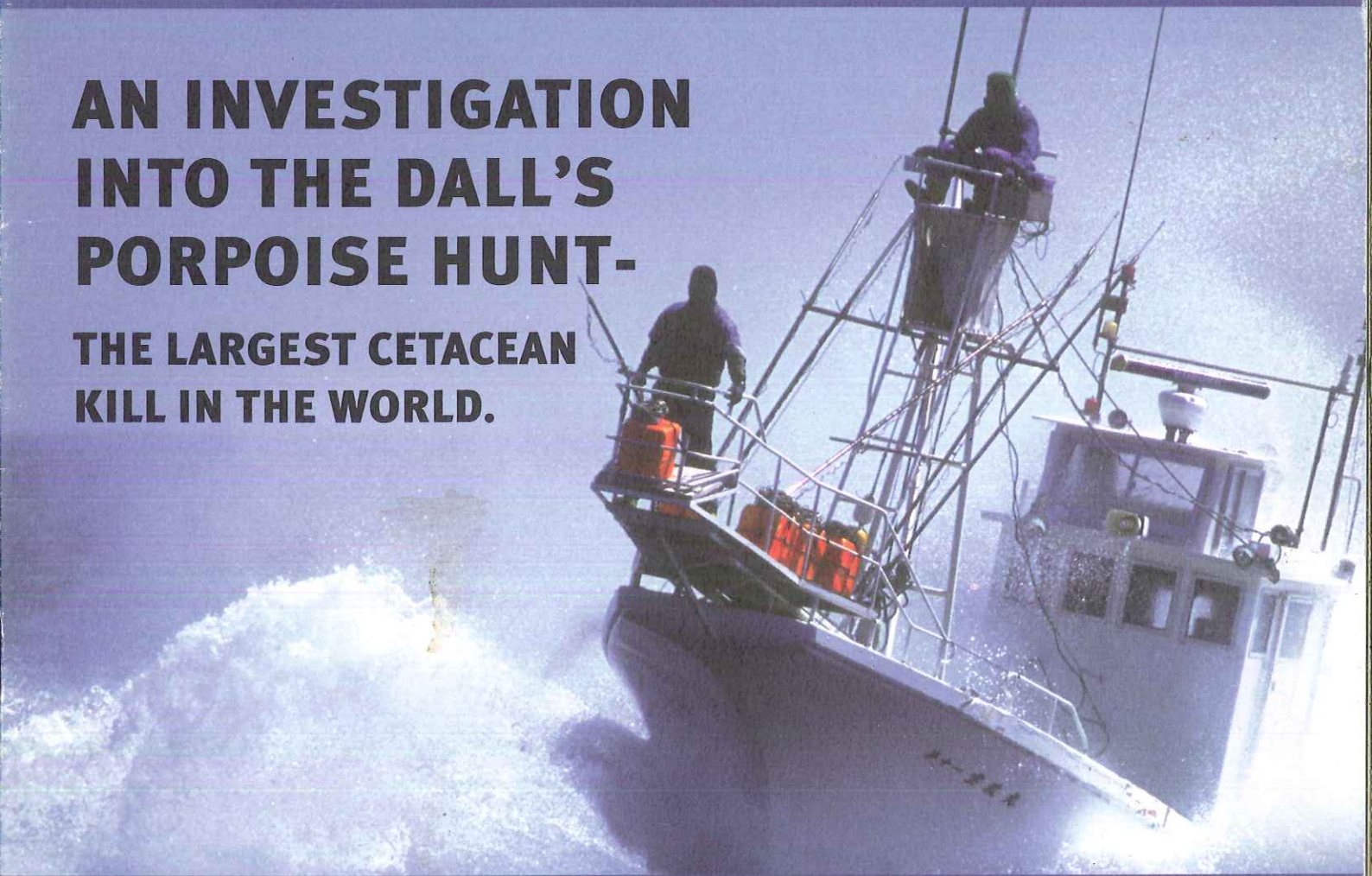


JAPAN'S SENSELESS SLAUGHTER

**AN INVESTIGATION
INTO THE DALL'S
PORPOISE HUNT-**

**THE LARGEST CETACEAN
KILL IN THE WORLD.**



eia
environmental investigation agency

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Introduction

At least 18,000 Dall's porpoises are being killed in Japanese waters every year, making it by far the world's largest cetacean kill.

Disturbing new evidence has emerged which reveals high catch levels of mature and lactating females in the Sea of Japan hunt, indicating severe overhunting of this population.

Prior to the mid-1980s the annual catch was around 10,000 animals. But in 1986 the hunt surged to over 16,000, increased to over 25,600 the following year and peaked at a shocking catch of over 40,000 porpoises in 1988.

The fact that this growth coincided with the International Whaling Commission's (IWC) 1986 moratorium on commercial whaling is not a coincidence. Deprived of their traditional business, whaling companies got involved in the porpoise trade.

During this period the IWC expressed extreme concerns at the scale of the hunt. Finally in 1990 it passed a landmark resolution which requested the Japanese government to reduce its catch to at least the pre-1986 levels.

To the credit of the Government of Japan the catch did fall to around 11,000 in 1992. Yet this proved to be a false dawn and the hunt has risen almost every year since, to reach over 18,000 in 1997.

Japan's official population estimate for the two hunted populations of Dall's porpoises is flawed and dates back to 1991. But it is still used to set quotas despite the fact that over 150,000 porpoises have been caught in the intervening eight years.

The Environmental Investigation Agency (EIA) has raised the alarm over the unsustainable nature of Japan's Dall's porpoise hunt since it first visited the coast of north-east Japan in 1990.

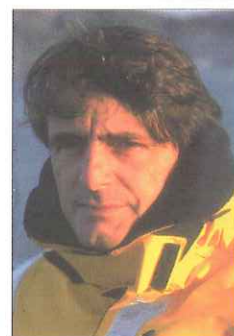
This year EIA returned to Japan and for the first time put to sea in order to witness the actual hunt, as well as monitoring the porpoise trade. For three weeks EIA attended the early morning auction of porpoises and sailed to the hunting grounds for a week.

It is clear nothing has changed in the hunt - in fact the situation is worsening. Harpoon boats operating in the Sea of Japan are targeting lactating females, risking the future survival of this population.

Large commercial interests dominate the trade, and porpoise meat is still being fraudulently sold as whale products. The profit motive is clear - a porpoise carcass can be bought at auction for US\$193, yet if it can be sold as whale it can fetch a minimum of US\$2,333.

For ten years the Japanese government has failed to heed the warnings, while claiming it supports "sustainable" use of porpoises and other cetaceans it continues to hunt species until they are in danger of extinction. The present level of hunting is threatening these Dall's porpoise populations. The Japanese government must immediately suspend the hunt off Hokkaido and take urgent steps to reduce its overall catch to well below 10,000 animals.

Allan Thornton
Environmental Investigation Agency, Chairman
April 1999



The Dall's Porpoise Hunt – A Historical Perspective



© Robert Pirman/Earthviews

Dall's Porpoise

The Dall's porpoise (*Phocoenoides dalli*) is named after William Healey Dall, who collected the first specimen in waters off Alaska in the late 19th century. Predominantly black with a white patch on the belly and flanks, the Dall's porpoise is stocky in build, growing to a length of around two metres and a weight of 200 kg. There are two distinct colour morphs, distinguished by the size of the white flank patch – at flipper level in the *truei*-type, and at dorsal fin level in the *dalli*-type.

Dall's porpoises are found throughout the northern Pacific and adjacent seas.¹ Eight separate stocks have been identified, based on pigmentation and the distribution of mother and calf pairs.² *Dalli*-type porpoises are widely distributed in the North Pacific, the Bering Sea and the Sea of Japan. The *truei*-type is limited to the north-west Pacific and Okhotsk Sea.³

The Japanese Hunt

The discovery of skeletal remains and harpoon heads at archaeological sites indicates hunting of porpoises in Japanese waters dating back to prehistoric times. The hand harpoon hunting method first emerged in Iwate Prefecture, in the north east of Honshu, early this century and gradually spread along the Sanriku coastal area.⁴

With the advent of motorised boats in the 1920s significant commercial hunting began. Both during and after the Second World War the porpoise hunt expanded to the Sea of Japan and the southern Okhotsk Sea as the Iwate boats ventured north during the spring and summer seasons.

By 1980 the hunt had expanded both geographically and seasonally. Iwate harpoon boats were active in the northern Sea of Japan, the southern Okhotsk Sea, and off the Pacific coast of Hokkaido from spring to autumn, and

in the southern reaches of the porpoises' winter range in the Pacific. The Iwate hunters expanded their operations in the Okhotsk Sea around 1985, and were joined for the first time by hunters from Hokkaido.⁵

Two populations of Dall's porpoise are exploited in Japan's harpoon hunt. A *truei*-type population breeding in the central Okhotsk Sea is hunted in its winter range off the Pacific coast of northern Japan from November to April. The base for the hunting boats during this season is a series of ports along the Iwate coastline. A second population of *dalli*-type porpoises are hunted in the Sea of Japan from May to mid-June, when the Iwate boats move up to Hokkaido and are joined by local hunters. Mature individuals from this population are also exploited in their summering grounds in the southern Okhotsk Sea, from August to October.⁶

The Growth of the Hunt

Between the early 1960s and 1980 the annual catch stood at 5,000 to 10,000 porpoises, but expanded to an average annual catch of between 10,000 and 13,000 in the early 1980s. A dramatic change occurred in 1986 when a catch of 16,515 porpoises was recorded, an increase of over 50 per cent on the previous year's figure. But worse was to follow. In 1987 the catch shot up to 25,600, and peaked in 1988 with a shocking take of 40,367 porpoises. The following year saw a reduced catch of 29,048. By 1990 the catch stood at 21,802 – still over twice the pre-1986 level.

