

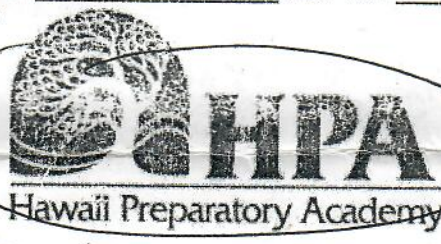
WELCOME TO THE SEATTLE  
HONULANI TURTLECAM  
MARINE

A COOPERATIVE SEA TURTLE RESEARCH AND  
~~AND HONULANI~~ PROJECT  
REMOTE VIEWING OF THE

NATIONAL MARINE FISHERIES SERVICE,  
HONOLULU LABORATORY  
PACIFIC ISLANDS FISHERIES SCIENCE CENTER



AND THE



HAWAII PREPARATORY ACADEMY



PLEASE  
CLICK ON THE PICTURE TO SEE THE LIVE  
FEED! VIDEO OF

HONULANI or "TURTLE HEAVEN" AT  
LANIAKEA ON THE NORTH SHORE  
OF OAHU IN THE HAWAIIAN ISLANDS



*Monitor*

*ComEBACK*

*ATLANTIS*

*SCOTT*

*Sentence*

Welcome to Honulani sea turtle camera. This installation is part of a sea turtle research project conducted by the National Marine Fisheries Service and the Hawaii Preparatory Academy. The purposes of the research being conducted are:

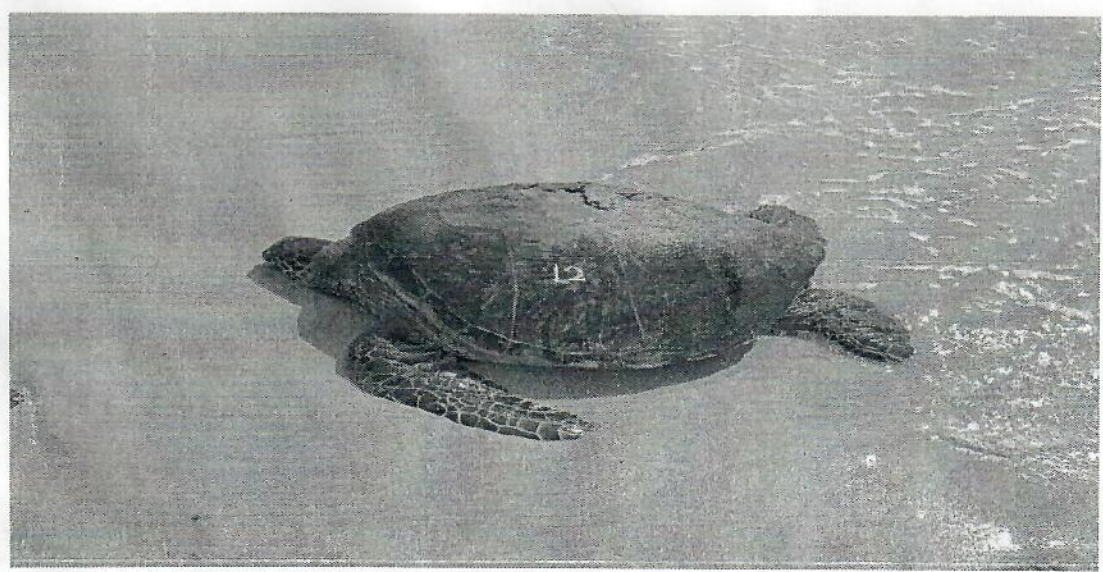
1. to identify individual honu in the area and monitor their daily activities
2. to utilize time-depth-temperature recorders on designated honu to better understand their resting, foraging and basking behavior over time
3. to document the interactions between wild green turtles (honu) and the many visitors that frequent the beach area where the honu are found

