

# Sea Turtle Clinic of Moorea

2004-2014

*10 years of actions to save sea turtles in  
French Polynesia*



## Draft of the Clinic report

- Goal: offer shelter and medical care to wounded, injured and sick animals and release them in their natural environment.
- First turtle received on February 4, 2004.
- In 10 Years, 347 turtles cared for and 132 released to the wild.
- 1 main lagoon, 4 nurseries, one medical care room and two educational information's booth.
- Specialized team (veterinaries, biologists, technicians, interns and volunteers).
- More than 20 financial partners and numerous sponsors.
- 4 different species of turtles coming from 14 different islands and 3 archipelagos of French Polynesia have been cared for.
- 59% of the turtles arriving at the clinic have injuries caused by humans (spear fishing, accidental by catch in nets or fishing lines, pollution).
- The release ratio varies from 30 to 50% depending on the age of the turtle. One of the turtles, Costa Luna, stayed 6 years at the clinic before being released.
- 6 turtles, tagged with Argos satellites. The last animal tagged, Ariti, already travelled more than 5000 miles.
- Numerous international and local celebrities sponsored the turtle care center : Jean-Michel Cousteau, Jean-François Clervoy Yannick Noah, Charlie Duke, Michel Buillard, Rauata Temauri, Mareva Georges,...
- 30 000 students visited the Clinic during educational programs with their teachers).
- 10 000 to 20 000 visitors (locals or tourists) every year.

## Introduction

**On February 4, 2004**, a juvenile green sea turtle is found in Bora Bora in very bad health condition. Named Moana (meaning ocean in Tahitian), she is sent in emergency in Moorea where Veterinary Doctor Cécile Gaspar and her team attempts to take care of the animal and save her. A temporary nursery is set up in the InterContinental Moorea Resort and Spa Lagoon. Moana dies two months later and the autopsy reveals a stomach occlusion due to the ingestion of a piece of aluminum. Meanwhile, sick and injured turtles are being sent to the clinic and local authorities realize French Polynesia needs a permanent medical structure as a refuge to those protected species before their release to their natural environment. The Moorea Sea Turtle clinic was created.



Moana in  
february 2004

**10 years later**, with 347 rescued turtles including 132 successfully released to the wild, The Sea Turtle Clinic became the Polynesian reference structure for the Sea Turtle protection. With natural lagoons, nurseries, a laboratory and information booths, she is managed by a team of professionals (veterinaries, biologists, care providers and technicians) from the Te mana o te moana association.

**To celebrate the Clinic's birthday, we present you the activity report regrouping all the information's and important facts and events about the clinic for the past ten years.**



Release of Bingo in February 2014 by Julie Gautier,  
Free dive record woman of France



