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**SMALL-TYPE COASTAL
WHALING IN JAPAN**

Report of an International Workshop

1988

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1989

REPORT TO THE WORKING GROUP ON SOCIO-ECONOMIC IMPLICATIONS OF A ZERO CATCH LIMIT

The Government of Japan
1989

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EXECUTIVE SUMMARY

Japanese pelagic and large-type coastal whaling suspended operations in 1987 and the last of the commercial whaling operations closed down at the end of 1987.

Small-type whaling continued to operate as a stable fishery until the 1988 season, when an IWC-imposed zero-

catch limit for minke whale reduced the production of this coastal fishery by almost half.

The result of these restrictions on whaling has caused a number of direct and indirect impacts of a social, economic, cultural, and health-related nature which adversely affects whalers and their families, whale-related small businesses and other institutions in the whaling towns.

At the dissolution of the last remaining pelagic and large-type coastal whaling companies in 1987, a total of 789 full-time and 42 part-time employees lost their jobs.

Seventy-three percent of the 507 former pelagic whalers have found re-employment in a new company that provides crews and vessels for fishery inspection and research purposes. However, these new positions provide salaries about 15 percent less than formerly paid to whalers, and the work is seasonal and often short-term.

Those former commercial whalers who have not found employment are entitled to up to 12 months government unemployment benefits, as well as receiving severance pay from the companies at the time their employment was terminated. The 42 part-time employees received no company or government benefits.

After one year following termination of their employment only 28 percent of former large-type coastal whalers had found permanent jobs; a further 18 percent had obtained temporary or part-time employment. All former whalers with jobs now receive less wages than they received as whalers, and in most cases, none of the additional company benefits they received as whalers.

Small-type coastal whaling employed 75 full-time and 38 part-time seasonal workers in 1987, the last year of this stable fishery, before the zero-catch limit was imposed on the minke whale quota, at which time small-type whalers lost their jobs in the summer 1988.

Some small-type whaling operations rehired some of their workers for the late summer/fall Baird's beaked and pilot whale fishery in 1988; however the 50 percent of workers rehired received salaries reduced by as much as 50 percent. In addition, the supplemental pay and bonuses, including shares of whale meat, were considerably reduced in 1988 for those whalers otherwise fortunate enough to be rehired.

Small-type coastal whalers in most cases are ineligible for government unemployment benefits, and due to the small-business nature of the small-type whaling operations, did not receive large dismissal allowances.

Those whalers not re-employed in the fashion

described above, have sought employment in a variety of low-paying occupations, often in temporary, part-time or seasonal work. Some have left their home communities, with or without their families, moving to larger centers in the hope of finding better job prospects. All are having to rely on savings at the present time, which given their ages, involve the peak years of family expenses when their children are in or entering high schools or universities.

The average age of former whalers is the late forties, though a large proportion are in their fifties. Due to their financial obligations, many wives of former whalers have had to take low paying, part-time jobs and work for long hours. This situation causes various profound interpersonal and emotional stresses in these families, due to the sudden reversal of roles in a society having rigid traditional norms concerning gender-related household divisions of labor.

There are serious barriers to re-employment of former whalers, due to the highly specialized nature of their work, their lack of networks outside of the whaling profession, the over-capacity of Japanese fishing and merchant marine industries, and the particularities of Japanese employment and fishery practices.

A number of stress-related health problems are reported among former whalers who are unable to find suitable employment. Some occupational-health problems are also reported among the middle-aged former whalers now undertaking unfamiliar and physically demanding new jobs.

The emotional stress caused in families of unemployed whalers affects husband-wife and parent-child relationships. Children worry about their parents' changed financial circumstances at a crucial time in their schooling when their attention and concern need to be fully directed to the all-important high-school and university entrance examinations.

Officials in some whaling communities report the recent appearance of hitherto unknown anti-social trends among some young people and in families of unemployed whalers. Whaling towns historically have been entirely free of such tendencies due to the high status and prestige enjoyed by whalers in Japanese society and history.

Whale meat remains the favorite food of all age groups in the whaling towns and districts; it is both a preferred everyday food, and a required ingredient in special dishes served on various religious or ceremonial occasions.

Whale meat is especially important in gift-exchange ceremonies which have an important place in the social life of whaling towns. The interruption in supplies of whale meat has seriously compromised these ceremonial occasions with a corresponding loss of community solidarity at a time when massive economic dislocations caused by the whaling ban seriously threaten the continued viability of these small remote communities.