*General  
the  
detail*

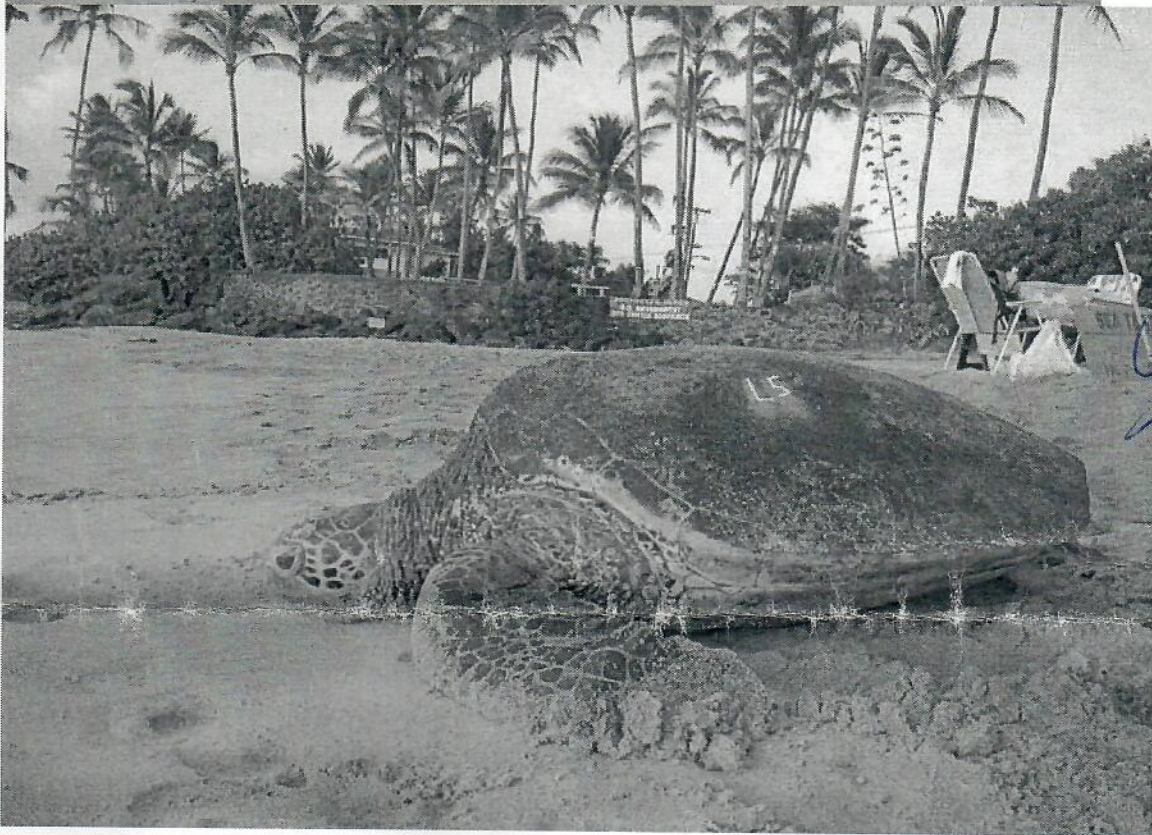
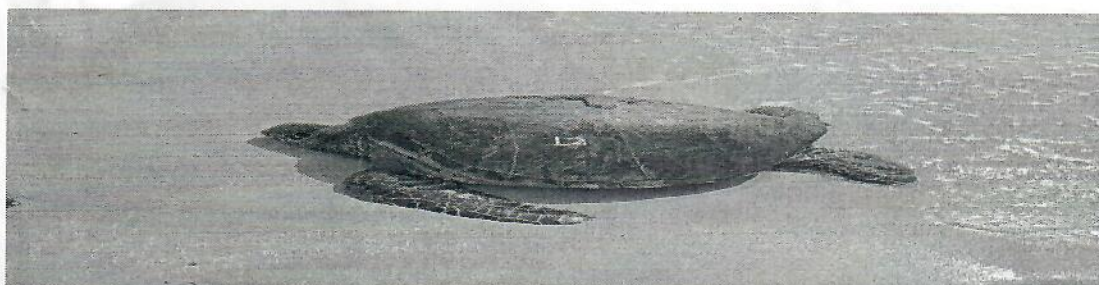
*Interests out facts  
Don't put  
About our  
Research*

### IDENTIFYING INDIVIDUAL HONU:

Honu that come out onto the beach at Laniakea are temporarily detained and their measurements (length, width, and weight) are taken. In order to insure long term identification of each individual, PIT tags are injected under the skin on the hind flippers (this is a technology identical to that used to "chip" family pets for identification. Each turtle is carefully inspected to make certain that there are no hooks or fishing line entanglement (a common occurrence) and a health assessment is made. In order to identify each animal from a distance, an identifying mark is etched lightly into the carapace of the turtle and painted with a non-toxic, fast drying paint. The pictures below show a couple of the animals we have tagged that are habitual baskers at Laniakea.