The driving force behind the huge expansion of the hunt was a fundamental shift in the trading of Dall's porpoise meat, linked to the IWC moratorium on commercial whaling imposed in 1986.⁷

Traditionally Dall's porpoise meat was used for local consumption in Iwate and as a food source during the harsh winters in the prefectures of Yamagata and Akita. By the late 1970s most of the porpoise meat was being shipped south to Shizuoka prefecture, to compensate for decreased availability of striped dolphin meat as a result of over-hunting in the Izu drive hunt.⁸

In the mid 1980s Japan's big whaling companies started trading in porpoise meat. Deprived of the larger whale species, Japan's whaling companies sought out other cetaceans to exploit. Much of the dolphin meat was fraudulently sold as whale – a deception persisting today. The 1989 IWC Scientific Committee report stated: "There

is evidence that the porpoise meat is being substituted for whale meat in commerce because of the decrease in access to large whales."⁹

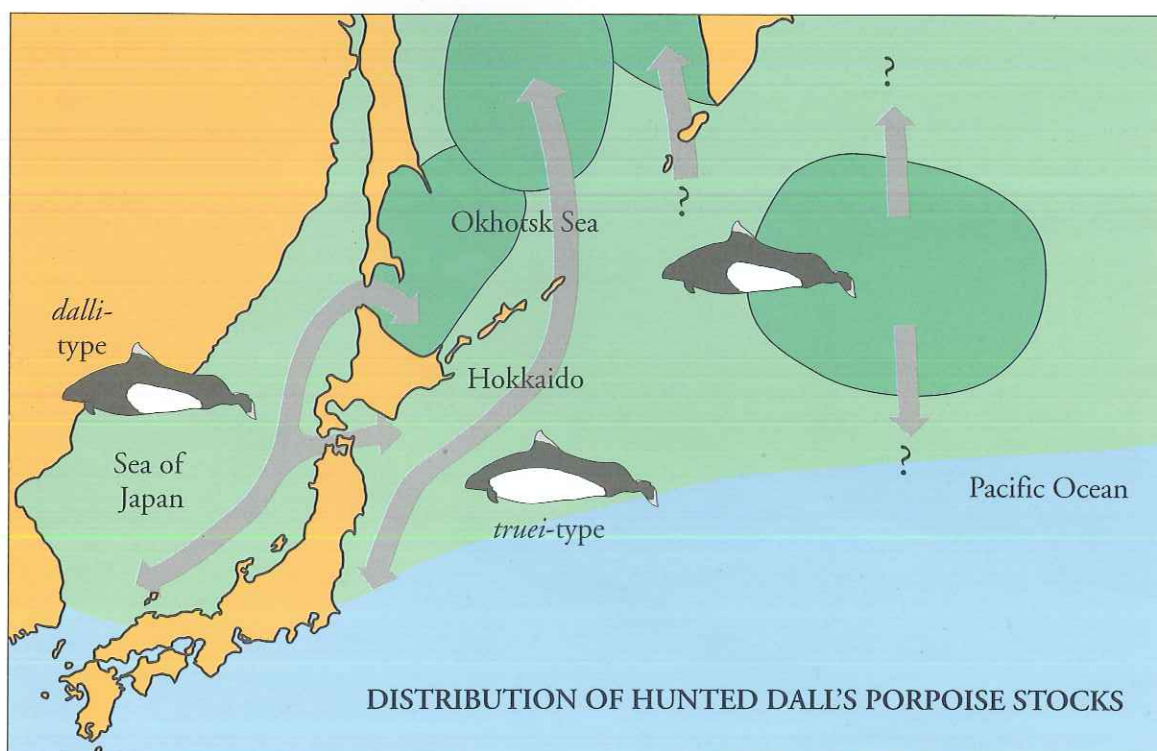
According to one informed Japanese observer the policy of the whaling companies is to "maintain the demand for whale products in the hope of resuming commercial whale hunting".¹⁰

During the last decade the EIA has uncovered widespread fraud involving the sale of dolphin as whale meat. In 1990 the Kyoshoku company was using Dall's porpoise meat in the production of its "kujira nambanzuke" – a soy and pepper marinated whale product – at its factories in Chiba and Nagoya.¹¹ In 1991 Dall's porpoise was being canned and sold as "mini kujira" – small whale – in Hokkaido.¹²

In 1995 the whaling company Nihon Kinkai, based in the coastal town of Ayukawa, was buying shipments of 200-300 porpoise carcasses, and selling the processed meat as small whale.¹³

Faced with mounting concern over the unsustainable level of the hunt from both local scientists and experts at the IWC, the Japanese authorities reduced the quota to 15,540 in 1992 – a quota the hunters failed to fill with an annual catch of 11,403 porpoises. Yet the promise of a long-term reduction proved to be an illusion. With the exception of 1995, the hunt has increased every year since 1992, and by 1997 stood at 18,540 animals.

Between 1986 and 1998 at least a quarter of a million Dall's porpoises have been killed in the Japanese harpoon hunt – making it by far the largest cetacean kill in the world.



Source: Amano 1997

International Whaling Commission Concerns Go Unheeded

The 1990 IWC Resolution on the Directed Take of Dall's Porpoises

"WHEREAS the Commission gratefully acknowledges the contribution made by the Government of Japan and the Japanese scientists in providing fishery and biological information on Dall's Porpoise to the Scientific Committee;

WHEREAS the Scientific Committee is greatly concerned that the takes in the Japanese hand harpoon fishery for Dall's porpoises have increased sharply in recent years and concluded, both in 1989 and 1990, that the current takes in the harpoon fishery are not sustainable and that the catch should be reduced urgently at least to the pre-1986 levels, approximately 10,000 animals per year;

WHEREAS the Commission recognises that the Japanese Government's regulations for 1989 reduced the takes of Dall's porpoise to about 29,000 animals; a reduction of 28 % compared with the 1988 takes, and notes its intention to take further measures to reduce the takes in 1990;

WHEREAS the Scientific Committee stated that the planned rate of reduction of the takes in 1990 by 15% of the 1989 catch is inadequate to prevent population decline if the population estimates are even roughly correct;

Now, THEREFORE, the Commission REQUESTS the Japanese Government to consider the advice from the Scientific Committee as a matter of urgency, and as soon as possible to reduce the takes to at least the levels before 1986, and that even further reductions be considered when planned new stock assessments are completed."¹⁴

Early Warnings

Scientific concerns about the dangers of Japan's Dall's porpoise hunt have been raised continually for more than two decades. The level of hunting and its effect on the two porpoise populations in Japanese waters have been the subject of a litany of statements of concern by the IWC's Scientific Committee. These culminated in the 1990 IWC resolution calling on Japan to reduce its annual catch to at least the 1986 levels of around 10,000 animals. Despite this pressure the Japanese government has never reduced its catch to the requested levels and continues to ignore scientific advice.

As long ago as 1976 the IWC's Small Cetaceans Sub-Committee listed the north-

western Pacific populations of Dall's porpoises as one of four "priority population species" due to their intensive exploitation. The Scientific Committee first expressed fears over the take in the Japanese hunt in 1979, and repeated its concerns in both 1982 and 1983, indicating that even the smaller catches of the early 1980s may not have been sustainable.¹⁵

In 1983 the Scientific Committee, noting a 25 per cent jump in Japan's Dall's Porpoise catch to 12,833 in 1982,

repeated its concerns at the high number of incidental kills and the increase in the harpoon hunt.¹⁶ The next year the Committee again raised fears over the impact of taking over 13,000 porpoises from the localised *truei*-type stock.¹⁷

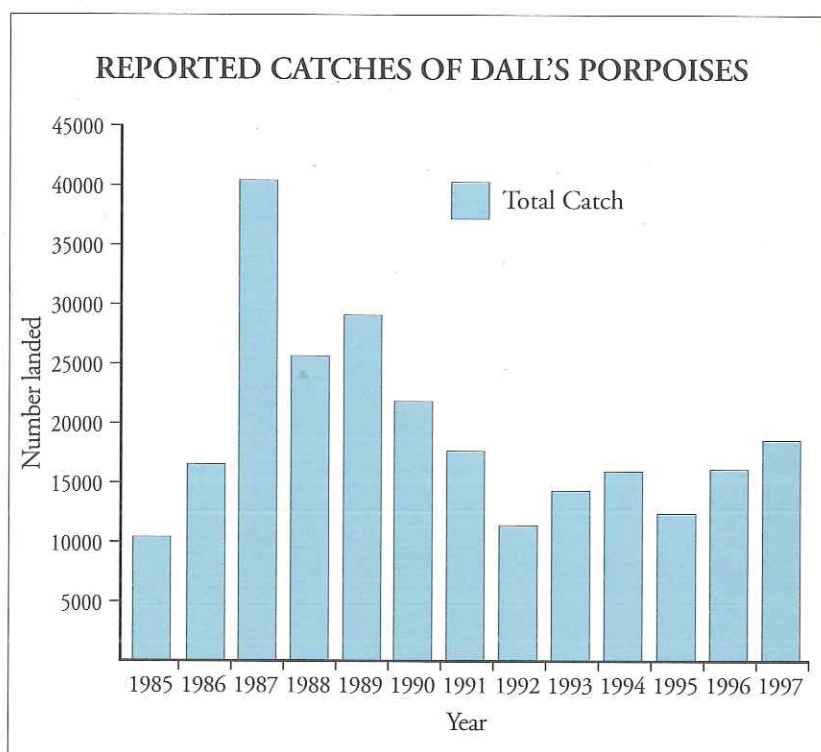
The massive increase during the 1987 and

