
Cetacean Observatory
in French Polynesia
te mana o te moana
Guide for observing dolphins and whales in French Polynesia
This document is realized thanks to the support of :
Fondation Nature & Découvertes
Moorea Dolphin Center
Fondation Total
IFRECOR
Ministère du tourisme, de l'écologie, de la culture, de l'aménagement du territoire et des transports aériens

« When the last tree will have fallen, the last river poisoned, the last fish caught, you will realize you can't eat money ».

Amerindian proverb

Guide for observing dolphins and whales in French Polynesia

Vie JOURDAN[1], Matthieu PETIT[1], Aurore TOULOT[1], Rodolphe HOLLER[2], Yann PANHELEUX[3], Dr. Cécile GASPAR[1], Dr. Michael POOLE[4].

With the special collaboration of Miri TATARATA[5].

[1]Te mana o te moana. BP 1374 Papetoai 98 729 MOOREA French Polynesia. www.temanaotemoana.org
[2]Tahiti Private Expeditions. BP 3587 Temae 98 728 MOOREA French Polynesia. www.tahiti-private-expeditions.com
[3]Moorea Dolphin Center. BP 1021 Papetoai 98 729 MOOREA French Polynesia. www.mooreadolphincenter.com
[4]Marine Mammal Research Program. BP 698 Maharepa 98 728 MOOREA French Polynesia. www.drmichaelpoole.com
[5]Direction of Environment of French Polynesia (DIREN). BP 4562 Papeete 98 713 TAHITI French Polynesia. www.environnement.pf

Photo credits: Alexis Buestel (p.16), Isabelle Dupré (p.2,4,15,20,32,35), Isabelle Dupré / Dyer Island Cruises (p.7), Dr. Cécile Gaspar (p.9,21), Rodolphe Holler (p.2,4,13,19,23,24,26,29,32,33,36,38,39), Alexis Rosenfeld (p.5,10,12, 32,37), Vie Jourdan (p.38), Dr. Michael Poole (p.25), Aurore Toulot, (p.29,33) Moorea Dolphin Center (p.7), Agence des aires marines protégées et Centre de Recherche sur les Mammifères Marins - Université de La Rochelle (p.11,38).
Graphic design: Laurent Boccardo – Graphyx Communication.

Acknowledgements: Isabelle Dupré (www.isabelledupre.com), Dr. René Galzin (CRIOBE-EPHE), Rodolphe Holler (Tahiti Private Expeditions).
For the english translation: Noha Augustin, Camille Giraud, Grace-Alexandra Guénard, James Lockridge, Dr. Michael Poole (Marine Mammal Research Program).

This document has to be referred as follows: Jourdan V., Petit M., Toulot A., Holler R., Panheleux Y., Gaspar C., Poole M. Guide for observing dolphins and whales in French Polynesia. Te mana o te moana. 45 p.

The partners

The guide for observing dolphins and whales in French Polynesia was realized and printed thanks to the support of:

- Total Foundation
  http://fondation.total.com
- Nature et Découvertes foundation
  http://www.fondation-natureetdecouvertes

The edition 2013 was duplicated and delivered for free, thanks to the support of:

Total Foundation: http://fondation.total.com
Moorea Dolphin Center company: http://www.mooreadolphincenter.com
Pacific Funds: http://www.hcr987.pf/Le-Fonds-Pacifique
Ifrecor (French Initiatives for Coral Reefs): http://www.ifrecor.org

This guide is reviewed in partnership with:

The Direction of the Environment of French Polynesia (DIREN): http://environnement.pf
The French Ministry of tourism, ecology, culture, territory developing and air transports (Ministère du Tourisme, de l'écologie, de la culture, de l'aménagement du territoire et des transports aériens).

Ministère du tourisme, de l'écologie, de la culture, de l'aménagement du territoire et des transports aériens

Direction de l'environnement

The edition 2014 is duplicated thanks to the support of:
Moorea Dolphin Center company: http://www.mooreadolphincenter.com

Table of contents

List of schemas:

Foreword

French Polynesia is a veritable oasis of life, thousands of kilometers from the closest continent. The marine biodiversity is not itself exceptional, but the isolation of the Polynesian archipelagos has contributed to protecting resources and maintaining an abundant marine life. The clarity of the water contributes to the approachability of marine species. Observation of cetaceans by tourist operators began in the 1990's, and has now become a major commercial activity in French Polynesia.

On May 13th, 2002, French Polynesia's Ministry of the Environment created the " Marine Mammal Sanctuary of French Polynesia". In 2005, the economic value of this activity was estimated around 657 000 USD. Tahiti and Moorea (Society archipelago), Rurutu (Austral archipelago), and Rangiroa (Tuamotu archipelago) are the islands primarily concerned with this activity. Services in charge of environmental affairs and some professionals began to worry about the potential impacts on observed animals. Nowadays, there are more than thirty commercial organizations offering this activity on a regular or occasional basis. Commercial companies are required by law to get a special "dolphin and whale-watching permit", and they have to respect the relevant legislation concerning the approach and observation of the animals.

Nevertheless, tourism development is often accompanied by an increase in environmental footprints. It is in the interest of all the concerned participants to ensure a reasonable exploitation of the resources.

In 2010, the non-profit organization Te mana o te moana created a project to increase awareness of sustainable tourism for tourism operators, reminding them of the relevant regulation and the rules of good conduct that they should follow. The need for informing, sharing and accompanying operators in their activity was noted.

Te mana o te moana decided to create the Observatory of cetaceans in French Polynesia with the support of Total Foundation, Nature et Découverte Foundation and in partnership with the Direction of the Environment of French Polynesia (DIREN).

One goal of the Observatory is to collect observational data, to summarize and popularize them; also to create support and methodological tools to help operators and recreational boaters, and to improve their environmental process.

This guide is an educational and methodological tool created to assist cetacean observers.

Its goals are:

- to remind the operators of the relevant legislation and the already existing approach recommendations.
- to provide helpful tools concerning marine mammal identification.
- to provide information on ecology, biology and diversity of cetaceans of French Polynesia; these data could be useful to operators willing to educate and sensitize their clients.
- to help perpetuate the development of sustainable Dolphin and Whale Watching activities in French Polynesia.

