductions in Australia are ornamental species
- Educate people not to release unwanted fish



Rapid Response

- Eradication is currently impossible with widespread and established species
- Early detection & surveillance
 - Targeted surveys
 - Community reporting



Rapid Response

- Need to respond quickly to new incursions
- Australian Emergency Response Plan for Freshwater Fish Incursions
- Developed through Invasive Animals CRC
- Need to investigate tools to eradicate fish incursions



Control & Management

- Not all species need to be managed in the same way
- Manage the impacts vs the numbers – control plans for priority species
- Integrated management principles
- Limited resources so focus on key areas – major impacts & major benefits

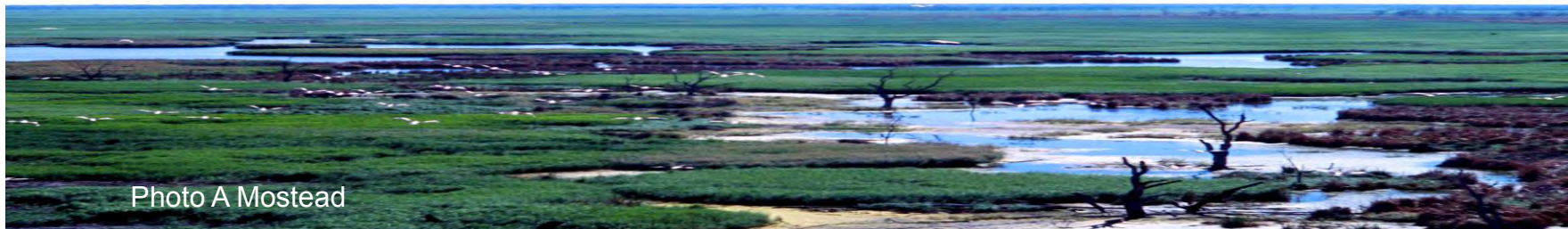
Carp Management Tools

- Carp is still a major control priority
- Target aggregations of carp
- Carp Separation Cages



Key areas for Carp

- Carp Hotspots – important for spawning & recruitment
- Limit reproductive output from these sites
- Integrated management plans



Basin Alien Fish Plan

- Taskforce established in March 2008
- Development March 2008-September 2009
- Public comment October-November 2009
- Ready in mid 2010





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