

Platypus News & Views



Newsletter of the Australian Platypus Conservancy (Issue 63 – February 2016)

RAKALI IN SOUTH AUSTRALIA - TRAPPED BY IGNORANCE

The current conservation status of the Australian water-rat (or rakali) is poorly known in most areas. However, available evidence suggests that this attractive native mammal has declined in some parts of its range (see top of page 4). Habitat change and reduced flow regimes are believed to be major factors driving this trend. However, use of enclosed crayfish traps, particularly the design known as opera house traps (OHT), is also likely to be contributing. For example, a community-based rakali survey recently conducted by the Western Australia Department of Parks and Wildlife and World Wildlife Fund Australia found 13 drowned water-rats in 29 illegally set OHT recovered in the course of the survey.

Similarly, a recent analysis of more than 800 water-rat sightings reports submitted to the APC since 2000 showed that nearly 4% of the records described animals that had died in enclosed crayfish traps. Interestingly, the frequency of mortalities varied by state. No deaths were reported from Tasmania where OHT are essentially prohibited in all waters. In Victoria and New South Wales, where legal use of OHT is largely confined to farm dams, the frequency was between 2 and 3%. In Queensland, it was just over 5%, although this rate is expected to drop following a ban that was introduced in early 2015 on the use of enclosed crayfish traps in most public waters east of the Great Divide. At the top end of the scale, the proportion of water-rat records from South Australia involving deaths in traps was nearly 17%. This really should be no surprise, given that enclosed crayfish traps can be legally deployed in all South Australian waters, both public and private.

As reported in a recent issue of *PN&V* (August 2015), the APC has been working very productively with the Australian Fishing Trades Association and other interested parties to replace the lethal OHT design that is currently sold in shops with a modified design that incorporates an “escape hatch” in the trap roof. This greatly reduces (though doesn’t entirely eliminate) the risk that air-breathing animals drown after entering a trap (see *PN&V*, May 2014). New South Wales, Victoria, Queensland and the Australian Capital Territory have already indicated that this new design will be perfectly acceptable and indeed welcome in their respective jurisdictions.

South Australia was also asked to allow the new design to be introduced on a trial basis. Unfortunately, a senior manager in the Fisheries and Aquaculture Policy section of Fisheries South Australia has recently rejected this request, claiming there is no need to address OHT by-catch mortality because there are no well-established platypus populations on the South Australian mainland and SA’s specification of a maximum 7.5 cm entrance for OHT “was introduced to prevent Water Rats... entering the Yabby pot”.

Research published in 2004 by Dr Tom Grant (in collaboration with New South Wales Fisheries staff) has confirmed that a platypus weighing up to 1 kilogram can pass through a rigid square opening with a perimeter of 22 centimetres, which equates to a circular opening with a 7.5-centimetre diameter. Water-rats are, on average, smaller than a platypus and have an equally streamlined shape. No one should therefore expect a 7.5-centimetre entrance to preclude all water-rats from entering a trap. Clearly, unnecessary deaths of rakali will continue to occur at an unabated rate in South Australia unless OHT and similar enclosed crayfish traps are banned from all waters where the species occurs, or recreational fishers are at least given the option to use safer traps.

NEW GUIDELINES AVAILABLE FOR PLATYPUS FYKE-NETTING

Fyke nets are tubular nets held open by a series of rigid hoops. The hoops also support internal mesh funnels that encourage fish and other aquatic animals to keep moving through a net until they reach a non-return end chamber. One or more long, rectangular mesh panels are attached to the front of the net to help guide fauna through the entrance.

Fyke nets were originally developed to capture eels for human consumption, and are still used for this purpose in Australia. They are also widely deployed by Australian biologists to help carry out fish, platypus or turtle surveys. Nets are set somewhat differently to target each of these groups (platypus nets are shown at right), but in each case are still likely to catch non-target fauna, known as “by-catch”.



In July 2014, a fyke-netting workshop was convened under the aegis of the (then) Victorian Bureau of Animal Welfare, by the Bureau’s Wildlife and Small Institutions Animal Ethics Committee. The WSI AEC regularly reviews the activities of the majority of fisheries and wildlife consultants working in Victoria to ensure that high animal welfare standards are maintained. The workshop’s primary goal was to bring together experienced fyke-netting practitioners to consider whether practical gains could be made in how nets are set or monitored to reduce potential risks for both target and non-target species.

Following much lively discussion and redrafting of text over many months, three sets of guidelines respectively outlining recommended fyke-netting procedures for fish, platypus and turtles were reviewed and approved by the WSI AEC when the Committee met in November 2015.

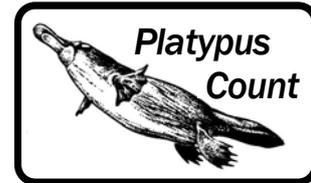
Apart from contributing to improved animal welfare outcomes, these guidelines should help to streamline new project applications and the annual research review process both for field biologists and WSI AEC members.

In the case of the new platypus guidelines, a specific recommendation is provided for the first time regarding the maximum length of time that a captured platypus can appropriately be held before being released to resume feeding (4 hours), and information about the platypus’s thermoneutral zone (defined as the range of ambient temperatures in which an animal can maintain a comfortable body temperature simply by regulating its peripheral blood flow) is incorporated into recommendations regarding how often nets should be checked during the night. Protocols to reduce associated risk to sensitive by-catch (such as ducklings and migratory fish) are also outlined.

