



Practical Course

Field Research of the Project

M.E.E.R. La Gomera

in the Canary Islands



Springtime 2012

18 April – 03 May

M.E.E.R. Mammals • Encounters • Education • Research

Contents

Introduction

Whale watching in the Canary Islands

The project *M.E.E.R. La Gomera*

The research on human-cetacean interactions

Participant's activities

Appendix:

- 1. Cetacean species in this project**
- 2. Practical information**
- 3. Advice for personal equipment**
- 4. Recommended literature, etc.**

Introduction

Whales and dolphins have lived on earth for millions of years - much longer than humankind existed - they constitute the most developed form of life in the ocean. Man has always been fascinated by the beauty and elegance of these sea-dwelling mammals.

During the last decades a new kind of encounter of humans and cetaceans (=the biological order of whales and dolphins) has evolved and spread all over the globe: whale watching - the observation of whales and dolphins in their natural environment. Whale watching today is promoted as an important means of increasing the environmental awareness of the public. The encounter of cetaceans and humans, which leave virtually nobody unimpressed, can be of advantage for both sides – if it happens within a context of awareness and ecological sustainability.

In the Canary Islands (NE Atlantic Ocean), the team of *M.E.E.R. La Gomera* conducts research on human-cetacean interactions since 1995. This research aims at improving the knowledge of different cetacean species' ecology, behaviour and their responsiveness to whale watching boats.

Off the coast of La Gomera, 23 cetacean species could be identified over the past years, including coastal and oceanic dolphins, beaked whales, pilot and sperm whales, a number of baleen whales and many others. This number represents 79% of the 29 species reported for the Canary Island archipelago. The extraordinary diversity underlines the significance of these waters for cetacean populations, also creating optimum conditions for behavioural studies on a comparative basis.

Research is done from small whale watching boats during regular whale watching trips. Methods include collection of sighting data, behavioural sampling and photo-identification. The main objective is the assessment of the cetaceans' general biology/ecology as well as their reactions to the boats including the documentation of their interactions with them.

If you are 18 years or older, speak the English language, and are in good physical health, you can participate in this project and be guided by the scientists through their research. It is expected that you have a special interest in field research. You will also get an insight into the project's public education, which you also can support with your participation. Next to these activities, you will live to see the island of La Gomera as an extraordinary place to be.

In 2012 the “whale watching research vessels” will go out at sea almost every day and you are more than welcome to come along for a two week-period. The project accommodates a maximum of 9 participants at a time; the minimum number of participants is 4.

Whale watching in the Canary Islands

Watching whales and dolphins is fascinating more and more people around the globe. Since the nineties this branch has world-wide growth rates of up to 10% per year. To date, about 13 million people go whale watching every year. The world-wide expanding business of watching whales and dolphins has put the question on the protection of the animals in the first place. The Canary Islands, being the home for an extraordinary high number of cetacean species, also are subjected to this boom.

Tenerife, lying next to La Gomera already has whole fleet of whale watching boats (32 licences in 2002) making »big business« on the ground of the marine mammals. Here almost nobody cares about the negative outcomes: five or more boats (with up to 250 passengers) staying with one group of whales, partly driving into the whale families and a great number insensitive conduct can be observed, even though the Canary Island Government brought regulations for the protection of the marine mammals into effect in 1996, which were revised in 2001. These regulations, laying down instructions on how to behave near cetaceans, up to know have had little effect, which is not surprising taking into account the annual numbers of whale watchers: about 600,000 on Tenerife alone in 2008!

The coast of **La Gomera** also belongs to the most outstanding places in the world, where humans can meet dolphins and whales. Here, whale watching started in 1992, when seagoing excursions centred on watching dolphins were offered for the first time. These tours are organised from Vueltas, a small harbour on the Southwest of the island, in the beautiful Valle Gran Rey. Since 1992 small former fishing boats take six to eleven people to sea to look for cetaceans.

The dolphin-trips usually take place twice a day and last approximately 3-4 hours. One of the principles is to impart some basic information on cetaceans to the passengers (mostly tourists from Germany, the Netherlands, Austria and other European countries) at the beginning and during the tour.