Economic problems in the whaling towns are caused by job and wage losses to whalers, flensers, meat

processors and distributors, retailers and the various businesses depending upon the local circulation of revenues generated from whale-related occupations.

Whale-meat processors are affected by the shortage in supplies of whale meat, the non-availability of certain products with cessation of large-type whaling and the increasing price of other whale products as the supply diminishes. This has resulted in loss of employment in meat-processing firms, reduced wages to employees, large and risky financial investment in new equipment in attempts to diversify, and uncertainty in regard to future business success.

The meat processors in some locations have for generations processed locally valued specialty products. The interruption in supplies now threatens the continued existence of these multi-generational small family businesses and the small-scale distributors (peddlars) who have supplied rural populations with the traditional staple whale-meat products at low cost.

These local specialty foods are also important for tourism development in these remote towns which must compete for tourism revenues with towns better endowed with tourist facilities and attractions.

Closing of shore-based stations has reduced the revenues to local boarding establishments and retail stores who benefitted from the ten-month whaling and processing season. Losses of cash income and free supplies of whale meat distributed locally affect the income of these boarding establishments and their ability to provide the whale-meat dishes tourists expect to enjoy when visiting these traditional whaling communities. Tourists report concern should the whale-meat cuisine not be obtainable on their future visits.

The various business enterprises affected by the interruption in whale-meat supplies are for the most part small family businesses; in one whaling town for example, three-quarters of the 175 businesses employed two or less employees, and less than three percent of businesses employed more than five employees.

The tradition of family businesses in Japan places a strong moral value on ensuring the business, inherited from ancestors, is nurtured and passed on in sound health to succeeding generations. This is true for whalers, flensers, food processors, retailers of traditional products or others who inherit family businesses. The present threat to the continuation of such family occupations is a cause for intense anxiety, shame and a sense of moral failure on the part of family-business owners whose businesses are failing due to the economic consequences of the whaling moratorium.

In the whaling towns, whale production accounts for a significant proportion of the revenues of the local Fisheries Cooperative Associations (FCAs) to which belong the several hundred local fishermen as well as the whale-boat operators. The FCA operates the local fish market, provides ice and freezer storage for fishermen,

and serves as the principal financial institution for its members.

An end to, or serious reduction in, whaling has significantly affected the economic viability of some of the FCAs. In one case, after losing most of its operating revenues with the end of large-type coastal whaling, an FCA has been forced to liquidate all its remaining assets in order to continue operation, and in addition has assumed a large burden of debt.

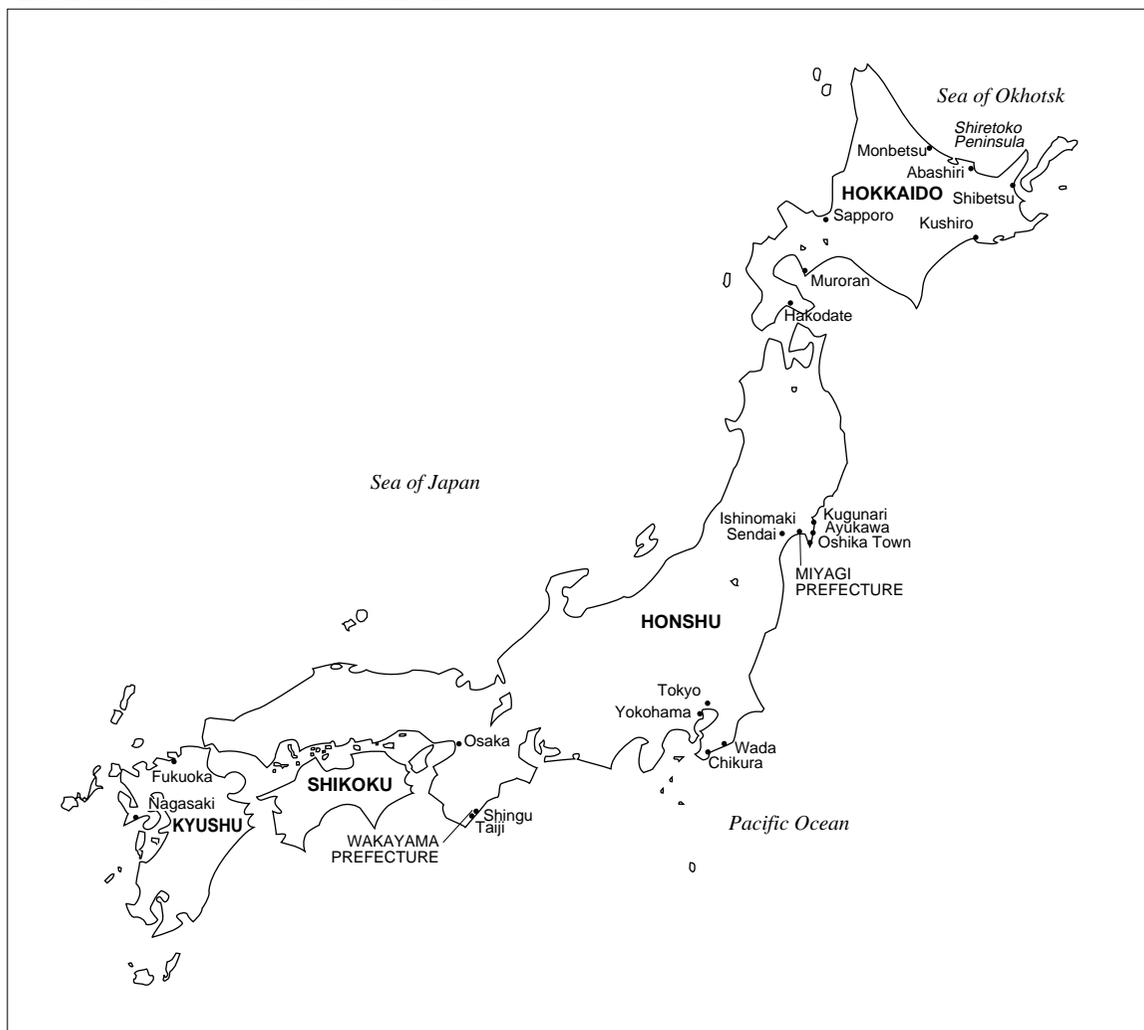
The loss of whale meat in the diet, both in whaling towns and throughout Japan, caused concern in two particular additional regards. The first concerns a health-related impact, and the second is an impact of a cultural and political nature.