1988 hunts prompted Japanese scientists to add their voice to the chorus of warnings over the threat to the long-term survival of the two porpoise stocks. In 1989 Toshio Kasuya and Tomio Miyashita wrote: "If this continues the dolphin populations will be destroyed. The prefectures are not only licensing present levels of catch, they are giving several years advance approval of expansion, and the situation at present is not hopeful."¹⁸

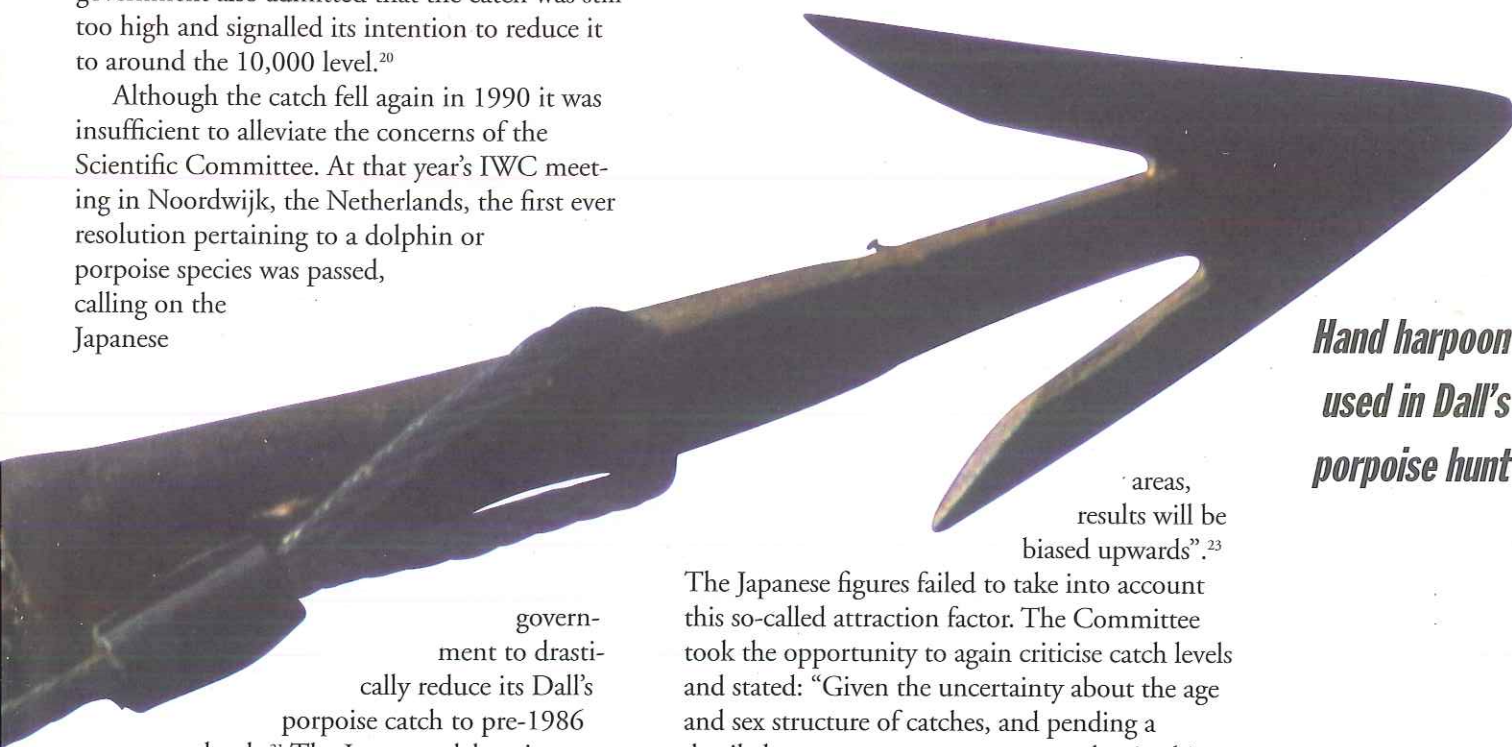
In 1989 the Scientific Committee, on hearing of the huge increase in the previous year's hunt, found the total catches to be clearly unsustainable and called for a reduction. It stated: "The stocks that are subject to the hand harpoon fishery are being exploited at rates that almost certainly exceed their recruitment rate."¹⁹

The Japanese government responded by introducing regulations for the hand harpoon hunt in 1989, prompting a 28 per cent drop in that year's catch to 29,048 porpoises. The government also admitted that the catch was still too high and signalled its intention to reduce it to around the 10,000 level.²⁰

Although the catch fell again in 1990 it was insufficient to alleviate the concerns of the Scientific Committee. At that year's IWC meeting in Noordwijk, the Netherlands, the first ever resolution pertaining to a dolphin or porpoise species was passed, calling on the Japanese



Source: Japanese Progress Reports to the IWC Scientific Committee



**Hand harpoon
used in Dall's
porpoise hunt**

government to drastically reduce its Dall's porpoise catch to pre-1986 levels.²¹ The Japanese delegation accepted the seriousness of the situation by abstaining from the vote – in previous year's it had vehemently opposed the inclusion of small cetaceans within the IWC.

Although the catch was accordingly reduced to 17,634 in 1991, in the same year the Japan Fisheries Agency produced new abundance figures for Dall's porpoise, based on a two-year observation programme, which significantly revised population estimates upwards.²²

Yet when this data came before the Scientific Committee it noted: "If the porpoises are attracted to vessels, as are Dall's porpoises in other

areas, results will be biased upwards".²³

The Japanese figures failed to take into account this so-called attraction factor. The Committee took the opportunity to again criticise catch levels and stated: "Given the uncertainty about the age and sex structure of catches, and pending a detailed age structure assessment catches in this fishery should be further reduced".²⁴

When the catch dropped to 11,403 porpoises in 1992, the lowest level since 1985, it seemed that the Japanese government was at last bowing to international scientific opinion. But the following year it rose by 26 per cent and apart from 1995 has increased year-on-year ever since.

Such blatant disregard of an IWC resolution makes a mockery of the 1990 statement by the Embassy of Japan in Washington DC which said: "The Government of Japan will execute sincerely the content of the resolution on Dall's porpoise from this year's IWC."²⁵

© Pierre Glize/Environmental Investigation Agency

Official catch statistics are unreliable

Status of Japan's Dall's Porpoise Population

Setting aside Japan's failure to reduce its Dall's porpoise catch to pre-1986 levels, the official number killed each year is a severe underestimate given the effects of widespread under-reporting, the struck-and-lost factor, and incidental kills in fishing gear.

New information gathered by EIA this year shows how pressure on the Dall's porpoise is compounded by the share of mature females taken in the Hokkaido hunt. The revelation that a high proportion of these are lactating females is a source of grave concern.

Population Estimates

The most recent abundance estimates of Dall's porpoises in the Western Pacific are from 1989/1990 surveys, which produced a figure of 226,000 for the *dalli*-type, and a *truei*-type stock of 217,000.²⁶ While the IWC's Scientific Committee accepted the survey's design, it noted that a more appropriate method would yield a higher variance in the results, and that uniform coverage of the survey area was not accomplished owing to bad weather.²⁷

A separate study of abundance has found that failure to allow for the inherent vessel attraction of Dall's porpoises can lead to the population being over-estimated by up to five times the true amount.²⁸

Inaccurate Catch Statistics

Detailed scrutiny of Japan's Dall's porpoise catch statistics between 1972 and 1988 reveals serious flaws in the official figures. Widespread abuses include under-reporting of catches, incomplete records, omissions due to the sale of carcasses at fish markets outside the boat's home prefecture, and a failure to use the correct figures for converting the weight of meat sold into the number of animals taken.²⁹

Official catch statistics are compiled by Japan's Fisheries Agency from figures sent by the prefectural government. The prefecture gets its data from the landing slips issued by the local fisheries co-operatives in the ports where the porpoises are auctioned. Catches are assigned to the harpoon boat's place of registration.

Most of the catches by Hokkaido boats are landed as meat, not carcasses, and converted into the number of porpoises taken by using a rate of

FEMALE CATCH COMPOSITION

Area of Catch	Year/Season	Proportion of mature females ^a	Proportion of lactating females ^b	Source
Okhotsk Sea	1989	85.3		1
	1990	85		1
Sea of Japan	1991	1.5		1
	1994	42.7		2
	1995	37.3		2
	1997	65.9	65.7	2
	1998	44.9	30.6	2
<i>truei</i> -type	95/96	18.4		2
	96/97	22.1	14	2
	97/98	25.7	19.7	2
	98/99	25.6	8.8	2

Footnotes

a - as % of total females examined
 b - as % of mammary glands examined
 Data from 1996 not collected.