## Missions

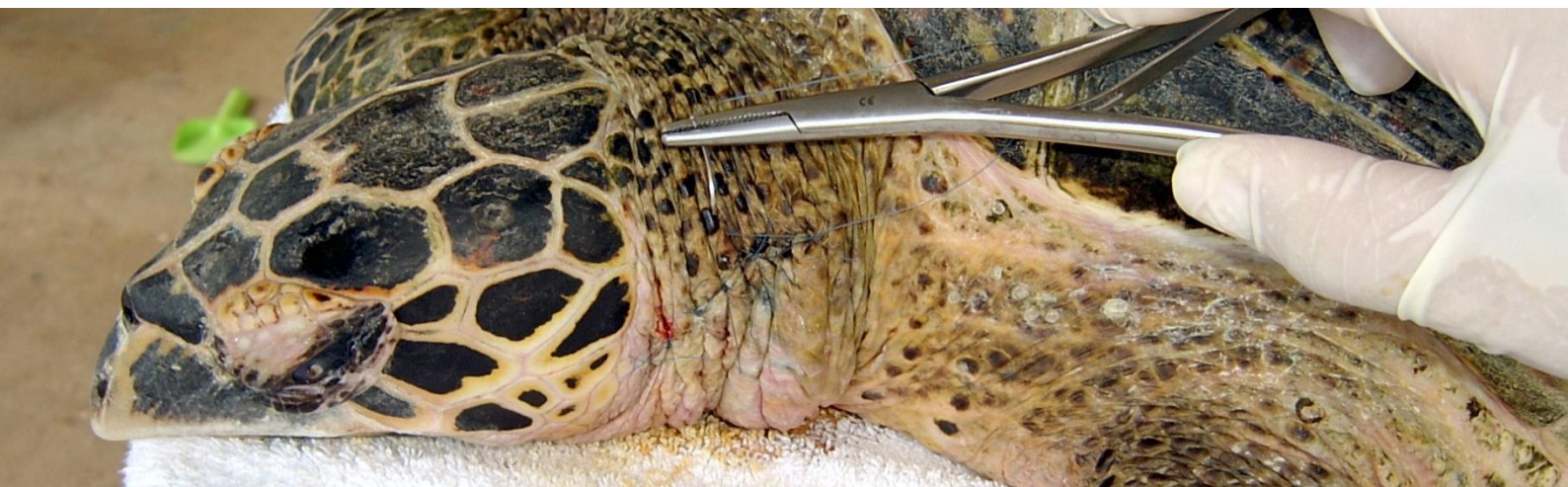


The Sea turtle clinic was created in February 2004, with the Ministry of Environment help and financial support, as part of a general conservation program of Sea Turtles in French Polynesia. Although Sea Turtles are protected species, they are still threatened of extinction worldwide and their future in French Polynesia is uncertain.



**The InterContinental Moorea Resort and Spa Hotel, involved in an environmental authorized process, accepted to fit out part of its lagoon to shelter the turtles in 2004. In 2010, the hotel initiates construction of specialized buildings. It asked Te mana o te moane association to manage the Sea Turtles care center.**

The Sea turtle clinic, authorized by the Ministry of Environment Decree, shelters for sick, injured, mutilated or seized animals by the authorities. Its mission is to give proper medical care to then release them in their natural habitat. The care center also collects deceased sea turtles to conduct autopsies. It has been contacted by numerous local actors as the national police force, territorial collectivities, touristic operators, and the local population. The staff of the association monitors the turtles closely, maintain the structures, educate the public through pedagogic programs and communication in the media.



## Structures

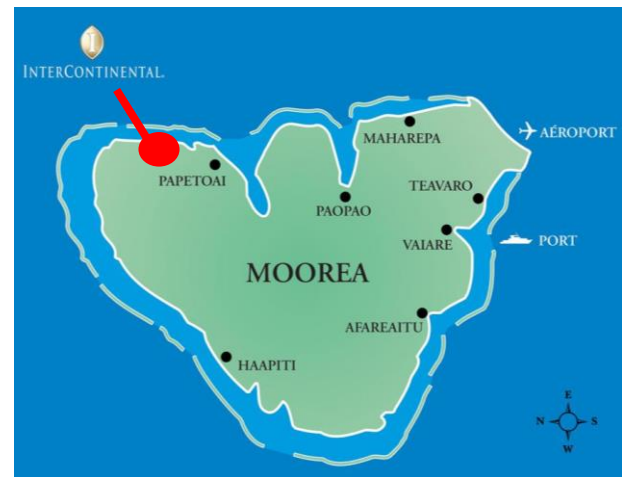
The clinic is composed of a « rehabilitation lagoon » and 4 nurseries where animals needing special care and juveniles are placed. A medical room with daily care tables, autopsy tables and quarantine pools allows to provide adapted care to the animal and to prepare the food.



The clinic also has an Educational room to welcome students in a dedicated environment and to raise their awareness to the marine world. A storage room is also available to store all the technical and medical materials as well as the animal's food.

Finally, two educational booths located on the Clinic's beach and equipped with benches present the following themes:

- Anatomy of Sea Turtles
- Cycle of life of Sea Turtles
- Presentation of the 7 species of Sea Turtles
- Endangered Sea Turtles
- A day at the Sea Turtle clinic
- Turtle nesting monitoring in Tetiaroa atoll
- Te mana o te moana association
- Actions in education



## The team and operation

- A veterinary, in charge of the diagnosis, dispensing major medical care, realizing autopsies and training care providers
- One to two marine biologists, to supervise the clinic
- one to two educators, in charge of the creation and the diffusion of awareness programs.
- Care providers in charge of the daily care of the turtles
- Interns from universities
- Volunteers



### Daily tasks

To respect the hygiene conditions, guarantee the animal welfare and respect a rigorous medical follow up, the team follow a very strict regularly updated protocol during their daily task.

