Field expedition to Friguiagbé and Kindia area 26-29 October 2017

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Sites visited: Friguiagbé Gare, Old Chillou plantation and Mayon Khouré, Grand Chute, Kindia Prefecture.

Introduction

Many of the older specimens from the Kindia area were collected by Chillou and he refers to a plantation he has in the Mayon Khoure/ Fuguigapé area. There is another place to the north of Kindia with the Mayon Khoure name and this is not the place, being too far from Friguiagbe. Part of this expedition was to find out the exact location of the Chillou plantation for more accurate geo-referencing and also as this is one of the sites for Mesanthemum auratum, a rare Eriocaulaceae, only known from the Kindia area and likely to be assessed as Critically Endangered according to the IUCN Red list categories. There are some taxonomic questions around this species and therefore it is important to find the historical locations to see if these populations still exist and new material can be collected including DNA.

The other part of this expedition was to find new sites for Pitcairnia feliciana and the new species of Rubiaceae Kindia (Cheek et al, in press) and check waterfalls and rapids for Podostemaceae sites to provide more data for the Darwin TIPAs project and Red Data Book for Guinea.

Methodology

Interviews with local residents at Friguiagbé and the local commune office were conducted to find out information on the old Chillou plantation.

The patrol method of collection was used, specimens were collected of fertile material where possible. Data was gathered at GPS points taken when there was a change in vegetation type and data recorded included dominant species, disturbance level and photographs were taken. This was done using a Samsung S4 smartphone using the Locus Pro application. This data can automatically be downloaded and photos georeferenced. This was in addition to written notes and specimen data.

Results

Interviews with local residents revealed that the rivers mentioned on the specimen labels, the Ouatamba and Samou are the local rivers around Friguiagbé. The Samou River has the Grand Chute hydrological dam on it. It was also discovered that the plantation was near to Friguiagbé Gare which is some distance from Friguiagbé village on the main road and Mayon Khouré is a place near to Friguiagbé Gare, but this was only known by someone whose family had worked at the Chillou plantation and this plantation is still in existence, but not owned by one person. It is mainly a
pineapple plantation, but previously the produce would have been loaded onto the train at Friguiagbé Gare to be taken to Conakry.

There were not many specimens collected on this expedition, as this was partially a fact finding mission. However, 20 specimens were collected from the plantation area and a further 18 during the rest of the expedition including the first specimens for the British Ambassador.

**Results per site**

**Chillou plantation:**

This was mostly to check the existence of this site and its location. However, there are parts of the area that are undisturbed currently, they appear to get waterlogged in the wet season and this may be the deterrent for planting here. However, there was talk from several locals about expanding. Disturbance from people and agriculture are the main threats. One of the sites visited had a ‘meadow’like appearance and had a carpet of *Mesanthemum* sp. Which could be a variant of *Mesanthemum auratum*, DNA samples were taken in order to work on this. Also found in small numbers was *Utricularia pobeguinii*. The scale of the plantation could increase if the road access became better, it is currently quite a difficult track to navigate.

**Mayon Khoure**

This site has been visited previously, but there is a large area to explore on the other side of the valley. New sites for *Pitcairnia felicina* and the new genus of Rubiaceae *Kindia* (in press.) were discovered. Threats from cattle (large herd seen) and therefore burning for new grass shoots is likely here.

La chute de la voile de mariées was visited in the afternoon, no species of interest were found here.

**Grand Chute**

This site was visited to check for Podostemaceae species in the river as there are endemic species known historically from this site. However, the water levels were still a little high at the main waterfall site and a smaller rapid section. Collections were made, but these are thought to be algae. This site has been dammed and the section below is used from clothes washing and recreation. It is unlikely that the Podostemaceae will be able to survive here on the rocks, but at return visit in Jan/Feb is required to confirm this. In the surrounding bowl area *Utricularia pobeguinii* (an endangered species) was found in small numbers and the same *Mesanthemum* species from the plantation.

**Conclusions and Recommendations**

If the *Mesanthemum* from the Chillou plantation is a variant of *Mesanthemum auratum* part of this area will qualify as a TIPA.

More investigation at Grand Chute is needed at the appropriate season to discover if the endemic Podostemaceae are still present.

The sandstone hills around Mayon Khoure and the Mt Gangan area will be classified as a TIPA based on the endangered species present. Further investigations in these hills are required to get more information on the populations of *Pitcairnia felicina*, *Kindia*, *Fleurydora felicis* etc. It would be good to start talking with the local population about the importance of these plants.
Pictures from the field

Hills around Kindia

Catherine Inglehearn (British Ambassador) with Dr Magassouba and Denise Molmou (National Herbarium of Guinea)
Dr Magassouba recording a new population of *Pitcairnia feliciana*
Collecting possible Podostemaceae at Grand Chute with helpers.
Small waterfall on the Samou River, Kindia.