With regard to health impacts, whale meat is generally considered a superior source of animal protein than is

agriculturally produced meat. Because whale meat was largely available free (as gift items) in the whaling towns, the interruption in supplies now caused people to purchase substitute meats. Due to the financial problems in these towns the inexpensive, fatty, meats are increasingly being purchased, which causes concern to health officials as obesity, high blood pressure and elevated cholesterol levels begin to appear among elderly residents.

A recent rise in infantile food-allergy problems has become apparent in Japanese society. Treatment consists of a rotational diet composed of non-allergenic protein sources. Whale meat is the most hypo-allergenic source of protein so far tested and has high acceptability compared to the expensive, imported or seasonally unavailable alternative protein sources. At the present time about

PLACE NAMES MENTIONED IN THE TEXT



fifteen hundred families throughout Japan are involved in this new treatment programme, and numbers are anticipated to rise as its success becomes more widely known. The limited supplies and the present rising cost of whale meat compromise the effectiveness and spread of this paediatric health programme.

The continuing misrepresentation of Japanese food habits, traditions, religious beliefs and world view in western 'environmentalist' campaigns is generating considerable anti-American/anti-western sentiment among Japanese intellectuals and others in society, including school children, who are resentful of western prejudice.

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INTRODUCTION

This report is submitted by the Government of Japan to the Working Group on Socio-economic Implications of a Zero Catch Limit. In preparing this report, the Government of Japan has followed the guidelines recommended by the Working Group at the 38th Annual Meeting of the International Whaling Commission (IWC/38/15).

However, some of the recommended information of a strictly economic nature is not included in the present report. The data expressly addressed in this report includes: employment data prior to and following the introduction of the zero-catch limits, alternative employment options available to former whalers, the impacts of the zero-catch limits on the Whalers' families and those communities which formerly derived a large proportion of their revenues from whaling activities.

IWC/38/15 invites Contracting Governments to include additional information describing the current and recent circumstances of their whaling operations. This report consequently includes data that would not likely be found in a report submitted by a western whaling nation, due to the fact that Japanese whaling and indeed Japanese society, though technologically sharing many characteristics with the west, is socially and culturally quite distinct. It is

necessary for purposes of understanding to make explicit these fundamental and profound distinctions in social and business culture, religious beliefs and food culture that have been adversely affected by the zero-catch limits.

In order to prepare this report, field research was conducted in the four whaling towns of Abashiri, Ayukawa, Taiji and Wada intermittently during the period October 1988 to mid-February 1989; in addition, records were examined and interviews conducted in Tokyo and Sapporo. Research was mostly based upon interviews with whalers and former whalers, members of their families, town officials and business people, health professionals, and other informed local residents. More than two hundred and fifty interviews were carried out by the researchers, who are identified in the Acknowledgements together with those other contributors to this report.

