Platypus News & Views

Newsletter of the Australian Platypus Conservancy (Issue 72 – May 2018)

VICTORIA BANS OPERA HOUSE TRAPS!

Victoria will ban the use of opera house yabby traps (OHTs) in all waters, both private and public, starting from 1 July 2019. State Minister for Agriculture, Jaala Pulford, announced that this change to Victoria's recreational angling regulations had been made to stop the bycatch deaths of platypus, rakali and turtles in OHTs and other types of enclosed nets. The new rules will only allow recreational yabbying methods that pose no risk to platypus and other aquatic air-breathing animals. These are expected to include hoop nets, open-top lift nets and the traditional technique of dangling bait in the water on a piece of (hookless) string.

We understand that a similar regulatory change is also currently under consideration in New South Wales, and that the ACT is generally inclined to act to keep its rules aligned with NSW. OHTs are already not approved for use in Tasmania and Western Australia. The remaining jurisdictions where traps continue to be used include Queensland (where legal use of OHTs is largely restricted to private waters in the east of the state though permitted in all western waters) and South Australia and Northern Territory (where OHTs can be legally used everywhere, in both public and private waters).

In other good news, Anglers Warehouse, Kmart, BigW and eBay have all indicated that they will discontinue stocking OHTs and Anaconda has decided to stop selling OHTs online. In announcing its decision, Anglers Warehouse noted that it had originally sold OHTs because its supplier claimed that the traps posed no threat to platypus because a rigid ring was fitted around their entrance funnels. However, this is not true: research has established that there is no such thing as a completely safe OHT from a platypus's point of view. At this point in time, BCF and Aussie Disposals are the only remaining major chains which have not yet fully committed to removing OHTs from all sales outlets.

The recent progress in reducing the OHT threat comes about as the result of hard work by many people over many years. In particular, Dr Tom Grant of the University of New South Wales was one of the first to identify the risks that these traps pose to wildlife and to bring these risks to the attention of fisheries managers. Research conducted by Tom in 2004 provided confirmation that platypus are capable of squeezing through very small openings, indicating that there is no realistic way to exclude platypus from traps except by making entrances so small that this will reduce the likelihood that yabbies are captured.

Tom also worked with APC researchers to test whether the standard OHT model could be structurally modified to eliminate bycatch mortalities. This study (supported by the Taronga Conservation Society) determined why platypus are unable to find their way out of traps (because they characteristically look for an exit in the wrong part of the trap), and also provided hard evidence that there is no way to modify traps to enable all animals to escape (see *PN&V* no. 56, 61, 66 and 69). We understand that these findings were crucial in convincing fisheries managers of the need for reform, along with advice from (particularly) peak recreational angling bodies VRFish and the Recreational Fishing NSW Advisory Council.

In addition, lobbying by many other groups and thousands of concerned individuals has contributed significantly to encouraging politicians and retailers to adopt genuine change. Many thanks to all for their hard work to achieve this great conservation outcome for platypus.

MORE SIGHTINGS PROVIDE HOPE FOR SMALL PLATYPUS POPULATIONS

The last issue of *PN&V* contained the exciting news that the first reliable platypus sighting in many years had been reported for the lower Wimmera River at Dimboola in western Victoria. The animals were occasionally seen at this location up until the early 2000s, but were thought to have died out in the later years of the Millenium Drought. Factors that are believed to have contributed to the decline include the widespread use of illegal drum nets and gill nets in which platypus drowned as bycatch, inadequate river flow and (as flow declined) increased salinity and loss of pool habitat due to sedimentation.

More good news has now come to light with another platypus sighting made independently at Dimboola in mid-April, this time by experienced birdwatchers who were confident that they had seen a platypus.

Meanwhile, in the upper reaches of the Wimmera River, a large platypus was spotted in late April by Steven Start on his farming property located near Crowlands. The farm has been owned and operated by five generations of Steven's family, and platypus have reputedly always lived there since the farm was first established. However, sightings have been extremely rare since the exceptionally dry summer of 2006/07, when the Wimmera River in and upstream of Crowlands shrank to a series of isolated pools collectively encompassing just a few hundred metres of channel. Steven can only recall seeing a platypus on one other occasion in the last 10 years, when he watched an animal fossicking for food among coarse gravel and pebbles at a nearby site about 5-6 years ago. His most recent sighting is valuable both in confirming that platypus continue to survive in the upper Wimmera catchment, and in identifying an important local habitat for the species.

