

A field biologist has been killed by a small poisonous snake, a krait, in Myanmar (Burma). Below is his obituary, an account from his home institution, the California Academy of Sciences in San Francisco, and an account from a another friend with him at the time. I post all three to allow you to triangulate the events surrounding this very sad event. Dan Janzen, 26 September 2001.

Los Angeles Times, 20 September 2001

Joseph B. Slowinski, an expert on such venomous snakes as cobras and taipans who had studied reptiles throughout the Americas and in Asia, died Sept. 12, 30 hours after he was bitten while examining a poisonous krait snake in the mountainous jungles of northern Myanmar. He was 38.

Slowinski, a herpetologist with the California Academy of Sciences in San Francisco, was conducting scientific field research with a multidisciplinary team of half a dozen other academy scientists and local support staff when the fatal incident occurred.

Academy spokeswoman Amy Cramer said, based on reports e-mailed from researchers at the remote site, a five-day hike from the nearest town, that a Myanmar field worker brought Slowinski a snake to examine on Sept. 11. The small snake had bitten the worker the previous day with apparently no harmful effects, and Slowinski initially thought it was a harmless "mimic" reptile with adaptive capability to resemble a venomous variety. Cramer said that, although the snake bit Slowinski, the herpetologist who had weathered several previous bites showed little concern. But within a few hours, she said, his motor skills began to deteriorate and his alarmed colleagues began efforts to get him airlifted to a snakebite treatment hospital in Singapore.

Myanmar forbids satellite cell phones, Cramer said, and the team was eight miles from the nearest radio. Despite the problems, she said, rescue helicopters were arranged through efforts of the U.S. Embassy in Yangon and the Myanmar military. Twice helicopters attempted to reach Slowinski, but were forced back by heavy rains.

Cramer said Slowinski's body was cremated in Myanmar and his ashes will be returned to the United States. The academy will schedule a memorial service at a later date.

Since 1997, Slowinski had made 11 trips to the southeast Asian country formerly known as Burma, where he had discovered 18 new species of reptiles in its mountainous jungles. He was working to train local biologists in DNA, systematics and museum curation techniques to improve conservation efforts.

Slowinski's work was funded by the National Science Foundation and had been featured on the "National Geographic Explorer" television series, in California Wild magazine and by San Francisco newspapers.

Herpetologist's Death Called Huge Loss

Patrick Kociolek, curator and executive director of the academy, called Slowinski's unexpected death "a huge loss to the entire scientific community."

Slowinski, who also had begun work on an academy survey of the biodiversity in western Yunnan Province in China, specialized in the evolutionary analysis of Elapidae, a family of poisonous snakes with tiny erect and deadly fangs, including cobras, kraits, coral snakes, vipers, adders, copperheads and rattlesnakes.

"For a herpetologist," Slowinski wrote in California Wild magazine last year, "finding a new species is always exciting; for me, finding a new cobra species is the ultimate discovery."

The man who had described himself as "obsessed with snakes, especially the venomous ones" had a painful encounter last year with a spitting cobra that shot a jet of venom into his eyes. If not washed out immediately, the venom can cause blindness.

As Slowinski screamed in pain, his photographer flushed his eyes with water, and then villagers squeezed tamarind leaves into the wounded eyes. Although the tamarind juice caused more pain, Slowinski's vision cleared after a few hours, the pain subsided, and he returned to Myanmar again this year.

He estimated that cobras kill about 10,000 people a year in rural Myanmar, and he suffered a "dry bite," or one without venom, on his finger in 1997. He contracted malaria on his expedition last year.

Yet nothing dimmed his enthusiasm for the isolated country he called "a visually stunning place" that teems with Asia's least studied reptiles and amphibians.

Fascinated from early childhood with reptiles and the occasional amphibian, Slowinski began catching small snakes and frogs at age 4. He was bitten by a rattlesnake in Nebraska when he was 15.

Slowinski earned his bachelor's degree from the University of Kansas and doctorate from the University of Miami, did research at the National Museum of Natural History in Washington and at the Museum of Natural Science of Louisiana State University.