At sea the whales and dolphins shall decide if they wish any kind of contact or if they do not. To gain their confidence, the approach by the boat always goes on cautiously and respectfully, after all we are guests at sea. The most important thing is the contact between humans and cetaceans that can evolve on the ground of mutual approach.

The project *M.E.E.R. La Gomera* wants to guarantee that this kind of ecological whale watching is maintained in spite of the rapidly developing tourism industry on Gomera.

The project *M.E.E.R. La Gomera*

M.E.E.R. La Gomera was founded in 1997. In 1998, the non-profit nongovernmental organisation *M.E.E.R.* was founded to host the project in an administrative way. It aims at investigating and shaping the peaceful encounters of humans and cetaceans in the wild. In line with this the public will be informed about the ecological problems of the seas and its inhabitants and strategies of sustainable action will be pointed out. The question of our humans' relation to nature thus is the core of the activities.

On La Gomera, a variety of opportunities on how you can inform yourself about whales and dolphins is offer: first and foremost through the permanent exhibition "Cetaceans off La Gomera: Biodiversity in a changing World", which was inaugurated in 2008. Slide shows, films, scientific lectures and documentation's are shown on a regular basis. Posters, displays, sighting data and other results from the research are provided to the tourists and locals (see <http://m-e-e-r.de/index.php?id=415&L=2>).

Our concern is:

- To create a link between humans and wild whales and dolphins to investigate the cetacean species frequenting the waters off La Gomera
- To take influence in the development and the management of the whale watching business (in co-operating with the operators, the officials and scientific institutions and the people of the Canary Islands)
- To raise awareness for the protection of cetaceans and their marine environment
- To share information, experience and scientific knowledge with national and international organisations, institutions, scientists, media, etc.

Our objectives are:

- The scientific study of cetaceans off La Gomera to foster the establishment of a marine protected area (MPA) in it's waters
- Public education on whales, dolphins and their natural environment and the need to protect them

Through the combination of whale watching-tourism, science and public work, *M.E.E.R. La Gomera* throws a bridge between economy and ecology. Advantages take both, the humans - through an increase of the attractiveness of their (holiday) home, built on a sustainable ground, and the ocean itself - through a responsible way how humans deal with it.

***M.E.E.R. La Gomera* was honoured in 2001 with the international environmental award "Tourism and Environment", which is granted since 1987 by the German Association of Travel Agencies and Travel Operators (DRV). As was stated during the bestowal, the project "realises new ways of co-operation of research and tourism in an exemplary and innovative way".**

The research on human-cetacean interactions

Only in a smaller number of countries whale watching regulations were established to date. Where there are existing rules, they often lack scientific background. Rarely the spectrum of the whales' and dolphins' reactions to boats is known; hardly ever they are documented scientifically. Today we know that vessels can influence cetacean behaviour in various ways, nevertheless the number of studies dedicated to this subject is still very low. This also is true for the Canary Islands.

To be able to behave in a flexible way while observing cetaceans it is most important to know their possible (and typical) response to human approach. The knowledge of potential reactions makes it possible to adapt our behaviour to the cetaceans' behaviour, and not vice versa. Moreover, different species (re)act in different ways, and even within a species this behaviour can vary for unknown reasons. Therefore, it is important to work out the peculiarities of every species' behaviour to develop species-specific rules – which are considered essential by many experts.

Cetaceans are good indicators for the status of ecosystems. Their abundance, distribution and behaviour are closely related to a number of biotic and abiotic factors. Toothed whales are at the top end of the food webs and therefore are indicators for the constitution of whole coastal areas and their ecosystemic interrelations. The long term observation of their behaviour is difficult in most cases, first of all because of the animals' high mobility. Rarely is it feasible to obtain a profound insight into their behavioural budget without investing huge amounts of time and money.

The waters off La Gomera provide almost perfect conditions for cetacean field studies. Only a few miles off the shoreline the ocean reaches depths of 2,000 m and more. It is predominantly a pelagic habitat, which is underlined by the presence of some purely pelagic species such as sperm and beaked whales. Bottlenose dolphins, rough-toothed dolphins and pilot whales are resident in the area. Thus we find optimum conditions for behavioural observations, which otherwise can be realised only with much higher effort.

