

# Platypus News & Views



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*Newsletter of the Australian Platypus Conservancy (Issue 61 – August 2015)*

## **STEPS TOWARD SAFER OPERA HOUSE TRAPS**

For several years the APC has been calling for action to address the wholly unnecessary deaths of platypus, Australian water-rats and freshwater turtles in enclosed yabby traps.

Of particular concern is the “opera house” trap (OHT). Once a platypus enters an OHT it has virtually no chance of escaping before it drowns (see *PN&V* issue 55). Frustrated by the lack of action by politicians and management agencies to ban these traps, the Conservancy eventually began trials to test the platypus’s ability to escape from OHTs fitted with a circular escape hatch in the roof. This research, conducted in association with Dr Tom Grant from the University of New South Wales, was funded by the Taronga Conservation Society (TCS). As described in *PN&V* issue 56, the trials indicated that a high proportion of the platypus captured in modified traps (though not every individual) is expected to escape – a major improvement on the zero escape rate from standard OHTs.

Crucially, field trials also established that modified traps continue to function very well in terms of their ability to catch edible yabbies (*Cherax* spp.) living in ponds. OHTs fitted with an escape hatch should therefore be perfectly acceptable for recreational yabbing purposes.

The APC and TCS subsequently entered into discussions with the Australian Fishing Trades Association (AFTA) to find out whether it would be feasible for wholesalers/manufacturers and retailers to produce and sell modified opera house traps in place of the existing lethal design. The good news is that AFTA has recently indicated that such a changeover might be possible as early as mid-2016. Such a step is still subject to formal confirmation from state and territory fisheries agencies that the modified trap design complies with existing regulations. In this context, it’s worth noting that no other changes to fishing regulations are proposed at this stage. In particular, the introduction of a “safer” trap does *not* imply that current restrictions on the places where enclosed yabby traps may legally be set should be loosened.

The design of modified OHTs appears to be fully compliant with current fishing regulations in Queensland, New South Wales, the Australian Capital Territory and Victoria. However, regulations in South Australia and the Northern Territory specify that yabby traps can have at most two entrances. Discussions are therefore being initiated with these jurisdictions to identify the rationale for the “two-entrance” rule and to determine whether modified traps can be introduced on a trial basis. (Use of OHTs is banned in Tasmania and Western Australia.)

Use by recreational anglers of previously purchased standard OHTs will not become illegal when modified OHTs start to be sold. However, special DIY escape-ring kits will be available to encourage trap owners to modify their existing gear. Over time, the number of standard OHTs in use will inevitably decline both through modification by owners and natural attrition. Feedback from recreational angling bodies will also help to confirm the actual capabilities of modified traps deployed in a wide range of water bodies. At some point, authorities may therefore decide to mandate that all enclosed yabby traps must have escape rings.

“Safer” traps are not the perfect solution to the problem of platypus mortality in yabby traps. However, they certainly represent a big step forward, that could not have occurred without the goodwill and co-operation of all the parties involved.

## HOLE IN ONE

Fyke (or eel) nets are commonly used to capture a wide range of freshwater fish species for population surveys or other studies. Each net is equipped with at least one rectangular netting “wing”, typically set in the water at an angle to the bank to help direct fish into the main body of the net. Once past the entrance, fish swim through a series of one-way netting chambers before being contained in a final chamber. In most cases, fisheries researchers set their nets in the afternoon and leave them unattended to accumulate fish overnight, returning early the next morning to count and measure their catch. In most cases, fish are then returned unharmed back to the wild.

Fyke nets used to capture fish for scientific purposes are set so an air space is maintained at least in the final non-return chamber, to protect air-breathing aquatic animals (including the platypus) from drowning if they inadvertently enter a net. However, a platypus is unable to feed during the entire period it’s confined inside. In addition, the core body temperature of a platypus can drop inside a net, particularly if the water is cold, potentially resulting in severe hypothermia.

Unlike most fish, a platypus can travel out of the water for a considerable distance without difficulty. This suggests that it might be feasible to fit an elevated escape ring to the end of a fyke net that enables a platypus to escape while captured fish are retained inside.

Last spring, the APC carried out trials to investigate the behaviour of wild platypus when animals enter a fyke net fitted with a prototype escape ring (shown at right). These escape rings - developed by Andrew Pickworth, workshop manager at the Arthur Rylah Institute for Environmental Research (ARI) - feature a recessed rim around which the drawstring-controlled opening at the end of a net is tightened. A metal loop at the top prevents the escape ring from falling into the water even if the drawstring slips off the rim.



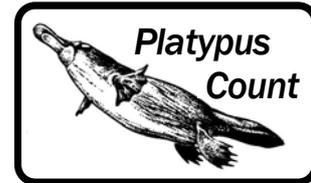
Trials comparing how many platypus and fish were captured in standard fyke nets as opposed to nets fitted with escape rings were conducted last summer by APC staff working in eastern Victoria and ARI biologists carrying out an annual fish assessment program along King Parrot Creek, northeast of Melbourne.

In brief, the two sets of results support the conclusion that platypus (including juveniles) will consistently escape from a net fitted with an elevated escape ring within a reasonably short time of entering. In addition, there was no significant difference in the number or size of fish (including native Macquarie perch and blackfish, and introduced trout) captured in standard fyke nets as compared to nets fitted with an escape ring.

