

# The first Letter we received from Doctor Marc Lebouvier and Doctor Whinam

Since our last meeting on the 2<sup>nd</sup> of November, Doctor Lebouvier and Doctor Whinam went to TAAF to continue their work. They sent us a letter that we are going to summarize.

First, they went to Crozet archipelago where they stayed for three days on Possession Island. Since 1964 lots of people come to spend the winter there. After two days and three nights on the sea, Marc and Jennie arrived to Kerguelen Islands (from 13<sup>th</sup> to 18<sup>th</sup> november). The « Port aux Français » is the most important settlement of all subantartics islands ,built in 1951. Nowadays there are 100 people during summer and about 60 during winter.

On wednesday 21<sup>st</sup> november they arrived to Saint Paul Island (see figure 1 of the letter). These three days were the most difficult since the beginning because of the big waves. This island is the youngest of all french subantartics islands. As Crozet, Kerguelen, and Amsterdam, Saint Paul Island is a volcanic island. It appeared about 50 000 years ago.

We can find a lot of fish and lobster, it's why numerous Réunionnais fishers often go there since the XIXth century. A factory of lobster canning built in 1930 caused the tragic famous history of the « oubliés de Saint Paul » (the « forgotten of St Paul ») and the death of about 10 workers who had the « béri-béri » because of an unbalanced diet.

Saint Paul is about 5km long and 268m high. A subsidence in the North-East opened the communication between the sea and the inside of the crater (see figure 2 of the letter). So the shape of the island is original.

Doctor Marc Lebouvier told us he compared the flora of St Paul with the one of Amsterdam Island. According to him, St Paul has an environmental diversity that is less diverse than the one of her « big » neighbour which has about thirty endemic species (there are about fifteen of them in St Paul). Some species, which are called endemic, don't exist anywhere else in the world. For example, a plant called *Plantago stauntoni* which is found on some regions can only be found everywhere in St Paul and in some regions of Amsterdam (see figure 3 of the letter).

All the plants which have been brought to St Paul, exist in Amsterdam. But, not all species of Amsterdam can be found in St Paul.

For example, *Leontodon taraxacoides* can be found more easily in Amsterdam than in St Paul (see figure 5 of the letter). Furthermore, *Juncus effusus* only exists in Amsterdam. It's the same for *Cirsium vulgare* which has been brought in Amsterdam in the middle of the 70s. It was observed for the first time in St Paul in 1997. But Professor Lebouvier also said that during his trip, he saw this plant in many places and maybe it will continue to invade the island.

This shows the problem caused by the invasive species brought there and which can take the place of the local species. This problem is also met in the invertebrates and vertebrates organism. This is the way some rats brought in Amsterdam killed some bird species. Rats have been killed by the TAAF. They used a poison. This way, diving birds (among which some were endemics) could reproduce themselves.