

MANATEE FREEZEBRANDING PROTOCOL
U.S. Geological Survey, Sirenia Project
September 2007

History

Handling requires a FWS Division of Management Authority research permit
To date few manatees have been branded with the same number
148 manatees have been freeze-branded in the Southeastern US
Several have been branded in Puerto Rico as well
No adverse affects have ever been noted
Brands are persistent if they have been applied properly
Discernable brands have been re-sighted on animals up to 24 years after application

Equipment

- 1) Two-inch solid brass letters/numbers
- 2) Application handles
- 3) Submersion can
- 4) Liquid nitrogen and dewar transfer container
- 5) Gloves
- 6) Towels
- 7) Antiseptic soaps
- 8) Freezebrand data sheet and camera

Procedure

- 1) Determine if branding is necessary; i.e. manatee has no other identifying marks
 - a. Generally, only long-term captives and naïve orphans will receive brands
 - b. Animals with distinctive, permanent white scars or mutilations will not require branding
- 2) Plan branding 2-4 months prior to anticipated release date
- 3) Contact USGS Sirenia Project for a sequential letter/number assignment
 - a. Provide complete photos of entire body before requesting brand letters/numbers
 - b. Show close-ups of any distinctive scars, features, or mutilation regardless of how slight
- 4) Select branding sites on animal (mid back behind head and dorsal peduncle)
- 5) Orient tail and back brands in same direction with body axis
- 6) Clean area with betadine/alcohol rubs
- 7) Dry surface
- 8) Take extreme caution to ensure no contact of liquid nitrogen with the skin of bystanders
- 9) Cool down brands with complete submersion in liquid nitrogen; at least 5 minutes
- 10) When brands are cold to core, liquid nitrogen will stop bubbling
- 11) Apply cold brands directly to area and apply moderate pressure to ensure even contact
- 12) Hold brand on site for 25 to 45 seconds
 - a. Holding time dependent on size and age of individual animal
 - b. Larger/older animals require longer exposure time
- 13) Remove brand and replace in liquid nitrogen if needed again
- 14) Take photos to document branding prior to release
- 15) Fill out data sheet and send/fax copies immediately to USGS Sirenia Project
- 16) Submit freeze brand information on USFWS electronic database

Notes/Considerations

- 1) Remember that brands may not be visible when first applied; scarring should take a couple of weeks, occasionally a brand will not result in white scar tissue
- 2) Manatees will react to branding if brand is held too long against the skin
- 3) Problem with numbers/letters placed upside down; orient position of brands in same direction with tail being down, head up, to prevent wrong orientation of numbers
- 4) If problems occur, contact USGS Sirenia Project and USFWS Jacksonville as soon as possible