Each turtle has a specific treatment: dispense medication, antibiotics, or vitamins, disinfecting wounds, inject rehydration serum or even gastric tubing...

The «residents» of the clinic are fed fish one to two times a day (sardines, mackerel, squids, capelins...).

The welfare and the growth of the turtles are monitored closely: Turtles are measured one to three times a month. The hotel also commits to give a quarterly report to the Direction of Environment to keep them update on the animal's welfare and the maintenance of the rehabilitation lagoon.

### *Portrait*

Noël PAHIO

Technician in contract of integration



Through the support of Tahiti Legends, Noël, young resident of Moorea who had no diploma or professional experience was trained and became a technician at the Sea Turtle clinic. He was in charge of the daily tasks and the maintenance.



Water analysis are done once a month to monitor water bacteriological quality of the main lagoon and nurseries



### Portrait

Céline DESJARDINS

Volunteer



Céline is a dedicated volunteer that comes three times a week to feed the animals, clean the nurseries or interact with visitors.

## Partners

Those 10 years of care, rehabilitation and raising awareness were conducted with the help and support of the InterContinental Moorea Resort & Spa, the Ministry in charge of the Environment of French Polynesia, the Direction of the Environment of French Polynesia, the Moorea Dolphin Center, Tahiti Legends, Pacific Funding of French Republic, the International Union for the Conservation of Nature (I.U.C.N), the World Ocean Network, the Insular Research Center and Environment Observatory (C.R.I.O.B.E), the Sea Turtle Group France (G.T.M.F), the Pacific Asia Travel Association (P.A.T.A), Air Tahiti, the Direction of Primary Education of French Polynesia, the French Ministry delegated to Research, the Vini Company, The Brasserie Tahiti, the municipality of Moorea-Maiao, the Polynesian Environment Society (SEP), the Bank of New Zealand, the company Mahana Tours, the TUBA association, the Poihere ia Maiao association and all the generous donators, known or unknown. Thanks to all of you.



## Rescued Turtles

Out of the five Sea Turtle species found in French Polynesia, four have been rescued at the Clinic : the green turtle (*Chelonia mydas* – classified Endangered, IUCN), the hawksbill turtle (*Eretmochelys imbricata* – critical extinction, IUCN), the olive Ridley turtle (*Lepidochelys olivacea* – vulnerable, IUCN) the loggerhead turtle (*Caretta caretta* – endangered, IUCN).

