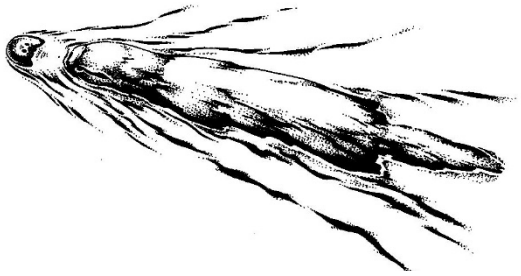
Platypus News & Views



Newsletter of the Australian Platypus Conservancy (Issue 87 – February 2022)

POSITIVE PLATYPUS FINDINGS FOR THE WERRIBEE RIVER

The Wathaurong-speaking traditional owners of the forests and volcanic plains grasslands around the Werribee River knew this waterway as Wirribi Yaluk, meaning Backbone River.

The Werribee arises in state forest north of Ballan and flows approximately 110 kilometres before joining Port Phillip Bay near Werribee township, at the south-western edge of greater Melbourne. Its catchment lies in a rain shadow cast by the Otway Ranges and is the driest patch of Victoria found south of the Great Dividing Range. The river's ability to sustain platypus is also being challenged by rampant urban growth and associated pressures as Melbourne continues to expand. Werribee township's human population grew by 6.6% in 2020 alone, and that of Bacchus Marsh, situated along the river's middle reaches, is forecast to increase by 57% within the next 20 years.

Last year, two community groups working hard to improve conditions for platypus in the Werribee system – the Werribee River Association and Bacchus Marsh Platypus Alliance – asked the Conservancy to conduct a platypus fyke-netting survey in the Bacchus Marsh area. The fieldwork was originally scheduled for the spring of 2021 (when the number of animals entering nets tends to be highest), but ended up getting postponed due to covid-related logistical hurdles along with high spring rainfall that made it difficult to set platypus nets in most Victorian rivers.

A number of platypus fyke-netting surveys had previously been carried out in and near Bacchus Marsh by a biological consulting firm with very little success: only one animal (an adult or subadult female captured in 2011) was ever recorded in the course of at least 13 different surveys conducted over a 10-year period from 2008 to 2017. The consultants concluded that platypus were effectively extinct in the Werribee River at Bacchus Marsh: "…only occasional vagrant individuals use this stretch of river…although anecdotal reports from local residents indicate a more permanent population may have existed prior to the Millenium Drought."[1]

The Bacchus Marsh Platypus Alliance (a not-for-profit community group run by volunteers) was formed in mid-2019 to advocate, educate and initiate activities to protect platypus habitat quality and the animals themselves in nearby parts of the Werribee River.

After reaching out to the local community, the Alliance was heartened to receive reliable reports that platypus were still being observed in the vicinity (with local residents sharing details of 20 different sightings to date, spanning the years from 2016 to 2022). In addition, eDNA testing funded by Melbourne Water in mid-2019 detected platypus DNA in river water at sites located both at Peppertree Park (near the centre of Bacchus Marsh township) and a few kilometres upstream of the township near Bacchus Marsh Weir. An equivocal result (one of six replicated samples testing positive) was recorded a short distance downstream of the township at Woolpack Road.

[1] J. Griffiths and A. Weeks. (2018). *Platypus strategic management plan for Melbourne's catchments*. (Report prepared for Melbourne Water by cesar pty ltd).

(Continued on next page)

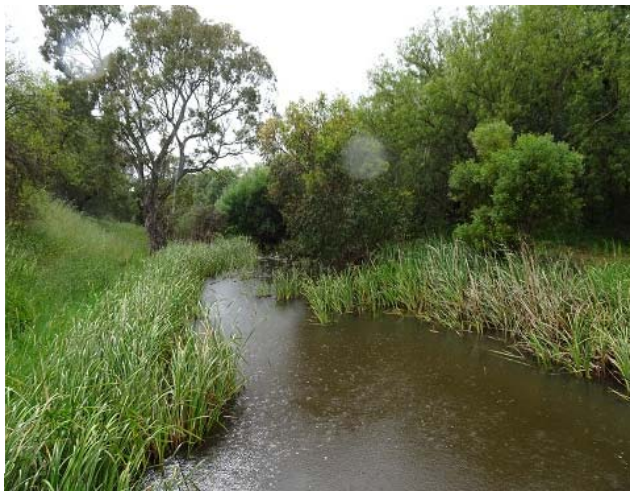
POSITIVE PLATYPUS FINDINGS FOR THE WERRIBEE RIVER (cont. from page 1)

