

Project Update: January 2015

From October 2014 to the present, I have been busy designing and creating a database to store the fish and environmental data collected. This is using Microsoft Access and is the first time I am using this software. Creating the database while learning how to use it has taken some time, but I hope to be finished with the database at the end of February 2015. This database will be used for data storage and analysis, and will allow for faster analysis of the data gathered which will be important for fish monitoring to continue. It can also be adapted as the project develops and will be vital to understand changes with the fish populations over time and will be used to compare with social data to understand why people fish in certain areas during the year.

Since October 2014, I have been sampling in many areas monthly around Sabangau; the river, the fish ponds, and a canal. The canal is called Canal Bahkan, and is a canal that was built into the forest while it was being selectively logged to transport timber out of the forest (See Figure 1). These canals however lead to the draining of the peat swamp forest, and therefore one main conservation action in the area is the damming of these canals. The community patrol team are very keen to see if these dams provide any benefits for fishing. We therefore have started setting traps in this one canal as a preliminary area, and hopefully in the future we can expand this to both non-dammed as well as other dammed canals (See Figure 2).



Figure 1: Canal Bahkan. Built by loggers who previously logged this area of the Sabangau to transport timber out of the forest. Dams have now been built in the Canal to increase the water level and prevent further drainage and degradation of the forest.

Figure 2: My research assistant, Dudin, setting a fish trap in Canal Bahkan. This will allow for a baseline study of the fish species found in the canal for further monitoring and studies on the impact of damming on the fish populations.



The forest sampling which was done in the first month was unable to be continued due to the forest being too dry to set any traps. This is part of the natural fluctuation of the water levels in this forest, but we also experienced an unusually long dry season, possibly

due to it being an El Nino year. The sampling in the forest will continue in February 2015 now that the water has returned to flood the forest.

The species list in total is now up to 43 species which is great! I expect this to increase again as the year goes by and when we start sampling in the forest again. This species list is identifying the species both by their local and latin names, and will be vital to be able to monitor fish species in the area. Sampling in all the different habitat types is important to gain a preliminary idea of where the species are found, what their environmental preferences are as well as what the impact is of, for example, canopy cover, pH and turbidity is on the fish. This is the baseline information that can be used to monitor the fish in the years to come. It is also the first data of its kind collected in the Sabangau.

The structured interviews which were planned to gather information regarding the economic importance of fish in the area had to be postponed until December 2014. This was due to the severe fires which we were experiencing around the forest, and so the Community Patrol Team were very busy with fighting these. Therefore, I had no assistants to train and help me with the interviews, however this was definitely not the most urgent matter at the time and I am confident we can catch up! In December 2014, I trained one member of the CPT, who then began conducting interviews in the local village. He trained one other assistant and was able to complete 48 interviews to date. He reported further benefits of the interviews as they allowed him to discuss with the local community regarding the importance of dams and the work of the Community Patrol Team. In the coming months, these interviews will be conducted in four villages in total; a transmigrant and Dayak village around the Sabangau as well as in the ex-Mega Rice Project area. This will be done to see how the different land use histories as well as cultures influence the use of fish in the area.

For these coming months, focus groups will also be started. These will use activities such as list making and ranking exercises, as well as participatory mapping and reflexive photography to explore the more abstract cultural values and benefits provided by fish and fishing in the different villages. This is expected to take a while to organise and set up, but we should hopefully start by April 2015.

Below you can see some photos of my research assistants and the traps!



Figure 3: Unyil (left) and Dudin (right) arranging the traps on our klotok (motorised canoe) to set them out on the river.



Figure 4: Training a new research assistant, Iwan, with fish data collection



Figure 5: Smoke haze from forest and land fires. These have significant negative environmental and human health impacts while causing substantial carbon dioxide emissions.