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U.S. GEOLOGICAL SURVEY
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Guidelines for Manatee Photography

Photographs taken of manatees throughout the southeastern United States are submitted for possible inclusion in the manatee Individual Photo-identification System (MIPS). The MIPS is a computerized database of images and life history information for over 2,200 uniquely marked individuals. Effective use of the system is dependent upon high-quality photographs of distinct features on each cataloged manatee. This identification catalog has provided valuable, long-term data on the biology of the endangered Florida manatee (*Trichechus manatus latirostris*). Information on individual site fidelity, movements, behavior, and reproductive traits has proven to be useful in management decisions, designation of critical habitat, estimation of survival and reproductive rates, and ultimately may lead to more accurate estimates of population size.

The MIPS catalog incorporates specific criteria to ensure that a manatee is not included as more than one individual. The criteria require: (1) that the manatee has at least one permanent (healed) feature that is unique enough to be recognized in future photographs; and (2) that the manatee is fully documented photographically, including those regions of the body that are not scarred. Photographs must clearly show the features and their position on the manatee. Based on previous experience working with thousands of images and field data logs, suggestions are offered below. Adherence to these suggestions will increase the likelihood that a manatee "captured" by photography will be matched to a known manatee, or entered as a new identity into the MIPS database.

- Attempt to fully document the manatee you photograph, including the tail and the
 dorsal and lateral aspects of the body, or note on the sketch sheet that a specific
 body region is without any obvious markings. Be aware that even subtle features,
 e.g., small notches from the tail margin, are useful for ID. Use your best judgment
 for a reasonable give-up time.
- Record all pertinent data and observer information on the field data sheet. There
 are six manatee outlines on each field sketch sheet used by Sirenia Project
 biologists (attached). Fill in all appropriate blanks and sketch the features
 photographed on the outline of the manatee. For example, if the tail was not
 photographed, it is important to indicate whether it was seen, but had no features,
 or if it was not seen. If the tail was seen but not photographed, indicate whether it
 was plain; if scarred, attempt to sketch the general feature(s) observed.

- It is very helpful to include the following under **Comments** on the field data sheet:
 - 1. If sex was determined, how that determination was verified (e.g., you saw/photographed the ventrum [V], manatee was nursing a calf [C]).
 - 2. Any subtleties of features that may be helpful for identification.
 - 3. Brief behavioral and association observations, if applicable.
- Please record the folder/file name of your images if using a digital camera (preferred); assign a roll number and note exposure frame numbers if using 35mm film.
- Sketching features that you photograph on the manatee outline will greatly assist in matching your images to a known manatee. When sketching features on the manatee outlines, please darken in missing areas of mutilations; this helps to distinguish mutilations from scars. Note scar coloration (white vs. gray). This is especially important for gray scars that may be difficult to discern later in a photograph. To the best of your ability, also please distinguish fresh or recent wounds from healed scars. If not obvious, please note orientation of the manatee pictured (i.e., which end is the head).
- The sketches are the primary reference of field information for the photographer and MIPS manager. Please submit your sketches with your images. (I am happy to make copies for you if you do not have access to a copier). The sketch sheets are referenced for grouping multiple images of photographed individuals. All field sheets are archived, may be used later to resolve data questions or discrepancies, and serve as a duplicate set which are available as a backup copy to each cooperator.
- Quality is more important than quantity! Photographs of a small number of welldocumented manatees are more valuable than incomplete animal coverage or poor quality photos of a large number of manatees.
- Realize that every exposure will not be perfect, but attempt to position yourself to avoid glare and distortion from ripples or chop. If at all possible, <u>please</u> use a **polarizing filter** on your lens. Finally, accept that some photos will not turn out at all (and that's ok!).

Above all, remember to document manatees as unobtrusively and silently as possible. **NO harassment** need or should occur to obtain photographs!

Images may be submitted via email (if you have a small number), burned to a CD, or transferred to our ftp server. Please call or e-mail me for instructions when you are ready to submit images, and also if you have any questions regarding photography protocols. **Thank you** for your offer to help in documenting manatee individuals.

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