Two reports prepared from this research effort, one by Professor Theodore Bestor (Columbia University, USA) and the other by Professor Lenore Manderson (University of Queensland, Australia) and Professor Helen Hardacre (Princeton University, USA) are available separately. The Government of Japan wishes to thank the researchers who made their findings available for the purposes of this report.

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JAPANESE WHALING IN 1988

Pelagic whaling

No commercial whaling took place in the Antarctic or any other part of the world in 1988; the last remaining pelagic whaling company was dissolved in November 1987 (Table 1).

Large-type coastal whaling

No sperm whaling and no Bryde's whaling took place in Japanese waters by any of the former large-type whaling companies. Whaling stations were shut down, and the shore

facilities were destroyed. Whaling boats were scrapped, and Whalers' employment was terminated (Tables 2-5). For the first time in the history of Japanese whaling, no large cetaceans were caught by Japanese whalers in Japan's coastal waters.

Small-type coastal whaling

In 1988 a zero-catch quota was imposed by the IWC on minke whaling in Japan's coastal waters. No minke whales were caught by Japanese whalers in the year 1988, which meant a reduction of 310 whales compared with the previous year's harvest for the small coastal-whaling boats, or a reduction in gross tonnage of about 46 percent over both the 1987 harvest and the average for the preceding six years (Table 6).

However, a national catch quota of 40 Baird's beaked whales was allotted by the Government of Japan as was the case in previous years. Japanese small-type whalers considered this allotment to be their common resources and shared the quota equally among the nine small-type whaling boats owned by eight companies.

Actual hunting of the Baird's beaked whales in 1988 was carried out differently than in the previous year. In 1987 two boats from Abashiri, two boats from Wada and one boat from Taiji hunted Baird's beaked whales in two hunting grounds (off Abashiri and off Wada). However, in 1988 one boat from Abashiri, two from Ayukawa, one from Wada, and one from Taiji hunted beaked whales in three separate whaling grounds off Abashiri, Ayukawa and Wada. The whales were landed at three ports, Abashiri, Ayukawa and Wada, and flensed at the government-approved landing stations where government-appointed officials inspected the carcasses.

Later, the Government of Japan raised the quota for Baird's beaked whales by 20 in order to give emergency relief to the troubled small-type whalers. This extra allotment was shared equally among the whalers. It was explicitly stated that this catch increase was a one-time special provision for 1988 based primarily on humane considerations, and was by no means to be taken as a precedent. Thus, a total of 57 Baird's beaked whales were caught in 1988.

The national quota for the pilot whales is 50 whales in the northern waters of Japan, and this was unchanged in 1988. However, the government approved a carry-over of 50 whales from the previous year when the whalers did not hunt pilot whales at all. Thus, a total of 98 pilot whales¹ were caught, all in the waters off Ayukawa. All the whales were landed in Ayukawa, and flensed at the government-designated stations in the presence of government-appointed inspectors.

The data presented in Table 6 indicates that the production of the small-type coastal whale fishery has remained fairly constant for the years leading up to the 1988 ban on minke, averaging about 980 thousand kg over the preceding six years. In the 1988 whaling season however production dropped by almost 50 percent, which constitutes

the basis for some of the impacts described in this report, more especially as they are experienced by small-type coastal whalers, their families and dependent community institutions.

Scientific research

A total of 273 minke whales were taken in the Antarctic as part of a Japanese research program. The International Convention for the Regulation of Whaling provides for the rational utilization of whale by-product from research whaling. An account of how this was accomplished is provided in Appendix I. (See also Manderson and Hardacre 1989: 27-28 for an account of how the distribution of this meat was accomplished in Ayukawa, December 1988.)

IMPACT ON WHALERS

Loss of employment and income

The IWC-imposed ban on commercial whaling has affected and is still affecting extensively all components of the centuries-old Japanese whaling enterprise. Among those most severely affected are whalers and their families, whose livelihoods have completely depended upon whaling.

As stated elsewhere (Akimichi et al., 1988: 12-16, 18, 83-84), there are three types of historically developed whaling in contemporary Japan: pelagic, large-type coastal, and small-type coastal whaling. Each tends to have quite distinct socio-economic characteristics and hence is affected differently by the whaling moratorium. Therefore it is necessary to examine the impact of the zero-catch limit on whalers separately for each of the three systems of whaling. The whalers also share some common problems which are described below.

