

28 March 2004

Marine Biology – Jamaica (2004)

March 6

In the early morning hours (4:00 a.m.) of 6 March, nine students assembled in front of Regina Hall to begin our week-long adventure to the Hofstra University Marine Laboratory (HUML), Priory, Jamaica. My wife, Kathy, and I were only slightly more awake than the students as we boarded the bus for the Michiana Regional Airport and the first of three flights that would eventually end in Montego Bay. All of the flights were on-time and we landed in Jamaica at 3:45 p.m. After the ritual of clearing immigration and customs, we were greeted by warm winds and our driver, Mr. Keize.

Mr. Keize is an affable gentleman who has been ferrying students around the island for HUML as long as I have been visiting. We loaded the luggage on the bus and we were off on a 2 hour ride along the north coast of the island to our final destination, HUML. We arrived at the station just before 6:00 p.m. and were greeted by Tom and Courtney Leigh, Co-Directors. The students quickly found their rooms and returned to the open-air dining facility for dinner. It was a long day and we all retired early.

March 7

Our first, full day in Jamaica was Sunday. I arranged for the students to attend mass at Our Lady of Perpetual Help, located a few miles from HUML. Our students are always warmly welcomed at this church and returned excited to talk about the experience of attending a very different type service. Just before lunch, we gathered in our laboratory for an introductory lecture by Tom and Courtney. This orientation is standard and is meant to acquaint the students with the rules of the facility and basic safety issues. Tom and Courtney were an instant hit with our students. They were recently married, and a very knowledgeable and caring couple.

After lunch, we ventured into the water for the first time. The wind was a bit stronger than I liked, and Tom suggested a protected site, just a short boat ride from the station, for our first snorkel. Conditions were ideal and in a few minutes students began finding some familiar, and many unfamiliar, organisms. We spent about 90 minutes in the water and returned to the lab energetically tired. The first order of business at the end of a collecting trip is to take care of the animals. We placed the organisms in aquaria and water tables, as necessary, making sure to separate creatures that might not get along. We then returned to our rooms to shower and change. The students were given time to write in their journals before dinner.

That evening we spent with our collection. The student's have the responsibility of identifying and classifying all of the organisms we collect, and a few that we don't, either because it is either illegal (coral), or impractical (most fish). We spent several hours in the lab that evening. This would be the norm for the rest of our stay.

March 8

The news on Monday morning was not good. The boat, that would take us on our 3-stop snorkel, was broken and would not be available until the next day. We shifted gears and set out to collect on the rocky shore; a 15 minute hike from the lab. The “shore” is a spectacular and forbidding place. Waves break over the ancient coral beds that have been uplifted by geological activity. The terrain is extremely uneven and the rocks are very sharp. It is essential to know exactly where you are going to place your feet prior to taking a step. The shore is home to thousands of snails representing at least a dozen species. We assessed the zonation on the shore and began to collect representative specimens. We worked our way from the “white zone” to the “pink zone” – furthest from the water and only occasionally wetted to the shoreline which is almost constantly immersed. The fauna gradually changes as you move from zone to zone. This is tedious and, despite the ocean breeze, hot work. We continued down the shore for about a mile until we reached Jingle Beach. The beach is covered by large, smooth stones that rattle as the waves enter the protected water of the cove; an ideal place to take a break and a short swim. We returned to the lab to care for our catch and cleanup for lunch.

After lunch we had a break with a trip to Dunn’s River Falls located about 10 miles east, near Ocho Rios. Dunn’s River Falls is a 600 foot waterfall that you can climb. We had an enjoyable and exhilarating experience and returned to the lab for journal writing, a short rest, and then dinner.

After dinner, Tom gave an hour-long lecture on reef fish identification and behavior. Following the lecture we spent a couple of hours sorting and identifying the rocky shore collection.

March 9

Tuesday morning was clear and the sea was as calm as I have ever seen it. I was never so thankful for yesterday’s boat malfunction as I was today. The boat was shipshape and we headed for the fore-reef and a magnificent experience in the water. The clarity of the water was exceptional and we were greeted with an unimpeded view of the boundary between the reef and the open ocean. We also had the good fortune to observe a varied and large aggregation of jellyfish and comb jellies. We saw a swarm of thimble jellyfish, no bigger than the end of your finger, moon jellies, and more. We managed to collect a few of these delicate creatures for our tanks. We stopped at two more sites and continued collecting in turtle grass beds and the back-reef. We returned to the lab, cared for our catch and retired for some writing and a short rest before lunch.

That afternoon we hiked about a mile to a mangrove forest. This is the third of the three major ecosystems we study. The mangroves are a dense and complex network of salt-tolerant and terrestrial plants. They are important nurseries for many reef and ocean fish and invertebrates; as well as a buffer between the marine and terrestrial environments. This is also the site of both Spanish and British colonies during the 17th and 18th centuries. Archeological digs are underway so we combined our biological investigation with a bit of historical prospecting. The afternoon was interesting, fruitful, and tiring.

