

**IKANet NEWS**  
SPECIAL EDITION  
**December 2011**

# The **Dolphin Catch** and **Its Problems**

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**イルカ&クジラ・アクション・ネットワーク**

Iruka & Kujira (Dolphin & Whale) Action Network  
<http://ika-net.jp/en/>

# 1 What is a Dolphin? Dolphins Diversity and Ecology

## Dolphin and Whale

The difference between dolphins and whales is based on their body size: generally over 3m is a whale and under is a dolphin (smaller dolphins are called "porpoises.") However there are exceptions, such as the dwarf sperm whale, which is between 2.1m to 2.7m.

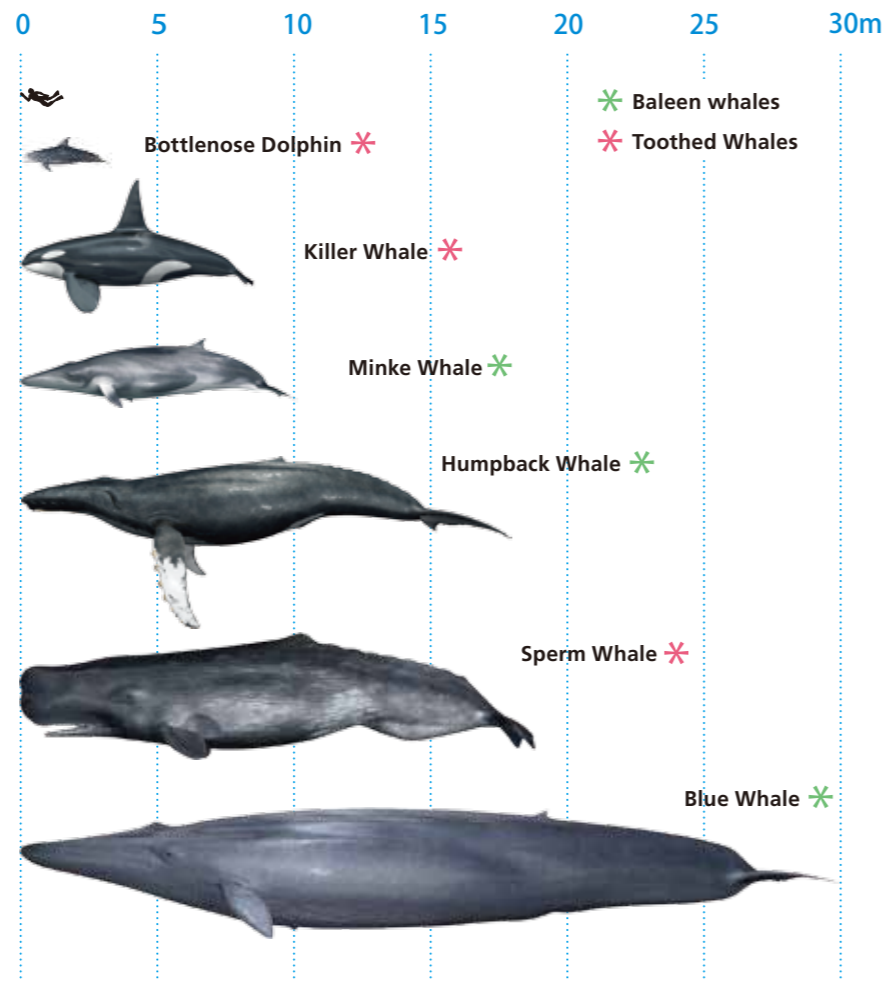
## Baleen Whales and Toothed Whales

There are about 80 species of dolphins and whales around the world. Whales are divided into those that use bristles, called baleen, instead of teeth to filter water and catch food and those that possess teeth. The largest animal in the world, the blue whale, the popular whale watching whale the humpback whale, and small minke whales are all baleen whales. The sperm whale, Baird's beaked whale, and all dolphins are toothed whales. Most dolphin and whale species live in the sea, but there are a few fresh water dolphins called river dolphins.

## Dolphin Ecology

Dolphins and whales are mammals just like us. They breathe through lungs, bear live offspring every year or year-and-a-half, and raise the baby with breastmilk. Once reared, the main source of food for dolphins are fish and squid. Many species form a matrilineal society, one based on relationships to the female line, consisting of a few to tens of individuals. These groups, or pods, sometimes form a larger group consisting of hundreds of whales.

In contrast to humans, who depend primarily on visual information, whales and dolphins live in an underwater acoustic world and rely mainly on sounds to feed and communicate with others, which they do regularly.



CG Illustration © Yoshi Nagatsuka

## Dolphin and Sea Pollution

Increasing toxic chemical substances, discharged from human activities, such as heavy metals and organic compounds are polluting the sea and threatening the lives of sea organisms. As dolphins are at the top of the food chain, not only are they affected directly from the pollution, but they are also affected indirectly through their food as these substances lead to bioaccumulation, which is a serious concern.