In addition to the above, the APC received a report in mid-April that a platypus had recently been observed in the Chowilla Game Reserve in South Australia, not far from the Victorian border. The observers were able to watch the animal for 3-4 minutes as it foraged among overhanging tree roots and gradually moved upstream, and saw its bill clearly – they were certain that the animal was not a water-rat. The sighting occurred along a minor tributary of the Murray River, a short distance as the platypus swims (about 1.5 km) from the Murray River's main channel. To the best of our knowledge, this is the first reliable report of a live platypus being recorded in the Murray system downstream of Swan Hill in more than 15 years.

The sightings described here appear to be part of a broader pattern of platypus population recovery in Victoria following the Millennium Drought, which included the longest sequence of years with below average rainfall (from 2001 to 2009) to occur in southeastern Australia since at least 1900. The time frame required for a platypus population to rebuild its numbers in the aftermath of such an event will partly be limited by the fact that males and females both require two years to mature. Litter size is also quite low – most typically comprising just one or two juveniles – and it is by no means uncommon for a female to fail to raise young in any given year. In places where platypus vanish entirely in the course of a drought, additional time – possibly many years – will have to pass before surplus juveniles produced elsewhere have a chance to recolonise the vacant habitat.

Post-drought population recovery has undoubtedly been helped along by the fact that a great deal of effort has gone into improving habitat quality along Victorian streams and rivers in recent decades. The delivery of environmental water from major water storages is also becoming increasingly sophisticated in how it's managed on behalf of wildlife.

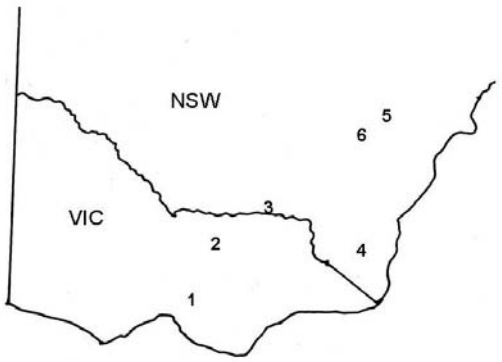
To further support long-term recovery, it's vital that persons enjoying Victorian waterways – particularly anyone who camps or fishes – be aware that these animals may literally pop up nearly anywhere, even in places where a platypus may not have been seen in many years. In particular, take care to pick up litter and engage in platypus-friendly fishing practices, including knowing how best to respond if a platypus becomes accidentally snagged on a fishing hook (see page 4).

***PLATYPUS COUNT*: SEASONAL VARIATION IN SIGHTINGS**

In *PN&V* no. 69, we identified the peak month for platypus sightings as recorded by *Platypus Count* volunteers along six rivers in Victoria, New South Wales and the ACT, and found that animals were most likely to be seen in either August (3 rivers) or September (3 rivers).

We'd now like to consider two related questions: (1) When are platypus *least* likely to be seen in the year, and (2) how much does the frequency of platypus sightings vary across seasons?

To answer these questions, we relied on information supplied by *Platypus Count* participants from the same six study areas as before, including the middle part of the Yarra River in the Melbourne suburbs of View Bank and Lower Templestowe (1), the Broken River just upstream of Lake Benalla (2), the Murray River at East Albury (3), the Bombala River at Bombala township (4), the Queanbeyan River at Queanbeyan township (5), and the Tidbinbilla River weir pool in Tidbinbilla Nature Reserve (6).



The table below indicates the seasons when platypus were respectively seen most often and least often along each of the six rivers. The difference between the likelihood of seeing a platypus in the most and least favourable seasons is calculated in the final column – for example, in the case of the middle Yarra River, the frequency of platypus sightings was on average 2.8 times higher in winter than in summer.

