

**Counting the Blessings of Whales:
Insights from a Chopsticks-wielding Patriot**

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Society for the Dissemination of Historical Fact©

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Japanese personal names have been rendered surname first, in accordance with Japanese custom.

Introduction

When asked about recent whale-related topics, many think of attacks launched by the so-called Sea Shepherd Conservation Society, an anti-whaling organization, against research vessels on their way to whaling areas and a debates between pro- and anti-whaling countries at meetings of the International Whaling Commission. Among the younger generation, a large number may have no interest at all in whales.

However, whales have been and will continue to be important animals integral to the Japanese people and this is because whales have helped us since ancient times and the Japanese have greatly and deeply loved whales. This, however, leads to criticism: “Did you hear yourself? The Japanese once overhunted whales, disturbing the marine ecosystem, and drove whales to the edge of extinction. How can you say that the Japanese love them?”

In fact, the purpose of this book, which I have written, is to respond to criticisms like this and to make known to everybody that the Japanese truly love whales.

Incidentally, I got a real feel for how the Japanese still open their hearts to whales when, for example, I take taxis and talk to the driver in their 40s or older about whales.

All I need to do is to say a few words to the driver: “Sir, have you ever eaten whale meat?” As soon as I ask, the driver, no matter how uncommunicative he has been up to that point, will respond positively, almost turning his head.

“Oh, whale meat, I used to eat a lot!” “I loved it *tatsuta*-fried!” “In school meals in our day, we...” The conversation would go on and on and the ride to the destination would be occupied by whale topics. In my experience, 100 out of 100 taxi drivers are responsive to whales topics.

This is because they have either had the real experience of enjoying the taste of whale meat or the feeling of well-being after eating whale meat. As you may know, during the 20-year period after 1945, or the postwar period when obtaining food was extremely

difficult, whale meat was served in school meals quite often because it was very nutritious.

I am from that generation and, and when I remember whale meat dishes, such as *tatsuta* fried whale meat cutlets, whale meat curry and whale meat sukiyaki, my mouth starts to water. Those were dishes that I could eat every single day without feeling sick.

Japanese schoolchildren were very pleased with the good taste of whale meat that was served in school meals, and, at the same time, their physical health was greatly improved. In those days in Japan, there were many undernourished children across the country but whale meat as a source of animal protein in school meals was a significant contribution that improved their physical health.

In those days, I often ate fish from the fishing port of Onahama (currently Onahama, Iwaki City) in Fukushima Prefecture. Whales were also frequently brought there and I ate whale meat almost every day. Naturally, whale meat was eaten often at home, in addition to as school meals. During the 20 years after 1945, whale meat sometimes accounted for as much as nearly 50% of the animal protein consumed by the Japanese (in 1947, for example, the supply of whale meat constituted 48% of all animal protein). This coincided with the period when the Japanese rose from defeat and reconstructed Japan.

It is no exaggeration to say that nutritious whale meat provided the Japanese with energy during those days and enabled the Japanese to keep up with and join the family of advanced nations at an astonishing speed.

However, this was not the only time when whales helped the Japanese. Since the distant past, the whales have assisted the Japanese through their long history.

Archaeological findings have shown that the Japanese have eaten whale meat about 9,000 years ago. They ate whale meat that washed up on beaches and used the bones and baleens as well. Protein and fat, which are sources of energy for humans, were always in short supply and whale meat containing both in abundance--a valuable source of nutrition for the Japanese.

Food culture was passed down through the Nara period (710 - 794) and Heian period (794 - 1185) to until modern times. From the end of the Muromachi period in the 16th century to the Edo period, large-scale whaling corporations were organized in areas such as Kishu

(roughly present-day Wakayama Prefecture) and Boshu (in present-day Chiba Prefecture) and spread nationwide.

During the Edo period, in particular, when methods of food preservation were developed and means of transportation dramatically advanced, preparation methods of whales dramatically increased. As said in the phrase, “One whale caught is seven shores enriched,” one enormous whale was cut into large chunks of meat, which were corned or processed into *aramaki* (salted and wrapped in straw for preservation) and shipped in large junks all over the country via the Pacific Ocean and Sea of Japan.

In addition to corning, whale meat was also preserved in soy sauce and *miso* for shipping, which allowed the meat to be preserved for longer periods and seasoned with great flavors as well.

On top of that, the Japanese came up with ingenious methods not only in preparing the flesh for eating but other parts of the whale such as the skin, internal organs, tongue, jaws, tail fin, bones, baleen and teeth of whales. Japan has numerous ways of utilizing the entire whale compared to other countries. Apart from use of fat as lamp oil and a lubricant, bones and teeth were used as ornaments and carved toggles for swords, teeth as pipes and baleen, which was used as shoehorns and puppets, was also stretched inside drums for improving the sound. In this way, from old times, the Japanese have eaten and entirely used the whales they caught. The Japanese always treated whales with respect and spared no effort to show reverence. All in all, Japanese have been grateful for the blessings of whales and deeply love and respect them.

As to be described later, evidence of this is that there memorial mounds and graves of whales in temples near whaling stations where whaling thrived. What is even more surprising is that many temples nationwide give a posthumous name to each of the whales caught and hold memorial services for them.

While a number of countries have used whales from old times, only Japan has memorial services, propitiating the spirits of whales in this manner. This shows how the Japanese as a people have loved whales and respected them from the bottom of their hearts.

Anyway, the Japanese have lived their lives integrated with whales through their long history and, in my mind, the blood of whales flows inside each Japanese.

Some ask, “Why do we need to go to the trouble of hunting and eating whales? Aren’t beef and pork enough?”

The issue is not that easily settled.

First of all, whale meat eating is an element of Japanese folk culture that has existed since the Jomon period (14,000 - 1,000 BC). Once a certain element of a culture is lost, it is impossible to regain, which should be evident based on many examples from the past.

Secondly, it provides a measure for dealing with the potential food crisis that is certain to come. It is said that, in the near future, a food crisis on a global scale will undoubtedly erupt--this will be discussed later in detail. Japan currently depends on foreign countries for a significant amount of its food (60% of the food eaten by the Japanese). If a food crisis comes to Japan and food imports from overseas are stopped, what will become of the Japanese population of 120 million?

Besides, present-day Japan has seen its agriculture and fishery weakened and its productivity rapidly decline. In consideration of this situation, who can definitely say that we will not starve in the future if we do nothing?

It is true that, at one time, Japan overhunted whales. In the “golden age,” various countries, including Japan, competed in catching the largest number of whales, which was even described as an “International Whaling Olympics.”

Serious reflection was needed and this is why the Japanese stopped commercial whaling and waited for whales to recover. Now, there are a large number of whales. In fact, there is likely an excessive increase such that an imbalance in the marine ecosystems could occur. When this taken into consideration, the preservation of whales alone also causes a problem.

As a consequence of the showy performances and campaigns by anti-whaling countries and certain environmental groups, some Japanese have recently come to have negative attitudes toward Japan’s whaling, which is supported by some newspapers.

When it comes to reasons why whale meat-eating should be prohibited, typical answers

given are: “whales are endangered,” “whales have intelligence,” “it is cruel to whales” and “whales are a symbol of global environmental protection.” However, as I will explain in the body of this book, some species have undergone a population explosion, not all species of whales are endangered and it has not been proven whether whales are “intelligent”. If something is cruel to whales, then it must be cruel to other animals, too. Furthermore, raising cattle and swine is said to be polluting the global environment, more so than whale hunting. None of the logic of the anti-whaling faction holds. That is, what the anti-whaling nations and organizations are saying are nothing more than simple, appeals to emotion.

The whale ecology is still mysterious. What is required, based on reflecting on random overhunting of the past, is to understand the realities and population of whales through research and make use of an appropriate and scientifically based number of them to maintain the balance of nature.

This book intends to advocate the appropriate utilization of whales from the perspective of concerns for food for the next generation, environmental issues and food culture without being carried away by simple-minded appeals to emotion.

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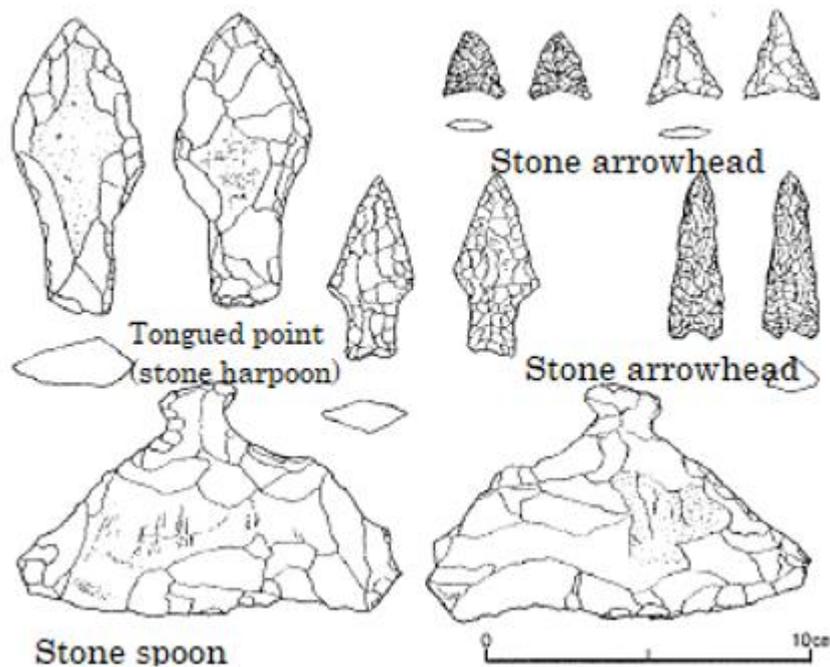
Chapter I Whales Saved the Japanese

History of the Japanese love for whales: the Jomon and Yayoi periods

The Japanese have been closely tied to whales from ancient times. Whale meat eating goes back a remarkably long way.

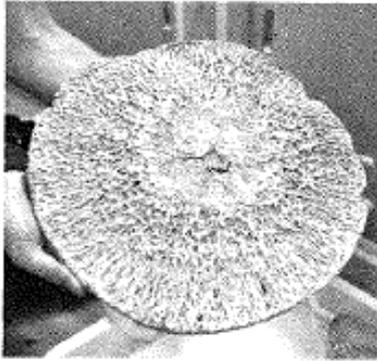
A great number of bones of cetaceans have been unearthed from various areas including graves and shell mounds of the Jomon period, about 8,000 to 9,000 years ago.

“Shell mounds” suggests at least that people in the Jomon period were collecting shell fish as food, which is nowhere near the fact. Subsequently, whale meat was selected as food since, more than anything, whale meat is delicious, which I would like to point out here. Once you eat whale meat, its good taste remains with you, making you want to eat it again. In addition, one whale can feed hundreds or even thousands of people at a time. Furthermore, the bones can be processed into tools and, moreover, bones, teeth, fins and baleen can all be used.



Stoneware unearthed from Tsugumenohana Site, Nagasaki Prefecture

(Source: *Tsugumenohana Iseki no Gaiyo* (Overview of Tsugumenohana Site),
Shobayashi M. and Baba , Bulletin of the Nagasaki Archaeological Society Vol. 2)



Whale's intervertebral disk used as a workbench
for pottery
(Unearthed from Saga Site / Tsushima City,
Nagasaki Prefecture)

The flesh of whales contains large amounts of excellent protein and, considering the dietary habits in those days, eating whale meat could have been dramatically vitalizing. That is why, for ages, the Japanese have been tied to whales.

From the shell mound of the Tsugumenohana Site in Hirado City, Nagasaki Prefecture, which has been dated to between the early and the middle phases of the Jomon period, the skeletal remains of many whales, dolphins and sharks have been unearthed. Stone implements of types not found in other sites, such as those apparently used for dissection and skinning of whales, have also been dug up. Dr. Mori Koichi, an archaeological expert, says that it is assumed to have been a site for dissecting catches. Whales and dolphins were eaten not just in a few areas of the Japanese archipelago but seaside archaeological sites in almost all parts of the country have yielded artifacts that provide supporting evidence.

What is worth noting, in addition, is that sites of settlements of Jomon people have also produced goods from whale bones, which include stabbers resembling chopsticks and accessories such as necklaces and bracelets. These show that whales, their bones, teeth and baleen, were used in handiwork, in addition to consuming their flesh as food. Interestingly, from coastal landform sites dated about 4,000 years ago (the middle to late phases of the Jomon period), many pieces of earthenware have been discovered that have pattern-like indentations preserved on the bottom. They are marks of an intervertebral disk, suggesting that the disk was put down and earthenware was made on it. That is, intervertebral disks were used as workbenches for pottery.

It is assumed that, generally during the Jomon period, whales drifted into bays and shores, which are called *yorikujira* (whales beached alive) or *nagarekujira* (dead whales drifted ashore), were caught. However, the Mawaki Site on Noto Peninsula, Ishikawa Prefecture has yielded many cetacean bones and rod-shaped spearing instruments, which has led to a presumption that active whaling took place in some areas.

In the Yayoi period, active whaling that utilized boats is believed to have been conducted.

On a burial jar from about 2,000 years ago (latter half of the middle phase of the Yayoi period), which was unearthed from the Harunotsuji Site in Iki City, Nagasaki Prefecture, a whaling scene is preserved. There are also arrowheads made with whale bones.

The Oniyakubo Tomb located in Gonoura Town, Iki Island, has a horizontal stone chamber from the 6th century, where a petroglyph depicting whaling was discovered.

Based on these things, Dr. Mori presumes that people were already catching whales by using several boats to surround one that strayed into a bay.

What is even more intriguing is that investigation into the bones dug up revealed that, in the Yayoi period as well as the Jomon period, bones of the same whales were unearthed from several different settlements.

This suggests that, once a whale was caught, whale meat was distributed to settlements in a fairly wide area, including those on the beach where it was caught or otherwise shared by many people. If that was the case, then whales were helping a great number of people from ancient times.

Emperors and Court nobles fell in love with whale meat

Over time, utilization of whales became increasingly established in the lives of the Japanese. After the development of writing, whales were mentioned in many old documents. *The Kojiki*, which dates from the early Nara period, states that Emperor Jimmu ate whale meat: *Isukuhashi Kujira sayaru*. *Isukuhashi* is the pillow word for “whale” and said to mean “valiant” and “a magnificent catch of the shore” alluding to a whale, by using different sets of kanji representing the respective meanings. Incidentally,

the original text of *The Kojiki (An Account of Ancient Matters)* uses the kanji 久治良, which reads *kujira*, a Japanese word for “whale.”

In the Nara period, various regional gazetteers called *Fudoki* were compiled by order of the central government. *Hitachi no Kuni Fudoki*, (*Fudoki* of Hitachi Province), contains a description of whales, according to which the present Kuji County, Ibaraki Prefecture “was named Kuji by Prince Yamato Takeru” due to the shape of the hill in the area, suggestive of a whale, or *kujira* in Japanese.

In *Nihon Shoki*, or *The Chronicles of Japan*, there is a poem that mentions the word whale in a phrase: *isanatori umi no hamamo no...*” *Isanatori* means a “hunter of *isana* (literally “valiant fish,” or whales)” and is used as a pillow word for *umi*, a Japanese word for “sea.”

This word *isana* also appears in a poem written by poet and aristocrat Kakinomoto no Hitomaro in *The Manyoshu*, the oldest extant collection of Japanese poetry compiled in the 8th century. *The Manyoshu* includes as many as 12 poems that use the pillow word *isanatori*, which clearly shows how whales permeated the lives of the nobility in those days.

In the Nara period in the 8th century, Buddhism was quite influential in Japan. Accordingly, the Buddhist concept of animal meat eating as a taboo gained influence. In the reign of the Emperor Tenmu, in particular, a so-called animal meat eating prohibition order was issued to forbid animal meat for a certain period, which exemplifies the growing trend toward avoidance of animal meat eating. However, eating of whales, which were believed to be valiant “fish” from the sea, was hardly affected by the order and people apparently continued to eat whale meat.

As with the Nara period, whale meat continued to be eaten in the following Heian period by people living in seaside communities and people in some classes. Aristocrats and high-ranking samurai living in the capital of Kyo (Kyoto) enjoyed eating whale meat. *Wamyo Ruijusho*, an encyclopedic Japanese dictionary of nouns written in the mid-Heian period, contains the word *aramaki*, which literally means “wrapping in straw.” This suggests that thick straw rope was wound around whale meat for shipping from whaling bases to the privileged classes who ate whale meat. The methods of preserving whale meat in those days included covering with salt, wrapping in leaves of Japanese butterbur or bamboo grass and soaking in soy sauce or *miso*. *Azuma Kagami*, a historical chronicle compiled

in the Kamakura period, presumably around 1300, includes a description of how a whale was landed near Kamakura to benefit many people.

In the following Muromachi period, descriptions of whales in literature dramatically increased, which shows that people in those days ate a huge amount of whale meat. For example, *Miyoshi Chikuzen no Kami Yoshinaga Ason Tei e Onari no Ki (An Account of a Visit to the Residence of Miyoshi Chikuzen no Kami Yoshinaga Ason)*, dated 1561, has a description of a Court noble named Miyoshi Yoshinaga who entertained the Shogun Ashikaga Yoshiteru with whale dishes, which made the Shogun very happy.

In those days, court cuisine came to be adopted by samurai and eating etiquette called *shokureishiki* developed. In formal banquets of high-ranking aristocrats and samurai, in particular, attendees had food and drink as part of a ceremony, where a ritual called *shikisankon*, or three rounds of drinks accompanied by a different meal set on a tray each time, was established. In this *shikisankon*, a Shinto prayer was first recited before eating, sake was drunk and dishes were served in the order of seafood, food from the land, wild vegetables and farm produce. In fact, for seafood, whale meat was served most often following sea bream and carp. This suggests that whales as food were valued in samurai society as well.

There is a diary entitled *Tokitsugu-kyo Ki (Journal of Lord Tokitsugu)* written by a Court noble named Yamashina Tokitsugu (chief curator of the palace and head of the *Mizushidokoro*, or food preparation room of the palace). Yamashina Tokitsugu can be described as an incarnation of curiosity, so to speak, especially for food because of his position as head of the Imperial kitchen. He was a man of culture brimming with knowledge. Whales appears several times in *Tokitsugu-kyo Ki*.

In one anecdote, Tokitsugu was invited one day by a Court noble of his acquaintance to a meal of whale soup cooked in the residence, to which he went happily, just bringing rice. This was a customary practice in those days, that one should bring his own rice when invited to a feast. When they obtained special food such as whale meat, they invited each other by only offering dishes to accompany rice.

There is also a description of Tokitsugu's visit to Mikawa in present-day Aichi Prefecture in 1556, where he ate whale *takeri* and was delighted. *Takeri* is the penis of a male whale. How interesting to see the head of the Imperial cuisine department finding this food

delicious!

Another account mentions whale meat presented to the Imperial Court by Oda Nobunaga in 1570, a portion of which Tokitsugu had a chance to eat and found extremely delicious. In those days, the most thriving whaling bases were Ise and Mikawa, which leads to the conclusion that the whale presented by Oda Nobunaga, who was based close to Mikawa, was probably from Mikawa Bay.

That is, Court nobles as well as samurai eagerly ate whales. First of all, whale meat tastes good. It has much richer taste than ordinary fish. While pheasants and wild ducks were also eaten in those days, whale meat is by far more delicious than wild birds and abounds in protein and fat. Just one taste of whale meat, the forbidden, diabolical delicacy, would have been enough to captivate and rapidly win the heart of anybody, whether samurai or Court nobles, or even the Emperor.

Shijoryu Hocho Sho, a cookbook written at the end of the Muromachi period, also mentions whale and provides a ranking of fish as ingredients. The book ranks the whale second only to the carp. It means that whales were given an important position, slighting the sea bream, a fish prized from old times, which is worthy of special note in the history of Japanese foodstuffs. This shows that whale meat eating is part of a deep culture that has permeated the Japanese to the core since ancient times.

Whale meat-eating culture blossomed in the Edo period

Then, the Edo period began. The Edo period was a time that saw an enormous number of events symbolic of the origin of the subsequent relationship between the Japanese and the whale.

During the Edo period, the population on the Japanese archipelago is said to have been 20 million.

As the population grew, the importance of ensuring the availability of animal protein also increased. However, in Japan, the influence of Buddhism, in which the taking of life was forbidden, hence no meat eating, had taken root and whale meat was rarely served among the common people.

In addition, the fifth shogun, Tokugawa Tsunayoshi, promulgated animal protection laws called *Shorui Awaremi no Rei*, which prohibited the killing of animals. However, the enforcement of the laws was apparently not very strict and animal meat was eaten in secret not only in provincial areas beyond the control of the government but also in the capital city of Edo itself. The animals eaten stealthily included: quails, longbills, thrush, rufous turtledoves, wild geese, wild ducks and pheasants and deer, wild boar, raccoon dogs, rabbits, otters and bears. Code words such as *momiji* (autumn leaves) for deer meat and *botan* (peony) for wild boar meat were used.

Still, what many people ate without fear or hesitation was fish, including saltwater fish such as sardines, horse mackerel, mackerel, sea bream, cod, trout and salmon and freshwater fish such as sweetfish, crucian, carp, loach and eel. The whale was naturally regarded as saltwater fish and people did not feel resistant to eating the meat.

On the contrary, whales were very much appreciated because one whale provided food for hundreds or even thousands of people and, what is more, whale meat was much tastier than fish and abounded protein and fat. As shown by the code word for wild boar meat, *yama kujira*, which literally means “mountain whale,” the whale itself was food firmly established among the common people of Edo.

In reflecting this, many of the cookbooks that came out in the Edo period presented dozens of whale dishes.

One factor of the popularization of whale meat in the city of Edo is that the supply of whale meat was stable in the latter half of the 1700s. Until then, apart from the privileged classes, whale meat was only available mostly in areas near the sea where whales were caught. However, whale meat came to be frequently eaten by the common people of Edo and whale meat eating culture flourished.

One thing that made it possible for the supply of whale meat to be stable is the development of meat preservation methods. Methods of producing salt on a large scale had already been established and salt allowed food to be preserved for a long time. Soy sauce and *miso* were already produced by using salt, which could also be utilized for preservation.

Another major factor is that marine transportation dramatically developed.

In those days, *kitamaebune* (northern-bound ships) and *tarukaisen* (cargo ships initially for shipping sake in barrels) were already in service. *Kitamaebune*, which were also referred to as *Hokkokukaisen*, went from various ports in Oshu (roughly present Tohoku region) and Hokuriku through the Sea of Japan and further through the *Nishimawari-koro* (western sea route) to ports such as Osaka and Hyogo, which was a central distribution artery. Large junks operating on the Pacific Ocean also transported large volumes of products including rice, salt, timber and textiles from various parts of the country, which came to be distributed nationwide.

Tarukaisen carried goods such as sake and food from Osaka to Taiji, Wakayama Prefecture, which was already the biggest base for whaling. After visiting Taiji for taking whale meat onboard, ships called at nearby Yuasa, Kishu, the birthplace of Japanese soy sauce, to take on soy sauce and Taketoyo Port on the Chita Peninsula to take on goods such as vinegar and *miso*. Present Aichi Prefecture, which includes the Chita Peninsula, already produced *haccho miso*, *tamari* soy sauce, rice vinegar and *mirin* rice wine in those days and functioned as supply warehouse. Whale meat was locally preserved with salt, soy sauce and *miso* for transportation.

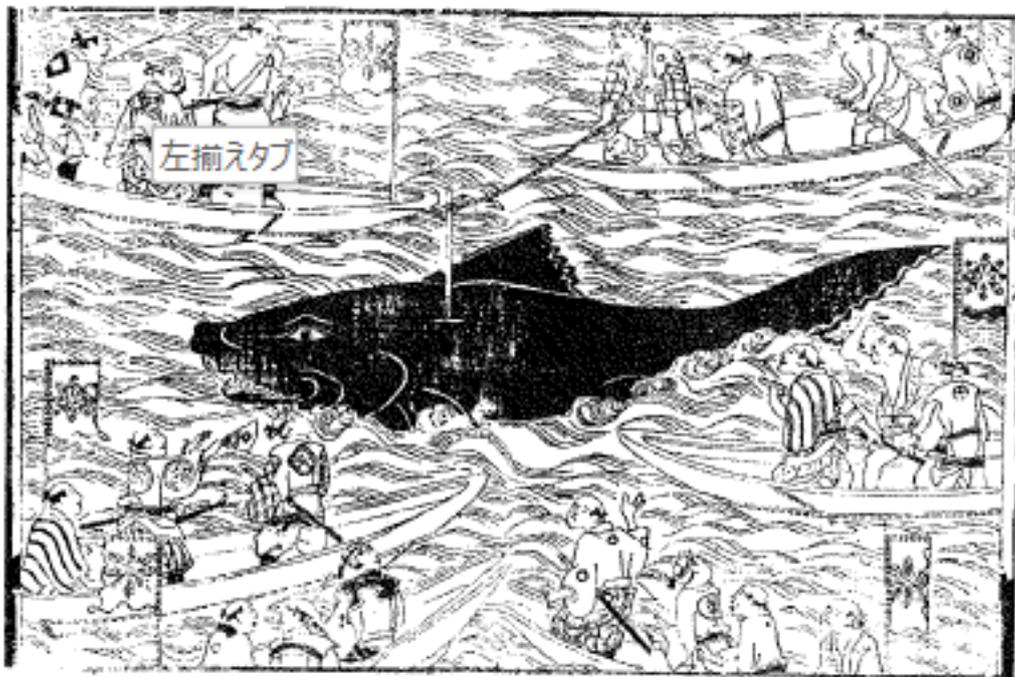
In this way, whale meat caught in Kishu came to be carried via Mikawa all the way to Edo.

Whale consumption established among the common people

The Eternal Storehouse of Japan, a novel written by Ihara Saikaku and published in 1688, mentions Tengu Gennai, a character modeled after Taiji Kakuemon, who was a master harpooner in Taiji, Wakayama. The story was made into a *kabuki* play.

Tengu Gennai was good at harpooning whales. One whale he caught is described as a right whale measuring “33 *hiro* 2 *shaku* 8 *sun*,” which converts to about 60 m, unprecedentedly large. The story notes that the oil obtained from the whale filled as many as 1,000 barrels, chunks of blubber were as white as snow on Mt. Fuji and the chunks of lean meat suggested a magnificent view with autumn leaves of Takao, which is in current day Kyoto. The novel also says that the bones, skin and fins were all used without being wasted.

There were also whale restaurants in the streets of Edo. Paintings of the city of Edo in those days sometimes show “Whale” signs in front of taverns.



The Eternal Storehouse of Japan, Ihara Saikaku

The Eternal Storehouse of Japan, a novel by Ihara Saikaku, describes the head of a whaling group who made a fortune by whaling, suggesting that whaling produced a lot of wealth.

How was whale meat eaten in those days? Mostly, it was processed into *tare* for eating. *Tare* is sliced lean meat of the whale soaked in soy sauce and dried, which withstood long storage. Popular ways of eating *tare* included grilling lightly or desalting and putting into *miso* and other soups as solid ingredients.

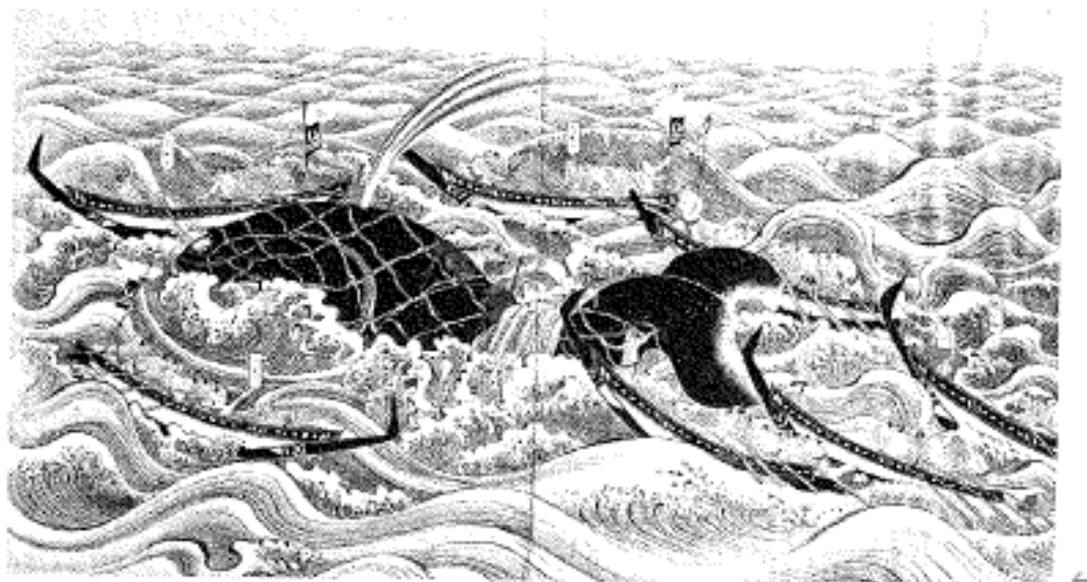
One famous food book of the Edo period is *Honcho Shokkan*, literally “Our Country’s Food Reference (published in 1697). It mentions a variety of types of food and goes so far as to say, “What is free of poison, best for the human body and tasty? Whale.”

