

### Lone rangers

A report on solitary dolphins and whales including recommendations for their protection



by Dr Lissa Goodwin and Margaux Dodds

A Marine Connection report on solitary cetaceans, including recommendations for their protection and continued welfare



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### **INTRODUCTION**

Solitary cetaceans should not be seen as an unusual occurrence within the cetacean realm, or indeed amongst social mammalian species as a whole. There exists a wide range of species which exhibit a solitary lifestyle, or are solitary at some point during their life (Müller & Bossley, 2002). Some cetacean species only meet conspecifics in response to feeding or to finding a mate and reproducing and so spend the

majority of their lives in a solitary existence.

The bottlenose dolphin (*Tursiops truncatus*) is perhaps the best example to use when discussing the solitary dolphin phenomenon. Not only is this the most frequently observed solitary species, but its solitary existence can in part be explained through the social society in which it lives. Instead of residing in a matrilineal grouping, the bottlenose dolphin has elected for a fission-fusion society i.e. one that is constantly changing. Whilst pods (dolphin groups) can be identified and the relationships between the individuals established, the members of the pod may

not change from year to year. Conversely, there are circumstances when individuals will form new associations, and relationships, along with their pods will change. For instance it is possible that a group of eight one year, will become a group of five and three the next. For others the group may split up entirely, or join new individuals making a larger pod. Changes in the group can be the result of a variety of environmental cues but may also be age and sex related i.e. bachelor males reaching sexual maturity, mothers and calves, nursery groups, all female groupings etc. (Müller & Bossley, 2002). As a consequence of this life history, a lone bottlenose dolphin does not necessarily mean that it is a solitary dolphin, rather it may have been observed scouting for predators or for food, or it may be between pods.

Despite this dynamic lifestyle, the phenomenon of the solitary dolphin does exist. As yet we do not fully understand why some individuals choose to live a solitary lifestyle, or indeed whether the choice is their own. It is not however, just the bottlenose dolphin for which this state exists, there are other accounts of orca (Orcinus orca), beluga whales (Delphinapterus leucas), common dolphins (Delphinus delphis), Risso's dolphins (Grampus griseus), spotted dolphins (Stenella attenwata) and rare cases of dusky dolphins (Lagenorhynchus obscurus), tucuxi (Sotalia fluviatilas) and even a narwhal (Monodon monoceros) as solitary individuals.

There are many different theories behind the existence of the solitary cetacean. Their solitary state may have arisen from socio-ecological variables such as food availability, predator disturbance or reproductive strategies (Müller & Bossley, 2002). It may have been as a consequence of the loss of a mate or companion. In Australia's Shark Bay, males are usually found in coalitions, though if one member of the pair dies the other will often remain alone (Müller & Bossley, 2002). The solitary state may have been through environmental conditions, such as when rough seas or bad weather forces group separation – individuals may be lost to the group and may become solitary as a consequence. A young pilot whale (Globicephala melas) separated from the pod remained very close to the Plymouth, Massachusetts "H" buoy for weeks, but was adopted or at least tolerated by Atlantic white-sided dolphins (Lagenorhynchus acutus) and seen with them for years afterwards. It may also be a consequence of life history and dispersal of individuals. In bottlenose dolphins, at least those belonging to large populations, both sexes leave their natal group as sub adults between four and ten years old (Müller & Bossley, 2002). Males also travel for reproductive purposes with females of neighbouring communities. Smolker et al (1997) described how several female dolphins in the Shark Bay area demonstrated a unique feeding strategy involving carrying sponges in their mouths, possibly as protection for the rostrum. Animals using this technique were largely solitary. Calves learned to carry sponges at a young age and also grew up to be solitary (Müller & Bossley, 2002), demonstrating a lifestyle choice passed on from generation to generation. Finally, another theory is that of the social outcast, those with behavioural problems, or some physical handicap. Dr. Darlene Ketten, of Woods Hole Oceanographic Institution, and a leading expert on cetacean hearing and the effects of noise, has suggested that some solitaries may have hearing problems. People very familiar with particular solitary dolphins have verified her theory in some cases. A few have been profoundly deaf in one or both ears before they died in accidents, but they showed no signs that the handicap had impaired their survival.

The solitary state may be either temporary, or it may become a permanent feature of the individual cetacean (Lockyer & Müller, 2003). In addition to this lifestyle condition, the individual animal may or may not choose to interact with other dolphins/whales on a short-term basis.

Whilst some solitaries are not known to interact with others, there are those which have been reported with fresh teeth rake marks on their skin, demonstrating a recent interaction with conspecifics. At times this interaction with their own kind may result in their reintegration into dolphin society and on other occasions it may only be a temporary engagement.

For the bottlenose dolphin at least, despite their somewhat unique status, solitary individuals do not vary in their behavioural repertoire from other bottlenose dolphins in the wild, although their interactions are directed towards humans as opposed to other dolphins (Müller et al, 1998a). Whilst most behavioural scientists categorise cetacean behaviour into key behaviours such as feeding, travelling, socialising, resting, avoidance and other (Shane et al, 1986), cetacean behaviour is a diverse range of individual nuances of activity, which include overt signs as well as more subtle indications of interaction and/or emotion, which may be directed towards humans, termed assimilation tendency (Frohoff, 2000). The term was first used to describe this behavioural treatment of keepers by zoo animals by Hediger (1964). Thus humans may satisfy both the fission and fusion aspects of society for the dolphin.

Whilst each solitary individual is unique and so our understanding of them is perhaps limited, this uniqueness probably arises from environmental, locational and human differences in each case. In addition to these varying factors, in any one case, the dolphin may meet and engage with a number of different people in a short space of time. Whereas in dolphin society bonds are formed, enemies made, lessons and skills are learnt, for the dolphin there is a lack of consistency in the not only the humans which it meets but in the responses which they exhibit.



Whilst there are many differing theories behind the existence of the solitary dolphin and many different cases, we have found that these animals may become habituated to

known as 'sociable, solitary cetaceans'. For the purpose of this report that definition will apply to: cetaceans who have little or no contact with conspecifics and who regularly closely approach humans, often including touch, social, sexual, play and aggressive/boisterous behaviours. It is recognised however, that not all individuals living in isolation from conspecifics have displayed human-oriented behaviours.

human presence to the point where they become what are

Stages in the Development of Sociable, Solitary Cetaceans (Wilke, 2007; Wilke et al, 2005)

In an attempt to further understand the solitary individual and the process through which it becomes a sociable, solitary cetacean, Monika Wilke and colleagues have classified the various stages of habituation.

- Stage 1: The cetacean appears and remains in a new home range, usually providing abundance and accessible prey. Initially, the dolphin explores its new range but will sometimes restrict itself to a smaller, protected part of the range often < 1km². Sometimes there is an exclusive rest area within its range, often a moored vessel or buoy. The dolphin may follow boats (usually fishing boats) or inspect fishing gear, but does not yet approach humans.
- Stage 2: The individual becomes habituated to the new range and may start to regularly follow boats. Local people becoming aware of its presence may attempt to swim with the animal. The individual may appear curious but remains at a distance from swimmers. It may also bow ride or inspect ropes, chains and buoys, etc.
- Stage 3: The individual becomes familiar with the presence of one or more people who may have deliberately attempted to interact with it. At this stage, the dolphin interacts with only a limited number of people in the water. Human-dolphin interactions may include physical contact. Aerial behaviour of various kinds is common during this stage.
- Stage 4: The presence of the animal becomes widely known, often assisted by media exposure. It becomes a local celebrity and tourist attraction. During this stage, inappropriate human behaviour may provoke unwanted and possibly dangerous behaviour in the dolphin, including dominant, aggressive and sexual behaviours directed at humans.

For some individuals, there may be a further two stages in this process.

- **Stage 5:** Whilst still interacting with humans and engaging with vessels, the individual may proportion a greater amount of time to other forms of interaction in the area. In some cases this may involve other cetacean species or pinniped and bird individuals.
- Stage 6: Finally, for a few individuals there may come a time when the individual begins to interact with their own species once more. Whilst it can not be proven in many cases, this may explain the sudden disappearance of a solitary individual from the area which for the previous weeks, months and in some cases years had been home.

In addition to the first four stages, Wilke (2007) has further developed the possible levels which may exist within stage 3 and 4, demonstrating different degrees of sociability:

Level 1	Interactions only with boats during the whole period of sociability
Level 2	Interactions with humans without ever allowing direct contact
Level 3	Interactions with direct contact, often with a select few
Level 4	Non-selective direct contact, without sociosexual and/or dominance behaviours
Level 5	Non-selective direct contact, regular sociosexual and dominance behaviour

If an individual becomes habituated to humans it means that they lose their natural wariness, unfortunately making them easy targets for misconduct and/or disturbance. It also means that any interaction with the individual should be of a precautionary nature as the dolphin/whale will react differently to a member of the same species, opposed to that of a human.

Whilst many engage and interact with solitary dolphins with no detrimental effects, there are risks to both the cetacean and human which should be taken into consideration. In situations where due consideration and respect is not given to the cetacean, negative interactions can ensue placing both parties at risk of illness, injury and in one remote case, death. Here we examine in brief the threats posed by irresponsible interaction with solitary cetaceans.

### Potential threats to solitary cetaceans



As solitary individuals may in many cases interact on a regular basis with humans, boats etc. this altered state could result in compromised well-being; when more than one aspect of the behavioural repertoire is altered, regardless of whether such changes are short or long-term (Morton & Griffiths, 1985). For solitary individuals there are two behavioural states which are crucial to the well-being of the animal and should not be disrupted: resting and feeding. Should either of these states be disrupted it is likely that the ecological fitness of the animal will be reduced accordingly, placing them at greater risk from other threats. Indeed those exhibiting the highest degree of interaction are at the greatest risk of injury, illness and even death (Frohoff, 2003) from any of the potential threats listed below:

- Human disturbance, misconduct and harassment
- Vessel-based disturbance, misconduct, harassment or accidental injury
- Fishing interactions. A direct threat from entanglement in fishing gear but also retaliation by fishermen who have had gear damaged, moved or altered by solitary individuals
- Anthropogenic impacts, such as pollution i.e. oil spillage, disposal of wastes (Müller et al, 1998a)

It must be remembered that even the most well-intentioned sociable human interactions with cetaceans are accompanied by unpredictable impacts/risks to the animals, some of which may be cumulative, long-term and life threatening (Frohoff, 2003).

It is important that any solitary individual is monitored and if necessary the situation assessed to ensure the animal has adequate opportunities to re-associate itself with conspecifics. Where this does not happen and the solitary state becomes long-term or possibly even permanent, it may be necessary for people management structures should be in place to monitor and protect the well-being of all involved.

### Potential threats to humans engaging in interactive encounters



Just as there are risks to the cetacean in irresponsible interactions, there are perhaps greater risks to humans, as some of the threats are effectively unseen. A cetacean for instance can appear as a healthy individual, however, many carry parasite, disease and pollutant burdens, some of which can be passed onto humans e.g. Brucella. There is also the possibility for disease transfer from the human to the dolphin. The more obvious risk is through injury. This may range from minor scratches to being badly bitten. On two separate incidents in the United States, swimmers were taken to hospital for treatment of wounds to the hands and feet, some of which required stitches.

In what, to date is an isolated incident a bottlenose dolphin in Brazil is known to have killed one swimmer and injured 29 others, when the attention from humans escalated to harassment (Santos, 1997). Lockyer & Morris (1986) have suggested that in situations where the cetacean is constantly surrounded by people, and thereby disrupting crucial feeding and resting periods, the cetacean may become unstable temperamentally.

Whilst these incidents may appear alarming, they have arisen from irresponsible interactions and a lack of respect for the cetacean, which remains a wild and extremely powerful animal. This draws into light the need for precautionary management of situations surrounding solitary cetaceans to ensure that incidents like that described above are not repeated.

# Solitary Cetacean Report

# Solitary cetaceans: past and present

In order to examine the solitary cetacean in full it was necessary to review all known solitary individuals to date (Table 1) below. A full summary on each dolphin can be found in Appendix I.

Table 1: All solitary cetaceans known, to date, 2008

able	Idble I: All solltary cetaceans known, to date, 2008	ITE, ZUU8					•
2			į	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Year(s)	1
NO.	Name	species	Sex	Location	Country	Opserved	Current status
-	Cookie (Findol)	Bottlenose dolphin	Σ	Cornwall & Devon	UK	2007	Unknown
2	Sleekie	Bottlenose dolphin	Σ	Cornwall & Devon	UK	2007	Unknown
3	Dolly	Bottlenose dolphin	ċ	South Coast	UK	2007	Unknown
4	Dave	Bottlenose dolphin	Ь	Kent	UK	2006-2007	Unknown
5	Chas	Bottlenose dolphin	Ь	Canvey Island & The Thames	UK	2006-2007	Unknown
9	Marra	Bottlenose dolphin	Ь	Maryport, Cumbria	UK	2006	Dead
7	Jet (Spinnaker)	Bottlenose dolphin	ે	Portsmouth	UK	2005	Dead
8	Georges (Dony / Randy)	Bottlenose dolphin	×	Ireland, South England	UK, France, Belgium, Holland	2001 to date	In Brittany, France
9	Freddie	Bottlenose dolphin	×	Amble, Northumberland	UK	1987 - 1992	Unknown
10	Simo	Bottlenose dolphin	W	Solva, Wales	UK	1984-1985/6	Unknown
11	Percy	Bottlenose dolphin	×	Portreath, Cornwall	UK	1981-1985	Unknown
12	Donald (Beaky)	Bottlenose dolphin	×	Wales & Cornwall	UK	1972-1978	Unknown
13	Charlie	Bottlenose dolphin	Ь	Eyemouth, Scotland	UK	1960-1967	Unknown
14	Gabriel	Bottlenose dolphin	×	Stoke	UK	1814	Dead
15	Moko	Bottlenose dolphin	٥٠	Mahia	New Zealand	2007 to date	
16	Dougal (Duggie)	Bottlenose dolphin	Σ	Tory Island, Co Donegal	Ireland	2006 to date	In Ireland
17	Marco	Bottlenose dolphin	×	Eilat	Israel, Jordan	2006 to date	In Israel
18	Maurice	Bottlenose dolphin	∾	Brandon, North Kerry	Ireland	2004-2005	Unknown
19	Dusty (Marra, Clare dolphin)	Bottlenose dolphin	ч	Doolin	Ireland	2000 to date	In Ireland
20	Fungie	Bottlenose dolphin	Σ	Dingle Bay	Ireland	1984 to date	In Ireland
21	Venus	Bottlenose dolphin	ш	Blasket Islands	Ireland	2005 - 2006	Unknown
22	Un-named	Bottlenose dolphin	≥	Coulagh Bay, County Cork	Ireland	2005	Unknown
23	Un-named	Bottlenose dolphin	∾	Santa Catarina	Brazil	2005	Unknown
24	Jean Floc'h	Bottlenose dolphin	Σ	Brittany	France	2003 to date	In Brittany
25	Sandy (Aran)	Bottlenose dolphin	ш	Inisheer	Ireland	2001-2003	Unknown
26	Flipper	Bottlenose dolphin	Σ	Skudenshavn	Norway	1991/2-2002	Unknown
27	Flint (Paquito)	Bottlenose dolphin	Σ	San Sebastian	Spain	1998-2005	Dead
28	Filippo	Bottlenose dolphin	Σ	Masfredonia	Italy	1998	Unknown
29	Kodo	Bottlenose dolphin	≥	Ashdod & Ashkelon	Israel	1995-1996	Unknown
30	Koko	Bottlenose dolphin	Ь	Toshima	Japan	1995	Unknown