Source

1 - Fujise et al. Rep Int Whal Commn 43:453-457
 2 - Amano pers comm to EIA, April 1999

50 kg to be equivalent to one porpoise.³⁰ Use of a conversion rate to translate meat into porpoises undermines the overall accuracy of the reported catch.³¹

The government figures also fail to take into account the struck-and-lost factor – where a harpooner hits a porpoise, fatally wounding it, but is unable to land the catch. Studies carried out by the Institute of Cetacean Research in 1989 and 1992 found struck-and-lost rates of 11.8 per cent in the Sea of Japan, 10.2 per cent in the Okhotsk Sea, and 3.8 per cent off Japan's Pacific coast.³²

The lower rate in the Pacific has been attributed to the lower densities of porpoises in the area, causing the harpooners to take greater care to achieve a successful kill.³³ Local scientists believe the skill of the harpooner and weather conditions to be more important factors.³⁴

Research has comprehensively demonstrated how the actual number of Dall's porpoises killed during the hunt far exceeds the official catch figure. It has been reported that the catch for 1987

REPORTED CATCHES OF DALL'S PORPOISE BY HAND HARPOON

YEAR	Total Reported catch	% over 1985 catch
1985	10,378	
1986	16,515	+59
1987	25,600	+147
1988	40,367	+289
1989	29,048	+180
1990	21,802	+110
1991	17,634	+70
1992	11,403	+10
1993	14,318	+38
1994	15,947	+54
1995	12,396	+19
1996	16,100	+55
1997	18,540	+79

Source: Japanese Progress Reports to the IWC Scientific Committee



© Pierre Glasco/Environmental Investigation Agency

Harpooner scans the horizon for porpoises

should be more accurately recorded as 37,200 animals, compared with an official catch of 25,600, and that for 1988 the total should be 45,600 and not 40,367.³⁵

There is also concern that significant numbers of porpoises may be killed in fishing gear. The Japanese land-based salmon fishery may impact the same stocks as the hand harpoon and is of particular concern. Numbers of porpoises killed in this fishery are not known.³⁶

Composition of the Catch

Emerging evidence points to a disturbing trend in the Hokkaido porpoise hunt – the targeting of mature females, especially lactating females with calves – which has obvious implications for the future survival of the stocks.

Iwate fishermen questioned during this year's hunt spoke of the greater efforts needed to catch porpoises in the Sea of Japan compared with previous years. They noted that the porpoises are fewer, no longer approach harpoon boats and consequently are harder to catch.

As a result some of the Iwate fishermen have fitted their boats with more powerful engines in order to chase down females with calves – as the calves tire the hunters can catch the lactating females. The calves are left as they are not profitable, and as Dall's porpoises nurse for about two months they are unlikely to survive.³⁷

Such a development in the hunt has all the hallmarks of a severely over-hunted population. Alarming the fishermen working the Pacific hunt reported problems filling the quota in recent years despite increased efforts.

Analysis of the age and sex structure of the hunt – based on large numbers of carcasses landed in Iwate prefecture – shows a significant increase in the proportion of mature females taken from the Sea of Japan, and also a high proportion of lactating females. In 1997, 65 per cent of female porpoises examined were mature and over half were lactating.³⁸

An earlier analysis of the catch, based on a small sample of porpoises caught between 1989 and 1992 shows a higher proportion of sexually mature females taken from the Okhotsk Sea area, than from the Sea of Japan.³⁹ In both 1989 and 1990, 85 per cent of carcasses examined from the Okhotsk Sea catch area were mature females.

Despite a request from the IWC's Scientific Committee for official data on the age and sex composition of the catch, the Japanese authorities have yet to supply the information.⁴⁰

A compounding threat comes from the continuation of the hunt during the porpoises' breeding season. The closed season for the hand harpoon hunt is from mid-June to July, supposedly to protect porpoises during breeding. In the Sea of Japan, *dalli*-type porpoises breed from May to June, a few months earlier than the calving season for the *dalli*-type and *truei*-type stocks of the western North Pacific.⁴¹ The Sea of Japan *dalli*-type is being hunted for most of its breeding season.



The Hunt

The harpooner prepares to strike

The Hunting Regulations

There are two distinct seasons for hunting Dall's porpoise in Japanese waters – the *truei*-type is hunted off the Sanriku coast of north-east Japan between 1st November and 30th April, while the *dalli*-type is hunted off Hokkaido from 1st May to mid-June, and again from 1st August to 31st October in the Okhotsk Sea.⁴²

Harpoon boats hunting the porpoises must be licensed by the Iwate Prefecture fisheries department, with the licenses lasting for three years. In 1998, 213 permits were issued, and a big renewal is due soon.⁴³ The vast majority of boats involved in the hunt are from Iwate, although 17 boats are registered in Hokkaido.⁴⁴ Of the Iwate boats 40 are allowed to hunt off Hokkaido, but cannot join the hunt until mid-May, and the later hunt in the Okhotsk Sea until September.

The prefectural authorities decided in 1995 to limit the number of licences to a maximum of 217 vessels, compared with the 360-plus boats hunting porpoises in the late-1980s. Yet the following year the Iwate authorities issued 221 licences, in contravention of the guidelines.⁴⁵

According to the authorities the number of applications for licences is slowly declining, as fishermen are finding it increasingly difficult to hunt the porpoises.⁴⁶ The money to be made from porpoise hunting is considerably less than in

the swordfish or salmon fisheries. Observations indicate a hard core of the Iwate registered boats dominating the porpoise hunt, with the remainder taking the animals opportunistically.

The harpoon boats are required to display their licence on both sides of the boat, stating "Iwa Bou" (meaning Iwate Hand Harpoon) and an identification number. Those boats joining the Hokkaido hunt have an additional sign stating "Kita Iruka Renkai", which shows that the boat is licensed to hunt dolphin outside its home prefecture.⁴⁷

The Japanese Fisheries Agency sets the quota for Dall's porpoise, but it is the responsibility of the prefecture government to monitor the catch statistics and decide when the hunt should end. The actual order to cease hunting in Iwate is issued by the Iwate Hand Harpoon Association to the various fisheries co-operatives involved. All porpoise hunters are members of the association.⁴⁸ In Hokkaido it is issued through the Fisheries Co-ordination Committee of Hokkaido Joint Sea Zones.⁴⁹

Since 1994 the Iwate hunt has closed early every year apart from one, usually between the end of March and mid-April.

The most recent official hunt figures date from 1997, and show a total catch of 18,540 porpoises, of which 10,007 were the *truei*-type and 8,533 *dalli*-type. The total quota for that year (August to July) was set at 17,700.⁵⁰

Eyewitness

"We left harbour at 4.30am on a freezing cold morning and spent six hours tracking two harpoon boats. Just as we were about to break off and search for other harpooners one of the target boats accelerated after a group of four porpoises. The harpooner quickly adopted a strike pose on the bowsprit as the boat chased one porpoise for about ten minutes. We kept pace, turning in tandem in the rough swell as the harpoon boat tracked the porpoise. This time it escaped, but the boat was soon pursuing another target. After a longer chase the porpoise was visibly tiring – the harpooner got ready to strike as his colleague revved the boat's engines. With an incredible injection of speed the boat moved nearer to the porpoise – a kill seemed inevitable. The harpooner leaned out and jabbed at the porpoise, but amazingly it escaped."
Clare Perry, EIA Cetacean Campaigner, off the Iwate coast on Sunday 21st March 1999.



**The EIA team
off the
Iwate Coast**

© Pierre Gilcaud/Environmental Investigation Agency

EIA's concerns about the long-term sustainability of Japan's Dall's porpoise hunt date back a decade. The alarming increase in the hunt during the late-1980s prompted an EIA team to visit the Sanriku coast in 1990 to examine the causes behind the dramatic increase in the number of porpoises being killed.⁵¹

A subsequent visit in 1993 took place to monitor whether the hunt was being reduced in accordance with the wishes of the IWC. Instead the EIA team documented the growing involvement of the large whaling companies in the porpoise meat trade and the fraudulent sale of porpoise meat as whale.⁵²

A third investigation in 1995 provided more information on the trade routes for porpoise meat and highlighted inadequacies in the regulations governing the hunt.⁵³

The 1999 EIA Investigation

In March 1999, EIA returned to Iwate with the ambitious goal of witnessing the porpoise hunt at sea. Previous investigations had provided a detailed picture of the fate of the porpoises once landed, but no environmental organisation had ever witnessed the hunt itself.

A boat was hired in Japan with the aim of documenting the hunt, but not impeding the hunters. The boat crew was backed up by a shore-based team, responsible for observing the auction each morning and logging the movements of harpoon boats along the coast.

During a three-week period harpoon boats were spotted at numerous ports along the Sanriku coast – Kamaishi, Taro, Miyako, and Ofunato, with clusters of boats in Otsuchi and Yamada. All the harpoon boats observed in port

were registered to Iwate, apart from a single Hokkaido boat in Yamada harbour.