Wakan Sansai Zue (“Illustrated Sino-Japanese Encyclopedia”), which is as famous as *Honcho Shokkan*, was an illustrated encyclopedia published around 1713. This book already contained a map of the Japanese archipelago, with indicators of whaling bases in

various parts of the country. Whaling centers across the country are presented including Yobuko in present day Saga Prefecture, Taiji in Wakayama Prefecture, Matsumae in Hokkaido and the Goto Islands in Nagasaki Prefecture. Grilled whale is eaten in Matsumae, according to the book--apparently, whales were processed and prepared in various ways in different parts of the country.

Taisei Bukan, a book of heraldry published in 1789, contains a list of tributes from different *daimyo* feudal lords to the Shogun, which says that the lord of Kishu (Wakayama) domain presented the Shogun with whale every October. This means that successive Tokugawa Shoguns ate whale meat every year.

In the mid-Edo period, a book specialized in whales quite suited for connoisseurs came out: *Isanatori Ekotoba*, literally “An Illustrated Explanation of Whaling.” The book describes how whales were hunted by Hirado Domain, in present Nagasaki Prefecture, written by a scholar of the Japanese classics, Oyamada Tomokiyo, and provides a valuable encyclopedia that covers topics ranging from how to catch whales, different species of whales, details on the processing of whales, such as how to dissect them, tools used for dissection and the names of different parts of whale anatomy.



Ikitsuki no Misaki Oki ni Sebikujira Hitomori Futamori Tsuki Shirushi Tatsuru no Zu (a Right Whale off Ikitsuki Point Harpooned and Marked) from *Isanatori Ekotoba*, depicting how a whaling group in those days caught a whale by using

several boats to surround a whale.

It comes with a supplemental volume entitled *Geiniku Chomikata*, a specialized book on whale dishes, which is entirely devoted to how to eat whales.



The book explains how to prepare and cook virtually all, or 67, different parts of the whale including internal organs and skin (with different ways of cooking for different parts including the head skin and side skin in addition to the black skin), breasts, uterus, eyeballs and penis, not to mention red meat and tail meat. Surprisingly, it even covers how to cook the lungs.

I will give a further description about *Geiniku Chomikata* later, but, according to author Oyamada Tomokiyo, who fully tasted every part of the whale body, the most delicious thing is sashimi from the tail meat. It is quite understandable to me. Tail meat was the part that people longed for since the Edo period.

All in all, the fact that such a variety of literature came into being ranging from whaling to how to cook whales in the mid- to late-Edo period in this way suggests that whale eating had already spread among the general public and a considerable number of whales had been caught as well.

Apparently, whales inhabited the sea in appreciable numbers and frequently came into Edo Bay. Incidentally, a whale was seen off the coast of Shinagawa in 1798 (10th year of the Kansei era), which attracted a lot of visitors. That whale was said to have been a blue whale, the biggest of the whale species, and was referred to as the Whale of Kansei, and ranked with the Arabian Camels of Bunsei and the Elephant of Kyoho, collectively the Three Rare Animals that created a sensation in Edo. The cranial bones of this whale were interred in Kagata Shrine (in the present Higashi Shinagawa, Shinagawa City, Tokyo), which still maintains the whale mound from those days.

The U.S. demanded the opening of a port for whale oil

In June 1853 at the end of the Edo period, an American Naval officer, Matthew Perry, led the East India Squadron to Uraga and demanded that trade to the U.S. be opened. In those days, American whalers often came to catch whales off the Sanriku coast, Hakodate coast and Izu Peninsula and the main purpose of demanding the opening of ports was to build supply bases (for water, food, firewood, etc.) intended for whalers.



Shinagawa Oki no Kujira Takanawa yori Miru Zu (Whale in the Bay at Shinagawa as Seen from Takanawa), Katsukawa Shuntei (owned by Shinagawa Historical Museum) c. 1820.

In the U.S. around that time, a major whaling industry had arisen, mainly in Boston, and greatly expanded. The purpose of their whaling, unlike how the Japanese whaled for food, was only to obtain fat for use as fuel for candles and lamps. To describe the large scale of American whaling in those days, as of 1845, they had as many as 659 whalers, which they used to go all over the world including the Atlantic Ocean, Indian Ocean and Pacific Ocean to hunt whales.

In particular, the numbers of sperm whales and right whales caught were quite large and, according to A. Starbuck's *History of the American Whale Fishery* (1878), 225,521 sperm whales and 193,522 right whales were caught in a 72 year period, from 1804 to 1876.

Quite bluntly, these are huge numbers. Whales off the whaling base of Boston were caught almost to the last and that is why the Americans expanded their whaling grounds to all over the planet. Its impact reached Japanese coastal waters and right whales, about 10,000 of which had assumedly existed, is said to have sharply decreased to about 1,000 because

American whalers caught too many of them off the coast of Japan. In those days, not only the U.S. but also the U.K. and France were actively catching whales.

The Americans, unlike the Japanese, as mentioned earlier, were whaling just for obtaining oil for use as lamp oil and machine oil.

When an American whaler caught a whale, how was it handled? First, the whale was dissected on the side of the ship right away and the skin with thick blubber was removed, which was put into wooden barrels to bring home. The remaining part of the whale meat, bones and internal organs were all dumped into the sea.

In this way, there is a stark difference in attitudes to whales of Americans and the British, who were killing large numbers of whales just to obtain blubber, which accounted for only 1/10 of the weight of massive whales, and discarding everything but the oil, and the Japanese sentiment toward whales. This should be recognized.

In 1859, oil was struck in Pennsylvania, USA. This great discovery led to America's first energy revolution. An oil rush eventually began, and America's whaling rapidly declined. Eventually, U.S. withdrew from commercial whaling in 1972.

Then, in an about-face, Americans took an anti-whaling position and started saying things such as "Whaling nations are barbarians" and "It's cruel to whales." If this is not conceited logic, what is it?

And for all that, people are still whaling in some parts of the U.S., which is dumbfounding. I will detail this later.

Key role played by whales in postwar reconstruction

In this way, the U.S. and Europe organized large fleets to hunt whales in Japanese coastal waters and caught large numbers of whales, which rendered Japanese traditional whaling by hand-harpooning totally unable to compete.

Accordingly, in the mid-Meiji period, Japan learned from Norway and introduced a modern whaling technique of firing guns to catch whales.

As time went by, through the Taisho to the Showa era, Japan entered the time of the Pacific War. In those days, Japan was short of food and everybody was poor. Therefore, without knowing what else to do, people caught whales in Japanese coastal waters even during wartime.

It was a time when food shortages were so severe that the Japanese could not take in sufficient animal protein without consuming whale meat.

In the end, Japan was defeated. The Japanese, who were suffering from a scarcity of food, were saved by whales.

In Japan in those days, dairy farming was yet to be developed and neither cattle nor swine were raised in large numbers. Chickens were not the broilers like we have today and limited to those kept in farmers' gardens

After all, marine products were just about the only source of animal protein but fish alone were not enough to fill the stomach of the nearly 100 million citizens. With whales, however, just one could provide a large amount of meat. In addition, whale meat is, above all, rich in nutrients, which will be detailed in Chapter V--on the amazing potential of whales--and gave great help to the postwar Japanese people by vitalizing its eaters.

During the postwar period, around 1947 to 1948, whale meat is said to have accounted for about 46 to 47% of the total meat supply per citizen.

The central role of whale meat grew more pronounced and, if limited to meat such as beef, pork and chicken, from 1957 to 1962, when the quantity of catches peaked, the Japanese depended as much as over 70% of their animal protein on whale meat.

Around 1957 coincides with the time I entered junior high school. In those days, even greengroceries in the streets offered whale meat, wrapped in newspaper and put in orange and apple crates, for sale by weight. This shows how abundant whale meat was in the streets back then.

If no whale meat had been available in those days, what would have become of the Japanese? The lack of protein and energy would have reduced vitality and everybody would have become skinny and physically unfit for work. Imagine this: Of the 100 grams

of meat taken in by the Japanese in those days, if 70 grams had been lost, their physical strength would have doubtlessly declined.

In fact, the background of the wonderful postwar recovery of Japan is very closely linked with the Japanese consumption of whales.

When the war ended in 1945, Japan was a wide stretch of burned-out ruins. In particular, metropolitan Tokyo and Osaka, a major commercial city, were reduced to ashes.

Amazingly, however, photos of Ginza around 1948 show big flashing neon lights. Shortly afterward, the Yamanote Line was restored and most city functions of Tokyo recovered. It is said that, as early as in 1955, Tokyo joined the club of the world's five major cities along with Paris, London, Rome and New York. Praised by U.S. Ambassador to Japan Edwin Reischauer, Japan achieved an astounding recovery in all aspects including politics, economy, science, culture and education in just a little more than 10 years after defeat.

I believe that what was essentially behind the marvelous energy and vitality of the Japanese and their characteristic willingness to make an earnest effort even while living a rugged life is the power of whales.

A key role was literally played by whales in postwar reconstruction.

“Whaling group”: an exceptional big industry

Why have whales taken root this deeply in the lives of the Japanese? The biggest reason lies in geographical conditions. Japan, an island country, is surrounded by the sea, where fish that whales eat school together, which are followed by whales reaching Japanese coastal waters. In addition, whales that stray or are strand into bays due to marine currents could also be used as food. Anyway, many whales used to be caught in coastal waters. The Pacific seaboard, in particular, provides a good fishery with a warm current called the Kuroshio, flowing south to north and a cold current called Oyashio flowing north to south. The two ocean currents carry large schools of small fish and whales chase after them to reach Japanese coastal waters. That is why the Japanese Pacific coast is one of the most whale-abundant areas in the world.

Tarukaisen, which were in service on the Pacific run in the Edo period, took a route from

Osaka to Edo via Mikawa and could travel very fast. It was because the ships were carried by the Kuroshio and the so-called “Kuroshiogawa,” literally meaning “Kuroshio River” to which the current was likened, made the fast sailing possible. Whales followed the same course.

The same can be said of the Sea of Japan. The warm current south to north and the cold current north to south meet to bring abundance fish, attracting many whales.

In ancient times, people mostly caught whales that were carried by those currents to the coast. However, once they learned how they could obtain vitality from whales and how delicious they were, food practices related to whales gradually developed and demand further increased. To meet the demand, people subsequently directed attention to whales swimming off shore, rather than depending on whales that drifted ashore, and gradually came to hunt whales in an organized manner. Some old records show that, at the end of the Muromachi period, small-scale organized whaling was carried out in the Tokai area including Owari (western Aichi Prefecture), Mikawa (eastern Aichi Prefecture) and Ise (Mie Prefecture). In this region, coastal whales such as right whales and gray whales swam in large numbers, which people caught, and whaling gradually grew in scale.

In the Edo period, large whaling groups were finally formed to actively hunt whales. Whaling groups increasingly became larger in scale growing into massive organizations.

The whaling group said to be the oldest started whaling in present day Taiji, Wakayama Prefecture, in 1606, where Wada Yorimoto, a descendent of Wada Yoshimori, a meritorious retainer of Minamoto no Yoritomo, hand-harpooned whales (organizations like this group were called *sashite gumi*, or group of harpooners). This method was called *tsukitori-ho*. In the same period, a whaling organization was formed in Katsuyama Awa (present day Chiba Prefecture) by the Daigo clan. These *sashite gumi* developed to organize “whaling groups.”

The Wada group of Taiji invented an even more innovative whaling method in the period of Wada Soemon (later called Kakuemon), a grandson of Yorimoto, and developed into a still larger group. The method was called *amitori shiki*, which uses enormous nets (made of strong hemp) to catch whales. This not only kept whales from escaping but also prevented them from sinking and improved the efficiency of whaling by a degree that can be described as revolutionary.

Before long, this whaling technique spread to whaling groups nationwide and whaling groups grew into large organizations. Whaling by these large organizations took place in areas such as Taiji, Koza and Miwasaki of Kishu, Tsuru, Ukitsu and Kubotsu of Tosa (present day Kochi Prefecture), Senzaki and Kayoi of Nagato (part of present day Yamaguchi Prefecture), Ogawashima, Hirado, Arikawa, Ukujima and Ikitsukishima of Hizen (present day Nagasaki and Saga Prefectures), Katsumoto of Iki and Waniura of Tsushima.

The size of staff that formed a whaling group greatly varied. A middle-ranking group typically consisted of about 700 people including 20 in management and administration, 500 in charge of whaling at sea and 200 in charge of works on land (dissectors, processors, carrying vessel carpenters, etc.). Some were large enough to include about 3,000 people such as that of Taiji.

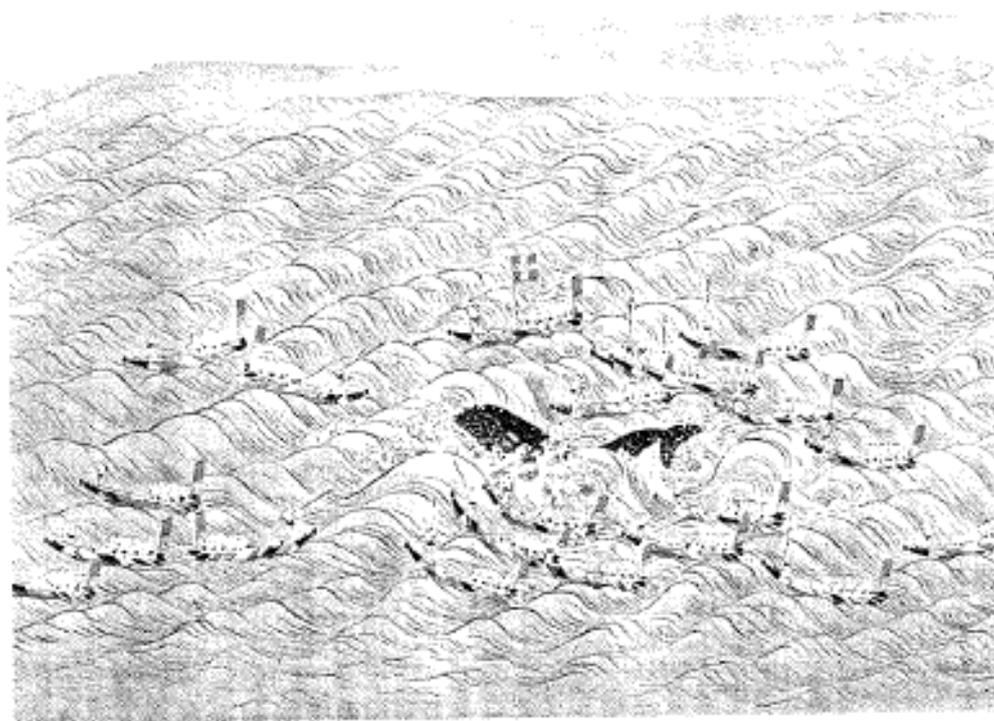
They were mammoth enterprises for those days and made an exceptionally large industry. No other industries were as large as this at that time and whaling is assumed to be one of the biggest industrial organizations in Japan, along with mass mining of gold, silver and copper. In the *amitori shiki* method employed in Taiji, huge nets of about the size of an elementary schoolyard were made, which were brought offshore in boats to be spread, and a whale was driven into them, harpooned to be weakened and dragged ashore by boats.

This technique of using nets to hunt whales is unique to Japan, from a historic perspective, to be found nowhere else in the world.

Now, how were whales caught specifically?

First, those stationed at a point commanding a view of the sea to keep watch for whales swimming closer called *yamamikata* would alert others to the discovery of one or more whales. They light a signal fire and flag the location and the number of whales. Based on that information, *amibune*, or netting boats, spread nets in the open sea. Then, *sekobune*, literally meaning “beater boats,” get behind a whale to drive it toward the nets. *Sekobune* join forces to drive the whale into the nets to slow it down, when the crew called *hasashi* throw hand harpoons in rapid succession. The harpoons have a rope attached to the near end connected to *sekobune* and the whale trying to escape drags the *sekobune* with it. As

the whale exhausts itself, a sharp sword is used to finish it off.



Taijiura Hogeishi Emaki (Whaling at Taijiura a Series of Scrolls) depicting whaling off the shore of Taiji) Vol. 2 (Source: *Kumano Taijiura Hogeishi Bessatsu* (Appendix to A History of Whaling at Taijiura, Kumano) Vol. 2, originally owned by Mitsuyo Wada, Heibonsha edition).

On shore, people assigned to land the whale when it arrives are waiting. There are also people in charge of different tasks such as dissecting the whale, dividing the meat to various parts, boiling the meat to extract fat, corning the meat and carrying it into the storehouse. The whole process involved a huge number of people.

This being the case, three or four whales found at one time would put the entire group into a state of chaos.

Whales inseparable from rice

After catching a whale, a peculiar wisdom was utilized.

Whale meat was first corned to prevent it from spoiling. However, simply covering

whale meat with salt would dehydrate the meat to make it dry. What did the Japanese use to prevent this? Rice straw.

Whales caught at sea can be eaten right away in the local area but, for transporting them to densely-populated areas, a method called *aramaki* was devised. If corned meat is wrapped in rice straw (a coarse straw mat), the straw mat preserves moderate moisture, which allows the whale meat to be delivered to the destination while a moderate amount of moisture is maintained. The name *aramaki zake* for salted salmon, which is now a standard New Year gift item, derives from the method of whale meat preservation. Wrapping corned whale meat in a rice straw mat and pouring brine onto it to moisturize in its entirety before storage allowed the meat to be preserved for months. This, in the first place, is a benefit of the rice growing culture in Japan. Therefore, the Japanese, whales and rice are an inseparable combination from the perspective of food culture as well.

What is more, whale meat-eating has been closely linked with the rice diet. With rice, salty food such as *miso* or soy sauce marinades go well. Thinking in different terms, *miso*- or soy sauce-marinated whale meat eaten together with bread does not seem so delicious and eating whale meat together with buckwheat or wheat noodles does not sound very tasty either. Rice goes best with whale meat.

Rice almost always comes with *miso* soup and, in the past, *kujirajiru* (whale soup) containing whale blubber was popular nationwide. This *kujirajiru* and rice are a match made in heaven.

This is another reason why Japanese cuisine can be said to have provided a basis for the prosperity of a whale meat-eating culture.

There is a great variety of recipes for whale meat. It can be eaten raw as sashimi, boiled in pots as *sukiyaki*, cooked with Japanese mustard greens as *harihari-nabe*, or as *kujirajiru* seasoned with *miso*.

In the first place, the reason for the large number of *nabe*, or hot pot, dishes in Japanese cuisine is that its origin is in open hearths. Above a hearth, a pothook was dangled from the ceiling to hang the *nabe*, which was eaten by family members together. It facilitated family unity and the pleasures of a happy home.

Why did *nabe* dishes develop in Japan? Because the Japanese boil their food in order to eat it. First of all, rice, the principal food, is boiled for eating; the Japanese are a grain-eating people.

For the rest of the world, people in most other countries, including the U.S. and European, African and South American countries, originally ate flour. In China, people often eat buns and noodles. Rice is popularly eaten only in the southern part of China, from Henan Province to Yunnan Province and, in other areas, people make wheat flour noodles. People in the area around Beijing, Shanxi Province and Guizhou Province also eat noodles--the Chinese can be regarded as a mostly flour-eating people.

Koreans, who have recently come to eat rice, originally ate a lot of flour as well.

Indian naan is also made of flour. In areas such as Afghanistan, Iran, Turkey and Iraq, they usually mix and knead flour and water and spread out the mixture flat to be baked for eating.

In European countries, including the U.K. and France, people eat bread, which is made of flour. Africans, who bake their principal food to get rid of the water content, are flour-eating peoples.

Unlike people in other countries, the Japanese boil their principal food before eating, which encouraged the development of pots. There were already pots in the Nara period but cookware like frying pans came to be used at a much later time. Aristocrats in those days ate whale meat mainly by boiling in pots. Since the Nara period, whales have been eaten mainly as *nabe* dishes.

Tastiness enhanced sevenfold by glutamic acid and inosinic acid

Above all, Japan is an island country and copious amounts of salt could be obtained. As the Japanese have made salt since the Jomon period and salt was available in abundance, a method of preserving whale meat in large quantities was developed. Covering with salt could make anything resistant to decay. In addition, salt has produced soy sauce and also *miso*. Food preserved in them lasted well for a long time and, more than anything, became much tastier.

These methods of preservation may be one factor that brought the Japanese closer to whales.

From the perspective of fermentology and food culture, which are my specialties, what goes best with soy sauce and *miso* to make good recipes is whale meat.

The savory flavor of soy sauce and *miso* comes from the *umami* of glutamic acid. Soy sauce and *miso* taste good because of a high amount of glutamic acid that constitutes soy protein is released during fermentation and the Japanese can be said to have a palate that senses the *umami* of glutamic acid.

Meanwhile, the *umami* of whale meat comes from inosinic acid. Whale meat, along with animal meat and seafood contain a large amount of inosinic acid.

Combining the glutamic acid of soy sauce and inosinic acid of whale meat multiplies the *umami* as much as sevenfold. That is, 1 for glutamic acid plus 1 for inosinic acid do not make 2 but 7, thanks to the multiplier effect of taste produced. That shows how amazingly inosinic acid enhances the flavor of glutamic acid. That is why simply sprinkling soy sauce on dried bonito flakes makes them so much tastier.

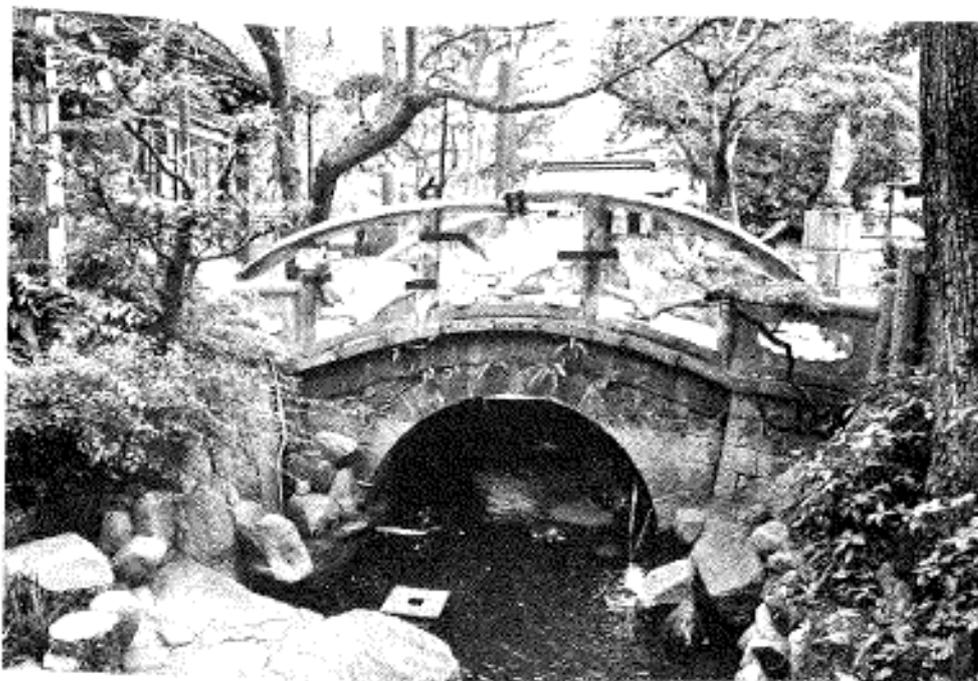
In any case, the Japanese have eaten whale meat flavored with soy sauce or *miso* from ancient times, which has made the Japanese a people who know the “tastiness” of whale meat.

Gratitude to whales expressed by wasting nothing

The Japanese have eaten all of the meat and internal organs of whales and even made use of the bones and fins attached to the meat. They naturally utilized the oil as well. Without whale oil, Edo nights would have been very dark. The Japanese have been supported by whales also in this respect as well as in their diet.

In addition, whale teeth and bones were made into various things including sword guards, carved toggles, ornaments such as *kanzashi* hairpins and combs, chopsticks, earpicks and fish hooks. The greatest work of all, however, is a bridge made of whale bones: Setsugeikyo at a temple called Zuikoji in Higashiyodogawa Ward, Osaka City. The bridge

was built and rebuilt, from the Edo period to the present day, using the bones of whales caught in Taiji, Wakayama brought to Osaka.



Setsugeikyo bridge at Zuikoji, Osaka City: Rebuilt to be the 6th generation in 2007.

This all started in 1756, when people in Taiji suffering from poor catches asked the chief priest of Zuikoji Temple, who happened to be on a visit to Taiji at that time, to pray for good catches. Then, whales came back to the Taiji coastal seas. This prompted the whaling group of Taiji to bring whale bones all the way to the temple for replacing the bridge. They dug a huge hole in front of the temple to bury the whale bones for about two years. This degraded the bones, which are dug up to build a bridge.

A bridge rebuilding ceremony was held in 2007, which I attended. Not one other country in the world does anything like this. In addition to temples, Kaido Shrine in Arikawa, Goto Islands, Nagasaki Prefecture, for example, maintains an enormous *torii* gate made of whale bones to this day.

Another application of whale bones was crushing them into dust and using it as calcium fertilizer for agriculture. Scattering this dust is said to have been very effective and brought good crops.

Baleen also had many applications such as musical instruments. Baleen stretched inside drums greatly improved the sound. Mechanical dolls and *yoruri* puppet theater would have been impossible without baleen.

One less-known application is drugs. Whales provided ingredients of large amounts of drugs. Liver oil was made from the liver and hormone drugs from the pancreas and pituitary. Sperm whales are known to provide high-quality whale oil and the intestines produce ambergris, which is used as perfume, on rare occasions.

In this way, the Japanese used the entire whale body including bones and baleen for food, agricultural, industrial and craftwork purposes. Quite unlike the Americans and the British in the past, who only took whale oil and baleen and threw away the rest, the Japanese thought that, once a whale was caught, they should waste nothing and allow it to depart in peace.

Of all countries, memorial services for whales are held only in Japan

As described above, the Japanese utilized the whole whale as a valuable resource and were thoroughly grateful to whales. I believe that no other people have treated whales with as much mercy, respect and reverence as the Japanese.

It is true that catching, killing and eating whales is painful and this very thought is the reason why Japanese ask for the whales' forgiveness and express their profound gratitude at the same time. Therefore, bases for whaling often have a grave mound or tumulus for whales. In some areas, people have given a posthumous name to each one of the whales caught, made a memorial tablet and erected a tower for the repose of their souls to honor them. These things are seen in no other country but Japan.

Sometimes female whales were found to be pregnant. On the coast of Kishu and in some other areas, when a female whale that happened to be caught was found with a fetus, it was not eaten. The fetus was wrapped in the fisherman's wife's waistcloth and carefully brought to land, where it was buried at a temple with solemnity and due respect.

In Yobuko Town, Karatsu City, Saga Prefecture, there are *geigei kuyoto* (tower for the repose of souls of whales) and *geigei senbon kuyoto* (tower for the repose of souls of

numerous whales). *Geigei* is originally written in two kanji 鯨鯢, the first one for male whales and the second for female whales as well as whale cubs. Accordingly, these towers honor all whales, including fathers, mothers and children. Whenever I visit Yobuko, I go to a temple called Ryushoin, which has both *geigei kuyoto* and *geigei senbon kuyoto* to offer incense.



Geigei Kakocho
(Koganji Temple, Nagato
City, Yamaguchi Prefecture)



Memorial tablets for whales
(Koganji Temple / Nagato City,
Yamaguchi Prefecture)

There are also graves for whale fetuses in various parts of Japan. When I go to the Kumano coast of Mie Prefecture, I find many memorial tablets for baby whales in temples in the area.

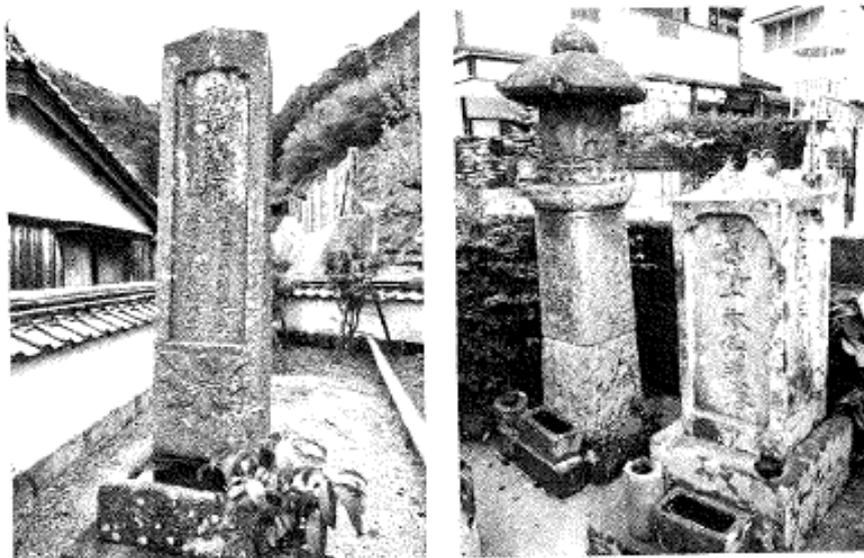
The honoring of whale memorials like this began around 1700, when whaling groups were formed and started to develop.

