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Date: Tue, Dec 10, 2019, 3:29 AM

Subject: [CTURTLE] PIT Tag Application Procedures- from the 2012 SOP for French Frigate Shoals in the Hawaiian Islands

To: <CTURTLE@lists.ufl.edu>

Excerpt on PIT tagging technique contributed to Cturtle for historical purposes from the following document archived at www.GeorgeHBalazs.com

[Bogardus and Nurzia-Humburg \(2012\) SOP- Standard Operating Procedures Manual for the East Island FFS Turtle Camp.](#)

"PIT tag application procedures: Passive Integrated Transponder (PIT) tags are internal, magnetically encoded tags which allow individual animals to be identified using a special scanner. Tags used at French Frigate Shoals (Hawaiian Islands) are factory loaded in a large gauge needle and come in sterile packages. The tags are injected subcutaneously using an applicator supplied with the tags. PIT tags may be applied while a turtle is crawling, body pitting, patty-caking, or back-filling. We have found it easier if the turtle has finished laying eggs and is either patty-caking or back-filling. The turtle goes into a "trance-like" state during this time and has very little reaction to the needle. Turtles should not be tagged while digging an egg chamber or nesting since this may cause a nest to be abandoned.

Materials needed: PIT tags PIT tag applicator Small squirt bottle of alcohol (50%) Sharps container (small size) Procedures: a) Approach the turtle from behind with a small penlight or muted flashlight. If you choose not to wear a headlamp, holding a penlight between your teeth frees both hands for tagging. b) Assemble the needle and applicator. Remove the needle from its sterile package. Notice that the tip of the needle is beveled. When properly assembled, the bevel (or open side) of the needle will be facing up when being inserted into the flipper. This allows the PIT tag to be supported by the bottom of the needle and reduces the risk of the tag falling out of the needle before it is in the turtle. Slide the white piece on top of the applicator back to expose the needle chamber. Slide the rectangular end of the tag into the exposed chamber of the pit tag gun, with the bevel of the needle facing up. The rectangular end of the needle should be flush with the top of the 20 applicator when properly seated. Lock the needle in place by pushing the white slide forward to completely cover the rectangular needle end. c) Hind flipper tags should be injected 2-3 scutes above (proximal to) the hind flipper claw and about 1/3 flipper width in (medial) from the outside flipper edge. If necessary, palpating the flipper will help in determining a suitable location. Tags should be placed between the 2nd and 3rd bones medial to the outside edge. The objective is to place the tag in a fleshy part of the flipper but away from any bones. The needle will be inserted between two flipper scutes in this general area. d) Clean the insertion area using a 50% solution of alcohol. A small squirt bottle can be used to direct a stream of alcohol to this area with enough force to remove sand grains. At this is time you might want to put on gloves (at least on the hand that will hold the turtle's flipper and in areas with sharp substrate) since this lowers the chance of hurting yourself and provides you with a stronger grip, allowing for quicker action. e) Insert the needle subcutaneously into the soft area between the flipper scutes. Insertion should be one smooth forceful motion where the needle breaks the skin and is inserted up to the collar on the needle. Keep the needle parallel to the flipper so it goes just under the skin and not into the muscle. The turtle will often pull the flipper towards her body when the needle is inserted into her flipper. If the flipper is at an angle to the turtle's body, it should be repositioned so that it is in line with the body. Otherwise, when the turtle pulls its flipper in, the needle is pulled sideways and will either