Pelagic whalers

Nippon Kyôdô Hogeï Company (NKH hereafter), Japan's only pelagic whaling company, was dissolved in November 1987, and the employment of its 507 employees (464 seamen and factory ship workers, and 43 management and office workers) was terminated; 77 of them took early retirement, and the others were laid off (Table 1). In April 1988, Nihon Kyôdô Senpaku (NKS), a company which owns and operates charter vessels, was founded based on the residual assets of NKH. Accordingly, its headquarters was moved to a new location. The main service which NKS provides is to operate government-chartered research and inspection vessels, and 369 of NKS's laid-off workers were rehired by this new company; however, rehired workers on average took a pay cut of 15 percent.

Laid-off workers were able to collect unemployment compensation for several months (to a maximum of 24 months for ship crews, depending on the length of their continuous employment with the company).

The following observations were made by unemployed pelagic whalers at a meeting held at Taiji's town hall on 1 February 1989. About 18 local whalers were present. Twelve spoke at length. Others indicated that previous

speakers had already expressed their thoughts.

The men ranged in age from 45 to 62 years, with the average age about 53. They averaged about 30 years experience in large-type coastal and pelagic whaling, with a range of 10 to 39 years of whaling experience. In speaking of the effects of the moratorium upon their lives, their responses stressed impacts on family, particularly in respect to providing for their children's education, and also their limited employment prospects.

"I get so frustrated, I'm angry... Our family is almost destroyed... I need a job. I have two children; one is in kindergarten now, and one is in junior high school. I have to support them."

(Former harpooner, 33 years experience)

"Many whalers have young children. Japanese parents want to give their children the best education possible. Without a job we cannot afford to do so."

(Former boatswain, 34 years experience)

"I have college-age children, so I am concerned about making a living. My children's education is important to me. But now I am unemployed."

(Former captain, 27 years experience)

"I have a child in the last year of university and no idea where the money will come from. I am 55 years old, even with my pension from the government, I cannot make a living."

(Former radio operator, 27 years pelagic whaling experience)

"I have two children. I am 50 years old and cannot find a job. I want a good job, one with a pension after retirement. But most jobs I can find offer no benefits! Most men here are over 50 and want a job with benefits, a good job."

(Former head seaman, 36 years whaling experience)

"I was a harpooner and I'm 50 years old, and need to support myself for at least 10-15 years. I can get a pension but the earliest is at 55. But I want to work; I have children in junior high school."

(Former harpooner, 34 years experience)

"I have no other work experience and can't find another job. I am over 50, so it is harder to adjust and find new work. I get unemployment compensation from the government, but it isn't enough to live on."

(Former boatswain, 39 years whaling experience)

"I am 57 years old and can't find another job. For whaler engineers to find another job requires retraining and requalification. So I can't just get another job."

(Former second engineer, 10 years experience)

Large-type coastal whalers

Three large-type coastal whaling companies, Nihon Hogeï, Nittô Hogeï and Sanyo Hogeï closed their whaling divisions in December 1987. Eighty-five out of 95 Nihon

Hogei fulltime employees (see Table 3) and 100 out of 105 Nittô Hogei fulltime employees (see Table 5) lost their jobs. Twenty Sanyo Hogei full-time employees (17 boat crew and 3 land personnel) were removed from whaling-related work. Most personnel who lost their jobs subsequent to the closing of the whaling operations were eligible for unemployment compensation for various periods up to maximum of two years. Forty-two part-time employees of these companies also lost their jobs but are ineligible for unemployment benefits.

The unemployment problems experienced by former workers at two companies will be described immediately below.

As noted above, Nihon Hogei Company laid-off 85 whalers (three out of this number retired) at the end of 1987. Nearly a year later, 23 (or 27 percent) of them were employed on a permanent basis. Fifteen (or 18 percent) took temporary jobs at least once in the last year. Forty-two have been unable to obtain new employment. One whaler has since died and another has not been located.

Sanyo Hogei Co., Ltd. has become a vessel-charter company; its vessels now operate, on an annual contract basis, as government fishery-inspection boats. Fifteen boat crew members and two land-based personnel working for Sanyo Hogei were then assigned to this fishery-inspection work at lower wages, whilst three others (two boat crew members and one land-based worker) have left the company.

Most of the temporary jobs which former large-type whalers (other than those fortunate enough to remain with Sanyo Hogei) acquired last year were short-term assignments on government-chartered fishery-inspection boats. These boats hire their crews each time they go out for a voyage, which normally lasts two to three months. The wages are low and there are minimal benefits. The employment for the temporary crew member is terminated when the boat returns to the home port after each assignment.

