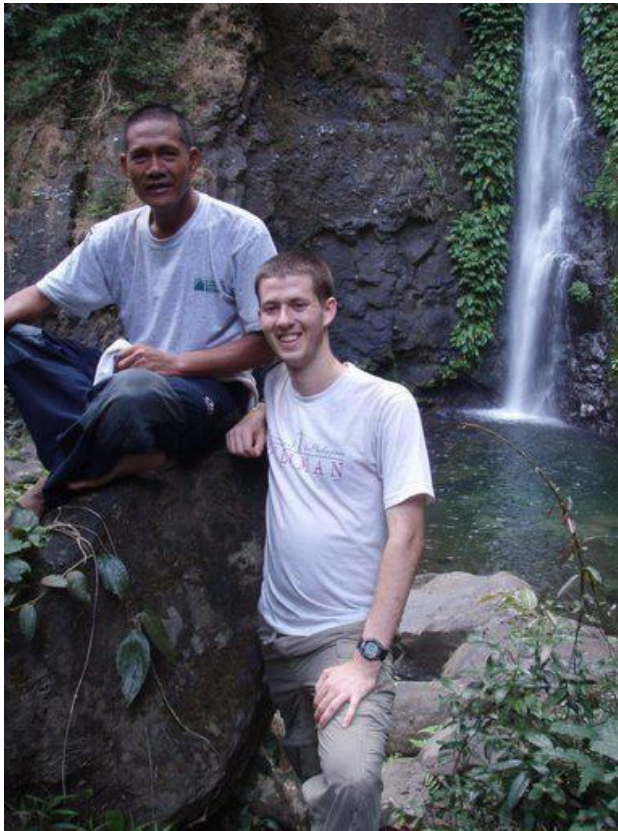


## From Karaoke to Leeches: Adventures in the Philippines

By Will Townes, '07

*Will Townes, '07, received a Fulbright grant to pursue research in the Philippines this year. Below is an excerpt from one of his December 'newsletter' to friends.*



My research project in Bataan really picked up steam during this month. I was able to identify a species of bird that eats the fruits of \*Leea\*, the plant I am studying. The bird is called the Philippine Bulbul (scientific name \*Hypsipetes philippinus\*, local Ayta name "lapatin"). It is a medium sized bird that is fairly common here, but endemic to the Philippines. That means it is not found anywhere else in the world! I was

excited to document this ecological relationship for the first time (so far as I can tell) in a formal, scientific study. Of course, the indigenous Aytas have known since time immemorial that the "lapatin" eats the \*Leea\* fruits. As I mentioned before, their in-depth knowledge of the forest has been invaluable to my research, and I could not hope to scratch the surface of their understanding even if I had lived here my whole life! I also performed a few additional experiments, one of which (involving a very recently developed technique that requires the use of a paint that glows under UV light) failed to produce any quantitative results, but it was fun to test the technique anyway. Finally, I was able to germinate some of the \*Leea\* seeds to test whether they grow better if they have passed through the acidic digestive tract of an animal.

One of the highlights of the month was joining a group led by Ms. Carmela "Lala" Espanola, one of the leading experts on the birds of the Philippines on a hike to a magnificent waterfall near Kanawan (the Ayta community). The group brought a lot of powerful scopes through which we were able to spot some spectacular species such as the Green Imperial Pigeon (\*Ducula aenea\*) and the endemic Tarictic Hornbill (\*Penelopides panini\*). The hornbill is basically an old-world equivalent of a Toucan, with a large, powerful bill capable of cracking large fruits and seeds. Other interesting species I spotted recently include the Hooded Pitta (\*Pitta sordida\*), which is a very shiny blue bird primarily found on the forest floor. We also got to watch a pair of rare Blue-Naped Parrots (\*Tanygnathus lucionensis\*) eating the seeds of the Banaba tree (Lythraceae: \*Lagerstroemia speciosa\*), and a playful group of Long-Tailed Macaque monkeys (\*Macaca fascicularis\*). By the way, the Banaba tree is just one of many plants here in the Philippines with potential medicinal properties. I was chatting recently