$\vdash$	Piko	Bottlenose dolphin	∾	Toshima	Japan	1995	Unknown
<b>—</b> ј	Tião	Bottlenose dolphin	Σ	San Sebastião	Brazil	1994	Unknown
	Zero Three (Jock/Jacques)	Bottlenose dolphin	Σ	Adelaide	Australia	1988-1993	Dead
	Maui (Woody)	Bottlenose dolphin	Ъ	South Island	New Zealand	1992-1997	Unknown
	Crispy	Bottlenose dolphin	Σ	Eilat	Israel	1992	Unknown
	Jotsa	Bottlenose dolphin	F		former Yugoslavia	1991	Unknown
	Beggar (Dolphin 56)	Bottlenose dolphin	W	Sarasota	Florida	1990	Unknown
	Françoise	Bottlenose dolphin	Ь	Arcachon	France	1989-2001	Dead
	Dolphy (Dolly)	Bottlenose dolphin	Ь	Coiloure	France	1989-1995	Unknown
	Pita (Sugar)	Bottlenose dolphin	F	Lighthouse Reef	Belize	1988-1994	Unknown
	Billy	Bottlenose dolphin	W	Adelaide	Australia	1988	Unknown
	Herbie	ે	ο.		Bahamas	1988	Unknown
	Un-named	৫	ċ		Spain	1988	Unknown
	Joca	Bottlenose dolphin	ட		Montenegro	1988	Unknown
	Fanny	Bottlenose dolphin	Ь	Marseille	France	1987-1994	Unknown
	Marine	Bottlenose dolphin	Ь	Marseille	France	1987-1994	Unknown
	Romeo	Bottlenose dolphin	Σ	Bay of Naples	Italy	1985	Unknown
	The Costa Rican	Bottlenose dolphin	W	Chira Island	Costa Rico	until 1983	Dead
	Indah	Bottlenose dolphin	W	Kent Islands	Australia	1982-1983	Unknown
	Jojo	Bottlenose dolphin	M	Providenciales	Turks & Caicos	1980 to date	In Turks & Caicos
	Dobbie	Bottlenose dolphin	W	Eilat	Israel	1979	Dead
	Horace	Bottlenose dolphin	M	Hawkes Bay	New Zealand	1978-1979	Unknown
	Jean-Louis	Bottlenose dolphin	ш	Brittany	France	1976-1988	Unknown
	Dolly	Bottlenose dolphin	Ь	Florida Keys	Florida	1975	Unknown
	Nina	Bottlenose dolphin	Ь	La Corogna	Spain	1972	Dead
	Georgy Girl	Bottlenose dolphin	ч	Florida	USA	1970	Unknown
	Nudgy	Bottlenose dolphin	×	Powell Lake, Florida	USA	1965	Unknown
	Wallis (Wally)	Bottlenose dolphin	∾		Australia	1961-1962	Unknown
	Carolina Snowball (Peaches)	Bottlenose dolphin	Ь	South Carolina	USA	1955-1965	Dead
	Opo (Goldie/Dorrie)	Bottlenose dolphin	Ь	Hokianaa Harbour	New Zealand	1954-1955	Presumed dead
	Fish	Bottlenose dolphin	Ь		South Africa	1953	Unknown
	Hoek	Bottlenose dolphin	F		South Africa	1953	Unknown
	Scar	Bottlenose dolphin	W	Doubtful Sound	New Zealand		Dead
	Un-named	Beluga whale	∾	Musquaro,Quebec	Canada	2004-2005	Unknown
	Chance	Beluga whale	∾	Trinity Bay, Newfoundland	Canada	2004-2005	Unknown
	Poco (Helis)	Beluga whale	∾	Gloucester, Massachusetts	USA	2004	Dead
.	Ce'Sea	Beluga whale	щ	Newfoundland	Canada	2003	Unknown
	Un-named	Beluga whale	დ.	Mingan Is, Quebec	Canada	2003	Unknown

# Solitary Cetacean Report

69	Charlie-Bubbles	Beluga whale	ч	Newfoundland	Canada	2001-2002	Dead
70	Echo (Casper)	Beluga whale	×	Newfoundland	Canada	2001-2002	Unknown
71	Lenni	Beluga whale	Ь	Newfoundland	Canada	2000-2002	Unknown
72	Kuus	Beluga whale	×	Newfoundland	Canada	1999	Unknown
73	Un-named	Beluga whale	ч	Chevery, Quebec	Canada	1998	Unknown
74	Wilma (Foster, Willy, Elvis)	Beluga whale	ш	Nova Scotia	Canada	1993-1999	Unknown
75	BW	Beluga whale	Ь	New York	USA	1985	Presumed dead
9/	Bella	Beluga whale	ட	New York	USA	1980	Unknown
27	Rampal	Common dolphin	Σ	Whitianga	New Zealand	1984	Unknown
78	Whitianga	Common dolphin	ш	Whitianga	New Zealand	1980-1985	Unknown
6/	Nicky	Common dolphin	Ь	Whitianga	New Zealand	1980-1985	Unknown
80	Elsa	Common dolphin	ч	Ngunguru River	New Zealand	1978	Presumed dead
81	Tammy	Dusky dolphin	×	Auckland	New Zealand	1984	Unknown
82	Springer	Orca	Ь	Seattle, Vancouver	USA, Canada	2002 to date	Reunited with pod
83	Luna	Orca	×	Nootka Sound, Vancouver	Canada	2001-2006	Dead
84	Elsa	Orca	Ь	Provincetown, Cape Cod	USA	1982	Unknown
				Conception Bay,			
85	Nar Billy	Namhal	Σ	Newfoundland	Canada	2003	Unknown
98	Pelorus Jack	Risso's dolphin	Σ	Cook Strait	New Zealand	1888-1912	Presumed dead
87	Olin (Uleen/Holly)	Indo Pacific B'nose	Ь	Sinai	Israel	1994-2004	Dead
88	Sandy	Spotted dolphin	Σ	San Salvador Island	Bahamas	1976-1978	Unknown
88	Viola	Tucuxi	ЖŚ	Sao Vicente County	Brazil	1997	Unknown
06	Simo	\$	১	Hippo	Tunisia	109AD	Dead
16	Simo's partner	১	გ.	Hippo	Tunisia	109AD	Dead

There are in total, 91 individuals which have been recorded to date, although there are undoubtedly further individuals who have not been recorded or monitored and so are missing from the above listings.

When you consider the list in terms of species represented, they are wide ranging, however, by far the greatest are bottlenose dolphins (Figure 1).

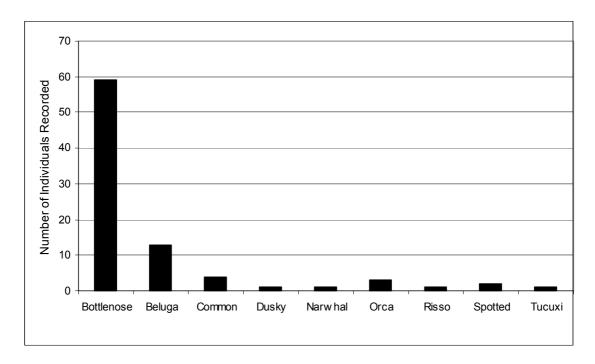


Figure 1: Number of individual solitary cetaceans recorded for each species.

Interestingly though, there is no noticeable difference in the sex composition of those individuals who, at some point in their lives choose a solitary existence (Figure 2).

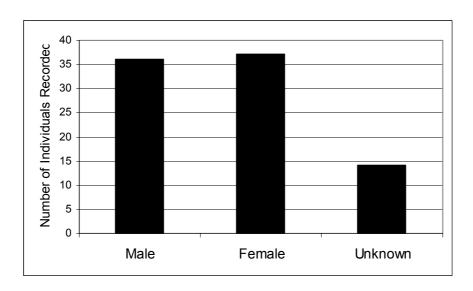


Figure 2: The number of male, female and unknown solitary dolphins recorded.

When we consider the distribution of these individuals across the world, there does not appear to be any form of pattern. There are no regions which are frequented more often by solitary cetaceans, just as there does not appear to be any region or ocean devoid of them (Figure 3).

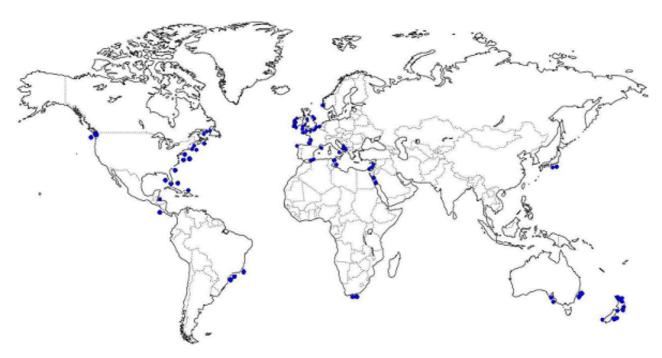


Figure 3: Location of each solitary cetacean, worldwide (to date)

If we consider distribution over time we note that the number of solitary cetaceans would appear to be on the increase (Figure 4). Overall, the average number of solitary dolphins in existence across the world would be 5.86 however, given the increasing trend it is perhaps more accurate to examine the average number preand post-1980, when the average is 1.90 and 9.79 respectively. This would certainly indicate that since 1980 we have seen the number of individual solitary dolphins increasing from 2 to ten individuals at any one time, across the world.

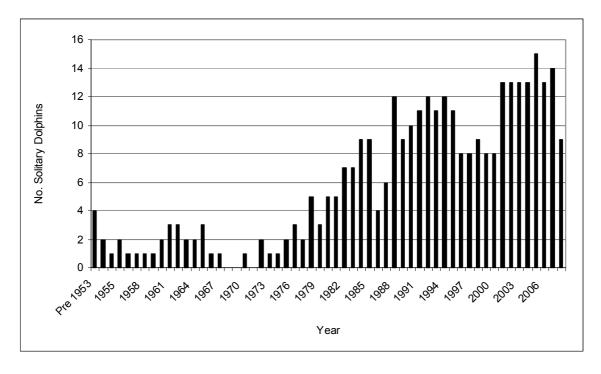
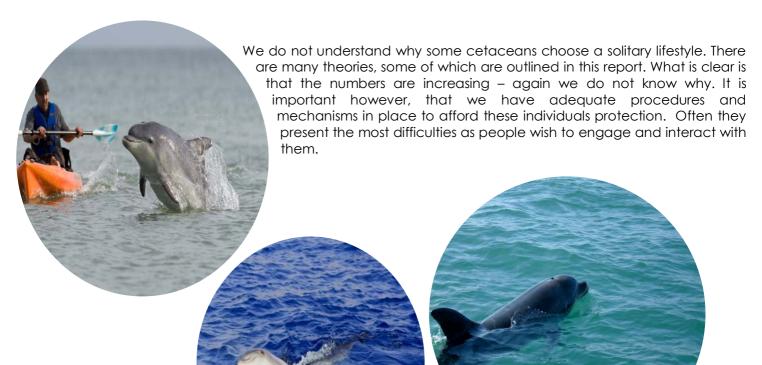


Figure 4: Number of solitary cetaceans in existence within any year (pre 1953 to 2008)

Whilst this is documenting an increase, it is however, an incredibly small proportion of the total number of cetaceans found worldwide. Additionally, it is impossible to note whether this observed increase is genuine or a consequence of better reporting and use of the internet for information transfer. This should not mean that they are afforded any less protection than those that are found living in social groups. Indeed these individuals may require better protection and management mechanisms to be in place in order to respond to their unique behaviour and in doing so draws into question the protection currently offered to cetaceans as a whole.





### **Current legislative protection**

At an international level there are many pieces of legislation which aim to protect marine mammals from harm. There are multinational directives, as we see within Europe and unilateral acts, bills and notices, some of which arise from European legislation being transposed into unilateral law and others out of a need to do more on a countrywide basis, often in response to specific problems.

Despite, what may appear to be comprehensive, worldwide coverage of protective legislation, the solitary cetacean presents a unique case, which in many cases is not offered adequate protection, despite the current legislation in place.

The Habitats & Wild Birds Directive: Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora aims to "promote the maintenance of biodiversity requiring Member States to take measures to maintain or restore natural habitats and wild species at a favourable conservation status, introducing robust protection for those habitats and species of European importance". In the UK the Directive has been transposed into national laws by means of the Conservation (Natural Habitats, & c.) Regulations 1994 (as amended), and the Conservation (Natural Habitats, & c.) Regulations (Northern Ireland) 1995 (as amended).

Within the Conservation (Natural Habitats, & c.) (Amendment) Regulations 2007 it is an offence under regulation 39(1) to deliberately capture, injure, kill or disturb a European Protected Species (EPS). Deliberately, has a broad meaning, however, in the context of capture and killing, the European Court of Justice (ECJ) has interpreted it to include "accepting the possibility" of capture of killing (see paragraph 71 of ECJ case C-221/043). In other words "an offence may be committed by a person who might not intend to capture or kill an EPS specimen but nevertheless performs the relevant action, being sufficiently informed and aware of the consequences his action will most likely have". Whether this wide interpretation applies more generally (i.e. to other Habitats Directive provisions which use the word "deliberate") is however, unclear from the judgment.

The amended Regulations make it potentially more difficult to protect the solitary cetacean, as, whilst the bottlenose dolphin, the most frequently occurring solitary cetacean is classified as a EPS, "activities that cause low level deliberate disturbance that may be considered unlikely to have the effects covered by the Directive can continue within the law". This does not consider the cumulative impact of recurrent low level disturbance events, and even if it did, the solitary dolphin may be considered such a minor effect on the survival, distribution or abundance of the species as a whole that disturbing a solitary dolphin is not considered an offence within the Regulations.

The **Wildlife & Countryside Act 1981** consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive) in Great Britain. It is complimented by the Wildlife & Countryside Act 1985 and the Conservation (Natural Habitats & c.) Regulations (as amended above).

The Act makes it "an offence (subject to exclusions) to intentionally kill, injure, or take, possess, or trade in any wild animal listed in Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places". This piece of legislation provides the legal structure to prosecute for disturbance or injury to a solitary dolphin, however, with the main focus being on 'intentional' disturbance it has been notoriously difficult to prosecute. This was amended in 2000, when the **Countryside & Rights of Way Act** received Royal Assent. Schedule 12 of the Act amends the Wildlife & Countryside Act 1981, strengthening the legal protection for threatened species. The provisions make certain offences 'arrestable', "create a new offence of reckless disturbance, confer greater powers to police and wildlife inspectors for entering and obtaining wildlife tissue samples for DNA analysis and enable heavier penalties on conviction of wildlife offences".

A second amendment, the **Nature Conservation (Scotland) Act 2004** enables Scottish Ministers to make a "Nature Conservation Order to protect a nature conservation feature which is of special interest, or which is contiguous with land containing such a feature, to ensure its protection. The Act also makes it an offence to intentionally or recklessly disturb a dolphin, whale (cetacean) or basking shark".

The Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2007 fulfil the UK's duty to comply with European law (Habitats & Wild Birds Directive) beyond 12 nautical miles, but within British fishery limits (up to 200 nautical miles). The Regulations will protect marine species and wild birds through a number of offences that aim to prevent environmentally damaging activities. For example, "deliberately killing or significantly disturbing a protected species (such as dolphins) in the offshore area". Solitary dolphins however, by the characteristics which make them unique often, as far as we know, occupy coastal regions and inshore environments not covered by this piece of protective legislation.

Whilst it could be argued that solitary dolphins present a case for protection under the **Animal Welfare Act 2006**, rather than under any other piece of unilateral legislation in the UK. The Animal Welfare Act covers all animals, except those in the wild, and does not apply to the sea. Where irresponsible actions arising from interactions with solitary cetaceans occur, the impact on the welfare of the individual animal is the primary factor, however, as the law currently stands within the UK there is no mechanism by which to protect the individual cetacean from harm, apart from that offered under the Wildlife & Countryside Act 1981, the Countryside & Rights of Way Bill 2000 and elements of the Conservation (Natural Habitats, & c.) (Amendment) Regulations 2007, yet none are adequate enough to deal with the unique and often difficult case of protecting solitary cetaceans.

In the last two years we have seen the UK Government commit to providing a ground-breaking piece of legislation - The Marine Bill which will deliver the Governments vision for "clean healthy, safe, productive and biologically diverse oceans and seas". It will put in place a better system for delivering sustainable development of the marine and coastal environment and will address both the use and protection of our marine resources. There has been extensive public consultation on the Marine Bill and we await the species protection measures which will hopefully provide mechanisms to protect the UK's marine biodiversity. It is not however, likely to provide additional protection for cetaceans, as this is deemed adequate within the Wildlife & Countryside Act 1981, Countryside & Rights of Way Bill 2000 and the Conservation (Natural Habitats, & c.) (Amendment) Regulations 2007. Solitary cetaceans are even less likely to be given any protection in this new piece of legislation however, it may be possible that the secondary legislation which will follow, will in the long-term provide mechanisms to protect these unique individuals.

In other parts of the world, cetaceans have been offered protection separate to that of other marine species and habitats, being recognised through targeted legislation for marine mammals. This exists in the United States, Australia and New Zealand.

Within the United States, the **Marine Mammal Protection Act, 1978** makes it an offence to "a) except under the authority of enactment, places or leaves any structure or trap or chemical or other substance in any place where a marine mammal is or is likely to be and which injures or harms, or is likely to injure or harm, any marine mammal; b) uses any vehicle, vessel, aircraft, or hovercraft to herd or harass any marine mammal".

In addition to this, the Governor-General may, "from time to time by Order in Council, make such regulations as the Governor-General in Council thinks necessary or expedient for the protection, conservation, or management of any marine mammal. Any regulations under this section may confer on the Minister or on the Director-General power to issue, in such a manner as may be prescribed, instructions, orders, requirements, permits, authorities, or notices for the purpose of ensuring that protection, management, or conservation of any marine mammal and, where the regulations so provide, any such instruction, order, requirement, permit, authority, or notice shall have effect according to its tenor and shall be complied with by all persons affected by it".

The Act was amended in 1994 to defined the term harassment as "any act of pursuit, torment or annoyance which, a) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment), or b) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioural patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding or sheltering (Level B harassment)".

The **National Parks & Wildlife Act 1974**, in Australia makes it an offence to "approach a marine mammal any closer than such distance as may be prescribed by the regulations or interfere with a marine mammal". Additionally "a reference in section 112F, 120, 129, 132C, 132D or 171 to harming any fauna includes, so far as is applicable in relation to a marine mammal, approaching or interfering with the marine mammal as referred to in subsection (1). In this section, "interfere with" includes harass, chase, herd, tag, mark and brand".

Further to this the **Environment Protection and Biodiversity Conservation Act 1999** offers a permit system for regulating activities around cetaceans in the Commonwealth marine area (3-200 nautical miles from the coast). Any action that is likely to have a significant impact on the Commonwealth marine area requires approval, through a rigorous environmental assessment. Additionally, all interactions between people and cetaceans are required to be notified to the department within seven days. National guidelines were developed in 2005 to regulate whale and dolphin watching activities, set out across two tiers. The first (Tier 1) relates to general standards for protecting cetaceans and apply to all people, whereas Tier 2 relates to commercial operations that may require alternative levels of management.

Finally, New Zealand also offers cetaceans a system of targeted and focussed protective legislation, designed to deal with a mobile species living in the marine realm. The Marine Mammal Protection Regulations 1992 (SR 1992/322) (as at 03 September 2007) not only aims to regulate whale and dolphin watching operations through a rigorous permit system, but also applies special conditions to both whales and dolphins. Before a permit is issued the Director-General should be satisfied that there is substantial compliance with a number of criteria, including "that the commercial operation should not have any significant adverse effect on the behavioural patterns of the marine mammals to which the application refers". The permits themselves provide limits on the distance any persons in the water are allowed to be from a cetacean (100m for whales, 200m for any female baleen or sperm whale accompanied by a calf or calves, no swimming with dolphins where juveniles are present), and limits for the vessels/aircraft also. Where two or more vessels or aircraft approach an unaccompanied individual or group the masters and pilots should co-ordinate their approaches to minimise disturbance. No vessel should approach within 50m of a whale or 300m of a dolphin group. Stipulations are also made on manoeuvring in the vicinity of cetaceans and on appropriate actions to prevent disturbance. It is an offence to disturb or harass any marine mammal. Furthermore, the "Director-General may at any time suspend or revoke any permit, or restrict the operation authorised by any permit, where the holder - a) is convicted of any offence against the Act or is convicted under any other Act of any offence involving mistreatment of animals". The Director-General may also "suspend, revoke, restrict or amend permits where they believe on reasonable grounds that it is necessary for the protection, conservation or management of any marine mammal or marine mammals of any class".

Despite what may seem comprehensive protection for cetaceans, when we consider past solitary cetaceans, in the majority of cases the protective measures brought into action have been voluntary, often enacted by concerned welfare and/or conservation groups and/or local people. When a solitary cetacean takes up residence in a particular area, it is often the local people who are the first to react to the needs of the animal, although in many cases this is supported by conservation and welfare non-governmental organisations (NGOs). In some instances local liaison groups have been formed, UK examples of where this has taken place include Simo and more recently Dave, Marra, and Chas. In response to these individuals and in recognition of the need for a more structured strategic approach in some cases, a solitary dolphin working group was established. Further a field, Jean Floc'h (France & Spain) has also had a local management group set up by Réseau Cétacés, to deal with his circumstances. For others, including Dolphy, Fanny and Marine "Friends of..." Committees have been established to undertake this task. Additionally, groups such as British Divers Marine Life Rescue, in the UK and the Whale Stewardship Project, in Canada have diversified their roles to monitor, patrol and intervene in rescues should it be required, in order to offer these individuals (inc. Chaz, Dave, Marra, Georges (all UK), Poco, Echo, Kuus, and Wilma (all Canada)) some protection whilst they choose to remain solitary.

In one case of action by a local group, the group were able to bring about the prevention of a powerboat race in the home range of the solitary dusky dolphin, known as Tammy, in New Zealand. Pelorus Jack (Cook Strait) and Nina (Spain), both had a special law passed in order to provide them with greater protection. In the case of the Spinner dolphins of Brazil, although not solitary, the local management group, through intensive campaigning, was able to convince government officials for the need of protection which resulted in the bay which the dolphins used to be declared a Marine Reserve. Here swimming, diving and the stopping of vessels in the vicinity is banned.



In a few cases, the need to protect these individuals has resulted in the appointment of exclusive guardians, whose task it is to look after the wellbeing of the dolphin, managing interactions and ensuring that distress and/or disturbance to the individual is minimised. Dolphy, Fanny, Marine (all France) and Jojo (Providenciales) all had guardians appointed, however, only Jojo remains to this day under the special watch of his appointed guardian, Dean Bernal.

In relatively few cases has the legislative framework been used to protect these unique individuals. Often it is the local liaison groups, conservation and welfare NGOs who provide educational and often managerial and/or patrolling roles in responding to the phenomenon that is the solitary cetacean. There is a limit to which any of these groups can go however; and when not supported by the necessary legislation and enforcement, offences against these individuals are often not followed up either due to a severe lack of protective legislation in the first place, or to the unwieldy and time consuming process required to bring about a conviction.





The UK does not present the worse case of legislative protection, in many cases we are ahead of other countries, however, we are by no means, the best. Whilst some would argue that improvements could be made to the legislation in New Zealand and the United States, they do have targeted Marine Mammal Protection Acts which have more scope for protecting the individual cetacean, or bringing about special laws where required.

A focused marine mammal bill would be a huge task for the UK, however, as a first step towards

better protection for the solitary cetacean and for cetaceans as a whole we need to see the measures to better protect these species implemented, including emergency stop orders, byelaw making powers and fixed penalty notices issued for disturbance events, whether impacting on the favourable conservation status of the species, or having a negative impact on the solitary individual.

These measures, we believe, would act as a deterrent, if properly enforced and could support the education programmes put in place by members of the solitary dolphin working group, offering proactive and manageable solutions to the problems which sometimes arise when solitary cetaceans appear. They would also act to offer the UK's cetaceans the protection they so desperately need, as they would have far wider application than solely solitary cetaceans.

### Management of the situation

We will now outline actions which the Marine Connection believes are of crucial importance in the management of situations which arise around solitary cetaceans. It is important to stress however, that these suggested actions should not be in place of adequate legislative protection; rather the legislation should be in place to support the actions of local management groups.

Management of the situation surrounding any solitary cetacean should be well thought out, include education, monitoring, applied research and enforcement, supported by legislation. All too often however, this is not the case.

At the outset there are a number of options which will depend on the sex, age and personality of the cetacean and the physical and social characteristics of the area in which the cetacean has established its range (Wilke et al, 2005). It has been suggested that as soon as a cetacean progresses to stage 3 of habituation, that a management plan is essential, however, the process should have been started before the cetacean has reached that stage. Ideally, suitable management of the situation could prevent this occurring and allow the opportunity for the individual to re-integrate with their conspecifics.

### **Management options**

- 1. Minimising human intervention, to allow more opportunity for re-integration with conspecifics
- 2. Establish a working group, committee or otherwise to engage all stakeholders (public, fishermen, boat owners, water sports clubs and local businesses)
- 3. Devise a set of guidelines and rules to ensure cetacean welfare
- 4. Devise a public education programme, including distribution of leaflets, pamphlets, posters, notice boards, public talks etc
- 5. If appropriate nominate an exclusive guardian
- 6. If appropriate, consider buoyed areas for exclusion of swimmers, vessels and other craft to permit the cetacean important feeding and resting times/areas. NB. This is only possible where the home range is small
- 7. Undertake a full research and monitoring programme in order to document changes in the cetacean and/or situation
- 8. Where required render veterinary assistance to the cetacean, i.e. removal of foreign objects, fish hooks, entanglements, administering antibiotics in response to injury
- 9. Work with local authorities, government departments and enforcement agencies to provide legislative protection (where it is in existence)

### Area and human considerations

If a cetacean takes up residence in a busy port or harbour, the activities of both the dolphin and keen watchers may impede daily business. Similarly if the cetacean is in a heavily fished area, there may be greater risk to the cetacean from entanglement and greater discussion of the situation required with local fishermen to reach a mutually beneficial outcome. In these cases management extends beyond the situation surrounding the cetacean to include the area and people as well.

In cases of easy access to the cetacean it may also be necessary to consider human management guidelines to supplement those above. Any one or more of the following procedures may be necessary depending on the circumstances of each case:

- 1. Restriction on the number of swimmers/people in the water, as too many people can disrupt the cetacean normal behavioural patterns, potentially eliciting a negative response
- 2. Restriction on the number of vessels and marine craft in the area
- 3. Restriction on the type of boats, i.e. no high speed or planning hulled vessels
- 4. An understanding of dolphin etiquette may be required, i.e. no touch areas, blowhole, eyes, genital areas
- 5. A ban on feeding the cetacean should also be required

As with the restriction on the number of vessels in the area, it may also be necessary to extend the educational programme to water-based users of the marine environment, by advising local clubs, groups and/or private owners to take into consideration the dolphin when on the water.

The only such course in the UK which currently offers guidance on responsible actions around solitary cetaceans is the WiSe scheme <a href="https://www.wisescheme.org.uk">www.wisescheme.org.uk</a>.

The WiSe scheme has been set up to deliver training and accreditation for owners who wish to view marine wildlife. Nearly 500 operators/marine professionals have been trained to date. All WiSe accredited operators have to attend and pass a course designed to ensure they have an understanding of how to approach marine wildlife, and how to minimise any disturbance to those animals. All operators have additionally, agreed to abide by appropriate Codes of Conduct for the animals created to ensure that their operations are safe and sustainable. Marine Connection has worked alongside the WiSe Scheme to provide guidelines on how vessels should be operated in the vicinity of solitary cetaceans (See Appendix II for guidelines).



### **Recommendations**

It is important that a precautionary approach is taken to the protection and where needed management of the situation surrounding solitary cetaceans. Management should be well thought out, including education, monitoring, applied research and enforcement, support by legislation.

- With increasing numbers of solitary cetaceans being recorded in the UK there is a clear requirement for targeted protective legislation.
- This should include consideration of both short- and long-term measures.

Short-term measures should include;

- Emergency STOP orders
- Increased and streamlined byelaw making powers
- Fixed penalty notices on acts of disturbance/misconduct
- Recognised temporary, closed areas to fishing, boats and swimmers

Long-term measures should include;

- Structured, strategic legislative protection for cetaceans
- There should be adequate resources for enforcement of the above.
- The management options and area and human considerations (page 13) should be implemented for every solitary cetacean which arises. As there is no central marine mammal organisation these tasks should be initiated and co-ordinated by researchers, NGOs and welfare organisations working in the field. For these to be truly effective however, it is important that they are supported by the legislative recommendations made above.

### **APPENDIX I**

Red text indicates action taken to protect the individual cetacean in each case

### Bottlenose dolphins (Tursiops truncatus) in the UK

### Cookie (aka Findol) & Sleekie

Cornwall & Devon 2007 Male bottlenose dolphin

On 21st March 2007 a pair of young, male, bottlenose dolphins (*Tursiops truncatus*) were observed for the first time in Cornwall in Mount's Bay. Sleekie had no obvious markings on the dorsal fin to use for identification, while Cookie had a very ragged trailing edge to the dorsal fin and a deep slice in the base of it. Over the next five weeks they were observed between Fowey and Mount's Bay, before moving round to Sennen at the end of April. After a period of two weeks when they were not seen, they reappeared for two weeks in the second half of May, with infrequent reports between then and August. The pair were characterised by frequent displays of surface activity and interaction with boats on a regular basis. They were last seen together on 27th August 2007 off Penzance.

After this the pair were thought to have separated and Cookie (Findol) was photo-identified alone just off Plymouth. A possible sighting was made of Sleekie, but with no definite confirmation of identity. In their separate locations both animals interacted more intensively with boats, following them into harbours. There were no further definite reports of Cookie after the 4th September, but the other animal (thought to be Sleekie) in St Ives Bay remained there until the 9th September, with possible further isolated sightings over the next two weeks.

To date no other sightings of either animal have been reported.