After dinner, Courtney lectured on Jamaican history and culture which was a bit more interesting and detailed than the one I gave prior to our trip. The remainder of the evening was devoted to identifying the organisms collected that day.

March 10

Wednesday was probably our most varied. We left the lab for a daylong excursion with both cultural and biological objectives in mind. We first traveled to Browns Town, a community of approximately 20,000, about 7 miles inland, and not a tourist destination. It is the site of a farmer=s market where locals bring their produce to sell to their neighbors. The students were divided into groups of three and given a few items to purchase. In order to successfully complete their assignment, the students must talk to the vendors in order to locate the stall that sold the items on their list. Then they had to negotiate a price and find out what to do with what they bought. This experience allows the students to have contact with regular folks in a controlled environment outside the areas typically frequented by tourists. We then proceeded to the Discovery Bay Marine Laboratory, a research laboratory run by the University of the West Indies. We toured their facility and received an overview of the research being conducted by the scientists involved.

Following our tour of the laboratory, we drove a short distance to Puerto Seco Public Beach on the east side of Discovery Bay for lunch and a short snorkeling expedition. We had no collecting equipment so this was an observational excursion only. We observed a number of organisms that we had not observed elsewhere.

Wednesday evening we assembled in the lab and each group presented their purchases from Browns Town, explaining how it was used and prepared. Following the presentations, we headed out, flashlights in hand, to explore ATide Pool Island.@ Our objective was to catch a grass octopus, *Octopus macropus*. This is a small octopus that hunts the shallows at night in search of crabs and other crustaceans. After an hour of diligent searching, I began to fear that we would not be successful. Just as I was getting ready to pack it in, I heard a tremendous commotion. Emily Litka and Shannon Artnak had deftly negotiated an octopus into a bucket with a small net. Then the trick was to keep it in the bucket. Eventually everyone had a chance to observe it and then we released it and watched it glide silently into the darkness.

March 10

The weather on Thursday morning was fine; however, the wind from the east was strong enough to generate waves that would make our last snorkeling trip less than ideal. After a bumpy boat ride, we arrived at Drax Hall, a favorite spot for previous classes. Unfortunately, the westerly winds were driving waves directly into the beach, stirring sediments making visibility poor at best. After a short stint in the smaller bay, we headed down the longer bay toward a small bat cave with the hope of finding somewhat more sheltered locations.

We were 200-300 yards from the boat before deciding that conditions would not improve, and head back to the boat. I surfaced after making a short foray to the bottom only to have one of the students tell me that another student was having an asthma attack. I saw Tom Leigh, one of

the co-directors, with his arm around the student swimming back to boat. I swam over, got underneath the student to hold her above the water and started kicking on my back as fast as I could. Breathing was difficult because of the waves and by the time I was within 25 yards of the vessel, I was exhausted. Fortunately, Tom was alongside and took over for me. I swam to the boat and got a life ring on a rope, got it to the student and she was pulled aboard. Once the student got to her inhaler, she was fine and seems to have suffered no scars from the ordeal.

After lunch we cleaned the lab, our aquaria and water tables for the next group. We returned the animals to their original locations, and the remainder of the day was free time.

12 March

Friday was tourist day. We visited the Circle B fruit farm. Our guide, Humphrey, described the various fruits grown in Jamaica, many of which were unfamiliar to the students, and cut samples for us to taste. We then headed for Ocho Rios for some souvenir hunting and lunch. We returned to the lab for a quick change into clothes suitable for a night out and boarded the bus for an hour drive to Falmouth and the Glistening Waters Restaurant. The restaurant gets its name from the large concentration of dinoflagellates that occur in the adjacent bay. These organisms bioluminescence when disturbed. After dinner (rather unremarkable) we changed into our swimsuits and boarded a boat for a trip into the bay. Unfortunately, the heavy overnight rains during the past week did not provide ideal conditions for viewing this natural spectacle. The light was weak (a 2 on a scale of 10 according to Courtney). The students swam and we could see faint yellow halos around them as they moved through the water.

13 March

We packed and boarded the bus for our return to Montego Bay and the trip home. All of our flights were on-time and the Saint Mary's bus was waiting to take us to campus.

Overview

The trip was an unqualified success. We collected and/or identified 110 species of organisms. Courtney and Tom were highly complimentary of our students particularly because they were not facing an exam before leaving for home. A field exam is normally part of the course; however, I challenged the students before we left that if they all earned an 80% or higher on the exam I gave before we left, there would be no exam at HUML. They rose to the challenge. The fact that I saw no decline in their enthusiasm for collecting, or determination in accurately identifying everything we collected is a testament to their dedication. I could not be more proud of their enthusiasm or work ethic.

I want to thank CWIL for their support of this program. I can't say that the course would not have been taught if the grant had not been awarded, but I know that reducing the financial burden on the students and their families was most welcome. Each student is submitting a short summary of her experience and what this opportunity meant to her.