The problems of bioaccumulation in sea animals have been raised before many times. For example, in his book "Woeful Sea Pollution" (1992, Godo Shuppan) Nobuyuki Miyazaki highlighted cases of high concentration of mercury accumulated in striped dolphins. Population growth of beluga whales in St. Laurence River in Canada are said to be hampered by reproductive abnormalities and cancers caused by accumulated organic compounds, according to Theo Coleborn and others, as highlighted in their book "Our Stolen Future" (1997). In addition, research initiated in 1999 to 2000 by Japanese citizens' group confirmed that there are high levels of heavy metal and organic compound contamination in some whale and dolphin meat sold on the market.

The 3.11 Fukushima nuclear power plant accident has been releasing large volumes of radioactive substances into the ocean. We are still unable to see the real effects of Cesium and Strontium on sea creatures. We are yet to see the consequences of this multiple contamination of the sea.

# 2 Dolphins and People

## Dolphin Catch – Its History and Present; The World and Japan



## Dolphin Catch

For many Japanese, dolphins are very popular and are used a lot for trademarks and symbols. At the same time, a few coastal communities are hunting dolphins at the present time.

There are two ways to hunt dolphins. One is to use a harpoon (cross-bow fishery in Okinawa.) The other is to chase a pod of dolphins into bay with multiple boats, and it is said that this "drive-fishery" method has been used in Izu region since the 17th century.

However, it was only near the end of World War II that the dolphin-drive fishery became active and started killing large numbers of dolphins. The three main dolphin hunt sites have been shut down in Izu and the only remaining location, Futo, last caught dolphins in 2004. For Taiji in Wakayama prefecture, the dolphin hunt is a relatively new industry, started in 1969, and is now the only place still practicing the drive-fishery.

After the whaling moratorium was put in place by the International Whaling Commission (IWC) in 1986, dolphin meat took the place of whale meat, raising the number of dolphins caught. Now, with the increase in baleen whale meat provided by research whaling and by-catch from fixed nets and other fishnets, the amount of dolphin meat on market is limited. (See page 6.)

Fixed nets and other types of fishnets also pose threats to dolphins. By-catch is not uncommon and it has been raised as a serious concern around the world. Some fixed net by-caught dolphins off the Japanese coast are now being kept in aquariums.

In ancient Greece, dolphins were "people of the sea" and some parts of the world worshiped dolphins as gods who protected fisheries. In other cultures dolphins are the same as fish and are treated as marine resources. Besides Japan, nations that catch dolphins for food include Russia (Chukchi people) and Denmark (Faroe Islands, Greenland.)

People are also interested in dolphin ecology and social structure; many researches and studies are being carried out around the world to understand dolphins' advanced and complex society. It is becoming accepted that dolphins, like humans and anthropoids (gorillas and chimpanzees,) are capable of acknowledging the "self."

Currently the therapeutic role of dolphins is well received: dolphin watching and swim-with dolphin programs have become popular and displaying captive dolphins to use them for both rehabilitation and entertainment is now prevalent.

## Dolphin and Japanese People

The people of Japan have enjoyed the blessings of the sea. While some regions of Japan hunted dolphins for food, other parts worshiped them as the fisherman god, "Ebisu," who is believed to help fishermen by chasing fish into bay.

## Dolphin Catch Number by Prefecture (2000 – 2009)

In addition to the dolphin catch numbers shown here, Baird's beaked whales, short-finned pilot whales (the northern subspecies), Risso's dolphins and false killer whales are also caught under small-type coastal whaling in 4 prefectures: Hokkaido, Miyagi, Chiba, and Wakayama.

Type of hunting	Pref.	Species	Quota (no. of animals) 2009 / 2010	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	no. of animals (live capture)	
Drive Fishery	Shizuoka	Bottlenose dolphin	63	59	-	-	-	9	-	-	-	-	-	9	
		SFP whale (S subsp.)	230	207	109	210	55	55	62	40 (2)	198 (8)	243 (5)	99 (1)	219 (1)	1,290
		Striped dolphin	450	450	235	418	565	382	54	397 (2)	479	384	535 (5)	321	3,770
	Wakayama	Bottlenose dolphin	747	700	1,271	195	688	105	475	284 (36)	285 (80)	300 (80)	297 (57)	352 (98)	4,252
		Risso's dolphin	285	280	367	350	220	186	437	340	232	312	216 (8)	336 (8)	2,996
		P. spotted dolphin	400	400	27	-	400	102	-	-	400 (13)	-	329 (6)	-	1,258
Hand Harpoon Fishery	Hokkaido	False killer whale	70	70	-	18	7	12	-	-	-	30 (24)	-	67	
		PWS dolphin	134	134	-	-	-	-	-	-	-	-	21 (6)	14 (13)	35
	Aomori	Dall's porpoise (Dalli)	1,348	1,296	1,203	1,413	1,328	1,655	647	1,240	719	841	467	308	9,821
		Dall's porpoise (Truei)	92	89	69	100	89	84	66	51	44	44	66	-	613
	Iwate	Dall's porpoise (Dalli)	14	12	-	-	-	-	-	-	-	-	-	-	0
		Dall's porpoise (Truei)	6,472	6,224	6,106	6,960	6,057	6,427	3,796	5,394	3,312	2,975	1,947	1,362	44,336
	Miyagi	Dall's porpoise (Truei)	7,557	7,308	8,589	8,120	8,243	7,325	9,109	7,733	7,758	7,243	4,566	7,767	76,453
		PWS dolphin	154	154	-	-	-	-	-	-	-	-	-	-	0
	Chiba	Dall's porpoise (Dalli)	250	241	204	57	229	226	171	246	181	254	180	103	1,851
		Dall's porpoise (Truei)	15	15	-	-	3	3	-	-	-	-	-	-	6
Wakayama	Striped dolphin	56	48	-	-	-	-	-	-	-	-	-	-	0	
	Risso's dolphin	238	234	119	107	154	168	60	46	105	185	122	94	1,160	
	Striped dolphin	100	100	65	66	77	68	83	60	36	86	65	98	704	
	Bottlenose dolphin	84	79	79	44	38	52	43	66	75	97	93	77	664	
	P. spotted dolphin	70	70	12	10	18	30	2	13	5	16	-	3	109	
Okinawa	PWS dolphin	36	36	-	-	-	-	-	-	-	-	-	7	7	
	SFP whale (S subsp.)	77	69	89	92	38	36	72	90	56	79	62	54	668	
Okinawa	Bottlenose dolphin	8	8	8	8	3	7	10	10	12	4	1	4	67	
	False killer whale	20	20	8	8	-	4	3	1	5	4	5	1	39	
				18,560	18,176	18,212	16,927	15,099	16,011	13,932	13,067	9,071	11,120		