The harpoon boats have a distinctive bow extension or sprit, from where the harpooner crouches during the hunt.

The harpoons themselves are secured in a rack near the bow, with one or two placed by the sprit within the harpooner's reach. The harpoons have a long shaft of around three metres. Although the traditional harpoon used for porpoises has a single detachable head, many of the harpoons observed also had a double-pronged head. Although these are primarily used for swordfish, sometimes they will be used to catch porpoises.

In contrast to previous visits to the area, on this occasion all the harpoons had wires leading from the head, indicating the use of electricity to either stun or kill the porpoises. This finding was supported by burn marks seen on some of the porpoise carcasses at the auction. Use of an electric lance is now prohibited as a secondary killing method for large whales by the IWC.

Most of the harpooners use electricity just after the head of the harpoon strikes the porpoise and detaches from the shaft, although others will drag the porpoise onto the boat before electrocuting it. The harpoons are attached to bright orange floats stored on the bowsprit.

Many of the harpoon boats seen in port did not display the required licences – a clear contravention of the hunting regulations. Officials explained this away by saying the licences had worn off.⁵⁴

Although many of the boats were clearly specialist harpooners, others were obviously engaged in mixed fisheries and had rows of powerful lights for catching squid and nets and traps for other fisheries on board. These boats generally

had fewer harpoons, indicating an opportunistic taking of porpoises.

The boat hired by EIA sailed to the hunting grounds for five days between 17th and 25th March. Harpoon boats were tracked heading out to sea from Otsuchi early in the morning – usually at first light around 4am.

The harpoon boats usually have a crew of two or three people although on one occasion a harpoon boat was spotted at sea with a single person on board. As the boats reach open sea the harpooner takes up position on the bowsprit, while the second member of the crew steers the boat from an elevated platform, allowing him to look for groups of porpoises.

During this search, phase boats tend to operate in groups of up to four boats – this may be due to safety as they do not appear to carry life rafts and hunt in poor weather conditions. Harpoon boats were observed out at sea in a force five wind.

EIA saw eight chases while at sea. In total around 24 different boats were seen at the hunting grounds off Otsuchi, with some boats seen more than once. The searching or hunting of porpoises took place between six and 25 miles offshore, between the 600m and 1,000m contours of the ocean floor.

While searching the harpoon boats cruise at around seven to nine knots, increasing to 13-16 knots during a chase. The boats are highly manoeuvrable to follow the movements of the porpoises, and some of the Iwate boats, such as “Taio maru” IT2-3010 have put in bigger engines to increase their speed during the chase.

During the first day at sea EIA saw the harpoon boat “Riki maru” IT2-3998 give chase to a group of porpoises. The porpoises came close to the bow of the boat, prompting the harpooner to make a series of underhand jabs. He appeared to lose the harpoon head before breaking off mid-chase.

The following day EIA witnessed four separate incidents in which the harpoon boat broke off in mid-pursuit. By the third day it was clear that the presence of the EIA boat at the hunting grounds was causing resentment among the harpoon boats.

In one incident a harpoon boat over 500 metres away failed to catch a porpoise right under its bow. It then turned and headed straight towards the EIA boat, breaking off at the last minute.

After the first few days out at the hunting grounds the harpoon boats would cease hunting when the EIA boat appeared.

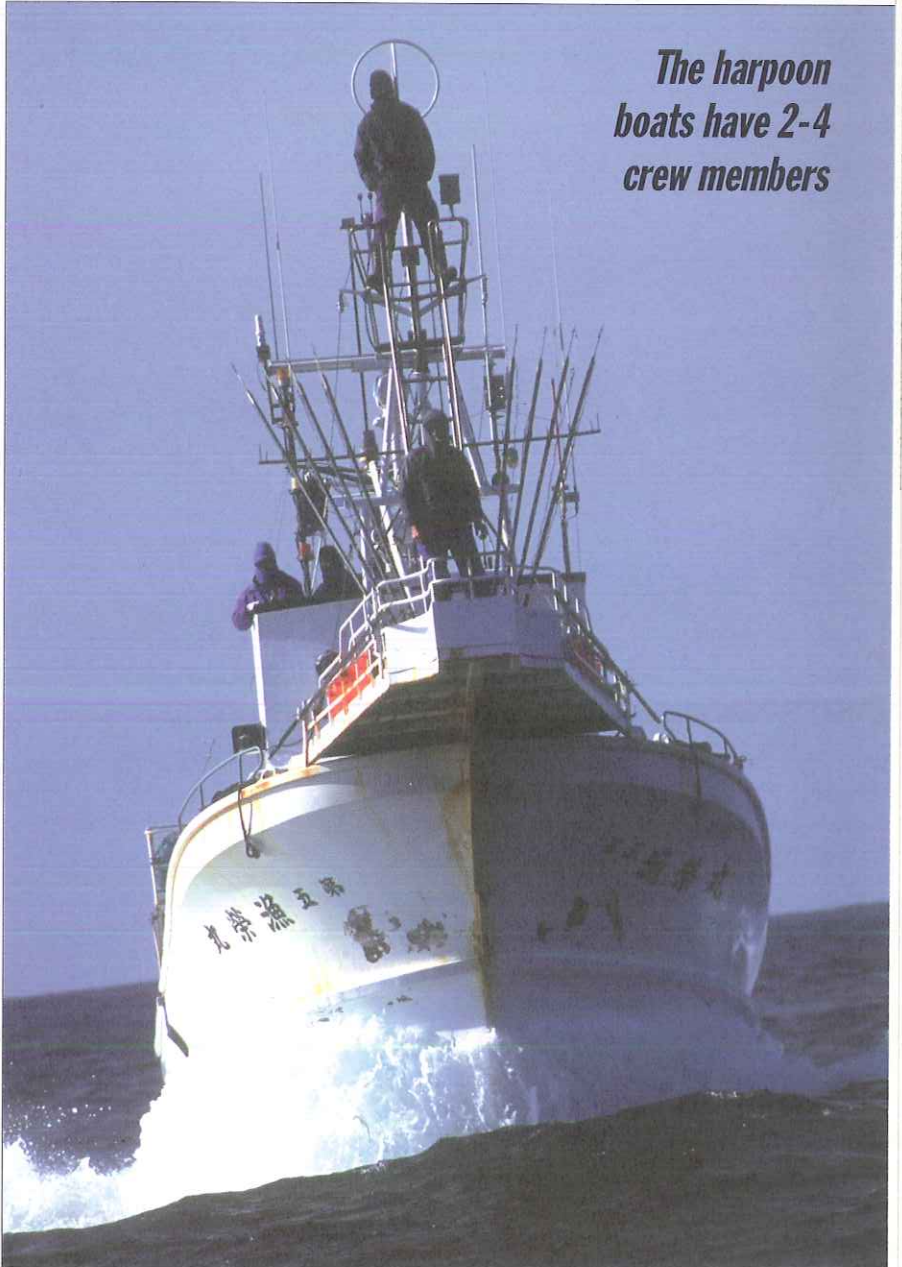
This year’s hunt was officially closed on 2nd April. Unusually an instruction went out to cease landing porpoise carcasses immediately, as the boats are known to continue hunting illicitly up to ten days after the legal end of the hunting season.

Over 200 boats are licensed to hunt Dall’s porpoises



© Pierre Gleizes/Environmental Investigation Agency

The harpoon boats have 2-4 crew members



© Pierre Gleizes/Environmental Investigation Agency

The Auction



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Porpoise carcasses laid out at the Otsuchi auction

The Auction Process

There are six designated ports along the Sanriku coast at which Dall's porpoise catches can be registered – Otsuchi, Kamaishi, Ofunato, Yamada, Taro and Yagi. Their sale is dominated by the neighbouring towns of Otsuchi and Kamaishi, with a much smaller auction taking place further north at Yamada.

Every weekday and some Saturdays during the hunting season an auction of porpoises takes place commencing at 7am in Kamaishi and 7.30am in Otsuchi. The auction also includes the catch from other fisheries.

The previous day's catch is unloaded, weighed and laid out in rows. A landing slip is attached to the first carcass of a particular boat's catch. Buyers walk up and down the rows of carcasses inspecting the catch.

The auction itself is conducted according to the "nyusatsu houshiki" method, based on sealed bids, with the highest bidder winning. After the auction a label is attached to the carcasses identifying the successful bidder.

The auction is run by the local fishing cooperative, which also has responsibility for recording comprehensive catch data and forwarding it to the prefectural authorities. An official from the prefecture is supposed to make weekly inspections of the cooperative's records, but does not inspect the catch.⁴⁷ Information on the catch is also collected by the Iwate Hand Held Harpoon Association.⁵⁵

Porpoises caught by the Iwate boats during the later hunting season off Hokkaido are transported south by road to Iwate for auction, and are registered by the local authorities.

During a three-week period in March 1999 EIA investigators attended the early-morning auctions held at Otsuchi and Kamaishi. Direct observations and discussions with the local fishermen provide a detailed insight into how the auction of Dall's porpoises operates.

The port of Otsuchi dominates the Dall's porpoise auction as the best prices are paid there. The auction site is located on the harbour front of a deep bay, surrounded by processing plants. During March only small amounts of other fish or shellfish were seen on sale, including octopus and bags of oysters. Local fishermen said it was a quiet time of year, adding that the port was at its busiest during the summer swordfish season and the autumn salmon season. Kamaishi is a larger port with a more diverse fishery and auction, but still has a substantial porpoise sale.

