dry tropics partnership for healthy waters

ROSS FRESHWATER BASIN
Information summary

Data from July 2019 to June 2020

Since July 2017, the Dry Tropics Partnership for Healthy Waters has been collating data across the Townsville Dry Tropics region on waterway heath. In the Ross freshwater basin this includes on fish, habitat and hydrology and water quality. A summary of the findings for this basin are outlined below.

Grading and scoring

Indicators (shown in the outer ring of coaster) are measured and aggregated into indicator categories (middle ring of the coaster). Indicator categories are then aggregated into overall indices (centre of the coaster). Grades are represented by colours.

- A Very good - 81 to 90
- B Good - 61 to 81
- C Moderate - 41-61
- D Poor - 21 to 41
- E Very poor - 0 to 21
- Not enough information

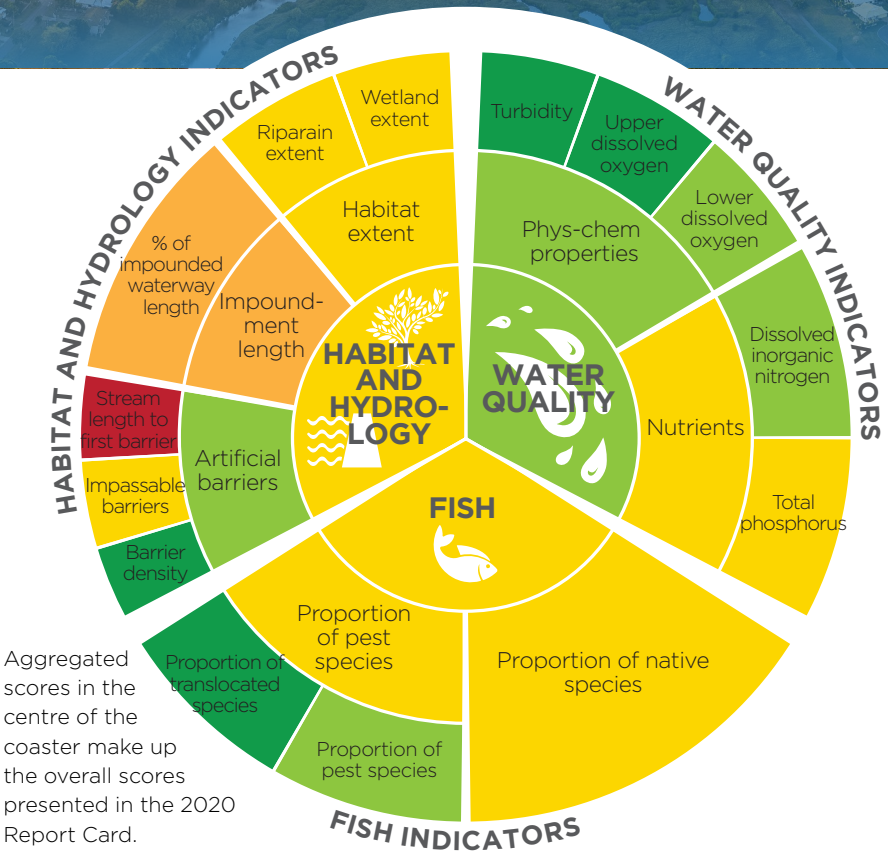
(scores are capped at 90)

Habitat extent results

Between 2013-2017, 135 hectares of riparian habitat were lost, whilst less than 1 ha of wetland area were lost. This equated to a moderate grade for progress towards the management target of no loss for both habitat types. The latest available data is from 2013 to 2017 and it is likely that more vegetation has been lost since 2017. Thus, these scores may underestimate the amount of vegetation loss.

Riparian and wetland vegetation provide crucial habitats for many species and perform important ecosystem functions, including capturing nutrients and sediments before they enter waterways. The loss of these habitats has a detrimental impact upon waterways.

