

Hygiene Protocols to reduce spread of amphibian disease

DPIPWE Tasmania

Effective hygiene practice for those working or playing in freshwater is extremely important to reduce the likelihood of spreading animal and plant pathogens such as chytrid, phytophthora, mucor and didymo. Once a pathogen is in a water system it is extremely difficult and usually impossible to eradicate it. Hygiene principles are generally the same for Tasmanian known (and probably most unknown) disease threats. **Clean and dry** equipment and gear between trips and between sites. Or, if drying is not possible, **clean, dry and disinfect**.

Amphibians are at risk of disease via contact with infected water, moist substrates, or other amphibians. Chytridiomycosis is the most significant disease threat to Tasmanian frogs. Other pathogens such as ranaviral disease have potential to impact our frogs.

Hygiene Actions

- Ensure all equipment including nets, buckets, boots, waders and camping gear are cleaned (all mud / organic material removed) on site. Dry completely between sites (ponds, creeks, rivers). If drying is not possible disinfect in F10 diluted 1:250 (or 1:125 if any organic material is present) for 1 minute (Webb *et al.* 2007).
- Any surgical instruments (scissors, scales, calipers) should be sterilised between amphibians using 70% ethanol (wipes or liquid soak) (Webb *et al.* 2007).
- If clean fresh water is not available for dilution, carry water from home.
- Dispose of any water away from creeks, rivers, ponds, lakes.
- Wash hands in F10 hand gel between sites. When handling tadpoles or frogs, wear new disposable non-powdered vinyl (not latex) gloves between animals.
- Limit the duration of amphibian handling to reduce stress. Amphibians should be released quickly where possible.
- Amphibians should be released at the site from which they were captured.
- Never mix amphibians from different sites.
- Use disposable containers for holding frogs, do not reuse.
- Any sick or freshly dead amphibians should be collected, preserved in 70% ethanol and stored for later investigation.
- Park vehicle wherever possible in a dry stony site rather than a wet muddy one. Remove excess mud between sites with small mobile manually pressurized pump pack (similar to weed spraying unit). Wash vehicle between trips.

Reference

Webb R., Mendez D., Berger L. and Speare R. 2007. Additional disinfectants effective against the amphibian chytrid fungus *Batrachochytrium dendrobatidis* Diseases of Aquatic Organisms **74**: 13–16.