SFP (S subsp.): Short-finned pilot whale (southern subspecies)  
P. Spotted dolphin: Pantropical spotted dolphin  
PWS dolphin: Pacific white-sided dolphin

Numbers in brackets are the whales caught for live sale, including research purposes. The hunting period for the two types of Dall's porpoises is from August to July, and others are from October to September. Wakayama prefecture has been carrying out their dolphin hunt from September to August since 2006.

Source: Fisheries Research Agency "FY2010/2011 Report Current status of the world fisheries resources45: small-type cetacean catch number by species and location for 2000-2009."

\*The source report title is translated by IKAN

\*Species with quota but no catch history is omitted from the graph



"Dolphin Catch and Its Problems" Issue date: December 2011

Publisher: Iruka & Kujira (Dolphin & Whale) Action Network P.O. Box #10 Iruka Post Office, Saitama, Japan <http://ika-net.jp/>

Photo: Junko Sakuma (p.3, p.5-left), Hiroshi Yamashita (p.7-right) Illustration: Yoshi Nagatsuka, Nanami Kurasawa Design: Yoshimi Takahashi

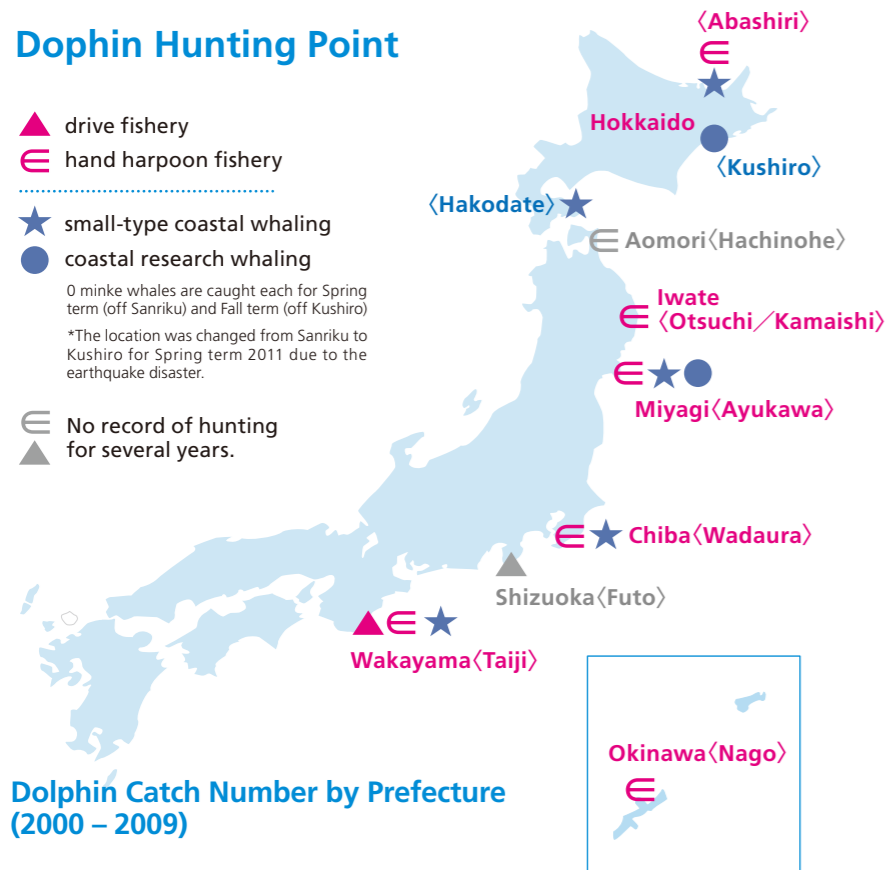
# 2

## Dolphins and People

### Catch Quota for “Scientific Management”

#### Dolphin Hunting Point

- ▲ drive fishery
  - ⊞ hand harpoon fishery
  - ★ small-type coastal whaling
  - coastal research whaling
- minke whales are caught each for Spring term (off Sanriku) and Fall term (off Kushiro)  
 \*The location was changed from Sanriku to Kushiro for Spring term 2011 due to the earthquake disaster.
- ⊞ No record of hunting for several years.