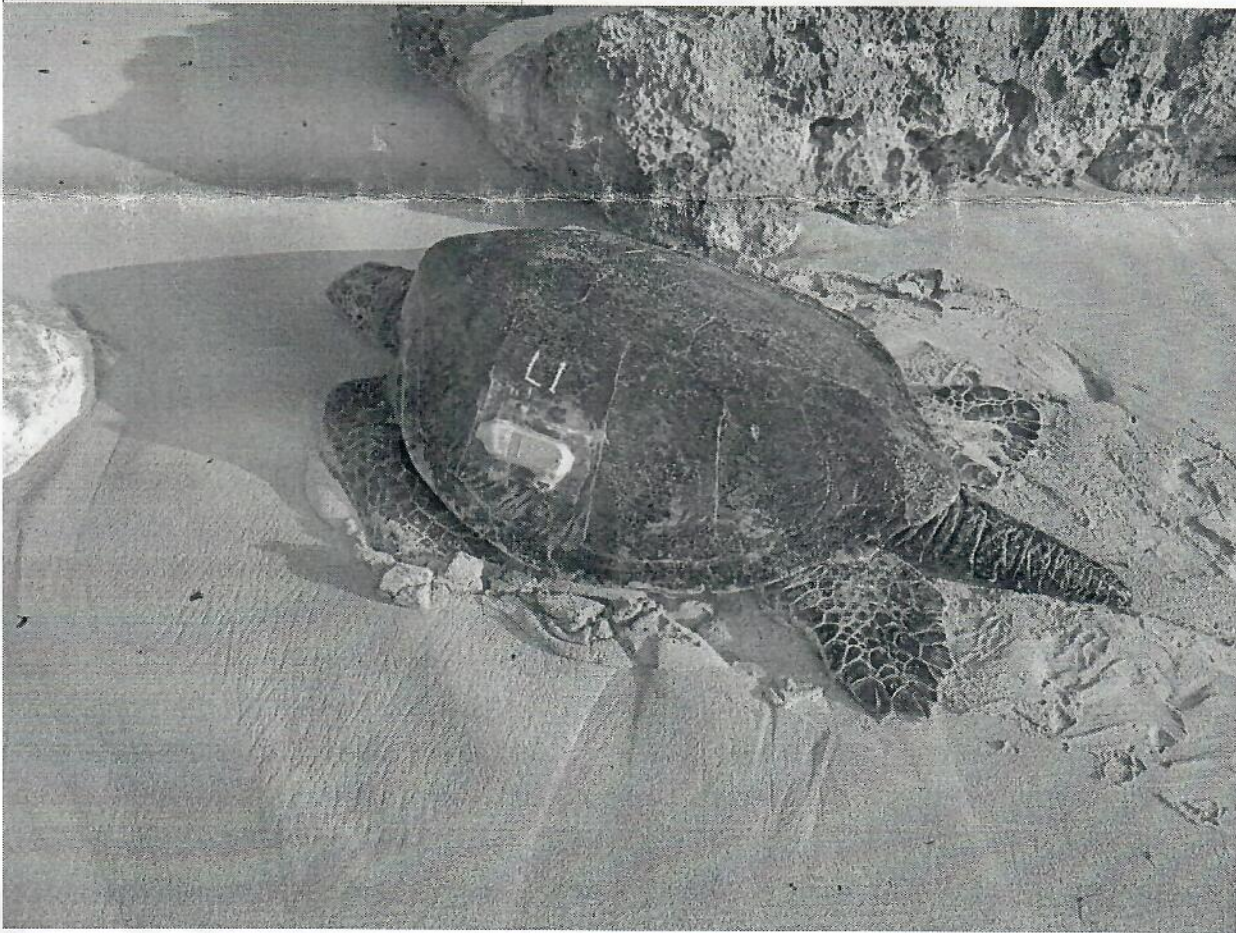
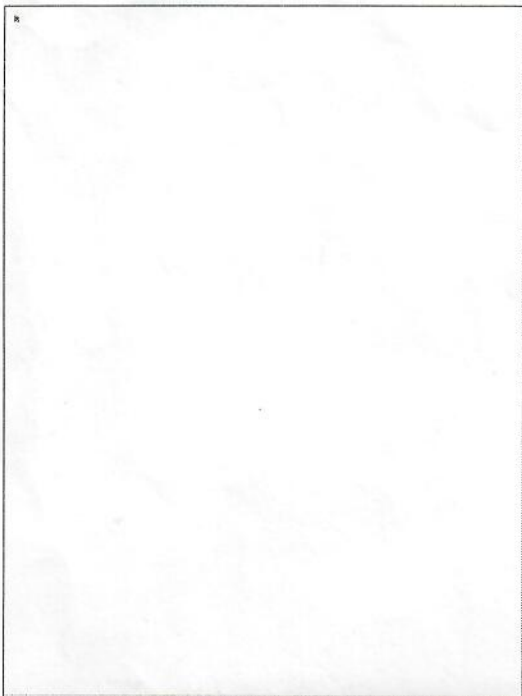