After teaching biology at Louisiana State University and at Southeastern Louisiana University, he joined the California Academy of Sciences in 1997 and last year was elected an academy fellow.

He wrote or co-wrote more than 40 scientific papers and did field research in the United States, Mexico, Peru, Costa Rica, Guatemala, Jamaica and the Bahamas as well as in Asia. In deserts and

jungles, he routinely searched out snakes, picked them up with his long tongs, put them into a sack and took them to his field lab to study.

Slowinski was co-founding editor of the first online herpetological journal, Contemporary Herpetology, and served on the editorial board of Systematic Biology.

He is survived by his parents, Martha Crow of Brooklyn, N.Y., and Ron Slowinski of Kansas City, Mo., and his sister, Rachel Slowinski of Los Angeles.

Date: Thu, 20 Sep 2001 20:05:44 -0600

To:

From: Daniel Janzen <djanzen@sas.upenn.edu> Subject: Dr. Joseph Bruno Slowinski. dead as result of bite from a krait in Burma

Cc:

Bcc:

X-Attachments:

20 September 2001

Memo from The California Academy of Sciences to its Staff.

Dear Staff,

I am forwarding to you an update regarding the tragic death of Joe Slowinski that I received this morning from Douglas Long who was one of the Academy staff members with Joe throughout this ordeal. Please be aware that the contents of this email describing the details of Joe's death and efforts to save his life may be difficult to read.

I hope that we can all take some comfort in knowing that Joe died doing what he loved most and that he was surrounded not simply by colleagues, but by dear friends who did all they could to save his life and comfort him during his final hours. Their efforts are extraordinary.

It is only now that I am capable of sending you information concerning the tragic death of Dr. Joseph Bruno Slowinski. I am the only member of the CAS expedition team currently in Yangon. Guin Wogan and Burmese field team member Htun Win are in Mytkyina with Embassy envoy John Haynes seeing to the cremation of Joe's remains as per the wishes of the family. The remainder of the expedition, David Catania, Christiaan Klieger, Bruce Bartholomew, Dong Lin, Harvard Botanist David Buford, Point Reyes Bird Observatory researcher and O&M Associate Muareen "Moe" Flannery, Chinese researcher Dao and Rao (full names escape me now), and Burmese Field Team member Hla Htun, Pocho, and Aung Kwi Shein are still in the jungle north of Putao. They will begin their five-day trek back to Putao tomorrow, and I expect them back in Yangon in about six days. Everyone else is in fair health at the moment, disregarding the mental stress of this ordeal, the harsh weather, and the maddening swarms of biting flies and numerous leeches.

In short, here are the particulars since 11 September 2001. A full account of the series of events has been prepared and will be presented to CAS at a later date. On the morning of 11 September, Joe was asked to examine an odd-looking snake that the field team had captured the prior evening. Burmese field team leader Htun Win gave Joe a bag containing a snake that he couldn't readily identify as either a venomous krait, or a Lycodon, a harmless mimic of that venomous species. Joe first looked into the bag and thought it was the harmless Lycodon, and reached in to pick it up for closer inspection. Joe didn't seem too concerned as this snake looked more like the mimic than the venomous species, and also because the snake had bitten Htun Win the previous evening with no ill effects. As Joe reached into the bag and grasped the snake, it gave a minor bite, and as Joe looked at it closely, he saw the tell-tale scale patterns that indicated it was a venomous krait. At that point, Joe told us that he had been bitten by the krait, and that he wasn't worried because it was a very small specimen, and more importantly, the bite barely scraped the skin. For several hours he seemed fine, and we even joked over breakfast about the event.