Tegan Whitehead

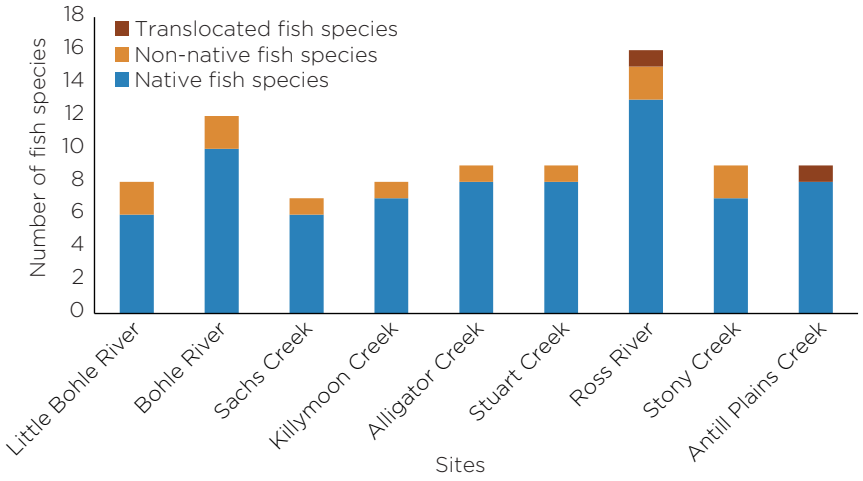


Aggregated scores in the centre of the coaster make up the overall scores presented in the 2020 Report Card.

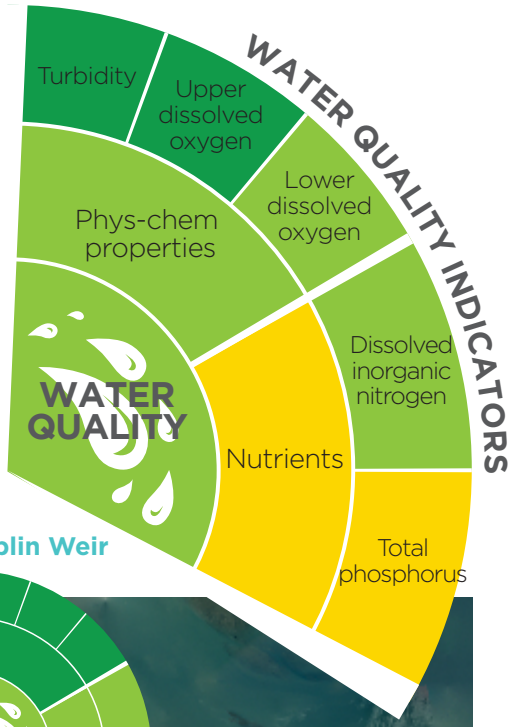
Fish results

Freshwater fish were sampled in August 2019 at 10 sites (see map on next page). At each site, the number of native, non-native and translocated species were recorded.

Overall, fish communities were in a moderate condition within the Ross freshwater basin. Twenty native species were present. This equated to 62% of native species that historically occurred (pre-development) being recorded. Three invasive species (tilapia, gambusia and guppies) were recorded, with tilapia and gambusia being highly abundant (392 tilapia and 122 gambusia specimens). Across all the creeks measured, invasive species comprised a median of 5.1% of the number of species recorded.



WATER QUALITY RESULTS



Ross Freshwater Basin overall

Overall, water quality within the Ross River freshwater basin was in a good condition. Nutrients were graded as being in a moderate condition, whilst physical-chemical (phys-chem) properties were in a good condition.

Water quality was sampled monthly within the Bohle River, the three weirs along Ross River Dam (Aplin's, Gleeson and Black Weir), and Ross River Dam.

The sites below are averaged together to make up overall water quality scores.

Ross River weirs

Overall, water quality within each of the three weirs was in a good condition. Nutrients were in a good condition, whilst phys-chem properties were in a very good condition at Gleeson and Aplin's Weir and in a good condition at Black Weir.

Bohle River

Water sampling occurred at two sites within the Bohle River. Overall, the Bohle River had poor water quality, with very high concentrations of nitrogen and phosphorus. A sewage treatment plant discharges into the river above the sampling sites and is a likely cause for the high nutrient levels. Turbidity and upper dissolved oxygen levels were rated as very good at both sites.

Ross River Dam

Monthly water quality sampling occurred within the Ross River Dam. Overall, water quality within the dam was good, with very good grades for phys-chem properties and good grades for nutrients.

Many partners are working together to improve waterway health. The report card helps to identify areas that require a management response. Management actions undertaken by Partners are highlighted in the Management Response Report. For more details on the Management Response Report, the 2019-2020 Results Report, and the Dry Tropics Partnership for Healthy Waters, check out the Partnership's website: