

Libby Daley – Zoology Department Tropical Field Course, Panama 27th August – 10th September 2018

This year, the Zoology department launched its first tropical field course to canalside town of Gamboa, Panama. I was lucky enough to be one of the twenty-one Cambridge students, entering our third years, that were accompanied by three professors, two supervising PhD students and five students from Panama and Columbia. We were hosted in the Smithsonian Tropical Research Institute's (STRI) comfortable schoolhouse for the duration of the two-week trip.

The first week of the trip was taken up by a whirlwind tour of sights of the canal-region of the country which impressed upon us the supreme diversity and natural beauty of the region. The jam-packed schedule prepared for us had several notable highlights. We were treated to awe inspiring views of the rainforest canopy from the Sherman canopy crane, and explored Pipeline road, a site globally renowned for the abundance and diversity of avian fauna found there. Day trips to Las Cascadas fossil site and the Agua Salud Project further provided fascinating insight into the ongoing paleobiological research in the region and the scientific investigation of reforestation methods aiming to preserve water supply to the canal. A water taxi took us to the isolated nature reserve of Barro Colorado Island, formed when damming of the Chagres river created Gatun Lake, and we stayed overnight at the field station which hosts numerous scientific researchers every year. Throughout the course, we were delighted by sightings of sloths, howler and spider monkeys, iguanas, agoutis, capybara, armadillos, snakes, caiman, tree frogs, toads and a truly extraordinary diversity of both birds and insects. On our final night, a group working with camera traps, even recorded an unconfirmed sighting of an ocelot.

In the second week we were given free reign of Gamboa and the surrounding rainforest region to conduct research projects of our choosing. As the data collected will be analysed and written up, under supervision, as part II projects during term time, these projects will allow us conduct and follow the full process of scientific research, from conception to "publishing" the finished paper. With two course mates, I investigated the traffic dynamics of leafcutter ants, which were common in central Gamboa and the surrounding forest trails. By filming the ants and placing barriers in their path, we have collected data that will allow us to ask a number of questions including how individual ant velocity recovery after barrier placement compares to the recovery of colony flow rate and investigate the role of ant collisions in communicating information about blockages to flow up and downstream. We are additionally interested in whether these ants change the angle of their leaf to shade themselves from direct sunlight.

In the evenings, alongside relaxation, a series of pertinent and interesting talks were given by our professors, PhD's and guest academics working in the area on a variety of subjects, including *Anolis* lizard evolution, the origin of the Panama Isthmus and invasive species in the Panama Canal. We are very grateful to Dr Allen Herre who generously hosted a final night party; a fun end to a wonderful trip.

Overall, the Panama trip was an unmitigated success, enjoyed hugely by all that went. The beauty and diversity of the tropical rainforest, experienced in a new and different way, was inspirational and the fieldwork skills developed will surely prove invaluable to further study in the coming years. I am deeply grateful for the college travel grant which allowed to me partake in this field course.