There is a tomb for whale fetuses at Koganji Temple in Kayoi, Nagato City, Yamaguchi Prefecture, which faces toward the sea. I hear that this is out of the people's wish to let fetuses, which never had a chance to see the sea in this world, see it by orienting the tomb toward the sea as the least they can do.

Based on the explanation given by Nagato City, the inscription on the tomb for whales means:

“Although your life as a whale was terminated with the mother's life, it was not our intention to take your life. We'd rather have freed you into the ocean, but you'd not be able to survive on your own in the harsh environment. Therefore, we pray that you receive the virtue of impermanence like us human beings.” (Comment by Rev. Shoyo

Tokujo)



Geigei kuyoto and *geigei senbon kuyoto*(Ryushoin Temple / Yobuko Town, Karatsu City, Saga Prefecture)

Grave for whales(Seigetsuan Temple / Nagato City, Yamaguchi Prefecture)

The *Geigei Kakocho* (Register of Dead Whales) owned by this Koganji Temple contains a record of mother and child whales caught during a period of about 120 years, from 1719 to 1837, including their posthumous Buddhist names given, species, areas where they were caught and the names of the whaling groups that caught them in chronological order. Each and every whale was given a proper posthumous name such as Shoyo Geigaku and a register was made based on this information. Livestock such as cattle and swine were not given this treatment--apparently only whales were regarded equal to human beings.

At one time, I told this story to foreigners, especially people who were anti-whaling. Their reaction was generally cool, "Isn't it just that the Japanese are sentimental?" They were hardly surprised or impressed. There is probably a difference in religious perspective involved but I believe that the feeling of veneration toward whales and the sense of gratitude to living things represent a unique view of life and death shared by the Japanese.

In addition to this, the Japanese show their reverence to whales by the many whale-related shrines and festivals that exist throughout the country. Among the festivals that revere whales as deities, Nagasaki Kunchi of Suwa Shrine, Nagasaki has a large float modeled after a whale that is mounted with a decorative halberd to represent how traditional

whaling was carried out in the Edo period and a “spouting whale” performance is given as a religious offering.

On the coast of Ise Bay in Mie Prefecture, several shrines dedicate fancy whaling ship floats and whale-shaped paper decorations to shrines.

There are also other whale festivals all over Japan and are depicted in various writings and paintings.

While memorial services are held for whales at temples, festivals are held at shrines in appreciation of whales. In Japan, a considerable number of Shinto as well as Buddhist events for honoring whales are held.

“*Itadakimasu*”: a phrase unique to Japan

Why have the Japanese appreciated whales to this extent and set such a high value on whales? Not many other people have this much feelings toward living things that they use as food.

To begin with, human beings only eat living things. Nobody eats stones or dirt. Vegetables are also living things. Rice and fish are living things. That is, human beings survive on forms of life.

In fact, there is one food that does not have life: salt. Sugar is made from sugar cane, a plant, and had life, which is not the case with salt.

In other words, everything eaten by human beings to survive has life, except for salt. That is the starting point of eating. Just as human beings do, whales eat fish. Fish that are eaten by whales also eat smaller fish. Based on such an ecosystem and food chain, lives on earth are maintained and controlled.

At the top of the ecosystem are human beings, which I think gives human beings an important mission. Overseen by human beings with their wisdom, human beings are the only living things capable of giving consideration to the balance of the natural world. We must carry out human activities in accordance with that sense of mission.

That is exactly why we must value the lives that dwell in food and must treat them with respect, where gratitude exists. The phrase *itadakimasu*, which Japanese people often say before meals, means that “I am taking your life with gratitude and respect.” In fact, a phrase with a similar meaning to *itadakimasu* exists in nowhere else but Japan.

Christians thank God before meals but it is not gratitude to living things or to the food itself.

Muslims also pray to thank the Allah before eating but it is to show gratitude for having food to eat.

A phrase *itadakimasu* to show gratitude and respect for the life about to be eaten only exists among the Japanese.

Unfortunately, however, present-day Japanese have forgotten the origin of *itadakimasu*.

This is symbolized by the fact that in Japan, which is said to have a food self-sufficiency rate of as low as 41% (meaning that about 60% of what the Japanese eat depends on foreign countries), the annual amount of leftover food is approximately 20 million tons.

Where does such leftover food come from? First, there are agricultural surpluses. If a large amount of cabbage is harvested, for example, some of it is disposed of, which is called production adjustment, because bringing all of it to market would cause a sharp decline in the price. There are also leftovers from school meals and households. What accounts for the most part of waste are products on the market past their use-by date. Food that is still good to eat is disposed of only because it is past its use-by date.

The annual amount of unsold food products including those past their sell-by dates or returns is approximately 600,000 tons. By simple arithmetic, assuming that an adult eats 500 grams of food a day, it translates to a bewildering amount of food worth--as much as 3 million servings are dumped every day.

In impoverished countries in Africa and Asia, thousands of children are dying each day due to starvation, while the Japanese are throwing away 3 million servings of food every day. If we continue to do such a thing, we will receive Heaven’s punishment. Present-day Japanese have lost a sense of gratitude expressed in *itadakimasu* to show respect for the

food and the life in it. Present day Japanese fail to value all food, not to mention whales. The Japanese economy has become way too developed, resulting in the creation of a society of material consumption. We may now be paying the price for parroting the phrase “consumption is a virtue”.

There is a lesson taught to children in the Edo period.

“Who gave you what you are eating now? If you cannot thank the person who gave you the food, do not take up your chopsticks.

What is the food you are eating now? It all comes from living things. If you cannot thank the living things, you are not allowed to take up your chopsticks.

Who grew and caught the food you are eating now? Farmers and fishermen. Therefore, if you cannot sincerely thank them, you cannot take your chopsticks.

The precious work of people and sacrifice of valuable lives is in the food in front of you. Therefore, if you leave one grain or one drop uneaten, you are not permitted to take up your chopsticks from the start.”

That is, taking up chopsticks means to have a sense of respect and reverence for food.

In the past, these things were properly taught.

In any case, the Japanese of the past, who used to value all the food and drink they took, consumed whales as food with respect and did not throw away one drop of blood. This thinking is was reflected in what people used to often say: “A grain of rice is worth a drop of blood.”

Mongolian nomads do not inflict pain on sheep

I have said that not many peoples have this much respect for living things eaten as food but Mongolian nomads actually have a similar sense of reverence, which is shown in how they eat sheep.

I have traveled in Mongolia many times to obtain information and, when I saw Mongolians eat sheep, I realized that their feelings are exactly the same as those of the Japanese toward whales. It made me go so far as to think that, in one sense, it might be a sentiment common to Mongol that is not shared by the Anglo-Saxon-Germanic peoples. The more sheep I eat in Mongolia, the prouder I feel as a fellow Mongol.

When they pick a sheep to eat, Mongolian nomads go near to the sheep and lay it down while petting it. The moment it lies down, they use a large Mongolian sword to slash its throat, put the hand in through the opening to take out its heart. The blood of the sheep immediately gushes out, not a drop of which is wasted but put into the container prepared at the side. It may seem cruel at first glance but the sheep feels no pain. It dies before it realizes what even happened. In a sense, no other animal used for food may be as happy as sheep in Mongolia.

The blood, of course, is a valuable food and they usually make it into soup to eat. Boiling this blood down causes the protein to harden to become something like spongy tofu, which is really delicious.

Then, the hair is stripped, which is naturally used as valuable wool. The skin is tanned to use as a material of mats, bags and tent roofs. The bones, after collecting cerebrospinal fluid, are crushed and returned to the Mongolian soil. Then, the calcium and potassium from the bones turn into a nutritious fertilizer to grow grass, which in turn feeds sheep.

They naturally eat the meat and all of the internal organs as well. Fat is used as fuel in addition to as food. The head, of course, is cracked open for the brain tissue and cerebrospinal fluid. In this way, the entire sheep is used and nothing is thrown away. This is exactly the same as how the Japanese have used whales from old times.

What is common to the Mongolians and the Japanese may be the mentality of giving thought to the value of life and a sense of gratitude and preciousness. This is known in a physical sense. This is because of that thought that no animal is used in a wasteful manner. While I watched a sheep being skillfully dressed in Mongolia, I thought about Japanese whaling.

As described later, in Japanese whaling, people came up with a strategy of aiming at the vitals of whales in order to minimize suffering. Landed whales were handled carefully to avoid causing injury. Behind the hunt was a wish to relieve the whales from suffering as quickly as possible.

Gratitude forgotten in the modern era

In this way, the Japanese have eaten whales while appreciating them and honored them by not wasting anything. Without whales as food, the Japanese would have been in a terrible situation.

However, various whaling countries, including Japan, have become increasingly commercialized with the introduction of large-scale whaling by using modern whaling techniques. Modern whaling in Japan started in 1899, when cannons and harpoons for whaling were bought from Norway. Whaling ships were built and Nihon Enyo Gyogyo K.K. a modern whaling company, was established at the same time. These developments made it possible to catch far larger numbers of whales than those caught by the conventional *amitori shiki*, and safely and reliably at that, which made the biggest change in the history of Japanese whaling.

While whaling expertise was introduced from Norway at first, the Japanese, living up to their characteristics as a maritime people, came to independently establish modern whaling techniques in the meantime and finally pushed their way up to be one of the world's leading whaling bodies. More than anything, modern whaling made it possible to catch much more whales safely and reliably as compared with the conventional *amitori shiki* and even the Japanese, who had treated whales with respect until then, significantly changed their perspective from whales as living things and objects of reverence to commodities that produce money.

In time, whaling came to take place in the oceans around the world in a competitive manner and the population of whales sharply decreased. There was a metaphor that time to describe the era: the Whaling Olympics. It was used by the mass media to goad each whaling country to catch as many whales as possible within each year.

We must reflect seriously on overhunting of whales using modern, scientific whaling. The historical fact that we once drove whales to the point of extinction as a result of competitive whaling, based on body counts, was quite regrettable.

We do have to reflect on this and face whales as living things, regaining a sense of reverence and gratitude.

That makes it all the more important to find out how many whales can be caught under legal Whale Research Program (research whaling), under the International Convention

for the Regulation of Whaling, that is sustainable. Rather than using results from the Whale Research Program to find the maximum number of whales that can be caught, we should make maximum effective use of whales with the least number of whales caught. I think that the future in whaling is hunting and not overhunting.

This chapter discussed how the Japanese historically valued whales and treated whales with respect. Foreigners, especially anti-whaling people, say that whale meat eating by the Japanese is needless slaughter and barbaric but the Japanese people's feelings toward whales are in a different category than foreigners. It may be impossible to ask people who say those things to understand how the Japanese have long thought of whales but I would like at least the Japanese to have an understanding of this ethno-cultural trait.

I always ask anti-whaling activists to seriously consider the importance of the lives of the cattle they eat. Is there any difference in the value of life between cattle and whales? This line of thinking should not only apply to cattle but to other wild animals as well. Australians, who strongly oppose whaling, kill wild camels and kangaroos and butcher some of them but can they explain why camels and kangaroos are hunted but not whales? I would like anti-whaling people to give a serious thought again to "what it means for human beings to eat living things" while considering the basis and origin of human life.

Chapter II Whales Help the Japanese Once Again

Food self-sufficiency rate of 41%: price the Japanese have to pay for failure to give due attention to agriculture and fishery

Japan, where food worth 3 million servings is thrown away every day as described earlier, is in fact faced with a major problem.

Agriculture and fisheries are on the decline. Food problems are closely linked with the issue of whales.

First, the food self-sufficiency rate of Japan as of 2009 is strikingly low at 41%. This is considerably low as compared with other countries.

The rate was 46% for the U.K. in 1970, which has increased to 70% in 2003.

For Germany, it was once 68% but has recovered to 84%.

The rate of 100% is worthy of the title of an agricultural country, which is well exceeded by the U.S. at 128%. It is 145% for Canada and Australia boasts a high rate of 237%. France, which is apparently an advanced industrial nation, also prosper with agriculture at 122%.

Seen in this light, the self-sufficiency rate is deplorably low for Japan among other advanced countries. That is, the Japanese depend on foreign countries for 60% of their food. Thus, it is no exaggeration to say that foreign countries have the power to take the lives of the Japanese.

Japan had a food self-sufficiency rate of 78% in 1961, which decreased year by year. In 2006, it reached 39%, even below 40%, at length.

To effect a breakthrough in this situation, the Council for the Promotion of Improvement of the Food Self-Sufficiency Rate (the present Council Group) was established in the Ministry of Agriculture, Forestry and Fisheries. I currently assume the role of its president, where nearly 40 organizations in total take part, including the National Governors' Association, the Japan Association of City Mayors, the National

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Food Self-Sufficiency Rate of Major Countries (Calorie-based) (Unit: %)

Year Country	1965	1970	1975	1980	1985	1990	1995	2000	2002	2003
Australia	199	206	230	212	242	233	261	280	230	237
Canada	152	109	143	156	176	187	163	161	120	145
France	109	104	117	131	135	142	131	132	130	122
Germany	66	68	73	76	85	93	88	96	91	84
Italy	88	79	83	80	77	72	77	73	71	62
Netherlands	69	65	72	72	73	78	72	70	67	58
Spain	96	93	98	102	95	96	73	96	90	89
Sweden	90	81	99	94	98	113	79	89	87	84
Switzerland	48	46	53	55	60	62	59	61	54	49
U.K.	45	46	48	65	72	75	76	74	74	70
U.S.	117	112	146	151	142	129	129	125	119	128
Japan	73	60	54	53	53	48	43	40	40	40

(Source: MAFF)

Association of Towns and Villages, the Central Union of Agricultural Co-operatives, the Japan Chain Stores Association, the Japanese Consumers' Co-operative Union, the Federation of Prefectural School Lunch Associations of Japan and the Consumption Science Federation, to strive for increasing the food self-sufficiency rate of Japan.

The rate has now recovered to 41%, which is still very low.

Popular work to do after the retirement age

Why has the food self-sufficiency rate of Japan decreased this much? There are two reasons.

First, Japan as a nation has failed to position agriculture as an important industry up to now. For as long as five centuries, farming people have been called *hyakusho*, which is more like peasants, to be discriminated in terms of class and the tendency still remains. More than that, the focus has been increasingly given on the manufacturing industry as modernization progressed and agriculture as a profession has grown to be treated lightly.

However, agriculture is exactly the core industry for life support. Doctors, who save lives of people, are certainly in a life support industry but doctors could not survive without eating food grown by vegetable and dairy farmers. Agriculture is the most important.

I have heard that various questionnaire surveys were taken when the EU was established in Europe. Ways of thinking were assumed to be different between different races and countries and the same questionnaires were distributed in 27 countries for surveys before unification of currencies.

Among the various questionnaires used for surveys, there was one question asked to people at the age of 60 or older: If you have a chance to work again after retirement, which profession will you choose? The options included sales, engineering, agriculture, teaching and other professions.

About 60% of the respondents chose agriculture. I suppose they know the degree of importance of agriculture. It can also be seen as an idea of living their new life after retirement while working for others. In Europe, people are properly taught the importance of agriculture and food from childhood and many people wish to contribute to society

through agriculture and fisheries.

Japan's food self-sufficiency rate to decrease to less than 20%?

The other reason is that Japan has become an industrial country, rather than a farming or fishing country. During the postwar reconstruction period, the Japanese made use of their diligence, meticulousness, dexterity and richness in ideas to strive for manufacturing and developed science and industry. One day, we found ourselves among the leading industrial countries in the world exporting electronic appliances, automobiles, computers and machines in large quantities to foreign countries. However, only selling goods is not acceptable in the international market and we had to buy as well. Accordingly, a decision was made to buy large amounts of agricultural products because Japan's agricultural productivity was deteriorating.

Once this situation is entered, Japanese agriculture can never compete. It is because large-scale agriculture is implemented in the U.S., Canada, Australia and other countries that export large quantities of agricultural products to Japan. There is a stark difference in production scale between growing in small land plots of Japan and using airplanes to sow seeds in large areas of land. This naturally leads to a major difference in prices of agricultural products.

In addition, the Japanese government has not carried out appropriate policies to develop farmers. For example, the government has been offering compensation to farmers who do not grow rice because the people have come to eat less rice, which is basically a policy for reducing production of rice.

If agricultural protection by tariffs was taken away, inexpensive agricultural products would freely come in from overseas, which would doubtless devastate Japanese agriculture.

However, Japan started EPA (Economic Partnership Agreement) negotiations with Australia in April 2007. The EPA is intended for liberalizing the trade of goods and services with each other and is virtually an agreement for not imposing tariffs on large quantities of incoming agricultural products from Australia. EPA negotiations are also in process with other countries such as Singapore, Mexico, Malaysia, Chile and Thailand.

In addition, the WTO (World Trade Organization) has worked out a policy for agricultural products from exporters including the U.S. of not letting importers impose tariffs in the future.

If it ever becomes a reality, the situation will grow extremely serious. There is a concern that Japan's food self-sufficiency rate may decrease to less than 20%, not to mention 40%.

More people becoming doctors than farmers!

The situation of Japanese agriculture is this severe when a population of 120 million need to be fed every day.

There are data symbolic of this situation. The number of people who passed national examinations for medical practitioners to become doctors in the last five years is about 6,800 every year, including dentists. While doctor shortage recently became an issue, which is apparently being solved gradually, about 6,800 people are becoming medical practitioners every year.

Meanwhile, the number of those who inherited or started farming as a full-time occupation is only less than 5,000 a year across the country.

A phenomenon like this is unthinkable in other countries.

In an interview I had with the principal of an agricultural high school about three years ago, I was told a shocking story. Of the graduates of agricultural high schools, which exist in large numbers nationwide, the number of those who engage themselves in full-time farming immediately after graduation is assumed to be no more than 1,000 in the whole of Japan.

What in the world are agricultural high schools for? It means that, after all, agriculture is such an unappealing profession to the Japanese, especially young people.

In Japan, the area of rice and vegetable fields that are left unattended without being cultivated, or abandoned farmland, is currently as large as 398,000 ha. To give a specific idea of its size, it is roughly as large as the entire Saitama Prefecture. The biggest reason for this is the average age of people engaged in agriculture is greatly increasing. The

current average age of agricultural workers has exceeded 60 to be 62.

Fisheries are also in a serious situation. Japan, a world-class fishing empire that used to eat, catch and sell fish the most in the world now has the fishery products self-sufficiency rate of only 54%. Ironically, it has now become a country that buys fish the most in the world.

In the past, Japan's five biggest fish landing ports were arguably Kushiro of Hokkaido, Hachinohe of Aomori, Ishinomaki of Miyagi, Sakaiminato of Tottori and Choshi of Chiba. Which is the biggest fish landing port in Japan now? The answer, some say, is a port without the sea: Narita Airport. An enormous amount of seafood arrives from around the world almost every day, which is said to have given it a sarcastic alias of Narita Fishing Port. This is totally unbelievable.

Today at any fishing port in Japan, many boats are seen remaining moored. The reason is that fishing by Japanese fishermen going to fishing grounds is not worth the fuel and labor costs but fish imported from overseas are inexpensive, which makes buying fish from overseas is more cost-efficient.

In this way, a terrible situation is currently in process in the scenes of agriculture and fisheries.

If this continues, Japan is certain to see the food self-sufficiency rate decrease even further.

There was this university professor who said that, since Japan had become an outstanding industrial country, it could just sell automobiles and electrical appliances and spend the proceeds to buy food from foreign countries.

That might be all right if a country called Japan was to come to an end with our generation. However, Japan must continue to the next generation, generation of our children and grandchildren and generations of even further descendants. There is no guarantee that foreign countries will permanently export food to Japan and, in addition, countries exporting food for Japan are increasingly being troubled by abnormal weather conditions. There is also a reality of the difficulty in guaranteeing safety and security for food coming in from overseas, which is yet another one among the many problems with importing food. Food is literally a lifeline and, if such a serious matter was left to be handled by other

countries, Japan would have no future. What would become of your children and grandchildren, who are destined to live in such a country? In the 21st century, food is a critical factor that must be considered not simply as something to eat but also as a strategic weapon.

Food crisis to come in 30 years

Food issues like these cannot be discussed as issues only of Japan. In fact, food is rapidly decreasing on a global scale.

One reason for this is the impact of abnormal weather conditions.

For example, Australia had a food self-sufficiency rate of 280% in 2000, which decreased to 237% in 2003.

The high original percentage makes it less obvious but the rate actually dipped by as much as 50% in a short period of only three years. It was due to the impact of drought arising from abnormal weather. Australia is the biggest food provider to Japan and the situation is expected to grow more serious in the future.

Australia is not an isolated case: For example, tornadoes are occurring frequently in Canada and, in the U.S., Florida and California are hit by more hurricanes than in the past. The warming phenomenon on the entire planet is expected to pose a major hurdle to the future food production by human beings.

On top of it is the population growth issue. The Food and Agriculture Organization of the United Nations (FAO) has given a view that continued population growth at the current rate would make it impossible to feed human beings on earth in not-so-distant future.

Japan has no time left to take it easy, either. One reason is the abandoned farmland, which I said amounts to 398,000 ha in total. Land left uncultivated once does not become productive immediately after restart of cultivation.

Let me give you an example of what actually happened in Yamanashi Prefecture. There was a rice paddy left uncultivated for three years, which people tried to cultivate to use for growing rice but resulted in total destruction in the end. It is because that shield bugs

and other harmful insects had laid large numbers of eggs in soil during the fallow period of three years and the rice plants that grew from the seedlings planted were eaten up. It is possible to get rid of shield bugs and other insects by spraying a large amount of insecticide but it would be absorbed by rice, which renders it inedible.

That is, revival of agriculture takes time. Once a rice or vegetable field is left uncultivated, the growing ability of the soil cannot be recovered without spending a few years of time.

Accordingly, for production of food, Japanese agriculture needs to be revitalized as soon as possible.

Food to be a strategic weapon in the 21st century

Let's discuss what issues will occur if Japan continues to depend on foreign countries for food in this situation.

The first point is that Japan cannot maintain itself as a country if we fail to grow what we eat by ourselves. The basic principle for sovereign nations is to take care of their own affairs by themselves, including defense. The same can be said of food and depending for a large part of food on other countries would make a nation a food-dependent country.

The currently good relationship with a food-selling country does not guarantee a continued good relationship in the future. We can buy food for money from a foreign country by saying, "We will entrust you with the provision of agricultural products to be eaten by the Japanese." However, if the relationship with the country grows sour by any possibility, supply of agricultural products, a lifeline, may be suspended. Another possible scenario is reduction of production for reasons such as climate change, in which case the selling country may not save the food it needs for offering to Japan.

In my opinion, food is equivalent to a strategic weapon in the 21st century. To put it in extreme terms, a country without agricultural products may be controlled by another country with food. Food is a lifeline for people living in a given country, which obliges it to obey another country with food, significantly weakening its diplomatic power.

I have heard that President Barack Obama of the U.S. took the food and the organ transplant issues as examples and said something along the lines that they must be able

to save their own lives to be an independent state. Now that we are in the 21st century, the world has begun to change.

Incidentally, thanks to the close friendship with Hokkaido Governor Harumi Takahashi, I give advice on agricultural administration and offer assistance with agriculture promotion under the title of Honorary Food Advisor of Hokkaido, which is why I visit Hokkaido several times every year. The following is what happened at one time.

In 2007, companies including Meiji Dairies Corporation, Snow Brand Milk Products Co., Ltd., Morinaga Milk Industry Co., Ltd. respectively built a large milk factory near Obihiro. In fact, behind this almost simultaneous establishment of many milk factories, something worth noting that is somewhat suggestive of the future was going on between cheese exporting countries and Japan, an importer of their cheeses.

Cheeses that had been distributed in Japan up to that time were mostly from northern European cheese producing countries such as Denmark and the Netherlands but the amount imported to Japan started to sharply decrease around 2005. Where did those cheeses go? The answer is China, which is enjoying striking economic growth.

When Japanese buyers went out to buy cheeses, the Chinese had already forestalled them and used the power of money to virtually buy up several years' worth of cheeses. This resulted in a sudden, significant decrease in the amount of cheese imported from overseas. In recent Japan, where cheese had come to be consumed by households, by confectioners to make cheese cakes, by pizza parlors set up here and there in towns and by Western-style restaurants increasing like mushrooms, demand for cheese was rising sharply and the amount of import was continuously increasing, which suddenly dropped. It naturally got cheese importing companies into serious trouble because supply could not keep up. That is why domestic cheese factories were built in a hurry.

In fact, I think it turned out to be better for Hokkaido and Japan. Milk from dairy farmers in Hokkaido, which was in a state of oversupply until then because of overproduction and excessive import of dairy products from outside Japan, can be processed into cheese. This improves Japan's self-sufficiency rate, and should be welcome.

In this way, however, cases like this is expected to increasingly occur unless we make our own food.

No guarantee of safety and security with imported foods

Secondly, safety and security of the agricultural products and seafood that we eat cannot be guaranteed if we continue to depend on foreign countries for large amounts of food.

It is obvious from issues such as BSE of beef and avian influenza. Beef, pork and chicken are all coming in from overseas in large amounts. If such meat includes any risk material, it may escape detection once the meat comes onto the market. If volumes of vegetables with large amounts of residual agrochemicals are imported from foreign countries, we have no choice but to eat them. If partner countries inspect them before exporting, the number of types of inspection is dauntingly large and the volumes are hundreds of millions of tons. If they attempt to inspect all of them without omission, there should be limitations.

A few years ago, a large volume of vegetable imported from a certain country was found to be contaminated with an agrochemical not kept track of by the Japanese side. Accordingly, they contacted the exporting country to complain, which was met by a reply that they would not sell to Japan any more. In this way, their export to Japan stopped.

To be blunt, it means, “If you complain, you’ll have no food from us.”

That is a reality that is happening in the world of food.

Japan not allowed to exclusively continue to purchase food

The third thing to consider is that food is running short on a global scale and Japan will not be given an exclusive right to continue to buy food no matter how much money is paid.

Many countries are suffering a food shortage among African, South American and Asian countries, for example, and the situation is expected to grow even worse. There is a high possibility that Japan will become unable to purchase for any amount of money.

In conclusion, we must grow our own food. However, in the present situation of agriculture, the average age of people engaged in agriculture, or average farming age, is

62. This is the highest in the world. No major increase in food production can be expected.

There is a policy in place for encouraging new participants in the agricultural sector by a grant in order to increase the number of newcomers in agriculture but the reality is that newcomers are not easy to find.

Japan has the world's highest food mileage

Have you heard of a phrase “food mileage”? Food mileage is the distance of food transportation and represented by the product of the weight of food imported from the respective exporting country and the distance of transportation to the importing country. A shorter distance between the food producing and consuming areas makes the food mileage lower and transportation of food from a distant country makes it higher. That is, it is an indicator very useful for finding out the dependency on food imports of a given country. Japan has the largest value of this food mileage in the world. Statistics taken by the Ministry of Agriculture, Forestry and Fisheries (MAFF) show that Japan's food mileage is by far the highest in the world in terms of the total amount and also the highest in terms of the per-capita amount.

Come to think of it, this is natural. What Japan is doing is to import large volumes of food from various parts of the world to make up for the low self-sufficiency rate.

For example, Japan is buying mackerel and salmon in large amounts from Chile in South America and Norway in Northern Europe. When you buy salmon rice balls or salmon box lunches at supermarkets or convenience stores, please check the labels. You will find many of them saying “salmon (Chile).” Many others use salmon from Norway.

This is because salmon from Chile and salmon from Norway are both significantly less expensive than salmon from Japan. The reason for the low prices is that many of them are farmed and, in holding ponds, in particular.

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Food Mileage by Country

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Country Name	Total Amount	Per-capita Amount
Japan	900,280 million	7,093
South Korea	317,169 million	6,637
U.S.	295,821 million	1,051
U.K.	187,986 million	3,195
Germany	171,751 million	2,090
France	104,470 million	1,738

(2001: MAFF)

*Unit: ton·km

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At present, the safest, most secure and most delicious salmon are said to be those that swim back up rivers in areas such as Hokkaido, Tohoku and Niigata Prefecture.

How are salmon caught in Japan? First, artificially-incubated fry are released into a river. The salmon swim all the way to the distant Bering Sea, where they eat a large volume of krill (plankton) and small fish to develop and return to their native river to spawn three to five years later.

Incidentally, the reason why salmon can return to their native river is said to be that they can locate the river where they were released by the smell of the water, which is a wonderful ability of salmon.

This journey of salmon is extremely severe. Of the fry released, only less than 1% manage to return to their rivers of birth. As they swim over great distances, they fall prey to other fish.

