

Necropsy Tissue Preservation
Wildlife Conservation Society, Apr 2014

Note that collection of blood samples requires a research permit from the country in which the research is being conducted. In addition all *Cyclura* species are CITES Appendix I listed. This means that you must have both an import and export permit when moving these samples from one country to another. The IUCN SSC Iguana Specialist Group has a blanket US CITES import permit for *Cyclura*, which can be used upon request and by authorized users. The format for obtaining CITES export permits varies and must be obtained from the respective country. *Iguana* species are CITES Appendix II listed and thus only requires an export permit, although if importing to the United States, a USFWS 3-177 importation declaration form is required.

Tissue Preservation Solution (10% buffered formalin)

To make buffered formalin from concentrated formalin:

37% formalin 100 ml

Distilled H₂O 900 ml

NaH₂PO₄ (sodium phosphate monobasic) 4 g

Na₂HPO₄ (sodium phosphate dibasic) 6.5 g

Alternatively, but components are more volatile:

37% formalin (formaldehyde)

Sodium phosphate monobasic

Sodium hydroxide

For one liter, add:

100 ml 37% formalin

900 ml water

4.5 g sodium phosphate monobasic

3.6 g sodium hydroxide (may be very reactive)

For five liters, add:

500 ml 37% formalin

4,500 ml water

22.5 g sodium phosphate monobasic

18 g sodium hydroxide (may be very reactive)

Procedure

1. Perform necropsy examination. Collect small (<1 cm) pieces of anything that looks abnormal and tissue samples of tongue, esophagus, trachea, lung, liver, spleen, stomach, small intestine, large intestine, heart, ovary or testicle, kidney, muscle, and skin. Additionally, although harder to identify or remove, it is good to include thyroid glands, adrenal glands (although difficult to find and typically come out with gonads), oviduct, brain, eye, pancreas, peripheral nerve, and bone/bone marrow whenever possible.
2. There should be 10 times the amount of formalin as there is tissue.
3. Label tubes with species name, ID, and date of necropsy.