

Griffith University  
**Animal Ethics Manual – Wildlife**

## STANDARD OPERATING PROCEDURES

**SOP No:** W-2

**SUBJECT:** Electro-fishing in Freshwater.

**POLICY:** Only people trained in animal welfare and human safety may use electro-fishing techniques<sup>1</sup>.

Impacts on non-target animals must be minimised<sup>1</sup>.

Target animals must be monitored for electro-fishing effects.

**PRECAUTIONS:** Operator safety. (Note: it is required that the operator will have been trained either formally through completion of an electrofishing course or been trained by an experienced (and trained) operator. Operator needs to detail number of hours experience in electrofishing.

**EQUIPMENT:** Electro-fishing apparatus (backpack, back-mounted, electrofishing boat).

**PROCEDURE:**

1. Fish are immobilized (method to be described dependent on habitat and equipment. The number of electro-shots and duration to be specified- e.g Davies *et al.* 2010<sup>2</sup>; Pusey *et al.* 1998<sup>3</sup>, Kennard *et al.*2006<sup>4</sup>)
2. Narcotized fish must be held in aerated water until they show recovery and then processed (weighed or measured) rapidly. The size of container (and amount of water) will need to be appropriate for both number and size of fish and reported in sampling protocols.
3. On recovery target and non-target animals must carefully monitored for any stress or ill-health (e.g healthy fish are able to maintain an upright position in the water, distressed fish will exhibit stress behaviours such as rapid-gill movements, jerky behaviours<sup>5</sup>). Once determined healthy, fish should be released as close to the point of capture as possible and any pests disposed of according to permit conditions<sup>6</sup>.
4. If fish are to be held for a longer period due to other non-standard procedures (e.g. tagging) then additional monitoring

and holding procedures will need to be implemented (e.g. frequent changes to water – so no build-up of nitrates, and extensive monitoring of animals for stress). Anesthesia should be considered in such instances of extended holding.

**RECOMMENDATIONS:** \*Specify frequency or timing in the AEC application.

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**TO BE REVISED:** 2019

#### REFERENCES

1. NHMRC (2004) *Australian code of practice for the care and use of animals for scientific purposes (7th edition)*. Australian Government.
2. Davies PE, Harris JH, Hillman T, Walker KF (2010). The sustainable Rivers Audit: assessing river ecosystem health in the Murray Darling Basin, Australia. *Marine and Freshwater Research*. **61**, 764-777.
3. Pusey BJ,, Kennard MJ, Arthur JM, Arthington AH (1998). Quantitative sampling of stream fish assemblages: single versus multiple pass electrofishing. *Australian Journal of Ecology*. **23**, 365-374.
4. Kennard MJ, Pusey BJ, Harch BH, Dore E, Arthington AH (2006). Estimating local stream fish assemblage attributes: sampling effort and efficiency at two spatial scales. *Marine and Freshwater Research* **57**, 675-686.
5. Blessing, JJ, Marshall, JC, Balcombe SR (2010) Humane killing of fish for scientific research: a comparison of two methods. *Journal of Fish Biology* **76**, 2571-2577.
6. Dept. of Primary Industries and Fisheries. ( <http://www.dpi.qld.gov.au/fishweb/14519.html> )