These waters are inhabited or visited by a variety of different species thus enabling an interspecific comparison under identical conditions. Moreover, cetaceans never have been hunted in the Canaries and the extent of commercial whale watching is still moderate off La Gomera, i.e. these animals are relatively unprejudiced towards humans and their vessels. Comparable conditions can only be found in very few places around the world.

MEER's long-term study is adapted to the context of whale watching and meant to be a contribution to our knowledge concerning the interplay of tourism activities and the habits (and habitats) of marine mammal populations. To add to the conservation of these magnificent creatures, a basic understanding of habitat use and responsiveness is crucial.

Methods. The platform for the collection of data are small, former traditional fishing boat now used for whale watching. This collaboration with a local whale watching operator exists since 1995. Whale watching trips take place all year round and during the course will be the platform for behavioural observations. The *behavioural sampling method* will be used, which has been successfully applied in a variety of long-term studies on cetaceans. During the whole sighting the behavioural state, surface events as well as group size and group composition, etc. are recorded through 3-minute scan samples. This method has been modified and adapted to the registration of boat-related behaviours of the animals (e.g. approaches, bowriding, etc.). Every sighting will be categorised according to its intensity. Thus it is assessed which interactions are possible or impossible within a species. As all species are treated in the same way, an interspecific comparison can be made and they can be ranked according to their affinity or shyness, respectively.

Goals. One of the objectives of the study is to determine the significance of the waters off the Southwest of La Gomera for cetaceans. The sighting data increases the basic knowledge of the Canary Island cetacean populations with every new encounter. The documentation of interactions is highly relevant for the management of whale watching. The results enable the elaboration of species-specific whale watching rules. The latter are helpful to behave appropriately in the vicinity of whales and dolphins and thus to reduce the interference of whale watching activities with the natural behaviour of cetaceans.

Moreover the results will raise the knowledge on some of the less known species, such as the rough-toothed dolphin (seen regularly off La Gomera) or beaked whales.

The over-all aim of this research project is the establishment of a marine protected area (MPA) off La Gomera. A protected area substantially contributes to the public awareness of the outstanding qualities of the area as well as to sustain the attractiveness of the peoples and the cetaceans' habitats. These are necessary steps to develop whale watching as a sustainable use of cetaceans in the sense of a responsible eco-tourism.

The team. On each cruise a skipper and the project's biologist will be on board. Biologist **Fabian Ritter** will be your supervisor for the collection and the handling of behavioural data. He is the president of M.E.E.R. e.V., and director of research of the Project *MEER La Gomera*. Fabian has been actively involved in various field research projects in different countries and on different oceans, but the heart of his scientific work beats in the Canary Islands. He started to study human-cetacean interaction off La Gomera in 1995. Since 2003, he is a member of the Scientific Committee at the International Whaling Commission (IWC). He also works on expedition cruises and has travelled many seas and continents, including the Arctic and Antarctica.

The **boat captains are** experienced boat drivers. He live on La Gomera and have been sailing and driving boats for many years. Hence, they also have much experience in driving carefully around cetaceans.

Sujatiya S. Braack, active member of M.E.E.R. e.V. and founder of *OCEANO Gomera*, , will be aboard with us on occasion. She will support the programme with her experience and knowledge as a person who has more experience with whale watching on La Gomera than anyone else. *OCEANO Gomera*, founded by her in 2008, is operating our whale watching trips (to continue the long lasting work of the *Club de Mar*).

Depending on the number of participants and the season, an additional **assistant** will belong to the team, too.

Participant's activities

As a participant of this course, we want you to get to know our work on La Gomera as profound as possible. First of all, your stay is dedicated to the field research described above. During your two weeks, 7 whale watching trips (including one day trip of 6-8h) will be booked for you and these trips are the core of the program.

After an opening meeting and an introduction to the schedule and general items, you will come aboard the whale watching boat. The cruise tracks are decided by the skipper on a daily basis. The time necessary to encounter cetaceans may vary from a few minutes to several hours. The study area is densely populated, but it may occur that no cetaceans will be seen. After a sighting the animals will be followed for a period of time of varying duration. You are requested to participate in all the field research activities, such as looking out for cetaceans, collecting data (i.e. counting the animals, locating calves, determining dive times, taking photographs, etc.). It has to be stressed that swimming with the animals is prohibited by law in the Canary Islands. And it is understood that we also have to respect the official whale watching regulations.