Loggerhead turtle



Hawksbill turtle

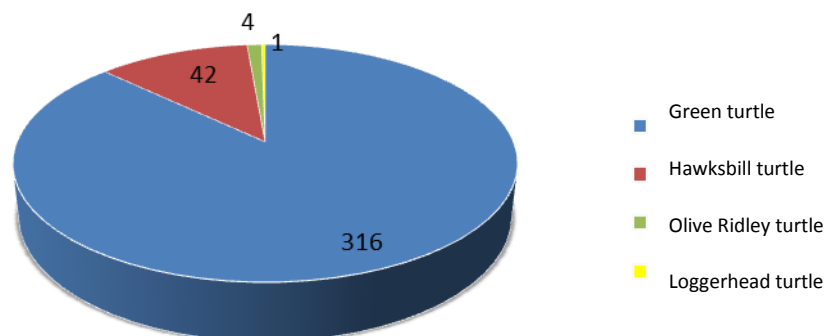


Green turtle



Olive Ridley turtle

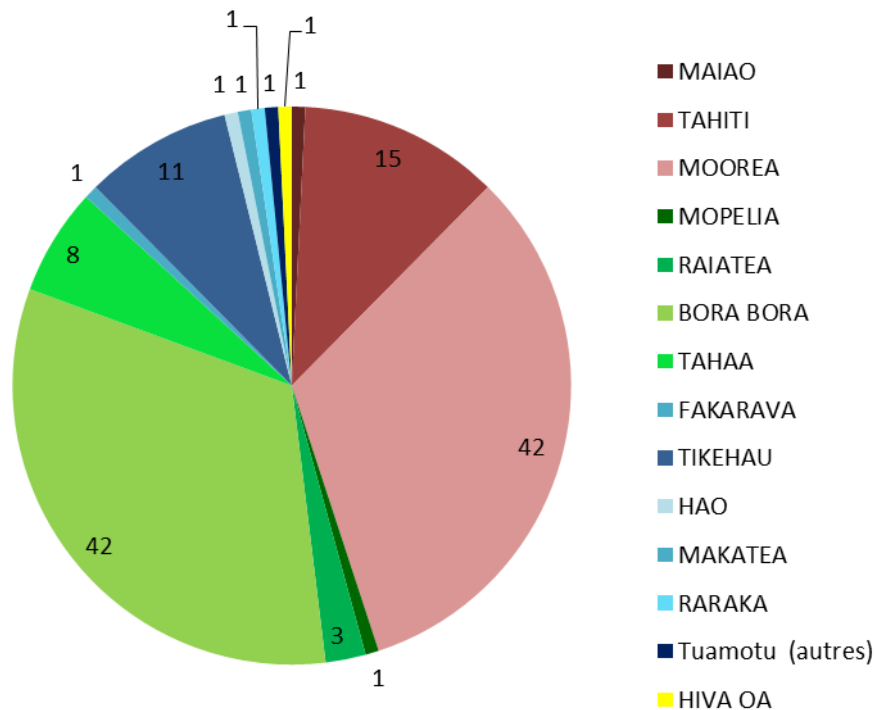
The green turtles and hawksbill turtles are most commonly rescued at the Clinic. 69% of the green turtles rescued are hatchlings.



Number of turtles received at the clinic since 2004 classified by specie

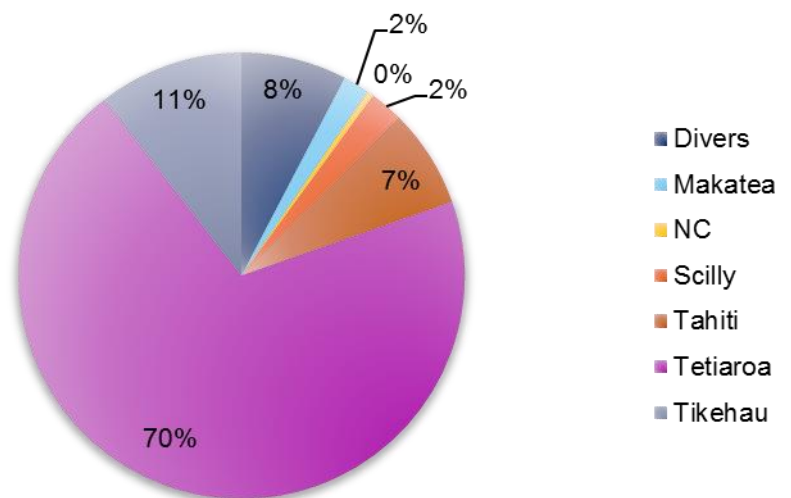


The turtle clinic received turtles from whole Polynesia but the majority of the animals arrive from the Society Archipelagos. We received a lot of animals from Bora Bora due to the presence of a Sea Turtles care center at the Méri dien Resort that was sending us the animals for specialized cares. The communication and awareness efforts as well as partnership with the Air Tahiti plane company also allow us to receive animals from remote islands like Hao, Raraka or HivaOa.



Origin of the rescued turtles since 2004 (without hatchlings)

During the Green Sea Turtles nesting season, the clinic rescues weak hatchlings or animals seized by the authorities. They usually arrive from Tetiaroa Atoll where Te mana o te moana association conducts a research program and monitors the nests. Hatchlings are often found at the bottom of the nests and two weak to reach the surface.



Origin of hatchlings rescued at the clinic since 2004

Upon their arrival, the turtles have different pathologies (shell distortion, scale detachment, wounds...). The most common pathologies are:

### Apathy

Most of the rescued turtles arrive in a very weak condition and are very apathic (156 turtles representing 45% of the animals received). Multiple reasons: parasitism, occlusions, various diseases or lesions.

### Anorexia

Some turtles (61 turtles or 18% of the animals received) are very emaciated probably because of a lack of natural resources, stress, dysfunction of the digestive system (stomach occlusion for example) or facial paralysis.

