Platypus News & Views

Newsletter of the Australian Platypus Conservancy (Issue 60 – May 2015)

NEW REGULATIONS ARE A PLUS FOR PLATYPUS

New recreational fishing regulations came into effect in Queensland on 1 February 2015 that should help to reduce platypus mortalities in that state.

Set lines (unattended fishing lines) are now banned in all non-tidal waters, bringing Queensland into line with most other Australian jurisdictions. Many instances are known of set lines causing a platypus to drown or die from exhaustion after the animal was attracted to live bait and became hooked through the bill.

In addition, enclosed fish or crustacean traps fitted with internal funnels and an entrance that measures more than 5 centimetres in width (including standard opera house traps) are now banned in most waters east of the Great Dividing Range where platypus are known to occur. Enclosed funnel traps can drown turtles and water-rats as well as platypus when animals enter a submerged trap and are unable to locate an escape route before running out of oxygen. Queensland is therefore again to be applauded for taking action to reduce wildlife mortality rates.

However, use of enclosed funnel traps will remain legal in 44 impoundments that are both stocked for recreational fishing and located in coastal drainages where platypus may occur.

Given that platypus enjoy feeding in slow-moving pools and backwaters and happily dive to a depth of six metres or more in search of prey, some and quite possibly all of these impoundments are likely to provide areas of suitable platypus foraging habitat that will attract this species, particularly at the upstream end of reservoirs.

While acknowledging that the new Queensland rules are a very welcome step in the right direction, the Australian Platypus Conservancy believes that the risk to platypus in stocked coastal impoundments could and should be further reduced by ensuring that all enclosed funnel traps are fitted with an escape hatch in the roof that is the same size as other entry points (see *PN&V* 56, May 2014).

The Conservancy (in partnership with the Taronga Conservation Society) is currently working with the Australian Fishing Trades Association to ascertain whether manufacturers will be willing to start producing opera house traps for sale across Australia that are fitted with an escape hatch as a standard feature, without any prior changes to legislation being required.

While this change is predicted to substantially reduce the number of platypus that drown when opera house traps are deployed (legally or illegally), research carried out by Dr Tom Grant and the APC has shown that some animals (particularly juveniles) will fail to escape in time even if an escape hatch is available.

In places where recreational yabbying based on use of funnel traps continues to be permitted and platypus may occur, very careful monitoring is therefore needed to determine whether this practice presents an unacceptable risk to animals. In addition, ongoing public education is required to ensure that all recreational anglers understand the circumstances when funnel traps are likely to endanger non-target wildlife.

HARBOURING RAKALI

Sightings of whales in Sydney Harbour have been increasingly common in recent years. Over the same period, a much smaller but still attractive native mammal appears to have been on the rise in Sydney's foreshore habitats – namely, the Australian water-rat or rakali.

The APC received its first report of a water-rat being seen in Sydney Harbour in 2011. Additional records soon followed. Sightings made in or near the harbour represented 17% of all New South Wales water-rat sightings reported from 2012 to 2013. Since the start of 2014, this figure has jumped to a remarkable 56%. There has been no targeted publicity to encourage persons living in the Sydney area to report water-rat sightings to the Conservancy, so the change presumably reflects genuine growth of the urban rakali population.

Manly and Mosman currently appear to be prime hot spots for rakali sightings in the greater Sydney area. The species has also been observed in Clontarf, Roseville, Balmain, Iron Cove, North Harbour (at Baskets Beach) and near the bridge that connects The Spit with Seaforth.

Water-rats nearly vanished across much of southeastern Australia during the long course of the Millenium Drought (which ended in 2010 in New South Wales). These animals become reproductively senescent at the age of 3-4 years – individuals may survive for a bit longer, but they don't breed. So, if environmental conditions are too dire to support at least one successful round of reproduction in every 3-4 years at a given locality, the species is likely to disappear from that area.

Fortunately, rakali numbers can potentially build up quite rapidly when better times return. Although water-rat fertility is not particularly high by rodent standards, females can in theory produce up to three litters a year in favourable circumstances, with 3-5 babies typically born per litter. Water-rats are also excellent dispersers, with one radio-tagged individual documented to travel 3.1 kilometres in less than 6 hours.

Water-rats are also very adaptable when it comes to where and how they forage and what they eat. Their diet most typically includes fish and aquatic invertebrates such as large insects, snails, mussels and crayfish. However, one ambitious water-rat was observed swimming with a fully grown dead coot in its mouth, and the remains of frogs, turtles, house mice, bird eggs and even bats have been identified in water-rat scats. As well as occupying a broad array of permanent and ephemeral freshwater habitats (such as swamps and billabongs), water-rats are perfectly at home in brackish estuaries and even on ocean beaches.

The circumstances surrounding water-rat sightings in the Sydney area certainly attest to this species' ability to take advantage of whatever new opportunities may arise in the modern world.

For example, one animal was spotted on the decking of a busy waterfront bar at Manly, darting below tables to find scraps of food dropped by diners, apparently oblivious to bustling human activity and loud music!

