

PIT TAGGING PROTOCOL FOR WYOMING TOADS

Several procedures have been used successfully to place microchips in Wyoming toads. This protocol has been chosen as the current recommended method for the Wyoming Toad SSP, based on available history of good retention without health complications, and approval of the USFWS.

GUIDELINES OF PROTOCOL

The USFWS requires that only AVID microchips be used to pit tag Wyoming toads.

A back-up ID must be provided for each toad, using a photograph or drawing, of dorsal wart patterns or throat markings.

Toads to be pit tagged should weigh at least 20 grams and be at least 9 – 12 months old.

Toads exhibiting health or other problems that may interfere with successful insertion or toad recovery should not be pit tagged. Judgment call decisions may be made by the attending veterinarian or supervisor.

Once pit tagged, toads should still be kept in their own cohort groups whenever possible, and at least for the first six weeks after pit tagging, as this is when the chips are the most likely to come out.

Scanning to check for pit tag loss should be done on a regular schedule. Scan frequently during the first six weeks and then at least three times per year.

PREPARATION

Pit tags may be inserted manually or using a pre-loaded syringe, into a small incision made using surgical scissors. The manual insertion method is preferred; it has proven to have a very good retention rate in captive toads and is used by the USFWS in the field.

- Scan AVID pit tag with reader and record number.
- Record toad's sex, cohort, local ID, studbook number.
- Wear gloves for all procedures, changing for each toad.
- Surgical scissors should be disinfected with 70% isopropyl alcohol or Nolvasan between toads and should be well rinsed with sterile water before using. One pair of scissors per tank cuts down on chance of cross contamination.
- Procedure is best done with two people, one to restrain and one to pit tag the toad.
- Due to changes in skin quality noted during the first eight months of growth, it is best to wait till toads are 9 -12 months of age to pit tag, even if they reach the desired weight of 20g at an earlier age.
- Avoid pit tagging immediately prior to stressful events such as hibernating, breeding or shipping.

INSERTION

- Choose an insertion site part way down the toad's back from the cranial, just to one side of the mid-line. (Do not insert too close to head; insertion may be easier requiring less manipulation of chip, but retention rate has been poor.) Avoid cutting into warts, which will bleed.
- Hold toad very still, restraining legs.
- Wipe incision area with clean paper towel to dry if toad is wet
- Nolvasan may be used to disinfect insertion site (optional---vet may prefer).
- A small dab of lidocaine may be applied to anesthetize the incision site (optional—vet may prefer).
- Pinch skin lightly and pull away from the toad's back to ensure that no muscle is cut. Using surgical scissors, make a small incision in the skin. Clear fluid may leak out; blot with sterile gauze or swabs.
- Insert pit tag using forceps or (gloved) fingers (pre-loaded syringe if preferred).
- With fingers, work pit tag forward and upward, as far cranially as possible, aiming for a position between the parotid glands. Warts may prove to be obstacles; attempt to maneuver the chip around the warts.
- Close the incision site with a small drop of 3M Vetbond surgical adhesive or other surgical skin glue. Place a small drop of glue on the site and pinch gently with gloved fingers to bring skin edges together. Hold for a few seconds. Be very careful not to get the glue onto other parts of the toad. The gluing process may be made more difficult by fluid secretions from the incision site so keep drying the area and be patient.
- Once the incision is glued shut, keep the toad dry for 10 minutes to allow the glue to set.
- Scan the toad to re-check the pit tag.
- PHOTOGRAPH or sketch the toad for back-up ID Write the **pit tag number** and the **studbook number** on the photo background or in any other way that is convenient to tie the numbers to the image. Make sure you include the studbook ID so the photo will still identify the toad even if the pit tag is lost. It may take several tries to get clear photo images of the dorsal wart patterns. If using drawings for back-up ID, make sure the pit tag and studbook numbers are on the drawings.
- If you are pit tagging toads that were previously identified just by cohort group, they will now have individual identities. Report to studbook keeper.