#### Dolphin Catch Number by Prefecture (2000 – 2009)

#### Catch Quota by Species (2011– 2012)

Method by prefecture	Permitted no. of vessels	Dall's porpoise (Dall)	Dall's porpoise (Truei)	Pacific white-sided dolphin	Striped dolphin	Bottlenose dolphin	Pantropical spotted dolphin	Risso's dolphin	Short-finned pilot whale (southern sub-sp.)	False killer whale	Total (no. of animals)
Hokkaido hand harpoon	16	(1,296) 1,244	(89) 86								(1,385) 1,330
Aomori hand harpoon	8	(12) 10	(12) (12)								(12) 10
Iwate hand harpoon	196	(6,224) 5,975	(7,108) 6,860	(154) 154							(13,486) 12,989
Miyagi hand harpoon	7	(241) 231	(215) 214								(456) 445
Chiba hand harpoon	11				(48) 40						(48) 40
Shizuoka drive fishery	50			(36) 36	(42) 35	(59) 55	(272) 227			(10) 10	(419) 363
Wakayama drive fishery	17			(134) 134	(450) 100	(700) 652	(400) 400	(280) 275	(207) 184	(70) 70	(2,241) 2,165
hand harpoon	100			(36) 36	(100) 100	(79) 73	(70) 70	(234) 230			(519) 509
Okinawa hand harpoon	6					(8) 7		(69) 61	(20) 20		(97) 88
合計		(7,773) 7,480	(7,412) 7,160	(360) 360	(640) 625	(846) 787	(742) 697	(514) 505	(276) 245	(100) 100	(18,663) 17,939

Source: Fisheries Agency \*Based on new catch quota as of March 31st, 2011. 2010 catch quota shown in brackets.

#### Dolphin Catch Regulation

With the decrease in the number of dolphins caught, in 1992 the Fisheries Agency set a catch quota for 8 different species for prefectures that had practiced dolphin hunting in the past, concerned that the drop in catch meant a population decline.

The prefectures practicing dolphin hunting are: Hokkaido (Dall's porpoise,) Iwate (Dall's porpoise, pacific white-sided dolphin,) Miyagi (Dall's porpoise,) Wakayama (striped dolphin, short-finned pilot whale, false killer whale, Risso's dolphin, bottlenose dolphin, pantropical spotted dolphin, pacific white-sided dolphin,) and Okinawa (short-finned pilot whale, bottlenose dolphin, and false killer whale.)

When the decentralization law was enacted in 1999, prefectural governments took over the control of the dolphin hunt. Compliance and penalties were made, but an effective management of the hunt has yet to be seen.

When the dolphin catch quotas were revised in 2007, pacific white-sided dolphin was newly added to the list of catchable species with a quota. The Fisheries Agency is currently carrying out resource research and assessments to set up new quotas, and it is likely that they will add rough-toothed dolphin and melon-headed whale to the list due to strong requests from the local communities despite the drop in demand for dolphin meat.



Dolphin meat from Iwate Prefecture

#### Live Catch for Aquariums – A Rising Industry

#### Keeping Dolphins at Aquariums

The business of having live dolphins on display, which started in 1970s, has now grown, and currently there are 30 aquariums registered for keeping dolphins in Japan. In addition to these cases, and as prevalent, is smaller scale dolphin captivity such as “swim-with” programs for beach-goers, and rentals for “academic purposes.”



Having live dolphins is possible due to the dolphin drive fishery. Dolphins can be obtained cheaply by capturing some dolphins alive at the same time as the drive hunt, which is mainly for meat. For this reason, dolphins are treated as expendable in Japan and many die very young. Also the export of captive dolphins to overseas is seen frequently that it is drawing international criticisms.

#### Dolphins Caught off Japan

##### Dall's Porpoise

There are two types: dalli-type, that can be found widely in the northern North Pacific Ocean, and truei-type, that inhabit the range between the seas off Sanriku to Okhotsk Sea. With the onset of the whaling moratorium, Dall's porpoise captures jumped to replace whale meat. Even the IWC, which does not manage small-type cetaceans, issued repeated warnings to Japan to reduce the size of the operation, stating that it is not sustainable. The government tried setting up more strict management system, but in 2011 it came into light that a certain area was catching this species without distinguishing the two types, making the catch statistics unreliable.

##### Striped Dolphin

While there is a record of stripe dolphin being hunted in Izu area from Muromachi period (approx. 1336 to 1573,) the number of dolphins caught increased drastically after the WWII, with at some point Izu alone catching annually over ten thousand dolphins. In addition, people started catching striped dolphins in Chiba and Wakayama prefectures so that the population declined sharply. By 1980s, the four bases in Izu area decreased to just one, which also no longer practices a dolphin hunt.

##### Bottlenose Dolphin

Bottlenose dolphins are found widely from the temperate and tropical coastline to offshore, and are divided into two groups. They are very popular at aquariums and are caught live by the drive fishery. There is a concern for the decline of the Pacific Ocean coastal population.

