

4623 Hanging Moss Rd.,
Jackson, Miss. 39206
September 18th, 1976

Mr. George H. Balazs,
Hawaii Institute of Marine Biology,
Kaneohe, Hawaii 96744

Dear Mr. Balazs:

You could not imagine how much I appreciate the photos and history of French Frigate Shoals. I have had nothing of that kind at all.

I also enjoyed answering the questions contained in your letter. These answers are the best that my memory and knowledge will produce. The superfluous information laced into the answers is mostly things that I enjoy talking about. Please do not let it annoy you.

The answers are written on separate pages because it seemed to me that I could do it better that way.

The Carl Jackson I mentioned, I knew him in 1932 and 1933 when we were on an offshore patrol boat together. He might have something interesting to tell you. He was weird. The supply boat people told me that he raised chickens and vegetables on the island (hydroponics).

I hope that this letter will be of as much value to you as it has been enjoyment to me.

Very best wishes.

Carl H. Adams
Carl H. Adams

1. My tour of duty on East Island was from September 1946 to August, 1947 (Approximate). I was the Commanding Officer and A LT (jg) in the regular Coast Guard at that time.

2. There was erosion of the shoreline of the island but it occurred at the tips of the island only and was no problem. It was a convenience. It took care of our garbage disposal. As one end eroded, the other end built up. As one end built up, we dumped garbage there, as it eroded we used the other end for dumping as garbage at the other end disappeared. This seemed to occur at regular intervals. I did not take note of the frequency of the intervals. Thinking of it now it seems as though it may have been seasonal changes of the winds and (or) tides. The apparent diminution of the island might have been due to the phase of these changes in which the photos were taken.

Disappearing Island seemed to come and go along with the changes of the shape of East Island.

3. There appeared to have been no structural damage to the buildings due to the 1946 tidal wave. The information handed down to me was that this was due to the fact that the waves came from direction of the ends of the huts. The ends were enclosed only with wire mesh window screen. The electronic equipment had to be replaced, power generating equipment and distiller engine overhauled etc. The crew were warned only by the commencement of high waves which increased in height until they rode over the huts. The only hut with a concrete base was the Galley - Mess Hall. The men went there and held to such supports as were held in place by the concrete floor and the metal upper structure. It seems that there was enough time between waves for the men to regain their breath. They held on until the waves subsided. The Albatros and Tern etc. seemed to be there in great numbers by the time I arrived in August. There was another bird there in great numbers that would get under the huts and moan all night. I can't remember the name of this bird. We called them "moaners". No doubt the waves disturbed their nesting and family arrangements but they were doing fine by August.

4. I did not observe any Hawaiian Monk seals and never heard of them.

5. The only other islands I visited were Tern Island and La Perouse Pinnacle. There was no way to get ashore at La Perouse of its steep lava rock base. The pinnacle appeared to be completely covered with birds. I was told that the birds must not be disturbed. Our only water transportation was an LCM and a row boat. Occasionally, we would take trips around the island and out to La Perouse for recreation. Once one of the kids fired the 22 caliber rifle when we were just by the pinnacle and the whole thing seemed to go up in the air. As the birds gained altitude, we could see that La Perouse was still there. Within a few minutes, ~~within a few minutes~~, the birds had re-settled.

5. (cont'd) I never saw a turtle except on East Island. They could not get ashore on Tern because the entire perimeter was outlined with interlocking metal piling. There was no coral sand around the outside, above the water.

6. I am quite sure the fishermen at Tern did not hunt or capture turtles. I had free access to the island and was required to inspect it each month. There were thousands of gallons of high octane gasoline in the underground tanks. The Navy tried to sell it to Trans-Air-Hawaii. One of my friends who hauled fish in their DC3s said they were taking a big enough risk trying to land there and were not about to abuse their luck by using the navy's watered down gasoline.

7. I do not think anyone saw or mentioned a shark while I was there. The kids played in the water almost all of the time. They had a home made diving rig that they used to spear lobsters among the coral outcroppings. These lobsters were about $2/3$ the size of the New England lobster and lighter in color. I am sure you know them. More about the lobsters in No. 8.