I- GENERALITIES

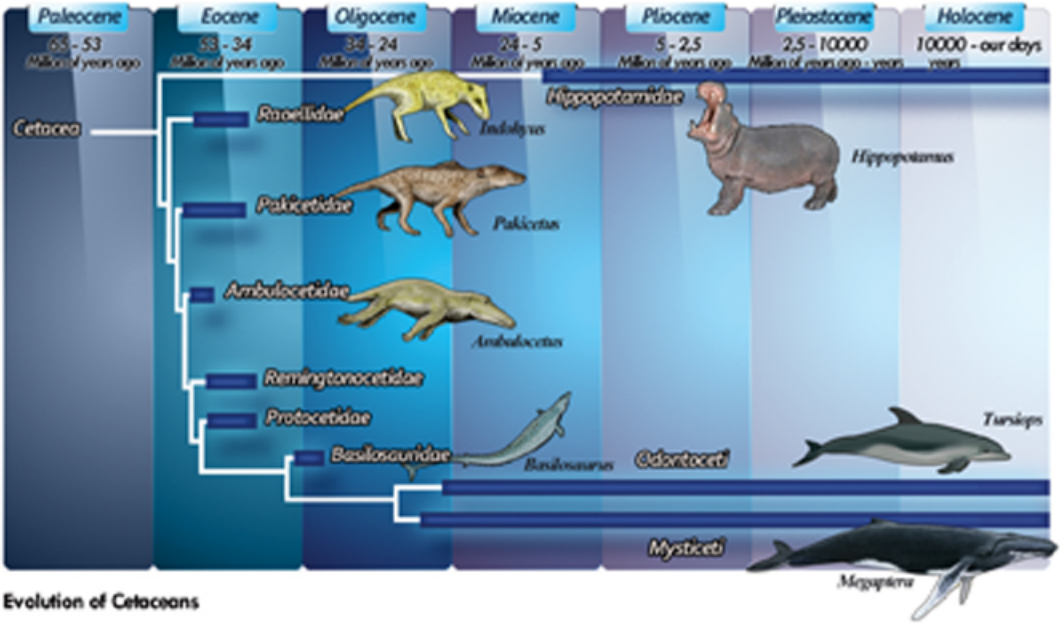
1 - Origins of cetaceans

Dolphins and whales belong to the family of vertebrate animals from the class of mammals. Mammals share characteristics such as a constant body temperature, a pulmonary breathing, a highly developed nervous system, the presence of hairs, and nursing of young.

Dolphins and whales are marine mammals. This appellation describes mammals that are restricted to living in the ocean, such as Cetaceans (whales, dolphins and porpoises) or Sirenians (manatees, dugongs), and mammals living partially in the water such as Pinnipeds (sea lions, walruses)…as well as sea otters and polar bears.

Dolphins and whales belong to the order of Cetacea (word derived from the Greek « *ketos* » meaning « marine monster » or « big fish »). The most recent classification based on the study of relationships and especially genetic relationships, tends to regroup the order of Cetaceans and Artiodactyls in a same group: the Cetartiodactyla.

This group comprises Tylopoda (camel), Suina (pig, pecarry), Ruminantia (cow, goat, sheep, horse, giraffe), Hippopotamidae (hippopotamus), and Cetacea (whales, dolphins and porpoises).



Evolution of Cetaceans

The hippopotamus is the closest land relative of whales and dolphins. 50 million years ago, the first representatives of Cetaceans were semi aquatic animals that vaguely looked like dogs (although not related to them). According to current theories, by trading the land environment to an aquatic environment, cetaceans had access to more abundant food. The first emergence of cetaceans began 50 million years ago. Some baleen whales appeared approximately 20 million years ago.

Among the 14 families of cetaceans, all of them have been present on earth for more than two to five million years. Today, they regroup 87 species (two new dolphin species have been recently added: *Tursiops australis* and *Orcaella heinsohni*).

The cetaceans' bony structure of their pectoral flippers clearly shows vestiges of the land animal ancestor having 5 fingers.

2 - Classification

Cetaceans are divided in 2 suborders: Mysticeti, which are cetaceans with baleen and Odontoceti, cetaceans with teeth.

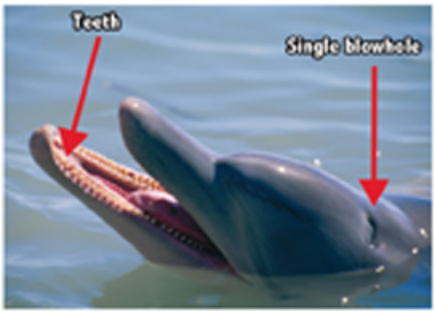
► Mysticetes (cetaceans with baleen) : 14 species

Example: instead of teeth, the humpback whale has baleen, as does the other rorquals, gray whales, right whales, and the pygmy right whale. They have a double respiratory orifice (blowhole).

Baleen plates, made of keratin (like our fingernails), are used to filter water and thereby catch food, which is mostly composed of plankton and krill (small shrimp).

► Odontocetes (cetaceans with teeth) : 73 species

Bottlenose dolphins and sperm whales are examples of Odontocetes as are porpoises, beluga whales, orcas and beak whales. They have teeth that can be used to catch or hold their prey (crustaceans, squid, fish) and for socialization.
The odontocetes have a single blowhole.



Odontocetes do not chew their prey but swallow them or pieces of them whole.
The spinner dolphin can have up to 250 teeth (the greatest number of any mammal) !

II- CETACEANS IN FRENCH POLYNESIA

1 - The marine mammal sanctuary in French Polynesia:

In 2002, the French Polynesian government created a marine mammal sanctuary covering an area of 5.5 million square kilometers.
The goal of this sanctuary is to provide sustainable protection for marine mammals against any type of nuisance. Around the world, cetaceans have to face many anthropogenic threats such as the pollution, disturbance related to marine activities and their audible impacts, and the use of fishing nets (nowadays, nets are the 1er mortality cause of cetaceans in the world).

In addition to forbidding the capture of cetaceans, French Polynesia's sanctuary, (Article A. 121-3 of the Code of the Environment) also aims to reduce the impact of tourism on the animals. In fact, the Code of the Environment regulates the approach of cetaceans for private, cinematographic, scientific or commercial activities - (Articles A 121-3/ 121-4/ 121-25 to 121-36). Marine mammals are listed as category « B » species considered as rare, or of particular interest.

Article A.121-3 creates the sanctuary for the protection and the conservation of whales and others marine mammals.
Article A.121-4 provides for the protection of category « B » species.
Article A.121-5 institutes different prohibitions.
Articles A.121-16 to 36 pertain to the obtention of permits to allow the approach of whales and other marine mammals through an authorization issued by the President of French Polynesia.
Article A. 124-81 and others specify the sanctions for non-respect of the provisions in Article LP.121-3.

Any activity involving the observation of marine mammals must have an authorisation delivered by the Direction of the Environment of French Polynesia.
Through the creation of its sanctuary, French Polynesia made an important step toward the protection of marine mammals, like other countries of the region (Australia, New Zealand, etc...) and toward respecting the commitments French Polynesia made in front of the International Whaling Commission.