In addition, Japanese salmon fishermen try to “catch before salmon spawn because those immediately before spawning absorb fresh water of rivers and do not taste good” and go to the trouble of going far to the foreshore from the mouth of rivers to catch salmon. That makes Japanese salmon delicious.

Although artificially-incubated, they are mostly grown in natural conditions. The natural environment gives them firm flesh and plenty of fat.

Furthermore, they are safe and secure. It is because the Bering Sea is said to have better water quality than Scandinavian seas.

However, that also makes Japanese salmon more expensive. Fishermen go out fishing in boats to the sea, which incurs fuel costs and the more than one boat requires more labor costs as well.

To turn our eyes to farmed fish that are imported, spawned fry are not returned to the sea but fed to be raised in seawater pools, or holding ponds. This does not involve the trouble of sailing out to the sea to fish, which saves extra fuel and labor costs. In addition, the return rate of salmon is 100%.

However, it also has high risk. With salmon farmed in a holding pond, once any one of them gets sick, it may spread to destroy all others as well. To prevent this, large amounts of antibiotics are added to the holding pond water and feeds.

About six years ago, foreign farmed salmon imported were found to contain large amounts of antibiotics, which led to suspension of the import. Nonetheless, the Japanese are happy to buy those foreign-produced salmon, saying that they are purse-friendly.

If the price of a slice of Chilean salmon is 180 yen, for example, the Japanese salmon should be about 230 yen a slice. This makes Japanese consumers opt for Chilean and Norwegian salmon, rather than Japanese salmon. I think that the present-day Japanese tend to judge the value of what they eat by price and like cheaper food better. However, it is not that we eat salmon every single day and I personally buy safe, secure and delicious Japanese salmon, even if slightly more expensive.

In the first place, I am among those who have doubts about the recent trend of the Japanese where consumers select food only by price without being aware of how it was raised and think that the cheaper the better. Trading companies bring in farmed salmon from overseas, which are sold at various shops including supermarkets, department stores and convenience stores. This naturally causes price battles. Consumers who believe that a lower price even just by 1 yen is better choose farmed salmon from overseas.

As a result, in Kushiro and Nemuro of Hokkaido, salmon traders are giving up their

business one after another. I have recently been to Hokkaido and enjoyed salmon of Kushiro and Nemuro, which are exceptionally delicious. The tastiness of salt-cured salmon, which are called *yamazuke*, is indescribable with words. They taste great grilled and I could eat rice forever to go with it.

However, Japanese consumers have stopped buying them because inexpensive salmon are imported in large amounts from overseas. This gives traders no choice but to put the caught salmon in freezers, which incurs refrigeration costs and storage costs as well.

In addition, storing in freezers for long periods causes freezer burning of the fish, which makes them less merchantable.

In the end, they get thrown off the market, putting many salmon traders in Hokkaido out of business.

In an episode of *Today's Close-up*, a TV show produced by Japan Broadcasting Corporation (NHK), entitled "*Food Crisis*" *Creeping up on Japan*, an astonishing story was covered. It says that Chinese traders now visit Kushiro and Nemuro to purchase large amounts of salmon. What they do is to beat down the prices of the salmon lying idle in freezers of various companies.

The world's most delicious, safest and most superb salmon, which Japanese should eat, are not being bought by Japanese but purchased at low prices by Chinese.

The Chinese take advantage of their low labor costs to have the salmon canned to offer them for sale to the world as "the world's most delicious and safest canned salmon of China."

Meanwhile, Japanese eat foreign farmed salmon not confirmed to be safe.

What do you think of this situation?

The Japanese should have more ethnic love

To make an extreme observation, Japanese consumers are buying salmon provided by Chilean and Norwegian farmers, thereby making Chilean and Norwegian traders rich and

tormenting Japanese salmon traders.

Every time I am faced with the present food situation of Japan like this, I become keenly aware of how the Japanese have changed. People seem to be losing ethnic love.

After the first case of BSE was discovered in the U.S. in December 2003, Japan halted imports of beef from the U.S. Subsequently, imports resumed because beef passed the test.

Still, I do not think that eating U.S. beef can be encouraged only because it passed the test. Safe and secure beef is naturally fine but I do not mean that U.S. beef should not be eaten because of the fear for inclusion of any specified risk material in imports. My question is: Why do the Japanese help American dairy farmers and not Japanese dairy farmers? They only buy beef from American dairy farmers, which makes the situation immensely tough for Japanese dairy farmers.

What I mean is that I would like the Japanese to have more ethnic love and fellow feeling.

The following is what I wrote in a paper at that time.

“Food culture” is peculiar to a given ethnic group and the people have kept it with pride as a factor of ethnic awareness.

However, the Japanese diet has undergone a sea change in the last 40 plus years from low-protein, low-fat and low-calorie meals to Western-style high-protein, high-fat and high-calorie food. Of the many ethnic groups, the Japanese are unprecedented in that their diet has changed so dramatically in such a short period of time. To put it in my terms, the change can be likened to plant-eating animals suddenly on one day transformed into flesh-eating animals.

In the past, the Japanese depended on marine plants, root crops (such as taros, lotus roots and burdock roots), seafood, soybeans and pulses and rice for the main foodstuffs. These foods are what have cultivated the Japanese mentally and physically from ancient times.

Many foreign researchers highly praises Japanese-style meals by mentioning

“healthy food materials, ideal calorie intake and nutritional balance” as its excellent points. The fact that the very Japanese are increasingly inclined to Westernized diet makes me, a lover of this country, think very seriously. (Partially omitted)

Imports of U.S.-grown beef are now about to be resumed in December. It is apparently a result of accepting the U.S. demand for resumption of beef imports without delay to avoid economic sanctions that would have been imposed otherwise. Dictionaries define the word “sanction” as “a penalty for disobeying a law or rule.” If this applies, I have absolutely no idea why the Japanese, who are not living under American laws, have to be subjected to sanctions only because of not eating U.S.-grown beef.

People of an independent sovereign nation have a choice of what they eat and the logic that people who do not eat what others want them to eat deserve a penalty is incomprehensible to a stupid person like me. In addition, issues including safety and security of food are in the background, which makes it even more incomprehensible.

Now is the time for the Japanese to eat safe and secure domestically-grown Japanese beef. While U.S.-grown beef is cheaper, not many should be eating heaps of beef every single day and it makes more sense to choose Japanese beef when eating beef, which is eaten occasionally, even if it is a little more expensive. The idea of supporting American beef farmers and not helping Japanese dairy farmers in a predicament is incompatible with me. After all, I am a Japanese.

In the end, U.S.-grown beef imports were resumed and have been allowed since then. In fact, merits of Japanese beef were rediscovered during the import suspension period and more households and stores came to buy Japanese beef, which greatly helped Japanese dairy farmers. Subsequently, the consumption of Japanese beef continued to increase.

Having said that, imported beef still accounts for a large portion. If beef imports from the U.S. and Australia stopped now, the amount of beef distributed in Japan would drop at once, seriously affecting the Japanese food provisions. That is how heavily we depend on imported meat.

International strategy surrounding bioethanol

The Japanese should give serious consideration to food issues as the Japanese and say no when necessary. This has been brought home to me not only by the beef and whale issues but also by bioethanol, on which the U.S. is currently working.

Bioethanol, which is a fuel produced from wheat and corn as the raw materials, was talked much about as clean energy but I do not think it is at all. From the perspective of the fields of study such as zymology and fermentology in which I specialize, the theory that bioethanol makes contributions to prevention of global warming makes me inclined to be skeptical. It is not only based on the sense of ethics about appropriateness of use of grain, which is valuable food, to run automobiles.

First, let's see how bioethanol is made. To produce bioethanol, starch of wheat and corn must be decomposed to glucose. Growing wheat and corn, its raw materials, involves emission of CO₂ resulting from the use of tractors and various other machines and manufacturing of chemical fertilizers to put on fields also emits large amounts of CO₂. Decomposition of the grain uses not a little energy as well.

Next, the glucose obtained is fermented by using yeast to produce a mixture containing ethyl alcohol, or ethanol. It is in turn have to be distilled before the ethanol can be extracted. As the source of energy required for this distillation, large volumes of oil are used. That is, for producing a form of energy, another form of energy is used in large volumes. Even with modern science, this distillation is the only way for human beings to purely extract ethanol.

There is the "law of conservation of energy" in the first place and producing one form of energy naturally requires another form of energy. Even a fundamental issue like this is forgotten and bioethanol is said to be "clean," which is ridiculous. They are attempting to produce clean energy in order to prevent global warming caused by CO₂ and emitting large amounts of CO₂ in that process.

As I was saying here and there that bioethanol would not prevent global warming, an American research institute is reported to have recently announced that producing bioethanol may conversely accelerate global warming.

Furthermore, because grains to provide raw materials of bioethanol fetch high prices (prices of bioethanol-related grains have increased), in Brazil, they have reportedly

started to develop tropical rainforests to plant wheat and corn. Cutting down the vast greens of the Amazon, which contribute to prevention of global warming would on the contrary lead to global environmental destruction. This would render the effect of bioethanol negligible.

To begin with, is it not ethically inappropriate to use food of humans to run automobiles? Now that the whole world is expected to suffer food shortages, it is not understandable to try to run automobiles by using valuable food.

After all, bioethanol should be a national strategy of the U.S.

The reason is that people who profit most from production of bioethanol are farmers of grain producing countries such as the U.S.

Once a country, especially an influential country like the U.S., announces the use of grain to make bioethanol, the world market rate for grain immediately soars. This in turn causes the prices to rise of bread, confectionery, beer and even mayonnaise, which generally uses corn oil.

Where do the profits from the price hikes go? To farmers of the exporting countries who grew the grain. Just a mention of bioethanol brings floods of money to farmers of those countries without the need for any special effort.

The Japanese are buying food that has become high-priced without considering this simple logic. How absurd!

At long last, plaudits for bioethanol have become less firm now to raise skepticism about the assumed contributions of bioethanol to prevention of global warming.

In a conversation covered in the August 2008 issue of *Shincho 45*, I said, “Kick bioethanol away!” Failure to grow food domestically may allow foreign countries to have influence in an aspect like this. It is so fearful just to think about it.

Whales help the Japanese once again

I have used a lot of space to discuss food issues up to now because they are closely related

to utilization of whales, which I will explain after this. As I have said so far, Japan is now troubled by the problem of an abnormally low rate of food self-sufficiency. Still, as very rare exceptions, there are two things of which Japan boasts a self-sufficiency rate of 100%. One is rice and the other is whales.

As almost a matter of course, Article 8 of the International Convention for the Regulation of Whaling provides that the whales used as specimens may be marketed and used rather than wasting them. Those whales are food obtained by Japanese research whaling ships, which means that the self-sufficiency rate is 100%. However, anti-whaling countries have been complaining unanimously that utilization of whales like this is commercial whaling disguised as research whaling.

The U.S., Australia and New Zealand are the countries showing especially strong disagreement with whaling and their real intention includes to stop Japan from whaling so that the Japanese will buy more of their beef as one factor of objection to whaling.

At present, the Japanese are taking in animal meat as the main source of animal protein, mostly beef, pork and chicken, and whale meat only accounts for less than 0.1%. Animal meat producing countries are certainly eager to further expand the market in Japan. One reason is that, if Japan ever comes to depend on whale meat again, the market for animal meat in Japan will doubtless shrink accordingly. In fact, Japan had a fool self-sufficiency rate of 70% 40 years ago, when the Japanese depended immensely on whale meat: Among whale meat, beef, pork and chicken, whale meat accounted for 70%.

From the viewpoint of the Japanese, reducing meat intake and going back to fish-eating culture including whale meat-eating will lead to stable supply of animal protein and restoration of safety and security of food as well, which will improve health of the people and food self-sufficiency rate.

That is why now is the time for the Japanese to withstand the pressure from overseas and rediscover the merits of whales.

The Food and Agriculture Organization of the United Nations (FAO) mentioned earlier has pointed out food shortage crisis due to population increase and given a warning against excessive protection of whales.

Whale meat once greatly helped the Japanese, as described in Chapter I.

Now that the food self-sufficiency rate has dropped this far, I am positive that the Japanese will seek support from whales again some time.

In the next chapter, let's approach the current whaling issues.

Chapter III Realities in Relation to Whaling

Frenzied age of the “International Whaling Olympics”

In 1899, modern whaling, “Norwegian-style whaling,” started in Japan, wherein roped harpoons were fired from cannons installed on steamboats to catch whales.

Reckless hunting by American and European whaling ships dramatically decreased the whale population around Japan. Japanese-style whaling, the *amitori shiki* method, was in decline. However, this new whaling technique revived the whaling industry and, in 1934, whaling in the Antarctic Ocean began.

Whaling bases were established from Hokkaido to the Kurils, the coast of Tohoku, the Ogasawara Islands, Shikoku, Kyushu and even overseas in Taiwan and the Korean Peninsula. In this way, the Japanese familiarized themselves with whaling and became one of the leading whalers alongside Norway and the U.K.

Behind Japanese whaling were Japan’s highly technical skills.

First, harpooners were intensively trained. What was taught was not just killing whales but also the Japanese appreciation for life: taking whales with a single shot without suffering. Harpooners were sent to training facilities, where a good amount of time and money were spent to give them thorough training. This was a Japanese whaling tradition and good training was also given to harpooners for today’s research whaling. Naturally, the dissectors’ techniques were also very advanced compared with other countries—Japanese dissectors processed a whale weighing tens of tons in just less than 30 minutes.

Shortly after Japan’s adoption of western-style whaling, WWII broke out. During the war, deep sea whaling was out of reach for most countries and little whaling took place in the Antarctic Ocean from 1940 to 1945.

Once WWII ended, many countries suffered from food shortages and worldwide whaling resumed.

War-stricken Japan, which faced an especially serious food shortage, was permitted by the U.S. occupation army general headquarters to resume whaling in the Antarctic Ocean as a measure to deal with food shortages. This would solve the postwar food shortage.

Large amounts of Antarctic Ocean whale meat was utilized in households, workplaces and school lunches and the distribution of whale meat was not limited to densely-inhabited cities such as Tokyo and Osaka but to other parts of the country.

Total Numbers of Whales Captured by Factory Ship Whaling in the Southern Hemisphere by Country and Whale Species

	Norway	U.K.	Japan	Soviet Union	Netherlands	South Africa	Panama	Germany	U.S.	Denmark	Total
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Blue	81,772 (41)	70,546 (35)	25,391 (13)	3,987 (2)	3,456 (2)	5,139 (3)	5,452 (3)	3,749 (2)	1,256 (1)	315 (0)	201,013 (100)
Fin	209,057 (38)	107,37 3 (20)	120,05 4 (22)	54,527 (10)	18,83 0 (3)	15,94 5 (3)	11,810 (2)	6,785 (1)	2,293 (0)	556 (0)	547,230 (100)
Humpback	11,061 (36)	7,791 (25)	6,637 (21)	2,699 (9)	1,303 (4)	243 (1)	1,066 (3)	235 (1)	47 (0)	22 (0)	31,104 (100)
Sei	18,390 (13)	3,898 (3)	73,486 (54)	40,514 (30)	457 (0)	122 (0)	13 (0)	14 (0)			136,894 (100)
Minke			46,558 (47)	52,969 (53)							99,527 (100)
Sperm	37,673 (21)	14,388 (8)	33,022 (18)	86,272 (48)	3,744 (2)	3,756 (2)	864 (0)	439 (0)	49 (0)	2,114 (0)	180,566 (100)
Total	357,903 (30)	203,99 6 (17)	305,14 8 (26)	240,96 8 (20)	27,79 0 (2)	25,20 5 (2)	19,20 5 (2)	11,22 2 (1)	3,645 (0)	897 (0)	1,195,97 9 (100)
Operation Period	1932 - 72	1931 - 63	1935 - 87	1946 - 87	1946 - 64	1946 - 57	1935 - 40, 1950 - 56	1936 - 39	1937 - 40	1936 - 37	

Based on International Whaling Statistics. Note: Figures in parentheses show capture ratios by country and whale species (%)/ Source: Fisheries Agency.

In this way, international whaling became popular again after WWII. The period from 1950, five years after the resumption of international whaling, to 1960, was called the “International Whaling Olympics” and maritime whaling countries, including Japan, Norway, the U.K. the Soviet Union, Finland, Iceland, Denmark and Canada hunted whales without concealing a sense of rivalry, of never wanting to fall behind any other country.

The table above shows the total numbers of whales captured by factory whaling ships in the southern hemisphere, listed by country and whale species. The greatest numbers of whales caught were the blue whales and the fin whales. These whales were 27 to 33 m long. Every year, these two species were caught by Japan as well. All in all, Japan had excellent whaling techniques as a fishing empire, Rather than military strength, Japan

showed its strength in catching whales.

Naturally, large whales such as blue whales and fin whales, which were targeted highly sought after, sharply decreased in population. Whaling countries changed to smaller whales such as minke whales and sei whales, which were caught with abandon.

Management of whale resources and the establishment of the IWC

Whales as a resource are difficult to control in any event as they migrate between oceans around the world and have large habitats.

One organization that currently manages international whaling is, as you may know, the International Whaling Commission (IWC). As of 2010, commercial whaling is absolutely not permitted even for species that are in abundance according to the IWC. The original purpose of the IWC at the time of its establishment was to “provide for the proper conservation of whale stocks” and “make possible the orderly development of the whaling industry,” and not to ban commercial whaling.

Numbers of Blue Whales Captured by Country (1909/10 - 1972/73)

Country Name	Number Captured	Percentage (%)
Norway	167,105	50.6
U.K.	110,568	33.5
Japan	23,491	7.1
Soviet Union	3,994	1.2
Netherlands	3,456	1.0
Panama	5,452	1.7
Germany	3,749	1.1
U.S.	1,623	0.5
Denmark	1,221	0.4
Argentina	9,371	2.8
Total	330,030	100.0

Numbers of Fin Whales Captured by Country (1909/10 - 1975/76)

Country Name	Number Captured	Percentage (%)
Norway	279,521	40.5
U.K.	150,661	21.9

Japan	121,494	17.6
Soviet Union	54,552	7.9
Netherlands	18,830	2.7
South Africa	15,951	2.3
Panama	11,810	1.7
Germany	6,785	1.0
U.S.	2,458	0.4
Denmark	669	0.1
Argentina	26,706	3.9
Total	689,437	100.0

Numbers of Humpback Whales Captured by Country (1909/10 - 1972/73)

Country Name	Number Captured	Percentage (%)
Norway	30,108	47.6
U.K.	14,524	23.0
Japan	6,641	10.5
Soviet Union	2,712	4.3
Netherlands	1,303	2.1
Panama	1,066	1.7
Germany	235	0.4
U.S.	51	0.1

Originally, the movement to manage whales as a resource grew in 1930s due to excessive hunting by various countries was started not from the anti-whaling position but from Norway and the U.K., which are countries with a good record on whaling, in 1930s.

In 1932, the whaling industry of Norway and the U.K., which were whaling in the Antarctic Ocean the most, concluded a civilian pact called the Whale Oil Production Agreement. The purpose was more to adjust production of oil for preventing crashes in whale oil prices than to conserve whale resources.

Subsequently, as Japan and Germany started whaling in the Antarctic Ocean in 1934 and 1936, respectively, as described above, Norway and the U.K., in an effort to manage whaling, led in the signing of the International Agreement for the Regulation of Whaling in 1937. This agreement restrained new whaling countries by implementing a whale

management system, including dates of operation in the Antarctic Ocean.

After WWII, as mentioned earlier, countries re-engaged in vigorous whaling.

In response, the IWC was organized under the International Convention for the Regulation of Whaling in 1948 for the purpose of determining whale quotas. The IWC was founded by 15 major whaling countries. Japan joined the IWC in 1951.

The IWC at the time of establishment managed whales, working up agreements such that humans could coexist with whales. That is, the IWC was not premised on “prohibiting commercial whaling” as it is now. The IWC was created to discuss how whales could be effectively utilized, increasing their population without allowing them go extinct.

However, countries such as Japan, the U.K. and Norway continued to catch whales in large numbers even after the foundation of the IWC. The U.S. switched their main source of fuel from whale oil to petroleum and began sharply criticizing the large number of whales being caught .

In this context, global environmental conservation and wild animal protection came into being around 1960. These trends increased anti-whaling feelings worldwide.

In 1963, the general assembly of the IWC banned the catching of blue whales and humpback whales in the Antarctic Ocean. This was followed by the imposition of catch quotas for each country, strengthening resource management. At this point, countries such as the U.S., the U.K., the Netherlands and Australia completely withdrew from whaling as it ceased to be profitable. Animal protection and environmental conservation groups took advantage of this shift, ramping up their activities. Preservation of the global environment came to be closely linked with an anti-whaling attitude.

The U.S. above all raised whales as a symbol of global environmental conservation. Some have said that this was a U.S. ploy. At that time, the U.S. was involved in the Vietnam War and media around the world painted the U.S. as a “hawk”, in which hard line measures are utilized, without compromise, to preserve ideals and principles). Accordingly, the U.S., which wanted to eradicate this image, was said to have devised a scheme of turning its image around--to present itself as a “dove” by promoting the protection of whales.

A major turning point in the whaling issue was the IWC general assembly in 1971. Joan McIntyre, President of an American NGO called Project Jonah, warned that whales were on the verge of extinction and proposed that a temporary ban, or “moratorium,” on commercial whaling was necessary.

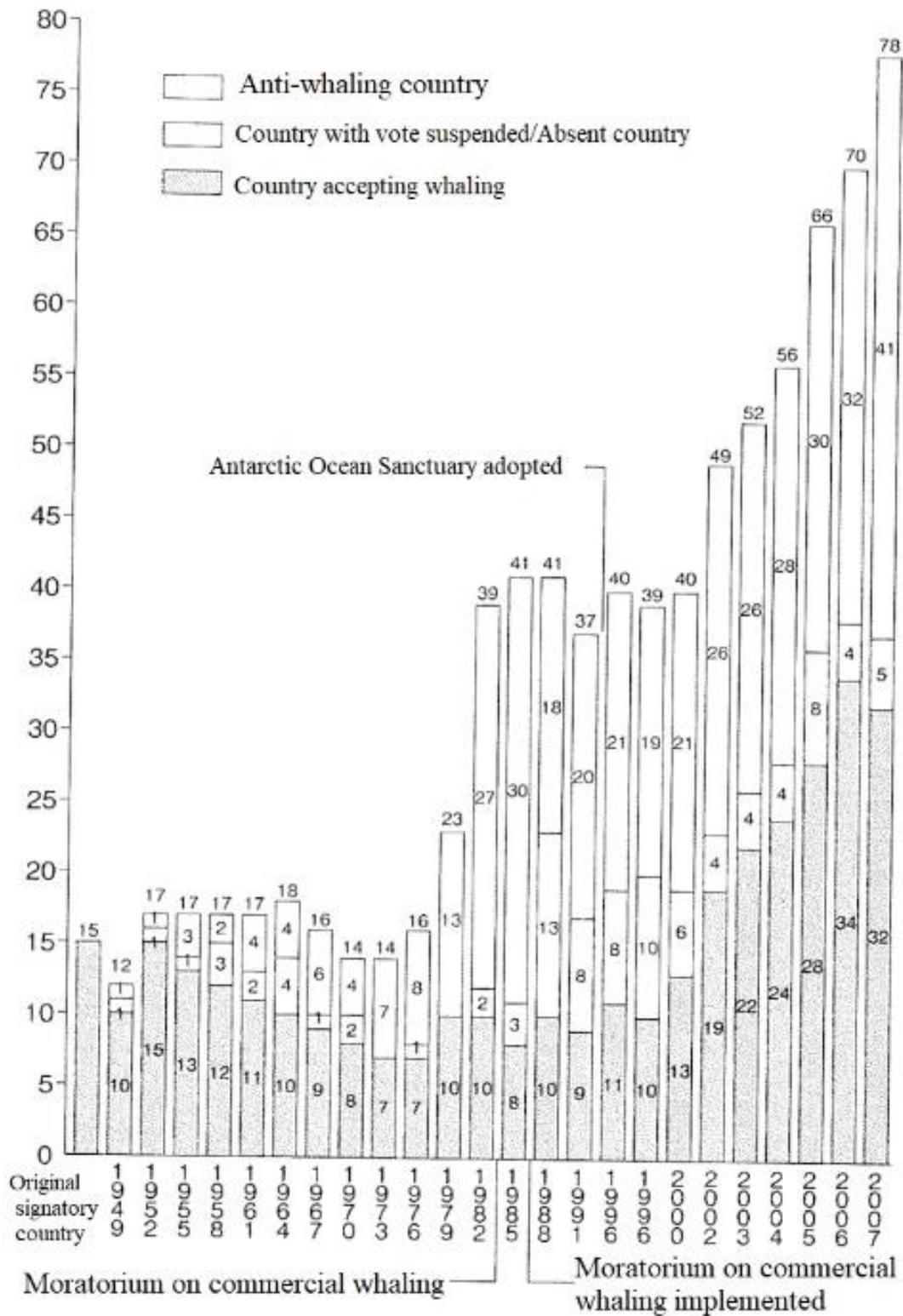
In 1972, the first United Nations Conference on the Human Environment was held in Stockholm, wherein the U.S. delegation proposed:

Whales are living resources that are a common heritage of mankind that should be conserved for a long period. However, the IWC has taken no measures up to now. Whales, which are a symbol of dying wild animals, must be protected.

This proposal gathered the support of an overwhelming majority and the recommendation for a 10-year moratorium on commercial whaling was adopted by the UN Conference on the Human Environment.

However, this moratorium was not binding unless adopted by the IWC.

Changes in IWC Membership



Accordingly, the U.S. proposed a moratorium on commercial whaling in the IWC general assembly in 1973 as well, which was rejected because it was “not scientifically justifiable.”

The reason was that there was no science-based information at that time on whale population, age, gender composition, pregnancy period and natural mortality. Therefore, the claim that whales were on the verge of extinction had no foundation whatsoever.

Then, anti-whaling countries led by the U.S. gradually implemented a more overt strategy. Adoption by the IWC depended on a majority vote and a decision on a resolution requires a three-quarters majority. Anti-whaling countries encouraged landlocked countries and countries that had nothing to do with whaling including Oman, Kenya, Seychelles, Peru, Monaco and small Caribbean countries, to join the IWC.

By 1982 as result of these maneuvers, 25 anti-whaling countries joined the IWC and the three-quarters majority required for a decision was obtained.

In this way, a 10-year moratorium was enacted in 1982. However, this decision was obviously a violation of international law. As mentioned earlier, the IWC was founded on the International Convention for the Regulation of Whaling and its provisions clearly stated the goals were “conservation and optimum utilization of the whale resources” and “orderly development of the whaling industry.” The original purpose of the IWC agreed upon was not to discontinue commercial whaling but to catch the number of whales necessary based on science. This breach of an international agreement a majority vote is obviously a non-democratic move by those claiming to be democratic.

While this moratorium was scheduled for review based on the latest science on whales by 1992, it has been extended and maintained to this day--the moratorium has no basis in science.

What is research whaling?

Now, let me give you a description of scientific research whaling as set down by the IWC.

Japanese research whaling is scientific research conducted by the Institute of Cetacean Research with permission of the Japanese government in accordance with the Convention for the Regulation of Whaling. Research ships and crews are managed by Kyodo Senpaku

Co., Ltd.

Incidentally, when the moratorium was adopted in 1982, a recommendation by the Scientific Committee of the IWC was required for adoption but such a recommendation was not obtained--therefore adoption of the moratorium was invalid. Accordingly, whaling countries such as Japan and Norway filed an objection and rejected the moratorium. However, under instructions from then Prime Minister Yasuhiro Nakasone, who buckled under U.S., pressure, the Japanese government withdrew its objection and shifted to research whaling. Norway, on the other hand, openly continues commercial whaling and maintains its objection.

Scientific research started in this manner and catching whales for that purpose is recognized as an inherent right of countries according to Article 8 of the Convention for the Regulation of Whaling. With respect to Japanese research whaling, anti-whaling countries object by making two claims: "Whaling is conducted by overriding the opposition of the IWC and illegal" and "It is disguised as commercial whaling because the meat of whales caught in research are sold." However, Japanese research whaling does not violate international law nor is disguised as commercial whaling.

First of all, the reason Japan began research whaling in 1987 was that there was a lack of whale biological data. Data was necessary to make decisions for the start of sustainable utilization of whales, not for a vague conservation of whales, and to obtain biological data, there was a need for full-scale whaling. Japan formed a team which included experts immediately after the adoption of the moratorium and made a detailed research schedule, which passed the review of the Scientific Committee of the IWC. In fact, members of the Committee highly regarded the proposals.

Whale research is conducted in a very strict manner. The IWC is an international organization recognized by various countries and there can be no deviations from established guidelines. Research whaling is conducted according to a research plan made in advance by experts.

Whale research is conducted under these international conditions and based on guidelines. Thus, terrorists, such as the Sea Shepherd Conservation Society, which attacks Japanese research whaling vessels with fire-bombs and dangerous chemicals and disrupt research activities with lasers, are engaging in criminal activity based on international laws of the

sea.