##### Short-finned pilot whale

The meat of the pilot whale is relatively popular in western Japan, and in Taiji in Wakayama prefecture people have been catching this species since the Meiji period (1868-1912.) Due to the drive fishery, started in 1969, this species is especially concerned for population decline.

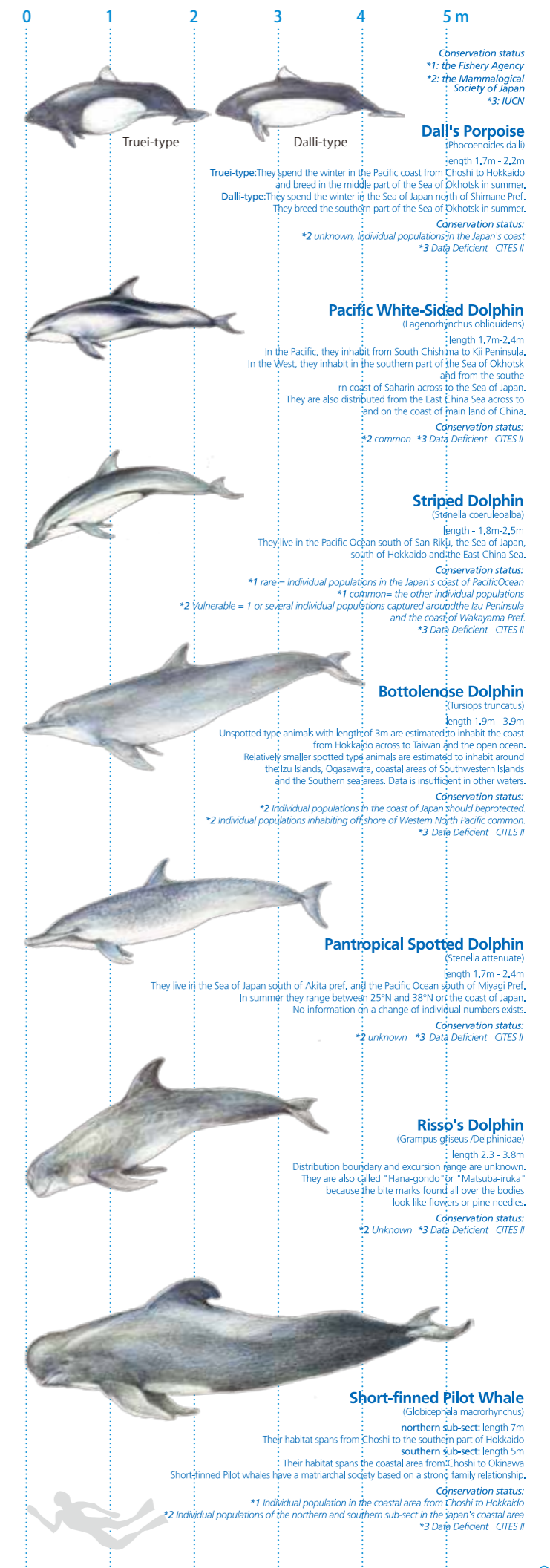


Illustration © Nanami Kurasawa

# 3 Dolphin Meat: Market and Use

The Dolphin hunt is classified as “dolphin fishery” by the Fisheries Agency, and the meat is officially counted as “marine mammal” clearly being separated from whale meat.



Dolphin meat from Iwate Prefecture sold as “whale meat” Meat from minke whales caught by JARPN off Kushiro being sold

## Marine Mammal Catch Volume

The figure shows the marine mammal catch data taken from 1957 to 2009 published by the Fisheries Agency on its website. A dolphin catch permit is given to 8 prefectures (from north to south): Hokkaido, Aomori, Iwate, Miyagi, Chiba, Shizuoka, Wakayama and Okinawa. “Other” since 2001 presumably includes baleen whale meat from by-catch.

### Increased Dolphin Meat Demand as a Result of Whaling Moratorium

The production volume for dolphin meat peaked in 1988. This is likely due to the shortage of whale meat supply triggered by the whaling moratorium that was imposed the previous year, increasing the demand for dolphin meat as a substitute. This demand for dolphin meat, however, subsided by 1991, and returned to the pre-moratorium level. By 2004, the catch is steadily decreasing nationally.

### Shift in the Major Dolphin Hunt Area

Comparing the dolphin meat production level by prefecture, a shift in the major hunting area is seen since the 1980s. Shizuoka prefecture, which before 1980 was the major hunting prefecture, now shows years without catch more often than one's with. In Miyagi and Chiba the catch slowly declined in the 1960s. In Chiba, the catch stopped in the 1990s once and started again in 2000, but the volume remains under 10 tons. Hokkaido also shows a decline of catch since the moratorium. In contrast, the dolphin catch increased in Iwate and Wakayama prefectures.

### Taiji Dolphin Hunt – Boosts during the 1960s.

The town of Taiji in Wakayama prefecture is now infamous for its dolphin drive fishery, as the secretly filmed footage was shown in the documentary “The Cove,” did not really practice a dolphin hunt until 1962 according to the statistics. After that, the catch gradually

increased: the catch that was 50 tons in 1978 doubled to 124 tons catch is kept between 200tons to 350tons.