Examples of sanctuaries around the world

The PELAGOS sanctuary *in the Mediterranean Sea is the result of an agreement signed between France, Italia and Monaco. This sanctuary sets up concerted and harmonized joint actions from the 3 countries, regarding the protection of cetaceans and their habitat against any kind of perturbation (pollution, noise, accidental catches and injuries, and disturbances).*
The AGOA sanctuary *located in the Caribbean Islands aims to insure the conservation of Cetaceans and their habitat in their major resting, feeding and reproduction areas in the French Caribbean.*

more than 120 whaling ships in French Polynesia

appearance of the 1st factory ship (processing of animals onboard)

sanctuary for the protection of marine mammals in French Polynesia

1769 — 1820 — 1864 — 1920 — 1986 — 2002

arrival of J.COOK in Ruruta (Austral)

appearance on whaling ships of cannon-fired harpoons with explosive heads

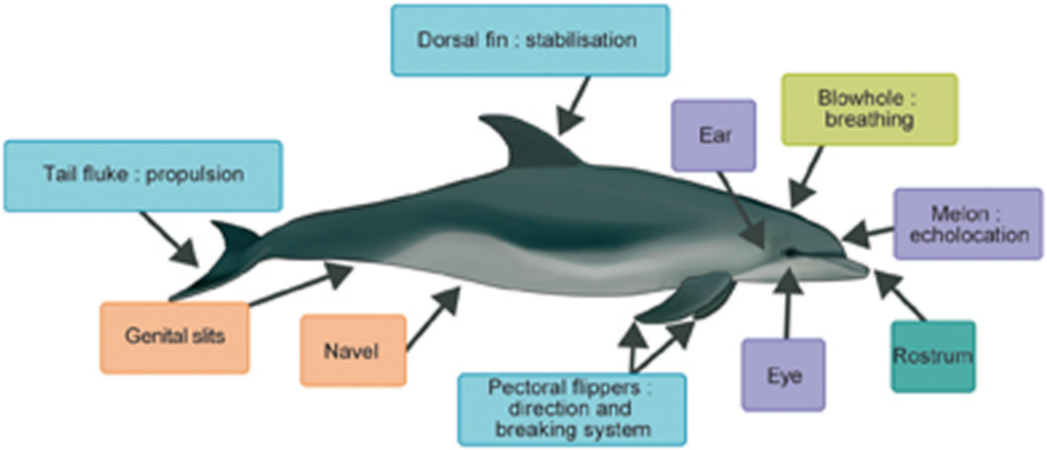
moratorium prohibiting the whale hunting and allowing only few traditional hunts

Protected for almost 50 years, most population of humpback whales around the world have increased more substantially than populations of other whales. However, because of their extremely low numbers in the South Pacific, humpbacks here are classed as "Endangered" by the IUCN. The world population of humpback whales is currently estimated by the International Whaling Commission as approximately 80 000 individuals, divided into 4 major populations in the northern hemisphere and 7 major groupings in the southern hemisphere.

Climate change can impact krill abundance, the basic food for humpback whales when they are in Antarctic during austral summers, before they return to French Polynesia in winter. Krill abundance is a crinical limiting factor for reproductive success and the survival of individuals.

2 - Adaptation to the environment

Millions of years ago the evolution of cetaceans from a terrestrial life to an aquatic one required many adaptations. Among the numerous transformations was the storage of oxygen. Adequate oxygen is insured by an high blood volume, a high amount of hemoglobin in blood, and myoglobin in tissue, all of which permit long breath holding capacities. The sperm whale is able to dive for more than 1 hour at depths of more than 2 500 meters (8 200 feet).



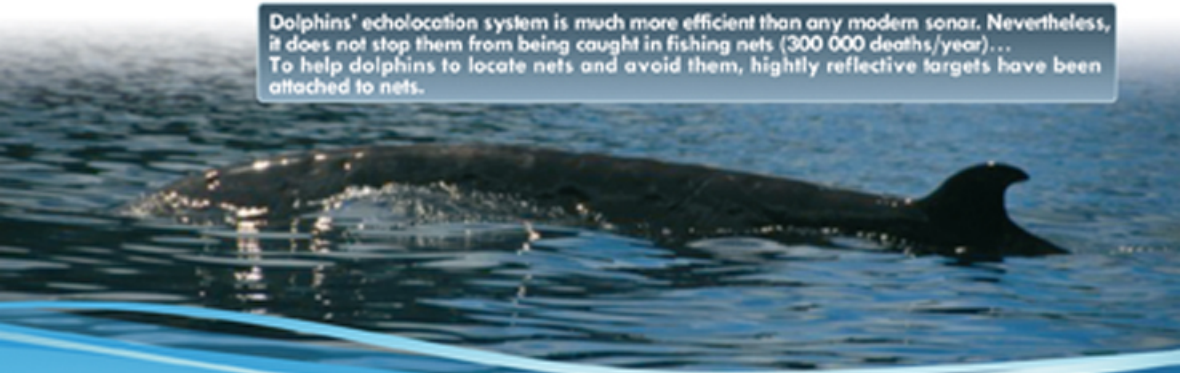
Adaptations of cetaceans to marine life (in blue: locomotion, in purple: senses, in apple green: breathing, in orange: reproduction).

Swimming ability has also been crucial for the adaptation of cetaceans to their aquatic environment.
To assist the hydrodynamics (streamlining) of cetaceans, their genitals are internal (they have genital slits); they don't have external ears; the fins are mostly flexible (made of cartilage); the nostrils are located on top of the head (the blowhole); the shape of their body is streamlined; and the skin is smooth (oily aspect).
Thanks to their tail flukes, some cetaceans can reach the speed of 50km/h (31miles per hour) !

Other adaptations to the aquatic life allow them to fight against the cold with a thick blubber layer or to locate their prey efficiently in the liquid environment by possessing an echolocation system.

The freshwater needed by dolphins comes from their food.

**Dolphins' echolocation system is much more efficient than any modern sonar. Nevertheless, it does not stop them from being caught in fishing nets (300 000 deaths/year)…
To help dolphins to locate nets and avoid them, hightly reflective targets have been attached to nets.**



3 - Migration

Species encountered in French Polynesia can be residents, nomads, or migrators. Resident species such as spinner dolphins, bottlenose dolphins, and rough-toothed dolphins are sedentary and will spend all year feeding and reproducing within their home range.
Species like killer whales and bands of sperm whales females and their young cruise between archipelagos or between islands, looking for food and mating opportunities. Migrating species found in French Polynesia include the humpback whales and adult male sperm whales.
The humpback whale is the most commonly observed mysticete in the Pacific area. Every year, they migrate between their resting and reproduction areas (tropical waters of the Pacific ocean) and their feeding areas (Antarctic ocean), travelling approximately 12 000 kms back and forth. They can be observed in French Polynesia from June to November. Adult females come to give birth and nurse their calves, to mate, and to rest. As for adult males, they use their song (audible for hundreds of kilometers) to perhaps attract the females, or to signal their presence to other males and thereby avoid conflicts, or perhaps both. Arrival and departure of humpback whales in French Polynesia takes place in an approximative chronological pattern.

Chronological order of arrival and departure of humpback whales in French Polynesia

Less frequently, sperm whales can be observed in our waters. Females and young stay in the warm waters during summer, while adult males go to feed in polar waters; they will then join females in winter to reproduce.

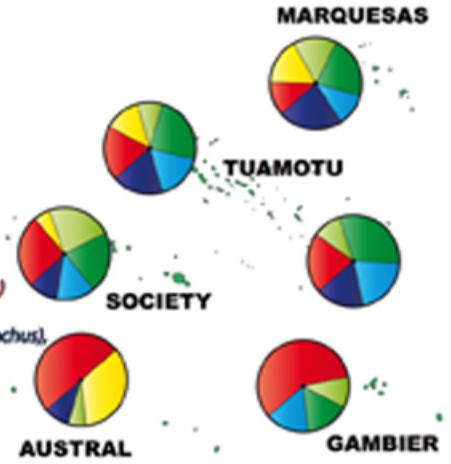
Songs of humpback males can last more than 20 hours, and can be heard more than 200 kms (124 miles) away.