However, by late morning, Joe started to feel the early effects of the neurotoxic venom, and alerted the expedition members. He carefully explained what symptoms he would experience, and what type of care he would need. At that point we all stopped what we were doing and tended to his needs. As the day progressed, the envenomation became more apparent, and Joe began to lose basic motor functions and speech capabilities. By that time, two members of the field team had begun their run to the town of Naung Mon, which was eight miles over a rough jungle path, but to the only radio in the area. It is there where they were able to alert our Burmese representative Daw Malar, who in turn contacted both the Burmese Military and the American Embassy. Unfortunately, the helicopter could not arrive that day, and by early evening Joe had ceased respiration. We began mouth-to-mouth to keep him breathing. His mind was still working and we were able to communicate with him through a series of hand-clenchings and toe-wiggles. More importantly, his heart was working well and his pulse rate was strong. By that time, several local doctors from villages a few miles away arrived, but they were of little practical use since they had no effective medicines, apparatus, or treatments that could assist Joe's situation. However, one of the doctors, Maung Maung Gyi, stayed with us to monitor Joe's health, and ultimately his death, and wrote both a full report on the incident, as well as making the formal death certificate. Also, a small contingent of local Myanmar soldiers set up with us, and one man managed to get a WW II-era radio working, and he worked all hours maintaining contact with the military and the helicopter flight crew.

Every member of our group tried as best they could, in whatever manner they were capable, to assist Joe. We literally worked around the clock, taking shifts, and making sure that he had all necessary assistance to keep him alive. Unfortunately, two advancing storm fronts made the possibility of a helicopter-assisted rescue slim. Added to this was the fact that we were in the village of Ra Baw which was located in a narrow valley flanked by two high ridges which were often capped in dense clouds. Twice that evening flights to rescue Joe were cancelled in mid-flight because of the weather or bad visibility. This disappointed all of us, but we still kept him alive and responsive well into the next morning. By dawn, his condition had deteriorated some - his pulse was weaker, he was unresponsive to our voices, and he began to show signs of both lung damage from many hours of artificial respiration, as well as fluid build-up in the lungs. He was, at least, alive the following morning, and we still worked as a team to keep him going. By late morning the following day, his pulse weakened dramatically, and ultimately his heart stopped. We then began CPR to keep the heart beating, but after nearly three hours of this, we failed to get his heart beating

again. Fearing the worst, and wanting to put this ordeal to rest, we had the local doctor inspect Joe's body, and the doctor declared Joe dead. However, we stopped CPR in the early afternoon, but the doctor put the time of death at 12:35. It seems that we continued CPR for several hours after Joe had officially died, but at the time we didn't know that he died, and we didn't want to give up any hope that we could keep him going. But with the doctor's death declaration, we were able to stop, catch a breath ourselves, and cry.

We cleaned Joe's body and placed it in a small room in the village where we stayed, and had the radio operator send out the message that Joe had died. We waited for a helicopter that day, but with continued severe weather and bad visibility, one never came. Since at least a day had passed since Joe's death, and since we had no idea when his body would be flown out, we decided to perform a basic embalming procedure with 30% formalin to keep in check any decomposition that may occur. By the morning of the third day we were told that a helicopter would finally be able to land in our area, and carry his body, plus a selected group to accompany him, and fly us to Mytkyina, and ultimately to Yangon.

Since we had no contact with the Embassy, we had no idea who was contacted, what information had been sent, or what - if anything - was known about our ordeal. In any case, it was agreed that myself, Guin Wogan, Htun Win, and photographer Mark Moffit would accompany Joe's body. Once we landed in Mytkyina, I had the body brought to the local morgue and packed with ice, fully planning to ship Joe's remains to Yangon, and ultimately to his family stateside. Shortly thereafter, I contacted the American Embassy envoy Elizabeth Jordan, who told me that she had contacted both Beryl Kay, as well as Joe's family members. It was a relief that her instructions to me were to have Joe's body cremated, but through a series of beaurocratic maneuvers, we were not able to get the body creamted in time for the flight to Yangon the following day. The embassy sent John Haynes to Mytkyina to sign the official papers that allowed the cremation to begin later that day, but well after our flight. So, we agreed that Guin Wogan, Joe's graduate student, department secretary and veteran of previous Myanmar expeditions, and Htun Win, Joe's beloved right-hand-man in the field, would stay another day in Mytkyina to over see the cremation and accompany the ashes back to Yangon. We also felt it important that Joe was cremated with two of his dear friends and colleagues, and not with strangers in a foreign land. Thus, I continued

to Yangon with Mark Moffit where I could have access to e-mail and phone so that I could contact all of you.

