

Water and fish monitoring project



The isolated Weetootla spring has provided permanent water pools in the Weetootla Gorge for tens of thousands of years. Once this water body must have been connected to others, perhaps via the Balcanoona creek and Lake Frome, otherwise how could the fish have arrived there? This connection has long since disappeared, leaving an isolated land-locked population of fish in the Gorge. The fish population has been isolated for so long that it has evolved into a unique species known as *Mogurnda clivicola*. Sometime in the mid-1970s, it is believed that the fish were translocated to the nearby Nepouie Spring, also a permanent body of water, on nearby Wooltana station. There they have established a thriving population.

The Friends group has been measuring water quality parameters and monitoring the gudgeon population in the waters fed by the Weetootla spring and the nearby Nepouie spring since 2017. We sample water from several locations and measure water temperature, acidity, electrical conductivity, dissolved oxygen concentration and the concentration of the ions: potassium, sodium,

calcium, chloride and nitrate. We also capture (and release) fish to measure their length and count their number. This citizen science project has resulted in publications in the journal: *Transactions of the Royal Society of South Australia* (see our website under the “publications” tab).

As there were only three isolated populations of fish that are unable to move into other waters, the IUCN Red List of Threatened Species, 2019 classifies *M. clivicola* as “endangered”. It is classified as vulnerable by the Australian Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) as at July 2010, and as “critically endangered” in South Australia. In an attempt to establish insurance populations of the fish, the friends were involved in the officially sanctioned translocations in 2021 into two other permanent water bodies to the south of the Park. See the ABC news story here: <https://www.abc.net.au/news/2021-06-11/fish-helicopterflinders-ranges-purple-gudgeon/100208078>

For video stories of the translocation see here <https://www.youtube.com/watch?v=tzEpmjTrSVY>

and here

https://www.google.com/search?q=video+gammon+ranges+translocation+of+gudgeon&rlz=1C1EKK_P_enAU830AU830&sxsrf=ALiCzsbwU-NjNIWHRBYHBpszPfz-7IvdMw%3A1670109209538&ei=GdiLY4_FIKDhseMPvf654AE&ved=0ahUKEwjPta7Ryd77AhWgcGwGHT1_DhwQ4dUDCA8&uact=5&oq=video+gammon+ranges+translocation+of+gudgeon&gs_lcp=Cgxnd3Mtd2I6LXNlcnAQAzIFCCEQoAEyBQghEKABOggiABCiBBCwAzoKCCEQwwQQChCgAToFCAAQogQ6BwghEKABEApKBAhBGAFKBAhGGABQ4gxYi1pgoF1oAXAAeAGAAeIFiAGESJIBDTAuMS44LjAuNS42LjKYAQCgAQHIAQXAAQE&sclient=gws-wiz-serp#fpstate=ive&vId=cid:ff31ecc5,vid:tzEpmjTrSVY,st:53

These translocated populations have to date (Feb 2025) been successful as the populations have increased in number. Recently FAME has partnered with DEW to secure the future of the Flinders Ranges Mogurnda – read about what the plan to do here: <https://www.fame.org.au/news/purple-patch-endangered-flinders-fish-rebounds-in-outback-waterways>

Martin Caon, November 2025