4 - Geographic Partitions in French Polynesia

Depending on the archipelagos, populations of cetaceans vary. Their presence is conditioned by criteria like the orientation of the island regarding the current, the topography and the presence of a shallow depth submarine shelf.
All archipelagos have favourable properties to welcome cetaceans. For example, the Marquesas Islands have a low anthropogenic impact, but the Gambier Islands tend to be an enigma. Indeed, even though humpback whales cruise those waters, dolphins are very seldom found even though the habitat is well adapted to support them (presence of prey in the water, etc...).

Legend

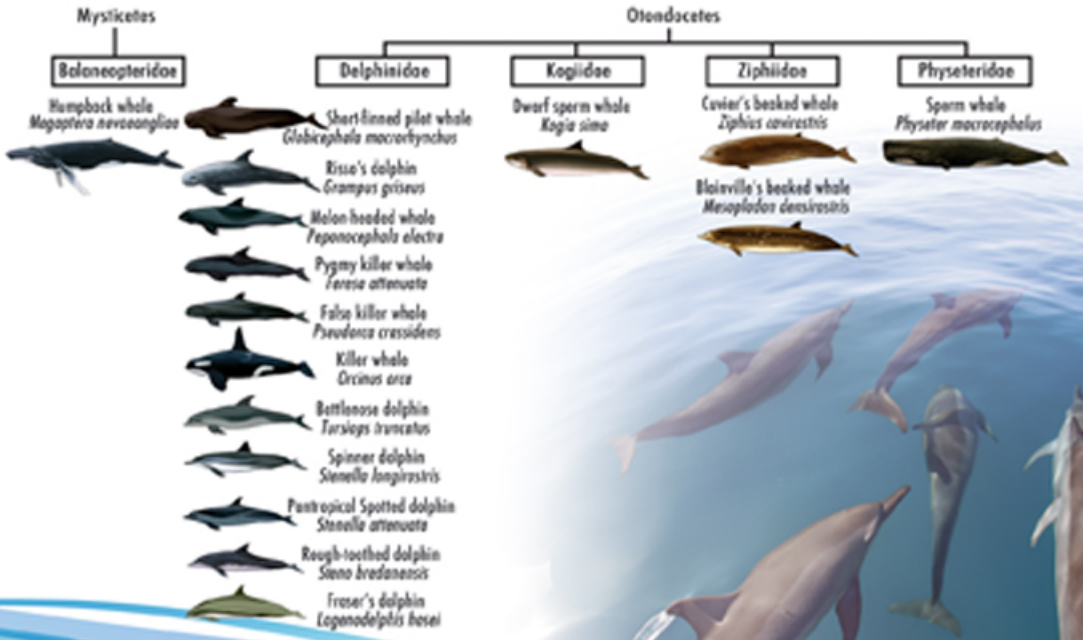
Big delphinids:	**Bottlenose dolphin *(Tursiops truncatus)*, Rough-toothed dolphin *(Steno bredanensis)*, Fraser's dolphin *(Lagenodelphis hosei)***
Small delphinids:	Spinner dolphin *(Stenella longirostris)*, Spotted dolphin *(Stenella attenuata)*
Sperm whales:	Dwarf sperm whale *(Kogia sima)*, Sperm whale *(Physeter macrocephalus)*
Beak whales:	**Cuvier's beaked whale *(Ziphius cavirostris)*, Blainville's beaked whale *(Mesoplodon densirostris)***
Big blackfish:	**Short-finned pilot whale *(Globicephala macrorhynchus)*, False killer whale *(Pseudorca crassidens)*, Killer whale *(Orcinus orca)***
Small blackfish:	Melon-headed whale *(Peponocephala electra)*, Pygmy killer whale *(Feresa attenuata)* Risso's dolphin *(Grampus griseus)*



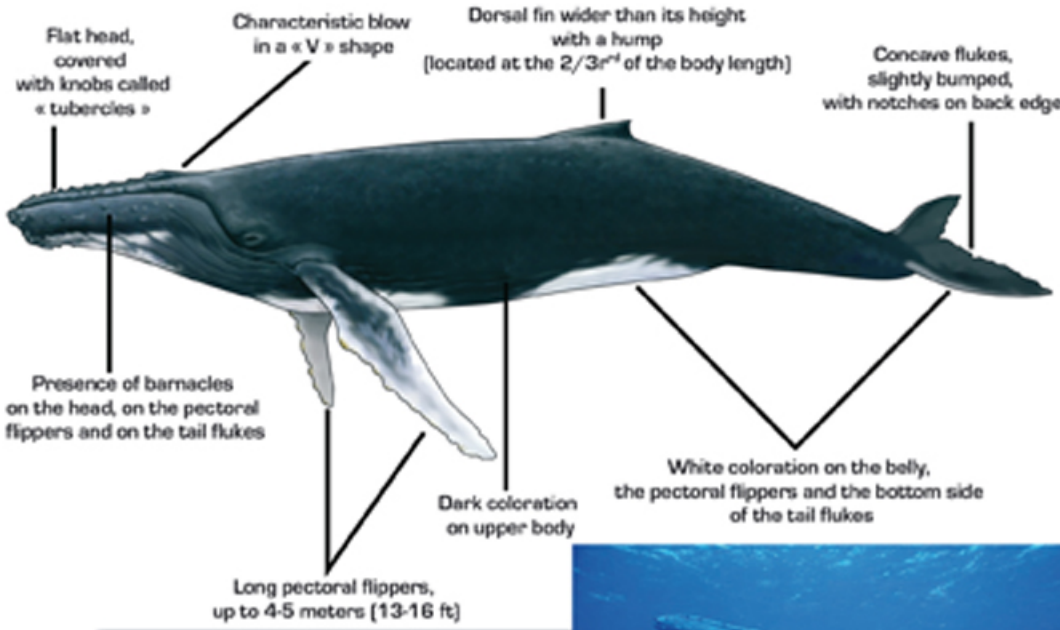
Geographical repartition of cetacean species in French Polynesia (January-May 2011) – excerpt from the census program of the mega marine wildlife through aerial observation (REMMOA) of the Mammals Research Center-La Rochelle University, France, and the protected marine areas agency.

5 - Identity Profiles of Species

Of the 87 different species of cetaceans, over 20 can be found in French Polynesia. The 16 most commonly observed are described in this guide.



Humpback whale
(Megaptera novaeangliae)



French name : baleine à bosse
Size: 11 to 18 meters (36 to 59 feet)
Weight: 24 to 40 tons (52 910 to 88 184 pounds)
Gestation: 10 to 12 months
Nursing: 6 to 12 months
Reproduction: 1 calf every 2 to 3 years
Feeding habits: krill, plankton and schools of small fish
Social organization: individuals live alone or occur temporarily in small groups of 2 to 4 individuals; Humpback whales migrate to here from the Antarctic (feeding zone) to give birth, reproduce, nurse the calves and to rest.
Status of the species: in danger of extinction in the South Pacific and in the Arabian Sea. All over the rest of the world, they are classified as "Least Concern" by the IUCN, meaning not at risk.
Distribution in French Polynesia: can be found from June to November; close to the reef barrier and inside the bays and lagoons. Easily observed in the Austral, Society and Tuamotu archipelagos (reproduction area).

