

ADVENTURE — GALAPAGOS ISLANDS, 1970

By JOHN BORGSTEADT

Editor's Note: "Watt's Current" is most fortunate in being able to bring to its readership the following account of life on the open seas on the way to the exciting Galapagos. Reporter-photographer John Borgsteadt is a 23-year man with HP in Materials Engineering (Bldg. 17).

"Nowhere else in the world"—

"I took the latitude to know where the Islands were; they are between $\frac{1}{2}$ and $1\frac{1}{2}$ degrees south latitude . . . (and 90 degrees west longitude). On the second island, the same conditions prevailed as on the first; many seals, turtles, iguanas, tortoises, many birds like those of Spain, but so silly they do not know how to flee, and many were caught in the hand . . ."

So wrote Fray Tomas de Berlanga, Bishop of Panama, in 1535 after his discovery of a group of isolated, volcanic islands about 500 miles west of Ecuador, and later named the Galapagos, meaning tortoise.

Three hundred years later, Charles Darwin, passing among these islands aboard the *Beagle*, found two huge tortoises, about 200 lbs. each, ambling across the lava; there were no others like them anywhere in the world. Great black lizards, some four feet long, sunned themselves on the black, volcanic rock along the shore. A rust-colored land lizard had burrows which filled so much earth on James Island that it was difficult for the *Beagle* party to find a place to pitch a tent. Of 26 kinds of birds found, all except one far-ranging finch were peculiar to these islands. All 15 kinds of fish that were caught were new species, and so were nearly all of the insects and many of the flowering plants.

Aboard the "Te Vega"—

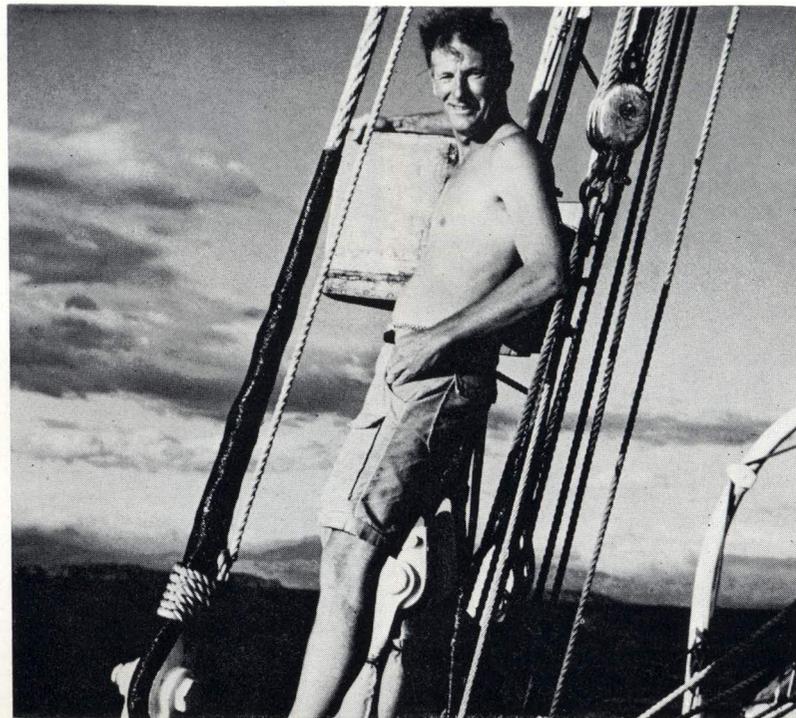
One hundred thirty-five years later, 30 Sierra Club members boarded the 156-foot gaff-rigged schooner "Te Vega" in Balboa, Panama, and set sail for the Galapagos Islands to see first-hand the terrain and wildlife that had inspired the Darwinian theory of evolution.

Schooner life began immediately after arrival in Panama by Pan American as we boarded Te Vega in light rain, heavily laden with diving gear, telescopes, cameras, etc.

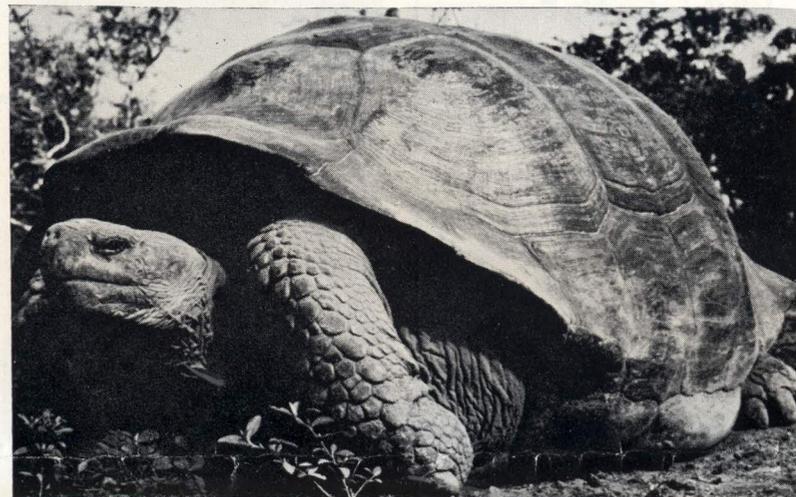
At 20:30 on January 12 we moved out into the Bay of Panama in light rain and windless sea; later dropped the pilot and set course 210° straight for San Cristobal Island, 950 miles away—the 200 horsepower diesel giving a 7-knot speed. On the third day out the skies cleared, the sea become deep blue, and a breeze from the west was enough to hoist sail—this was the real beginning of our schooner experience; the schooner's gentle roll was suddenly changed to a steady heel to port, and both ship and passengers came alive. Bikinis and shorts were the norm as temperatures approached 85° with moderately high humidity.