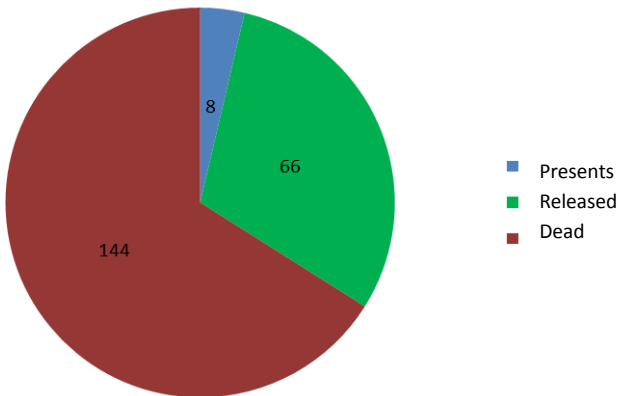
### Wounds and abscess

59% of non-hatchling turtles arriving at the Clinic have wounds or abscess. Those wounds are caused in majority by human activities and especially poaching. Wounds caused by spear guns and spears mostly affect the fins, neck and head. Other animals accidentally get caught in fishing net or fishing lines. The consequences are usually amputation of one of the limbs.

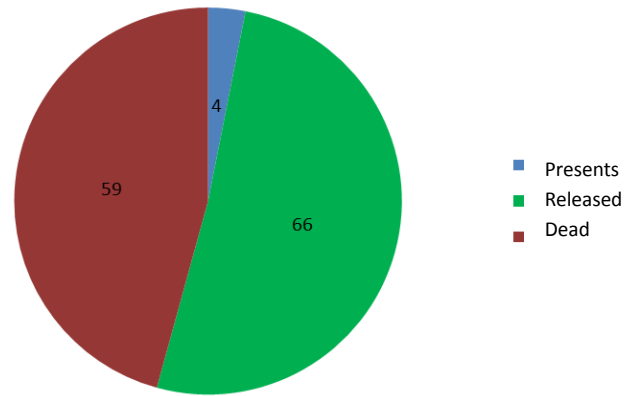
*Before their full recovery and to be able to release them to the wild, some animals have to stay for a long time at the center. It was the case for Costa Luna, a young green turtle wounded by a spear gun in 2006 and released in 2012. She stayed 2194 days at the Sea turtle clinic! Our record.*



Because of the seriousness of their wounds or disease and despite the treatments administered, some animals do not survive. For hatchlings, only 30% of the animals have been rehabilitated and released to the wild. It's due to their weak health at their arrival and specifically to very high dehydration. For the other animals rescued, the rate is 51%.



Becoming of the hatchlings received at the Clinic since 2004



Becoming of the turtles (hatchlings not included) rescued at the clinic since 2004

The Te mana o te moana veterinarian in charge of the clinic systematically carry an autopsy on all the animals that die. It is a crucial step to better understand the reasons or some of the reasons of the death.

One of the clinic's jobs is also to collect dead animals found in open water or stranded on shore. To do so, the clinic works with the Sea Turtle Observatory of French Polynesia. Since 2004, autopsies have been conducted on 18 deceased animals and the reports have been transmitted to the Direction of the Environment of French Polynesia.



Green turtle female found in Tetiaroa Atoll during nesting season

## Releases of rehabilitated turtles

The turtles staying at the care center have to reach very strict criteria of health signs before they can be released: no more therapeutic treatment for at least two weeks, comfortable diving and swimming, good appetite and regular weight gain, but also independence and desensitization towards human contact.



Release of Sammy, young hawksbill turtle by Jean-Michel Cousteau

The releases take place on a boat and are done on the external side of the reef. The person that found the turtle and the animal's godfather or godmother are invited to release the animal. Some of the animals have been released by celebrities or sponsors: Yannick Noah (singer and tennis player), Jean François Clervoy (astronaut), Charlie Duke (astronaut and moonwalker), Rauata Temauri (Miss Tahiti), Mareva Georges (Miss France), Kool and the Gang (musicians), the Mayor of Papeete, Jean-Michel Cousteau, Yoram Zekri (free diver), Guillaume Nery and Julie Gautier (World recordman and French recordwoman free divers), Maud Fontenoy (sailors and writer), Nadiya (singer), Jacques Rougerie (architect)...

**Renowned people help us to raise awareness to the public through the Medias. A lot of releases have also been conducted by classes to sensitize kids.**



**As of today, 132 turtles have been released in their natural environment through the actions of the Turtle clinic of Moorea.**

## Research programs

In parallel with the rescue and awareness actions conducted by the clinic, Te Mana o te moana association also does research with the turtles of the Clinic.