The porpoises arrive at the auction site around 5am, either by truck or are directly unloaded from the holds of harpoon boats. The carcasses are already eviscerated, cut along the belly from head to tail, indicating the removal of the guts at sea. Small trucks often deliver around five carcasses to the auction, while larger trucks were seen unloading 20 or more, suggesting the porpoises are landed at several ports along the coast and transported by road to secure the best price at auction.

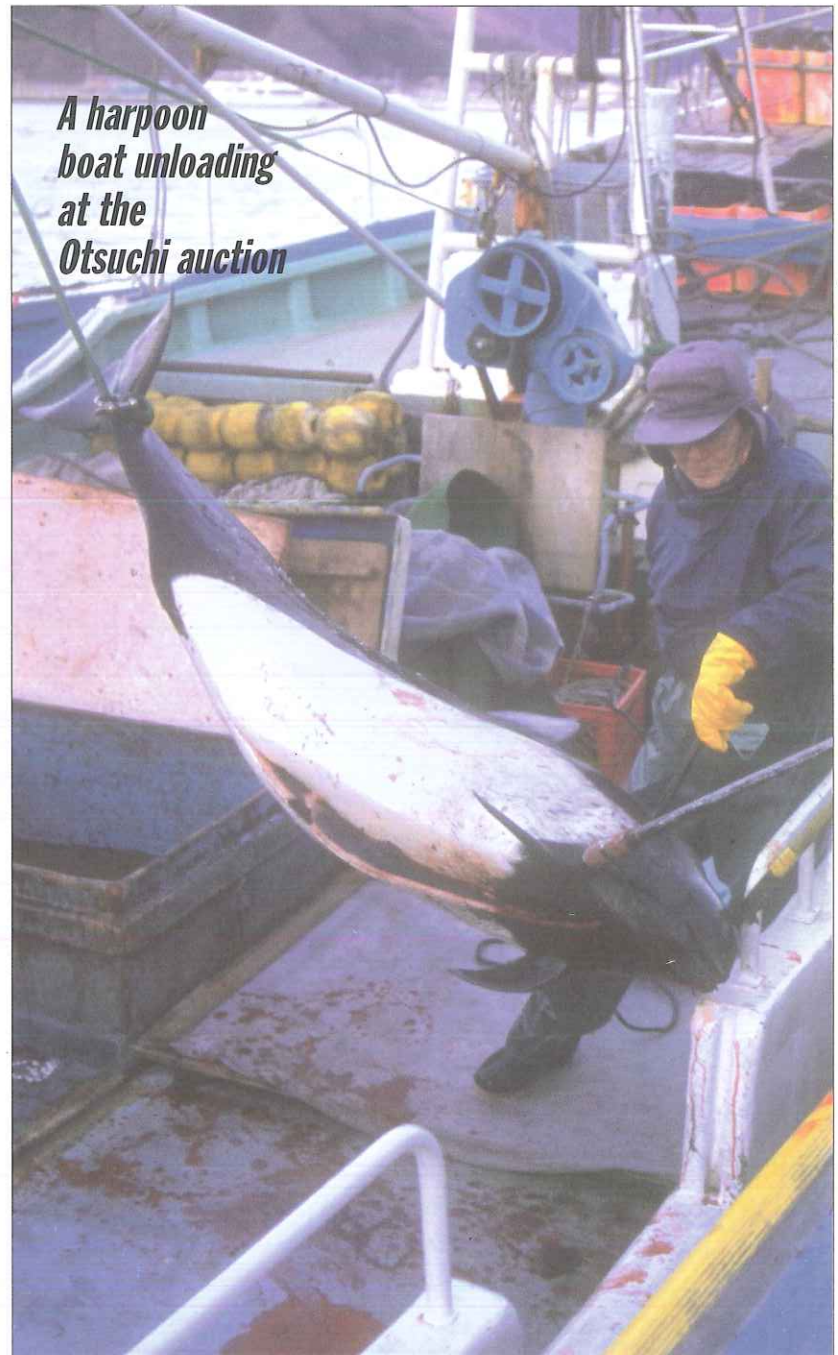
Workers from the fisheries cooperatives move the carcasses around using a gaffe to unload them and a long-handled trolley for the weighing. The strike marks can be clearly seen on the carcasses, and in some cases burn marks resulting from the electrocution.

The dealers use mobile phones to communicate with their customers and the hunters out at sea. When a large catch is brought ashore the auction site is a hive of activity and larger trucks transport the consignments.

The auction itself is over quickly, with the fisheries cooperative official opening the sealed bids and announcing the final price. Labels indicating the name of the successful bidder are attached to the relevant carcasses. A minor buyer may load up his purchase of a few porpoises immediately and drive off, while there is often a delay before the bigger consignments are loaded onto flat-bed trucks using a fork-lift truck.

From direct observations it is apparent that the auction is dominated by a handful of processing companies. After a couple of hours most of the porpoises have been removed and the harbour front lies dormant awaiting the next day's auction.

Although the designated port system is intended to monitor the number of Dall's



A harpoon boat unloading at the Otsuchi auction

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Awaiting sale

© Pierre Glizeal/Environmental Investigation Agency



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EIA saw over 700 porpoises at the auction sites in just 3 weeks

porpoises being landed, the fact that it is self-regulated by the fishing cooperatives and not subject to scrutiny by central government officials casts doubts on the veracity of the catch records and the number of porpoises landed.

EIA observed a harpoon boat in Otsuchi unloading its catch of porpoises, but one was kept on board and covered with a tarpaulin. A single carcass was also seen being unloaded in the northern port of Taro and being taken directly to a small processing factory. If this is happening along the coast it will lead to a substantial under-estimation of the true number landed.

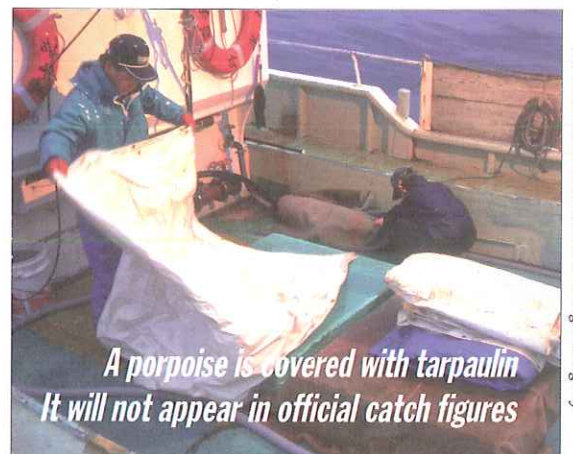
On one occasion a harpoon boat entered Otsuchi harbour at 4.50pm and unloaded 12 porpoises onto a truck which then drove off. It is unclear whether this haul was ever recorded.

EIA has also received reports that fishermen in Hokkaido – who tend to land the porpoises already chopped into meat rather than whole carcasses – are selling the meat directly to buyers, circumventing the auction process and thereby ensuring that the true catch level is not recorded.

It is also common practice for the hunters to land Dall's porpoises for up to ten days after the hunt has officially ended. It is apparent that the prefectural authorities, which limit their activities to checking the fishing cooperatives' records once a week, never check the daily auction.

The Iwate prefectural authorities claim the self-regulation of the hunt is effective, citing the harsh penalty of Y100, 000 (US\$833.33), licenses revoked or six months jail for smuggling and the fact that the hunters monitor each other and would report any infractions.⁴⁸ Yet there has not been a prosecution for at least the last three years, despite evidence of widespread under-reporting.⁵⁶

From direct observations EIA believes the current system of self-regulation is wide open to abuse and urgently requires comprehensive enforcement and monitoring. With over 200 boats licensed to hunt porpoises off Iwate and at least 15 ports in the area where the carcasses can be landed the potential for abuse is high.



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Auction Diary

Thursday 4th March Otsuchi – At 07.00, 20 porpoises are laid out. Another four arrive in a small truck at 07.20. Auction price is announced at Y37,000 (US\$308.33) for 100kg. Yamada – Five carcasses observed at 07.55, four more arrive by truck.

Friday 5th March Otsuchi – 24 porpoises from eight boats are auctioned at 07.40. Two hours later four carcasses are seen being butchered at the auction site and packed into boxes. At 16.10, a single porpoise is unloaded at the northern port of Taro.

Saturday 6th March Otsuchi – 66 porpoises are auctioned at 07.35. Around 24 carcasses are loaded onto a single flat-bed truck, which leaves the auction site at speed. The truck is followed south along the coastal road for four hours, but contact is lost a few miles before the turn-off to Ayukawa.

Wednesday 10th March Otsuchi – 42 porpoises are landed, with an auction price of between Y32,000 (US\$266.66) and Y35,000 (US\$291.66). “Endo Suisan”, a fish processing factory, buys 20 porpoises.

Thursday 11th March Otsuchi – At 07.15, 85 porpoises are laid out from 15 harpoon boats. A truck belonging to the fish processing company “Kokusai Suisan” loads up with porpoises and is followed to a processing factory in Kamaishi.