8. When you have 12 or 14 teen agers with almost nothing to do but eat and sleep and you have only enough food to feed them three times a day, something has to give. The ocean gave. Turtles and lobsters. We had a boy from Florida who was familiar with this kind of food. He did it real well. The best recipe for me was the turtle patties. Make very very thin slices and dip them in batter and cook in hot oil. A sandwich of this on home made bread is one of the nice things I remember of the place. Home made bread came naturally because supply boats far apart. 2 months on one occasion and even then the Hawaii Tuna Packers boat brought our things. We did not use the natural food from the ocean for regular meals. It was for night snacks so that the kids would not have to go to bed hungry

9. Since 1947, except for Bob Ferguson, I have talked to no one who has been to FFS. I have known the man who was there when the tidal wave came in 1946. He is Carl W. Jackson, he was a LT (jg) at that time. Coast Guard Headquarters (Retired Personnel) would, quite likely be happy to give you his address. He left right after the disaster. He was nervous. The man I relieved was Fred Coombe, he stayed only a short time and was transferred to Kauai and was killed in a jeep accident before he got there. The man who relieved me was named Ribarich (?) CG Headquarters could give you information on his whereabouts too.

4623 Hanging Moss Road,
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September 3rd, 1976

Mr. George H. Balazs,
Hawaii Institute of Marine Biology,
P. O. Box 1346,
Coconut Island, Kaneohe, Hawaii 96744

Dr. Mr. Balazs:

Thank you for the nice letter reminding me of French Frigate Shoals. While I was there, I would have said that I would never care to hear mention of Capt. La Perouse or any of his discoveries but time has changed all that.

My year was 1946-1947. We were on East Island at that time. There was a fishing camp on Fern Island. I had 7 quonset huts and a crew of 14, including 2 Navy Aerographers Mates 3rd class. I went there shortly after the tidal wave in 1946

If I had known anything at all about marine biology I would ^{have} probably been more observant and be able to assist you in your study. My only experience in marine biology was with the communication officer on the attack transport which I rode during WWII. ~~The~~ He was a professor of marine biology at the University of Virginia before the war and he showed me specimens he gathered while we were in the Solomon Islands. His name Benjamin Franklin DeWess Runk. He ~~may~~ be famous now.

Now the turtles. Not very much. I had a chance on three occasions to watch newly hatched turtles run for the water, each time they took the same route to the water. They nested mostly a short distance up the island from the huts near the antenna field. Our antenna was a vertical radiator about 100' high with 90 wire radials, buried and extending out from the base of the antenna. Why those mama turtles wanted to lay their eggs among those wires, we never knew but when they broke the wire radials, it would distort the scope pattern and the kids would have to go out and find the breaks. It was not hard to find them because the turtles left evidence of their digging.


I never saw a juvenile turtle. they were all apparently full grown or the newly hatched ones. They never appeared in great numbers not more than 12 or 15 at a time. The kids would make a harness and ride them and turn them over on their backs. I had to caution them about leaving them on their backs when they were through playing with them.

Once a doctor from San Diego came by in a LCI that he had bought from surplus property on his way to sell the LCI in China. We traded him a turtle for some fresh pineapples. He had come ashore in a 12' skiff with an outboard motor. He was going to tow the turtle back to the LCI. You know what happened. The turtle decided to tow the doctor and his boat to the bottom of the ocean. He had to cut the tow line and the kids brought him another turtle which he laid on his back in the bottom of the boat, tied down. He made it ok. The LCI was anchored about 3 miles away, outside the reefs.

It would be nice if I could send you some useful information. I have no pictures of French Frigate Shoals except the one you sent to me and which I appreciate very much.

Very best wishes for much success in your studies of these amusing animals.

Sincerely Yours,


Earl H. Adams

PS Needless to say, I am not a typist.

H. E. Dilcher
12 Eagle Rock Road
Mill Valley, CA 94941

June 28, 1973

Mr. George H. Balazs
Hawaii Institute of Marine Biology
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Kaneohe, Hawaii 96744

Dear Mr. Balazs:

I greatly enjoyed the articles on sea turtles enclosed with your letter of June 18. As Stan Pickarski (who, incidentally, comes as close to being "Mr. Pacific" as anyone I can imagine) has suggested, I spent some time on East Island in 1951. Hopefully, Stan has been able to place you in contact with others whose stay on the island was longer and whose combined observations would provide a more valid basis for conclusions than do mine.

That was my introduction to the Pacific Green Turtle, and I saw no other species. Unfortunately, then as now I was untutored in the methods of biological research; thus my comments are necessarily based on recollection of lay observations.

You ask if nesting took place in large numbers. Probably not, although I don't know what range of numbers would be considered large. There were many nights during the nesting season when no pits were dug, and as many as three in any one night would be unusual. It was my feeling at the time that turtles were relatively scarce.