The number and kinds of jobs which laid-off large-type whalers managed to obtain are very limited. Tables 7 and 8 provide an exhaustive list of the more or less permanent jobs they were able to obtain. It also shows what kinds of skills and networks were effective in being re-employed.

As the table indicates, a large portion of the alternative employment was created by the whalers themselves. Nihon Kinkai, a salmon cultivating venture based in Ayukawa, was founded by several former employees of Nihon Hogei. After some struggles and a fortunate market environment it appears these individuals will manage to earn about 60-65 percent of their previous years' income.

A small number of individuals were able to find jobs through family connections; surprisingly few were able to find jobs through other means. The only occupational skills that appear to be effective in obtaining alternative employment outside whaling and family businesses appear to be engineer's and cook's skills.

Whalers in general, and especially crewmen of the catcher boats, have little experience in business

transactions. So it is very difficult for them to get into a new business using the compensation money which they were paid by the company at the termination of their employment. In fact, one whaler who attempted to get into a small restaurant business found himself a victim of fraud.

An additional problem all former whalers encounter is their relatively high age. The average age for boat crews for example, is 47.7 years. Given the limited employment opportunities for the middle and older aged men in general in Japan, whalers are in a difficult situation.

It is important to note the fact that large-type whalers have poor personal networks outside the work groups (company) and their own kin groups (see also Totten et al., 1983: 40-41). Large-type whalers worked in tight and closed groups, on the boats and in the whaling stations, in remote places. When they were away from home, they tended to be isolated from the rest of the community, and when they are back home they never stayed long enough to firmly establish and develop personal networks outside their own whaling groups. In addition, whaling has been a shrinking industry for some years, such that as a business enterprise it lost its connections with other industries. As a result, when whaling ended the whalers had few outside associates to assist them in seeking alternative employment.

Small-type whalers

Small-type whalers are faced with different problems than are large-type whalers, partially because small-type whaling is still continuing though at a significantly reduced scale (see the section on Japanese whaling in 1988), and partially because small-type whaling is socially and economically quite different from large-type whaling.

In 1987, the year before minke whaling in Japanese coastal waters was banned by the IWC, 75 full-time workers and 38 seasonal helpers were employed by eight small companies (Table 9). All the companies except one laid off all their employees before the summer of 1988 when it became clear that the IWC would not grant an emergency allocation. Some companies rehired whalers when Baird's beaked whaling began in July and kept them employed through the fall until the national quotas for beaked and the pilot whales were taken. About half of the laid-off small-type whalers were fortunate enough to be allowed to work on the whaling boats or the flensing stations for 2 to 5 months (as opposed to 6 to 8 months in the previous year) for salaries reduced to 50 to 90 percent of the previous years, and a very small customary share of the whale meat. Despite their reduced incomes, whalers were very grateful to be given the opportunity to continue their occupations.

Unlike large-type whalers who had been employed continuously and steadily by larger companies for relatively long periods of time, small-type whalers tend to have more unstable and diversified occupational careers, with occasional unemployment and career switching. Therefore, most of them are not eligible for unemployment

compensation for more than 3 or 6 months. In addition, they received relatively small or no compensation due to the very limited financial resources of the small companies employing them. As a result, in an economical sense, they were affected more severely than were whalers employed in commercial whaling.

However, it is to be noted that small-type whalers seem to have better personal networks than large-type whalers in their local communities. Through their personal networks, some found jobs on fishing boats and other types of boats. However, Japanese coastal fishing today is quite unstable and cannot provide reasonably assured employment and a steady income.

Some laid-off whalers acquired small boats with out-board motors and have attempted to become self-employed small-scale fishermen. Small-scale fishing is done largely for subsistence ends, and provides only occasional and meagre cash income. This way of life is feasible only when a part of the living expenses is subsidized, either by relatives or some other means.

Some whalers are engaged in salmon cultivation in Ayukawa during the non-whaling season. These men receive reduced but steady salaries from the company. However, some find themselves physically unsuited to this type of work (see the section on psychological and health related problems).

Small-type whalers have mostly been unsuccessful in getting alternative employment outside of their local community utilizing their kinship and friendship-based networks. Two younger whalers from Ayukawa attempted to work at a dock near Tokyo, leaving their families in Ayukawa. However, they could not bear the isolation nor could they cope with a new way of life for so little emotional and financial reward. They both returned home and one began temporary work at a fish processing factory, and the other as a laborer in road construction. One of them says: "Financially I am no better than when I was working at the dock, but at least I feel better being together with my wife and children."

