



TE MANA O TE MOANA

« L'esprit de l'océan » - « Ocean's Spirit »

Six Polynesian turtles equipped with satellite transmitters become the stars of hundreds of school children worldwide

It is a great educational, fun and ecological experience that brings together 200 schoolchildren from French Polynesia, Cook Islands, New Caledonia, France and more. These students follow, practically live via GPS, the travel of six Polynesian turtles across the Pacific.

Led by the Polynesian NGO Te mana o te moana (www.temanaotemoana.org), the project is called "Bula Honu, follow the sea turtles of the Pacific". It is placed in the continuity of Polynesian, American and oceanian scientific studies about migration of turtles. Bula Honu began with the installation of satellite transmitters on the shell of six green turtles captured for this purpose in Polynesian waters: at Tikehau, Hao, Tetiaroa and Moorea. In the atolls of the Tuamotus, that are also the inhabitants themselves who permit the capture of specimens.

Then came the educational part. 14 classes of Polynesia, and other South Pacific and French students were able to follow turtles' travels through the Pacific, on live on the website bulahonu.org. Learning computer skills, they also interacted with the project's Facebook page, on which children's letters and drawings were shared. Several classes in the project have also exchanged regularly between regions and countries. An epistolary relationship that allowed them to increase their French, their Reo maohi and their English.

Animators moved into classrooms to deliver an educational program on marine species (turtles, cetaceans, reefs) and transmit to children educational booklets. This was mostly an opportunity to present two booklets, in French and English, created by the association Te mana o te moana : "Tohorā, humpback whale who are you?" and the "Booklet on sea turtles in French Polynesia".

With the Bula Honu Project, the president of Te mana o te moana, Cecile Gaspar, and Mark Eddowes, an archaeologist specialist of Polynesia, were also able to go to Aitutaki and Rarotonga (Cook Islands) to make educational presentations in schools and raise awareness about the protection of sea turtles. Very fruitful exchanges have also been achieved with scientists and local associations (Aitutaki Conservation Trust, Center for cetacean research and conservation, Dr. Michael White, ...).

Finally, in Moorea, the CM2A class of Paopao, which volunteered to participate in this scientific project throughout the school year, moved in May in New Caledonia. The children have followed the direction taken by Purotu and Mahina rahi, two turtles tagged in Tetiaroa, which have traveled thousands of kilometers to the west. For a week, the children of CM2 met New Caledonian students and exchanged with scientists of the CIE and of the Aquarium of Noumea. They even participated in the release of a hawksbill turtle called Moorea.



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All information on this project are available on the website www.bulahonu.org

What did we learn thanks to the six turtles tagged ?

Turtles tagged in Tetiaroa

From December 2014 to March 2015, three female green turtles were tagged on the atoll of Tetiaroa (Society Islands) after laying. This atoll, which is one of the last nesting sites frequented regularly by green turtles in the archipelago, is the subject of a long-term monitoring conducted since 2007 by Te mana o te moana. Previous satellite tagging, conducted in 2011-2012 on green turtles laying on the atoll had showed that female turtles migrate to the South West Pacific (Fiji mainly) which would be their feeding areas.

One of the turtles tagged this year in Tetiaroa during the project Bula Honu, a female called Tarita, has transmitted locations only for about a month. In that time, it remained near its nesting area, with small displacements between the ocean, the lagoon and the mainland suggesting new nesting attempts. Travel by the female during the intervals between clutches were restricted to an area of a few square kilometers. The reasons for the stop of transmission may be a shock on the reef that damaged the tag or the poaching of the animal.

The other two females tagged in Tetiaroa this year, Purotu and Mahina rahi, traveled on 2800 and 3300 km towards the southwest Pacific. Both Mahina rahi and Purotu have stopped transmission in the EEZ of Tonga after 60 and 83 days, an abnormally low duration compared to the batteries lifetime of the transmitters (over 6 months).

They followed the approximate migration route observed during the journeys of turtles tagged two years earlier. On the 7 female turtles tagged in Tetiaroa between 2011 and today, 5 migrated to the Southwest Pacific, taking the direction of Fiji. The remaining two, including Tarita, stopped transmission of data before leaving the coastal waters of Tetiaroa.

Turtles tagged in the Tuamotus

For the first time in French Polynesia, two green turtles have been equipped with satellite transmitters in the Tuamotu Archipelago.

The first, an adult male named Tuherahera, was caught in the Tikehau lagoon in March, after the mating and nesting season. Tikehau is an atoll located in the extreme west of the Tuamotu Archipelago. After three months of monitoring, Tuherahera has not left the atoll and shows restricted movements between sandy edges in the lagoon and the outer slope. The absence of migration and the low scale of its movements suggests that it could be an adult male resident of the atoll, living in its feeding area.

The second individual, a juvenile green turtle named Poerani, was caught on the outer slope of Hao (Tuamotu East) in March. As Tuherahera, Poerani showed limited movements in the north of the island. These movements are similar to those observed for juvenile green turtles released into the Society Archipelago, which indicated each time a restricted habitat area on a reef.

A turtle injured in Rangiroa, rehabilitated and released in Moorea

The most surprising journey is the Tereori's one, an injured turtle found on the atoll of Rangiroa in the Tuamotus and repatriated to Moorea turtle clinic, a health center managed by te mana o te moana. After months of care, this juvenile green turtle was released by the President of French Polynesia, Edouard Fritch, off Moorea. Unlike other juvenile green turtles monitored until now that have shown limited movements and settled on a reef area, Tereori began after his release a zigzag path that pointed to the north. Less than a month after, it reached the latitude of Tuamotu islands where it originated but continued on his way. Tereori is currently at more than 1000 km north of Moorea, at the latitude of the Marquesas Islands. How far will it go?