The meat produced by the Taiji drive fisheries is mostly shipped outside the region, to places such as Fukuoka and Yamaguchi prefectures. It seems that the meat consumed locally are only the internal organs (boiled) and stomach meat. Short-finned pilot whale, which is the most popular meat amongst dolphin meat, is also shipped outside the region except for the stomach meat. (Endo, Aiko. 2008)

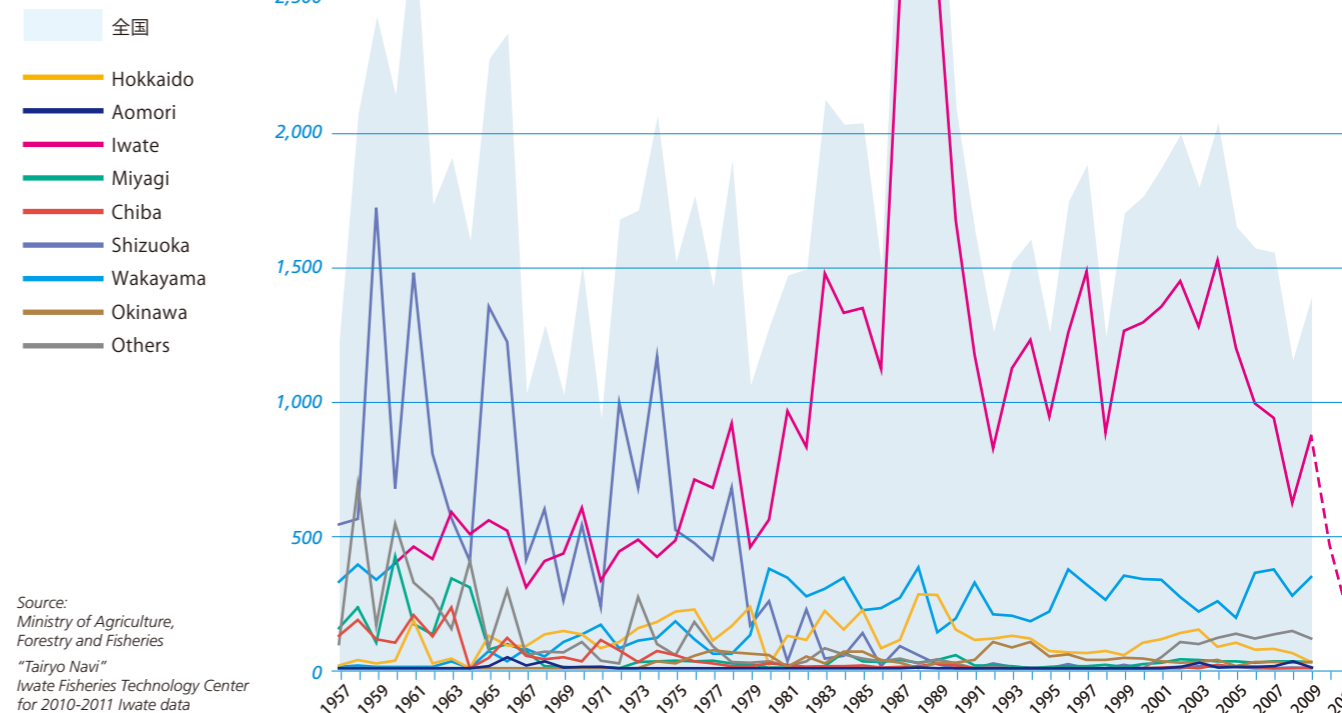
### Dall's Porpoise Hunt off Iwate Prefecture

While Wakayama prefecture became more known, Iwate prefecture increased its dolphin meat production volume more than other parts of Japan. After the moratorium, the prefecture started producing 70% to 80% of Japan's total dolphin meat. According to “Tairyō Navi,” a quick estimation produced by Iwate Fisheries Technology Center, the production volume has been cut back in the recent years.

The reason for the cut back is likely due to the drop in baleen whale meat price with the increase in supply from the research whaling, hampering the demand for dolphin meat as whale meat substitute. The impact of the Great East Japan Earthquake is now clearly appearing in the data, holding back the production level in 2001 in Iwate, the biggest produce of dolphin meat, to 153.8tons, for the catch before March 10th.

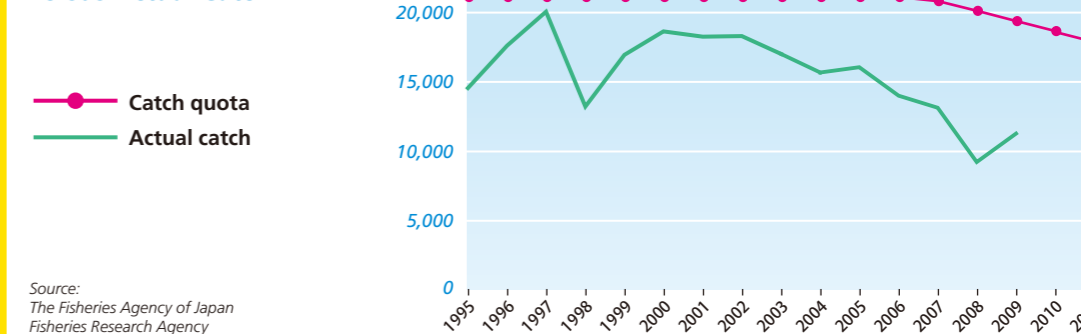
The volume of baleen whale meat obtained from research whaling, the toothed whale meat obtained from small-type whaling, and the dolphin meat obtained from a dolphin hunt are depicted in Figure 4. The figure shows the dolphin meat increased right after the onset of the moratorium, and declining steadily since.