Table 10 lists all the cases in which small-type whalers were successful in getting alternative employment as of December, 1988. As the data show, almost all the permanent jobs are provided by the small-type whaling companies which still managed to offer employment to thirty of their workers, though at considerably reduced pay. Only four men are employed by other businesses or in the public sector. As with other whalers, most small-type whalers are men in their 40's and 50's at this time (Tables 8, 10, 11 and 12).

It is common for the wives of the former small-type whalers to take seasonal and part-time jobs, at minimum wages, at local food-processing shops and retail stores in order to supplement the reduced family income. Those who do not take such jobs are either medically incapacitated or have small children to take care of; in such cases, the financial strain is even more severe.

Some whalers have almost exhausted their savings. One

has had to sell his car to acquire some cash, and two whalers who have many dependents to support are in danger of losing their homes.

One whaler's story: owner-harpooner of small-type whaling boat, Taiji

"I entered whaling in 1947 when I was eighteen years old. We hunted sperm and sei whales; at first I was the engineer, but in 1951 I became a harpooner using a three-barrelled gun, first on a nineteen ton boat and later on a twenty-nine ton boat. Then I became the harpooner on a catcher boat in the Antarctic, working from 1956 to 1968 with Kyokuyo Company. After eleven antarctic expeditions I started small-type whaling in Taiji, in 1970. I built my fifteen-ton small-type whaling boat in 1978, and as it was fast enough to catch even fast-swimming Bryde's whales (it was capable of going 22 knots) it created great expectations and excitement among Taiji people.

"But now, due to the moratorium my small boat can't operate, and I have a hard time finding jobs for my crew; they wanted to stay with me, but I had to advise them, starting in December 1987, the future didn't look bright, so they should look for new jobs. I may be able to keep on two of them, but I can't assure them of good wages. Two of my crew left, one living on unemployment, the other trying fishing on a seasonal basis only. So two crew members stayed on; I hired a man with experience in tuna fishing and we tried that from February until April last year, but we couldn't make any profit. It requires an investment to refit a boat for tuna fishing, a refrigeration system for one thing. In May we couldn't fish as the weather was too bad; then some fishermen sighted about 200 pilot whales twelve to thirteen miles off Taiji, so we went there and took three whales. Next day we saw more pilot whales, but I couldn't hunt them; I couldn't make profit from those whales knowing my whaler colleagues in the northern whale towns couldn't participate in the hunt. I also wouldn't catch whales because IWC was meeting at that time, so I waited for their decision on a quota. But after the IWC meeting ended, the whales had left so I didn't have an opportunity again.

"Then in July I hired another crew member in order to hunt beaked whales. There were four of us in all; normally we have a crew of five for whaling, but I couldn't afford another person. However, after ten days of whaling I realized I had to have another crew member, so I hired a man in Wada, where we land the whales we catch.

"At the start of the season last year, I could only take four beaked whales and twelve pilot whales. I thought I could survive financially but I could not on that harvest. So I started to fish for tuna, but there is no money in that and many local tuna fishermen are going out of business.

"However, due to the moratorium, the price of whale meat has escalated; the value of beaked whale has doubled since 1987, and a price rise is occurring with pilot whales also.

"So last year I reduced my operating expenses: I only

paid out sixty-percent of the previous years crew-related expenses. My crew were free to try to find jobs elsewhere, but I wanted them to come back to me when I was whaling. Last year I only paid my crew two months salary, because of the shorter season (we didn't have a minke whale quota) compared to six months salary and bonuses the season before.

"I not only reduced crew costs, but also the maintenance costs on my boat: she wasn't repainted and I didn't put her into dry dock. We also made fewer voyages so I saved on fuel and provisioning costs. But despite these savings, and the rising value of whale meat, I barely made any profit.

"We were advised to form partnerships with other boat owners so as to share expenses and further reduce operating costs. Sometimes these partnerships are difficult to manage: whose crews to use, whose boat, how to calculate costs when some owners are still paying back loans on their boats, and so on. However, fewer boats hunting means less efficient whaling, as more search time is required per boat. I have no problems with my crew as I did pay them compensation, and I have two crew members on half-salary for the full year. But other operators have problems with their crew members. But the loss of the minke whale caused hardship, because minke whaling is a six-month season of work (compared to only a two-month season for beaked whale) and the bonus and crew shares of the profit are higher for minke whale (see Appendix II).

