

# Newstreams

A NSW DPI email newsletter for recreational fishers and others interested in improving fish habitat to build native fish stocks

**No 20 June 2009**

## **About Newstreams**

Newstreams is an email newsletter to keep people up to date about NSW fish habitat activities and important aquatic habitat developments elsewhere. It is published electronically every two months by NSW Department of Primary Industries. In NSW many estuarine and freshwater habitats for juvenile and adult fish have been degraded or lost through urban, industrial and agricultural development. Communities around NSW work actively to restore fish habitat.

## **NSW DPI NEWS**

### ***Fishers for fish habitat forum***

The first Fishers for Fish Habitat forum at Ballina on 18-19 June features a bus tour of fish habitat in the lower Richmond River catchment, insights from fishers who have improved fish habitat in their local fishing spots, and plenty of opportunities to fish. There are also talks on fish species, fish habitat initiatives in Australia and overseas, potential impacts of climate change on fish, and sharing of ideas to improve fish habitat. Dinner with 'Starlo' is an optional extra, the only event you have to pay for at the forum. Find out more on the website, or contact Charlie Jenkins NSW DPI on 02 6626 1107.

<http://www.dpi.nsw.gov.au/fisheries/habitat/rehabilitating/fishers/fishers-forum>

### ***New aluminium floodgates on Mamboo Island***

As part of the Bringing Back the Fish Project funded by the Hunter Central Catchment Management Authority and Wetland Care Australia, five floodgate sites have been remediated to reduce acid sulfate discharge into Cattai Creek and the Lansdowne River near Coopernook. Works were undertaken in conjunction with local landholders, Shearwater Marine Engineering, Taree Council and NSW DPI's conservation action unit. Installation was completed over a two day period and involved the removal of old structures and their replacement with prefabricated aluminium headwalls set to preferred invert heights. Works were well timed with significant rainfall occurring only a few days after completion. For more information, contact Shaun Morris.

[shaun.morris@dpi.nsw.gov.au](mailto:shaun.morris@dpi.nsw.gov.au)



**Out with the old floodgate.....**



**.....and in with the new! Photos: Shaun Morris**

## ***Improving fish passage in Macquarie Marshes***

NSW DPI is working with State Water to improve fish passage within the Macquarie Marshes with funding assistance from the Rivers Environmental Restoration Program. Helicopter surveys along all major creeks of the Macquarie River downstream from Warren and around the Macquarie Marshes have identified a number of water regulation structures that are blocking fish passage, particularly in the Bulgeraga Creek system. The project will assess the barriers' impact on fish movement and work out how to alter them to allow fish to pass safely. Contact Sam Davis at Dubbo for more information.

[sam.davis@dpi.nsw.gov.au](mailto:sam.davis@dpi.nsw.gov.au)



Some barriers to fish passage on the Bulgeraga Creek system. Photos: Sam Davis.

## ***Wilcannia snags go in***

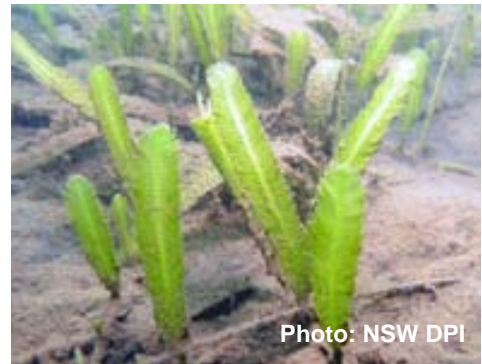
NSW DPI is introducing 500 large snags at 12 sites along 61 km of the Darling River at Wilcannia as part of the Wilcannia Make More Fish? project. Tree trunks and branches have been transported from the Nymagee region by semi-trailer and road-train to Wilcannia, ready for placement in the river in mid-June. The re-snagging will increase the woody habitat at priority sites where there are currently very few or no snags. For more information, contact David Cordina.

[david.cordina@dpi.nsw.gov.au](mailto:david.cordina@dpi.nsw.gov.au)

## ***Caulerpa control needed***

NSW DPI is working with stakeholders to control the noxious weed *Caulerpa* (*Caulerpa taxifolia*) in Wallagoot Lake on south coast NSW. The weed (right) spreads quickly, affects seagrass and fish, and has been found in 14 estuaries and lakes in NSW. It is removed manually or by covering areas with salt, and fishing closures are in place over *Caulerpa* beds. Fishers who find weed fragments on fishing or boating gear are asked to remove the fragments and put them in the bin.