### **Dolly**

South coast of England 2007 Bottlenose dolphin - sex unknown

A single bottlenose dolphin was first seen during spring of 2007 off the south coast of Cornwall, bow-riding vessels in and out of the harbour at Falmouth. Although later reports cannot be confirmed as the same animal, a lone bottlenose dolphin was then seen in April off Southampton docks, following container vessels in and out of the harbour. In July what is thought to be the same animal was then observed in Portsmouth harbour, once again bow-riding and following vessels. In the same area the dolphin was also seen in a marina, thought to have come into the area to feed as locals reported large numbers of fish sheltering in the marina itself. During all the above occasions whenever anyone approached the dolphin would disappear, demonstrating that it was still wary of humans, though not of boats.

This individual has been observed approaching rowing boats in Portsmouth and on one occasion remained in the general area whilst there were swimmers in the water, although it maintained a distance from them (Lepe, Southampton).

The dolphin was maintaining a wide home range between Portsmouth, Southampton, Southsea and the Isle of Wight, with local people keeping a careful watch on the situation liaising with members of the solitary dolphin working group.

The dolphin has not been seen since the summer of 2007.

### Dave

Kent coast – UK April 2006 to October 2007 Female bottlenose dolphin

Dave, first identified as a young, male bottlenose dolphin, was later re-identified as a female, but kept the name Dave, as she was widely known as 'Dave' by the time of identification. She first arrived off Sandgate in April, 2006 and was then later seen in Folkestone and at various locations between the two. At this point, although she was maintaining a small home range, she was wary of boats and people and was keeping her distance from them. She would regularly be seen feeding and hunting within the bay, taking time to rest by a yellow buoy, 180m from Sandgate beach.

It wasn't until June 2006 that human-dolphin interactions began to occur. By the middle of September swimmers could approach Dave but no closer than approximately 4m; kayakers were usually still avoided. By the beginning of October, however, this changed and she began to investigate swimmers closer. In November, she was observed following kayaks at Seabrook beach, where at the end of December she began to interact with them. Interestingly, however, during the winter of 2006 she remained at the beach of Seabrook, but did not engage in interactions. It wasn't until June 2007 that the first human-dolphin physical contact was made. From this time on, she presented her belly, engaging from July/August increasingly in socio-sexual interactions with kayakers and swimmers. On the 9th of June, two men were arrested at Seabrook after Police observed them swimming with Dave at 5am and were allegedly disturbing her.

During this time members of the British Divers Marine Life Rescue (BDMLR) have patrolled beaches, spoken to local people, handed out leaflets and attempted to control the ever-increasing numbers of visitors determined not only to see Dave, but to interact with her. A consequence of this and other recent solitary dolphin cases in UK, led to the formation of a Marine Animal Rescue Coalition (MARC) Solitary Dolphin Working Group. This group worked with local authorities, the Police, Maritime & Coastguard Agency and local people to try to locally manage interactions with Dave. Local BDMLR medics also patrolled the beaches, speaking with local people, handing out leaflets in an attempt to control the ever-increasing numbers of visitors determined not only to see Dave, but to interact with her.

The last reported sighting of Dave was in November 2007, at the time of writing she has not been seen since.

### Chas

Canvey Island & The Thames – UK 2006 to 2007 Male bottlenose dolphin - juvenile

Chas arrived at Hole Haven Creek, Canvey Island in May 2006. Initially members of BDMLR went out to gain information about Chas's health. He appeared to have no scars/identifying features and was in very good body condition. He kept his distance from boats most of the time but did enjoy bow riding (particularly the container vessels). Towards the end of his time at Canvey he did start to bow ride most boats and would jump over the bow of RIBs and dinghy's.

The biggest problems arose from jet skiers and some boat owners as many wanted to try to interact with him. Chas however, paid them little attention. On occasions when he was surrounded by jet skiers he was observed slapping the surface of the water with his tail – a potential sign of aggression, or a warning that they were too close. BDMLR boats were present in the area to advise jet skiers and others that there was a dolphin in the area and to obey the 8 knot speed limit.

His range for the duration of his stay was about 200 by 200 metres around a buoy mooring in the bay. He seemed to focus his attention on the buoy most of the time. The current was too strong for people to swim with him and so the only people interacting with him were those on jet skiers. They paid no attention to advice, even when the police were called. Chas left Hole Haven Creek around 11th August 2006. He then spent the next 5 months in the Thames Estuary favouring the buoys in the main shipping channel. He was last seen on 28th January 2007.

### **Solitary Cetacean Report**

### Marra

Maryport, Cumbria – UK 2006 Female bottlenose dolphin

Marra, was first reported by local fishermen as a solitary dolphin approaching boats in the area around Workington harbour. She was not interacting with humans or boats, though some reports suggest that she was fed by local fishermen during this time. At the beginning of January 2006, Marra was sighted off Maryport pier for the first time and later became trapped in the marina, where concern for her wellbeing arose. The marina had a freshwater input, was full of boats and their respective discharges and being early January was occasionally freezing at one end, over night. After some weeks in the marina, where she was regularly fed by a fisherman, a rescue team, coordinated by BDMLR attempted tried to lure her out with boats, playing underwater sounds and even using a bubble curtain without success. At the end of January she began to show a loss of weight and limited feeding. At this point the team decided that intervention was necessary and she was captured and released into the sea. It appears that from this time Marra remained in the vicinity as from May onwards she was regularly observed interacting with humans with increasingly closer contact.

At the end of May however, she was found stranded at Beckfoot beach and was refloated by local BDMLR medics. Despite this episode she continued to be regularly sighted close to shore, within harbours and allowed even closer human contact. At the end of August and again in mid-September, Marra was struck by a boat, but, despite this, she did not modify her behaviour. Sadly, on the 12<sup>th</sup> of December 2006, Marra was found dead on Silloth beach. Post mortem analysis showed that she died of septicaemia caused by an infection, which is likely to have been as a consequence of the wounds she received earlier.

### Jet (aka Spinnaker)

Solent, Isle of Wight/Portsmouth – UK 2005 Bottlenose dolphin – sex unknown

Jet, a bottlenose dolphin of unknown sex, probably first appeared in September 2005 in the Solent area of the Isle of Wight and Portsmouth. This dolphin used to follow different vessels, particularly the Gosport ferry and would regularly enter Portsmouth harbour, attracting huge crowds of people. Jet roamed widely, being reported by locals up to 5 miles out to sea. Whilst no photo-identification confirmation was provided the individual sightings of a lone dolphin at this time, were thought to be that of Jet.

Unfortunately the dolphin's regular trips into Portsmouth harbour resulted in a collision with a tug boat propeller. In the accident, the dolphin was reported to have lost its tail and was seen to be bleeding. A search by the local lifeboat followed, although no body has been found. It was assumed that the dolphin would have died shortly afterwards of the injuries sustained.

### Georges (aka Dony/Randy)

Ireland, South of England, Channel Islands, France, Belgium & Holland 2001 to date
Male bottlenose dolphin

This solitary dolphin not only has a number of names, but has exhibited an extensive home range, making contact with people in Ireland, southern England, Belgium, France and Holland. He was first seen and named Dony in Co. Kerry, Ireland, from May through July, 2001, then, as Baladin or Moana near La Rochelle, France from July though September.

From October 2001 until March 2002 Georges or Randy toured between Cherbourg, Jersey, Guernsey and Alderney, and from March until September 2002, Georges, Flipper, or Weyfin was seen at Portland, Weymouth, Salcombe and Plymouth, England (Rossiter, 2002). His previous two more recent visits to the south coast of the UK have been surrounded in controversy as various ideas and suggestions have been put forward concerning his management and movements.

He is a boisterous individual, who appears to enjoy playing rough, but conversely can also be incredibly gentle. He was given the name Randy, because of his sexual arousal on interacting with female swimmers. He has however, on occasion inflicted injury on those engaging with him, just as he has received a number of injuries himself from boats and propellers (Wilke et al, 2005).

### **Freddie**

Amble, Northumberland – UK 1988 to 1992 Male bottlenose dolphin

Freddie first appeared off Amble in Northumberland in 1988. At the same time a female dolphin was found dead, which was thought to have been his mate/companion, which could have explained his solitary existence from this point on. After the initial sightings Freddie remained during the winter months, escorting boats in and out of the harbour. A dive club also reported seeing him, however, he showed no interest in the divers when they were in the water. During these initial months, he remained in a distinct, small home range that was rarely deserted. His solitary existence remained, without any direct contact or interaction with humans or boats.

In 1988 two reports were made of interaction with Freddie although no physical contact was made. The first of these was with members of the dive club; he appeared interested but wary and would flit in and out of view at the limit of the divers' visibility. The second time was with swimmers at the surface where he seemed more confident and would approach to within a metre. Freddie would also interact with floating birds; surfacing underneath them and causing them to fly off and with boats and two navigational buoys. He also showed a particular fascination for inflatables with outboard motors, swimming upside down below them, hanging close to the propeller. Another interesting aspect of his behaviour was his fascination for the sewage outlet pipe in the harbour – when this was being flushed out the dolphin was seen to hang facing the pipe in time to receive a rather unsavoury facial! This may have also accounted for the white markings on his skin, which were thought to be caused by toxins in the water.

These interactions progressed, as did his reputation in the area. Physical contact was made and swimmers could regularly engage with interactions with him. Sexual and aggressive behaviour began to increase with incidents of couple splitting, swimmers being breached on, ducked, tail swiped, mouthed, physically dragged around and generally dominated by the dolphin all reported (Bloom, 1991). Conversely, as the interactions increased, from June 1989, so his resting behaviour decreased. Observations made throughout the year indicated that it was generally low with the exception of February and was not observed at all in August or November (Bloom, 1991). Freddie was then badly injured by a police launch propeller and fears grew for his safety and welfare, he was last seen in Amble harbour in mid March 1992, a couple of sightings followed but he never returned to Amble and his whereabouts are still unknown.<sup>2</sup>

### Simo

Solva, Wales – UK 1984 to 1985/6 Male bottlenose dolphin

Fishermen first became aware of the dolphin in Spring 1984. The dolphin was estimated to be 2 years old. Much of his behaviour follows that of other solitary dolphins. He was curious about any underwater activity and would watch divers with a keen interest. Simo appeared to have favourite human companions both in the water and aboard boats. Like some of the other sociable dolphins mentioned here he allowed swimmers to pet him and take hold of his dorsal fin. He would then pull them along at great speed for distances of several hundred meters. The dolphin initiated play by coming alongside and pressing his dorsal fin against the body of the swimmer. He exhibited sexual arousal and behaviour with swimmers and would occasionally play rough, pushing people around and circling boats. It was clear however, that Simo would adapt his behaviour to the abilities of the swimmer, if swimmers were gentle with him then he responded likewise (Lockyer, 1990; Lockyer & Morris, 1986).

Some studies of his diving and swimming ability were conducted (Lockyer & Morris, 1986). Those interested in Simo's welfare published a special pamphlet for visitors, warning them of Simo's vigorous antics and advising swimmers to wear buoyancy-aids in case he ducked them; to stay calm if he grew too excited and to avoid hurting his delicate skin with any sharp, hard objects (Doak, 1989).

Simo disappeared at some point in 1985/6 and has not been seen since.<sup>3</sup>

### **Percy**

Portreath, Cornwall – UK January 1981 to 1985 Male bottlenose dolphin

Percy was first sighted following the local lobster and crab fishing boat, stopping at each buoyed pot trap and occasionally swimming ahead to the next in anticipation of the routine (Lockyer & Morris, 1986).

Encounters with divers and swimmers, which were initially wary, become closer, more prolonged and even intimate. After becoming more familiar with people he would approach to within a few centimetres. This was however, always on his terms as he would back off if a hand was extended out to reach him. With time he did eventually became sociable, permitting physical contact with swimmers and allowing them to hold onto his dorsal fin. He was not always friendly when over-excited visitors attempted to make contact and Lockyer and Morris (1986) reported a number of incidents of injury to people who were the object of sudden aggression. This dolphin, like Donald and others developed a habit of pushing swimmers and even surfers out to sea, and actively preventing them from swimming ashore (Lockyer, 1990).

His behaviour could be very unpredictable, with episodes of gentleness, sexual overtures, aggression and violence. He was reported butting swimmers in the chest and pushing them out to sea. As concern began to rise and action was called for, rather fortunately, Percy left. No action was taken against him and he has not been seen since. (Lockyer & Morris 1986). 4

### Donald (aka Beaky)

Wales & Cornwall - UK 1972 to 1978 Male bottlenose dolphin

Donald set up a series of home bases at small harbours along the Welsh and Cornish coast over a seven year period (Lockyer, 1978). In each of these his home range was definable, where he could always be located until he chose to move onto the next. The time he chose to spend at any one place could last for months and in some cases years, before he would be gone as suddenly as he had arrived (Lockyer, 1990).

During his stay in Cornwall his movements often seemed to be related to those of the local mackerel fishing fleet, whereas his movements from the Isle of Man were thought to be related to harbour development (Wilke et al, 2005).

He was naturally curious and approached people at a much earlier stage, compared to other solitary dolphins. Despite this however, direct contact was not made for several months. When it eventually did occur he permitted swimmers to hold his dorsal fin, taking them for tows – he frequently carried people out to sea, rather than into shore. He also exhibited sexual arousal and behaviour with swimmers and could become a nuisance by occasionally pinning divers to the seabed for short periods of time (Wilke et al, 2005). There is evidence of contact with other dolphins off the Isle of Man, demonstrating that he was not always alone.

As with some of the other solitary dolphins mentioned here he also became a problem; towing boats and overturning small moored craft, moving anchors and thus setting small craft adrift and disrupting small-yacht races by turning craft around at the wrong moment by surfacing underneath them. There was evidence that at some point he had sustained a gunshot wound to the head (Lockyer, 1990; Lockyer & Morris, 1990; Lockyer & Morris, 1986). In 1977, he appeared in Falmouth, Cornwall where he was observed spending hours around a particular boat. He was last seen in 1978 just prior to the worst storm on record (WDCS, 2005). <sup>5</sup>

### Charlie

Eyemouth, Scotland – UK 1960 to 1967 Female bottlenose dolphin

In 1960 this dolphin had lived off the coast of the Firth of Forth near Edinburgh. However, it wasn't until 1976 off Eyemouth, Scotland that scuba divers started meeting a large bottlenose nicknamed Charlie. Prior to this she would escort all the boats, and always approached when scuba divers were in the water. Local divers believed that she only fed for a few hours each day, around high water and at night when especially strong current swept past Hurker's Rocks. Fish could sometimes be seen sheltering in the lee of the rocks when Charlie was observed feeding in the tidal race.

During the winter months Charlie disappeared suddenly only to be re-identified further south off Northumberland, about 100km distant (Lockyer, 1990; Lockyer & Morris, 1986). She is not currently seen today. 6

### Gabriel

Stoke, England – UK 1814 Male bottlenose dolphin

Gabriel was a male bottlenose dolphin, who made his home 8km up the River Dart at Stoke. Gabriel was a favourite amongst children who watched his antics from the river banks and he soon had a following of admirers far and wide. Sadly, Gabriel died when enterprising showmen decided to capture him and travel with him to London, stopping off at villages along the way. They had only supported him on straw and so the unsupported weight of his body eventually crushed his internal organs (Doak, 1989).