Later on land you will learn the background for handling the data and the theory of behavioural research during the working meetings. In these meetings, you will also participate in Power Point presentations about cetaceans of the Canary Islands, whale watching worldwide and other issues.

Moreover, you are invited to visit every event that is organised by the project. This likely will be film presentations, scientific lectures and/or others. During these events your helping hand again is very welcome.

M.E.E.R. La Gomera is not a professional tourist organisation, but a well-organised project for research and public education. You can expect good and friendly supervision and co-operation from your colleagues, but it is not the researcher's job to entertain you. The atmosphere at the project is informal and relaxed and by mutual arrangement many things are possible. Companionship and having an enjoyable time are, next to the research, important objectives. You should realise that you are participating in a practical course, not in an internship. The needs of the project will decide what has to be done and when it has to be done. During working hours you are supervised by a member of our team. You must have a positive attitude towards working in a small international group of enthusiastic people and take the responsibilities that this way of life holds.

During those days when you are not at sea, or during periods when the research activities cannot be continued due to adverse weather conditions, La Gomera offers a great variety of things to do. There are beautiful beaches, nice villages and most of all spectacular and very diverse landscapes. You can go on organised walk or a mountain bike trip, or you can go diving. You can take the bus or hire a car and explore the island on your own or with your companions. You should plan for making at least some excursions to the main natural attractions of La Gomera - such as the biggest remaining laurel forest of the world or the fantastic view from the highest mountain of the island, the Garajonay. There will also be enough time for you to explore the surroundings or simply lie on the beach. One full day is reserved to special activities such as an island round trip. The teams of MEER and OCEANO Gomera will help you to organize these extras.

Finally, please also be aware that the course will not especially deal with basic cetacean biology. We will be involved in practicing behavioural studies and thus be thematically quite specific. However, cetacean conservation issues will be covered in extenso.

APPENDIX:

1. Practical information

Contact address

M.E.E.R. e.V., Bundesallee 123, 12161 Berlin
TEL/FAX: +49-(0)30-644 97 230, e-mail: info@m-e-e-r.de

Number of participants:

During each 2-weeks period, a maximum of 9 participants can be accommodated.

Prices and dates:

18 April – 02 May 2012

15 days including the days of arrival and departure: € 899.-

Early booking until 31 January 2012 € 849,-- €

Included in the price:

Accommodation (see below)
Opening meeting / introduction to work procedures
7 whale watching research trips including one day trip
Scientific supervision
Opening meeting, 4 working meetings including two power point presentations (additional meetings may be arranged if needed), closing meeting
Advice about personal travel necessities and literature (see below)
All expenses concerning the whale watching boat and the research
Free entrance to all public events of *M.E.E.R. La Gomera*
Certificate of attendance of the course
Membership of the M.E.E.R. association for one year
Donation to M.E.E.R. e.V.

*The courses are fully accepted for the study of biology at the following universities:
Humboldt-Universität Berlin (Germany), Universität Wien (Austria)*

Ask your own university if this is feasible for you, too. Assistance will be provided by us.

Not included in the price

Transfer to and from the project (flights, ferry, and bus)
Meals (costs approx. EUR 15-20 €/day)
Travel- and cancellation insurance (all participants should carry both, see below)
Personal expenses like telephone bills, private trips, souvenirs, etc.

Accommodation

Participants will live in **tourist quality apartments for 3-4 persons** (2-bed rooms) with running hot and cold water, WC and shower. Sheets and towels are provided. The apartment is situated very beautifully not far from the harbour. Close to the apartment there are a beach, supermarkets, shops, restaurants, bars, etc.

You are expected to do all necessary household duties on your own and to leave the apartment after your stay like you will find it when you arrive.

Meals

You are requested to buy (and cook) your meals on your own. The costs of food are comparable to those in other European countries. There are plenty of nice and good restaurants in the Valle Gran Rey. Meals and drinks in bars and restaurants usually are cheaper than in your country. You are invited to try local food, which is nutritious and tasty.