For research whaling, a very large fleet is organized. First, there are two scientific fish finder boats called sighting vessels. These are in charge of sighting survey, in which whales are visually searched for, in addition to oceanographic and marine life surveys.

Next, the sighting vessels are followed by three sighting/sampling vessels. These also conduct sighting survey. Only when a specific species of whale under survey is found, they sail off their predetermined course to follow the whales. These vessels are arranged in line, a harpoon equipped ship to catch a whale and a factory ship in the rear.

In the factory ship, activities such as measurements, dissection and sampling occur. First, the whale is put on a scale. A scale capable of weighing a gigantic whale whole is installed only on the factory ship and nowhere else. Subsequently, 25 measurements are taken, including weight and height. In addition, whale earwax is sampled to estimate its age, samples of sperm in urine, mammary glands, uterus, sperm in the uterus, heart and ovaries are taken and the stomach is split open to find out what has been eaten.

It is a requirement that whales after a survey be utilized as effectively as possible. They are brought back as a by-product of a capture survey and shipped to market by Kyodo Senpaku Co., Ltd., which is the consignee. Proceeds from sale of the by-products go back into research.

In this way, 250 to 300 people going out in six vessels doing whale research can cost a lot of money: One research whaling trip is said to have cost as much as 5 to 6 billion yen.

However, the Japanese government has only allowed 500 million yen annually as a “cetacean capture survey subsidy” in the last ten years or so—the research program runs a significant deficit. If whale research is stopped, then anti-whaling countries will proceed to the next level. Research whaling needs to be continued for training in whaling skills and to cover the shortfalls in expenses necessary for research. The meat of whales used as samples for research whaling is put on the market and the proceeds are used. However, the number of whales caught is strictly limited, which results in high prices of whale meat on the market. In Japan, apart from research whaling, small whales such as Baird's beaked whale and pilot whales not under the IWC's control are currently caught commercially along the coast of Abashiri and Hakodate in Hokkaido, Ayukawa in Miyagi Prefecture,

Wada in Chiba Prefecture and Taiji in Wakayama Prefecture. These are caught within limits specified by the government.

As I mentioned earlier, one excellent point of Japanese whaling is the superb skill of harpooners for catching whales for both research as well as coastal whaling. Currently, harpoon cannons use gunpowder to power the harpoon used to catch the whale. The harpooners' hit rate is approximately 80% and, when the whale does not die instantly, a rifle shot to the head is used. The highest priority is given to catching whales without making them suffer, which is a traditional Japanese whaling technique. Kyodo Senpaku Co., Ltd. and the Japan Whaling Association still continue to train young people, including graduates of National Fisheries University, to develop excellent harpooners in preparation for the resumption of commercial whaling in the future.

It is NOT “possible to research without catching and killing”

At present, Japanese research whaling can be roughly classified into two areas.

One area is research whaling in the Antarctic Ocean and Northwest Atlantic Ocean, mainly for minke whales and other species, including sei whales, humpback whales and fin whales.

The other area is research whaling in coastal zones, mainly around Ishinomaki, Miyagi Prefecture and Kushiro, Hokkaido.

The main purpose of Japanese research whaling is to identify the type and the amount of fish eaten by minke whales based on its stomach contents. Finding out how much and what type of fish are eaten by whales is very significant to Japan's fisheries and the lives of fishermen, as Japan's fisheries mostly depend on coastal fishery. Research like this is intended to gather data such as age, growth, migration, whale childbirth and childrearing, in addition to population and the food consumed by whales.

Anti-whaling countries and environmental organizations take on whaling only to denounce it, as if whaling itself was wrong, and ignore the scientific data obtained from research whaling. However, research whaling has finally begun to reveal whale ecology, which has been unclear up until now.

For example, whale ages are now clearly identifiable. Earwax in the whale external auditory canal is resinous, unlike that of land mammals, and a cross-section of it is marked with lines for the each year, in the same way annual rings of trees are formed. Counting the number of the lines gives the age of the whale.

The Institute of Cetacean Research found out that blue whales (up to 33 m), the largest whale species, have an average lifespan of 120 years, sperm whales (up to 18 m) 70 years and minke whales (7 - 10 m), which are a medium-sized species, 50 years.

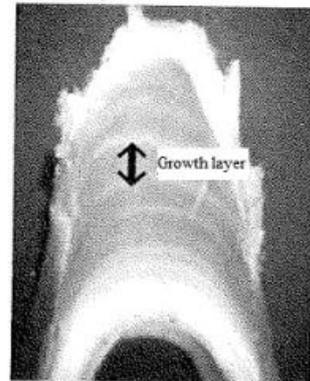
Other discoveries found that pregnancy is 11 months for baleen whales and 16 months for sperm whales and, similarly to humans, whales give birth to only one calf at a time. The lactational period of calves is about six months, during which they swim with their mother and feed on breast milk.

Some people say that conducting research is possible without killing whales. Cetacean research includes methods that involve merely observation and catching and killing. These methods have their own strengths and limitations and research uses combinations in whatever is most practical.

Visually observation does not involve catching and killing, and one can determine population size, number of gams, ecology and habitat in this manner.

For catching and killing, anti-whaling countries argue that sampling and examining the DNA of whales that have washed up on beaches or have strayed into bays should be sufficient but DNA examination provides only very limited information. For example, the maturation period of a whale yields valuable clues for whale management and, for that purpose, genital glands are sampled, which is located deep inside the body and cannot be obtained without catching and killing the whale.

Examining the stomach contents naturally requires dissection. The stomach is taken out while close attention is paid not to spill the contents, which are first frozen for ease of



Cross-section of earwax of minke whale. Growth layers resembling annual rings of a tree indicate the age of a whale
Courtesy of the Institute of Cetacean Research

transportation and storage. Then, after the contents are completely thawed to prevent damage, investigators start their examination. After the volume and weight of the contents in solid and liquid states are measured, food and larger pieces are taken out and the contents are filtered through a fine mesh. This tedious process is repeated many times and tweezers are used to carefully search for bones and small fragments of the fish that were eaten, and of crustaceans and parasites. Only through methodical tasks like this can data be obtained for determining what whales eat.

Therefore, the argument of anti-whaling activists that liquid feces from swimming whales should be sufficient for research is based on ignorance.

In addition, measuring the weight and the amount of food in the stomach of a whale allows for analysis of its metabolism and food intake. Thus, for Antarctic minke whales, it has been found that it requires 4% of its body weight in food, or about 220 kg.

Furthermore, the marine contamination level can also be clearly observed by measuring the amount of polychlorinated biphenyl (PCB) contained in the fat layer of the skin of male Antarctic minke whales.

The results of capture surveys conducted by Japan are now highly valued by many members of the Scientific Committee of the IWC.

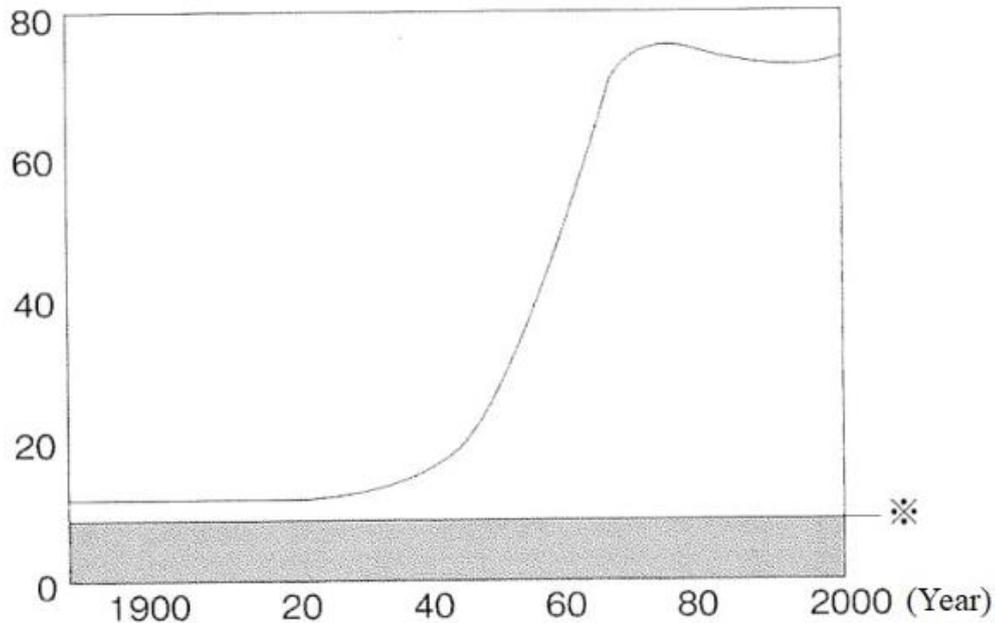
Whales are increasing rapidly!

In 1970s, when accurate scientific research had yet to be conducted, an American anti-whaling ecologist called Sidney Holt said that the population of minke whales in the Antarctic Ocean was about 20,000. Subsequently, his projection developed a life of its own and became established.

However, calculations very different from Holt's emerged. Seiji Osumi of the Institute of Cetacean Research, who was engaged in the study of whale ecology in Japan, went to the Antarctic Ocean in person in a whaler to count the population of whales before research whaling started. He stated that 20,000 claimed by Mr. Holt was far too low and that there were at least 400,000 minke whales in the Antarctic Ocean.

Changes in Number of Minke Whales in Antarctic Ocean

(Unit: 10 thousand)



*Appropriate resource level

Source: Institute of Cetacean Research

Is it 20,000 or 400,000? In those days, debates were held over these two projections. When official research whaling began and the population of minke whales in the Antarctic Ocean was surveyed in 1982, it turned out that there were at least 760,000 in the Antarctic Ocean alone.

This number was officially reported to the plenary meeting of the IWC and approved. Moreover, the number 760,000 was a result obtained in summer, when whales migrate for food, and the number could be even larger during breeding season. The Scientific Committee of the IWC later conducted more detailed research, which led to the current official view of the IWC that, while the population in the Antarctic Ocean is 760,000, at least about 1.14 million minke whales live in the oceans of the world.

In addition, the population of Bryde's whales has been confirmed to be about 25,000, mainly in the North Pacific Ocean, 30,000 fin whales in the North Atlantic, 26,000 gray whales in the Northeast Pacific alone and an amazing 2 million sperm whales in oceans around the world.

For these whale species, these numbers show that they are thriving. Catching a small number of these whales, calculated from research whaling, makes no significant reduction in numbers. It has been confirmed that in the Arctic Ocean, there are about 8,000 bowhead whales. I will detail something later that is very important with respect to bowhead whales.

Incidentally, the fin whale is designated as a threatened species by the International Union for Conservation of Nature and Natural Resources (IUCN) but research whaling has confirmed that its population is about 30,000 in the North Pacific Ocean. The Washington Convention names a species endangered when the population is at 1,000 to 2,000 and Japan argues that the ICUN's designating of the fin whale as threatened must be revised.

Cetacean Stock Sizes Estimated by IWC

Whale Species	Relevant Area	Research Year	Estimated Stock Size (Population)
Minke whale	Southern hemisphere	1982/83-88/89	761,000 (under analysis)
	North Atlantic Ocean (central and northeastern parts)	1996-01	174,000
	West Greenland	2005	10,800
	Northwest Pacific Ocean and Sea of Okhotsk	1989-90	25,000
Blue whale	Southern hemisphere (pygmy blue whale excluded)	1997/98	2,300
Fin whale	North Atlantic Ocean (central and northeastern parts)	1996-01	30,000
	West Greenland	2005	3,200
Gray whale	Northeast Pacific Ocean	1997/98	26,300
	Northwest Atlantic Ocean	2007	121
Bowhead whale	Bering/Chukchi/Beaufort Sea	2001	10,500
	Off West Greenland	2006	1,230
Humpback whale	Northwest Atlantic	1992/93	11,600

	Ocean		
	Southern hemisphere (south of 60 degrees south latitude in summer)	1997/98	42,000
	North Pacific Ocean	2007	At least 10,000
Right whale	Northwest Atlantic Ocean	2001	Approx. 300
	Southern hemisphere	1997	Approx. 7,500
Pilot whale	Central and Northeast Atlantic Ocean	1989	780,000

(IWC: <http://iwcoffice.org/conservation/estimate.htm>)

It may have been true that, when the IWC adopted a moratorium on commercial whaling in 1982, some whale species were on the decrease. However, three decades have already passed since the start of the moratorium and whale are certainly and continuously increasing.

The results of research whaling have revealed that whales, which are marine dwellers, have long lives because their environment is less prone to change than that of land. Accordingly, it is clear that protecting only whales, of all marine life, will disrupt the balance of ecosystem, even cause instability of marine resources.

It is said that “whales are endangered” not only by anti-whaling people but also by most people but, of as many as 83 cetacean species, only the blue whale, the bowhead whale and river dolphins have not recovered in terms of numbers. All the other species can be said to be sound. In fact, sperm whales and minke whales are increasing rapidly.

Anti-whaling countries continue to deny science

Some anti-whaling people say that “Japan’s capture survey is a guise and continuing the survey would lead to depletion of whales around the world,” which is an irresponsible remark not based in the realities of research whaling.

In the first place, the number of whales caught in research whaling is very small. For example, the sperm whales caught as samples in past research whaling only account for 0.009% of all living whales, captured sei whales 0.1% of all living whales and minke

whales, which are caught the most, only 0.9% of all living whales.

The percentages of whales caught in research whaling are only 0.009% or 0.9% of the total amount and, what is more, whales are ever-increasing. They can never be depleted.

Biologically, to begin with, research results show that whales are increasing at an annual rate of 4 to 7%.

Numbers of Whales to be Caught in Japanese Research Whaling vs. Amount of Resources

Name of Species	Stock Size	No. of Whales to be Caught	No. to be Caught / Stock Size
Antarctic minke whale (Antarctic Ocean research area)	442,000	850 (±10%)	0.2%
Fin whale (Antarctic Ocean research area)	12,000	50	0.4%
Humpback whale (Antarctic Ocean research area)	37,000	50	0.1%
Minke whale (Northwest Pacific Ocean research area)	25,000	220	0.9%
Sei whale (Northwest Pacific Ocean research area)	69,000	100	0.1%
Bryde's whale (Northwest Pacific Ocean research area)	25,000	50	0.2%
Sperm whale (Northwest Pacific Ocean research area)	102,000	10	0.009%

Source: Japan Whaling Association

It has been three decades since the moratorium on commercial whaling. Accordingly, a simple calculation, of multiplying 4%, the lowest rate of increase assumed, by 30 years provides the number of living whales today, which is about three times larger than

the number mentioned earlier. For example, the population of minke whales in the Antarctic Ocean was confirmed to be 760,000 in 1982 and it is projected to increase at a rate of at least 4%, or 30,000, every year, which means that there should technically be no problem in catching 30,000 minke whales a year for commercial purposes. Therefore, the Scientific Committee of the IWC drew the conclusion that catching 2,000 minke whales would cause no problem because of the current size of the population.

This conclusion, however was rejected in the IWC general assembly, mainly by anti-whaling countries. They will not allow one single whale to be caught for any reason, defying science and logic, which is in fact highly troubling.

In the Scientific Committee of the IWC, its conclusion was drawn on scientific grounds. The anti-whaling countries do not trust the science. This is truly perverse.

Anti-whalers claim that whales are cute and intelligent, yet there really is no scientific ground for these claims.

To begin with, consider why human beings have devised “science”. Science shows us a direction in human society for protecting the human environment, namely our living environment and natural environment. Accordingly, denying science seems to me to lead to denying the human environment and human beings themselves.

After all, science is continuously ignored due to the restraint of one statement proposed by the U.S. in the Conference on the Human Environment in 1972: “World whale stocks are valuable living resources that must be regarded as the heritage of all mankind.”

This is, in a sense, cultish and religious.

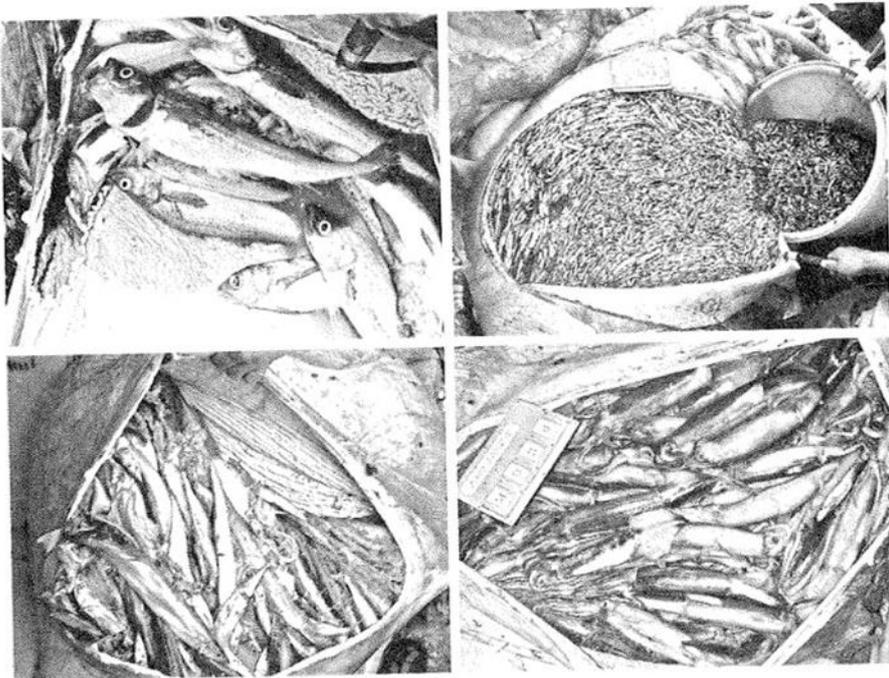
Feeding damage by whales disturbing marine ecosystems

When I visited Kushiro and Hakodate, Hokkaido in autumn 2009, I heard similar stories in the two cities, somewhat coincidentally.

First, off the coast of Kushiro, catches of Pacific sauries had grown much smaller over the past few years. On investigation, it was found out that many minke whales came off the coast and ate large volumes of Pacific sauries. In addition to Pacific sauries, catches of walleye pollacks have long been poor.

Research whaling off the coast of Kushiro in 2009 was scheduled to take place for 40 days, from September 5 to October 14, but extended for three days because bad weather stopped the ship from leaving port many times. The stomachs of the whales caught were examined and large volumes of walleye pollacks were found from in all the minke whales, which surprised everyone. Minke whales were thought to mainly eat krill. However, research whaling showed that whales greatly changed their diet in recent years. In addition, large species of whales are often observed off the coast of Kushiro recently. The change in the minke whale feeding habits and the frequent appearances of large whales are assumed to be because the whale populations have considerably increased, which has led to a shortage of food such as krill. Thus whales have started eating Pacific sauries and walleye pollacks, and large whales have come close to the coast seeking them.

Excess feeding caused by whales as described above has apparently become serious enough to render the coastal fishery near Kushiro unprofitable. Therefore, I have heard, Kushiro fishermen say that they need to demonstrate against the Fisheries Agency.



Stomach contents of minke whales. Large volumes of fish are found in the stomach. Clockwise from top right: anchovies, Japanese common squids, Pacific sauries and walleye pollacks (Courtesy of the Institute of Cetacean Research)

Also in Hakodate, what greatly disturbs people concerned with the fishing industry is excess feeding by whales of squid. As you may know, delicious squids are caught in large numbers. In traditional squid fishing, fishing boats sail out at night and large numbers of lamps are lit to lure squids. Recently, however, many whales come along to eat the lured squid.

These things occur frequently not only in Hokkaido but in other Japanese waters.

In 1970s to 1980s, or three to four decades ago, the Japanese catch of fish was the largest in the world at about 12 million tons annually. About 4 million tons of it were walleye pollacks, which were processed into *kamaboko* and other fish-paste products. Japanese sardines, mackerels, Pacific sauries and horse mackerels were also caught in large volumes.

In recent years, however, the Japanese fish catch has been rapidly decreasing.

It was 5.7 million tons in 2005, a surprisingly sharp decrease to less than half in 20 years. In Kushiro, in particular, the catch was 1.2 million tons, or 10% of the entire Japanese fish catch, in 1980s but has decreased to 120,000 tons, 10% of that volume, in 2005.

Several factors may be involved, such as marine environmental change due to global warming, but that alone is quite unlikely to be sufficient to account for the decrease.

One possible reason is excess feeding caused by whales. Research whaling described earlier at last revealed the startling realities of excess feeding attributable to whales. For a long time, whales were believed to eat only krill but various species of fish were found in their stomachs. For example, the stomach of a surveyed whale that was landed in Kushiro was filled with walleye pollacks, Pacific sauries, squids, krill and other species of fish enough to fill two to three drums (200 liters each). Hundreds of minke whales individually eat this much a day, which means what they eat in a year adds up to an astonishing amount of fish.

What is more, this amount of food eaten is by minke whales, which are relatively small as a whale species. More than anything, whales are big eaters. The largest blue whales may be as long as 27 to 30 m and 100 to 120 tons in weight. How much food do they eat a day? As much as 4 tons of fish and krill.

According to trial calculations by the Institute of Cetacean Research, while the total annual fish caught by all humans on earth is about 90 million tons, the total annual amount of fish eaten by whales on earth is about 300 to 500 million tons, or about three to five times as much as the human beings. This should be considered a serious problem, rather than a surprising one.

The problem is not confined to Japan. Many years have passed since commercial whaling was banned and whales increased year after year during the period, which has put fishermen around the world, as well as in Japan, in a real bind.

For example, recent news reports from overseas say fishermen in Canada and the U.S. have started to take excess feeding by whales seriously and this problem is emerging, above all, in the U.S., the lead anti-whaling country, which is nothing but ironic. After all, excessive protection of whales based on ignorance has caused an increase in the population of whales, which has not only a serious impact on marine ecosystems but also puts the livelihood of fishermen in their own countries.

Under these circumstances, recent research whaling has come to include intensive surveys on excess feeding caused by whales, in addition to basic biological studies as population numbers and increases.

This is why Japan's period of research whaling, which was initially scheduled to be 10 years, has been extended since 2005 mainly for investigating the excess feeding by whales.

Anti-whaling countries' undisguised maneuvers to win over a majority of votes

In this way, steady scientific studies by Japan and other countries have made clear that fish consumed by whales is about 300 to 500 million tons annually, or about three to five times that of the humans. In addition, the living population of whales is much larger than previously estimated and Japan has calculated the effective stock size of whales based on scientific research, which was submitted to the IWC. The data were evaluated by the Scientific Committee and drew the conclusion that "catching 2,000 minke whales a year does not adversely affect the resource."

However, anti-whaling countries stubbornly continue to refuse to lift the moratorium

(temporary ban) on commercial whaling.

In the IWC, a resolution is adopted by a majority vote of at least three-quarters in the plenary meeting by the representatives of various countries in attendance.

That is why whaling countries seeking conditional commercial whaling and anti-whaling countries that totally disapprove of whaling confront each other in the general meeting of the IWC and contend for votes almost every year. As described previously, anti-whaling countries work vigorously to increase member countries. That is, they approach countries that have nothing to do with whaling and request them to join the IWC, merely to increase the number of members. In the background is even criticism that anti-whaling countries may be dangling economic support to countries which accept anti-whaling policies or hinting at sanctions to countries which are against anti-whaling measures.

The most “successful” case of these maneuvers to win over a majority of votes was the IWC general meeting in 2003. In order to restrain the resumption of commercial whaling, anti-whaling countries such as the U.S. and the U.K. submitted a joint proposal to set up a committee in the IWC for the conservation of whales and establish a new fund for the purpose. It was adopted with 25 affirmative votes and 20 negative votes.

The temporary ban (moratorium) on commercial whaling was in effect since it was proclaimed in 1982 and this proposal created a trend toward a permanent, rather than temporary, ban on commercial whaling. The IWC is no longer in line with its original purpose and philosophy at the time of its establishment—it has made a complete turn.

However, such thinking and aggressive ways of anti-whaling countries were received with doubts by a number of anti-whaling, not to mention whaling, countries. That is, the illogical argument of anti-whaling countries were met with objections from some of the anti-whaling countries that had been against whaling until then.

In the IWC general meeting in 2006, the numbers of votes of whaling and anti-whaling countries were equal and a resolution that the moratorium was no longer necessary was successfully adopted.

In the following year, however, complications arose in the general meeting again. In an attempt to postpone the implementation of the resolution determined in the previous

year's general meeting, anti-whaling countries counterattacked by increasing members who agreed, strengthening unity during the year and laid down a hardline policy with no concessions, which again resulted in discussions going nowhere.

Japan's basic principles were "early resumption of sustainable whaling based on scientific grounds" and "inheritance of the whale meat-eating culture through sustainable use of resources" but the meeting itself was rendered dysfunctional due to hindrance by anti-whaling countries and ceased to provide opportunity for constructive discussion.

Accordingly, exasperated Japan finally presented to the IWC general meeting future options, including "complete withdrawal from the IWC," "establishment of a new managing agency to take the place of the IWC" and "voluntary resumption of coastal small-type whaling."

To begin with, the U.S. brought up whales as a symbol of environmental conservation to propose a 10-year moratorium and successfully had it passed as a resolution in the IWC in 1982. It was originally no more than a moratorium, or temporary suspension, and was scheduled for a review after studies on whales by 1990 but the moratorium continued.

Countries in favor of whaling presented data based on scientific research recognized by the Scientific Committee of the IWC, which showed that minke whales and sperm whales had already more than sufficiently increased and that whales were excessively feeding on fish, which was having a significant impact on ecosystems. Nonetheless, anti-whaling countries rejected these arguments. Even if confronted with scientific facts and reason, anti-whalers wield mere emotional arguments, such as "it is hard on whales" and "conservation of the biggest creature on earth is a barometer for watching over global environment", and discussions grinds to a halt.

These arguments by anti-whaling countries faced fierce objection by the Japanese delegation. Some said that, above all, the arguments of Australia and New Zealand, the most unyielding of the anti-whaling countries, were not at all scientific and that there was even the opinion that Japan should leave the IWC based on the prevailing circumstances.

In fact, some countries did withdraw from the IWC. Canada withdrew in 1982 and Iceland raised an objection to the IWC in 1992 and even led the establishment of a new regional commission for conservation and management of marine mammals.

Japan can regain its freedom of commercial whaling by withdrawing from the IWC. There was even the hardline opinion raised that the IWC is a voluntary organization and withdrawal would cause no problem. I also think that withdrawing from the IWC would allow Japan to carry through sound arguments and maintain its dignity as a nation but I could not adopt the hardline policy because the Japanese government, which clings to international opinion, should be prudent.

Furthermore, there was consideration, that as a national policy, to avoid upsetting the U.S., an anti-whaling country. But then, what will become of the future of Japan's fisheries industry? I personally wish that the government would think of Japan before thinking of the U.S. But some people worry that Japan may be seen as going back to an arbitrary military state if it sticks out and does something like that. How on earth is whaling linked to Japan's going back to a military state?

The U.S. in fact is a whaling country

Let me mention something important as a person in the position of delivering a sound argument: The U.S., standing at the front of anti-whaling countries, is actually a whaling country. Many Japanese should know that the U.S., which intends to keep Japan from catching any whale, is currently a definite whaling country.

Whaling is taking place in Alaska.

First, Alaska, is land of the indigenous Inuit, where people lived based on marine animal hunting. In Alaska, colonization by the Russians progressed in the 18th century. However the Russians suffered financial difficulty due to the Crimean War and sold Alaska to the U.S. in 1867. The U.S. is said to have been happy to purchase the land because it was aware that Alaska was abundant in underground resources such as various minerals, oil, agricultural and marine resources including wood and marine products. Alaska also had military significance and was a tourist attraction. These advantages led the U.S. to purchase Alaska, the home of the Inuit.

The U.S. has in the past brought Native Americans, indigenous people, under its complete control, and Anglo-Saxons rushed in droves. Again, in Alaska, they brought the Inuit, who had settled there, under control and introduced American culture, which rapidly

Americanized them. One conspicuous example of this is drinking alcohol. In Alaska, which is a cold place to begin with, had no grain or fruit. The Inuit neither distilled alcohol nor had a habit of drinking alcohol. After purchase by the U.S., whiskey and wine freely found their way to the Inuit, which is said to have resulted in an overwhelmingly large number of alcoholics.

For Inuit, the U.S. permits them to catch as many as 54 bowhead whales a year so that they can get back the former way of life. This Aboriginal Subsistence Whaling permits whaling for subsistence and, in addition to the Inuit, the indigenous Makah in the State of Washington have been permitted to catch 140 gray whales since 1990. The Makah live in Washington and their lifestyle is hardly different from that of the present Americans but their whaling is permitted from the perspective of the Aboriginal Subsistence Whaling. Countries outside the U.S. point out Aboriginal Subsistence Whaling and, at present, the IWC allows 19 fin whales and 175 minke whales to residents of Greenland, 20 humpback whales to indigenous people of Saint Vincent (off the coast of Bequia Island) of the Caribbean and 13 bowhead whales to the Chukchi of Russia.