### Bottlenose dolphins (Tusiops truncatus) Worldwide

### Moko

Mahia, New Zealand 2007 to date Bottlenose dolphin – sex, unknown

A friendly dolphin was reported in the area during August 2007 however during the early part of 2008 the dolphin was reported as interacting with children and providing fin tows off the coast in Mahia, south of Gisborne, demonstrating an increasing friendliness towards humans. <sup>7</sup>

The dolphin has also been reported assisting in the rescue of two pygmy sperm whales which live stranded in March 2008. The dolphin is said to have guided the two whales out into safer water. 8

### Dougal (aka. Duggie)

Tory Island, County Donegal, Ireland 2006 to date Male bottlenose dolphin

Estimated to be between 5 and 6 years of age, Dougal first appeared in April 2006 off Tory Island in County Donegal. He is perhaps best known for his interactions with a golden Labrador and Collies. One dog in particular (a Labrador called Ben) currently interacts with the dolphin several times a day. Dougal is very willing to engage with human swimmers and will often engage in the seaweed games observed in wild populations. He regularly accompanies the local ferries and demonstrates a particular fascination with outboard motors.

### Marco

Eilat, Israel & Jordan 2006 to date Male bottlenose dolphin

For the last quarter of 2006, a young solitary sociable bottlenose dolphin named, Marco, established his home range between Eilat and Jordan. He is currently a stage one dolphin, not currently permitting any contact with swimmers (Goffman & Granit, 2008).

### Maurice

Brandon, North Kerry 2004 to 2005 Bottlenose dolphin, sex - unknown

A solitary dolphin which had been seen in September 2004 and nicknamed by locals as Maurice was observed again in January of the following year. Locals reported that the dolphin could be seen around the mooring buoys. On occasion this dolphin would demonstrate acrobatic displays but would not interact with swimmers, thought to have been linked to the time of year. 9

### Dusty (aka Marra, The Clare dolphin)

Doolin, County Clare, Ireland 2000 to date Female bottlenose dolphin

This female bottlenose dolphin first interacted with people in Doolin, Co. Clare, in the summer of 2000. In 2001, she moved up the coast to Fanore, Co. Clare, later moving to her current home near Milltown Malbay to interact very closely with swimmers.

Dusty was immediately interested in objects such as cameras and surfboards and was particularly keen on fins. She would mouth these gently and was totally fascinated with monofins (large triangular fins which you put both feet into and which imitate a dolphin's tail). She remained close by even when the wearer was sitting on the rocks with just the fin in the water.

### **Solitary Cetacean Report**

Dusty has interacted with people for up to eight hours at a time, with on occasion over 20 people in the water. She has also been observed in extremely shallow water, though has not come to any harm. She will permit fin tows, but will avoid those who try to grab at her and in one incident rammed a swimmer, breaking two of their ribs. In 2005 she reportedly attacked a visitor who went swimming with her, resulting in internal injuries and hospital treatment (WDCS, 2005).

Whilst Dusty spends a lot of time with human companions it is clear that she also regularly meets other dolphins and was observed with a porpoise calf. To date, Dusty remains interacting with human companions. <sup>10</sup>

### Fungie (aka Dorad)

Dingle Bay, County Kerry, Ireland 1983 to date Male Bottlenose

Fungie is one of the longest surviving and well known of all solitary dolphins. He became resident in the middle of 1984. When divers Brian Holmes and Sheila Stokes heard of him they set about forming a relationship with him, commencing in September of 1986. This began with intensive and exclusive contact, spending 14 hours a day with the dolphin. This meant that a relationship and contact formed quickly. Tooth rake markings on his skin indicate that Fungie did and still does to this day, regularly engage with other dolphins.

Despite his popularity, rather surprisingly, when compared to other solitary cases, contact with him has never become excessive and there has never been the need for formal management plan. A fleet of small boats take the public to meet the dolphin which has in one year generated over £1 million in income for the community.

Today Fungie has become very selective about permitting physical contact, allowing only those with whom he has established trust. For the most part he will only approach tourists when they visit en masse provided they are holding a tow line. If they release it and swim towards him, Fungie simply leaves. He does however have close, intimate sessions at special times with a circle of long-term human friends. 11



The much revered Fungie – so loved by locals and visitors alike that a statue has been erected in his honour on the harbour front

### Venus

Blasket Islands, Ireland 2005 to 2006 Female bottlenose dolphin

In the last week of May, 2005, Venus was observed and named by Ute Margreff. For the first few days the dolphin could be seen hanging around one of the mooring buoys near Ventry pier. At this early point in her solitary existence, Ute was the only person to have swum with her and she appeared to be ignoring the presence of others, including those in kayaks. Soon after this, Venus travelled to the Blasket Island and was seen frequently by lobster fishermen when hauling their pots. In July, whilst Ute remained a companion engaging in seaweed carrying games, Venus began to interact with other swimmers. Most of her time was spent around a single yellow mooring buoy off the main Blasket Island beach, although she was observed to swim a short way off to fish or follow boats.

She tended to ignore the passing groups of bottlenose dolphin and instead was solitary for at least six months. With autumn storms in 2005 it was not possible for researchers to get out to the island and by spring 2006 she had disappeared. <sup>12</sup>

### **Un-named**

Coulagh Bay, County Cork, Ireland 2005 Male bottlenose dolphin

This dolphin apparently hangs around a salmon farm on the south side of Inishfarnard, which is a small island in Coulagh Bay, itself part of the Kenmare River estuary. There has only been one reported encounter with this dolphin, during which the dolphin did not permit physical contact but remained interested by divers. <sup>13</sup>

### **Un-named**

Santa Catarina, Brazil 2005 Bottlenose dolphin – sex, unknown

A bottlenose dolphin was reported as under investigation (WDCS, 2005), although no further reports or information can be found.

### Jean Floc'h

Brittany, France & Galicia, Spain 2003 to date Male bottlenose dolphin

Jean Floc'h first appeared in 2003 at Finistere, off Brittany, when he did not interact with humans but was simply curious and appeared interested in them. This allowed people to get gradually closer to him, to the point where he became habituated to their presence. He has demonstrated a desire to get hold of objects which interest him to play including oars, paddles and small boats. In June 2003, Jean-Floc'h was beaten violently with a wooden oar but in spite of this attack he continued to follow boats. He has been observed turning boats over when nobody was in them and occasionally whilst they were occupied.

In late 2004/early 2005 Jean Floc'h was also frequently seen in the company of Georges/Dony/Randy. As of February, 2008 he was reported off Galicia, Spain.

The protection group, consisting of members of Réseau-Cétacés, together with local enthusiasts and experts on solitary dolphins, tried to facilitate relations between the locals and visitors to Brittany, to manage the high risk interactions taking place. As part of this an information campaign was organised with posters and pamphlets being distributed. This aided education of the issue and the unique nature of solitary dolphins. However as there was only limited funding available, many of the action points have not been carried through. <sup>14</sup>





### Sandy (aka Aran)

Inisheer, Ireland May 2001 to 2003 Female bottlenose dolphin

This young, female dolphin had appeared around Inisheer in the Aran Islands. She was reported to be heavily scarred. After divers were the first to encounter her, a number of local people and visitors to the area swam with her in close proximity to the beach. Despite her general gentle demeanour several people reported aggressive behaviour which included butting swimmers with her beak and preventing them from returning to shore. Additionally, she was also reported being aggressive towards seabirds sat on the surface of the water.

Sandy was seen in the sound between Inis Oirr and Inis Mean where she was often observed bow-riding boats. Due to the remote location and the fact that she was not tied to a particular shore location, few if any people have travelled to the island to swim with her and most contact has been with divers.

Whilst there have been no reports of Sandy since February 2003 she is still thought to remain in the area. 15

### **Flipper**

Skudeneshavn, Norway 1991/2 to 2002 Male bottlenose dolphin

Flipper, a male bottlenose dolphin first appeared near Karmøy. He initially spent time swimming alongside boats and surfboards, before gradually increasing his interaction with humans, ultimately pushing surfers off their boards. As time progressed he spent more and more time interacting with swimmers and would move between beaches at Akrasanden, Sandvesanden and Skudenshavn. His behaviour also included hanging around where divers filled their air tanks (WDCS, 2005). He was already clearly scared and marked from interactions, however during his stay he sustained several deep cuts on his head and back from a propeller but appeared to recover well. He was last seen in June 2002. <sup>16</sup>

### Flint (aka Paquito)

San Sebastian, Spain 1998 to 2005 Male bottlenose dolphin

Flint resided in the harbour at San Sebastian, regularly engaging two male, human companions from 1998. Flint would approach swimmers and divers to within 10m, sometimes to within 1 or 2 meters. He usually came over immediately to greet the people he knew, but did not allow himself to be touched. Sadly, after leaving the harbour with a group of bottlenose dolphins in 2004, he was reported dead in 2005, thought to have died from pneumonia. <sup>17</sup>

### **Filippo**

Manfredonia, Italy 1998 Male bottlenose dolphin

A dolphin named Filippo was observed in the Gulf of Manfredonia South East Italy for several years and from May 1998 began to interact with swimmers. Filippo, a male dolphin, approximately 2.5 metres in length interacted with humans, but on occasion was found to bite arms or feet causing minor wounds. Subsequently, there were concerns raised by those observing his behaviour that Filippo may be harmed or cause harm to humans. Locals and researchers continued to monitor his interactions as closely as possible during his stay. Filippo is not seen today. <sup>18</sup>

### Kodo

Ashdod & Ashkelon, Israel 1995 to 1996 Male bottlenose dolphin

From 1995, for a year, Kodo, a solitary adult male bottlenose dolphin was documented in the southern part of the Mediterranean coast of Israel between the ports of Ashdod and Ashkelon. He mainly escorted boats and did not permit bodily contact (Goffman & Granit, 2008).

### Koko & Piko

Toshima, Japan 1995

Female bottlenose dolphin, calf – sex, unknown

During 1995 a female, bottlenose dolphin was residing off the island of Toshima and had become familiar with the islanders, fishermen, and divers alike. In 1998, she gave birth to a calf. The villagers worked to protect both the mother and calf, going so far as to register them as residents of the island.

Despite this local status as residents however, fishermen of the nearby islands of Ni-jima and Shikine-jima claimed that they had the right to fish off of Toshima. Since the Ni-jima fishermen used huge nets, which presented a threat to the dolphins, Toshima islanders feared for the long-term survival of Koko and Piko (Upton, 2000). Their fate is unknown.

### Tião

San Sebastião, Brazil 1994 Male bottlenose dolphin

In May 1994, the dolphin which had first been reported in March was still present and seeking contact. In August he moved northward to Caraguatatuba and the encounters became more frequent. People would try and grab onto Tião's dorsal fin, however, his response was negative inflicting cuts and bruises to his pursuers. In December 1994 interactions progressed and a series of buoys and line were placed around all bays, except one. Tião would avoid any of the buoyed bays, but remained visiting the one clear bay. Sadly Tião was abused at this beach by swimmers and he retaliated, ramming a man, who subsequently died from a ruptured spleen.

Tião disappeared in August 1995, his fate unknown (Wilke et al., 2005; Frohoff & Peterson, 2003).

### Zero Three (aka Jock/Jacques)

Adelaide, Australia 1988 to 1993 Male bottlenose dolphin

Jock was managed informally for five years in a unique manner, which involved keeping his identity and location a secret. Formal scientific observations were made of the young, male bottlenose dolphin on a weekly basis, which documented playful human/dolphin interaction.

The dolphin was led out to the ocean to other dolphin pods, and as he began to form relationships with other dolphins the interaction with humans significantly reduced. Sadly, Jock was found dead only weeks after he had apparently successfully re-integrated into the dolphin population. Post-mortem results indicate that the cause of death was the accumulated poisons in his body. The river he lived in was found to have high levels of toxicity from heavy industry polluting it for years. <sup>19</sup>

### Maui (aka Woody)

South Island, New Zealand 1992 to 1997 Female bottlenose dolphin

Maui frequented different ranges around the South Island of New Zealand. During the period in which Maui was interacting with the public, she made several major changes in her activity patterns and range of movement. The first of these was around Motonau, followed by the Kaikoura peninsula, before she moved onto Goose Bay. She later returned to Kaikoura and ranged further north, finally she was sighted around Malborough Sounds where she spent her pregnancy and finally gave birth to her calf.

Maui would engage in fin tows, but if people became too enthusiastic she could easily dislodge an unwelcome fin tow and avoid grasping hands. She seemed to enjoy the fin-tow game and it may not have been a problem if not excessive, although toward the end of her solitary, sociable phase she actively repelled swimmers. Following some extended interactions she also attempted to prevent swimmers leaving the water (Müller et al, 1998b).

She is also suspected of having fatally injured a Hectors dolphin (Cephalorhynchus hectori) after she was observed flinging it out of the water and pushing it around (Müller et al, 1998b).

The character of her social behaviour changed during the six years of observation from being human-oriented to being more focused on other dolphin species (Dusky and Hectors) and finally socialising with other bottlenose dolphins. In March 1997 she gave birth and focused her social behaviour on her calf and also on humans again (Müller et al, 1998b). For Maui, six stages of behavioural categories or habituation were identified (Wilke et al, 2005).

### Crispy

Eilat, Israel 1992 Male bottlenose dolphin

Crispy interacted with humans for a few months. He used to visit a fish farm and accompany divers during cage maintenance. At times he would carry and hide equipment and his favourite game appeared to be changing locations to surprise swimmers. Only after a few months of observations at the fish farm did the dolphin permit contact by those familiar to him. If petting stopped Crispy would gently bite the person as if asking for more? During this time he developed a close relationship with one spear gun diver who claimed that Crispy would stun fish with echolocation so that the diver could shoot and collect them (Goffman, 2003). On at least one occasion, Crispy helped a diver in distress to the surface (Goffman, 2003).

### Jotsa

Former Yugoslavia 1991 Female bottlenose dolphin

Jotsa was a solitary bottlenose dolphin who appeared in 1991. She is said to have physically attacked human females who attempted to intervene in her interactions with human males (Wilke et al, 2005).

### Beggar (aka Dolphin 56)

Indian River Lagoon, Sarasota Bay, Florida, USA 1990 Male bottlenose dolphin

A male bottlenose dolphin was named Beggar after his behaviour following release from an experiment in 1979, following boats to literally beg for food and handouts. The original experiment had captured five bottlenose dolphins, weighed and measured them, taken blood samples and branded them. Beggar's behaviour developed following the experiment.

He typically spent time alone but would be observed interacting with other dolphins. Some of these associate dolphins exhibited begging behaviour too. Similarly, at the same time different individuals were observed to beg or remain close to fishing boats in the Charlotte Harbour area to the south of Sarasota.

Signs were erected and educational pamphlets handed out to boaters that were attempting to engage in interactions with Beggar. Some people claimed they did not know feeding wild dolphins was against the law and others said they did not care. A few people were ticketed but generally there was little enforcement of the law not to feed the dolphins (Cunningham-Smith et al, 2005).

### Françoise

French Atlantic at Arcachon 1989 to 2001 Female bottlenose dolphin

Françoise was a sub adult female bottlenose dolphin, resident at Arcahon from 1989, where she followed boats and sometimes approached swimmers. During 1989, she was frequently observed together with five other bottlenose dolphins - a group that was thought to include her mother. When apart from the group, Françoise's was often observed closely approaching swimmers and diving, swimming and bow-riding around boats and jet-skis. She would also rub her body against ropes and play with buoys and other floating objects (WDCS, 2005). Françoise did not arouse concern over human interaction (Wilke et al, 2005) and died in the summer of 2001 (Lockyer & Müller, 2003).

