

A Love Affair with a Tropical Island: Dave Hardy and the Struggle to Know Tobago's Biota

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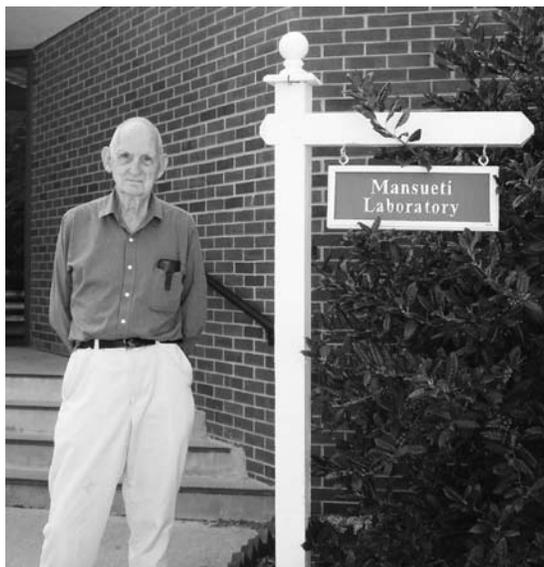
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Jerry David Hardy is well known in our region for his long-time, passionate interest in the island of Tobago and its biota. During a recent stay with him in Tobago, we found that he is known all over the island. Speaking with a fisherman in Speyside one day, we noted the man's near-amazement to learn that our companion was none other than the legendary "Snake Man". Dave's main scientific expertise is in the systematics of fishes, amphibians and reptiles, and his paper on Tobago's biogeography (Hardy 1982) remains the definitive work in that area. The following biographical article is mostly drawn from an interview conducted in Trinidad on 27 November, 2007.

Dave was born in 1929 in Pennsylvania, USA. After just three days, the Hardy family - parents, older sister and the infant Dave - moved to 22 Wade Avenue on the outskirts of Baltimore, Maryland, the house where he still lives today. He blames himself for the Great Depression, which began in 1929. "My mother took one look at me, got all depressed, and it just sort of spread from there."

His father had a master's degree in Biology from Johns Hopkins University in Baltimore. An episode from the Depression illustrates something of the times and the elder Mr. Hardy's personal philosophy. "Despite his background in science, my father began work as a Methodist minister. There was massive unemployment at the time, and he lost that job. He wound up making yeast for a whiskey distillery, the only job he could find. However, he still wanted to be involved in the Methodist Church, and one day he applied to become a deacon. He was told that he wasn't acceptable as a deacon as long as he was involved in making whiskey, so he immediately quit his job at the distillery. My mother was not pleased, in fact utterly devastated. And she wasn't the only member of the family who disapproved of my father's decision, I can assure you. Jobs were very hard to come by at that time, and I think we lived on nothing but cornmeal



J. David Hardy in front of a laboratory at the Chesapeake Biological Laboratory in Maryland, where he once worked. The laboratory is named for his mentor in herpetology, the late Romeo Mansueti.

mush for at least six months. Just by dumb luck, though, in about six months he got a job as head of the YMCA in Baltimore, a very good job in those days."

Surprisingly, his father's training in biology had no apparent influence on Dave's own career path. As a child he aspired to be an airplane pilot, and for a time later in life he had a small plane of his own. Even so, he gained an interest in amphibians and reptiles at an early age. "There are certain definitive moments that change your whole life, even if you don't realize it at the time. When I was 11 years old both of my parents were working. What should they do with my sister and me in the summer time, when we were not in school? One day at breakfast they saw an advertisement

for a summer nature school at Druid Hill Park in Baltimore, and that seemed to be the solution. So, I was at Druid Hill Park every weekday that summer, and it was there that I met Romeo Mansueti.

"Romeo was 18 years old and absolutely intrigued by amphibians and reptiles. Soon he had me hooked on herpetology, and I have been that way ever since. Before I met Romeo, I was scared to death of snakes, so that is definitely the beginning of my interest in herpetology. He motivated me to overcome my fear, so that a couple of years later I was catching [venomous] copperheads."

"Even now, though, I have a reflexive reaction if I come upon a snake suddenly. If I am out turning over logs, where I expect to find snakes, that's okay, but if I am walking along at night and suddenly there is a snake on the trail, I go 'Aaahhh!!'. And then I realize I shouldn't do that, especially in Tobago, where all snakes are harmless."