<http://www.dpi.nsw.gov.au/aboutus/news/recent-news/fishing-and-aquaculture/aquatic-pest-on-nsw-far-south-coast>



## ***Hunter River logjams***



Construction of eleven deflector log jams is underway on the Hunter River near Aberdeen. Engineered log jams are erosion control structures specially designed to redirect flows to improve bed and bank stability. Log jams also increase instream habitat for fish and macro invertebrates. On ground works are being managed by NSW DPI's aquatic habitat rehabilitation unit of with construction being undertaken by the soil conservation unit of the Department of Lands. These activities from part of the aquatic health project funded by the Hunter Central CMA and aim to improve bed stability along a 1.4km reach. For further information contact Shaun Morris.

[shaun.morris@dpi.nsw.gov.au](mailto:shaun.morris@dpi.nsw.gov.au)

## **Breaking down the barriers in Gloucester Shire**



**Partial width rockramp at Kings Crossing on the Bowman River. Photo: Shaun Morris**



**Partial width rockramp at Hawdons Crossing on Gloucester River. Photo: Shaun Morris**

As part of the Bringing Back the Fish and Aquatic Health projects, a further three fish passage sites have been remediated over recent months with the installation of rock ramp fishways. One site on the Gloucester River and two on the Bowman River have opened significant stretches of river to native fish and complement similar works in the area to improve fish passage. Works will be ongoing in the region with a further three sites planned at this stage. For more information, contact Shaun Morris.

[shaun.morris@dpi.nsw.gov.au](mailto:shaun.morris@dpi.nsw.gov.au)

## **New tidal gate for Cundletown creek**

NSW DPI has restored tidal flow and fish passage to over 8km of habitat in an unnamed creek at Cundletown, north of Taree. The old rusting floodgates were replaced and an auto-tidal gate was fitted, which allows more natural flow conditions in the creek. The floodgate opens during low-medium tides to allow tidal flushing, then closes during floods and high tides to maintain flood mitigation capacity. The repairs were funded by Hunter Central Rivers CMA, and undertaken with the help and support of Greater Taree City Council, landholders and Shearwater Marine Engineering. For more information contact Jenny Fredrickson on 4916 3834. [Jenny.Fredrickson@dpi.nsw.gov.au](mailto:Jenny.Fredrickson@dpi.nsw.gov.au)



**Photo: Jenny Fredrickson**

## **Sound waves help bring back the black bream**



**Murray River barrages. [www.murrayriver.com.au](http://www.murrayriver.com.au)**

NSW DPI is working with scientists from SA and Victoria to see whether black bream are using new fishways on Murray River barrages. Some 30 bream have been fitted with acoustic tags (pingers) that emit soundwaves that can be picked up by one of 13 'listening' stations between Goolwa and Tauwitchere barrages so that scientists can plot fish movements. Anglers who catch black bream with numbered green tag are asked to note the tag number, length of fish, location and date it was caught, then throw the fish back into the water alive, and call 1800 119 194 to claim a reward.

<http://www.dpi.nsw.gov.au/research/updates/issues/may-2009/bring-back-the-black-bream>

## NSW NEWS

### Work on Hawkesbury-Nepean weirs

Work starts this month on improving the environmental performance of weirs on the Hawkesbury-Nepean River. Eight weirs will get environmental release outlets, and 10 will have fishways. The new vertical slot fishway at Penrith weir is scheduled for completion by late October 2009; work on other weirs will finish in January 2010. See a map of the weirs at the website below.

Weirs	Works
Camden, Sharpes, Cobbitty, Theresa Park, Mount Hunter	Install environmental release outlet. Replace existing fishway with a new vertical-slot fishway.
Menangle, Brownlow Hill, Wallacia	Install environmental release outlet. Install new vertical-slot fishway
Penrith	Replace existing fishway with a new vertical-slot fishway
Douglas Park	Install new vertical-slot fishway

[http://www.sca.nsw.gov.au/\\_data/assets/pdf\\_file/0004/9544/NepeanRiver\\_Weirs\\_DWE\\_Oct08.pdf](http://www.sca.nsw.gov.au/_data/assets/pdf_file/0004/9544/NepeanRiver_Weirs_DWE_Oct08.pdf)

For more information about this project, contact Holly Langler at Sydney Catchment Authority, 02 4725 2509.