The bowhead whale, which has a body length of almost 20 m and an average weight of about 80 tons, is the third biggest of all whale species. If catching 54 of them annually is permitted, it is equivalent to 864 minke whales (an average weight of a minke whale is about 5 tons).

However, this is quite absurd. If the subsistence whaling is really important to the Inuit and they cannot survive without eating whale meat—I personally do not think it is the case—why don't they go to the Antarctic Ocean and catch minke whales, where there as many as 760,000 of them, rather than endangered bowhead whales?

Let me add that I understand the Inuit, who are permitted to catch bowhead whales in Alaska, also receive substantial welfare benefits thanks to the profit generated from offshore oil fields. Families with children are entitled to \$300 to \$600 a month and anybody over 65 who has lived in Alaska for 25 years or more receives \$120 a month as an Alaska Longevity Bonus. With this protected living taken into consideration, I have to wonder if whaling really suits the interpretation that it is Aboriginal Subsistence Whaling, that is, whaling permitted for survival.

Bowhead whales, which live in extremely cold ocean waters, multiply very slowly and

catching them at such a pace raises fears that bowhead whales may go extinct before long. I wonder why they do catch minke whales, of which more than 1 million exist on earth.

In this way, the U.S. refuses to permit catching of even one whale by commercial whaling and, at the same time, allows their own people to catch bowhead whales, which are endangered. While they protect the right of their indigenous people, they are saying that the Japanese should eat beef rather than whale meat. They insist that not one single minke whale should be caught, where there are more than 1 million minke whales around the world. What is one to make of this self-centered attitude?

Now, there are many fishermen in the U.S. and Europe, who are anxious and enraged about the rapid decrease of fish due to excess feeding by whales, just as fishermen in Hokkaido are as mentioned earlier. A trader who has been to Alaska to purchase salmon recently has told me that the issue of excess feeding by whales is serious to them as well and they are seeking measures for addressing this issue from the government. Fishermen not only in the U.S. but also in many other countries are beginning to feel directly that an excessive increase in the population of whales is gradually becoming a matter of life or death.

Warning by the UN Food and Agriculture Organization

Let me tell you something even more important. In the IWC, the confrontation between anti-whaling countries and countries insisting on whaling has remained unsettled but what is recently attracting attention is the existence and concept (policy) of the Food and Agriculture Organization of the United Nations (FAO). The FAO announced statistical data on whales in the Committee on Fisheries in 2002, estimating the global sea fishery production at approximately 90 million tons and cetacean predation at approximately 500 tons. That is, the cetaceans eat over five times more fish than humans do. Therefore, the FAO warned that excessive protection of the cetaceans may lead to changes in marine ecosystems and expressed concern about future cetacean research due to the loss of research whaling.

After all, a serious problem is bound to occur in terms of the human food chain, not to mention the one for whales. One key measure to take from now on is to ensure survival of whales and utilize them as resources while implementing control to maintain the population. In particular, animal protein will steadily decrease in the future due to

explosive population growth in developing countries. This is another perspective from which the FAO is giving an important suggestion that we should not fail to utilize whales. The FAO is an official specialist agency of the UN in the same way as the WHO and UNESCO and their suggestions are quite authoritative.

In addition, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (a.k.a. Washington Convention) bans imports and exports of specific endangered animals and plants but it exempts those which are stable in number from the ban.

In any case, whales should be utilized from a global point of view. What is important should be to mutually recognize the traditions and food culture of individual countries while catching only the scientifically approved numbers of them and controlling the entire marine ecosystems.

Chapter IV Three Reasons Why Anti-Whaling Nations are Against Resumption of Whaling

Buy beef rather than catching whales!

The moratorium (temporary ban on commercial whaling) adopted by the International Whaling Commission (IWC) had a collateral condition that it should be reviewed by 1990 at the latest, which has remained ignored, and resumption of commercial whaling is still nowhere in sight. In particular, the content of IWC meetings in the 1990s was almost intended for “stopping commercial whaling from being resumed in one way or another.”

It was despite the fact that sufficient stocks had already been confirmed by scientific research and excessive protection had caused whales to increase to result in serious feeding damage.

Why on earth do anti-whaling countries strongly oppose the resumption of commercial whaling?

One reason is a political structure in which many of the major powers playing the central role among anti-whaling countries are in fact exporters of beef and pork.

The point is to cut off a route for Japan to independently procure whale meat as a source of animal protein. It would increase the degree of Japan’s dependence on imported meat, translating to an increase in their beef and pork exports.

The U.S., Australia and New Zealand, which are leading figures most firmly opposing whaling, are the world’s biggest meat producers. Therefore, their economy cannot be maintained without selling livestock products such as beef and dairy products to foreign countries. In Australia, for example, the number of cattle raised is approximately 28 million, whereas the human population is approximately 20 million. It exports about 70% of the beef produced to overseas.

In addition to Australia and the U.S., the same situation can be found in Canada, New Zealand and many of the European countries, which are livestock and agricultural countries anxious to sell their own agricultural products.

There are also reasons on the part of Japan. In recent years, Japan, which has stopped promoting agriculture to become an industry-oriented country, has been selling products such as automobiles, electrical appliances and computers to overseas. This causes a trade imbalance, which obliges Japan to buy agricultural products from foreign countries.

As a result, Japan opened the domestic beef market to foreign countries in 1991, about 20 years ago. Since then, American and Australian beef have come into the country in large quantities, which has made a significant change to the Japanese market.

In particular, Japan is the biggest export partner of Australian beef, about 400,000 tons of which are imported annually.

After all, the whaling issue relates to these trade issue between countries. Behind the anti-whaling countries' opinion that whales should be protected is an intention of selling their meat without giving whaling countries a choice of eating whale meat, which should not be a groundless suspicion. In short, the true intention of the three biggest meat producers, namely the U.S., Australia and New Zealand, may be "Why don't Japan just buy beef, not taking the trouble to catch whales?"

Environmental issues with cattle and whales

Some people in Japan also say that we do not need to bother to dispute with anti-whaling countries for catching whales but can simply eat beef, pork and chicken. I would like to speak out here: We must not forget that whale meat should not only be seen as food but it provides a food material much more ecological for global environment.

For example, there is stark difference in energy efficiency between producing beef and catching whales. For obtaining whale meat, whaling by using a small whaler consumes 1 kcal in terms of fuel for 1 kcal of whale meat. However, obtaining 1 kcal of wheat, which provides feed for cattle, requires 10 kcal of fuel. Furthermore, producing 1 kcal of beef is said to require approximately 120 kcal of grain feed.

Naturally, labor and money for growing the grain are also required.

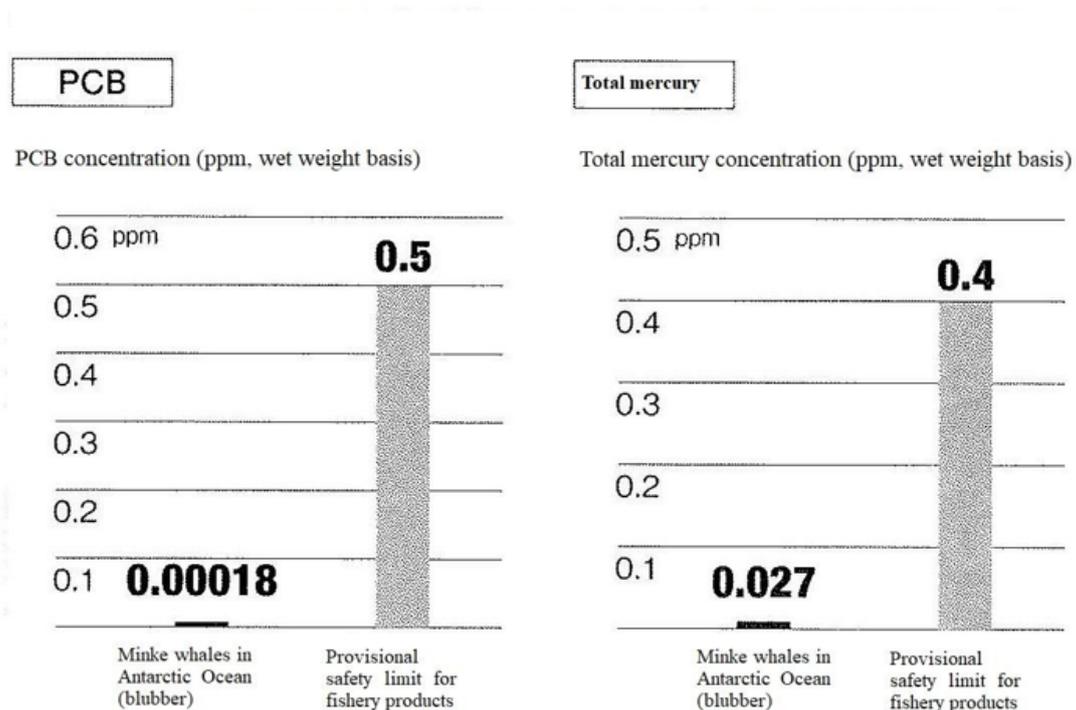
In this way, raising cattle takes a lot of work but catching whales does not require so much effort other than the ship fuel and labor costs, which are almost all that are necessary to

get the meat of gigantic whales.

In addition, cattle generate large amounts of excreta. They excrete many times every day, which nitrifies the soil to flow into the sea if it rains, causing the river and sea to be nitrified. In dairy farming in Japan, farmers are required by law to completely dispose of the excreta of their livestock, which has resolved the environmental issue, but it is not as easy in other countries. In addition, the belches of cattle constantly generate large amounts of methane gas, which is said to be non-negligible for global warming.

We are now in an age when global warming is a problem. Hundreds of millions of cattle are raised in the U.S. but, at some future time, global environmental pollution may make cattle raising impossible.

**Concentrations of PCB and Total Mercury in By-products of Cetacean Capture
Research in Antarctic Ocean⁴⁾**



Source: *Hogei no Shinjitsu* (The Realities of Whaling) compiled by the Institute of Cetacean Research

Meanwhile, whaling hardly involves pollution like this. In addition, heavy metal content of seafood due to marine pollution has become an issue but analysis of whale meat has shown that the amounts of heavy metals such as lead, mercury and cadmium and

carcinogenic PCB (polychlorinated biphenyl) are remarkably smaller than those in other fish. For example, PCB content of whale meat is 0.00018 ppm and average of that for other fish is 0.5 ppm.

When it comes to mercury content, the average for fish is 0.4 ppm as compared with 0.027 ppm for whales. It is virtually negligible.

It means that, from the perspective of the safety of food as described in Chapter II, whales provide food worth paying attention to for future Japanese diet.

Whales utilized politically

Another reason why anti-whaling countries object to whaling is that they can use the whales issue as a symbol of environmental issues.

Whales are mammals and the biggest creatures on earth. They flip their tail fins and mother whales make sounds to signal their babies of their locations as they swim as long as 6,000 to 8,000 km. When people are shown footage of a scene like this, they are inclined to think, "Eating whales, such admirable creatures, is cruel and sad."

One major factor in anti-whaling countries' gathering strength is use of the media for skillfully utilizing footage in this way.

Now, let me mention something, although pretty old, that is symbolic and provides a starting point of today's anti-whaling activities.

It is about the Cuban Missile Crisis in 1962.

Cuba, which is a socialist country, is located in Latin America, as if at the throat of the U.S. Nevertheless, it was hostile to the U.S. and had formed a close relationship with the Soviet Union (U.S.S.R.) both politically and militarily. Cuba declared that it would buy missiles from the U.S.S.R. and deploy them in the country. The U.S., intending to prevent it, announced that it would implement a naval blockade, in response to which the U.S.S.R. sent war vessels to the Caribbean. The tension peaked, the situation reached a flash point leading to the possible Third World War and the whole world was tense. In the end, Cuba did not deploy missiles and the U.S.S.R. turned back but the U.S. and the U.S.S.R. had a

highly confrontational relationship.

In such circumstances, one whale became icebound in the Bering Strait between Alaska and East Siberia. Russian and American ships were there, apparently in a too timely manner, and tried to rescue the whale. The American icebreaker first set out to rescue the whale while crushing the ice. The scene was filmed from a helicopter above the ocean.

However, whether a coincidence or not, the American icemaker was stranded, impeded by thick ice. The Russian icebreaker *Ob* found out what happened and made its way to rescue the American icebreaker and the whale, which eventually succeeded in saving the whale and the American icebreaker as well. The message is: “We are currently at a cold war but help each other in a case like this, to save one whale.”

The news footage was aired around the world as a praiseworthy episode of a rescue of a whale by the U.S. and the U.S.S.R.

However, I would like you to give careful consideration here. In order to save the life of a single whale, an American icebreaker set out on a journey at enormous expense. The *Ob* of the U.S.S.R. also pitched in.

It certainly is a praiseworthy episode but is it really a good thing to do?

One whale living in a wild ocean becoming icebound is a natural phenomenon. It can be seen as the natural fate of a whale living in harsh nature.

Can a whale in this situation survive? Not likely. If it is left as it is, it will probably die. It is part of Nature’s laws. What is the reason for taking the trouble to rescue one whale for all that?

The amount of money spent on this whale rescue should translate to a few hundred million yen if converted to the current value. If they have that much money, it should be spent from a humanitarian perspective for the many children around the world who lose their lives, unable to eat even a handful of food because of poverty. That is, the action taken by the U.S. and the U.S.S.R. to rescue one whale could clearly be seen as a political show, or propaganda. It seems to me that behind this lies the original intention of the U.S. to make use of whales for improving her image. If shown this footage, a lot of people on

earth, including the Japanese, may think, “Thank God the whale was rescued. I can’t eat whale meat anymore.” The point is that protecting the life of one whale could produce a peaceful and humanitarian image, which had a good effect of giving an impression to the whole world that America was a respectable country and the Soviet Union was a kindly country.

As you may know, the U.S. has always been involved in conflicts and wars to display the strength of a Great Power as the “World’s Policeman,” which is shown by how it participated in the Korean War immediately after the end of WWII, followed by the Vietnam War, Afghanistan and Iraq. However, the image of the U.S. that still remains today may be interpreted by the world as a hawk constantly involved in wars. With the Vietnam War, in particular, excessive attacks invited criticism from within and outside the country, the need to intervene was questioned and the tinge of the hawkish image of the U.S. grew even stronger.

Accordingly, they probably thought that, in order to divert and soften that perspective, broaching whales would be effective. Since around then, the catchphrase along the lines of “How can we save the global environment if we can’t save one whale?” started to be repeated loudly. On TV, footage started to be aired to show how whalers harpooned whales and they shed blood.

Furthermore, since around the time when the U.S. delegation brought up the issue of whales in the Conference on the Human Environment in Stockholm in 1972 as I mentioned in the previous chapter, the U.S. suddenly started to object to whaling. “Whales are the biggest creatures on the earth and a symbol of the planet. We cannot protect the entire earth without protecting them,” they said. In response, Yonezawa Kunio, who was an agent of the Fisheries Agency and present at the Conference as a member of the Japanese delegation at that time, made a comment.

“Among the purposes of the emphasis placed by the U.S. on the issue of whales in the Conference on the Human Environment was to avert attention from being directed to the Vietnam War. Prime Minister Palme of Sweden, the host country, had condemned the Operation Ranch Hand of the U.S. Air Force and announced previously that he would take it up in the Conference. The U.S. is an IWC member country but had never proposed a moratorium on whaling to the IWC until then. Nevertheless, they presented it as a subject for discussion in the Conference out of the blue, which can be viewed as a strategy

for shifting the focus from the Vietnam War to whales.” (Excerpt from *Dobutsu Hogo Undo no Kyozo* (A Virtual Image of Animal Protection Movement) by Umezaki Yoshito)

It means that the U.S. was running a campaign for creating an impression on people around the world that they are a dove. This certainly should create a dovish image quite inexpensively.

That is not all. Umezaki Yoshito, an agricultural and marine journalist, says that the U.S. government “had already known that a moratorium on whaling was unnecessary from a scientific viewpoint as well” in advance. It was two months before the Conference on the Human Environment in Stockholm. The U.S. had already decided to raise an issue of whales in the Conference on the Human Environment and, for building theoretical backing, called specialists in whales to the House of Representatives and held a public hearing on the issue of whales.

However, contrary to the expectations of the U.S. government, two scientists clearly testified that “a blanket moratorium on whaling was scientifically unnecessary.” One of the two scientists is J. L. McHugh, who was Chairman of the Scientific Committee of the IWC at that time.

Still, despite this testimony by leading American whale specialists, the U.S. Senate and House of the Representatives passed the “joint resolution on a 10-year moratorium on commercial whaling,” which was submitted to the Conference on the Human Environment. In other words, the U.S., although totally unreasonable, politically made use of whales and got their own way by force.

Bashing Japan, the “whale killer”

As the third reason why anti-whaling countries object to catching whales, many think that racist ideology may have been in the background.

The first person who suggested it is Yamamoto Shichihei, a man of just argument. In 1975, Yamamoto went to the U.S. on the occasion of Emperor Showa’s visit to the country and interviewed people in various fields. At the time of this visit, “whale demonstrations” to the Emperor were held on a large scale in the U.S., in which placards were put up that read, for example, “STOP MURDERING WHALE” and “PEOPLE OF JAPAN, SAVE

WHALES.”

Before that in the U.S., Japanese nationals and ethnic Japanese are said to have been accused of being “whale killers” and discriminated against and even boycotts of Japanese products staged.

Accordingly, Yamamoto had obtained a promise from Mr. Burns, President of the National Audubon Society, which was the organizer of the demonstrations, to meet to discuss the issue directly.

Yamamoto was vaguely aware that what was behind the whale demonstrations was neither “wildlife conservation” nor “resource security” but was not sure if it was racism.

That is, if the way of thinking of Americans about opposition to whaling is “Save whales from extinction” → “Prohibit whaling” → “Whales are caught by Russians and Japanese” → “Therefore, demand ban or restriction on whaling from both Japan and the U.S.S.R.,” it is not racism. If this was the case, discussion excluding racism would hold and he was thinking of asserting to Burns as follows:

- (1) The Russians only needed whale oil and part of that whale oil was intended for missiles, which can be regarded as military demand.
- (2) To the Japanese, however, whales are a source of protein and essential food, which is simply peaceful use.
- (3) Therefore, ban on whaling should first be demanded of the U.S.S.R. for the benefit of the U.S.
- (4) Suppose there is a person who kills cattle only to get beef tallow and throws the meat away and another person who uses the meat to eat. Which one do you think has the right to use cattle? If there were peoples on earth with the right to hunt whales to the end, they should be Japanese and Inuit.

Then Yamamoto obtained a promise through the Asahi Shimbun Company to meet for discussion before leaving Japan, phoned from Washington, D.C. to confirm the date and time of the discussion again and left for New York, the location of the discussion. However, when he made a phone call after arriving in New York to say that he was on his way, the secretary answered to tell him that “urgent business arose and Mr. Burns was on the road and not available.”

He was obliged to interview those related to whaling and wildlife protection groups instead and felt that the issue of whaling was certainly a manifestation of racism. It is because the line of thought proceeded in the order: “Japanese” → “whale killer” → “bad people” → “boycott of Japanese products” → “rejection of the Japanese.”

The following, although somewhat long” is an excerpt from Yamamoto’s work entitled “*Nihonjin to Amerikajin* (The Japanese and the Americans),” which includes important points.

At an elementary school, a conventional caricature of a Japanese with “a round face and glasses” is made on a blackboard together with a caption reading “Whale killer” to boycott a Japanese elementary school child. Even worse, there was a case in which a child was called a “whale-killing Japanese” and punched.

A three-year-old Japanese girl was given a remark “You are evil” by an older girl and, when she asked why she was evil in return, she was told, “Because you are a whale killer.” (omitted)

The racist way of thinking “Japanese → whale killer → bad people” has now spread to the sphere of children. (omitted)

“Save whales” and “Boycott Japanese products” are slogans, under which products to be rejected are listed with Toyota at the top. The U.S.S.R. is mentioned, all right, which is no more than a pretext, hence no “rejection of Russians.” Behind this was labor unions’ scheming and fundraising taking advantage of the campaign as well and the idea is the same as how they interned only Japanese Americans during WWII and left Germans intact, which is what Wayne Horiuchi (note: then President of the Washington D.C. Chapter of the Japanese American Citizens League) said.

The Japanese American Citizens League naturally stroke back (again I heard complaints of discontent from Sansei and Yonsei that “Nisei don’t say anything in a case like this”), which was covered in a big way by *The Los Angeles Times* with phrases such as “Japanese fear whale ‘reaction.’” *The Plain Dealer* of Ohio run President Sugiyama’s protest and a Chinese newspaper reprinted an anti-Japanese cartoon of “whale-killing Japanese” and run the protest from the Japanese and

comments of Mr. Uno (note: Nisei Japanese who wrote *The History of the U.S.-Japan Negotiations*) and the Society of “Active Asian Citizens” warns that boycotting Japanese products is transformation of frustration into attitudes toward Japan and the Japanese—“witch-hunting” type of a way, so to speak—intended for averting citizens’ attention from the essence of the issue.

I cannot help seeing this as a phenomenon exactly as described by the Society of “Active Asian Citizens”: What is behind the placards such as those reading “STOP MURDERING WHALE” and “PEOPLE OF JAPAN, SAVE WHALES” aimed at the Emperor is hostility toward the Japanese, or “a shade of WWII.”

“Still, isn’t it partly because of insufficient of publicity on the part of Japan? Wouldn’t Americans be convinced if we told them whales are a source of protein?” So I said and shared Mr. Horiuchi my theory of comparison between “people who use whales as a source of protein” and “people who use cattle and whales only for oil and tallow,” which I mentioned earlier. “Well, what they say is eating whales is not good.” “What?” “There is a rumor that the FDA (Food and Drug Administration) has banned imports of canned whale meat...” It is said that, once abroad, Japanese all become “patriots” but I was somewhat infuriated by the time I reached this stage.

(Omitted)

Nobody can object to the banner of “animal protection” and “resource security.” Why, then, does he take an awfully unfair attitude of running away despite the promise made? Isn’t it an aberrant behavior as an American?

In the past, there was discrimination of various ethnicities in the U.S. There was discrimination against the Irish and Jews, not to mention African-Americans, and exclusion of the Japanese represented by the ant-Japanese law.

After all, these whale demonstrations provided an outlet for Americans to use to vent their deep-rooted anti-Japanese sentiment.

In addition to the U.S., Australia and European countries also bashed Japan, saying that whale eaters were barbarians. In those days, whales were hunted by countries such as the U.S.S.R., Norway and Spain as well as Japan but Japan was always the only target of

bashing.

Umezaki Yoshito mentioned above says that, at the IWC Annual Meeting held in London in June 1978, anti-whaling group members poured red ink over the Japanese delegation, together with jeers such as, “Whale killer!” “Barbarians!” and “This is the blood of the whale you killed!” This is very similar to how the Sea Shepherd Conservation Society, which has now become a problem due to the terrorist attacks against Japanese research whalers, throws bottles of chemicals and fire-bombs at research ships. At the meeting, there were also delegations of whaling countries of white people as I mentioned earlier but only the delegation of Japan, a whaling country of colored people, became the target.

After all, it may be that white people cannot accept “a yellow race eating intelligent (whether this is true or not is unknown) whales”

Anti-whaling campaign on a pay TV channel

Another symbol of Japanese bashing that started in the 1970s was dolphins.

In fact, the Japanese ate quite a lot of dolphins until 1960s and 1970s. In particular, dolphins came in schools to the Goto Archipelago, Nagasaki Prefecture, Kyushu and dolphin hunting have long been very popular in that area. Dolphins are cetaceans but they are not subject to the IWC’s hunting regulations.

To describe how to catch dolphins, first, dolphins in a school in the open sea are driven to the shore using boats. Then, the dolphins with no more way out come ashore, which are hand-harpooned. The large amounts of blood gush out of the dolphins to stain the beach red.

At one time, scenes of this hunting were photographed and reported to the world as “Japanese slaughter of dolphins.” It was quite effective. It left an impression that Japanese, who club intelligent and cute dolphins to death, and eat them at that, were a barbaric people.

In 2009, the OPS (Oceanic Preservation Society), an American organization to promote protection of whales and dolphins, produced a documentary film called *The Cove*. The “cove” here refers to Taiji Town, Wakayama Prefecture, which holds a central position in

the history of whaling in Japan. In Taiji, dolphin hunts take place every September.

In the movie, dolphin hunting was filmed with hidden cameras and depicted sensationally to emphasize what barbaric acts Japanese were committing. In addition, the Japanese government's claims and activities at the IWC were portrayed in a nasty way. This movie won the Academy Award for Best Documentary Feature on the 82nd Annual Academy Awards, which aroused opposition from people of Taiji. Anti-whaling campaigns like this that use images are going on even today and a world-famous cable TV station specialized in wildlife documentaries is playing a role of a major supporter of anti-whaling groups to air shows that strongly criticize Japanese dolphin hunting, research whaling and coastal whaling (all of which are capture permitted by the IWC). They are attempting to use those shows to form international opinion that whales should be pitied and wild animals should be protected.

Is it all right for people to eat livestock as long as it is raised by themselves?

In this way, Japanese research whaling and dolphin hunting have been bashed since 1970s to this day but how about wild animal hunting by other countries?

In Canada, 20,000 wild seals are clubbed to death annually even now to sell their skin and fur. How should this be taken?

The Canadian government, which is strongly opposing the EU for imposing embargo on seal products, claims that some of their northern people earn their bread and butter by seal hunting and it cannot be helped.

The U.S. used to hunt large numbers of whales but stopped whaling because of oil excavation. However, what they never stopped since the pioneering days is reckless hunting of bison. They were excessively hunted for meat and skin, which led to a sharp decrease in the population of bison. Bison were said to live in millions but their population once decreased to a little more than 500 in the whole of the U.S., on the verge of extinction. Subsequently, the number recovered to a few ten thousand thanks to the policy of protection but the slaughter is said to have been ferocious.

In Australia, a leading advocate of anti-whaling countries, wild animals such as kangaroos, camels, wallabies and dingoes are killed for food even now.

In the U.S. and parts of Europe more inclined to be against whaling, wild deer and hares are eaten openly as game dishes.

Anyhow, they also hunt wild animals to eat but, to Japan, they tell not to kill whales. Changing opinions according the situation like this seems too “convenient” to me.

Furthermore, how about the cattle, swine and sheep that they eat every day? Is it not cruel to kill and eat as long as the animals are livestock?

To this, those against whaling argue back: “Livestock is a resource we manage and we raise them for food. Therefore, we can treat their lives as we please. However, whales live in nature and cannot be treated freely.” Then, I asked them a question.

“You mean that you can eat what you have raised by yourselves. Suppose, then, a marine stock farm was built in the ocean to breed whales to raise and eat them. Would it not be cruel?”

They answered unanimously that “it would not be cruel.” Now, does it not mean that they also think whales can be treated as food depending on the situation?

In the first place, it makes no sense to think which is cruel. Every creature has just one life. Is it ever possible to compare that only one valuable life with another and say that it is all right to eat cattle but not whales because lives of whales are heavier? Is it what the “weight of life” is all about? Lives of creatures cannot be treated differently from each other.

No matter what creature is killed and eaten, it is naturally cruel and pitiable. If that is so, I think the idea of making the most of the creature thoroughly with gratitude and respect after taking its life is sounder. I wonder if anybody shares my perception that eating entirely while appreciating the lives of creatures sacrificed, which is an attitude of the Japanese of former days, is much more natural.

Australian national broadcaster asking if it is OK to kill Japanese

On March 9, 2008, Fuji Television’s news show called *Shin Hodo Premier A* presented

shocking footage made by an Australian broadcaster.

It was a broadcast on July 14, 2006 entitled *Harpooning Japanese* of a popular satirical show called *The Chaser's War on Everything* produced by an Australian public broadcaster and it included sarcastic remarks about Japanese whaling.

A reporter interviews the (then) Japanese Ambassador Hideaki Ueda without permission on the premises of the Japanese Embassy in Australia and asked questions such as, "Would you agree that we've got to kill a couple of Japanese people for research purposes?" To Ambassador Ueda, who naturally got angry, the reporter went on to ask:

"Er, just to, you know, further understand Japanese people. I mean we've done a lot but if we were able to kill a few of them, we might go to understand more like about their pregnancy rates or their feeding patterns."

In person-on-the-street interviews that followed, the same reporter asked a few Japanese passing along a street questions such as, "Can I kill you for research purposes?" "Can I harpoon you?" "You didn't die. How am I gonna learn about you now?"

In Australia, an awful show like this is produced and aired by a national broadcaster.

Sea Shepherd developing into a terrorist group

The Sea Shepherd Conservation Society (SSCS), an anti-whaling organization, disturbed Japanese research whalers and created a sensation this year (2010) again.