The guidelines still need to be formally ratified and are now being looked at by staff of the Department of Economic Development, Jobs, Transport and Resources (the government body in which the WSI AEC sits) with a view to approving the documents for wider release as soon as possible. Persons wishing to obtain more information should get in touch with Max Campbell, Executive Officer for the WSI AEC (Max.Campbell@ecodev.vic.gov.au).

Meanwhile, a longer and more detailed technical report providing information about platypus live-trapping and handling methods (co-authored by APC biologists and Josh Griffiths from **cesar** consulting) is now available on the Conservancy’s web-site.

PLATYPUS COUNT: QUEANBEYAN RIVER

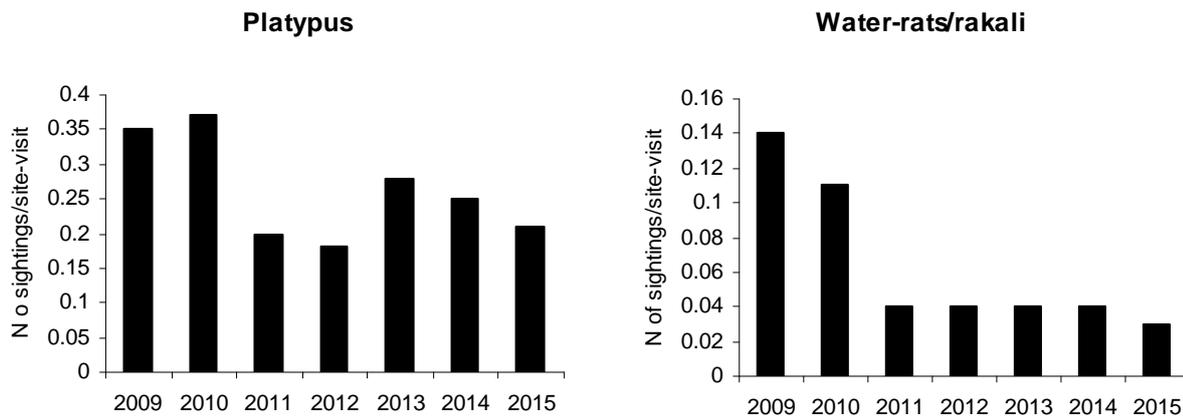


The Queanbeyan River flows for a little more than 100 kilometres from its source on the flanks of Bald Mountain (east of Bredbo, New South Wales) to its confluence with the Molonglo River in the Australian Capital Territory. Its name is believed to have been derived from a word in the local aboriginal Ngarigo language, meaning “clear water”.

In May 2009, the APC helped to establish a *Platypus Count* monitoring program along the lower reaches of the Queanbeyan River, mainly in and near Queanbeyan township. This study area has proven to be quite special, in that it's provided an opportunity for a small but highly dedicated group of community volunteers to monitor the activity of both platypus and water-rat (or rakali) populations using visual methods.



The graphs below show how the frequencies of platypus and water-rat sightings have varied annually in winter (when sightings tend to peak for both species) from 2009 to 2015.



You may recall that the substantial reduction in the frequency of platypus and water-rat sightings recorded in 2011 followed major flooding that occurred at Queanbeyan township in December 2010, when river height peaked at 8.4 metres. A second flood in March 2012 may have contributed to sightings remaining low in the following winter.

Platypus (but not water-rat) activity appeared to be recovering by 2013, but then dropped again in both 2014 and 2015. This apparent downward trajectory is of some concern, given that total platypus population size in the river's lower reaches (downstream of Googong Dam, a major water storage) was estimated by APC biologists to be in the order of just 40 to 80 animals in 2011. A small reduction in the frequency of water-rat sightings was also recorded last year.

It is of course not possible to identify from these graphs which factor(s) may currently be conspiring to limit platypus or water-rat population size in the lower Queanbeyan River. However, it's worth noting that all platypus mortalities documented in this water body since 2011 have (to the best of our knowledge) occurred as an outcome of fishing activities, when animals became entangled in snarled fishing line, were snagged on a barbed hook being pulled through the water, or drowned in an illegally deployed opera house yabby trap.

MORE ON WESTERN AUSTRALIAN RAKALI REPORT

On page 1 we cited some information contained in a very interesting recent report on the Rakali Community Survey 2014-2015 (conducted by World Wildlife Fund Australia and the Western Australian Department of Parks and Wildlife). Although Australian water-rats are generally believed to be secure in the context of their entire national range, there is concern in Western Australia that their distribution appears to be contracting in that state, due mainly to habitat loss and degradation, predation by cats and foxes, and hydrological changes related in part to a drying climate. Rakali are now included in the State Priority Fauna list, meaning that they are deemed to be at risk and in need of monitoring. If you're interested in seeing a complete copy of the report mentioned above, it can be downloaded from wwf.org.au/rakali_results.



VISIT OUR FACEBOOK PAGE

For more news and information about platypus and rakali, including details of unusual or intriguing sightings of these species, visit the **Australian Platypus Conservancy (Official)** Facebook page. Recent sightings of special interest have included a platypus snapped by a remote-sensing camera (believed to be the first time that a wild platypus has been photographed at night by such a device set up as part of a broader faunal survey effort) and also a platypus photographed entering (and then exiting) the confines of a hollow tree trunk.

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SPECIAL THANKS TO OUR SUPPORTERS!

The Australian Platypus Conservancy is a non-profit, non-government organisation. The success of the APC's research and conservation programs relies on funding provided by businesses, management agencies and philanthropic trusts.

Donations from individuals and environmental groups also contribute enormously to the Conservancy's work, by supporting platypus population monitoring, public education activities and special 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.

Australian Platypus Conservancy



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