### Dolphy (aka Dolly)

Colioure, South of France 1989 to 1995 Female bottlenose dolphin

Dolphy ranged widely along the Mediterranean coast from Spain to France. Dolphy's rest area was beneath a boat, alongside a jetty where her surreptitious breathing allowed her to remain undetected by the public. It wasn't until late 1990 and 1991 that she allowed close interactions with divers and swimmers. Behaviour included regularly swimming with a dog in the open sea and in the harbour of Banyuls-Sur-Mer, for many hours at a time. In 1994, teeth marks from other bottlenose dolphins were observed on Dolphy's skin.

As beach encounters created issues however, the local Mayor supported a specially appointed guardian who was equipped with a mobile phone and instant Police back up. The appointed guardian (& friends of committee) took special measures to prevent people holding her dorsal fin for rides; because they were convinced her fin was suffering physical damage from such attention (Wilke et al, 2005).

In May 1995, Dolphy was observed together with two other bottlenose dolphins and they were seen travelling with her daily between the harbours of Valencia and Gandia. During this time, Dolphy still entered harbours to follow boats and approach swimmers, but the other two bottlenose dolphins remained outside of the harbour entrances until Dolphy rejoined them. Dolphy disappeared in 1995 (Lockyer & Müller, 2003). <sup>20</sup>

### Pita (aka Sugar)

Lighthouse Reef Atoll, Belize 1988 to 1994 Female bottlenose dolphin

For at least eight years, Pita lived off the coast of Belize and frequented the waters surrounding Northern Two Cay, Lighthouse Reef Atoll. In the last four/five years of her residence she actively sought human contact. Pita exhibited both aggressive and sexual behaviour towards humans and was advertised as a tourist attraction by some in the area. Several people were injured when Pita blocked them or hit them with her rostrum as they attempted to leave the water (Dudzinski, et al. 1995). As a juvenile she was fed by humans but as an adult reportedly refused such handouts. Pita eventually left the area, it was assumed with other dolphins (Samuels, et al, 2000).

### **Billy**

Adelaide, Australia 1988 Male bottlenose dolphin

The horse-training dolphin - a 2m dolphin was living in Adelaide's Port River, it had arrived with its mother and become fascinated by a horse trainer who used to exercise his horses each day behind a dinghy. As the fascination grew, Billy's mother left and he remained. Before long Billy was accompanying the horses on their swim, sometimes brushing alongside them (Doak, 1989).

### Herbie

Bahamas 1988 (Doak, 1989) – no further information available on this animal

### **Un-named**

Spain 1988

(Doak, 1989) – no further information available on this animal

### Joca

Montenegro 1988 Female bottlenose dolphin

Joca in Montenegro physically assaulted women swimmers who intervened when she was interacting with special male human friends. In one case a mask was smashed and nose broken. <sup>21</sup>

### Fanny & Marine

Marseille, France 1987 to 1994 Female bottlenose dolphin

In mid July, 1987 a dolphin began to linger around a beacon moored in 15m of water near the little Mediterranean port of Carro. Water Police first reported her bow riding any vessel within half a mile of the beacon. She showed some interest in boats but it wasn't long before she was interacting with swimmers, though she remained a few metres away at first.

In September 1988, Fanny was joined by another female bottlenose dolphin, Marine and the two became inseparable. Marine was pregnant and it seemed she had been looking for another female to assist her with pregnancy and birth. Fanny protected Marine from swimmers, divers and boats and prevented anyone approaching her. Following a heavy storm during the winter of 1988-1989, the two dolphins disappeared for several weeks. They were not observed again until March 1989 and had clearly suffered serious harassment. Fanny was wounded and Marine had aborted her calf. Their behaviour had also changed, with both dolphins appearing anxious and keeping their distance from boats and swimmers. In May 1989, Marine left Fanny and disappeared from the Marseille area. In September 1990, Fanny appeared again in the polluted harbour and channel of Port-Saint-Louis du Rhône and remained there until her disappearance in May 1994. Here she swam daily with a twelve-year-old girl, eventually accepted body contact and would allow the girl to ride on her dorsal fin (WDCS, 2005; Lockyer & Müller, 2003).

Fanny was subsequently appointed a special guardian and friends of committee, to ensure monitoring of her behaviour and to enact protection by local people. She moved her home base several times in the port environs of Marseille (Wilke et al, 2005), but is not seen today. <sup>22</sup>

### Romeo

Bay of Naples, Italy 1985 Male bottlenose dolphin

In 1985, Romeo began playing with people on several beaches 50km north of Naples. Around the same time, two other dolphins, possibly his companions died, one from swallowing a plastic bag, the other shot. He had a range of 15km and would often travel between beaches in an erratic fashion, jumping from one location to another. He had no special relationships but would rub alongside vessels and flick water at fishermen. He is known to have exhibited sexual arousal and behaviour with swimmers of both sexes. <sup>23</sup>

### The Costa Rican

Chira Island, Costa Rico Until 1983 Male bottlenose dolphin

After his companion was shot, a 3m bottlenose dolphin began interacting with humans at Chira Island, Costa Rica. The local people in the village report that he arrived after following a small fishing boat back to the village. Initially he would play with a local dog, but later would play with a variety of objects and often pushed around a small canoe.

The dolphin could be called close to shore by thumping on the side of a wooden dugout canoe with a paddle. As soon as people swam out from the beach he would appear. Eventually the dolphin permitted physical contact and would provide local people and visiting researchers with fin tows. The Costa Rican would however bore and tire quickly of the same games/experiences and would need to be entertained to hold his attention. In 1983 a local fisherman found the dolphin entangled in his net, calmly waiting to be released. Instead of releasing him, the fisherman killed him, and took his carcass back to the horrified villagers (Doak, 1989). <sup>24</sup>

### Indah

Kent Islands, Australia 1982 to 1983 Male bottlenose dolphin

Indah began swimming with people around the islands called the Kent group, located between Australia and Tasmania. When people entered the water with the dolphin it would initially remain just out of reach.

Indah would interact playfully with people, demonstrating the seaweed game, famous amongst dolphin populations. The last report of Indah was in March 1983 (Doak, 1989).

### Jojo

Providenciales, Turks & Caicos 1980 to date Male bottlenose dolphin

Jojo ranges widely and often mixes with dolphins in social groups around the Turks & Caicos Islands, but most often frequents the area around Providenciales.

With increasing contact and interactions with Jojo initial problems were his aggressive sexual behaviours towards female tourists at the local Club Mediterranean. Human females unintentionally provoked dolphin sexuality by stroking (Wilke et al, 2005).

Through his aggressive behaviour, disturbance and harassment by local people he was formally appointed a special guardian, whose task it is to interact with Jojo on a daily basis, keeping him entertained and providing him with social stimuli, whilst mitigating the negative interactions. This continues to date, with Jojo's needs and attention cared for by Dean Bernal.

Although preferring Dean, Jojo will interact with other people and has also been observed swimming with a dog. Interactions between Jojo and Dean include Jojo presenting him with objects from the sea bed including sunglasses, money, seashells and even a manta ray.

His interest in powerboats has led to him receiving serious injuries and in June 1990 he became trapped for two days in a turtle seine net. The Jojo Dolphin Project has been set up for his protection. <sup>25, 26</sup>

### **Dobbie**

Eilat, Israel 1979 Male bottlenose dolphin

Dobbie interacted with humans around Eilat in 1979. He would playfully bite at scuba exhaust bubbles and imitate diver's movements, but always stayed out of reach. Sadly, some months later he was found dead, killed by gunshots (Lockyer, 1990; Doak, 1989. <sup>27</sup>

### Horace

Hawkes Bay, New Zealand 1978 to 1979 Male bottlenose dolphin

Horace set up residence around a marker buoy off Westshore beach. With fantastic aerial displays he soon attracted the attention of local people. As he remained in the area a group of locals began to track and record his movements. Horace appeared suspicious of contact and so any contact was left up to the dolphin. One particular diver spent large proportions of time with Horace and was particularly active with him the dolphin quickly got used to this activity and wanted to be active all of the time; he also quickly became bored. As the summer advanced Horace was then recorded actively trying to prevent a young boy from leaving the water when playtime was over (Lockyer, 1990).

Horace would escort yachts and fishing boats leaving Napier, however this also became a game, with which he appeared to enjoy being mischievous, altering the rudder on many boats to either immobilise them or alter their course (Lockyer & Morris, 1986). He occasionally stole divers' flippers and accepted live fish tossed to him from fishing boats.

Interestingly, he is the only solitary dolphin that has exhibited mimicry, copying the act, albeit unintentionally of the humans with whom he interacted i.e. pushing a centre board down suddenly, Horace will push up suddenly, push down slowly and Horace does the same, flick water on him and the same is issued in response, the list continues.

His fate to date is unknown. An oil spill occurred in the vicinity, which may have been inhaled, however, an underwater blast also occurred shortly after Horace's last known visit in 1979 (Doak, 1989).

### Jean-Louis

Brittany, France 1976 to 1988 Female bottlenose dolphin

The interactions with Jean-Louis began when a local fisherman went out to check his lobster pots. He thought he saw a shark fin on his way out; 'Jean-Louis' locally meaning blue shark. When he went to lift the pots he felt resistance – a dolphin merely holding on to the other end of the line, and so the interactions began.

She remained present in the same area where she became habituated to people and was still solitary after more than seven years. Despite the attention she received from human visitors, she would still not permit direct tactile contact in 1985.

She was usually wary of body contact and managed to survive intensive public attention (divers, swimmers, kayakers) for ten years. She achieved this by having an adjacent refuge area: a rocky reef where she could elude persistent swimmers in turbulent white water, returning later to the rocky cover where she interacted with people (Lockyer, 1990; Lockyer & Morris, 1986). In December 1988, she suddenly disappeared and was never seen again. <sup>28</sup>

### **Dolly**

Key West, Florida Keys, Florida, USA 1975 Female bottlenose dolphin

Dolly was an ex-US Navy trainee from Key West, Florida, who was released into the wild. In this respect she was not a truly wild animal, but persisted in seeking human company after her liberation, the result of habituation rather than spontaneous sociability. Dolly's home range became the channels of the Florida Keys where she befriended a number of families living close to the water, in particular the Ashbury family and their children, whom she would permit to pet and play with her (Lockyer, 1990).

### Nina

La Corogna, Spain 1972 Female bottlenose dolphin

Nina first began interactions by following fishing boats. The first person she approached however was a clam diver, with whom see sought body contact within only a few weeks. She would engage playfully with all boats and people of the beach. She permitted swimmers to pet her, hold her tail and even ride on her back. Nina would never accept fish from people. Instead, each day she would disappear for an hour, presumably to feed or rest. She had a brief encounter with members of a passing dolphin school, but elected not to join them during her five month stay in a bay (Lockyer, 1990). As concerns for her safety grew, with her increasing celebrity status and public knowledge of her, a special law was passed. Outboards were forbidden in her vicinity, fishing nets were banned from Lorbe Cove and believing her tail to be vulnerable all were banned from holding onto it.

During the winter, some fishermen reported seeing Nina out near the clam beds. She seemed to be in distress. Five weeks later, her body washed ashore along the coast (Wilke et al, 2005; Doak, 1989). <sup>29</sup>

### **Georgy Girl**

Florida, USA 1970 Female bottlenose dolphin

Georgy Girl befriended a family in Florida, though she would not permit body contact for nearly two months after the initial human contact. Eventually, she would carry swimmers on her back by surfacing between their legs (Lockyer, 1990).

### Nudgy

Powell Lake, Florida, USA 1965 Male bottlenose dolphin

During a hurricane, two dolphins entered Powell Lake to presumably take refuge from the sea. A few days later one of the dolphins was found dead, the survivor then had to spend the winter in the lake as it becomes landlocked until spring, when it opens to the sea again. After this, the dolphin however, chose to remain in the lake.

The affiliative behaviour that subsequently developed with humans was thought to be linked with the loss of the dolphin seen with Nudgy during the storm and which may have been a companion. Nudgy displayed many behavioural similarities with Donald and Percy in his fascination for boats and engines (Lockyer, 1990). Not everyone was fond of the dolphin however, as some saw the interaction as an interruption and the appearance of a shark-like fin as bad for business.

Attempts were made to entice him out to sea and although they succeeded he would always follow them back. Attempts were also made to kill the dolphin, as spear marks were found in its flanks. Then when the local aquarium decided to capture the dolphin, suddenly people began being protective of what they saw, as 'their' dolphin.

As Nudgy's fascination with boats and local fishermen continued to cause conflict, the first people who had befriended Nudgy decided to enclose him using a wire fence. He would be let out to feed at night and by day he would come back of his own accord. Then one evening the report came in – they lost Nudgy last night – whether something happened, or his just swam out to sea is not known (Doak, 1989).

### Wallis (aka Wally)

Australia 1961 to 1962 Bottlenose dolphin – sex, unknown

Wallis was a bottlenose dolphin, of unknown sex. The dolphin was first observed inside a disused swimming enclosure measuring 150 by 50m, extending from the estuary into 10m of water along its outer fence. The observer tossed the dolphin a few fish from his boat which were accepted, before the observer left to go to work. At the end of the day, the dolphin was still there, and so Lou, the observer threw it more fish. The next day the dolphin was still there and fishermen friends of Lou also came along to investigate the dolphin. Each day the dolphin, accepting fish would approach a little close, until on the tenth day it was being hand fed. Word spread and people soon came to see the dolphin and to watch Lou feed it. Being enterprising he put up a sign saying he would feed the dolphin three times a day. Wallis was boisterous and playful with children who were now feeding him, but was reported as being gentle.

In early 1962, Lou applied to authorities to close off an area of the enclosure to keep the dolphin permanently. A battle broke out when television crews publicised the dolphin and local aquarium owner claimed that Wallis was in fact Jo-Jo, a dolphin which had been swept from his enclosure during a cyclone. The application to permanently house Wallis was denied and the debate continued over his identity, but without being able to sex the dolphin this was impossible.

Fate intervened when a side of the swimming baths collapsed and Wallis moved further up the lake. Whilst Lou made several attempt to entice Wallis back, none proved successful. As attempts to entice Wallis back began to spark controversy, Wallis was reported with a calf, drawing into question the dolphins' sex. The dolphin then disappeared (Doak, 1989).

## Carolina Snowball (aka Peaches)

South Carolina, USA 1955 to 1965 Female bottlenose dolphin (albino)

A rare albino dolphin frequented the US Atlantic coast between South Carolina and Georgia. She had been familiar to many of the areas residents and fishermen and regularly played with people from the shore. A local shrimper recalled that she did not accept food offerings or approach vessels. Being such a rare specimen, this dolphin was a much sought after animal by the captivity industry that mercilessly chased and eventually captured her in the Edisto River and took her to the Miami Sea Aquarium. Here she was held in a tiny tank where she survived for only three years, dying in captivity (Lockyer & Morris, 1986; Lockyer, 1990).

## Opo (aka Goldie/Dorrie)

Hokianaa Harbour, New Zealand 1954 to 1955 Female bottlenose dolphin

Numerous beach encounters were possible with Opo. She would allow children to mount her and ride astride her back, but was initially an inquisitive stray, patrolling Hokianga Harbour and later chasing boats in 1955. An excursion further up to the beach was greeted enthusiastically by local children and holiday makers attempting to make physical contact. From that time on, the dolphin quickly became a highly sociable animal (Wilke et al, 2005; Lockyer, 1990; Doak, 1989; Lockyer & Morris, 1986).