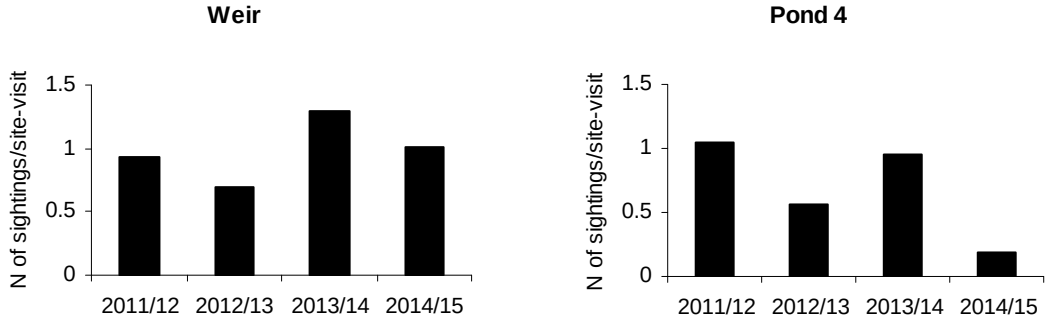
Another water-rat was observed surreptitiously helping itself to some of the catch landed on a ferry wharf by an unsuspecting angler, who continued to deploy his fishing rod just a short distance away.

PLATYPUS COUNT UPDATE: TIDBINBILLA

The volunteer guides at Tidbinbilla Nature Reserve (southwest of Canberra) have generously contributed data to the *Platypus Count* monitoring program for the past four years. In *PN&V* 57, we considered how the frequency of platypus sightings has varied among years at a weir pool in the Tidbinbilla River (the site where animals are generally seen most often in the Reserve).

In brief, there was very little change in the amount of platypus activity from one mating season (August-October) to the next, presumably because the weir pool has supported a stable population of breeding males throughout the entire monitoring period. Platypus activity varied more among lactational periods (December-February), presumably due to year-to-year differences in the number of females working hard to raise offspring in or near the pool.

The graphs below show the average frequency of platypus sightings recorded in the past four summers at the Weir and at Pond 4 (the next best place to see a platypus at Tidbinbilla).



As you can see, the pattern of platypus sightings at these two localities didn't vary much in the first three years of the study, with respect to both overall average frequency (0.98 sightings/site-visit at the Weir, 0.85 sightings/site-visit at Pond 4) and how they changed from one year to the next. Platypus sightings at the Weir remained in line with expectations last summer (1.01 sightings/site-visit). In contrast, platypus sightings at Pond 4 declined sharply last summer, to only 0.19 sightings/site-visit.

Those of you who follow the Conservancy's Facebook page may recall that a few weeks ago we posted a link to some remarkable video footage obtained by Stephen Wallace when he visited Tidbinbilla in late February of this year. For those of you who don't spend time on Facebook, the footage can be viewed at the Internet Bird Collection web-site (ibc.lynxeds.com/node/293171). It shows an Australian pelican (*Pelecanus conspicillatus*) repeatedly trying to grab a platypus swimming nearby. The footage was obtained at Pond 4, where similar behaviour has been noted on other occasions in recent months.

Pelicans are mainly adapted to eat fish by using their hugely expandable lower bill pouch as a kind of net. However, the pelican bill also has a hooked tip that can be used to grip prey, and these birds have been known to dine on ducklings, turtles and even unlucky gulls when fish are in short supply. So, it's actually not all that surprising that a pelican might consider a platypus to be suitable tucker. Fortunately (from the platypus's point of view), the pelican bill is a fairly unwieldy weapon, and the footage captured by Stephen Wallace indicates that the platypus escaped unscathed.

Nonetheless, it must be acknowledged that one explanation for the recent drop in platypus sightings at Pond 4 is that population size may have contracted there, perhaps at least partly due to pelican predation. Alternatively, it's possible that the platypus occupying Pond 4 may have responded to pelican harassment by shifting their home ranges to feed elsewhere in the Reserve – or by spending more time foraging at night when a pelican can't easily see them.

SNOWY RIVER PLATYPUS TOURS

Alpine River Adventures is offering three 5-day paddling tours (one each in June, July and August 2015) along a 70-kilometre section of the Snowy River in the Byadbo Wilderness area of Kosciuszko National Park. Platypus are abundant in this system and participants will help to collect baseline population information using the APC's *Platypus Count* visual survey methods. For more details, contact Alpine River Adventures on (02) 64533016 or riverguide@outlook.com (or visit www.riverguide.com.au).

HELPING US TO HELP 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.

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.

MISSED AN EDITION OF *PLATYPUS NEWS & VIEWS*?

Believe it or not, the first issue of the Conservancy's newsletter was published just over 20 years ago, in March 1995. Back issues of *Platypus News & Views* (formerly *Ripples*) from Issue no. 14 onwards can be found on the APC website (www.platypus.asn.au).

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

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