

Platypus News & Views



Newsletter of the Australian Platypus Conservancy (Issue 59 – February 2015)

MORE NEWS FROM BIRCH'S CREEK

You may recall that we featured an article in August 2013 by Ron Cosgrave, a farmer living near the town of Smeaton in north-central Victoria, describing how platypus disappeared from his part of Birch's Creek (in the Loddon River catchment) following a sequence of extremely dry years and flood events from 2008 to 2011. Ron began to see platypus on his property again in 2013, albeit on fairly rare occasions.

In November 2014, seven platypus were captured along Birch's Creek as by-catch (and then released unharmed) in a fish survey conducted by John McGuckin of Streamline Research. This work was commissioned by the North Central Catchment Management Authority to monitor the status of native fish populations (especially river blackfish *Gadopsis marmoratus*) and ultimately improve management of environmental flows for aquatic wildlife.

Most of the platypus (3 males, 3 females) were encountered at three sites located in the lowest 5 kilometres of Birch's Creek near Clunes. Interestingly, this area largely overlaps the part of the creek where blackfish remain. Both species presumably appreciate the fact that the downstream end of Birch's Creek contains some of the best stream habitat in this system, with plenty of indigenous trees and shrubs on the banks and many large fallen logs and other natural structural features in the channel. The creek's lower reaches also contain a number of permanent, spring-fed pools which undoubtedly provided important refuge areas for both blackfish and platypus when much of the rest of the creek dried up in early 2008.

Only a single platypus was recorded farther upstream at one of seven survey sites, suggesting that post-drought numbers remain relatively low in the creek's upper reaches. On a positive note, the animal (captured at Smeaton) was a female, indicating that population size can reasonably be expected to expand through local juvenile recruitment as long as conditions favour reproduction.

We still don't know how long it typically takes for a platypus population to recover completely after being depleted by severe disturbance events such as a prolonged drought or severe flooding. What *is* known is that the recovery rate is likely to be quite slow: based on nearly three decades of research by Dr Tom Grant, females take at least two years (though sometimes up to four years) to breed successfully for the first time and breeding occurs only once a year. Furthermore, litters generally comprise only 1-2 offspring and, on average, less than half of adult females are expected to breed successfully in any given year.

Current climate models predict that catastrophic droughts will probably tend to occur more often in coming decades.

Common sense suggests that any actions that can be taken to increase the size of local platypus populations through habitat improvement will improve their chance of surviving extended dry periods.

By the same token, managing flows to ensure that refuge areas are available in drought years and females reproduce successfully in wetter years (so numbers can recover before the next drought hits) are both expected to be critical to platypus population persistence.

THE SHY, WATER-LOVING ARISTOCrat

Dr David Fleay was an Australian-born naturalist and wildlife conservationist who is perhaps best remembered for having been the first person to breed a platypus in captivity (in 1943). We thank Rosemary Fleay-Thomson and David Fleay Trustees for kindly allowing us to reproduce these extracts from an article on water-rats by Dr Fleay that first appeared in an Australian magazine, 'Walkabout', in 1948.

The Water Rat is a clean and fastidious feeder and its hunting habits offer interesting avenues of observation. These aquatic mammals are alert and eager killers of fish (eels being particular favourites), fresh water crayfish and mussels and occasionally both young and old water birds, such as ducks, coots and grebes. Years ago on Lake Wendouree in Ballarat, Victoria, I found on a log the sad little skins of three Blue-billed Ducklings I had been watching only the day before. Perhaps evidence of the Water Rat's taste for water birds.

Controversy has centred on this aquatic rat's method of opening such formidable obstacles as fresh water mussel shells without leaving apparent marks of damage. The most revealing description of such an activity was given to me by a fisherman on the Barmah Lakes, Victoria. In 1916 when Water Rats were much more numerous along the great Murray waterway, this man came upon one of these handsomely-coloured rodents hunting its food in a creek in broad daylight. Using a partly-submerged log as a base the rat periodically dived into the water and returned with a mussel. During these underwater excursions (when the Water Rat, unlike the Platypus, is guided by eyesight) the observer edged a little closer until, sheltered among the Red Gum trunks, he was near enough to obtain a clear view. Clambering on the log with a shellfish held in its teeth, the animal took it in its forepaws and gently inserted its formidable incisor teeth round the edges, working back from each of the two long ends...In a surprisingly short space of time, with the severing of the creature's adductor and retractor muscles, the two halves of the shell gaped open, and the rat soon ate the soft exposed shellfish before diving again...

Over the past years the Water Rat's fine, closely furred pelt, usually of a lovely golden brown colour with an orange belly, has been in increasing demand as a commercial fur. Consequently many thousands of the animals are trapped yearly. In 1931 the skins had reached the hitherto unheard of price of 4 shillings (\$0.40) each, and the Victorian Fisheries and Game Department was becoming increasingly alarmed at the possible extinction of a valuable fur bearer. By 1941 the Commonwealth authorities had prohibited the importation of all furred skins in order to save foreign exchange and shipping space, and Australian Water Rat skins jumped to 124 shillings (\$12.40) a dozen...Probably nine or 10 dozen skins would be needed to make a lady's coat! In June 1947, they had skyrocketed to 300 shillings a dozen (\$30), with 31 shillings 6 pence (over \$3) the highest price for one pelt.

