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The John Daly I Knew in Madagascar:

**November 1989 – December 1993 / January 1994 – December 1998 –
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John's first trip to Madagascar was in November 1989. At that time, very little information was available with regard to the exact sites for collecting the brightly colored poison frogs of the family Mantellidae, which are found only in Madagascar. John Daly, however, came full of energy for the project and in the field, would work without interruption in the forest for a whole day with very little provisioning: one tin of sardines, some fruit, a few pieces of bread and two bottles of water. His endurance was incredible. After a full day of labor, he would often make nocturnal expeditions. In the dark, with a headlamp, he continued to collect in the swamp forest. Night work is much harder than day work, but he did it cheerfully.

If he stayed inside the tent at night, he would continue work with the collected frogs. He would skin the frogs, prepare the alcoholic extracts, take notes and preserve the specimens.

In the field, John started his day at 6 o'clock in the morning and finished only after midnight, if a night round was not planned. In the morning, he was always the first to wake, and seeing him walking around would oblige the rest of us, sleepy or not, to get up as well.

The first thing John used to do was to cut a long stick with his machete, a tool from which he was never separated while in the forest. The stick was used for support in walking the hills and as a tool to seek frogs under the leaf litter and debris. This stick would last until the end of the fieldwork. I remember that in our first expeditions, John always held the record on the number of frogs captured. In the last missions, that was no longer the case. He would complain that he was getting old. But more likely, we were more experienced, thanks to his instruction.

John would put the captured frogs in plastic bags. The plastic bags were placed in turn inside a large cotton bag. This cotton bag was soaked from time to time in a stream to keep the temperature down for the frogs, especially if we left the forest to walk out under the sun. John was always very concerned about this, because it takes only one lapse of attention to kill the entire collection.

The collecting place for one population of the *Mantella* frogs was far away from the camp and the guides wanted to keep that location secret, since the frogs were for them, desirable objects in a lucrative commercial trade. So, the guides relocated several frogs to a nearby site and led us there, since this would require less work and cause no monetary losses for them. Later on, when we became aware of this fraud, we asked other guides to lead us to the real sites. According to the new guides, the other places were very distant and were practically impossible to reach. However, nothing could stop John Daly. After finding the right place, he knew that the first convenient site was a distracting scheme, from discussion with other guides and due to key characteristics of the bogus location such as the lack of a stream in the vicinity.

When the expedition conditions were a bit extreme, like having to spend a day under a scorching sun or under torrential rain, John Daly didn't falter. I remember one day, in the Andasibe region, we had walked 40 km along an abandoned railway line and we had finished all of the water we were carrying. There was no source of safe water to drink and we still had a long walk ahead of us. Fortunately, we found a sugar cane plantation. I still remember his face chewing the sugar cane, happy as a dog with two tails. I think that that was one of his main character traits, he was able to have joy like a child, apparently without concerns.

On December 31, 1993, no field guide was available to go with us into the forest because of the holiday. So John and I went alone and spent our New Year's Eve in a tent right in the middle of the forest. For John, work was not limited by time or by space, certainly not a holiday.



Figure 1. Map of Madagascar with the localities cited

(Source: CIA The-World-Factbook)

John didn't want to be bothered with too much luggage during fieldwork. But, he never forgot to carry fruit, in particular litchis, wonderful red fruits similar to grapes, of which he was very fond.

There were also risks associated with our trips. Different transportation means were used: cars, planes, boats, although the main thing, as I mentioned before, was an awful lot of walking.

Once we used a small plane to go along the East coast of Madagascar (Toamasina – Maroantsetra). The pilot and John were in the front and I was in the back. During the flight we encountered a big storm and the visibility dropped to zero. There was no navigation system. It was reassuring to see John and the pilot's calm faces looking outside for any landmark. Somehow we made it!

Around the same time, on December 30, 1993, we had to travel to North Mananara, a town about 100 km from Maroantsetra. We couldn't find a car to rent and the next taxi-bus was a week away. Furthermore, the road is so bad that if you did secure a taxi-bus you would have to agree to push the taxi-bus when it got stuck in the mud, probably ten times per trip. The only solution was to travel by boat, from the river to the sea. The size of the boat was 7 m x 2 m and was without a canopy. We started our trip at one o'clock in the morning when the tide was high enough to be able to cross to the sea. During the voyage in the dark we were caught by a beating rain and a severe wind. The rain was so strong that the boat took on water and the sailors had to bail continually using buckets. John helped them too. I was too frightened to move. There were no life jackets for anybody. But I gained some reassurance from a very calm woman with a baby among the dozen or so passengers. Fortunately, by morning, the rain ceased and the wind dropped. Then we could appreciate the beauty of the sea and a couple of dolphins teasing the boat. After a hard night, we had a very nice day. We arrived at North Mananara at 11 o'clock in the morning after sailing for 10 hours! We were feeling like "boat people".

In 1998, at Tolagnaro located in the southern area of Madagascar, the site of collection was along a torrential stream and so slippery that John fell and his head struck a rock. At the time he thought that it was not serious. But there was a hematoma and damage to his neck and vertebrae, which were discovered two years later. This was rather serious as John began to lose sensation in his feet and his balance was increasingly getting worse. He required surgery and it was successfully done in the early morning of that tragic day of September 11, 2001.

John has contributed a lot to the studies of the Amphibians of Madagascar. His work covered all of Madagascar: from the North to the extreme South, the East and the West. To herpetologists he gave a new stimulus to the study of the genus *Mantella*. Biologists will draw knowledge on the work begun and carried out by John Daly, the chemist in love with Nature.

John was always pleasant and especially easy to get to know. Anyone could communicate with him. I can say that the whole forest communicated also with him: plants, animals, and rivers. He was often laughing while watching nature in action: the snakes that fled or the ones he captured and that tried to bite him; the

lizards and the chameleons that stared at him. In the middle of the day, John didn't hesitate to make a plunge into a river, despite the threat of crocodiles. He was always in synch with Nature.

During fieldwork, I have especially retained in my memory of John the following characteristics:

- Perseverance: on the majority of his trips, it was necessary to walk kilometers and kilometers to reach just one site, in addition to the work required at that site.
- Pleasure of being in contact with Nature: he really felt at home in the forest.
- Honesty: in describing the work in the most meticulous way possible, sites and specimens and in dealing with people.
- Kindness: he never refused to discuss the projects, even with children. I remember his surprise when an 8 year old Malagasy child, living in one of the far away corners of Madagascar, knew the name of the American President at the time.

A total of 20 sites were visited by John during the indicated period, most of them were investigated two times or even more.

His only regret in his visits to Madagascar was never having the time for a fishing trip. His stays were devoted entirely to fieldwork, scientific communication and teaching a few classes at the University.

Most recently he had plans for yet another collecting trip to Madagascar, but Fate decided otherwise.

This is only a brief outline of John's fieldwork in Madagascar, where it was evident to me his love for Nature. His face was telling everybody "life is beautiful," let's do something.



Dr. Nirina R. Andriamaharavo is a Visiting Fellow in the Laboratory of Bioorganic Chemistry, NIDDK, NIH. He is John Daly's last post-doctoral fellow. He became an expert in handling frogs from the rainforest to the ultimate lab analysis of their extracts. Dr. Andriamaharavo is currently working on analysis of frog skin extracts from Madagascar (*Mantella*). While in Madagascar, he was in the Laboratory of Natural Products of the University of Antananarivo under Prof. Marta Andriantsiferana, where he obtained his Ph.D. in Organic Chemistry in 2003, with John Daly as a co-mentor.