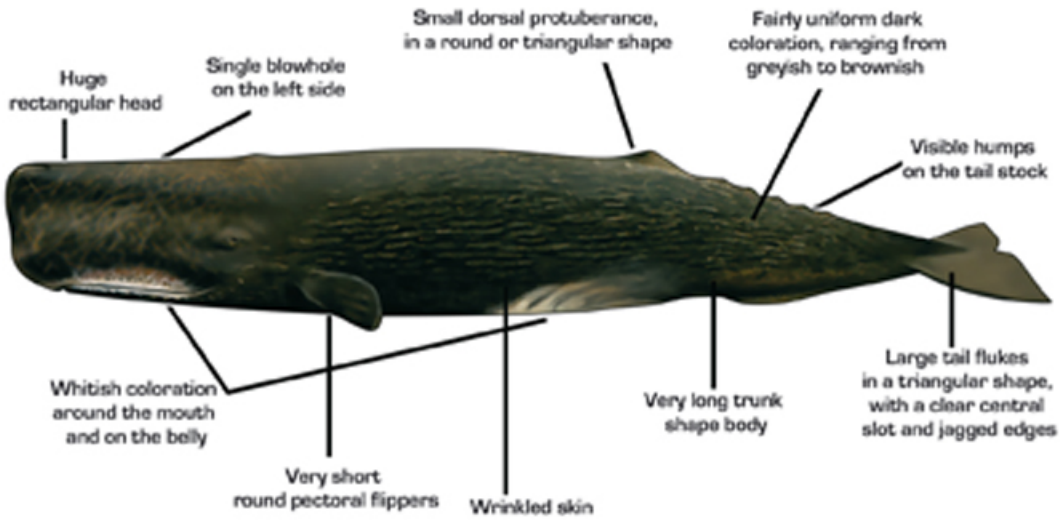
Its scientific name *Megaptera novaeangliae* means « long wings from New England » and refers to its long pectoral flippers (3-4 meters) (13-16 feets) and to the place where this specie was first described.

Despite its weight, the humpback whale is able to jump and get its entire body out of the water at a speed of 35km/h (22 miles/h).

The little « shells » which can be found on the humpback whale's body are crustaceans called « barnacles »; they live in a commensal relationship with the whales.

The humpback whale's calf gains 45 kgs (99 pounds) per day during lactation time (nursing).

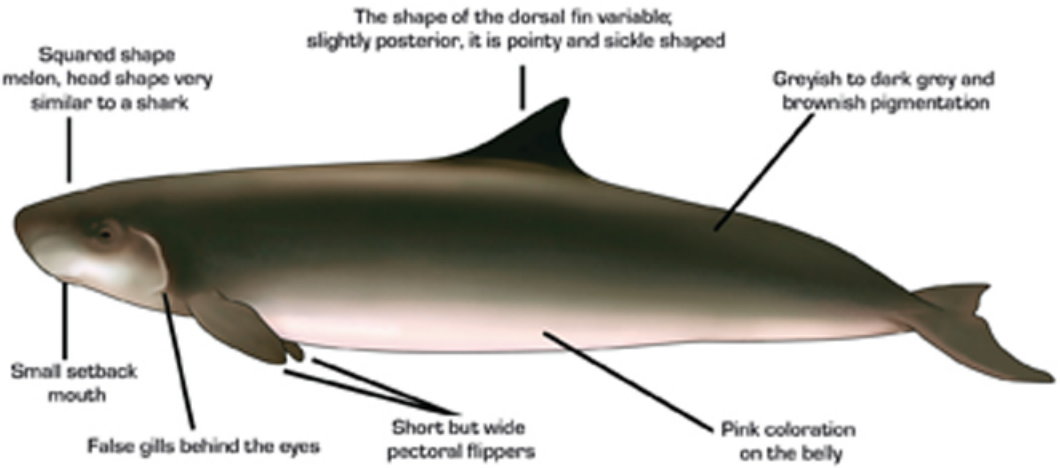
Sperm whale
(Physeter macrocephalus)



French name: cachalot
Size: 10 to 20 meters (33 to 65 feet), depending on the sex (males are much bigger than females)
Weight: 15 to 55 tons (33 000 to 125 000 pounds), depending on the sex
Gestation: 12 to 16 months
Nursing: 19 to 42 months
Reproduction: 1 calf every 4 to 6 years
Feeding habits: cephalopods (squids) and pelagic fish
Social organization: groups of 2 to 20 females and juvenile males; older adult males are usually solitary when not breeding.
Status of the species: vulnerable
Distribution in French Polynesia: important groups in the Tuamotu islands; also observed in the Society and Marquesas Islands; found during the austral winter

The sperm whale is the world champion for breath holding, reaching depths up to 2 500 meters (8 208 feet) ! while not breathing for 90 minutes ! It often feeds on medium sized as well as giant and colossal squids, sometimes going through fierce battles !

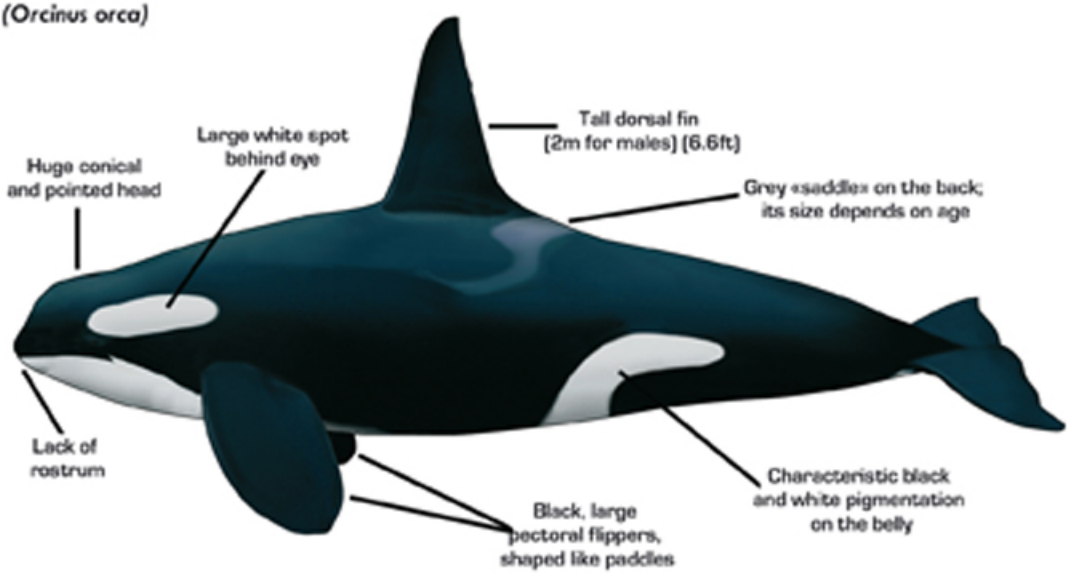
Dwarf sperm whale
(Kogia sima)



French name: cachalot nain
Size: 2 to 2.7 meters (6 to 8.8 feet)
Weight: 135 to 275 kgs (300 to 600 pounds)
Gestation: 9 to 11 months
Reproduction: 1 calf every year
Feeding habits: cephalopods (squids) and fish
Social organization: groups of 2 to 8 individuals; close to the shore
Status of the species: insufficient data
Distribution in French Polynesia: present in the Marquesas and the Society Islands

For a long time mistaken with the pygmy sperm whale, the dwarf sperm whale is very shy and we know very little about this species.

