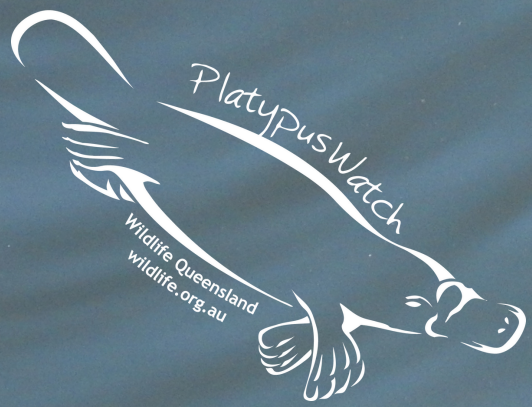


Platypus Watch



WOLSTON CATCHMENT RESULTS



Dedicated to a better Brisbane



Proudly supported by the Lord Mayor's Environment Grant

Background

The platypus is an iconic semi-aquatic mammal endemic to eastern Australia. Platypuses inhabit a range of waterway types, land uses, and environmental conditions, but their general habitat requirements include permanent water, abundant macroinvertebrates, and stable earthen banks for burrows. Although few studies have quantified the impacts of various threats, platypuses are potentially vulnerable to anthropogenic activities that impact their aquatic habitat and food resources, including altered flow regimes, land clearing, poor water quality, bank erosion and subsequent sedimentation, and fragmentation.

Due to mounting evidence of population declines at local and sub-catchment scales, the conservation status of the platypus is now listed as vulnerable in Victoria. They are being considered for listing at a national level. Their status in Queensland has not been adequately assessed due to the scarcity of contemporary systematic surveys.

Platypuses are monotremes. The females lay eggs and the males have venomous spurs on their hind ankles. They have been recorded to live over 20 years, both in the wild and in captivity



The project

Wildlife Queensland [PlatypusWatch](#), in partnership with the [Wolston and Centenary Catchments](#) (WaCC), developed a community platypus observational and [environmental DNA](#) (eDNA) project to monitor the iconic platypus in a vulnerable area of Brisbane. The Wolston Catchment is located west of Brisbane and has four main waterways: Sandy, Bullockhead, Ric Natrass and Wolston Creeks. These creeks have many compounding impacts related to the land use types across the area, such as industrial activity.

The local platypus populations are at an increased risk of decline as these impacts, such as vegetation removal and water pollution, degrade the waterways. By monitoring their distribution in the catchment, we can help mitigate these concerns by delivering the information to the council and other stakeholders to develop action plans for the areas of concern.

Platypuses have dense fur to insulate their body while swimming. They have 600-900 hairs per square millimetre, equivalent to a 3 mm neoprene wetsuit.



Results

The platypus survey recruited 20 volunteers to observe platypuses across ten sites along Sandy, Ric Natrass and Bullockhead Creeks. Although no platypuses were recorded over the morning of the survey, the subsequent collection of eDNA samples revealed the positive detection of platypus DNA.

The positive results were detected at Wolston Park, downstream from Spine Street, Bukulla Street and McRoyle Street sites. Four sites detected equivocal results, meaning that a small trace of platypus DNA was detected but not enough to confirm a confident positive. Three sites gave negative results.

Platypus is from a Greek word meaning flat foot, presumably referring to the web of the foot. It should have the English ending '-es'; i.e. 'platypuses'. Dictionaries also give 'platypus' and 'platypi' but the '-i' ending is Latin and is no longer used.



Results eDNA



Conclusion

The results of this project are promising for the local platypus population as they are persisting in particular sections of the waterways. However, urbanisation continues to pressure the platypus and its habitat. Future monitoring and rehabilitation of the waterways will take a collective management approach, with the local community and industry being key stakeholders. Management plans can be developed, focusing on rehabilitating native vegetation along the creeks and increasing water connectivity for the platypus.

The platypus is the ultimate flagship species to promote waterways conservation within the region. PlatypusWatch and WaCC hope to inspire locals, including industries, to foster a sense of stewardship and engage and promote the conservation of platypuses living right in their backyard!



Thank you!

Thank you to the wonderful volunteers who rolled out of bed early for the survey. Thank you to Lenore Bracey and Michael Rouse, who helped organise the morning and to Trevor Armstrong for helping with the breakfast.

Thank you for the support of the Wolston and Centenary Catchments, Councillor Sarah Hutton and the Brisbane City Council, Lord Mayor's Environmental Grant.



We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.

We pay our respect to their elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.