### Notice - Fisheries Scientific Committee (FSC)

The Fisheries Scientific Committee (FSC) is an independent, scientific advisory body to the Minister of Primary Industries and determines which species are eligible to be listed as threatened species in Fisheries Management Act 1994. The FSC is interested in hearing from community groups and specialists with information concerning widespread losses to, or even disappearances of, aquatic species.

Under the Fisheries Management Act 1994 the Committee can consider fish and marine vegetation. Fish includes any marine, estuarine or freshwater fish or other aquatic animal (e.g., oysters, prawns, sharks, rays, starfish, insects and worms), at any stage of their life history. It does not include whales, mammals, birds, reptiles and amphibians. Marine vegetation includes any species of plant that, at any time in its life, must inhabit water, other than freshwater. This includes seagrasses, mangroves and marine algae.

If you have any information you think might be valuable to the Committee you can contact us.

Fisheries Scientific Committee, Locked Bag 1, NELSON BAY NSW 2315

Phone 02 49163828, fax 02 49163880 email: [fsc@dpi.nsw.gov.au](mailto:fsc@dpi.nsw.gov.au)

Read additional information on the FSC: [www.fsc.nsw.gov.au](http://www.fsc.nsw.gov.au)

## AUSTRALIAN NEWS

### 20 new fishways for Queensland

20 fishways have been installed on streams in central and north Queensland over the past year, including Australia's first pre-cast concrete cone fishway (right). The cone fishway is on Flaggy Rock Creek in the Mackay-Whitsunday region. Sampling shows that large numbers of fish are now moving upstream. The Northern Fish Community and Fishway Monitoring team is now planning fishways for the Gulf, Burdekin, Whitsunday and Fitzroy areas. For more information, contact team leader Tim Marsden.

[tim.marsden@dpi.qld.gov.au](mailto:tim.marsden@dpi.qld.gov.au)

<http://www.cabinet.qld.gov.au/MMS/StatementDisplaySingle.aspx?id=63227>

[http://www.bdnrm.org.au/projects/downloads/T\\_Marsden\\_fishways.pdf](http://www.bdnrm.org.au/projects/downloads/T_Marsden_fishways.pdf)



Photo: Tim Marsden

## **Green wood is suitable for snags**

Green wood and dry wood are equally suitable for use as snags in rivers according to a recent Victorian study. The researchers looked at the rate the wood was colonised by macroinvertebrates and found that there was little difference between green or dry wood. This has important implications for large-scale restoration projects, where green wood is likely to be a more readily available than dry wood.

<http://www.publish.csiro.au/nid/126/paper/MF07233.htm>

## **Call for review of water releases**

A report prepared for the National Water Commission calls for a review of water releases from major water storages. The releases, known as 'pulsed flows' are used to generate electricity, deliver water to downstream users, maintain air space within reservoirs for flood control, flush streambeds, improve the health of river ecosystems, and facilitate recreational activities such as whitewater rafting. The report says more information is needed about the impact of water releases, including ecological constraints on timing and magnitude of flows, and potential for bank slumping, fish stranding and other adverse effects.

<http://www.nwc.gov.au/www/html/2376-pulsed-flows---no-16.asp?intSiteID=1>

# **INTERNATIONAL NEWS**

## **US fish habitat awards**

Project SHARE (Salmon habitat and river enhancement), a partnership of landowners, salmon anglers, businesses and government agencies formed in 1994, has won the US fish habitat extraordinary action award for its work in protecting and enhancing Atlantic salmon habitat in the state of Maine. Other habitat award winners include the Lake Leaders Institute (for outreach and extension), University of Wisconsin-Extension Lakes, USA EPA (for scientific achievement in quantifying the value of nursery habitats as a fishery and ecological resource – see below), and Yvon Chouinard, the founder of the outdoors expedition company Patagonia (for conservation vision).

[www.fishhabitat.org](http://www.fishhabitat.org).