While these results are promising, further studies are needed to test the response of other fish species, particularly eels (which can slither to some extent across land). A joint APC-ARI report detailing the studies described above is currently in review and should be available quite soon to anyone interested in learning more about escape ring functionality.

Meanwhile, special thanks are due to Vee and Denis Saunders, the Knox Environment Society and the Goulburn-Broken CMA for their respective roles in supporting the fieldwork to date.

## PLATYPUS COUNT: YARRA RIVER AT WARBURTON



Hard-working *Platypus Count* volunteers have monitored platypus in the Yarra River at the small town of Warburton (located about 60 kilometres east of Melbourne) since 2009.

The Yarra's catchment upstream of Warburton is mainly covered by native eucalypt forest, with river flow reliably maintained through drought periods by water released from Upper Yarra Dam.

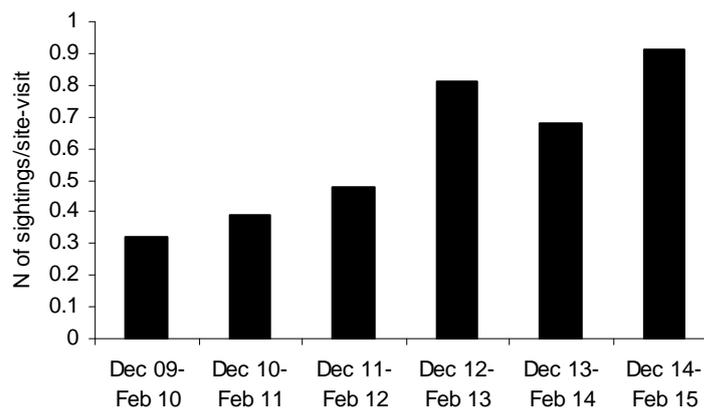
Unsurprisingly, platypus appear to thrive in these circumstances – the species has reportedly been seen in and near Warburton by numerous persons as they walked or fished along the river in the past two decades.

Although the river at Warburton is mostly too deep and fast-flowing to allow platypus live-trapping surveys to take place, the Conservancy managed to find a few sites near the town centre where nets could be set from 2001 to 2004.

This work showed that the platypus population at Warburton was not only reasonably abundant but quite productive – more than half of all animals captured were young juveniles that would have hatched in nearby burrows.



The graph below summarises the mean (or average) frequency of platypus sightings recorded at Warburton by *Platypus Count* participants in summer (when hungry lactating females are particularly likely to be active during the day) from 2009/10 to 2014/15.



The reduced number of sightings in the first three summers may possibly have been biased downwards due to substantial amounts of rain that fell in the Warburton area in November 2009, from November 2010 to February 2011, and in November and December 2012. The resulting turbulent flows might have made it harder to detect a platypus visually, and might also have encouraged animals to spend time feeding away from the main channel, in tributary streams or backwaters.

The results of more recent monitoring confirms that the Warburton population continues to do well, with 68% of last summer's visits to monitoring sites resulting in one platypus being seen and 12% of such visits resulting in two animals being observed.

## **TALK ON PLATYPUS AT QUEANBEYAN ENVIROFEST**

The Australian Platypus Conservancy will present a free public talk on the status, distribution and conservation needs of the platypus in the Queanbeyan region as part of Envirofest on Saturday 17 October 2015. For further details, contact Queanbeyan City Council. The APC will also present several special sessions to students at the Envirofest Schools Day scheduled on the previous day.

## **VISIT OUR FACEBOOK PAGE FOR MORE PLATYPUS NEWS**

For more news and information about platypus and rakali, visit the **Australian Platypus Conservancy (Official)** Facebook page. The page includes a "Sighting of the Week" that has been chosen to highlight an important conservation or research issue.

## **CHECK OUT THIS VIDEO OF A PLATYPUS AND CORMORANT**

In September 2013 we posted details on our Facebook page of a link to great photos of a platypus interacting with a cormorant in the Pioneer River in Queensland.

Now you can see a video of another interaction between these two species by visiting [vimeo.com/sandy\\_carroll](http://vimeo.com/sandy_carroll).

## **HELPING US TO HELP THE PLATYPUS**

Many of the Conservancy's projects are funded by grants from management agencies, philanthropic trusts or corporate sponsors. Donations from individuals and environmental groups also contribute enormously to the APC's work, by supporting platypus population monitoring, public education programs and studies that can't otherwise be readily funded. If you would like to help out, remember that donations and bequests to the Australian Platypus Conservancy are tax-deductible.

## ***SPECIAL THANKS TO OUR SUPPORTERS!***

*The Australian Platypus Conservancy is a non-profit research and conservation organisation. The success of the APC's programs relies on the support of businesses, management agencies and individuals sharing our interest in one of the world's most fascinating animals. We gratefully acknowledge recent help by the following supporters:*

East Gippsland Shire ■ Gippsland Lakes Environment Fund ■ Knox Environment Society ■ Betty Lynch OAM ■ Norske Skog ■ North Central Catchment Management Authority ■ Parks Victoria ■ Platypus Outdoors ■ Vee & Denis Saunders ■ Taronga Conservation Society

Australian Platypus Conservancy



PO Box 22, Wiseleigh VIC 3885

(03) 5157 5568 [platypus.apc@westnet.com.au](mailto:platypus.apc@westnet.com.au)

[www.platypus.asn.au](http://www.platypus.asn.au) Facebook: Australian Platypus Conservancy (Official)