To the best of my knowledge there was very little basking on the beaches. Perhaps this was as much due to human activity on the island as to turtle scarcity. I never saw an adult turtle ashore during the daytime. One of the men had photographs of an earlier daylight capture of a turtle on the beach, however, so it can be reasoned that some basking took place.

Except for emergency air drops, East was supplied by a Coast Guard ship from Honolulu at intervals of about six weeks. The ship on which I traveled to French Frigate Shoals stopped enroute at Niihau where another LORAN station was located. There was a small quantity of turtle meat from East in the ship's freezer which was semi-surreptitiously taken ashore along with the regular provisions. I was led to understand that Niihau residents rather than LORAN station personnel, were eventual recipients of the turtle steaks and that the meat was greatly prized by them. (Coast Guardsmen were not fond of turtle.)

The foregoing is mentioned to indicate that there was some killing of turtles on East, although by then it was officially frowned upon; and that apparently turtle meat was not otherwise available to Niihau residents.

Your article in *The Elepaio* (June 1973) contains an inference which is not verified by my observations. Hatchlings do not emerge from the nest and immediately go to sea for a year, as is suggested. I noted that hatchlings spent several days ashore before departing the island, foraging during the night and hiding during the day, during which period they would not stay in the ocean even if placed there. This, in my opinion, is the most crucial period in the turtle's life and its understanding affords the greatest conservation opportunity.

When newly hatched, the green turtle has an umbilical aperture in its soft under-shell. Day-feeding shore birds, especially plovers, were adept at flipping a hatchling over and extracting its intestines by pecking at this aperture. I did not note that the remainder of the carcass provided food for bird or crustacean.

During the day these little fellows would mass together in sheltered spots, such as under plants and about the buildings. A poorly-protected bunch would be attacked by shore birds. The turtles emerged at night when they were not molested by birds. After several days the under-shell would have become hard and the umbilical aperture closed, whereupon they seemed able to defend against the birds by resisting the flipping maneuver, and even foraged during the daytime. Only then, in my observation, did they take to the ocean. There followed a period of a few days when at least some of the new swimmers remained in the vicinity of the island and returned to land periodically.

In an effort to protect the defenseless hatchlings from the ravages of plovers, several of us would make early morning rounds of the island, filling crates and boxes with turtles found hiding in exposed locations. They were released each night. Hopefully, 1951 was a good survival year.

With all respect, I further doubt that "brightness cues from the horizon" enable the hatchling to find the ocean. We made many tests with turtles which were sufficiently developed to be ready to go to sea. Placed in the water on the side of the island where found, the youngster would swim to seaward.

Tossed into the water on the opposite side of the island from where found, it would almost always swim directly back to shore. If then taken across the island and tossed in, it would swim away. One would suppose that, if "brightness cues" provide a directional beacon, similar response should be observed in all turtles.

I would recommend placement of numerous small hiding places about East Island as a means of dramatically increasing survival of hatchling turtles. Because of drifting sand, permanent structures might not be feasible. On the other hand, I observed that birds would not attack a turtle which had some semblance of protection, thus perhaps something as simple as a few short boards slanted into the sand in lean-to fashion would suffice as protection and at the same time resist closure by sand. Seasonal as it is, the supply of hatchling turtles as food for plovers would not seem to be a survival factor for the latter.

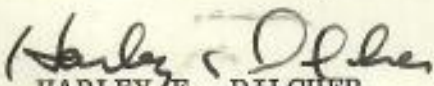
Seals were not present during my stay, nor did anyone mention ever having seen one at East.

Birds were plentiful, then as now. The uninhabited portion of the island, including the antenna farm, was ridden with shear-water burrows; shore birds abounded; albatrosses were usually visible--both Laysan and black-footed, as I recall; frigate birds seemed to be based on La Perouse Pinnacle; and one evening I was low-bridged by a hurtling gannet. I'm sure there were many more, but recollection is indistinct.

You have stirred memories. However, my emotions are not unmixed. You tell me that birds are very plentiful--good words to their friends, among whom I count myself--yet thus I know that the first few days in the life of each turtle are precarious indeed. You tell me that the quonset huts are gone--and who can lament the passing of those eyesores--yet thus I know that their steps and foundations no longer shield thousands of soft turtle bellies. You tell me that East Island has Hawaii's greatest turtle nesting activity--and thus, since they nest in their birthplace, I can hope that our 1951 morning collections played some small part in the present scheme of things. Furthermore, it was fun.

Mahalo and best wishes.