Killer whale
(Orcinus orca)

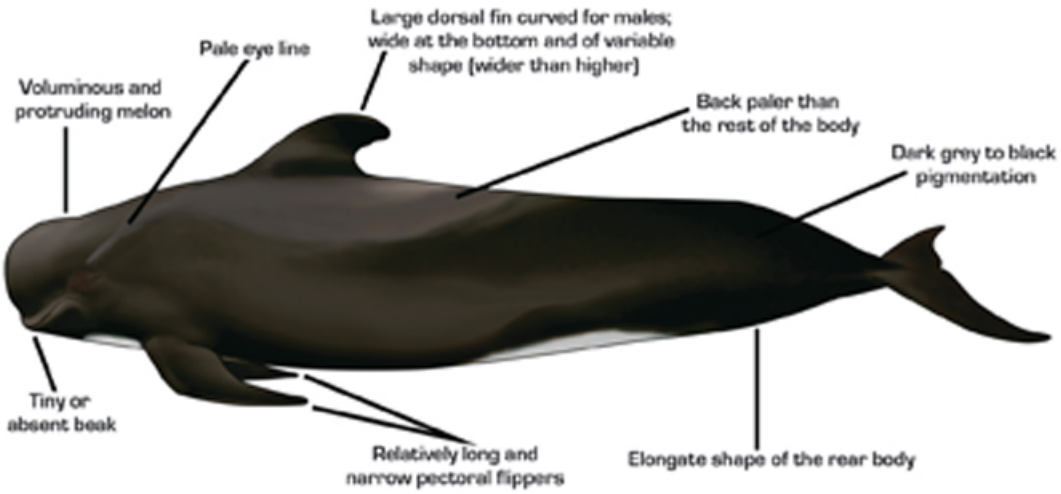


French name: Orque or Epaulard
Size: 5 to 9 meters (16 to 30 feet)
Weight: 4 to 9 tons (8 800 to 19 800 pounds)
Gestation: 15 to 18 months
Reproduction: 1 calf every 5 years
Feeding habits: fish and cetaceans
Social organization: groups of 2 to 5 individuals; present offshore and inshore
Status of the species: insufficient data
Distribution in French Polynesia: present in the Tuamotu, Marquesas and Society islands

Killer whale males can reach the size of 10 meters (33 feet).

The killer whale is one of three cetaceans (with the false killer whale and pigmy killer whale) that feed on other marine mammals.

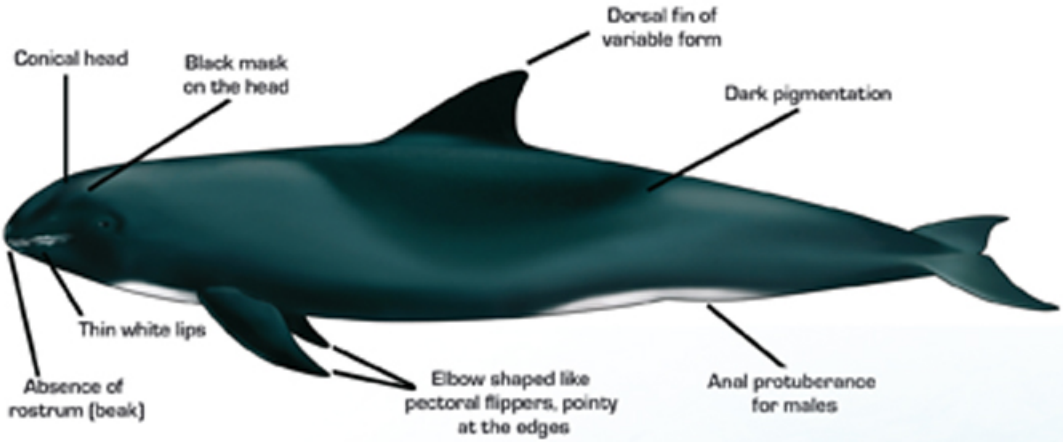
Short-finned pilot whale
(Globicephala macrorhynchus)



French name: Globicéphale tropical
Size: 3.6 to 7.2 meters (12 to 24 feet)
Weight: around 3 tons (to 6 600 pounds)
Gestation: 15 months
Reproduction: 1 calf every 5 to 8 years
Feeding habits: cephalopods (squids); hunt mostly during night
Social organization: groups of 10 to 40 individuals; present offshore and inshore.
Status of the species: insufficient data
Distribution in French Polynesia: present throughout the year, espedially close to Marquesas, Tuamotu, and Society islands

The short-finned pilot whale can hold his breath for 30 minutes, and dive to 600 meters (2 000 feet). Its name was given after being frequently seen at the bows of boats.
Its French name « globicéphale », comes from its scientific name, *Globicephala*, meaning « globe shaped head ».

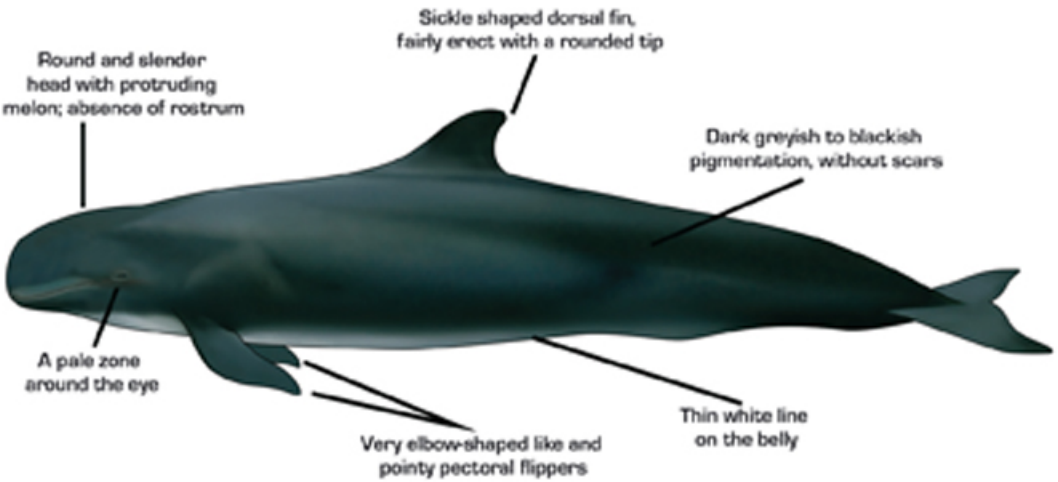
Melon-headed whale
(Peponocephala electra)



French name: Dauphin d'Electre
Size: 2 to 2.8 meters (6.6 to 9.2 feet)
Weight: 150 to 210 kgs (330 to 462 pounds)
Gestation: 12 months probably
Feeding habits: pelagic fish, cephalopods and occasional crustaceans
Social organization: groups of 40 to 200 individuals
Sometimes observed with Fraser's dolphins and rough-toothed dolphins
Present in open ocean and nearshore waters
Status of the species: minor concern
Distribution in French Polynesia: throughout the year, mostly in Marquesas and Society Islands

Depending on sea conditions, it can be pretty hard to tell apart from the young short-finned pilot whale, even though the melon-headed whale's body is much thinner.