The SSCS is an American environment conservation group and radically anti-whaling. Paul Watson, President, was a co-founder of an international environmental conservation group Greenpeace. However, his attitude of not hesitating to resort to force for persisting in his own view stood out even within Greenpeace, which in the end caused him to be ousted from the organization. Accordingly, he teamed up with a few other extremists who share the same idea with him to organize a violent group, which is the SSCS.

Anyway, the SSCS considers it right to commit terrorist acts to achieve their purposes and uses extreme and illegal violence such as opening fire on whalers and their crew and ramming their protest vessels into whalers to sink them and its members in fact have been

arrested or wanted internationally. They call themselves eco-terrorists and the flags they put up always bear a horrific skull.

During research whaling from 2007 to 2008, SSCS members threw more than 100 bottles of foul-smelling butyric acid and packages of white powder onto a Japanese research whaler, which injured the eyes of three people including Coast Guard officers. In addition, fire-bombs thrown onto the research vessel caused a fire in part of the hull. Strenuous firefighting stopped the fire from leading to a serious situation but, if this fire had spread, it would have resulted in a terrible disaster, which they intended. They also rammed their obstruction ship into a research vessel and entangled the vessel's propeller with a rope to hinder its movement. Furthermore, they threw bottles of butyric acid onto a Japanese research vessel *Nisshin Maru* and two members of the vessel's crew underwent treatment (February 9, 2007). A Japanese sighting vessel *Kaiko Maru* was rammed by a protest ship, which damaged the sighting vessel's propeller (February 12, 2007). Members of the SSCS threw bottles of chemicals onto a sighting/sampling vessel *Yushin Maru No. 2*, released ropes around the vessel in an attempt to foul the vessel's propeller, when two activists were temporarily detained (January 17, 2008). These are a few examples of the terrorist acts they committed as they pleased and, in the end, they went so far as to point possibly blinding lasers from a high-powered laser pointer at the face of the crew of a research vessel.

In 2009, for the purpose of intensifying their sabotage activities against Japanese research whaling, they introduced *Ady Gil*, a high-speed trimaran, made use of it together with their existing protest ship *Steve Irwin* and a helicopter to carry out relentless sabotage activities against research whalers in the Antarctic Ocean. This *Ady Gil* is said to be equipped with a 1,080 hp engine and make as much as 50 knots. It is easily capable of approaching a whaling fleet sailing at 16 knots for obstruction.

On January 6, 2010, an incident occurred where *Ady Gil* and a Japanese security vessel *Shonan Maru No. 2* collided in the Antarctic Ocean.

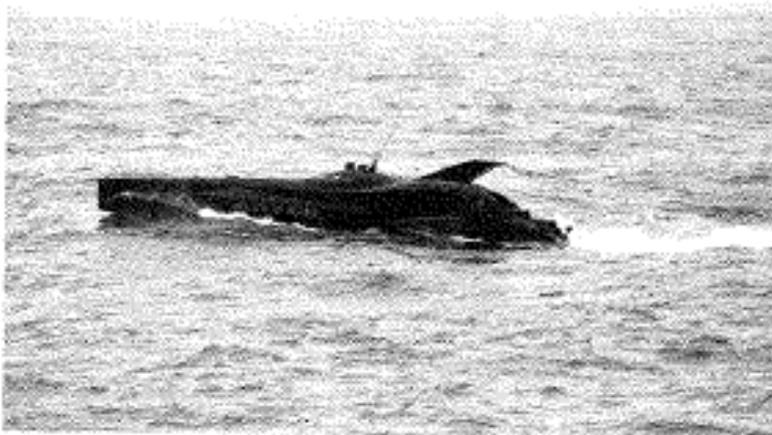
While the *Shonan Maru No. 2* side claimed that *Ady Gil* crossed its path, the SSCS said that it was completely stationary, when the other vessel rammed into it.



December 17, 2009
Steve Irwin pointed what appeared to be high-powered lasers to the crew of *Shonan Maru No. 2*. (All of the following photos courtesy of the Institute of Cetacean Research)



December 22, 2009
SSCS activist (Paul Watson) throwing bottles of butyric acid to *Shonan Maru No. 2*.



December 23, 2009
Ady Gil, a new ship of the SSCS, towing a rope aiming at propellers of *Shonan Maru No. 2*.



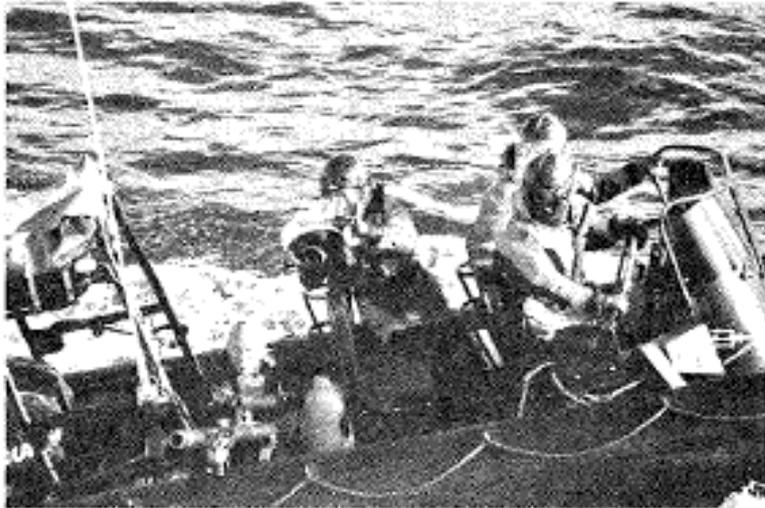
December 23, 2009
Activist on *Ady Gil*
aiming a launcher-like
cannon.



January 6, 2010
SSCS activists aiming a launcher and a
camera and a man apparently on the
shooting crew of a cable broadcaster.



January 8, 2010
Ady Gil wrecked and fuel
oil spilled (behind *Ady Gil*).
Ady Gil's hatch is open,
suggesting the intention of
scuttling.



February 11, 2010
Activist on *Steve Irwin* using a launcher to fire chemical projectiles at the main research vessel *Nisshin Maru*. (man on the leftmost holding a launcher).



February 11, 2010
Steve Irwin firing a rocket at research vessel *Yushin Maru*.



February 16, 2010
Steve Irwin using water cannons to spray water at the main research vessel *Nisshin Maru* while shooting with a video camera.

This collision seriously damaged the bow of *Ady Gil*, crippling the ship. The SSCS announced that *Ady Gil* had sunk but it had in fact been abandoned and drifting in the ocean (see Photo 6). From the ship, fuel oil was left spilling to contaminate the ocean inhabited by whales.

Again, the SSCS had engaged in dangerous activities to obstruct the movement of the vessel using ropes until immediately before the collision. In addition, they conducted direct acts of aggression such as firing a lethal crossbow into the hull, throwing foul-smelling bags onto the deck and shining lasers hazardous to the eye, against which *Shonan Maru No. 2* stood with a water cannon and other measures.

After the incident of the collision, the SSCS released a video of the moment of the collision as evidence and applied to the Australian government for protection, which was not accepted. In the form of response to this, footage took by *Shonan Maru No. 2* was also released.

In addition to *Ady Gil*, the SSCS introduced a protest ship *Bob Barker* starting this year (2010). This *Bob Barker* flew a flag of Norway, a whaling country, in order to disguise its nationality for making Japanese fleets of whalers mistake it for a Norwegian ship to facilitate approach and was sailing in the Antarctic Ocean. On January 6, it obstructed the course of *Nisshin Maru*, the mother vessel of the fleet, came abnormally close to it and committed dangerous acts such as shining green lasers.

/*Disguising the nationality of a vessel constitutes a violation of the United Nations Convention on the Law of the Sea, which establishes the rules of navigation in international waters, and the Japanese government offered to the Norwegian government the photos and videos shot to call for a protest against the SSCS. In response, the Norwegian Ministry of Foreign Affairs sent a note of protest to the SSCS.

Nevertheless, the SSCS did not stop committing violative acts.

On February 6, they disguised the nationality of the ship again, ignoring the warning from the Norwegian government, to repeatedly come abnormally close to *Nisshin Maru*, the mother vessel of the Japanese fleet engaged in research whaling in the Antarctic Ocean.

Then, they repeated sabotage activities such as shining lasers that may cause loss of

eyesight if it hits the eye. Furthermore, they rapidly approached *Yushin Maru No. 3* in order to throw bottles of hazardous liquid onto it and collided with *Yushin Maru No. 3*. Fortunately, it did not cause any major damage to the hull of the vessel and the crew were not injured.

On February 15, a New Zealander, the former captain of *Ady Gil*, approached *Shonan Maru No. 2* on a jet ski and cut through the protective netting and trespassed on the vessel. *Shonan Maru No. 2* held him in custody according to the Mariners Act and, on March 12, when the vessel entered the Port of Harumi, Tokyo, the Japan Coast Guard arrested him on a charge of trespassing on vessel.

Because of these sabotage activities, the results of Japanese research whaling have been limited to about 60% of the targets in the last two years.

Japan claims that these acts are equivalent to piracy and is making a protest to the Dutch government, which gives vessel nationality to the SSCS, and is appealing to New Zealand, Australia and the U.S. for banning them from calling at ports.

These outrageous illegal acts of the SSCS started to invite criticism that they were going overboard even from the media of anti-whaling countries, which are usually hypercritical of Japanese research whaling.

An Australian newspaper ran an editorial with a heading that read “Hysterics on the high seas will never halt whaling” to encourage the media and politicians supporting the SSCS to control themselves and called for realization of the ban on whaling through diplomacy and discussion.

Major Sabotage Activities by the Sea Shepherd Conservation Society (December 2009 to February 2010)

2009

Dec. 17 ***Steve Irwin* approached *Shonan Maru No. 2* and shone green beams that appeared to be lasers**

Dec. 22 **Steve Irwin shone lasers at *Shonan Maru No. 2* and while spraying water and threw bottles of butyric acid onto *Shonan***

	<i>Maru No. 2</i> while towing a rope
Dec. 23	<i>Ady Gil</i> towed a rope while sailing abnormally close to <i>Shonan Maru No. 2</i> and shone green beams that appeared to be lasers
2010	
Jan. 6	<i>Ady Gil</i> towed a rope at <i>Nisshin Maru</i>, the main research vessel. Around 12:30 JST, <i>Ady Gil</i> collided with research vessel <i>Shonan Maru No. 2</i>. <i>Ady Gil</i>, seriously damaged, was abandoned and left drifting.
Jan. 15	Activists aboard an inflatable boat belonging to <i>Bob Barker</i> towed a rope attempting to entangle the <i>Shonan Maru No. 2</i> rudder and propeller while sailing across in front of the vessel and hurled smoke bombs toward the vessel
Feb. 6	<i>Bob Barker</i> approached abnormally close from the stern of <i>Nisshin Maru</i>, the main research vessel, and used a slingshot to launch butyric acid-containing projectiles against <i>Shonan Maru No. 2</i>
Feb. 8	<i>Steve Irwin</i> approached abnormally close to the main research vessel <i>Nisshin Maru</i>
Feb. 9	<i>Steve Irwin</i> activists used loudspeakers to broadcast classical music near the main research vessel <i>Nisshin Maru</i>
Feb. 11	<i>Steve Irwin</i> activists launch-fired chemical projectiles against <i>Nisshin Maru</i> and <i>Steve Irwin</i> almost rammed <i>Nisshin Maru</i>
Feb. 13	<i>Steve Irwin</i> attacked the main research vessel <i>Nisshin Maru</i>
Feb. 14	<i>Bob Barker</i> attacked the main research vessel <i>Nisshin Maru</i> with lasers
Feb. 15	Pete Bethune, the former captain of <i>Ady Gil</i>, approached <i>Shonan Maru No. 2</i> on a jet ski and trespassed on the vessel. The former captain was held in custody according to the Mariners Act. On March 12, <i>Shonan Maru No. 2</i> entered the Port of Harumi, Tokyo and the Japan Coast Guard arrested him on a charge of trespassing on vessel
Feb. 16	<i>Steve Irwin</i> fired numerous ball-shaped projectiles against the main research vessel <i>Nisshin Maru</i>
Feb. 17	<i>Steve Irwin</i> activists used a large launcher on an inflatable boat

	to fire projectiles containing butyric acid
Feb. 21	Flagless ship <i>Bob Barker</i> made an attack with illegal lasers
Feb. 24	Activists aboard an inflatable boat belonging to <i>Bob Barker</i> used a launcher to fire bottles of chemicals at <i>Yushin Maru No. 3</i>

(Made mainly based on articles released by the Institute of Cetacean Research)

Furthermore, the editorial comments on the activities of the SSCS to conclude that “its behavior is arrogant and unreasonable” and severely criticizes how the organization sticks at nothing to gain its end.

When *Shonan Maru No. 2* was attacked with bottles of liquid suspected to be butyric acid fired with a launcher, the liquid splashed on three crew members to cause injury. The U.S. media that covered this news said that the Japanese research whaling was permitted internationally and the whales caught by the Japanese were mostly minke whales, not an endangered species. In this way, the media coverage is changing to be critical of the escalating behavior of the SSCS.

Meanwhile, Greenpeace, which may seem to be hidden behind the SSCS, also constantly continues its sabotage activities including use of a ship called *Esperanza* to chase *Nisshin Maru*, the main research vessel of Japan, for 24 hours.

To begin with, once they depart, fleets of research whaling keep moving in the ocean for as long as half a year to do research so that their locations will not be identified by those protest ships. Even so, they are easily located by Greenpeace and the SSCS in the vast Antarctic Ocean. Why?

As one theory, anti-whaling countries are suspected of giving information behind the scenes to “environmental terrorist groups” such as the SSCS. It is said to be because the Australian government, for example, has strong connections with these groups. The ruling and opposition parties have jointly declared support for the SSCS, Ian Campbell, the former Environment Minister of Australia, has joined the International Advisory Board for the SSCS and Environment Minister Peter Garrett (in charge of anti-whaling initiative) is a former board member of Greenpeace. The annual funds for activities of the SSCS is about 3.5 million dollars, which are said to be financed by donations from supporters and supporting corporations.

Whaling issues are now developing into diplomatic and international issues. Australian Prime Minister Kevin Rudd, who assumed office with a pledge to take an anti-whaling stance, went so far as to say to Japanese Foreign Minister Katsuya Okada when he visited Australia for the Japan-Australia Foreign Ministers' Meeting that Australia would bring Japan to international court unless Japan stopped whaling by November 2010.

“Australia would work with the Japanese to reduce, through negotiation, their current catch to zero. If that fails, then we will initiate that court action before the commencement of the whaling season in November 2010.”

In the subsequent Japan-Australia Foreign Ministers' Meeting, while a recognition was shared that violent acts of the SSCS should not be permitted, Foreign Minister Stephen Smith again demanded Japan to suspend research whaling and left an unpleasant aftertaste saying that there was a clear disagreement in opinion over research whaling.

On the other hand, PM Rudd's remark about legal action raised criticism from parties other than Japan as well.

The Sankei Shimbun says that Philip Bowring of *The International Herald Tribune* expressed a criticism in his column that Australia scarcely had the right to complain about whaling when it shot 3 million wild kangaroos.

He also gives analysis that the tone of moral superiority in Mr. Rudd's remark grates on many Asians by invoking their feeling of hatred toward the Western colonialism that still smolders and may hurt the image of Australia rather than Japan.

Bowring says that Norway always refused to accept IWC restrictions, Iceland once walked out of the IWC and Canada left and has not returned but at least Japan still belongs to the IWC, showing his understanding of Japan, and describes Mr. Rudd's remarks as antics that discourage whaling countries from cooperating with the IWC.

Furthermore, he writes: “Harpooning whales may be cruel and does excite emotions even among those who regularly eat red meat. But Australia is in scant position to complain when it shoots upward of 3 million wild kangaroos a year to protect crops and grazing for sheep and cattle.” It is followed by his assertion that “Australia's elevation of its selective emotion into a diplomatic feud with its major Asian ally is nothing short of ridiculous.”

This can be regarded as an exceptional case in which a major medium of the U.S., an anti-whaling country, ran a column like this but it may show that more people have begun to realize what hypocritical and unreasonable logic is presented by anti-whaling countries.

Are people of anti-whaling countries against whaling?

Up to now, anti-whaling countries have worked to halt commercial whaling in a nationwide manner. Let me show you an interesting questionnaire survey here.

This is an opinion poll of the citizens of the U.S. U.K., France and Australia, which are leading anti-whaling countries, taken from 1997 to 1998 by Responsive Management, an American private corporation.

“The minke whale is not endangered and the IWC estimates there to be 1 million minke whales worldwide. Please tell me if you would support or oppose the harvest of minke whales if you knew the harvested whales would be used for food; the harvest of minke whales is an aspect of the culture for some nations and for some groups of people; and the harvest of minke whales would be regulated by the IWC which would set a worldwide limit on the number of whales to be harvested each year to ensure there would be no impact on the overall minke whale population numbers.”

Here are the surprising results:

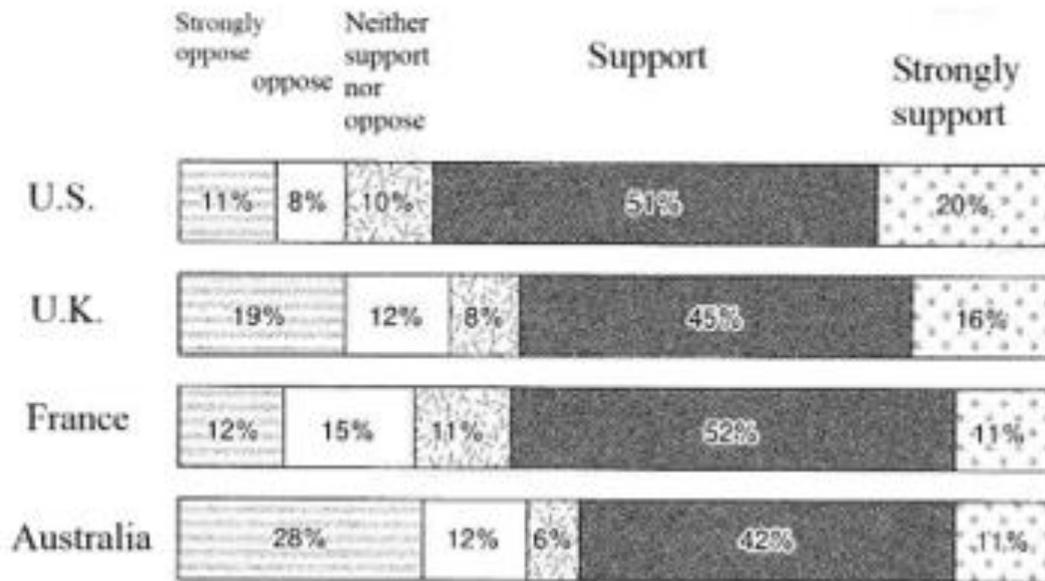
Strongly oppose: U.S. 11%, U.K. 19%, France 12%, Australia 28%

Oppose: U.S. 8%, U.K. 12%, France 15%, Australia 12%

Neither support nor oppose: U.S. 10%, U.K. 8%, France 11%, Australia 6%

Support: U.S. 51%, U.K. 45%, France 52%, Australia 42%

Strongly support: U.S. 20%, U.K. 16%, France 11%, Australia 11%



Opinion poll on whaling taken by Responsive Management

That is, those who support whaling combining “Support” and “Strongly support” gain a majority in all of the countries surveyed: 71% in the U.S., 61% in the U.K., 63% in France and 53% in Australia.

In this way, when the question is asked based on the provision of scientific data, those who are tolerant of whale meat-eating amounts to as much as 70% in the U.S. In any of Australia, France and the U.K. the most steadfast anti-whaling countries, the number of people supportive of whaling exceeded that of those who do not.

In addition, CNN of the U.S. and BBC of the U.K., which are news media representative of the West, conducted an online survey during the period of the Shimonoseki Meeting of the IWC in May, 2002.

“Do you think that commercial whaling should reintroduced?”

CNN (Valid votes: 24,457 in total)

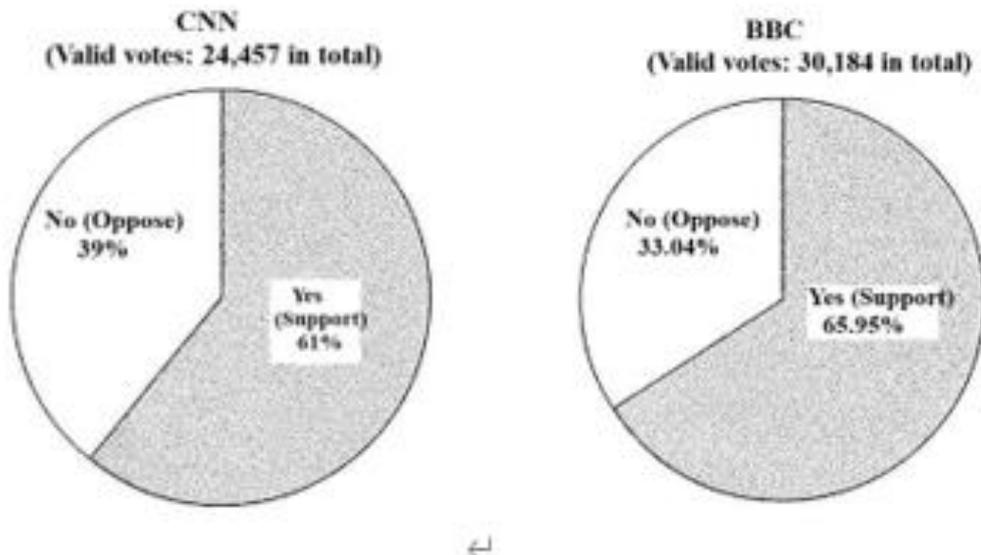
Yes (Support) (61%)

No (Oppose) (39%)

BBC (Valid votes: 30,184 in total)

Yes (Support) (65.95%)

No (Oppose) (33.04%)



While the countries have been taking an anti-whaling stance as a national policy, over 60% of their people are supportive of the resumption of whaling, which is a more astonishing than interesting result.

I would like the governments and their delegations of anti-whaling countries and people of environmental groups to squarely face the reality like this, instead of focusing on national policies, and study better ways of protecting resources.

Interest in whales growing in Japan

Then, how is the situation in Japan?

The Survey on the Whaling Issue conducted by the Cabinet Office in 2001 showed a result that as much as 75.5% of the Japanese supported “sustainable use of cetaceans based on scientific grounds.” In addition, the percentage of respondents who approved of “surveying the effect of predation by whales on fishing resources” was 81.3%. Clearly, the Japanese people express high support for sustainable use of whales.

Furthermore, in November 2006, Internet giant Yahoo! Japan held an online poll.

Of the 21,221 respondents to this poll, 19,001, or 90%, agreed with sustainable commercial whaling and 2,220, or 10%, opposed.

Cabinet Office “Survey on the Whaling Issue” (Conducted in December 2012)

(Respondents: 5,000 men and women nationwide 20 years of age or over)

○**Pros and cons of whaling by various countries based on scientific grounds**

Do you support whaling by various countries, on condition that minke whales, which are abundant in resource, are caught within the specified limits and management is implemented based on scientific grounds to prevent adverse effects on whale resources?

●Support	75.5%
Support	45.7%
More support than oppose	29.7%

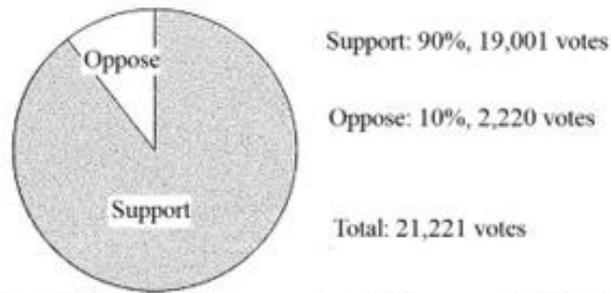
●Oppose	9.9%
More oppose than support	6.6%
Oppose	3.3%

○**Need for cetacean research whaling along the coast of Japan**

Fish catches along the coast of Japan are decreasing recently. Do you find it necessary to scientifically investigate along the coast of Japan the effect of dolphins and whales, which feed on Pacific sauries and squids, on fishery resources?

●Necessary	81.3%
Necessary (necessary for fishery management)	53.8%
More necessary than not	27.5%

●Unnecessary	6.9%
More unnecessary than not	4.1%
Unnecessary (unnecessary even for fishery management)	2.8%



Yahoo! Opinion Poll "Do you support sustainable commercial whaling?"

There may be an influence of displeasure of the extreme demonstration attacks repeated every year by environmental groups but, unlike peoples inclined to focus on exciting aspects of things or behave hysterically, the Japanese may have emotional characteristic and stability that allow perceiving carefully without haste.

These figures may indicate that many Japanese are giving serious consideration to the actual circumstances of food currently surrounding Japan and the ethnically peculiar food culture.

Chapter V Potential Power of Whales

Abundant protein makes whale meat tastier and provides stamina

Whale meat tastes good. Why is whale meat so tasty?

It is because whale meat is rich with protein.

Chewing in the mouth causes protease, a protein breakdown enzyme in the saliva, to break down protein into amino acids. The amino acids impart *umami*, which makes protein-rich food tasty.

Let's compare protein content of whale meat with that of other meat to see how protein-rich it is. While the protein content per 100 g of lean beef and pork is 17 to 18 g and 22 to 23 g respectively, the content per 100 g of lean whale meat is as high as 24 to 25 g. It is protein-rich with even the tail meat containing 23 g/100 g. In any case, among animal proteins eaten by human beings, whale meat is said to have the highest protein content.

Amino acids provide a source of vitality of all forms of life and eating whale meat does not only satisfy the palate but also generates energy. We should not forget that whale meat is what was behind how people of the war-defeated Japan exerted amazing power to restore the country in a short period of time.

A block of whale meat thawed out and left to stand often produces bright red fluid called drip, which is not blood but protein fluid.

That is, it contains *umami* components. When cooking whale meat, specialists save the drip and heat it up in a frying pan, which turns it into a paste. With drops of soy sauce added into it, the paste tastes delicious, showing that it is full of *umami*.

In addition, inosinic acid, which is a major *umami* component, is contained in abundance in whale meat.

As I mentioned earlier, the Japanese use soy sauce and *miso* as seasonings, which taste very good because the vegetable protein richly contained in soybeans, their ingredient,

Nutrients in Different Types of Meat

	Whale Meat	Beef	Pork	Chicken
Fat (g)	0.4	25.8	5.6	4.8
Energy (kcal)	106	317	150	138
Protein (g)	24.1	17.1	22.7	22
Cholesterol (mg)	38	72	61	77
Vitamin A (μg)	7	2	4	17
Vitamin B1 (mg)	0.06	0.07	0.8	0.1

Source: Fifth Revised Edition of the Standard Tables of Food Composition in Japan (Actual Measurements per 100 g)

Compiled by the Resources Council, Science and Technology Agency

is decomposed by the protease in *koji* mold into amino acids, which mostly consists of glutamic acid. When I eat whale meat, I usually take soy sauce because the inosinic acid abundant in whale meat combined with the glutamic acid of soy sauce produces a multiplier effect of taste, which increases the *umami* by several times.

Grilled whale meat seasoned with soy sauce sprinkled on it is so very delicious that my tongue goes crazy. Soy sauce was used for the stock for whale meat sukiyaki, which made the dish very tasty. Whale meat preserved in *miso*, which I have been eating since childhood, is so delicious that my mouth is always flooded with water as I eat it.

The Japanese had ingenious ways of preparing and cooking whale meat and, in addition, soy sauce and *miso*, seasonings capable of enhancing the flavor of whale meat. That is what made the Japanese captivated by whale meat.

Astonishing power of balenine

One thing worthy of special mention about whale meat is a component called “balenine.” Balenine, which was discovered recently, is contained in abundance especially among amino acids of whales and greatly attracting attention.

Whales seasonally migrate between the Antarctic Ocean, which provides feeding grounds, and equatorial seas, where they spend their breeding season. When they migrate from the breeding waters to feeding grounds, they hardly feed themselves but breast-feed their

children while fasting and travel about 5,000 to 6,000 km without resting to return to where they feed. For a long time, what gave whales such power was a puzzling question for whale researchers and a special amino acid called balenine was found to be the answer.

Accordingly, this balenine was used to conduct various stamina tests. As a result, those who took it proved to experience less fatigue and showed more momentum of muscles. Balenine was found to be a component very useful for muscular endurance and fatigue prevention.

Whales have balenine in massive quantities in the body.

The content of balenine per 100 g of meat is within 2 mg for beef and within 48 mg for pork, which is 1,466 mg for fin whale meat and as much as 1,874 for minke whale meat.

The secret of the marvelous vitality of whales was in balenine, which has now brought it great attention as a stamina-providing supplement.