Sincerely,


HARLEY E. DILCHER
12 Eagle Rock Road
Mill Valley, CA 94941



University of Hawaii at Manoa

Hawaii Institute of Marine Biology
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Cable Address: UNIHAW
August 21, 1974

Mr. Harley E. Dilcher
12 Eagle Rock Road
Mill Valley, California 94941

Dear Mr. Dilcher,

I am sure you will recall our correspondence of last year relating to my work with the Hawaiian green sea turtle at French Frigate Shoals. Your letter of June 28, 1973, which outlined observations on the wildlife at East Island during 1951, has been of real benefit to my understanding of the area. As yet, I have not been successful in contacting any other individual who spent time on East during the tenure of the LORAN station.

Between May 29 and August 15 of this year I once again conducted an intensive study of the French Frigate Shoals' breeding and nesting turtle population. The major portion of the investigation was again focused on East where I resided for almost the entire period. Two weeks were spent entirely alone while the remaining time a student assisted me with the work. I must confess that the period spent by myself with only the island and the wildlife for company was a time I shall not soon forget. I feel extremely fortunate as few men are afforded the opportunity in today's world to experience nature alone. Research on the turtles will continue at periodic intervals over the next year as I have received a small grant from the New York Zoological Society. I will return during mid-September for two weeks in an attempt to ascertain predation rates on hatchlings as well as determine natural mortality and infertility within the nests. Thereafter, I expect to make a monthly aerial census on the scheduled FAA supply flight and conduct a one week land survey every three months. During late April and early May of next year I intend to collect data on mating activity.

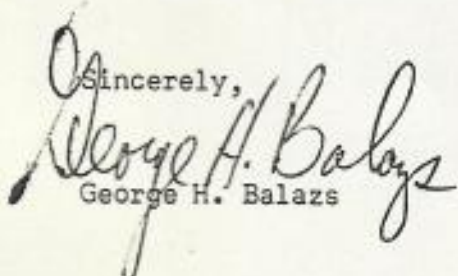
I have enclosed a section from the Atoll Research Bulletin (No. 150:1971) on the East Island LORAN station which I thought you might enjoy. The photograph (Figure 34, 1945) and the drawing (Figure 15, 1948) have contributed to a bit of confusion on my part. Using aerial photographs and ground maps I am trying to determine to what extent, if any, the island has undergone erosion over the past 25 or so years. As a basis, I have worked around the positions of the antenna masts. Incidentally, all were cut down except for one during a U.S. Fish and Wildlife clean-up program during 1973. In Figure 34 six masts are shown (labeled No. 1-6) while in Figure 15 mast No. 1 is missing and mast Nos. 7 and 8 have been added. I therefore assume that between 1945 and 1948 No. 1 was taken down and two new additions were placed on the SE portion of the island. These points are important to me because if no further additions were made after 1948, and mast No. 2 is the mast standing alone today (a conclusion I have tentatively arrived at), there will be evidence to show that a significant portion of the NE side has been washed away. It is probably

unrealistic for me to ask you to recall details of such a seemingly unimportant nature and I appologize for doing so. In any event , if you can provide any information on this subject I will be most appreciative.

Moving more to the field of biology from that of geography, there is another mystery of greater significance in which you may be able to provide assistance. During this season's study a total of 93 females nested on East Island. This can be compared with a total of 67 during the 1973 season. As green turtles normally nest only once every 2, 3 or 4 years (several clutches of eggs are deposited during a nesting season by each individual) , all of the animals tagged this year were different from that of last year. The unusual characteristic of this year's population was the presence on 12 animals of distinctive U or V shaped notches on the marginal plates. These notches had most definitely been intentionally placed there for identification purposes. Unfortunately the originator of these marks is unknown. I have spoken with both State and Federal Fish and Game officials as well as others who have sporadically visited the area since the mid-50's. No knowledge of these marks seems to exist. Extremely important information on green turtles could be obtained if the time and place of marking were known. Perhaps you may recall hearing of Coast Guard personnel prior to your term of duty engaging in turtle studies that involved marking. For reference purposes I have enclosed an illustration of a green turtle shell. The indicated areas show the type and location of the marks I am referring to. If you are unaware of any such marking activity taking place, perhaps you can suggest other individuals to contact that spent time on East Island. If all fails I intend to place notices in publications throughout the Pacific requesting information on this matter. There is the possibility that notching took place at a location removed from the Hawaiian Archipelago, however, I think this to be highly unlikely.

I certainly look forward to hearing from you again at your earliest convenience. If you feel it would be productive, please do not hesitate to call me person to person collect here at the Institute (247-6631). Many thanks again for all your assistance.

Sincerely,


George H. Balazs