Therefore, 6 out of the 11 turtles equipped with satellite tags by the association Te mana o te moana in French Polynesia were from the clinic of Moorea.

The tags allow following the long distance travels of the released turtles and better understanding their migratory routes.

This program is realized through the support of NOAA



(National Oceanic and Atmospheric Administration) and the Direction of the environment.

The turtle clinic also participates to different research programs as genetic research through the systematic collection of skin samples on all the animals (study conducted in 2012 by the CRIOBE and the Direction of the Environment). (Finally in 2013, a veterinary student who did her final thesis at the clinic « Contribution to the study of Sea Turtle pathologies in French Polynesia: Example of the care center of Moorea ».

## Portraits of residents

### *Baxter*

Baxter's symptoms were important growth delays, a very preeminent shell distortion as well as a floating problem. This young green Sea Turtle (under two years old) was cared for 21 months. She fully recovered and was released of the coast of Moorea in 2007.

### *Tahaa*

Named after the island she came from, this Green Sea turtle was in critical condition at her arrival at the clinic. She had a severe wound on the neck caused by a spear gun. Intensive care was provided, allows fast recovery and she was released only 6 months after her arrival.



Baxter at his arrival at the center and before his release.



## Pereraw

At her arrival in 2009, this olive Ridley turtle was in very critical conditions: her right front flipper was amputated as it got sectioned in a fishing line and she had deep wounds on her shell due to shark bites. After 2 long years of care due to complications, Pereraw was released in May 2011.



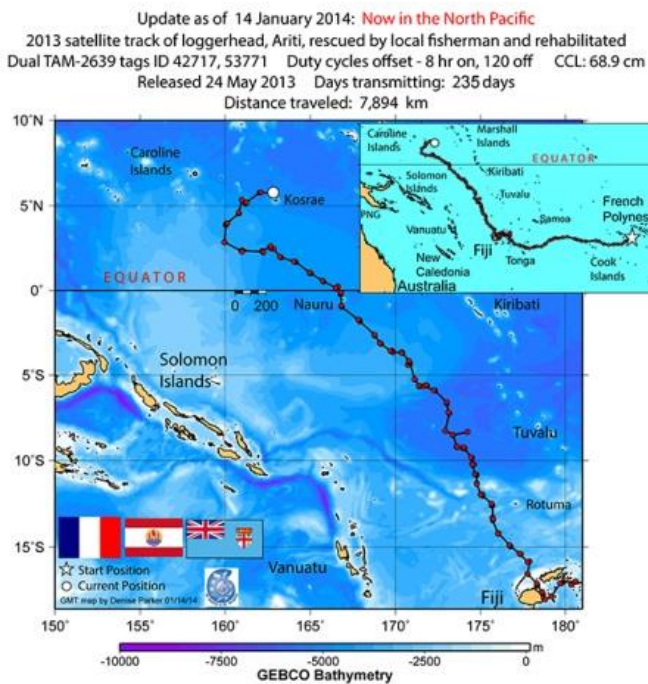
## Matapo

This turtle is now blind due to a spear fishing wound to her eyes. She was found by the local police in the lagoon of Moorea, was estimated to be 3 years old and anorexic. Matapo healed and is hand fed on a daily basis. Due to her blindness, she cannot be released.



## Ariti

Ariti is the only loggerhead turtle that was ever rescued at the clinic. Found by a fisherman out of Tahiti's coats, she did not have any wounds nor show any sign of illness. Floating and without energy, she rested at the center for a few weeks, was equipped with satellite tags and released from Teahupoo in May 2013. Eight months after her release, she travelled for more than 5000 miles, passed the Equator and is now in the North Hemisphere.



