



ednaAustralia

eDNA, Doing more with less...



Biodiversity screen

8 sites, 16 samples, freshwater, estuarine, 43 species

Significant species ID

Grey headed flying fox
(*Pteropus poliocephalus*)

Invasive species ID

European carp, tilapia, platy, gambusia, toad, rats, goats, pigs, foxes

Site safety

eDNA reduced operator risks and exposure

Sustainability

Ecological risks defined

Data recovery

70% more species identified

CLIENT: CROSS RIVER RAIL

Project: Urban biodiversity screen

Metabarcoding analysis was conducted during pre-construction survey for the Cross River Rail Project. The program recorded 43 species, ranging from amphibians, fishes and reptiles, to birds and mammals. Sixteen samples were obtained from 8 sites over 2 days. Even the EPBC Act listed Grey Headed Flying Fox (*Pteropus poliocephalus*) was recorded from the upper catchment! Despite the short survey period and limited budget, eDNA returned several key outcomes for management.

- Results confirmed the presence/absence of known EVNT species
- eDNA extended the known local distribution of 6 species.
- Survey confirmed the importance of maintaining site connectivity.
- Rapid evidence of habitat utilisation and ecological value.
- eDNA allowed extended spatial survey within the catchment.
- Analysis confirmed the distribution of invasive species .
- Intact systems did not always translate into greater biodiversity.
- eDNA recorded ~70% more species than observation alone.
- eDNA reduced operator risks and exposure.