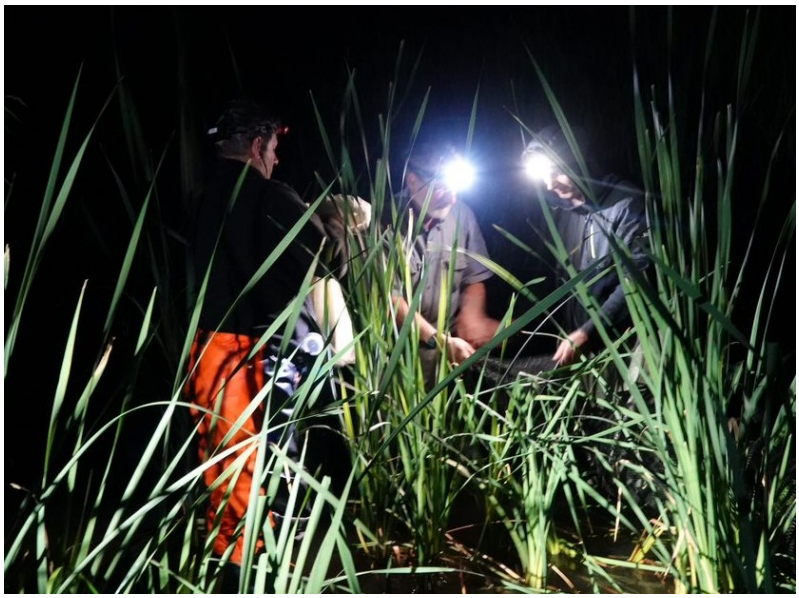
The Conservancy finally was able to conduct its much-delayed Bacchus Marsh platypus survey work in January and early February of this year. Pairs of fyke nets were set at sites dotted along roughly 10 kilometres of channel and monitored throughout the night at regular 2-hour intervals. The survey team was pleased to record the captures of four platypus, including two adult males, a subadult (second-year) male, and an adult/subadult female. Two animals were rated as being in average physical condition, with the other two rated as being at the upper end of average. The mean (or average) frequency of platypus captures in the survey area was 0.4 animals recorded per site per night. According to the scale used across the greater Melbourne region in recent years, the abundance of the Bacchus Marsh platypus population is appropriately ranked as being “Moderate”.

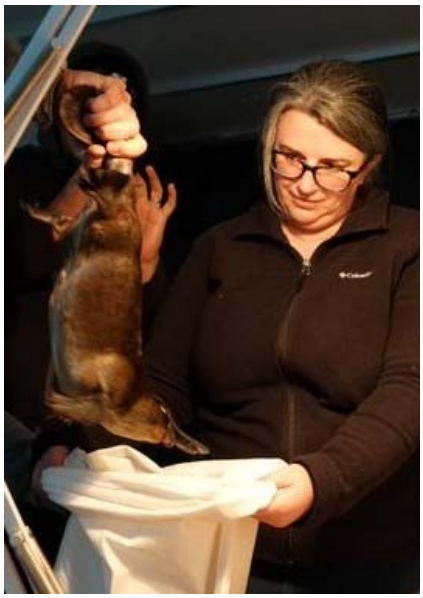
Photo (at right) - One of the platypus capture sites in the Bacchus Marsh survey area (photo credit, APC).

Photo (below left) - Removing a platypus from the end of a fyke net. L to R: Marty White (biologist, Ecology Australia), Geoff Williams (APC), Meysam Khodaparast (PhD student, La Trobe University) (photo credit, J. Valpied).

Photo (below right) – Jodie Valpied (president, Bacchus Marsh Platypus Alliance) at 4 am with an adult male platypus (photo credit, M. White).







Based on the best available evidence (our live-trapping results along with recent sightings and eDNA findings), we consider it likely that the many substantial pools along the Werribee River at Bacchus Marsh support in the order of 2.5 to (possibly) as many as 5 individuals on average per kilometre of channel. The estimated total size of the platypus population between Bacchus Marsh Weir and Melton Reservoir is therefore around 30-60 animals – numerous enough to constitute a respectable population but not so large that the population’s long-term survival should be taken for granted.

We look forward very much to continuing to assist the Bacchus Marsh Platypus Alliance and Werribee River Association (along with their partner organisations) to protect these animals and their environment.

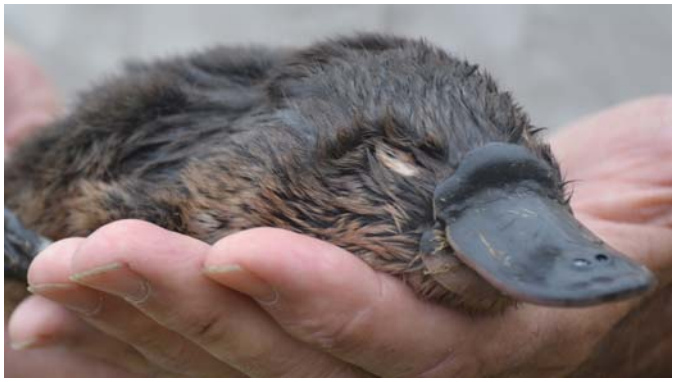
HOW TO HELP A DISPLACED PLATYPUS

A juvenile platypus typically emerges from its nesting (or nursery) burrow for the first time in mid-summer (though possibly a bit earlier at the northern end of the species' range in Queensland and up to 6 weeks later in Tasmania), when it's around 3-4 months old.

At this age, youngsters face a steep learning curve if they are to survive – it is believed that their mothers will continue to provide milk for at most a few weeks before juveniles are left to fend for themselves. However, it's also likely that most recently weaned juveniles will continue to share their mother's home range until at least late autumn, when many choose to disperse in search of a suitable home of their own. In the intervening period they continue to grow but also tend to lose condition, becoming skinnier as they compete with their mother, siblings and neighbours for food.

First-year juveniles are far more likely than older animals to be encountered by a human on dry land, either near a creek or river or in an unexpected setting such as a puddle by the side of a road. The person is then faced with having to decide what (if anything) should be done to assist the animal's survival.

In some cases, a juvenile may be in genuine trouble and unable to survive without human intervention. This is particularly likely to be true for very small juveniles that have only recently emerged from a nesting burrow and are also in poor condition. For example, a tiny and very weak female was recently found at Malmsbury in Victoria, lying about 30 metres from the edge of the Coliban River (see photo at right).



Tragically, she died very soon after being discovered, just minutes before APC biologists arrived to assess her status and suggest how best to help her. There was no indication that this little female had either been entangled by litter or attacked by a predator, but she was extremely thin – suggesting that her mother might have died some days (or weeks) earlier, or that she herself might somehow have gotten lost and been unable to find her way home again.

However, we also know of cases when bright, healthy juveniles have been removed from the wild when they most likely were just goofing around near their nesting burrow and not really in any danger. In other cases - particularly in autumn or early winter - juveniles that are encountered far from the nearest surface water are most likely to be dispersing individuals that are engaged in normal (though inherently perilous) natural behaviour.

Deciding what to do with a displaced platypus will depend on the animal's behaviour, physical condition (fat vs average weight vs thin), age class and the circumstances in which it is found, along with any evidence of injury. If an animal is alert, active and otherwise in good shape, the best outcome is likely to be achieved by releasing it immediately in the nearest creek or river. In other cases, the animal should be taken promptly to a veterinarian (ideally one with wildlife experience) for assessment and possible treatment.

To assist decision-making, a new document is now available on the APC website, *Platypus Rescue Guidelines* (https://platypus.asn.au/2022/03/01/platypus-rescue-guidelines/). Along with describing how to assess a platypus's physical condition, it provides advice about practical issues such as how to pick up a platypus (bearing in mind that adult males are equipped with venomous spurs) and how to keep an animal reliably confined during transport. A representative array of wildlife rescue groups and zoos/sanctuaries containing a veterinary department with platypus expertise is also listed (along with phone contact details and hours of availability), providing a useful starting point to gain quick assistance on the day when it's needed.

THE TAIL TELLS THE TALE

As described on page 3, a rescued platypus's physical condition is important information when deciding how best to help the animal. Because a platypus stores around half of its total body fat in its tail, applying a gentle "squeeze test" midway along the tail's length can provide useful insight into the animal's overall physical condition.

In a nutshell, the tail of a platypus that is in really excellent condition will be packed so firmly with stored fat that the tail edges will barely bend inwards when pressed. In contrast, the tail edges of a really thin animal will be so depleted of energy reserves that they can easily be made to touch each other (as shown at right); in slightly more extreme cases, the whole tail can be folded in half along its length.

Not surprisingly, the tails of most wild individuals normally attest to an intermediate, average condition – the edges can be bent inwards but the middle 30-60% of the tail remains firm and unbending. Interestingly, research conducted by Drs A. J. Hulburt and Tom R. Grant has found that the average adult platypus has enough energy stored in its body fat to survive approximately 3 weeks of fasting in summer or 2 weeks in the colder winter months.

By comparison, juveniles were typically found to have enough body fat to survive for an estimated 4 weeks at the time they first enter the water – an important energy reserve to assist their survival as they learn to find food on their own. However, this is reduced to just 6 days by the end of a juvenile's first winter, testifying to the very genuine challenges facing a young platypus trying to make its way in the world.

SOME FORTHCOMING APC TALKS AND WEBINARS

Now that Covid restrictions have been largely lifted in Victoria, the APC is once again able to present face to face public talks and information sessions as well as offer online webinars.

The locations of platypus talks scheduled to take place in regional Victoria this coming autumn/early winter include Bright (Saturday 30 April, as part of the Upper Ovens Landcare forum), Kergunyah (Sunday 1 May), Wodonga (Monday 2 May), Howqua (Saturday 7 May), Upper Murray catchment (Sunday 8 May and Monday 9 May), Newham (Friday 20 May) and Seymour (Sunday 5 June). A rakali webinar organised at the request of Mitchell Shire will also be conducted on Tuesday 24 May.

Visit the APC Facebook page closer to the time of these events for venue locations and starting times.

Australian Platypus Conservancy

PO Box 115, Campbells Creek VIC 3451
(03) 5416 1478 platypus.apc@westnet.com.au
www.platypus.asn.au
Facebook: Australian Platypus Conservancy (Official)

Platypus News & Views is published by the Australian Platypus Conservancy (ABN 64 255 612 676)