Dave was in the U.S. Army and then did his undergraduate degree at Elon College [now Elon University] in North Carolina. After that he was in graduate school at the University of Maryland, although he left without completing his PhD. For many years he has worked for the National

Oceanographic & Atmospheric Administration (NOAA) in Washington. However, since the early 1990s his base has been the Division of Fishes of the National Museum of Natural History (NMNH), Smithsonian Institution, even as he continues as an NOAA employee. His job is to help develop the Integrated Taxonomic Information System (ITIS), which is intended to list every scientific name of the entire world's biota.

Dave first came to Tobago in the early 1960s, while still a graduate student. The story of his first encounter is best told in his own words.

"I had come to Trinidad with a Smithsonian group led by Bob Tuck. Somebody said we should go to Tobago. I didn't really want to go, but Janet Olmon thought it sounded wonderful and persuaded me. And I fell in love with the place, right then and there. We kept seeing things that we hadn't seen in Trinidad. We didn't know what they were, but we knew they were different. I never bothered much with Trinidad after that."

"That first Tobago trip was another defining moment in my life. In Trinidad, Janet and I had been collecting *Mannophryne trinitatis*, commonly known as the yellow-throated frog. It has a distinctive call, 'pidip pidip pidip pidip', familiar to anyone who goes into the forest in the rainy season. We were in Tobago, walking around in the forest, and Janet said 'Dave, stop. Listen.' What was I listening to? What Janet had noticed - although I had not - was that in Tobago the yellow-throats were going 'peep peep peep peep', not 'pidip pidip pidip pidip'. And that is why, when I came to describe the Tobago yellow-throat as a new species, I named it after her, *Colostethus olmonae* [now *Mannophryne olmonae*, the Bloody Bay poison frog]."

"You might say that hearing that 'peep peep peep peep' was a defining moment within the larger defining moment of my first encounter with Tobago. I said to myself that this was the place to be. Since then we have discovered three more undescribed frogs in the island. I have been back between 40 and 50 times, I would estimate, on average a little more than once a year."

Dave has also visited several other Caribbean islands, beginning with Cuba in 1947. Then, from 1962 into the 1970s he worked in the Lesser Antilles. Part of what persuaded him initially to visit Tobago was one particular puzzle. He had seen frogs identified as *Eleutherodactylus urichi* on Grenada and then on Trinidad. They were clearly different, so he wanted to see what was present on Tobago. While some Tobago specimens matched those from Trinidad, others were the same in some characters but not all. Later analysis by Dave and others showed that what had been

treated as one species was, in fact, a complex. *E. urichi* is present on both islands, while *E. charlottevillensis* is a Tobago endemic, and *E. euphronoides* is a Grenada endemic. (All are now being placed in the genus *Pristimantis*).

Thus Dave was led into a broader study of the amphibians and reptiles of Tobago, which by stages has become a major project to inventory the entire biota of the island.

"In 1979 I got some funding from the Organization of American States and EarthWatch, and there has been various other external support. The Tobago House of Assembly (THA) contributed TT\$3000. However, I have financed the greater part of it, myself. I estimate that I have spent something more than US\$200,000 of my own money over the years. I have no dependents or expensive tastes, so that I can afford to devote a large part of my earnings to my life's work, the Tobago project."

Naturally, a project of this magnitude is not the work of one man. Dave has been able to draw many collaborators into it, specialists in various groups of organisms. Many of these have visited Tobago on trips that he led.

"The best trip of all was in 1991. Several people from the Smithsonian's Division of Fishes came down, as well as the crustacean specialist Marilyn Schotte, all outstanding in their various fields. They discovered a number of new species of fishes and, I think, about 20 new crustaceans. Aside from being very productive, it was an extremely enjoyable trip, as everyone got along well together."

The project has also benefited from association with a number of local people in both islands. In Tobago these have included the late Jane Boyle, Earl Caesar (former head of Fisheries for Tobago) and Pat Turpin. "Some years ago I spent a week with Jane Boyle working on mollusks. She was very dedicated, but she didn't keep precise locality data, so all we know for sure about her specimens is that they came from somewhere around Tobago."

The main goal of the project is annotated lists of the biota of Tobago, several parts of which are now published (e.g. Peck *et al.* 2002) or close to completion. An important auxiliary goal is a comprehensive electronic bibliography of the natural history of Tobago, amounting to about 7500 references.

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