Opo appeared to be able to discriminate particular people who were her favourite companions and she sought them out if they were swimming among other persons. She came into extremely shallow water to be with people, so that even small children could wade out to her (Lockyer, 1990). Early in January 1955 however, Opo was hit with a propeller and received two large scars; despite this her friendliness was undaunted. Fears for her safety lead to calls for special protection, however, Opo finally disappeared under mysterious circumstances and whilst there were many rumours surrounding her death, none can be substantiated (Lockyer, 1990). 30

#### Fish & Hoek

South Africa 1953 Female inshore bottlenose dolphin

A pair of *Tursiops aduncus*, female inshore bottlenose dolphins began playing the swimmers. It was reported that they would provide people with tows and rides on their backs. The dolphins appeared to have a favourite amongst the swimmers, a young girl whom they would single out. They were however, wary of objects and would be quick to detect the objects and move away (Doak, 1989).

## Scar

Doubtful Sound, New Zealand Date unknown Male bottlenose dolphin

The name Scar was given to a solitary dolphin that appeared in the Sound and was badly scarred. The behaviour of this individual included carrying a swimmer out to sea over his beak and keen interest in propellers. The dolphin would place his beak a few centimetres from spinning propeller, which it preferred to bowriding. He was reportedly fed by fishermen during his time in the Sound, but was unfortunately euthanised after he was very badly injured after being reversed over by a fishing boat.

## Other solitary cetaceans

Beluga whales (Delphinapterus leucas)

#### **Un-named**

Musquaro, Quebec 2004 to 2005 Beluga whale, juvenile – sex, unknown



#### Chance

Trinity Bay, Newfoundland, Canada 2004 to 2005 Beluga whale – sex, unknown

Chance was first observed in February in Trinity Bay, where he/she visited wharfs in the areas. Like many others, having initially been described as shy Chance was later seen observing divers engaged in maintenance work and interacting with divers over five days. Research by the Whale Stewardship Project (WSP) indicated that Chance may have been seen by fishermen during the summer of 2004 also (WDCS, 2005).

### Poco (aka Helis)

Gloucester, Massachusetts, USA 2004 Beluga whale – sex, unknown

The first sighting was on 5th March 2004, when a young beluga whale was seen in coastal waters off Gloucester, Massachusetts. The whale was photographed interacting with moorings as they were being raised and lowered. The beluga was later identified as Poco a male of approximately 2-3 years in age, first seen off Pocologan, Canada in September of 2003. Frequent sightings of Poco continued through the summer and autumn. During this time the whale actively sought interactions with vessels, divers, and swimmers. The whale's attraction to small outboard motors was of particular concern and there were several times where Poco sustained minor injuries, presumably from these encounters. Unlike many of the solitary social beluga cases studied to date, the whale often spent only a day or two in one region before moving to the next. Poco ranged from Southwest Harbour, Maine to Provincetown, Massachusetts. Sadly, Poco was found stranded dead in a marsh in South Portland, ME on 15th November 2004 (Hartley et al, 2005).

Government officials and stranding network members spent nearly nine months monitoring this animal and educating the public. On days of high visibility, which was much of the summer, stranding network participants were spending the better part of their day working on this case. Although they did not instigate a 24-hour onsite monitoring program, they did spend a great deal of time on the water looking for the whale, observing its behaviour, working with local officials and distributing education materials to boaters.

#### Ce'Sea

Newfoundland, Canada 2003 Female beluga whale

Ce'Sea was a young beluga whale, of approximately 2m in length, nicknamed by a Newfoundland resident who documented her behaviour. She first appeared at the end of July, 2003, after being observed by boaters in a remote region of Newfoundland. Ce'Sea's behaviour in mid August differed from that of other recorded solitary belugas in that she did not interact with boats or humans. Whilst she occasionally made exceptionally close approaches these never involved direct physical contact and she tended to keep her distance from vessels that had their motor's running. Local researchers recommended that people refrain from engaging in interactions in order to avoid habituation of a naturally cautious whale to human interference. <sup>31</sup>

#### **Un-named**

Mingan Is, Quebec, Canada 2003 Beluga whale, juvenile – sex, unknown

#### **Charlie-Bubbles**

Newfoundland, Canada 2001 to 2002 Female beluga whale

The juvenile female Charlie-Bubbles a Newfoundland, solitary beluga was killed in May, 2002 by a propeller (Rossiter, 2002).

### Echo (aka Casper)

Codroy Harbour, Newfoundland, Canada 2001 to 2002 Male beluga whale

Echo was originally discovered in the company of two other juvenile beluga whales, known as Shadow and Phantom along the Quebec coast near the Strait of Belle Isle. Sadly Echo's two companions died 14km up the St Paul's River where they had travelled together. Echo was subsequently rescued from the river and released into the Gulf of St Lawrence.

Eight months later, Echo was identified in Codroy Harbour, off Newfoundland as a sociable, solitary beluga – he quickly became a tourist attraction and became the focus of local research, public education programmes and protection. He interacted with people in boats, or in the water with him. On 31st July, 2002, Echo was hit by the propeller of a large vessel. The WSP implemented a special emergency response programme for Echo, in consultation with marine mammal veterinarians and other experts. Two weeks after his injury, Echo disappeared, but was soon re-sighted 150km north. In October, 2002, the WSP was fortunate enough to document the healing process of Echo's original injuries.

The last sighting of Echo was in October 2002. 32

#### Lenni

Green Bay, Newfoundland, Canada 2000 to 2002 Female beluga whale

In June 2000, Lenni, a 2 year old solitary beluga whale arrived in Green Bay, Newfoundland. She had become entangled in fishing net but was fortunately released by a local fishermen – this left her scarred, but she added to those markings by continually interacting with other fishing gear, chains, ropes from mooring lines.

Whilst she was initially wary of both humans and boats, she soon began interacting and demonstrating a marked increase in sociability. Every spring she would visit different regions of Newfoundland, inhabiting harbours until autumn/winter sea ice forced her to leave. The last sighting of Lenni was on the 31st October 2002, she has not been seen since. 33

#### Kuus

Green Bay, Newfoundland, Canada 1999 Male beluga whale

Kuus (pronounced Coo-us) was about 2 years old when he was first seen in Green Bay, Newfoundland in the spring of 1999. Throughout the summer he interacted with residents and tourists in the three communities of Nippers Harbour, Middle Arm and King's Point- Rattling Brook. Unfortunately, as is often the case with solitary individuals, Kuus' close contact with humans resulted in two small notches cut out of the ridge on his back by a boat propeller. As soon as WSP heard of Kuus they responded immediately by implementing their programmes for Kuus in Newfoundland.

Kuus was last seen in the area at the end of September 1999 and has not been seen since. 34

## **Un-named**

Chevery, Quebec, Canada 1998 Female beluga whale

A 2 year old whale, for which there are no current sightings.

**Wilma (aka Foster, Willy, Elvis)** Chedabucto Bay, Nova Scotia, Canada 1993 to 1999)

Female beluga

In 1993, a 2 year old whale, called Wilma appeared in Chedabucto Bay. DNA sampling indicated that she was originated from the endangered St Lawrence River belugas. As with other beluga whales, whilst initially cautious of humans and boats she became increasingly habituated to humans, boats and other objects and soon became an international celebrity.

As Wilma became susceptible to injury from human pressures, the WSP implemented a comprehensive research, protection and education program in 1998 with approval from the Department of Fisheries and Oceans, Canada. In the spring of 1999 she disappeared and has not been seen since. <sup>35</sup>

### **BW**

Long Island, New York, USA 1985 Female beluga whale

In February 1985 a young beluga appeared in the waters of Long Island Sound near New York City, far from its usual home of arctic waters. It was quickly nicknamed BW and would swim around boats and visited popular beaches, eventually even pushing around inflatables with humans inside. Contact was permitted when hands were trailed over the side of inflatables as the whale swam beneath them. After such contact she would remain still allowing hands to continue caressing her body.

Sadly, in May of that year a juvenile female beluga was found dead, presumably BW, with three bullet wounds in her body. There was a huge protest from local residents and worldwide media coverage of a major reward to find those that killed the beloved BW (Doak, 1989). <sup>36</sup>

#### Bella

Long Island, New York, USA 1980 Female beluga whale

In 1980, another friendly beluga visited Long Island, much to the delight of the locals. Bella as this beluga was nicknamed disappeared after attempts to capture her by aquarium owners. <sup>37</sup>

### Common dolphins (Delphinus delphis)

#### Rampal

Whitianga, New Zealand 1984 Male common dolphin



Rampal first arrived in the Whitianga River when Whitianga, her two calves and Nicky (see next page) were all still present. Local people, who had become protective of Whitianga and her family, soon included Rampal in this grouping and a warning notice was erected on the wharf.

Rampal demonstrated the same fascination with boat propellers as other solitary dolphins have done, but appeared particularly interested in exchanging underwater sounds. The first contact was made when a 15 year old girl was floating on her back with her arms outstretched and she felt something touch her hand.

All of the dolphins remained in the estuary by day, but left by night. Unsurprisingly the dolphins were also found to have separate resting areas, upstream from the main feeding zone (Doak, 1989).

### Whitianga, Nicky + two calves

Whitianga, New Zealand 1980 to 1985 Female common dolphin

A female common dolphin entered the tidal river at Whitianga and in the upper reaches of the mangroves gave birth. There the dolphin raised her calf, called Nicky feeding on the tidal influx of fish prey and by using mooring buoys for safety was able to avoid harassment and disturbance when the river became busy during the summer months.

Over the next five years, four calves were born and two survived. Nicky grew to maturity but on having a calf herself that later died she subsequently left the estuary (Spring, 1985).

Just before Nicky left, Rampal (see above) arrived (Doak, 1989).

#### Elsa

Ngunguru River, New Zealand 1978 Female common dolphin

Just before Christmas Elsa was found swimming in an estuary on the Ngunguru River. On immediately responding to calls from children on the river bank the dolphin became stranded and assistance was required to refloat her. On the incoming tide the following day she had returned, however this time she was found further up the river bank with a deep wound in her left flank. She was once again rescued and released out to sea, in the hope that the wound would heal and she would survive. This is however, perhaps unlikely and Elsa was not seen again (Doak, 1989).

## **Dusky Dolphins (Lagenorhynchus obscurus)**

## **Tammy**

Auckland, New Zealand 1984 Male dusky dolphin



In 1984 a young male dusky dolphin appeared in the Tamaki Estuary in the heart of Auckland, much farther north than Dusky's usually inhabit. He quickly endeared himself to the hearts of the locals who watched out for its safety. Tammy would stay mostly around a certain moored boat, and astounded onlookers by his marvellous leaps. Each and every diver who entered the water was inspected, and a special greeting ceremony appeared to take place each time, before the dolphin would permit the divers to enter his particular 4m radius of the boat in question. When people did not honour the greeting ritual, Tammy would disappear into the estuary and re-appear over the other side by another boat.

Dusky's are renowned for their leaping acrobats, in one sequence it was recorded Tammy made forty-eight tail stand leaps consecutively. Typical leaps would include five sideways leaps, followed by two spinning leaps, then a double somersault. Tammy quickly became a local favourite and would play with floating logs, seaweed, and boxes. It is thought that later Tammy simply returned to the open sea, and probably cooler waters. Thankfully he was able to live in a heavily built up area for several months without being harmed in any way. In fact, locals made sure boat races were cancelled in order to protect him, after authorities failed to intervene. The locals explained the situation to the powerboat owners who were happy to comply, not wishing to harm the dolphin (Lockyer, 1990; Doak, 1989). <sup>38</sup>

# Killer whales (Orcinus orca)

#### Springer

Seattle, USA & Vancouver Island, Canada 2002 to date Female orca



Springer (A-73) showed up near Seattle in mid-January 2002, most often seen in the ferry lane between Seattle and Vashon Island. At 2 years old, she had travelled alone and unnoticed at least 250 miles down the Straight of Georgia to Puget Sound. Over many months of very close observation by a dedicated and often volunteer crew, Springer at times was not doing well. In early March, 2002, experts explored briefly the possibility of her recuperating at Vancouver Aquarium, Sea World in San Diego, Six Flags in Vallejo, California, or the Oregon Coast Aquarium. Each option had a suite of problems. Each reignited captivity controversy, where cetaceans, unfit to be released have ended their lives on display.

On the 13th June, Springer was finally captured and placed in a 12 by 12 metre pen at a National Marine Fisheries Service (NMFS) research station in Clam Bay across Puget Sound from Seattle, Washington. Fed Atlantic salmon contributed by a fish farm, and treated for her ailments, she was declared in good health by NMFS by the beginning of July. Springer had been accepted as being suitable for release by Canadian authorities, and was to be transported in mid-July on a donated catamaran to an enclosed bay near Telegraph Cove, British Columbia. She was cared for until members of her closest family pod, identified through echolocational dialects arrived in the area, at which time she was successfully reunited with her family (Rossiter, 2002).

In 2007, five years since her release Springer was sighted and reported to be doing remarkably well. Still in the company of her family members the orca is thriving and demonstrates the only whale so far to be successfully re-integrated into a wild pod after human intervention.

### Luna

Nootka Sound, Vancouver, British Columbia 2001 to 2006 Male orca

L-98, Luna was born in 1999, as part of Puget Sound's Southern Resident population, but just two years later he appeared alone in a bay off Vancouver Island's Nootka Sound. To prevent a surge of curious people Luna was quietly and secretly monitored by experts who, in January, 2001 released information that he was doing well. After considerable monitoring he seemed to be capable of surviving alone, if protected from the curious, and the official position of Fisheries and Oceans Canada marine mammal scientists at the time was to leave him alone.

Luna however, was fascinated by propellers and suffered injures through encounters with boats. Concern over his fate grew, as his encounters with vessels and agitated boaters was a constant problem, especially during the summer months (Rossiter, 2002). Sadly, the young animal was not so fortunate when in the early part of 2006 when he was killed by a tugboat.

There had been a tremendous effort by local people and researchers to offer Luna the protection he so desperately needed. They took a patrolling and intervention role, facing the difficult dilemma of having to interact with Luna in order to prevent other negative interactions from occurring.

#### Elsa

Provincetown, Cape Cod, Massachusetts, USA 1982 Female orca

### **Solitary Cetacean Report**

In September 1982 the young 4.5 metre orca, Elsa entered Provincetown Harbour, Massachusetts, behind a large fishing boat that came in for repairs.

She received heavy media, tourist and official attention, ate things like hot dogs from people's hands, played with people in boats (especially with one woman in a kayak), and displayed a spectrum of behaviour that had people worried about her for many reasons.

Soon after Elsa's arrival the New England Aquarium made plans to capture her, fishermen fed her and rumours circulated about an escapee from a secret Navy operation, plausibly denied. During these events experts declared that no one could physically restrain her unless she officially stranded. After about a month she left, reportedly with the same fishing boat. Despite excellent photo-identification she has never been seen again, which is not unexpected as researchers rarely get to the offshore shelf area where orcas are assumed to forage (Rossiter, 2002; Doak, 1989).

# Narwhal (Monodon monoceros)

## Nar Billy

Conception Bay, Newfoundland 2003 Male narwhal

A sub-adult who is not seen today.



# Risso's Dolphin (Grampus griseus)

#### **Pelorus Jack**

Cook Strait, New Zealand Early 20<sup>th</sup> Century, 1888 to 1912 Male Risso's dolphin



A well-known companion to ships, which plied the Cook Strait off New Zealand, from 1888, Pelorus Jack was a feature of the area for about 24 years and regularly followed ships, although the animal never became more sociable than this.