River	***Monitoring period***	***Season with the highest sightings***	***Season with the lowest sightings***	***Difference between highest and lowest***
Yarra	2008-2016	winter	summer	2.8
Broken	2011-2016	winter	summer	2.0
Murray	2010-2016	spring	autumn	4.2
Bombala	2008-2012	spring	autumn	1.7
Queanbeyan	2009-2016	winter	summer	1.7
Tidbinbilla	2011-2016	winter	summer	1.3

Not surprisingly, the best seasons for spotting a platypus in these six rivers were found to be either winter or spring. In contrast, the lowest frequency of sightings was most typically recorded in either summer (4 rivers) or autumn (2 rivers). The greatest seasonal variation in sightings occurred along the Murray River at Albury, where the frequency of spring sightings was 4.2 times greater than that in autumn. The lowest seasonal variation in sightings occurred at Tidbinbilla Nature Reserve, where predator-proof fencing may plausibly also restrict platypus movements into and out of the area being monitored.

Regular readers of *PN&V* will be aware that many factors can potentially contribute to variation in how often platypus are seen. Along with overall changes in population abundance, diurnal activity may be influenced by adult sex ratio and reproductive success: males are believed to be more active during the winter-spring breeding season than females, with the opposite generalisation applying at the height of lactation in summer. The amount of activity during daylight hours may also be affected by water temperature (*PN&V* no. 58), interactions with predators (*PN&V* no. 60) or high flow events that reduce prey availability and thereby motivate platypus to work longer hours (*PN&V* 52, 54, 55 and 62). At the same time, platypus may be somewhat harder to spot during turbulent post-storm flows (*PN&V* 52, 61 and 62).

However, leaving finer detail aside, the key take-home message is that the next few months should provide favourable platypus viewing opportunities in many parts of the species' range.

GETTING PLATYPUS OFF THE HOOK

A surprisingly large number of platypus are caught on fishing lines, including those fitted with artificial lures. Most typically, a platypus will be hooked through its bill or a front foot. Cutting the line and leaving the hook embedded will certainly result in the animal experiencing pain over a sustained period and may result in its death. The APC has heard many reports of a platypus being found drowned after line trailing from a hook became tangled around submerged branches or tree roots.

It is therefore essential that an embedded hook always be removed before an animal is released. When handling a platypus, take extreme care to avoid the poisonous spurs located on the heels of adult males. Platypus venom is not considered to be life-threatening to humans but it can cause a lot of pain and swelling. Unless you definitely know that a platypus is not equipped with spurs, **never place your hands under the animal or support it from below using your leg or arm.** Instead, lift the platypus by gripping it firmly around the middle or end of the tail, as shown at right.

If the hook cannot be removed safely and easily, consider taking the platypus to a local veterinarian for help. Because these animals are talented escape artists, it's generally best to transport them in a cloth bag (like a pillow case) that is securely tied shut. A platypus may also be transported in a sturdy box fitted with a strong cover or lid, as long as the container is well ventilated so the platypus can breathe. It's also essential to keep a platypus reasonably cool (ideally at around 20-25^{o}C) to ensure it doesn't lethally overheat.

APC EXTENDS RAKALI SURVEYS TO THE ACT

The Australian Platypus Conservancy is commencing a community-based survey of the water-rat or rakali in the ACT and neighbouring parts of NSW. This project will build on the success of a similar study by the APC to establish the status of this species in Victoria (see *PN&V* no. 70). The Norman Wettenhall Foundation is again helping to support the rakali survey; local partners include the Field Naturalists Association of Canberra and National Parks Association ACT. All new data will be shared with Canberra Nature Map and Atlas of Living Australia to ensure that it's publicly accessible. The ACT water-rat survey will be officially launched with a talk at ANU's Slatyer Seminar Room on Thursday 2 August. Other talks and rakali-spotting sessions will be held throughout the Greater Canberra region in 2018/19 to build awareness of this very special animal.

PLEASE HELP US TO HELP THE PLATYPUS

If you'd like to support the work of the Conservancy you'll be pleased to know that donations and bequests to the APC are tax-deductible. Funding from individuals and environmental groups is vital in facilitating projects that can't otherwise be readily funded by grants from philanthropic trusts or corporate sponsors, including platypus population monitoring and public education activities.

Australian Platypus Conservancy

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