Recently, another wonderful component has been discovered from the body of whales, which is drawing attention all of a sudden. It is a functional component discovered by a group from Tohoku University and is called “plasmalogen.” Its efficacy includes nerve cell death inhibiting effect, antioxidation and effect of adjusting the active membrane fluidity of precursors of signals in polyunsaturated fatty acid storage cells. Specifically, the component has the effect of constantly rejuvenating cells, eliminating carcinogenic reactive oxygen, preventing brain cell death and arterial sclerosis and shows significant effect for the prevention and treatment of Alzheimer’s disease, in particular. Further research is currently in progress and practical application is under consideration. Plasmalogens exist in the cerebral cortex, cerebral medulla, cerebellar cortex, cerebellar medulla, medulla oblongata and liver of whales. They have been unused as whale materials, which also draws attention to them.

Whale nutrition works to meet female-specific needs and prevent lifestyle-related diseases

In addition, whale meat abounds in minerals. The content of iron is especially high and it exists in the form of organic iron called myoglobin iron, which makes it more absorbable in the body. Organic iron is highly absorbable in the body, which is why whale meat is

very effective for anemia and menstrual irregularity and has long been said to work like magic on problems during recovery after childbirth including prolonged poor physical condition. Accordingly, the custom spread nationwide of giving pregnant and postpartum women whale meat to eat. The mineral content of whale meat is as much as 3.5 times higher than pork and 1.5 times higher than beef.

Yet another major feature is that the cholesterol content of whale meat is very low, which makes it an object of great attention as health food.

The average cholesterol content per 100 g is 61 mg for pork, 72 mg for beef and 77 mg for chicken, where it is only 38 mg for whale meat.

What is even more amazing is fat. Whales have their fat concentrated in the skin and the flesh does not have high fat content. The percentage of fat is 5.6% for pork, 4.8% for chicken and 25.8% for beef. By comparison, it is as low as 0.4% for whale meat. In addition, the fat of whales that is concentrated enough to form fat layers in the skin and tail is unique among animal fats and very good for the body.

For example, whale fat once melted does not easily solidify but other animal fats, whether beef or pork fats, solidify to become white at room temperature.

It is because other animal fats contain a large amount of saturated fatty acid, which makes the melting point higher and solidifies the fat into lumps at room temperature.

In contrast, vegetable oils such as salad oil, *tempura* oil for deep-frying, soybean oil and sesame oil are always in a liquid state and do not solidify. Vegetable oils made of unsaturated fatty acid do not solidify because of the low melting point. Whale fat is closer to vegetable fat than animal fat and most of it is made of unsaturated fatty acid.

Unsaturated fatty acids strengthen blood vessels including capillaries and whale fat has long been known to be effective for preventing high blood pressure and heart disease, lowering the blood cholesterol level and preventing arterial sclerosis. Whales have been attracting attention for prevention of lifestyle-related diseases as well.

In addition, high-molecular unsaturated fatty acids such as eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are abundant in whales.

EPA, which decreases blood clotting, is effective for preventing vascular diseases such as cerebral hemorrhage and myocardial infarction and some research results even indicate its cancer prevention effect

DHA functions to activate the brain to improve learning capacity, prevent eye aging and recover from eye fatigue.

Furthermore, what I think appeals to women is that whales are abundant with collagen. Whale meat and skin contain large amounts of collagen, which has wonderful effect on beauty. That is why mistresses of whale restaurants are all said to have silky skin.

Whales also abundantly contain active vitamin A, which activates bodily functions.

All in all, whale meat provides a food material that is overwhelmingly good for the health as compared with meat of other animals. Not eating whale meat would be missing out on a lot.

Amazingly whale meat not causing allergies

Whales have yet another marvelous characteristic.

One out of three Japanese is now said to have a susceptibility to allergic reactions and children suffering from food allergies, in particular, are increasing year by year. Whale meat is attracting attention as amazing food that does not cause allergies. Japanese can develop allergies to beef, pork or chicken and the number of such people is increasing but no Japanese is allergic to whale meat.

Allergic reactions do not only include rash or itchy skin but minor stomach aches or discomforts that people may not be clearly aware of may prove to be some sort of allergic reactions if examined. Just eating buckwheat noodles may cause a terrible allergy and respiratory difficulties to some people.

Why whale meat does not cause allergies is not yet clearly known but the Institute of Cetacean Research provided whale meat and conducted joint research at a hospital in Shiogama City, Miyagi Prefecture. In Shiogama, a city located close to Onagawa, which

used to have a whaling base, whale meat is often eaten.

As a result, it was clearly shown that even people allergic to ordinary animal meat (such as pork, beef and chicken) did not develop allergies to whale meat.

Accordingly, whale meat can be fed to children unable to take in animal protein due to allergies to eggs, beef, pork, chicken, etc. and the Japan Whaling Association and an organization called the Woman's Forum Fish are campaigning for providing whale meat for children.

In the past, whale meat supported the Japanese as a valuable source of protein. Likewise, it is still helping children behind the scenes.

Then, why does whale meat not cause allergies? Several hypotheses have been proposed to answer that question. One is it may relate to the fact that children in the present age were born from parents in the generations without the experience of eating whale meat. The idea is that parents themselves do not have allergies to whale meat and their children naturally should have no allergies.

Another more substantial hypothesis is that whale meat is free from marine pollution and does not cause allergies.

It is feared recently that marine pollution will worsen around the world. Pollutants emitted by humans include cadmium, mercury, dioxins, organic phosphorus and PCBs (polychlorinated biphenyls), which flow through rivers to eventually reach oceans. They are carried by currents to various parts of the earth. Those substances contaminate living things starting with small species seafood such as krill at the early stage of food chain. Whales swallow them whole. Accordingly, whales, which are at the top of marine ecosystems, may have the pollutants accumulated in the flesh.

On the contrary, examinations of whale meat by whaling researchers and research institutions around the world have shown that, surprisingly, whales in the Antarctic Ocean are hardly contaminated. For example, take PCBs, which are strong pollutants with carcinogenicity. The PCB content of minke whales in the Antarctic Ocean is 0.00018 ppm. By contrast, the average for other fishes is 0.5 ppm, which is about 2,700 times higher than that of whales.

With mercury, as described earlier, the average content for fish is 0.4 ppm as compared with 0.027 ppm for whales, about 1/15 (see the table on page 156).

This is assumed to be related to flows of ocean currents. For example, a comparison between krill in the Northern Hemisphere such as the Bering Sea and the Norwegian Sea and krill in the Antarctic Ocean has shown that krill in the north are far more heavily contaminated. In addition to the effect of ocean currents like this, there is a hypothesis that more people living in the Northern Hemisphere than in the Southern Hemisphere may be an influencing factor.

In Japanese research whaling, 70% of the whales are caught in the Antarctic Ocean. Therefore, whales that can be eaten in Japan now can be said to have little danger of contamination.

Great whale recipes in the Edo period

The Japanese, who have long known such healthy food as whales by direct experience, have eaten them in a variety of ways as explained in Chapter I.

At present, the most popular dish in whale restaurants is sashimi, or eating whale meat raw. In the past, however, fresh meat was only available to people living near the sea and it was impossible to eat raw in most cases.

Generally, salted whale meat, organs and skin called *shio kujira*, which literally means “salted whale,” was in wide distribution. The *shio kujira* was soaked in fresh water for desalting and roasted on skewers on an open fire for eating, which was called *yaki* (roasted) *kujira* and very popular. The roasted meat was also dried in turn for eating as *hoshi* (dried) *kujira*.

Kujira no tare, or *tare* of whale, which still remains, is a specialty of Wadaura, Chiba Prefecture and a recipe that goes back to the Edo period. *Kujira no tare* is a delicious way of preserving whale meat. Sliced whale meat is soaked in a mixture of soy sauce and *mirin* rice wine, which can be dried for long-term preservation. The color is deep-black and the meat is tough because it is dried but seasoning makes the meat very tasty when it is lightly roasted on a charcoal fire.

Kujirajiru, in which salted whale skin with blubber is sliced and stewed together with vegetables such as daikon, carrots, burdock roots and Welsh onions in *miso* soup is often eaten even now. Whale skin comes with a lot of good-quality fat and slurping the *miso* soup with blobs of fat swimming on the surface while eating the gelatinous part fills the mouth with flavor and the fat and salt blend together suitably to taste delicious. In addition, it provides nutrition and warms you up.

Furthermore, there were various recipes even in the Edo period such as dipping whale skin in *mirin* rice wine, dipping in *irizake*, which is a seasoning prepared by boiling down Japanese sake, before grilling and soy-marinating before roasting. In those days, whales, once caught, all needed to be preserved and so many different methods of preservation and recipes were developed.

Geiniku Chomikata, a book written by a scholar called Oyamada Tomokiyo in the mid-Edo period is extremely interesting. This book contains recipes for as many as 67 different parts of the whale body including internal organs, skin, breasts, uterus, eyeballs and penis, not to mention meat.

Let me present some of its content here. It suggests how the Japanese of the past valued and relished whales and how they yearned for whale meat.

Kurokawa is the black skin cut together with about 2 cm of fat remaining on it and very tender. It can be sliced and dipped in unmixed soy sauce or *irizake* for enjoying the great taste. Stewing and boiling together with burdock roots are two of other good ways to eat the part.

Saya (currently known as *saezuri*) is the tongue, which can be casseroled together with vegetables or dipped in boiling water followed by a sauce of sake, soy and vinegar. Salted *saya* can be sliced and soaked in water.

Using vinegar, I think, is an ingenious way of eating the fatty tongue.

Teira, which refers to the tail meat, is available as salted food (*shio kujira*). It is cut into narrow lengths, rinsed with water for several times for desalting and stewed together with burdock roots and mushrooms.

Kohige refers to the gum and has a very light flavor. It is sliced and dipped in soy sauce for eating or seasoned with *irizake* for grilling.

Denzuru is the jaw meat and very tough. Salted *denzuru* can be sliced and soaked in water for desalting, over which boiling water was poured for eating with a sauce of vinegar and *miso*.

Fukiwata refers to the lung and is cooked in casseroles. Surprisingly, people of the past went so far as to eat the lungs. Whale lungs were enormous and quite satisfactory. It is mainly made of protein and has a very spongy feel in the mouth.

Usu refers to the heart and can be eaten as *tempura*.

Choji is the stomach. Deep-frying and boiling together with other ingredients are common ways to cook this part.

Kaburabone refers to the marrow of the skull and can be marinated in sake lees or *miso* to eat.

Hyakuhiro refers to the small intestine. It can be casseroled or boiled in water and dipped in soy sauce, *irizake* or a sauce of sake, soy and vinegar.

Shobenbukuro is the bladder. The book says that it “should not be eaten raw, is frivolous but unrefined” but it was boiled in water and dipped in soy sauce to eat.

Owata is the large intestine. While it contains excreta and is unrefined, it is not inedible and can be cleaned well to boil in clear soup or roast to eat.

Mamewata refers to the kidney, which can be deep-fried to eat.

Takeri refers to the penis and can be deep-fried to eat. It can also be dried in cold winter, which can be shaved to put in *miso* soup to eat when suffering from a stomach ache. It relieves the pain and a chill in the hips as well.

These descriptions form only a small part of the book, which are nothing but marvelous.

The book shows ample knowledge of various parts of the whale body from the Edo period and gives various instructions on how to prepare those different parts. Only, the liver and the pancreas were hardly eaten. How were they used? They mostly provided ingredients of drugs. The liver was mainly used for anemia drugs and often used for women's diseases as well.

Sperm whales even provided a very expensive natural perfume called ambergris, which was prized. In this way, whales were used not only as food materials but also as drugs and perfume.

My top five recipes

Now, I would like to present my top five recommended whale recipes.

Let me start with the very top.

People often ask me, "You have eaten such a variety of food around the world, Mr. Koizumi. What would you like to eat for your last supper?"

A straightforward answer to that question is: whale pepper steak *donburi*, or a bowl of rice topped with whale pepper steak. Steak of inexpensive lean meat is the best.

Cut lean meat into about 1cm-thick pieces the size of a postcard, heat a small amount of oil on a frying pan and first broil one side. Wait for about 30 seconds until the surface turns white, turn the meat over and broil for another 30 seconds. The surfaces are white but the inside is almost rare. Sprinkle a rather larger amount of pepper onto it. Inexpensive pre-ground black and white pepper mix, rather than freshly-ground gourmet pepper, suits this dish.

Then, pour soy sauce over it and broil for another 10 seconds or so. Put the steak on a plate and carve with a knife. Separately prepare freshly-cooked rice in a bowl seven-tenths full. Put plenty of pepper steak on the rice together with the gravy produced. Voilà! Start on your steak with a hot cup of coarse tea at your side. From the bowl rise the savory smell of broiled whale meat, the unique rustic flavor of whale meat, the indescribable, appetizing aroma of soy sauce and the scent of pepper!

First chew the meat alone and savor the taste. Enjoy the gravy that oozes out of the half-rare meat. Then, chew the meat together with the piping hot rice while breathing to cool inside the mouth. The flavor and the spiciness of the soy sauce and the pepper are combined together, with which the mild taste of the rice is mixed. Yummy! If I could go while eating this dish, thinking that this is exactly the proper taste of whale meat, I would be dying a happy man.

The second best is: whale *misozuke* (*miso*-marinated whale meat). Again, lean meat is best. Marinate whale meat in *miso* for a day or two, wipe the *miso* off and grill to eat.

You may think that it is too salty but it is not really so. Try grilling this *misozuke* to put a big slice on top of rice in a lunch box. You would need nothing else. Eat rice while nibbling on this grilled whale *misozuke*. The wonderful weighty flavor of *miso* and the relish of whale meat merge and gush out, where the mild taste of rice comes in to come together. You would be overcome with the great taste that might cause you to faint.

The third place goes to: whale meat sukiyaki. Whale meat sukiyaki has long been a popular dish among the Japanese. When I was little, sukiyaki often referred to whale meat sukiyaki, which was delicious.

The recipe is the same as ordinary sukiyaki, in which beef is cooked in soy sauce-based stock, but extra tofu should go well with whale meat sukiyaki. The flavor of whale meat is absorbed in tofu, which makes it even more delicious.

On top of that, add Welsh onion, Chinese cabbage and konjac noodles and simmer them together. Dip the cooked food in beaten raw egg to enjoy and drink hot Japanese sake together. The taste is out of this world.

When it comes to whale meat simmered for eating, whale sinew should not be forgotten. Unlike beef, whale meat contains tough sinews everywhere and the delight of chewing them is exceptional. More and more of the *umami* overflows as you chew longer while enjoying the texture and whale meat sukiyaki abounds in rustic flavor.

If you have leftovers, reheat the sukiyaki and put it on the rice in a lunch box on the following day. It is so delicious it gratifies your tongue.

My fourth choice is *geikatsu*, or whale meat cutlet, without which the list would not be complete. My favorite is *geikatsu* of lean meat covered with bread crumbs and it tastes heavenly especially when it is freshly deep-fried. When you order *geikatsu* at whale restaurants, the coating is often pretty thick but the coating should not be too thick.

I entered a university and came to Tokyo in 1962. I often ate *geikatsu* at set meal restaurants in those days.

In Shibuya, there was a cheap drinking area called Hyakkendana, where I ate often. *Geikatsu* and *tatsuta fries* served in bars in those areas were inexpensive and tasted good. Many people put mustard on *geikatsu* as a flavoring but I would decisively go for soy sauce. *Geikatsu* flavored with soy sauce on top of rice served in a large bowl. The *geikatsu* had crunchy covering and the meat inside was springy, which was really good-tasting.

In Shinjuku, I used to eat whale meat almost every day in a drinking area now called by a respectable name of Omoide Yokocho (literally meaning “Memory Lane”), used to be known as Shonben Yokocho (“Piss Lane”) in those days. I often visited one of the restaurants there called Asadachi, which still exists and features stamina-boosting food, since I was a student to enjoy various delicacies. This is a truly wonderful place.

Lastly, the fifth place goes to – excuse me for choosing another deep-fried dish – *geiten*, or whale *tempura*.

Even now, I cook whale meat *tempura* whenever I get my hands on whale meat. First, cut lean meat into thin slices. Then, cover them with a batter made of a mixture of flour and egg and deep-fry for a short time to make *tempura*. *Geiten* with deep-fried whale meat looking almost transparent in black. That is the best.

To eat the *tempura* as an elegant cuisine, using a dip containing grated daikon is fine. The most delicious way, however, is to place five or six pieces of *geiten* on a plate, pour soy sauce over them and put the *geiten* permeated with soy sauce on top of hot rice in a large bowl.

Lean meat of whales does not contain much fat and the oil of *tempura* goes well together.

The soy sauce coupled with the oil of *tempura* sticks to the rice, which is mouthwatering

as well.

My top five choices are these dishes. Fresh whale meat would naturally be great as sashimi but lean meat prepared with an extra touch was always delicious in any way of eating. In Kansai region, dried whale skin with blubber on it is called *koro*, which is tremendously popular in Kansai. This *koro* and lean meat are stewed together with Japanese mustard in stock made of dried bonito to make a hot pot dish called *hari-hari nabe*, which is a local specialty of Osaka, and Tokuya in the Sennichimae area is a real name-brand restaurant.

Koro on skewers cooked as an ingredient of a one-pot dish called *oden* is also exquisite.

Otherwise, I have eaten quite a lot of *tatsuta* fries mentioned earlier, whale rice seasoned with soy sauce and cooked together with whale meat, whale meat barbecue and whale meat grill. Recently, ways of eating whale meat have become even more varied to include such popular dishes as, as I hear, Korean-style barbecue where pieces of whale meat are marinated in sauce and roasted on a hot plate, whale meat burger, curried whale meat grilled with cheese, whale meat grilled with tartar sauce, Tosa-style whale *tataki* where the outer surface of the meat is lightly grilled and served in slices together with seasoning, *shisomaki age*, or slices of whale meat rolled together with Japanese herb and deep-fried, and whale meat salad where slices are marinated together with sliced celery and onion.

Missing whales more and more each year

In conclusion we should never forget canned whale meat. In Japan, canned whale meat started to appear on the market in around 1945.

What I have a nostalgic feeling about whales is toward canned whale meat. In fact, I still have a whale meat can dated 1962, which I had treasured up when I was an elementary school student. I cannot eat it because it would seem wasteful.

In those days, canned whale meat mostly referred to *yamatoni*, a dish of meat simmered in soy sauce with ginger and sugar.

Then, there was canned *sunoko*, which was the finest. It was simmered *sunoko*, or the meat and sinews under the belly, and was so very delicious. The sinews, which are mostly

gelatinous, are springy and flash gold. The sinews were difficult to bite through but I enjoyed it.

It may be unthinkable in the present day but we used to take canned *sunoko* on outings and camps, cooked rice in mess tins and put the *sunoko* on top of hot rice for eating. As I remember now, it is mouthwatering and eye-watering at the same time.

Another good memory is whale meat sukiyaki in cans. In addition to whale meat, they contained tofu, bamboo shoots and konjac noodles. These whale “*yamatoni* can,” whale “*sunoko* can” and whale “sukiyaki can” are my top three whale dishes in cans.

Whales are good for the health but, even more than that, the delicious taste, once you have known it, makes you miss whales more and more as the supply decreases in the market.

If this trend continued and whales disappeared from the market, it would be all too regrettable. No, we should not let it them decrease any further. My love for whales keeps growing with the years.

Afterword

Now that I have finished writing this book, I keenly realize the ethnic difference in the feeling for whales. Any more tedious explanation as the Afterword would be meaningless to my dear readers who have read the body. I believe that they now have a full understanding of how whales are currently positioned and what will become of them and how they should be in the future. Anyway, my feelings toward whales are no more than proper grounds of an argument presented by a Japanese.

However, whales, which helped the Japanese in the past, are about to help us again now. On reflection, I, an undernourished child in the chaotic period immediately after the war, was captivated by the taste of whale meat served as a dish accompanying the rice and enjoyed eating it a lot.

Currently, whale meat has become an illusion and ceased to be available at a bargain price as in the past and whale meat-eating involves delicate matters not only including different views between countries but also arguments for and against within Japan. Therefore, the time has come to discuss it from an abstract perspective such as the “balance of marine ecosystem,” rather than specific arguments such as “no permission to catch whales” vs. “whaling.”

That is why the Scientific Committee of the International Whaling Commission (IWC) has conducted the present latest scientific research and encouraged the resumption of some of commercial whaling. The past mistake of causing ecosystem deterioration by reckless whaling should certainly be reflected upon but excessive protection of whales also affects the entire marine ecosystem, which is a dispensation of nature.

For example, the amount of marine biological resources consumed by cetaceans in all water areas on earth is estimated to be about 500 million tons annually, which is as large as more than five times the present global seawater fishing production of approximately 90 million tons. Balanced utilization of the marine ecosystem would allow utilization of a large amount of fishes that whales prey on, as well as the whales themselves, as our food, which would provide an insight into measures to deal with the explosive increase in the global population expected.

What these figures mean is that excessive protection of whales would cause shortages of

food of whales, which may affect the whales themselves. In 1994, the IWC adopted the “sanctuary declaration” of accepting no whaling in the Antarctic Ocean. However, research conducted by the Scientific Committee of the same IWC has shown that whales, including humpback, sei, fin and other whales as well as about 760,000 minke whales, exist in the numbers exceeding the appropriate levels.

Now is the time we should form a conclusion based on careful consideration of the importance of the balance of marine ecosystem independently of emotional arguments. We should never forget that whales are there not only for anti-whaling countries but also for countries watching over the ecosystem on the entire planet.

In writing this book, I am deeply indebted to the Japan Whaling Association and the Institute of Cetacean Research, which provided me with valuable data, and Mr. Takayama Takehiro of the Japan Whaling Association and Mr. Umezaki Yoshito, President of the Japan Fisheries Journalists' Association, who offered their precious opinions to me. My sincere gratitude also goes to Ms. Sanada Harumi, the editor, who gave me tremendous support in publishing this book.

In 2018, eight years after the publication of this book, Japan withdrew from the IWC and finally found its way to commercial whaling. This means that Japan carried out its belief and the future depends on how we can utilize whales while preserving them at the same time.

Data Chronology of Whaling

Dominical Year	Japanese Era Name	Developments in Japan	Developments in the World
BC		Bones of cetaceans from sites of the Jomon period suggest that whales drifted into bays were caught	Greeks make whale accessories in around BC2000
8th century	Nara period	Whale mentioned in <i>The Kojiki</i> . Since then, whales come to appear often in literature	
9th century			Whaling starts in Spain, Norway and France
12th century		Hand-harpoon whaling starts in Japan	
1606	Keicho 11	Organized whaling by “whaling groups” starts in Taiji	
1611			U.K. starts catching bowhead whales in the Arctic Ocean
1612	Keicho 17	Baird's beaked whaling by hand-harpooning starts in Chiba Prefecture	
1675	Enpo 4	<i>Amitori shiki</i> whaling starts in Taiji, contributing to rapid expansion of whaling	

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1712			Sperm whaling (American-style sailboat whaling) starts in the U.S.
1838	Tenpo 9	Organized <i>amitori shiki</i> whaling starts in Ayukawa	

1846	Koka 3	Two hundred and ninety-two U.S. whalers operate in seas close to Japan Around this time, U.S. whalers actively whale in seas close to Japan with as many as 500 to 700 whalers maximum operating in the end	
1853	Kaei 6	A fleet led by Commodore Perry visits Uraga to demand trade and commerce The demands included supplies and repairs for whaling fleets	
1864			Modern whaling developed in Norway
1868			With harpoon guns completed in Norway, Norwegian-style whaling starts
c. 1870		About 300 U.S. and UK whalers operate in seas close to Japan Fishing grounds depleted and Japanese <i>amitori shiki</i> whaling declined	
1879	Meiji 12	An accident during hunting kills 111 whalers of Taiji This accident called <i>Oseminagare</i> leads to the decline of whaling groups	
1891			Russia establishes Russian Pacific Whaling Company, operating off the coast of Korea and exporting whale meat to Nagasaki
1899	Meiji 32	Nihon Enyo Gyogyo K.K., a whaling company, established, Japan's first Norwegian-style whaler (<i>Choshu Maru No. 1</i>) built	

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1903			World's first crab-fishing and canning boat (Dutch) goes fishing in the Arctic Ocean
1904			Norway succeeds in whaling in the Antarctic Ocean for the first time in the world Whaling base set up on South Georgia and Antarctic whaling begun
1906	Meiji 39	Modern whaling starts in Japan with construction of modern whaling base in Ayukawa	
1931	Showa 6		Convention for Regulation of Whaling founded in the League of Nations
1934	Showa 9	Japan enters mother ship whaling in the Antarctic Ocean	
1936	Showa 11	Japan's first whaling mother vessel built	
1937			International Agreement for the Regulation of Whaling concluded
1940	Showa 15	Japan goes whaling in the northern waters	U.S. quits whaling
1941	Showa 16	Japan suspends mother ship whaling upon the outbreak of WWII	
1945	Showa 20	End of WWII After the war, navigation permitted within 12 miles	

		from the coast of Japan	
1946	Showa 21	Japan resumes whaling in Antarctic Ocean	International Convention for the Regulation of Whaling concluded
1948			International Whaling Commission (IWC) established
1949			1st IWC meetings held

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1951	Showa 26	Japan joins IWC	
1959			Olympic game style abolished Self-declared whaling starts
1962			Country quota system starts
1963			Hunting of humpback whales in Antarctic Ocean banned UK quits whaling
1964			Hunting of blue whales in Antarctic Ocean banned
1972	Showa 47	Japan starts minke whaling	Resolution calling for 10-year moratorium on commercial whaling adopted at United Nations Conference on Human Environment Catch quota by whale type system starts Norway withdraws from whaling in the Antarctic Ocean
1975			New Management Procedure (NMP) adopted Greenpeace starts protest

			action against whalers
1976			Hunting of fin whales in Antarctic Ocean banned
1977			Paul Watson establishes the Sea Shepherd Conservation Society
1978			Hunting of sei whales in Antarctic Ocean banned

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1980			Sea Shepherd Conservation Society sinks a whaler (of Somalian registry) that is a non-member of the IWC
1982			IWC adopts a commercial whaling moratorium Canada withdraws from the IWC
1985	Showa 60	Japan withdraws objection to IWC moratorium	
1986	Showa 61	Only coastal small-scale whaling and dolphin hunting come under national control	
1987	Showa 62	Japan withdraws from Antarctic whaling and starts research whaling (JARPA)	
1990			IWC estimates population of minke whales in Antarctic Ocean as 760,000
1992			Iceland withdraws from the IWC North Atlantic Marine Mammal Commission (NAMMCO) established

			IWC completes development of Revised Management Procedure (RMP)
1993		Norway resumes commercial whaling	
1994		Japan starts research minke whaling in Northwest Pacific Ocean (JARPN)	IWC adopts Antarctic Ocean whale sanctuary

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1997			Ireland makes a compromise proposal for resumption for commercial whaling
2000	Heisei 12	Japan starts the second phase of the JARPN with Bryde's and sperm whales added	
2002	Heisei 14	Japan starts the second phase of the JARPN full-scale research with sei whales added	54th IWC meeting held in Shimonoseki, Yamaguchi Prefecture Iceland returns to the IWC
2003			IWC establishes the Conservation Committee, proposed by anti-whaling countries, in the 55th meeting (Berlin)
2005	Heisei 17	Japan starts the second phase of the JARPA for Antarctic minke and fin whales	
2006			IWC adopts St. Kitts and Nevis Declaration, which

			states the non-necessity of the moratorium and calls for normalization of the IWC, in the 58th meeting Iceland resumes commercial whaling
2007	Heisei 19	Conference for the Normalization of the IWC held in Tokyo	

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Profile

Koizumi Takeo

Born in 1943 to a sake brewer in Fukushima Prefecture, Japan. Raised from the cradle in an environment with fermentative microorganisms that function to make sake and *miso*. Currently a professor emeritus at the Tokyo University of Agriculture, a visiting professor at Hiroshima University Graduate School, Kagoshima University, Beppu University and the University of the Ryukyus and holds various positions including a visiting researcher at the Policy Research Institute, Ministry of Agriculture, Forestry and Fisheries, President of the Council for the Promotion of Improvement of the Food Self-Sufficiency Rate, President of the Society for the Protection of Whale-Eating Culture and President of the National Council for the Local Production for Local Consumption. As a doctor of agriculture, Koizumi specializes in zymology, fermentology and theory of food culture.

He occupies himself with running many serials in *The Nihon Keizai Shimbun* and various magazines, appearing in TV and radio shows and giving lectures all over Japan. The books he has written include *Shoku no Daraku to Nihonjin* (Deterioration of Food and the Japanese), *Nippon Kaishoku Kiko* (Japan Great Food Travelogue) (both from Shogakukan Paperback), *Mazui!* (Tastes Terrible!), *Bukkake Meshi no Kaikan* (Get a Kick out of Bukkake Rice) (both from Shincho Paperback), *Hakko Shokuhin Raisan* (Glory to Fermented Food) (from Bunshun Paperback) and *Shoku to Nihonjin no Chie* (Food and Wisdom of the Japanese) (from Iwanami Contemporary Paperback), amounting to over 100 sole-author books. Despite his busy schedule, Koizumi has continuously been on food adventures, running around the world in search of delicacies.