with a group of students at University of the Philippines who are working on researching the anti-cancer properties of the leaves of various species such as the Banaba found in the Bataan forest. One of the students named Jan, who is originally from the a remote province on the island of Mindanao (famous in the news for terrorists and kidnappings, but in reality no worse than other parts of SE Asia), tested an extract of a particular species of fig (Moraceae: \*Ficus sp.\*) on colon cancer cells. He actually found that the extract not only killed the cancer cells, it had almost no effect on the normal cells! This was very exciting; unfortunately he later discovered the chemical had already been patented merely a year ago by Taiwanese pharmaceutical researchers. Nevertheless, it is only one of thousands of plant species that have barely even been given a name here, much less investigated for medicinal properties. It seems exceedingly probable that cures for many major diseases will be derived in the future from rare plants found in places like the Philippines. Indeed, every year people like Leonard Co (my advisor) discover brand new species here. In contrast, few new species have been found in the US in recent decades. The situation is fairly delicate, however, since almost 97% of the original philippine forest has been cut down in the past 100 years. Let's hope that last 3% can hang on long enough for the country to develop economically to the point that there are alternative livelihoods available to the impoverished rural communities.

One of the biggest events of the year here in the Philippines is Christmas! I celebrated Christmas here by attending a lot of parties and traveling to some of the more remote provincial areas. If I had to sum up the festive atmosphere of Filipino

celebrations in one word, it would be...KARAOKE (or as they call it here, "Videoke"). Anyone who is a fan of emotion drenched 80s bands like Air Supply should move to the Philippines right away. For example, the Biology Department party at University of the Philippines started at 2pm with a huge feast, including "lechon babuy" (an entire roasted pig). The karaoke machine went nonstop until I went home at 9pm with totally exhausted vocal chords, and the maintenance guys were just getting warmed up! No one is shy about singing here, and while some of the song selections could probably use some updating, I have come to love the exuberance of the Filipinos in their singing. Oh, and for the record, my highest score on the Videoke so far is 97 out of 100 for "Carolina On My Mind" by James Taylor! I was so proud to achieve that with a song about my beloved home state.

At one of the parties, hosted by a fashion designer friend in the upscale part of Manila, Makati, I actually got to meet up with a W&L alumnus, Andrew Caruthers. It was really cool to swap stories about the alma mater in such a distant country, and he even gave me a ride to Bataan one time (I normally take the public bus). Andrew is a businessman who divides his time between LA and Manila, so I'm hoping to meet up with him back in the states sometime as well.

On Christmas Eve itself most of the parties stopped so everyone could spend time with their families. While I am very lucky to have such a hospitable "Pinoy family" to stay with here, and one of the many kind Professors from U.P. let me join his family for dinner, I was hard pressed not to feel sad that I couldn't be with my family back home. Actually, this is the first year in my whole life I was not able to be at home for

Christmas. I tried to travel as much as possible during the holiday break. The day after Christmas, I joined a group of mountain climbers on a 10-hour overnight bus ride to the province of Bicol. While most Filipinos can sleep even on an overcrowded Jeepney going over bumpy dirt roads, I cannot, so I passed the night by listening to lectures by people like Francis Fukuyama and Philip Longman I had downloaded from the "Long Now Foundation" website. I was also engrossed by a philosophy book ,called \*The Closing of the American Mind\*, by Allan Bloom. While there, we attempted an assault on the enormous Mt. Isarog, which is home to a plethora of rare plant species, but only made it about halfway up because the trail was severely damaged by mudslides. While hiking through the forest, we were constantly attacked by LEECHES. They seemed to dangle from every leaf, and would climb all over our bodies in an inchworm-like manner. I don't know what I fear more, malaria mosquitoes or leeches, but I'm certainly glad I wasn't actually bitten by either! As repugnant as these creatures are, the bite doesn't actually hurt very much because the leech's saliva has a numbing ability... or so they say. We also got the chance to see the "world's most perfect" volcano cone of Mt. Mayon. We couldn't get very close because it is still active. In fact, just a few years ago a combination of lahar flow and typhoon sent huge masses of ash rushing down the side of the mountain, burying nearby towns and killing many people. While this unpredictable giant is a curse to locals, it is in another way a blessing because the volcanic soil is very fertile for farming. On the way back, I stopped in the town of Pagbilao, Quezon to visit the family of a friend. Her aunt is an engineer for local coal-fired power plant. Surprisingly, this power plant has adopted a very progressive policy with regard to its carbon emissions; it has started a giant reforestation project, and even established a mangrove sanctuary and pond.

Furthermore, they are continually working to minimize the harmful emissions from the smokestacks. I was inspired by their example that no matter what your job or industry is, you can make a contribution to solving the big environmental problems, just by making small improvements where you are. After leaving Pagbilao, I returned to Manila and spent a quiet New Years with my "Pinoy family."

*Will's blog and lots of photos can be found at <http://willtownes.wordpress.com/>.*