Friday 12th March Otsuchi – The boat “Daigo - Inari maru”, identification number IT2-2929, unloads 18 porpoises caught the previous day. A total of 34 porpoises are auctioned, with the remainder coming from two boats.

Monday 15th March Otsuchi – 10 porpoises are unloaded before 05.00. Thirty minutes later 19 are delivered by truck. At 05.44, another truck unloads 33, and a third truck brings 12. At 06.00 a truck drives up and unloads 12 porpoises, including one calf. A further 13 carcasses are winched ashore from the boat “Kofuku maru” IT3-37384. Three more boats then deliver their catch – 17 porpoises from “Koyo maru” number IT2-4893, four from “Toku” number IT2-4056, and two from “Zensei maru” number IT3-32360. One of the crew of “Koyo maru” keeps a single porpoise onboard and covers it with a tarpaulin. At 06.10 two more trucks unload a total of 13 porpoises. Three baskets of porpoise hearts are seen on sale for the first time. A total of 135 porpoises are sold in a single day. Kamaishi – At 07.30, 93 porpoises from 19 boats are auctioned. Three

baskets of porpoise hearts are on sale. The auction price has dropped to around Y29,000 (US\$241.66) per 100kg. The company “Kokusai Suisan” buys 24 porpoises, while a second company called “Kamaki Shoji” also buys a truckload.

Tuesday 16th March Otsuchi and Kamaishi – no porpoises landed due to bad weather overnight.

Wednesday 17th March Kamaishi – At 07.00, 14 porpoises are unloaded, all caught by the boat “Taio maru” IT2-3010. Hearts removed and sold separately. Otsuchi – 35 porpoises sold. Most of the catch delivered to the “Otsuchi Ichirei” processing factory near the auction site.

At 16.50, a harpoon boat enters Otsuchi harbour and unloads 12 porpoises onto a truck, which then drives off.

Thursday 18th March Otsuchi – The boat “Shoei maru” IT2-3841 unloads 13 porpoises at 05.00. Two more are unloaded from a small truck. Kamaishi – At 07.30, 23 carcasses are laid out from six boats. Two Kamaishi-based firms – “Kokusai Suisan” and “Kamaki Shoji” – buy them.

Friday 19th March Kamaishi – Seven porpoises are landed from four boats. Otsuchi – 32 porpoises are landed from three different boats.

Saturday 20th March Kamaishi – No porpoises landed. Otsuchi – 13 porpoises are sold to “Kobayashi Shoji” in Kamaishi.

Tuesday 23rd March Otsuchi – At 07.40, 41 porpoises are sold from five boats.

Wednesday 24th March Otsuchi – 22 porpoises landed by four boats Kamaishi – Seven porpoises are sold from three boats.

During the course of the three-week investigation the EIA team witnessed a total of 721 Dall’s porpoises being landed and auctioned.

**Sold at auction
for between
US\$260 and
US\$ 310
per 100kg**



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The Trade in Dall's Porpoise Meat

© Pierre Gleizes/Environmental Investigation Agency



Carcasses arrive for processing

It is clear that powerful economic forces are behind Japan's Dall's porpoise hunt. The sheer scale of the hunt can only be explained in terms of a co-ordinated supply network reaching areas far beyond the hunting grounds.

Previous investigations by EIA have demonstrated a widespread commercial trade in Dall's porpoise meat and its fraudulent sale as whale meat.⁵⁷ It is clear that the meat is now widely traded beyond traditional dolphin-consuming areas.

Porpoise meat products have been seen on sale across southern Japan – in Tokyo, Osaka, Chiba, Nigata, Kobe, Hakata, Nagasaki and Shimonoseki. Yet traditionally dolphin consumption has been limited to areas in Iwate, Shizuoka and Miyagi prefectures, as well as the Taiji area.⁵⁸

Evidence gathered in March 1999 points to a thriving trade and explains why the Japanese government is loath to reduce the catch to pre-1986 levels. If the trade was in fact restricted to local consumption the hunt could be easily reduced, but the involvement of whaling companies serves to prevent this.

Dolphin meat or "Iruka" was seen on sale in both Otsuchi and Kamaishi. The price on display in shops varied between Y100 (US\$0.83) and Y120 (US\$1.00) for 100g. The owner of the "Marukuni Shoten" shop explained how one or two porpoises from each catch are enough to satiate local demand. Smaller shops will divide the meat up as one carcass would exceed the demand of a single outlet. It is mostly the older generation still eating dolphin meat.

The rest of the catch is bought by semi-processing plants, mainly from Kamaishi and Otsuchi. At these plants the head and tail are removed and the carcass is boned. It is estimated that half the carcass is discarded at this stage.⁵⁹ On one occasion this procedure was observed taking place at the auction site in Otsuchi. Although most of the semi-processing takes place around Otsuchi and Kamaishi, a truck carrying over 20 carcasses was followed directly from the auction and headed south for over four hours before contact was lost.

After the porpoises have been semi-processed the meat is sold either directly to supermarkets or to processing plants for canning or packaging. Both Tokyo and Shizuoka were mentioned by local traders as destinations for the semi-processed meat.

From attending the auctions for three weeks EIA identified four main companies in Otsuchi and Kamaishi dealing in porpoise meat – Kokusai Suisan, Otsuchi Ichirei, Kamaki Shoji and Kobayashi Shoji.

Kokusai Suisan, a semi-processing factory based in Kamaishi, bought around 30 porpoises each day. During an interview the president of the factory, Mr Kaneko, told EIA his factory bought about 50 carcasses a year from Otsuchi

TRADE ROUTES FOR DALL'S PORPOISE MEAT

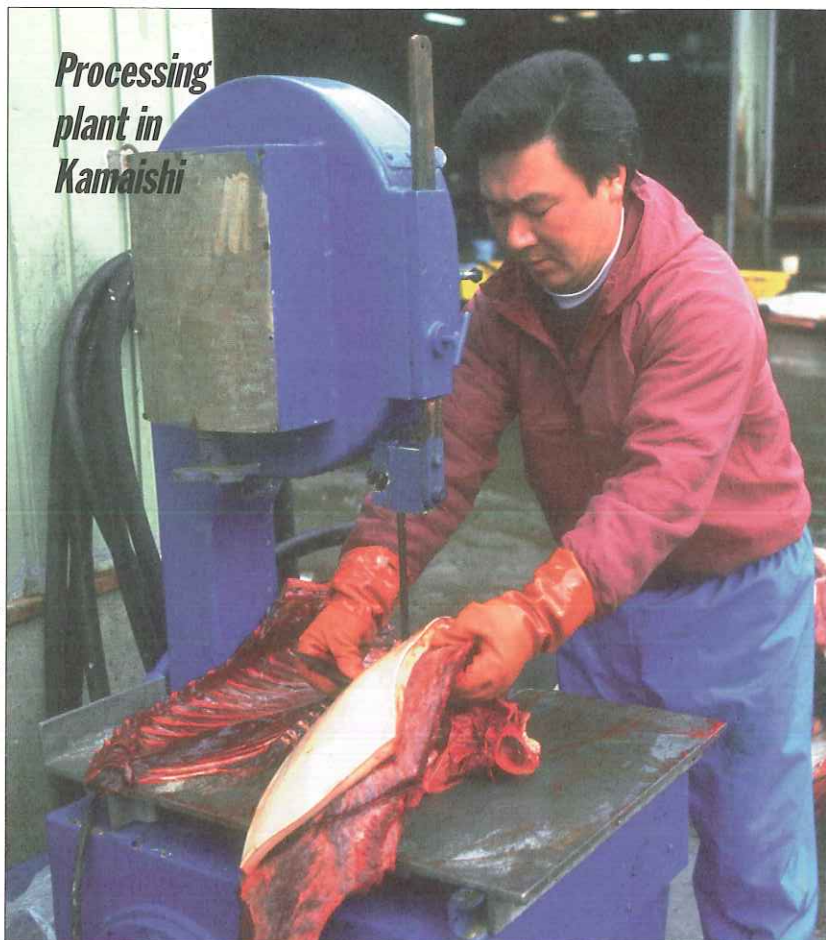


and Kamaishi, and occasionally Hokkaido. Yet EIA investigators filmed approximately 40 porpoises at the factory on a single morning. Porpoise meat was seen packed into wooden crates and loaded onto a truck. The driver said



After processing the meat is usually sent south

**Processing
plant in
Kamaishi**



© Pierre Gletzes/Environmental Investigation Agency

the final destination was Shizuoka prefecture.