# Public awareness

## Educational programs

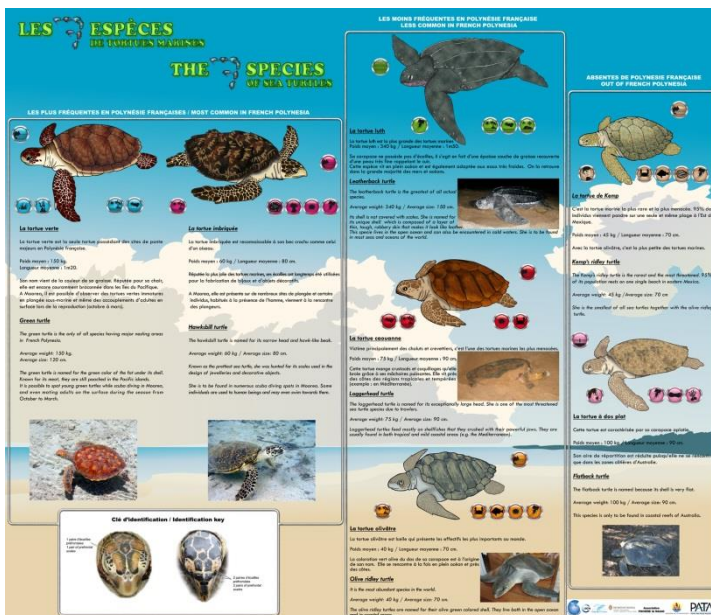
The themes of the educational programs delivered to the local kids by Te mana o te moana association are coral reefs, marine mammals, Sea Turtles and sustainable development. All programs include a visit of the clinic and educators explain the biology of turtles, their role in the ocean and the necessity to protect them. The Honu Récré program, validated by Direction of Primary schools and taught by specialized educators, is specific to the sea turtles.



Since 2004, Te mana o te moana association sensibilized 48 000 kids to the environment protection and 30 000 visited the Turtle clinic in Moorea.

## Visit the clinic

The Sea Turtle clinic of Moorea is the only free access care center in French Polynesia. Between 10 000 to 20 000 visitors come to the center every year to watch the care, feeding sessions or take pictures of the animals. A volunteer is available three hours a day to answer questions. A 15 minutes visit includes a walk along the lagoon and nurseries, the educational booth and eventually and explanations in the care room if care takers are available.



Example of information's panels set up at the educational booth and realized with the support of PATA

## Press and medias

As part of its actions, the turtle clinic regularly post articles in newspapers and local publications (La Dépêche de Tahiti, Les Nouvelles de Tahiti, Tahiti Infos, Tahiti News,...) as well as on radios and local TV channels (Polynésie Première, TNTV, Radio 1,...).

Since 2004, the turtle clinic received numerous television crews and journalists for national TV shows and international channels: 30 millions d'amis, Des Racines et des ailes, 20 heures de TF1, 20 heures de France 2, 50 minutes inside, Ocean Mysteries (ABC), Tout s'explique, Thalassa, Echappées belles, C'est pas sorcier, ADN, Ushuaia TV, Mission sauvage, Radio France, CBS, King 5...

Finally *Te mana o te moana* participated to the making of and production of the documentary «Honu Here , protect the sacred » that emphasize conservation actions on sea turtles with a section dedicated to the sea turtle clinic (available with English subtitles on Youtube).





## Take lead !

### 1. If you find a turtle

If you find a sick, injured or dead turtle, or for any information related to turtles, please contact:

La Clinique des tortues de Moorea, tel : 56 40 11 ou 71 53 44  
temanaotemoana@mail.pf

#### Recommandations :

- Avoid to take care of them alone
- Do not feed them
- Place the turtle in a plastic bin for transport (plane or car)
- Close the bin with a net on top so nobody can touch the animal
- Place a damp cloth on top to keep her moisturize without suffocation risks
- Label the bin : Clinique des tortues de MOOREA, Hôtel InterContinental Moorea Resort and Spa / tel : 56.40.11 ou 71.53.44

*The clinic will take charge of the transport fees.*

### 2. If you wish to support us

#### TE MANA O TE MOANA ASSOCIATION

Te mana o te moana is a non-profit association founded in 2004. The association is state-approved by the Environment code and member of IUCN (International Union for Conservation of Nature).

Through its research, conservation and educational actions, the association strives for marine environment protection in French Polynesia and raising public awareness.

Te mana o te moana is state approved under the L. 621-1 article from the environment code by the ministry decree n°947/DRCL from June 26, 2008.

Te mana o te moana is recognized of general interest by the decree n° 1324 CM from September 17, 2008. Te mana o te moana is a member of IUCN under the category B (c) National nongovernmental organization (registered number NG/25093).

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