At 5 p.m. on January 17 we approached Wreck Bay on San Cristobal Island, with about 30 wooden buildings along the shore and a population of several hundred. After entering the small bay we welcomed Ecuadorian officials aboard to present our plans and receive instructions apropos to visiting an Ecuadorian national park. We also received our Galapagos Islands pilot and guide aboard—essential for island navigation and locating wildlife.

Our first contact with the Galapagos dispelled notions of tropical splendor; of the fifteen islands, about six attain altitudes of several thousand feet and have significant vegetation, even jungle at the higher altitudes. Many, however, are small volcanic lumps only $\frac{1}{2}$ to 2 miles in diameter and a few hundred feet in height, and project from the sea bottom 10,000 feet below. They sometimes appear as layers of red, brown, and black lava speckled with giant cacti (opuntia) and light brush. The



LANDLUBBER goes to sea—JOHN BORGSTEADT aboard Te Vega.



VENERABLE Island Taxi! Tortoise—land, not sea turtle—goes one mile per hour but emits no carbon dioxide! Above specimen, of *Geochelone Phantastica*, is approximately 100 years old and weighs about 350 pounds. It was photographed on volcano crater rim at 4,000-foot level on Isabella Island.

From the sea bottom 10,000 feet below, they sometimes appear as layers of red, brown, and black lava speckled with giant cacti (opuntia) and light brush. The wildlife that we found on this lava had to be seen to be believed—and none of us will ever be the same after contact with the acres of nesting birds, gulls, and marine iguanas, the giant land tortoises and land iguanas, colonies of seals and sea lions—all together and totally without fear of humans.

Friendly Natives—

Our first wildlife contact was on Hood Island. Te Vega anchored about a half mile off the rugged lava shoreline and its Boston whaler landed us on a small sandy beach, past colonies of sea lions. They showed no inclination to avoid us, and we learned that they were most entertaining diving companions, imitating our underwater acrobatics, loop for loop, bubble for bubble.

Mockingbirds boldly approached us in search of fresh water; those who offered any were quickly surrounded by them. There is very little fresh water on the islands, except captured rainwater, and that from a few wells. (We were limited to the Te Vega's meager supply.)

Biologist's Paradise—

Two-foot-long black marine iguanas (the only known marine lizards) and red and green sea iguanas shared the black sea-washed lava with the mockingbirds, sea lions, penguins, gulls, flightless cormorants, and the brightly colored Sally light-foot crab. In every case, as Darwin and sea mariners said, the creatures did not flee. The gulls lay their eggs and raise their families on bare ground (one nesting swallow-tailed gull was undisturbed as her wing was gently lifted to permit us to watch her chick in the process of hatching). Our telephoto lenses were unnecessary; the gulls and iguanas virtually lived in classic poses, and remained so at distances closer than our lenses could focus. True to iguana lore they spit "steam" from their nostrils—but only to clear away excess salt!

We learned to expect this close-in contact as we sailed from cove to cove, island after island. Some islands contain many indigenous species; however, other species, such as the giant land iguanas near Gardiner Bay on Hood Island and the giant land tortoises on the rim of Alceda Crater on Isabella Island, would not have been seen without the guidance of our pilot, Karl Angermeyer.

Nature in the Raw—

Skin diving in the 75° water with 30 to 40-foot visibility was very exciting, and we were soon spending a portion of each day at anchor cavorting with seals, sea lions, sting-rays, the usual tropicals, Parrot fish, Trigger fish, Moorish Idols, puffers, and a variety of reef fish. The prickly feeling we often noticed while

Isabella Island.



PREHISTORIC MONSTER? No, just a friendly marine iguana by the name of "Amblyrhynchus."

diving were the schools of Wrasse (Cleaner fish) giving us a "cleaning." We were often pursued by groups of "puffer" fish—some approaching within inches—that blew up to volleyball size when handled. Five and six-foot white-tipped sharks made frequent appearances (one in shallow beach surf), thus clearing the water of all divers. We watched Manta rays "frolic" in the shallow surf where we were wading, and were left speechless, sitting on a small beach as a Galapagos Hawk walked by, caught a crab, and had dinner right in front of us. Nearby, a flight of 40 Pink Flamingos in formation circled the lagoon.

Land of Darwin—

The Galapagos adventure was a moving one. For a moment it reduced my life to a few simple and powerful factors: being at sea; being on isolated, primitive volcanic islands; being with some of the oldest surviving creatures; looking into brilliant skies at night at new constellations; walking through giant cactus and the white-bark palo santos in early morning hours while climbing to a crater rim; watching in awe the very same scenes that caused Darwin to speculate, then later to begin the crumble of centuries of notions on how "creation" took place.

Darwin's inquisitive mind needed the simplicity and isolation of the Galapagos to clearly demonstrate the development of species that he described 25 years later in his famous paper, "The Origin of Species." For a moment, we shared in that same, never to be forgotten wonderment!

New bonus interest rate