Transfer to the project

You will have to make your own travel arrangements to the project. Departure and arrival in the Canary Islands is at the airport Tenerife SOUTH ("Aeropuerto Reina Sophia").

How to get to the project: Arrival at **Tenerife Sur Airport**. Take the local Bus or a Taxi to the harbour of **Los Christianos** (approx. 25.- €). Then take the **ferry to San Sebastian/La Gomera**. Look out for cetaceans from the ferry, it is quite likely that you see some! From San Sebastian take another ferry to Valle Gran Rey or take the local **bus to Valle Gran Rey** (Linea 1, approx. 1 ½ hours, ca. 5 €). Enjoy this drive, have a first look at the landscapes and spectacular views! Get off the bus in **Vueltas** (which is almost the last stop). There, we will await you.

Please inform us about your flight times in advance and call us when you arrived at San Sebastian on La Gomera, so we can plan to pick you up at the bus and guide you to the apartment.

A detailed description of the journey including the departure times of the ferries and buses will be sent by e-mail to approximately two weeks before the beginning of the course.

Insurance / Cancellation

All participants are required to carry both a travel insurance and a cancellation insurance. Neither your booking agent, nor the project *M.E.E.R. La Gomera* and their crew will accept any liability that could have been covered by a travel insurance or a cancellation insurance. Carry a theft insurance if you feel it to be necessary.

Cancellation rates :

Cancellation within 15-30 days before the course - 40 % of the full prize

Cancellation within 7-14 days before the course - 60 % of the full prize

Cancellation within 3-6 days before the course - 80 % of the full prize

Cancellation within 0-2 days before the course - 100% (full prize)

Conditions for participation

This practical course is suitable for everyone who has a normal physical health. You must speak the English language, and of course Spanish will help a lot, too. You must be 18 years or older. There is no maximum age, but you should feel comfortable on a small boat. When you suffer from any disease or allergy, you have to inform us about this in advance!

You should be committed to nature/marine conservation and field research and have a positive attitude towards working with people from different countries. Previous experience in research and photography are welcome. Not all your colleagues will speak English fluently and you are expected to be patient and understanding about this. You are asked to read all the information about the project, the application form and the declaration enclosed and to sign and accept the conditions mentioned in this brochure.

When you have bad eye-sight, a hearing problem, problems with your balance organ or respiratory organ, problems with walking or swimming, or when you are very overweight, you may experience some problems during this program.

2. Cetacean species in this project

The waters off La Gomera are a very special place for watching cetaceans. Since 1994 it was possible to identify 23 cetacean species (see also next page) in the study area South and Southwest of the island. It is impossible to describe all of them in detail, a complete list you will find below. Here, we will highlight a small number of species, which are most likely to be encountered during our trips. If you are lucky enough, you may even encounter an aggregation of different species at a time. Please note that it is possible to meet other species than cetaceans, too: e.g. sharks, sea turtles, tuna, various seabirds and others.

(Common) Bottlenose dolphins (*Tursiops truncatus*)

Bottlenose dolphins represent the most known cetacean species - for the scientific community as well as for the public. The famous "Flipper" was a bottlenose dolphin. They are most abundant off La Gomera, about a third of all sightings are of this species. They tend to form resident populations along certain coastal areas. This seems to be true also for the islands of La Gomera and Tenerife. Some of the individuals we have photographed within the past years have been encountered also off Tenerife and other islands. Thus their home range extends to more than one Canary Island. Bottlenose dolphins mostly are seen in groups of 5 to 15 individuals. Sometimes they travel very close to the shore and even can be sighted from land. Interestingly, their responsiveness seems to be related to the distance from shore: when they stay close to the shoreline, they mostly are not "interactive" at all. However, farther out at sea they can be quite expressive and may sometimes perform high leaps...