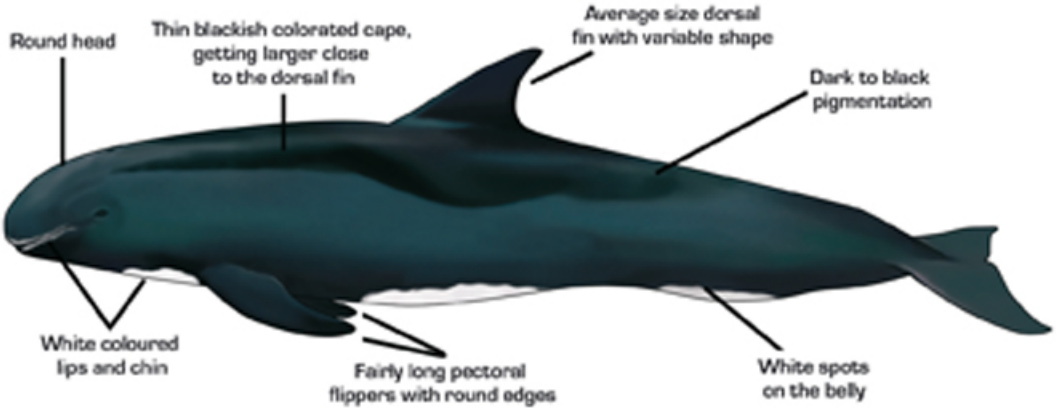
False killer whale
(Pseudorca crassidens)



French name: Fausse-orque
Size: 4 to 6 meters (13 to 20 feet)
Weight: up to 2.2 tons (4 850 pounds)
Gestation: 15 months
Reproduction: 1 calf every 3 to 4 years (up to 7 years sometimes)
Diet: squid, big fish (tuna) and small dolphins
Social organization: groups of 3 to 20 individuals; mostly observed offshore
Status of the species: Insufficient data
Distribution in French Polynesia: seldom seen

In captivity, a false killer whale male reproduced with a female bottlenose dolphin; the hybrid, called « wholphin », was fertile.

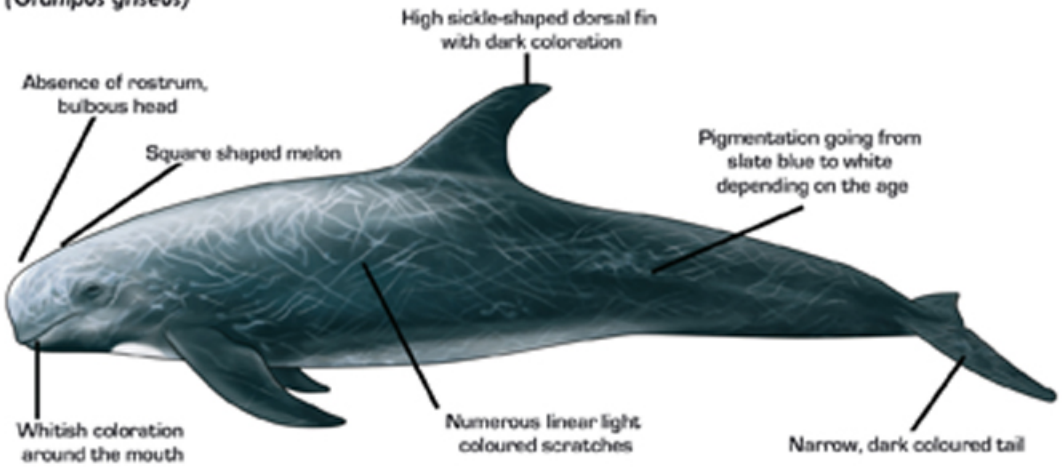
Pygmy killer whale
(Feresa attenuata)



French name: Orque pygmée
Size: 2.1 to 2.5 meters (6 to 8 feet)
*Weight:*110 to 170 kgs (240 to 370 pounds)
Gestation: unknown
Reproduction: unknown
Feeding habits: fish, cephalopods, and occasionally other cetaceans
Social organization: groups of 15 to 20 individuals
Present in offshore and sometimes inshore.
Status of the species: insufficient data
Distribution in French Polynesia: present all year long in the Society Islands

This species is known for its aggressive behaviour toward other cetacean species.

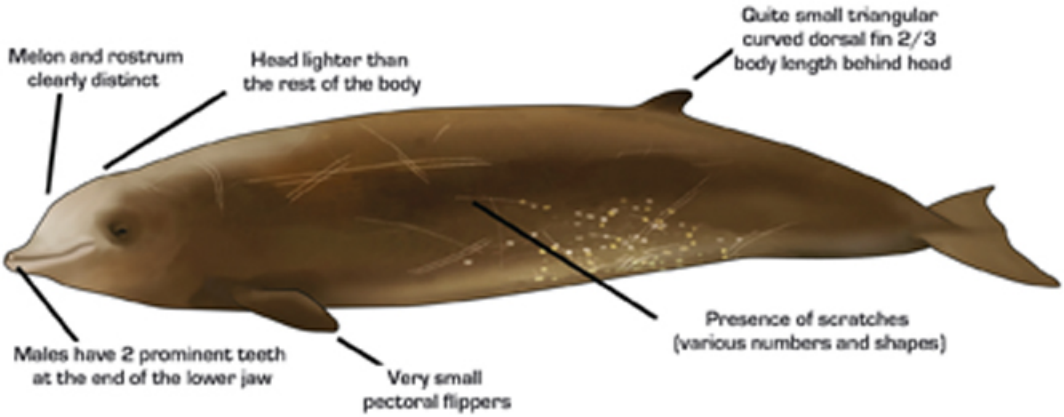
Risso's dolphin
(Grampus griseus)



French name: Dauphin de Risso
Size: 2.5 to 4 meters (8 to 13 feet)
Weight: 300 to 500 kg (660 to 1 100 pounds)
Gestation: 12 to14 months
Reproduction: 1 calf 2.5 years intervals
Feeding habits: mostly cephalopods (squids), fish
Social organization: groups of 2 to 20 individuals
Status of the species: minor concern
Distribution in French Polynesia: seldom seen; mostly above depths of 500 to 1 500 meters (1 640 to 4 921 feet)

As it gets older, white scares cover its body: an old Risso's dolphin can look practically white.