This whole ordeal is not over, but I expect all to end up as best as it can be. I will wait here until Guin and Htun Win come back from Mytkyina, and the rest of the expedition members arrive from their long trek to Putao. We will carry Joe's cremated remains with us to bring back to his family members. I also think it is important that we all leave Yangon together, since we spent so much time together both as researchers on this arduous journey, and all worked as a dedicated and closely-knit team to assist Joe. Again, we all did anything and everything we could during the nearly 30 hours we worked to keep Joe alive, but I wanted to point out three members who were extraordinary in their dedication to saving Joe's life. David Catania, Guin Wogan, and Moe Flannery worked continuously, hour upon hour with no sleep and almost no food or drink, to maintain Joe's respiration and heartbeat. And while all three of these people will deny that they

were doing anything heroic, they were nonetheless absolutely incredible in their personal and professional dedication to Joe's life support.

I am staying at the house of Joe's field team in Yangon, which is a block away from the Mi Casa Hotel where I have e-mail access. If you need to write me, please respond to this address, with the subject line "For Douglas Long" so that the hotel staff can alert me of any messages.

I am very sorry to have to send you this letter, and I'm sure that all at CAs are shocked and saddened about the horrible and sudden end to this expedition, but please let me know if there is anything I can do on my end. Joe was both a colleague and dear friend, and I hope to continue to help him, his family, and CAS however possible.

Sincerely,

Douglas J. Long

Letter written by Mark Moffett about 20 September 2001

Dear Colleagues and friends:

This is to inform you -- although you may have already heard through U.S. Consulate reports to the Cal Acad based on radio reports relayed from our team while in the field -- of the tragic death of Joe Slowinski from the bite of a multi-banded krait (*Bungarus multicinctus*) at the village of Rat Baw in a remote site in northern Myanmar (Burma). After an exhausting week (during which we walked over 50 miles through terrain so thick with leeches that the puddles we passed through sometimes became tinged red with blood), Joe was bitten on the 11th, at 7 am. I was watching at the very moment he casually picked up the pencil thin, foot long snake -- which he did on the assumption that it was a nontoxic mimic *Lycodon*, an assumption based on the fact that the snake had reportedly already bitten the Burmese assistant who caught it the day before. He immediately recognized his mistake, but could detect no abrasions on his finger. He sat down to breakfast, lay down for a nap by 7:30, noticed a tingling in his muscles by 8 am. At 8:15, two assistants were sent to run to the nearest town with a radio, 8 miles distant. Joe calmly outlined what might happen to him and what we should do. Through the morning his voice was reduced to a slur, and in time he could only write us messages. By 1:00-1:30 he could no longer breathe on his own, and we began mouth-to-mouth procedures. These stretched on continuously for nearly 26 sandfly-infested hours -- during the tragedy at the World Trade Center, which we only learned about yesterday. At 3 pm our runners had to return to us with a request for updated information before a helicopter could be sent. By evening, the weather turned too bad for a rescue flight, and the rains continued through the next day. By 4 am Joe could no longer signal us with his big toe. By 12:25 pm Joe's heart had stopped and we began 3 hours of CPR in anticipation of a rescue helicopter that never was able to land.

His official time of death is 12:25 pm on the 12th. Airlift was only possible the following afternoon. At the request of his family, Joe's remains were cremated today. Several researchers are still deep in the field at this time.

Everyone respected Joe, and several present clearly loved him dearly.

The trip had been very successful for Joe, with new species of snakes and lizards. He was proud of his work in Myanmar, and especially his research team there. He was brave throughout his struggle, and calm to the end.

Sincerely,

Mark

Mark W. Moffett