## **New study predicts fisheries production drop with habitat loss**

A recent research paper released in the US looked at the potential impact of loss of aquatic vegetation (SAV) and hardening of shorelines on valuable fishery resources. By combining information on the ecology of blue crab (*Callinectes sapidus*) in the northern Gulf of Mexico and commercial fishery data researchers were able to model the potential effects of marginal habitat losses on the blue crab fishery. The simulations suggested that, accumulated over large areas, relatively small local losses of estuarine marsh edge and aquatic vegetation could have long-term negative effects on the sustainability of the fishery. The article, 'Cumulative effects of habitat alterations on fishery resources: Prediction at regional scales' is published in Ecology and Society.

<http://www.ecologyandsociety.org/vol14/iss1/art16/>

# **HABITAT DATES**

18-19 June

Fishers for fish habitat forum, Ballina

<http://www.dpi.nsw.gov.au/fisheries/habitat/rehabilitating/fishers-for-fish-habitat/fishers-for-fish-habitat-forum>

23-27 August

SERI conference on ecological restoration, Perth

<http://www.seri2009.com.au/>

21-24 September

12th international river symposium, Brisbane

<http://www.riversymposium.com/>

18-21 October

International river health conference, Canberra

<http://www.onelifeoneworldourfuture.com/index.php?pageid=218>

18-24 October

National water week

<http://www.nationalwaterweek.org.au/>

## HABITAT RESOURCES

### **NSW fisheries resources**

'Status of fisheries resources in NSW 2006/07' is a general overview of the state of fish populations that are harvested by commercial fisheries licensed by NSW DPI, including all 92 key species taken by the estuary general, estuary prawn trawl, ocean hauling, ocean trawl and ocean trap and line fisheries.

<http://www.dpi.nsw.gov.au/research/areas/systems-research/wild-fisheries/outputs/2008/972>

## ABOUT NSW DPI AND FISH HABITAT

NSW DPI is responsible for management of, and research into, fish habitat in NSW.

### **On-ground activities**

Map, priorities and modify structures that block fish passage

Map and rehabilitate aquatic habitat such as wetlands.

Reintroduce snags (large woody debris) into streams.

Revegetate streambanks to provide habitat and improve the quality of water running into streams.

### **Research activities**

Document the fish communities associated with different aquatic habitats

Understand the basic biology of key fish species- what they eat, when they breed, and their habitat requirements.

Evaluate management actions to see how effective they have been and what improvements may be possible.

### **Policy and planning activities**

Review developments that may impact on fish habitats and negotiate impact reduction and/or compensatory works

Incorporate aquatic habitat protection requirements into land use planning, water

management, and estuary and floodplain management.

Help developers, local councils and other state agencies understand the importance of aquatic habitats for fish and options for ensuring their protection and rehabilitation.

### **Aquatic habitat staff**

Sydney (Cronulla) 02 9527 8411

Sydney (Wollstonecraft) (02 8347 4909

Batemans Bay 02 4478 9103

Huskisson 02 4441 8969

Port Stephens 02 4982 1232

Wollongbar 02 6626 1200

Tamworth 02 6763 1100

Dubbo 02 6881 1270

Tumut 02 6947 4188

Narrandera 02 6959 9021\

Albury 02 6042 4200

Research staff

Port Stephens 02 4982 1232

Narrandera 02 6959 9021

Cronulla 02 9527 8411

### **Website**

<http://www.dpi.nsw.gov.au/fisheries/habitat>

### **Send us your news**

If you have news about fish habitat activities in your area, we'd like to hear from you. Email Rebecca Lines-Kelly with your news and suggestions.

[rebecca.lines-kelly@dpi.nsw.gov.au](mailto:rebecca.lines-kelly@dpi.nsw.gov.au)

### **Subscribe to Newstreams**

Newstreams is a free email newsletter available to anyone interested in fish habitat. To subscribe, email the editor, Rebecca Lines-Kelly. If you no longer wish to receive Newstreams, email the editor with 'Unsubscribe Newstreams' in the subject line.

[rebecca.lines-kelly@dpi.nsw.gov.au](mailto:rebecca.lines-kelly@dpi.nsw.gov.au)

### **Back issues**

<http://www.dpi.nsw.gov.au/aboutus/news/newsletters/newstreams>