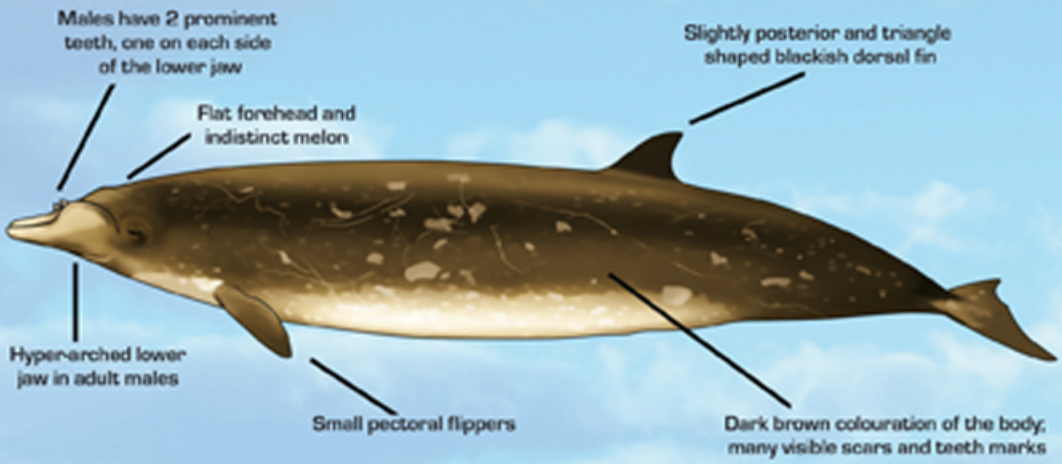
Cuvier's beaked whale
(Ziphius cavirostris)



French name: Baleine à bec de Cuvier
Size: 5 to 7 meters (16 to 22 feet)
Weight: 2 to 3 tons (4 400 to 6 600 pounds)
Gestation: little is known, perhaps 12 months
Reproduction: little is known
Feeding habits: cephalopods (squids) and fish
Social organization: groups of 2 to 5 individuals
Status of the species: minor concern
Distribution in French Polynesia: in all Society Islands

Nicknamed « goose beaked whale », this whale is the most common of the beaked whale family. Most males are covered with scars.

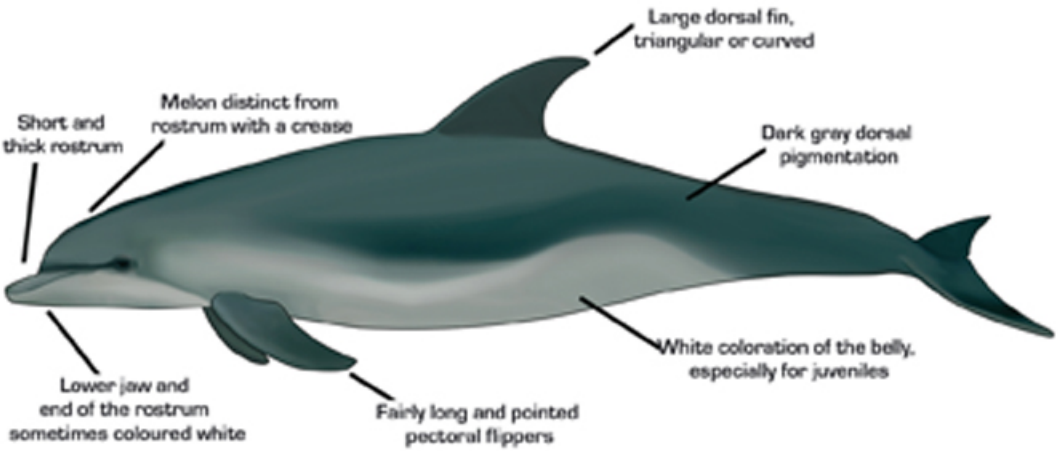
Blainville's beaked whale
(Mesoplodon densirostris)



French name: Baleine à bec or Mesoplodon de Blainville
Size: 4 to 5 meters (13 to 16 feet)
Weight: 1 ton (2 200 pounds)
Gestation: unknown
Reproduction: unknown
Feeding habits: mostly cephalopods (squids), fish
Social organization: groups of 2 to 8 individuals
Status of the species: insufficient data
Distribution in French Polynesia: Society Islands

The rostrum (upper jaw) in adult males is the densest bone of any animal (higher density than elephants' ivory).

Bottlenose dolphin
(Tursiops truncatus)

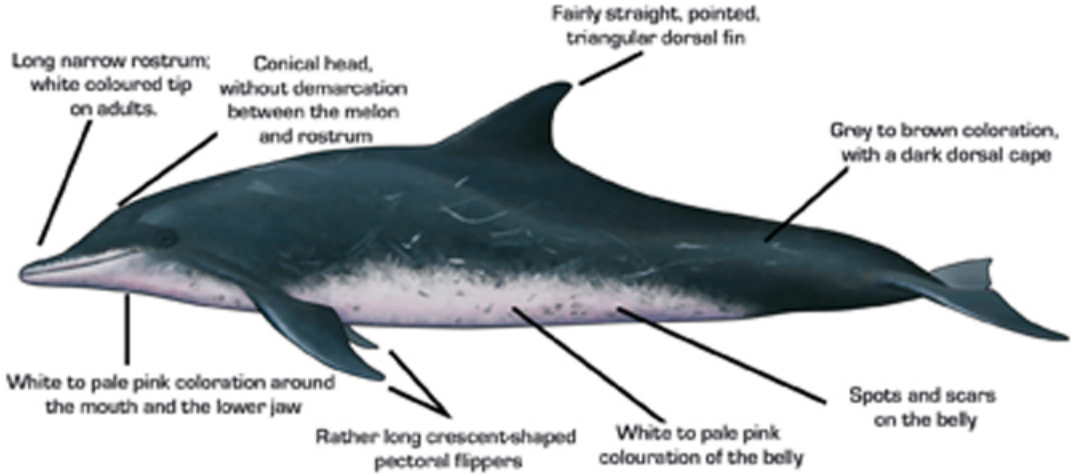


French name: Grand dauphin
Size: 2 to 4 meters (6.6 to 13 feet)
*Weight:*190 to 500 kg (400 to 1 100 pounds)
*Gestation:*12 months
Lactation: 24 months
*Reproduction:*1 calf every 2 to 6 years
Feeding habits: fish, cephalopods and crustaceans
Social organization: groups of 5 to 25 individuals. Mostly found inshore, and occasionally offshore. Sometimes observed with false killer whales, spotted dolphins, short-finned pilot whales and rough-toothed dolphins.
Status of the species: minor concern
Distribution in French Polynesia: present all year, in the Marquesas, Tuamotu and Leeward Islands

The bottlenose dolphin can swim up to 50 km/h (31 mph) and hold its breath for 8 minutes.

Researchers observed dolphins using tools in Australia: they witnessed some of them using sea sponges placed on their rostrums to protect their mouths when feeding on the rough seabed.

Rough-toothed dolphin
(Steno bredanensis)



French name: Dauphin à bec étroit, or « Sténo »
Size: 2 to 2.8 meters (6.6 to 9 feet)
Weight: 130 to 150 kg (286 to 330 pounds)
Gestation: poorly known, probably approximately 1 year
Lactation: poorly known
Reproduction: poorly known, probably 1 calf every 3 years
Feeding habits: fish and cephalopods
Social organization: groups of 10 to 50 individuals. Found inshore, or a bit more further from coasts; sometimes observed with melon-headed whales, Fraser's, or bottlenose dolphins
Status of the species: minor concern
Distribution in French Polynesia: present all year in Society Islands

Scientists were amazed to find sargassum (seaweed) in stomach of many stranded animals.