Pilot whales (*Globicephala macrorhynchus*)

The second most abundant species is the pilot whale. They appear all black with characteristically greyish patches, the males can reach up to 6.5 m in length. This species is known to travel great distance far offshore in all oceans. However, there are very few known places where they are resident. One of these places is off the Southwest coast of Tenerife. 300 to 500 individuals live here year-round - this population is the reason for whale watching being so successful on Tenerife. Pilot whales often frequent the waters off La Gomera, too – in fact the numbers of sightings off Gomera seems to increase steadily. They prefer deeper offshore waters and almost always are encountered at a distance of 2 nm or more from the coast. Their typical group size is about 10-20 animals, almost always there are juveniles or calves within a group. They mostly seem to be quite relaxed, at least concluded from their reactions to our boats. They rarely change their behaviour in response to our presence.

Atlantic spotted dolphins (*Stenella frontalis*)

Young spotted dolphins aren't spotted at all, making their identification a little bit difficult at times. But from a whale watchers point of view, Atlantic spotted dolphins are one of the most attractive species. This species loves to play and often comes to the boats to ride the bow waves - sometimes up to 15 or more at a time. The groups are bigger than those of the species named above and can reach up to 50 or more animals, and the surface activity of individuals in larger groups can be especially high. They are more abundant during spring time, when they may form aggregations of several hundreds individuals! Often we see them surface feeding together with sea birds like gulls and shearwaters.

List of cetacean species sighted off La Gomera (1994-2010)

A. Toothed whales (odontoceti):

- (1) Bottlenose Dolphin, Grosser Tümmler (*Tursiops truncatus*)
- (2) Rough-Toothed Dolphin, Rauzahndelphin (*Steno bredanensis*)
- (3) Atlantic Spotted Dolphin, Atl. Fleckendelphin (*Stenella frontalis*)
- (4) Striped Dolphin, Blau-weisser Delphin (*Stenella coeruleoalba*)
- (5) Common Dolphin, Gewöhnlicher Delphin (*Delphinus delphis*)
- (6) Fraser's dolphin, Borneo-Delphin (*Lagenodelphis hosei*)
- (7) Risso's Dolphin, Rundkopfdelphin (*Grampus griseus*)
- (8) Pilot Whale, Grindwal (*Globicephala macrorhynchus*)
- (9) Orca, Schwertwal (*Orcinus orca*)
- (10) False Killer Whale, Kleiner Schwertwal (*Pseudorca crassidens*)
- (11) Dense Beaked Whale, Blainville-Schnabelwal (*Mesoplodon densirostris*)
- (12) Cuvier's Beaked Whale, Cuvier-Schnabelwal (*Ziphius cavirostris*)
- (13) Gervais Beaked Whale (*Mesoplodon europaeus*)
- (14) Northern Bottlenose Whale, Nördl. Entenwal (*Hyperoodon Ampullatus*)
- (15) Sperm Whale, Pottwal (*Physeter macrocephalus*)
- (16) Pygmy Sperm Whale, Zwergpottwal (*Kogia breviceps*)

B. Baleen whales (mysticeti):

- (17) Fin Whale, Finnwal (*Balaenoptera physalus*)
- (18) Sei Whale, Seiwal (*Balaenoptera borealis*)
- (19) Bryde's Whale, Brydewal (*Balaenoptera edeni*)
- (20) Humpback whale, Buckelwal (*Megaptera novaeangliae*)
- (21) Blue Whale, Blauwal (*Balaenoptera musculus*)
- (22) Northern right whale, Nordkaper (*Balaena mysticetus*)
- (23) Minke whale (*Balaenoptera acutorostrata*)

3. Advice for personal equipment:

Please find below an overview of the most important items you have to take care for yourselves. We advice to bring cotton clothing's, as this is airy and protects you against the sun. Additionally you need a good windbreaker. In general the weather will be warm and sunny.

- this information brochure
- valid **passport** or **personal identity card**
- pocket money
- daypack
- **sunglasses**, -hat or cap
- **sunscreen** (high protection factor 15/20 or sun blocker)
- **rain clothing**
- water bottle
- towel (for boat trips & beach)
- binoculars, **dictaphone** or stop watch (if available)
- **photo equipment**: camera, lenses (200mm tele or more, 50mm, 28mm wide angle or less, or a zoom lens), films (we recommend slide films of 100/64/50 ASA) – or digital camera & memory cards
- laptop computer (if available, not essential)
- video camera & equipment (if available)
- **USB stick** (minimum 4GB)

For your own comfort and self-organized outdoor activities please also bring along

- clothing (long trousers/jeans, shorts, T-shirts & long-sleeved shirts, sweater, windbreaker, pullover, etc.)
- comfortable shoes & sandals
- snorkel, fins & mask if you prefer your own equipment
- trekking **shoes suitable for walking** on steep paths
- insect repellent
- personal first-aid kit and personal medicine
- toilet articles
- torch
- watch, alarm clock
- notebook, writing material
- games, books, MP3 player, etc.