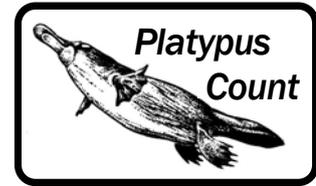


With the virtual disappearance of the animals from many of their old haunts, particularly along some stretches of the Murray River and its tributaries, and even young animals being destroyed, the Fisheries and Game Department of the State of Victoria did the only sensible thing, by eliminating the open season and placing a total ban, not only on the trapping of Water Rats, but also on the sale of their skins...If no general action is taken, there is no doubt that the slow-breeding Water Rat, destroyed and trapped by every device known, including poison, will eventually be wiped out.

(Editor's update: The demand for water-rat pelts fortunately waned by the 1950s and the species is now protected across Australia.)

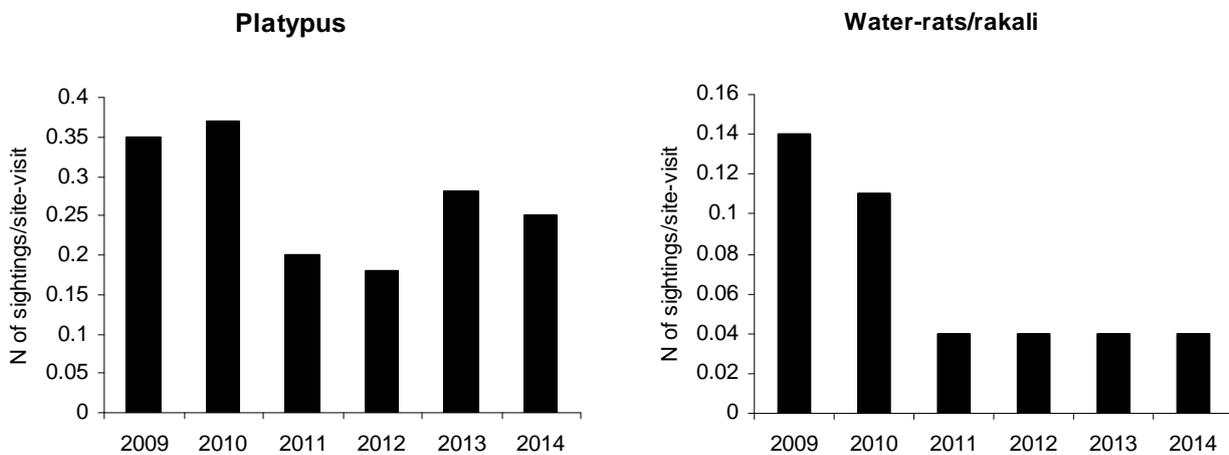
PLATYPUS COUNT UPDATE: QUEANBEYAN RIVER

Platypus and water-rat (or rakali) activity in the Queanbeyan River near Canberra has now been monitored for nearly seven years by a dedicated group of *Platypus Count* participants.



As regular readers may recall, sightings of both species dropped quite substantially by mid-2011 after major flooding occurred in December 2010, remained low in mid-2012 and then (in the case of platypus but not water-rats) showed signs of recovery by mid-2013.

The graphs below summarise the mean (or average) frequency of platypus and water-rat sightings in consecutive winter periods from 2009 to 2014. Slightly fewer platypus sightings were recorded in 2014 than 2013, probably in line with random year-to-year variation. In the case of water-rats, the frequency of sightings has remained the same for the last four winters. In turn, this suggests that both platypus and water-rat numbers haven't changed much in the Queanbeyan River monitoring area in the last two years. The likelihood that one will see a platypus when visiting this river in winter also continues to be much (more than six times) higher than the likelihood of seeing a water-rat.



Queanbeyan City Council engaged the APC to develop a Platypus Awareness and Conservation Strategy (PACS) in 2011. This document includes guidelines to help ensure that the needs of platypus are routinely taken into account in the council's planning processes. The benefits of this approach were recently demonstrated in relation to the Riverfront Precinct component of the Queanbeyan CBD Stage 2 Improvements project.

Initial draft plans for the riverside area called for construction of a vertical concrete embankment to help support a pedestrian pathway close to the water. This would have resulted in a substantial section of bank habitat becoming inaccessible to both platypus and water-rats. However, as recommended by the PACS, this proposal was reviewed from a platypus management perspective, including input from APC biologists. As a result, a new plan has been formulated that retains soil banks in all but a very short stretch of river frontage, thereby ensuring that platypus and water-rats continue to have access to burrow sites.



Also arising out of the PACS, the CBD redevelopment project includes draft plans for a viewing platform with interpretive signage overlooking one of the large pools where platypus and water-rats are frequently spotted. This facility will aim to promote community awareness of these animals and their conservation needs. It will also foster local ecotourism by attracting visitors who want to observe a platypus in the wild.

FORTHCOMING APC TALKS

- Friday 20 March – talk on water-rats/rakali at Bairnsdale Field Naturalists Club
- Saturday 21 March – talk on water-rats/rakali at Coastcare workshop, Paynesville
- Wednesday 29 April – talk on platypus at Wonga Wetlands, Albury

For further information, please contact the APC.

FLICKRING PLATYPUS

Sharon Wormleaton has sent us platypus sighting reports from her travels around the country for many years. She has also captured many great photos, including the first image from the wild confirming that platypus sometimes do open their eyes underwater. To see some of Sharon's amazing platypus images, you can visit her Flickr portfolio at:

<https://www.flickr.com/photos/swormleaton/sets/72157647929297393/>



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 ■ Friends of the Earth Melbourne ■ 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

www.platypus.asn.au Facebook: Australian Platypus Conservancy (Official)

Platypus News & Views (formerly Ripples) is published by the Australian Platypus Conservancy.
ABN 64 255 612 676 Print Post Publication Number 335708/0022