

Handling and injecting amphibians

Dr Robert Browne

AArk Research Officer, Royal Zoological Society of Antwerp. robert.browne@gmail.com

There are several methods for the handling of frogs for inspection, injection of medicines or hormones, or passive integrated transponder (PIT) tagging.

Generally gloves should always be worn when handling frogs and toads. The wearing of gloves is particularly important for the prevention of disease when handling frogs from different quarantine groups. Some people are allergic to skin secretions - and some frogs have very toxic secretions. Through not wearing gloves there is also the possibility of pathogens including mycobacteria and chlymidea undergoing zoonotic transmission from frog to humans or the reverse.

'THIGH HOLD' This method enables the maximum observation of frogs for checking condition and for swabbing of pathogens. It also leaves the body of the frog relatively free. However, if operators are unconfident or inexperienced the frog may move excessively. With the thigh hold grasping the legs just above the knee joint on the thigh holds the frog. This body of the frog is then exposed from all directions for inspection.

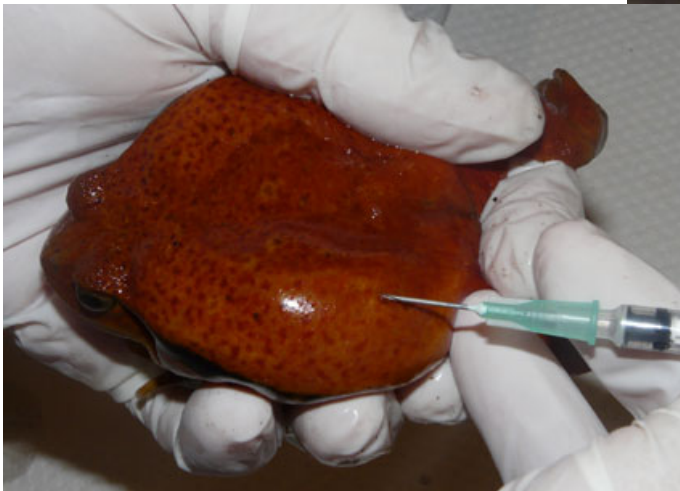
To administer medicine or hormones with one operator the frog can then be injected at an angle to the body subcutaneously in the dorsal lymph sac.



*Left: Green and Golden Bell Frogs *Litoria aurea* is often held with a "Thigh Hold". *Litoria aurea* is a vigorously active frog, lithe, and even when dry needs restraint.*

'TOWEL WRAP' is a useful method for very slippery and energetic frogs that are difficult to restrain. The towel wrap uses a wet paper towel to hold the frog against a firm surface. The legs can then be extended and also restrained under the towel. Working the thumb and fingers along the frog will then enable the removal of the towel with the back of the frog exposed for injection.

Right: Green and Golden Bell Frogs *Litoria aurea* become extremely slippery when wet. This makes them difficult to hold with gloves. The "Towel Wrap" is ideal to restrain frogs under these circumstances.



Left: The Tomato frog *Dyscophus guinoti* is a large frog with short weak legs. The two forms of cradle are valuable when handling these types of frogs or toads.

'CRADLE BELLY UP' This method is used when injections are made through peritoneum into the peritoneal cavity. The frog is held in a similar manner to the cradle, however, with the bell exposed. The needle should be inserted toward the head just anterior to and above the thigh. As with all subcutaneous injections the needle should be inserted at a shallow angle.

Right: The Tomato frog with is easily handled using the "Cradle Belly Up".