In 1904, public attention and concern for the dolphins' safety in accompanying boats meant that sufficient pressure was applied to government to enable a special law to be passed (Wilke et al, 2005; Lockyer, 1990). <sup>39</sup>

#### Indo-Pacific Bottlenose dolphins (Tursiops aduncus)

#### Olin (aka Uleen/Holly)

Sinai, Israel May, 1994 to 2004 Female spotted dolphin



Olin, a female spotted dolphin who lived along the Red Sea in the eastern Sinai of Egypt was first sighted in 1994 in the company of another male dolphin who was found washed up on the beach dead. She soon befriended the fishermen of a local Bedouin tribe, and would escort Bedouin dinghies on their way back to the village. She subsequently took up daytime residence very close to the shore, opposite the Bedouin fishing village of Nuweiba 'el Muzeina, on the western shore of the Gulf of Eilat. As word got around, visitors from around the world came to visit her. In the first few weeks she would get to within centimetres of contact, before allowing full contact soon after. This provided the historically poor Bedouins with an opportunity to develop businesses around tourism. Olin was considered a gift from Allah by the locals.

### **Solitary Cetacean Report**

Olin liked to play games and would pick up a sea cucumber or a shell and throw it like a ball, then dive to catch it before it hits the sand. She teased small flat fish, like a cat with a mouse, before swallowing them. In July 2001 people took advantage of Olin, harassing, disturbing her rest, opening her jaws, turning and spinning her etc. At first she was passive to these actions but then she began to assert her authority, treating the swimmers as human pod members. In most cases she bit fingers slightly, slapped with her tail or butted with her head. A display of dominance in the cetacean world is to swim above and slightly behind an individual with a pectoral fin placed on the back. On occasions she would do this with human swimmers.

During 7 years Olin had 4 calves (2 male, 1 female, 1 unknown). She lost both of the male calves, which had been raised amongst humans. With her third, female calf, born on 1st October 2000 she changed her behaviour, limiting interactions and extending her home range (Goffman, 2003). Olin's fourth known calf born in 2004 unfortunately died at 7 weeks. Sadly, Olin herself was found dead on a beach north of Nuweiba on the 9th December 2004, it was not clear what caused her death (Upton, 2000). Her female calf, Mapsutta, was reported as still being alive and living in the Gulf of Agaba in 2005 (WDCS, 2005).

# Spotted dolphins (Stenella attenuata)

## Sandy

San Salvador Island, Bahamas 1976 to 1978 Male spotted dolphin, juvenile

Sandy was a friendly, male, juvenile spotted dolphin who interacted with scuba divers at San Salvador Island, which is part of the Bahamas chain of islands, from 1976. Gradually Sandy became bolder and eventually in 1977 allowed contact. During his very friendly stage of about 10 months he became quite famous and a total of 2500 divers met him at some point during his residency. He would nudge people for attention and open his mouth and hold people by the snorkel or facemask until they renewed their attentions. He was said to be quite mischievous and to have invented many games. He would remove people's face masks when they weren't looking at him, pull people's hair or tap their head with his rostrum. A particular favourite of his was Chris Adair who could free dive to 35m. One day Chris was free diving with Sandy and Sandy pointed with his beak to the reef below. He had found Chris's cross he had been wearing till it broke off its chain. Sandy had prominent scars, and shortly before he disappeared was hit with a propeller. He was last seen healed in 1978, while a research boat was in the area. It was not known if he had simply rejoined other dolphins or been taken by a collector (Lockyer, 1990; Lockyer & Morris, 1986). 40

#### Tucuxi (Sotalia fluviatilas)

## Viola

Sao Vicente County, Brazil 1997 Male(?) Tucuxi, juvenile

In November 1997, a lone sociable dolphin was living in the local estuarine waters of Sao Vicente County of Brazil. This dolphin was a juvenile marine tucuxi, who easily approached anyone who got into the water with it. Local people believed that the dolphin's mother was killed by a fisherman. Viola would approach fishing boats and would accept food offered by hand (WDCS, 2005). There were many concerns that this dolphin's safety was being put at risk from overzealous swimmers and controls were put into place to ensure it is not harmed. 41

## **Unknown Species**

## Simo & partner

Hippo, Tunisia 109AD Sex, unknown

Pliny the younger wrote of a dolphin that befriended a boy swimming offshore, bringing him back to the beach. The following day the dolphin returned accompanied by another, but the boy and his friends fled from the sea. For several days the dolphins played in the bay, until eventually the boy and his friends returned to the water. A deep friendship developed between boy and dolphin, however the dolphin's reputed fame altered city life and the dolphin was secretly put to death (Doak, 1989).

#### Other cases of habituation

## **Alaskan Gray Whales**

In Alaska, a friendly pod of gray whales routinely approach whale-watching boats to be stroked by tourists. 42

### Monkey Mia, Australia

At Monkey Mia in western Australia, a very special situation exists where several dolphins visit the beach and accepted fish gifts from the public. The beginnings of this unique interaction with humans may be attributed to Ninny Watts who began to hand feed a bottlenose dolphin she named 'Charlie' from a boat anchored off Monkey Mia jetty one evening in 1964 (Orams, 1994). The accessibility of the situation has produced an immense public response with up to 800 visitors in a weekend. As such two full-time rangers have been appointed who supervise and restricted the feeding interactions. No swimming with the dolphins is permitted and no play objects are permitted either. Dogs have been banned. At a special centre on the beach, educational videos, pamphlets and advice have been made available. These protective measures have restricted major growth of tourist facilities and global publicity (Smolker, 2003).

### Moreton Bay Dolphins, Australia

A second case of a group of wild bottlenose dolphins becoming habituated to human contact has occurred on the western shores of Moreton Island, a large sand barrier island forming the eastern boundary of Moreton Bay offshore from the city of Brisbane. The dolphins of Moreton Bay are long-term residents which have a definite preference to remain inside the bay. On responding to noises such as clapping and whistling from resort guests on the wharf, a research experiment was initiated to establish a feeding programme at Moreton Bay. Despite several months of trials the experiment was initially unsuccessful. In 1992 however, an adult named Beauty and her calf Tinkerbell began to take offerings from staff - live fish which had had their tails broken so that they could not swim. Beauty's state as a lactating female may have influenced her decision to take these offerings. A further five bottlenose dolphins have since joined in, in the feeding. Researchers have identified a certain pushy and at times forceful response in the dolphins (Orams et al, 1996) which is monitored to ensure that it does not escalate into negative or aggressive interactions for either the dolphins or humans involved. The feeding programme is now being managed with no swimming or fishing permitted in the feeding area. Professional staff have also been appointed to manage interactions and an education programme initiated.

#### Shark Bay, Australia

On the east side of Peron Peninsula, which bisects Shark Bay in Western Australia a small number of bottlenose dolphins from a local population are habituated to accepting fish handouts and occasional physical contact from people. According to local people the dolphins have been in the same area for at least 20 years. The dolphins interacted with people wading in the water, accepting dead fish and varying amounts of physical contact. Dolphins occasionally would venture into the water so shallow that they could be seen using their pectoral fins as braces against the bottom while lifting their heads out of water. Behaviour towards people ranged from biting to active rubbing, mouthing and stroking with their pectoral fins (Connor & Smolker, 1985).

# Tin Can Bay, Australia

In 1974 fishermen began feeding an Indo-Pacific humpback dolphin, (Sousa chinensis), from small craft on the waters of Tin Can Inlet and the Great Sandy Strait. As with the situation at Monkey Mia and Moreton Bay this escalated into hand feeding of several of the dolphins in the area. Today, fish may be purchased from a kiosk adjacent to the area, where wardens are present to oversee feeding. There are no formal controls however, on either site management or provisioning as there are at other locations. Being situated only 200km from Brisbane, concerns have been raised about the ease with which the visitors to the area could increase. Indeed some of the businesses which are choosing to capitalise on this venture conduct coach tours and helicopter flights.

As news of the hand feeding has spread, children have been observed being taken for fin-tows and adults, rather unsuccessfully attempting to climb onto the back of the dolphins. This is the kind of activity which places both humans and dolphins at risk of injury and has caused many conservation organisations to raise concerns over the situation. 43

### Maravilla dolphins, Bahamas, 1972

Bob Marx and Teddy Tucker began searching for the 'Maravilla' in 1972 and discovered the treasure laden wreck by accident. In the months which ensued, the full diver team, carrying out 10 hrs a day, accompanied by armed guard, were watched by the local population of some 200 spotted dolphins (*Stenella frontalis*). Whenever the dolphins came over the wreck site it became playtime, the only respite for the hard-working divers. It was noted however, that the dolphins habituated very quickly to games. These dolphins later became the focus of scientific, behavioural research, with individuals being photo-identified and family structure and relationships being established. Mimicry within the group was also exhibited, with individual dolphins copying the behaviours displayed by the divers, e.g. a vertical descent, tail first.

## Spinners, Brazil, 1985

Fernando de Noronha, a tropical archipelago, lies 320km east of Brazil and is called by Brazilians 'The Emerald of the Atlantic'. It is here that a population of spinner dolphins (*Stenella longirostris*) regularly engaged with swimmers and divers. The dolphins were cautious at first, eventually progressing to physical contact. The dolphins would play the seaweed game, swim alongside, buzz swimmers with their echolocation and rub against them. Despite their playfulness they could be welcoming one day to swimmers, boats and equipment and spooked by it the next.

A local diving entrepreneur, Russel Coffin, had hoped that with the images taken he could convince the local government to designate the area as a Marine Reserve.

After a detailed study during September 1986 by Janet Nowak, a flotilla of yachts arrived from Brazil. People began chasing the dolphins in dinghies and inflatables, throwing food wastes into the bay. The dolphins soon left the bay, apart from a few remaining. Fortunately for the dolphins, at the start of October the flotilla left and the dolphins subsequently returned.

With the efforts of Russel Coffin and his Marine Reserve Committee, along with a film Jack McKenny was contracted to make for them, and the resultant petitions of divers from all over the world, the Brazilian Government was convinced that more than half of Fernando de Noronha should be set aside as a Marine Reserve. It is prohibited to swim and to dive with the dolphins, even outside the bay, and to stop boats in the proximity of the Dolphin Bay (Doak, 1989).

#### Long Island Sound Dolphins, New York, 1945 to 1946

A 13 year old American girl was approached by a pod of dolphins, whilst on holiday in the summer of 1945. Day after day the interactions continued with jumps, circles and affectionate physical contact. At the end of each swim the dolphins would accompany her boat back into the shore. The following year she returned and the same six dolphins greeted her and engaged in the same games once again.



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# **APPENDIX II**

#### WISE SOCIABLE SOLITARY DOLPHIN CODE OF CONDUCT

Historically, solitary dolphins have appeared around our shores for many different reasons. Sometimes these animals are simply passing through an area – on their way to join another dolphin group, however, there are occasions when these solitary animals remain in an area, become habituated to human presence and are eventually termed a sociable, solitary dolphin.

All too frequently, the result of encountering these unique individuals ends to the detriment of the dolphin as the wish to interact with these individuals overrides our commonsense.

There is an additional problem with these animals; each is unique and each may, depending on the stage of habituation actually seek out contact. Often, following a standard code of conduct will not take into consideration the unique behaviour displayed by these animals and so the WiSe course has made the decision to provide a special mention of these animals so that as operators, you are prepared for an encounter which will be determined by the dolphin and could be different in every case and/or encounter.

ALL OF THE POINTS WITHIN THE CETACEAN CODE OF CONDUCT APPLY HERE, WITH THE ADDITION OF THE FOLLOWING POINTS:

- Maintaining a distance of 100m may be possible with a dolphin group, however a sociable, solitary dolphin is likely to approach you. Whereas other dolphin groups will choose to leave you when they lose interest, solitary dolphins may not wish to leave your vessel and so may follow you away from the site of encounter.
- IT IS IMPORTANT THAT, WHERE POSSIBLE, YOU ENSURE THE DOLPHIN IS NOT STILL FOLLOWING YOU WHEN YOU RETURN TO HARBOUR/MARINA FACILITIES. IF IT IS UNAVOIDABLE THEN INFORM THE HARBOUR AUTHORITIES UPON YOUR ARRIVAL. They may already be aware of the dolphin in the vicinity, however if not, advise them to call British Divers Marine Life Rescue (01825 765546) or Marine Connection (020 760 21574), who will decide whether further action needs to be taken.
- SOCIABLE, SOLITARY DOLPHINS APPEAR TO HAVE A FASCINATION WITH BOAT PROPELLORS AND MAY GET DANGEROUSLY CLOSE TO THE ROTATING PROPELLOR. IF THAT IS THE CASE, AND IT IS SAFE TO DO SO, PUT YOUR ENGINE INTO NEUTRAL AND DRIFT. The dolphin will eventually lose interest, however be warned that the dolphin is likely to return to your vessel once the engine is re-started if still in the vicinity. They may also hover beside a stationary boat propeller or rub alongside a rudder. BE AWARE OF THIS IF IN A SMALL BOAT THEY MAY NOT REALISE THEIR OWN STRENGTH AND UNSTEADY THE VESSEL AND ITS PASSENGERS.
- IF THE DOLPHIN CONTINUES TO FOLLOW YOU AND/OR GET CLOSE TO THE PROPELLOR THEN MAINTAIN A STEADY SPEED AND COURSE UNTIL RETURNING TO HARBOUR/MARINA AND THEN TAKE APPROPRIATE ACTION IF NECESSARY.
- AVOID ANY KNOWN AREAS OF REST OR FEEDING FOR AN INDIVIDUAL, OR IF YOU OBSERVE RESTING/FEEDING BEHAVIOUR AT THE SURFACE. DO NOT APPROACH, EVEN TO WITHIN 100M. THESE ARE THE MOST CRUCIAL BEHAVIOURS AND ARE PERHAPS MORE IMPORTANT FOR SOCIABLE, SOLITARY DOLPHINS WHO DO NOT HAVE OTHER DOLPHINS TO RELY UPON.
- IF ANOTHER BOAT IS ENGAGED IN AN ENCOUNTER WITH A SOLITARY DOLPHIN DO NOT TRY TO ENTICE THE DOLPHIN AWAY. HAVE GOOD MANNERS AND PUT YOUR ENGINE IN NEUTRAL AND OBSERVE FROM A DISTANCE THE NEXT ENCOUNTER COULD BE YOURS AND THIS PREVENTS THE DOLPHIN GETTING STRESSED.
- IF THERE IS A RESIDENT, SOCIABLE, SOLITARY DOLPHIN IN THE AREA YOU MAY WISH TO CONSIDER FITTING A PROPELLER GUARD TO MINIMISE THE RISK OF INJURY TO THE DOLPHIN, ALTHOUGH THIS MAY DEPEND ON THE INDIVIDUAL DOLPHIN AND ITS PARTICULAR BEHAVIOUR.
- IT IS EVEN MORE IMPORTANT THAT YOU DO NOT SWIM WITH, TOUCH OR FEED A SOCIABLE, SOLITARY DOLPHIN. THIS HELPS TO HABITUATE THEM TO HUMANS, PERMITTING THEM TO LOSE THEIR NATURAL FEAR AND CAN LEAD TO THEM REQUIRING MANAGEMENT TO PREVENT INJURY, DISTURBANCE OR IN THE WORSE CASES DEATH.





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