Figure 2. Trend of Marine Mammal Meat Production Volume by Location



Source: Ministry of Agriculture, Forestry and Fisheries “Tairyō Navi” Iwate Fisheries Technology Center for 2010-2011 Iwate data

Figure 3. Dolphin Catch Quota versus Actual Catch



Source: The Fisheries Agency of Japan Fisheries Research Agency

Figure 1. Movement of whale meat stock

### Statistics on Distribution of Frozen Fishery Products (accounts for only major cold storage warehouses)

The blue line graph is an adjustment line of the stock volume (orange line) to account for ~25% decrease in the number of sample warehouses, using the ratio (96.1) recorded as of Dec.2009.

The damage to the warehouses caused by 3.11 disaster is treated as “delivered” in these statistics. Since 2006, there is a trend of decreasing whale meat production. Not only due to intrusions from overseas environmental groups, but also the reduction in budget and organization contribute to this production loss.

Reference: Statistics on Fishery Product Distribution (水産物流通統計) “Monthly loading and unloading of major products and the month-end delivered and stock volume” (relegated from MAFF to Fisheries Processing Industries and Marketing Division) in the ICR year book, press releases and media articles,

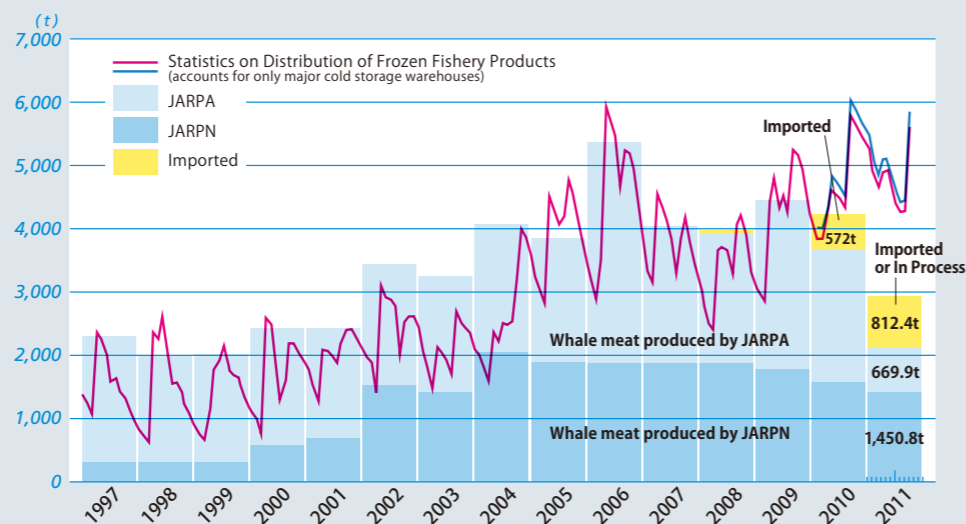
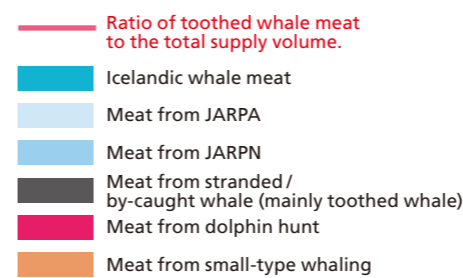
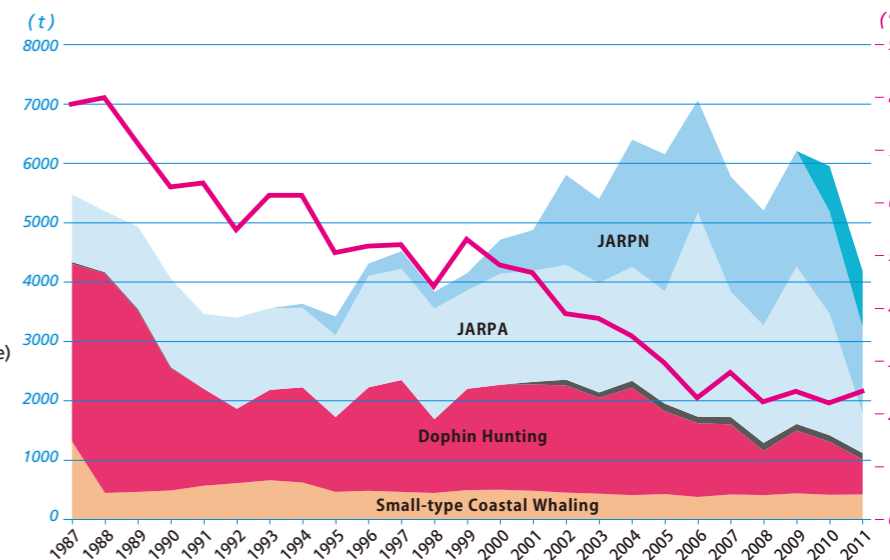