For the research, *scuba diving equipment* will NOT be used.

4. Recommended literature, internet links, etc.:

Literature:

Cawardine, M. (1996): **Wale und Delphine**. Erlebte Unterwasserwelt. Verlag Delius Klasing, Bielefeld. ISBN: 3768809498

Cawardine, M. (1995): **Eyewitness Handbooks: Whales, Dolphins and Porpoises**.

Dorling Kindersley Limited, London. ISBN: 1564586200. Detailed information on all marine mammal species. Excellent reference book for species identification in the field.

Carwardine, M.; Hoyt, E.; Ewan Fordyce, R.; Gill, P. (2000): **Wale, Delphine & Tümmler**.

Gebundene Ausgabe. Könnemann, Köln. ISBN: 3829056656.

Carwardine, M.; Hoyt, E.; Ewan Fordyce, R.; Gill, P. (1998): **The Nature Company Guides: Whales, Dolphins & Porpoises**. Time Life Books, Sydney, San Francisco. Hardcover.

ISBN: 078355284X. Limited Availability.

Darling, J.; Nicklin F.; Norris, K.; Whitehead H.; Würsig, B. (1995) **Whales Dolphins and Porpoises**. National Geographic Society. ISBN: 0792229525. Hard to beat for an introduction to the subject. Readable, totally authoritative and superbly illustrated.

Evans, P.G.H. (1995): **Guide to the Identification of Whales, Dolphins and Porpoises in European Seas**. Sea Watch Foundation Publication, Oxford 1995. ISBN 1857161939. Colour illustrated field guide, essential for those wishing to identify cetaceans in British and Irish waters.

Available from Sea Watch Foundation: <http://www.seawatchfoundation.org.uk/merch/id.htm>

Evans, P. (1987): **The Natural History of Whales and Dolphins**. Christopher Helm London. ISBN: 0-7470-0800-0. Readable reference work on cetaceans, covering biology, species and history. Excellent drawings for species identification. Gives in-depth knowledge on cetaceans.

Harrison Sir R.; Ridgway, S. (1985-1994): **Handbook on Marine Mammals (Vol. I-VI)**. Academic Press, London. ISBN: 0125885059. The definitive reference. The most profound work on cetacean biology you can get. Very expensive. Look out for it at your university's library.

IFAW, Tethys and Europe Conservation: **Report of the Workshop on the Scientific Aspects of Whale Watching**. Montecastello di Vibio, Italy. 30th March-4th April 1995. 45 pages.

IFAW, Tethys and Europe Conservation: **Report of the Workshop on the Educational Value of Whale Watching**. Provincetown, Massachusetts, USA. 8th-11th May 1997. Scientific background on the subjects, both reports to order via www.ifaw.org.

Kelsey, Elen (2009): **Watching Giants**. University of California Press, London & Berkeley. ISBN: 978-0-520-24976-9.

Leatherwood, S.; Reeves, R. (1997): **The Bottlenose Dolphin**. Academic Press, San Diego. ISBN: 0124402801. Another classic within the scientific community. With many interesting papers on the bottlenoses' life.

Mann, J. et al. (eds.): **Cetacean Societies – Field Studies of Dolphins and Whales**. The University of Chicago Press, Chicago Press, Chicago & London 2000. ISBN: 0226503402. Excellent book, not cheap, but highly recommended.

Martin, P.; Bateson, P. (1993): **Measuring Behaviour : An Introductory Guide**. Paperback 2nd edition. Cambridge Univ Press. ISBN: 0521446147.

Payne, R. (1996): **Among Whales**. Delta. ISBN: 0385316593.