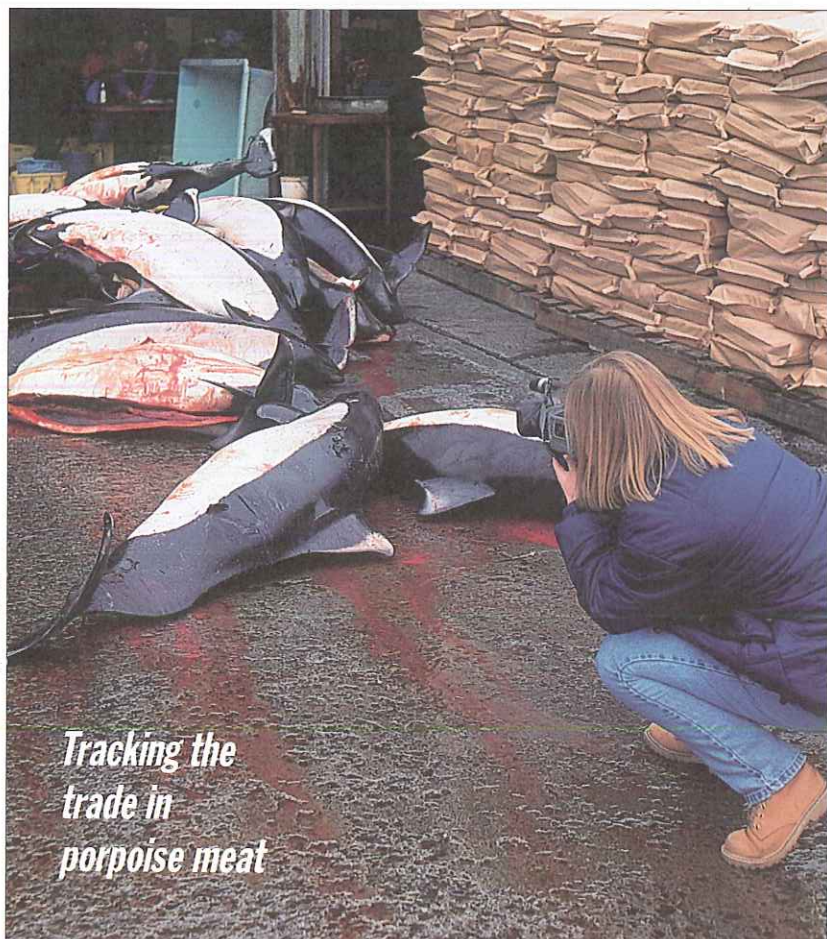
Kaneko also revealed how the whale meat fraud is perpetrated. During the final processing stage the porpoise meat is often canned, either salted or with miso paste and labelled as kujira or whale. He said this increases the value, adding: "They make it into something but they don't tell. It is a very precious thing." He described the exact process as an industrial secret.⁶⁰

The Otsuchi Ichirei semi-processing company was another regular buyer at the auction, on occasion buying the entire daily catch. The factory manager told EIA he sold the meat in Mito Prefecture and Numazu city in Shizuoka.

Previous DNA testing has confirmed the sale of supposed whale meat which is actually dolphin. A market trader in Tonyo's Tsukiji fish market confirmed this practice, saying: "Dolphin meat becomes whale meat when they come to the market. Nobody wants to say they are selling dolphin meat."⁶¹

With prices for raw red whale meat in Tsukiji at Y800 for 100g (US\$6.70), the profit from the fraudulent sale of porpoise meat are considerable

When challenged about this practice the Iwate authorities charged with regulating the hunt said it fell outside their jurisdiction.⁶²



**Tracking the
trade in
porpoise meat**

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The Economics of the Trade

Based on a single Dall's porpoise weighing 70 kg sold at Otsuchi auction on 6th March 1999. Figures use the conservative estimate that half the carcass will be processed into meat.

Auction price:

For 100kg	Y33,000 (\$275)
For 70kg	Y23,100 (\$193)

Sold locally in Otsuchi:

Retail price	Y100 per 100g (\$0.85)
For a 70kg carcass, half lost in processing	Y35,000 (\$292)

If sold in Tokyo fish market as whale meat

Retail price	Y800 per 100g (\$6.7)
For a 70kg carcass, half lost in processing	Y280,000 (\$2,333)

From these calculations the economic forces driving the porpoise hunt are clear. Sold locally a single carcass provides negligible profit. Sold as whale meat in Tokyo the profits are vast.

A Catalogue of Abuses

- In 1990 the IWC passed a resolution calling on the Japanese government to reduce its Dall's porpoise catch to below 10,000. It has never complied with this request and the latest official figures show the annual catch exceeding 18,000 animals.
- The hunt figures make no provision for struck - and - lost animals. This rate reaches 11.8 per cent for the porpoise hunt in the Sea of Japan.
- There is a lack of information on the number of porpoises killed in fishing gear, despite the fact that the main operating area for the harpoon hunt overlaps the land-based drift-net fishing fleet during the summer.
- Detailed examination of the hunt statistics between 1972 and 1988 reveal widespread under-reporting of catches. Estimates put the actual size of the catch in 1987 at 37,200 porpoises, compared with an official figure of 25,600.
- Examination of carcasses shows an increase in the proportion of mature females taken during the hunt in the Sea of Japan.
- The hunt is allowed to take place during the Dall's porpoise breeding season in the Sea of Japan and Okhotsk Sea.
- Hunters are targeting lactating females, seriously undermining the viability of the hunted Hokkaido population. In 1997 over half of the females examined from the Sea of Japan hunt were lactating.
- There is uncertainty over the official abundance estimates for the two hunted populations of porpoises. Failure to take account of vessel attraction and other factors could mean that estimates are five times higher than the actual population.
- Porpoise meat is being fraudulently sold as whale meat products.
- The vast majority of the catch is sold commercially across southern Japan. It is not local consumption driving the expansion of the hunt.
- The self-regulation system for monitoring the landing of porpoises is wide open to abuse. Hunters in Hokkaido reportedly sell porpoise meat directly to wholesalers, avoiding registration of the catch.
- Porpoises continue to be illicitly hunted for up to ten days after the hunt has closed.
- Many harpoon boats in Iwate fail to display the required licence to hunt porpoises.
- Harpoon boats are installing larger engines and are experiencing problems fulfilling their quota for Dall's porpoises – a clear indication of over-hunting.



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Conclusions

Time and again the Scientific Committee of the IWC has expressed extreme concern at the unsustainable nature of Japan's Dall's porpoise hunt, yet the Government of Japan refuses to listen.

The IWC passed a landmark resolution in 1990 calling for the catch to be reduced to the pre-1986 level of around 10,000 animals and repeated its concerns in subsequent resolutions.

Dedicated Japanese scientists have conducted vital work showing under-reporting of the catch, struck-and-lost rates for the hunt, and worrying trends in the composition of the catch – all to no avail.

The Environmental Investigation Agency has conducted on-site research into the Pacific winter hunt on four occasions, most recently in March 1999, and has documented severe shortcomings in the hunting regulations, the involvement of whaling companies in the porpoise meat trade and the fraudulent sale of porpoise as whale meat.

The Japanese authorities have failed to comply with the requests of the IWC. Instead of reducing the catch to below 10,000, in 1997 the official catch was 18,540 animals. Since the IWC moratorium on commercial whaling came into effect in 1986 around a quarter of a million Dall's porpoises have fallen prey to the Japanese hunt.

Disturbing new evidence is emerging which casts doubt on the future survival of the Sea of Japan stock of hunted porpoises. The proportion of mature females taken in the spring hunt has increased and it appears the hunters are targeting lactating females. Of the female carcasses examined from the Sea of Japan hunt in 1997 over half were found to be lactating.

Iwate harpoon boats working in the Sea of Japan are installing bigger engines to chase the porpoises and report greater difficulty in filling their quota – sure signs of over-hunting.

The Japanese government claims to stand for the sustainable utilisation of marine resources. By allowing the world's largest cetacean kill to proceed at the present rate it is clearly failing to live up to its own policies and its international obligations.

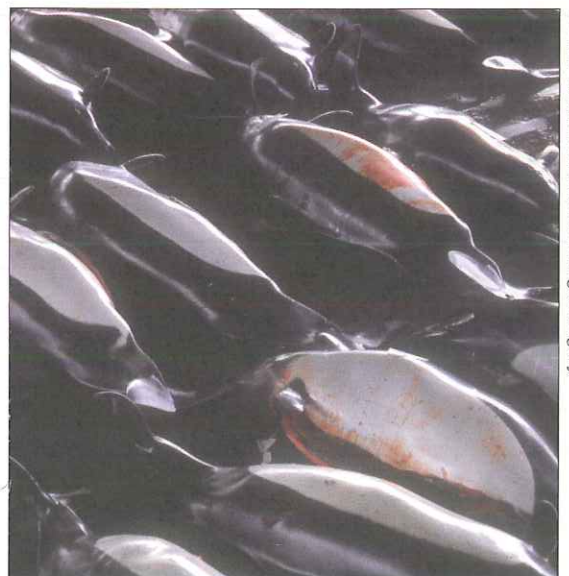
Recommendations

EIA urges the government of Japan to:

- Immediately suspend the catch of Dall's porpoises in the Sea of Japan and Okhotsk Sea pending new population surveys.
- Take urgent steps to comply with the request of the IWC to reduce the catch to pre-1986 levels.
- Carry out comprehensive population surveys of Dall's porpoises in both their summer and winter distributions. The surveys must take account of vessel attraction.
- Consult the IWC scientific committee on the effects of hunting Dall's porpoises and accept management advice on future catch levels.
- Undertake studies to determine struck-and-lost rates in the catch and estimate incidental killings in driftnet and other fisheries.
- Establish a national monitoring and inspection scheme to enact meaningful enforcement measures, in order to ensure strict compliance with catch quotas and hunting regulations.
- Prohibit the fraudulent sale of Dall's porpoise meat as whale products.

EIA urges the IWC to:

- To review the status of the Dall's porpoise populations exploited in the Japanese hunt by IWC Small Cetaceans Sub-Committee in the year 2000 at the IWC meeting.



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