Figure 4. Supply Volume of Research Whaling Meat (baleen) and Small-type Whale meat including Dolphins



Source: “Catch Volume from Sea Fishery by Type.” The Fisheries Agency of Japan The Institute of Cetacean Research Japan Small-type Whaling Association Trade Statistics of Japan



All figures are created by Junko Sakuma

# 4

## Dolphin and Japanese Law

### Problem of Dolphins as Resources



#### Internationally...

The international organization the IWC has been managing cetacean species that were once subject to whaling, but the management of dolphins is left to each nation.

International laws that pertain to dolphins are CMS (Convention on the Conservation of Migratory Species of Wild Animals) also known as the Bonn Convention, and CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora.) CITES prohibits the commercial trade of many cetacean species including eight large whale species (that have been subject to IWC), river dolphins and Baird's beaked whale. Other dolphins are listed in CITES Appendix II, and the trade requires a scientific permit of a government agency of the exporting country.

#### Domestically...

When the Environmental Agency (now a ministry) was established in 1971, the management of wildlife, only terrestrial, was transferred from the Forestry Agency. Marine mammals, in contrast, were left to the control under the Fisheries Agency as marine resources under a secret agreement. Again in 1993, when the Law for the Conservation of Endangered Species of Wild Fauna and Flora, aimed to protect threatened wildlife species, was enacted, a similar memo was passed between the agencies, and even species such as the dugong and gray whale that are facing extinction were excluded from the law.

In 2002, Wildlife Protection and Hunting Law was revised, making, in principle, all wildlife subject to the law. Even then, with the exception of the dugong, 5 species of seal, and Japanese sea lion, all other marine mammals under the management of the Fisheries Agency were excluded from the law, with the reason that these were already properly managed under other existing laws such as the Fisheries Act.

Resource management under this law follows the same marine resources policy as fish, which is to regulate catch by extrapolating the quota from estimated population. This is not the same as how terrestrial animals are regulated, where identified local populations are controlled according to their ecology. However, it is important to note that dolphins and whales have evolved differently from fish - they deliver a single baby and have a long pregnancy and nursing period, which differ greatly from fish that survive by rearing many eggs at a time, and it is only logical to think that the protection and management of mammals and fish should be different. This is the time even fish, especially those that are commercially valuable, are being concerned over for their population, which is dwindling due to overfishing. The management of cetaceans too should be carried out cautiously or at least should not be left to the discretion of fishermen.

At the "Oceans Day at Nagoya" event held in 2010 during COP 10 (the tenth meeting of the Conference of the Parties,) the Environment Minister declared that the ministry would start researching marine organisms including these that are not under the Environmental Agency, and create a red list for the marine species. We hope that the promise be realized soon, and reveals the current situation of the Japanese cetacean and increase protection measures.

#### Orca Hunt

In February 1997, ten wild orcas were driven into Hatajiri Bay of Taiji, in Wakayama prefecture. The Fisheries Agency, without waiting for opinions of experts, issued a permit for the fishermen to catch five orcas, based on a provisional authorization given in 1991. Among the ten captured, four juveniles and a possibly pregnant female were chosen, and the rest five were (reported to be) released.



There was an international outcry over this capture, occupying the Fisheries Agency and the related aquariums fax machines all day. In response, The Fisheries Agency, followed by the Japanese Association of Zoos and Aquariums, released a statement saying that the capture was done for academic purposes and the orcas were not intended to be used for entertainment shows.

A local aquarium, Taiji Whale Museum, purchased one, three went to Adventure World in Wakayama prefecture, and the last went to Izu Mito Sea Paradise in Shizuoka prefecture. It is said that the total profit the fishermen made amounted to 120 million yen.

Only 4 months after the capture, the youngest of the five and a female died at Adventure World. The remaining three orcas kept in different institutions were never allowed to mingle, and without any academic researches being published, were put on display until they died one by one. The last of "Taiji Five," the five captured orcas nicknamed by many people wishing for their release, an orca named Coo, died in 2008 in the Port of Nagoya Public Aquarium, which at that time was there on breeding loan.

Even with this sad ending, the fishermen, the aquariums, nor the government seem to have learned from the experience, as there appears to be a movement for the next capture. At the same time, internationally there has been progress made in learning orca ecology and life history, revealing the inappropriateness of captivity of the animal in an artificial environment. As a result, there is a stronger push for releasing captive orcas back into their wild pod. Orca captivity is symbolic of how we think about human-animal relationships.

At COP10, we learned that biological diversity forms the base of our lives. It is time for us to realize that orcas are not just for a handful of people to make money on, but they too, are a part of the nature we depend on. We should realize that we are "borrowing" them from future generations, and it is our duty to watch over their existence.

Left: Wild orca capture in Taiji, Wakayama Pref. (1997)

Right: "Coo" the female orca captured in Taiji, died in September, 2008 (Port of Nagoya Public Aquarium)