Intriguing and long-awaited labour of love by one of the great humpback and right whale pioneers. **Out of print. Limited Availability.**

Pryor, K.; Norris, K. (1998): **Dolphin Societies – Discoveries and Puzzles**. University of California Press, Berkeley. ISBN: 0520216563. A wide range of scientific papers on dolphin behaviour.

Ritter, F. (2010) **Wale beobachten. Ein Leitfaden zum sanften Whale Watching**. Outdoor Handbuch. Conrad Stein, Kiel. Ein kleiner aber feiner Ratgeber für den gewissenhaften Walbeobachter. Mit vielen Hintergrundinfos zum Whale Watching. Inklusive der Vorstellung der 30 häufigsten Wal- und Delfinarten, Conrad Stein Verlag, ISBN 3-89392-325-X.

Ritter, F. (2007): **Wale erforschen**. Mit diesem praktischen Leitfaden wird zum ersten Mal in deutscher Sprache sowohl die Entwicklung und der Status Quo dieser Disziplin, als auch eine detaillierte Beschreibung der gängigsten cetologischen Methoden vorgelegt. Conrad Stein Verlag, ISBN 978-3-86686-210-4.

White, Thomas (2007). **In Defense of Dolphins. The New Moral Frontier**. Blackwell Publishing Ltd.. ISBN 978-1-4051-5779-7

Williams, H. (1994): **Kontinent der Wale**. Zweitausendeins, Frankfurt am Main.

Heathcote Williams' erstaunliches Buch ist eine Liebeserklärung an ein Weltwunder, das von den Menschen systematisch zerstört wird: "Kontinent der Wale" enthält neben seinen eindrucksvollen Fotos noch eine Sammlung von Texten aus Wissenschaft und Literatur, mit eindrucksvollen Einzelheiten. "Das Buch rührt zu Tränen, und es ist unglaublich wertvoll für den Menschen." Erhältlich bei: <http://www.zweitausendeins.de/>. Nummer 18296.

Williams, H. (1988): **Whale Nation**. Hardcover. Harmony Books; ISBN: 0517569329.

A classic, a hymn to honour the whales, with many historical citations.

Available from: <http://www.phinz.com/dan/wdcstrading.nsf/allpages/60FB6BE6F2878071802568E0004FEC35>

Ritter, F. (2000) "**LA VIDA EN EL MAR**" – **Multimedia Whale Watching CD-ROM** (PC/WINDOWS). Fantastic pictures of many different, partly rare whale and dolphin species, tortoises, seabirds and many others show you the splendour of the sea off La Gomera. The pictures are combined with music, nature sounds and marine mammal sounds and performed with fading technique. 40 minutes DIAVISION with an additional info menu about whale watching.

Available through www.m-e-e-r.de

INTERNET:

www.m-e-e-r.org M.E.E.R.'s Website. *A must!*

<http://www.physics.helsinki.fi/whale> The Whale-Watching-Web. The original.

<http://www.ifaw.org> International Fund for Animal Welfare

<http://www.greenpeace.org> Greenpeace

<http://www.wdcs.org> Whale and Dolphin Conservation Society

<http://www.cetacea.de> (in German). Sehr informative Seite, enthält ausführliche Informationen über taxonomische Order und Glossar!

<http://www.delphinschutz.org> Gesellschaft zur Rettung der Delphine. e.V. (GRD)

<http://www.oceano-gomera.de> OCEANO Gomera – our partner whale watching operator

<http://www.duh.de> Deutsche Umwelthilfe (in German)

<http://www.ozeane.de> Sehr informative, wissenschaftlich fundierte, aber allgemein verständliche Seite über Meeressäuger und Meeresbiologie. Enthält Informationen über Praktika weltweit, Diskussionsforum, Buchtipps etc. (in German)

<http://whale.wheelock.edu/> WhaleNet: interactive educational web site that focuses on whales and marine research.

<http://www.oceancare.org/> Oceancare, suisse NGO

<http://www.acsonline.org/> American Cetacean Society: oldest whale conservation group in the world, Cetacean Fact sheets, Glossary, Whale Watching

<http://www.gomeralive.de> Useful tourist information on the island of La Gomera (in German)

M.E.E.R. e.V. also has got a profile on *facebook* !