## TIME / DEPTH / TEMPERATURE RECORDERS-

Wildlife Computers MK7 and MK9 archival time / depth / temperature recorders (TDR) have been used by us for many years to study various aspects the daily behavior of green turtles. In most cases, we have studied juvenile and subadult green turtles and rarely have we had the opportunity to learn more about the behavior of adult turtles. Laniakea, supporting a substantial population of adult green turtles, gives us this opportunity. Currently, we have three TDRs out on turtles that are habitual baskers which provides us with opportunities to retrieve the TDR and study the basking behavior of these animals- a pretty idea situation. The TDRs below are enclosed in a plastic case which is fibreglassed onto one of the carapace scutes. This method of attachment has been used for many years, providing strong but temporary attachment. The tag and its associated attachment material will fall off in a matter of months without any residual effect on the turtle.





Above left, L4 and L7 are basking on the beach. They have been carrying their tags for many months now, giving us excellent data. L1 has just recently had a TDR tag attached because it is a very common basker at Laniakea and we needed more

information regarding its daily habits.



Subject: FW: RE: List of priority research activities for HonuLani

6

Sand movements of shoreline; correlations of surf, rain and tide with basking;

Highly visible and easily accessible site used by the public. Long known as a world famous surfing site.

Research techniques and tools utilized:

- Measuring caliper and electronic scale
- Placement of PIT tags in the turtles PIT="Passive Integrated Transponder tags known as "chips" by veterinarians for permanent individual identification of dogs and cats).
- ⊗ TDR' ; (=Time-Depth Recorders) small computerized equipment temporarily glued on the turtles that records and stores ocean depth, temperature
- >- See and draw from Objectives sheets developed for Kona and other study sites
- >- Get copy of Lena report
- > See Gregg Ambrose and other surfing books that list Laniakea
- > ⊕ Number of turtles and their size classes, ages, and sexes regularly basking on the beach and feeding in near shore waters.
- ⊗ Weights and body measurements of the turtles
- ⊗ Photographic records of individual turtles and their behaviors (including facial patterns)
- ⊗ - Heath status of turtles, including but not limited to tumors, immune status, parasites, and bacterial infections.
- >
- >- Thermal ecology of basking- physiological impacts.
- >
- >- Food sources being utilized.
- >
- >- Daytime and nighttime activities- time budgets for basking, feeding, and resting underwater.
- >
- >- Reproductive status of the turtles. ~ LINKS by migration to PFS.
- ⊗ Genetic makeup of the turtles.
- ⊗ ⊕ Reasons why the turtles favor Laniakea for basking and are tame to humans.
- ⊗ Fishery interactions with the turtles, including lines, hooks and nets
- ⊗ Positive and negative aspects of people viewing and interacting with the turtles.
- ⊗ Habitat characteristics of the beach and adjacent ocean waters used by the turtles.
- DYNAMICS of seasonal use/seasonal habitat change