Project Update: February 2016

Experiments to detect sounds of human exploitation in tropical forest showed great variation in audibility to the human ear with sound type and weather. Shotguns were audible at ~1 km without wind or rain, and otherwise only up to 250 m. Audibility was significantly shaded by sounds of insects flying near recorders, and overhead thunder or airplanes.

Shotgun blasts were audible at greater distance than rifle shots (never beyond 1 km), and chainsaws. Human voices travelled no further than 100 m, and were audible more easily through the forest canopy than the understory. A truck engine showed no substantial difference in audibility with recorder elevation.

We are now developing algorithms to extract relevant signals from noise, and to test the feasibility of locating sound sources by triangulation of relative amplitudes. This stage will inform the development of software and hardware for cost-effective acoustic loggers capable of triggering recordings and alerts.

Evelyn firing a rifle for sound experiments.