

September 30, 1988 F/SWC2:GHB

MEMORANDUM FOR: William G. Gilmartin
FROM: George H. Balazs
SUBJECT: Cooperative NMFS/FWS tagging study of green turtles at French Frigate Shoals

As we discussed, I am providing you with a written summary of information gathered from my "debriefing sessions" with personnel returning from turtle-related fieldwork at French Frigate Shoals (FFS). The objectives of these interviews were (1) to determine if pertinent research goals, as outlined in the draft recovery plan, had been achieved in concordance with the on-site training I provided; and (2) to identify and better understand personnel problems impeding the harmonious accomplishment of those research goals. Briefly, my findings are as follows. We can discuss them in greater detail at your convenience.

(1) Census and tag recovery data for turtles nesting at East Island were successfully obtained for 101 consecutive nights. I have recently edited this information and made it available to Jerry Wetherall for use in our population model for East Island. This represents the 16th year that data have been systematically collected at East Island to ascertain population trends. It is also the first year that FWS personnel have taken an active involvement in the work.

(2) The nest productivity study initiated by FWS this year was expanded from Tern Island to also include East and Whale-Skate following my departure from FFS. This expansion caused significantly greater pressure on the turtles (and other wildlife), as well as on personnel who were, in my opinion, asked to extend themselves beyond reasonable psychological and physical limits. This expanded study contrasted with the instructions I had given while at FFS. Furthermore, the fact that this expansion had occurred was not made known to me until late in the study period. This is in spite of the fact that I was in regular radio contact with Tern Island to answer any questions and ensure the project was staying on track.

(3) The campsite that was established on Whale-Skate in late May, with my instructions to monitor turtles not more than 2-3 nights a week, ended up being almost continuously staffed throughout the study period. This expanded effort resulted in increased pressure on turtles and other wildlife, as well as on personnel. Personnel stress was also exacerbated by inadequacies of the Whale-Skate camp (i.e., no cooking facilities, no refrigerator, inadequate conditions for daytime sleeping).

(4) Communication and coordination among personnel at FFS was less than adequate. This resulted in part from personnel receiving modified instructions after my departure, and their uncertainty as to who had ultimate authority over research methodology. Although I made it absolutely clear during training that I held such responsibility, it is easy to understand personnel's uncertainty because (a) FWS policy stipulates that the Refuge Manager holds the highest authority on the FFS refuge; (b) some personnel were directly employed by FWS, while others were employed or were formal volunteers for NMFS; (c) FWS stated it had its "own" turtle research project, separate from the cooperative NMFS-FWS effort I had been sent up to institute; and (d) the assigned on-site FWS turtle-study coordinator that I had trained (Holly Feifeld) decided to terminate her employment and leave FFS during the early portion of the study.

(5) A more comprehensive process of screening was needed for all personnel in order to determine individual strengths and weaknesses prior to being assigned to FFS for the isolated stressful nighttime work with turtles. This applies equally to both FWS and NMFS personnel, volunteer and full-time employees alike. For the future, two basic elements are proposed: (a) A physical examination at the Employee Health Clinic similar to the annual scuba certification health exam; and (b) a screening/evaluation session with a clinical psychologist or psychiatrist, which may possibly also be available at the Employee Health Clinic.

(6) The excavation of nests by FWS personnel to determine productivity has been taking place sooner than is advisable. Live healthy hatchlings have been excavated that would otherwise have emerged on their own in a natural unaltered manner. A verbal message has been relayed to FWS asking that at least 3 days be allowed to pass after the initial emergence of hatchlings prior to excavation. The routine penning of hatchlings at the nest site is also an unwarranted practice that has apparently been recently instituted by FWS as part of their nest productivity study.

The most important point to consider in all of the above may be one of "research philosophy" on threatened and endangered species. Is research that expands to become increasingly more intense, intrusive, and/or comprehensive a desirable effort highly correlated to more rapid recovery and successful management of a species? Is "more" always "better" when it comes to endangered species research? I would argue that it is most definitely not, and that a point of rapidly diminishing "research returns" can be quickly reached. Beyond that optimum-yield inflection point there is the very real likelihood of causing more harm than the "good" (worth of data) that is accomplished. Unwarranted adverse impacts to the species and

its habitat can result, as well as work overload to personnel causing excessive stress, burnout and greater chance of physical injury.

The challenge here is to convey these reasonable ideas to FWS in such a way as to not discourage their fledgling participation in the seasonal monitoring effort. I wouldn't want the engine to stall again after taking so long to get started.

cc: J. Wetherall

Balazs

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