"Some of my crew members did try to take up fishing for a living. But they didn't stay long; fish stocks here are limited and as the number of fishing boats increases the profits go down. Also newcomers entering fishing create problems for the older, established fishermen, as the newcomers have new and better equipment. No, whaling is a very specialized job, and its hard to find other employment if one is no longer whaling."

Can unemployed whalers find employment in local fisheries?

Because whaling towns have active nearshore fisheries, whalers were asked whether they might take up fishing in local waters as an alternative income source. This is how one Taiji ex-whaler responded:

"If we could take up local fishing we would. But people here cannot just switch to other fishing. I am unemployed and miserable. The fishing is different here, and we don't have the skills. And there is little enough space available to each fisherman, so we could not make much of a living."

Globally, local fisheries are often industries of last resort. Where an unemployed coastal labor force is the concern, fisheries are often incorrectly assumed able to provide subsistence and/or income for those otherwise unable to find employment. It is a dangerous assumption, for it is equally evident that coastal fisheries in both industrialized and developing countries often have too many fishermen and inadequate grounds and fish resources to yield new entrants more than a marginal return. This seems the case in Japanese coastal fisheries near communities affected by the whaling moratorium. A small number of

whalers have attempted to enter local fisheries in some capacity. It may, in some few cases, be possible to enter as a member of a relative's crew, rather than as an independent fisherman boat-operator.

In Japan, entry into local fisheries requires meeting criteria set by local fishermen groups that regulate fishing around particular species in their waters. Fishing experience and knowledge of local customs are major criteria for admission to their ranks as well as for subsequent success, as is also the case in other nations (see e.g. Acheson 1988). At Taiji, for example, lobster fishermen are organized into a group with from 70-80 members. New applicants for admission to this group are typically other fishermen at or near retirement. It seems to be a pensioner's fishery, with a limited season, a small amount of permissible gear, and relatively small earnings. It hardly meets the needs of a former whaler with heavy financial obligations.

"There is not much likelihood an unemployed whaler could become a lobster fisherman or usefully supplement an existing income.... The catch and the season is so limited, no-one can make a living at it; we are old and retired, but it helps out our pensions...."

(Elderly lobster fisherman, Taiji)

At Taiji some small-type coastal and perhaps a few former pelagic whalers have taken up skin diving for shellfish (e.g. abalone), and/or handline fishing, especially if they have had such experience early in their careers. Only a handful of former whalers have entered these activities (see Tables 8 and 10) and financial returns from them are probably marginal, for there are already too many men competing for a small resource on a small ground. The resource situation at Wada, Ayukawa and Abashiri is quite similar, should former whalers seek to enter local fisheries.

"My concern is with the unemployment caused by the moratorium.... The longer you are without a job the harder it becomes. I can't find a stable job at my age; there aren't many jobs available in this town. I bought a small boat and I go out fishing, but its not easy to make a living — you need skill and experience to succeed in fishing. Fishing for the expensive species is tightly controlled, so whalers don't enter those fisheries; they are restricted to fishing for the cheap fish where there are few entry restrictions and little profit to be made."

(58-year old ex-whaler, Taiji)

Common barriers to Whalers' becoming re-employed

Whaling is one of the most specialized of all the fisheries. It uses special harpoon guns but no nets or lines which are typically used in fishing. Whalers normally search for whales using their own senses rather than electronic equipment which most off-shore and high-seas fishing vessels utilise. The skills required to handle the catch are also quite different. As a result, the skills whalers have acquired through years of experience on the whaling boats are of little use in fishing.

The skills which may be potentially applicable to work on fishing and merchant marine vessels are an engineer's technical skills and communications officer's knowledge of electronics. However, rapid technological advancements quickly make their knowledge and skills obsolete, and abilities to effect repairs on board practically useless. As a result, there are few jobs in these areas today. Of the twelve or so former whaling-boat engineer and radio officers only a few have successfully found new employment as engineers, and none have been hired as communications officers.

A navigator's license is still highly regarded and has some currency. However, today's demands for navigators are largely on domestic freighters and chemical and oil tankers where extensive knowledge of complex waterways in numerous ports throughout Japan is required. Captains and sailors having experience on whaling vessels, unfortunately spend most of their time on the open sea, and know only the few whaling ports where they land their catches and have their vessels repaired. Therefore, experience on whaling vessels is not regarded as particularly useful by the owners of domestic cargo vessels and tankers.

What makes the situation even more difficult are changes which have taken place in the last decade or so in the Japanese merchant marine industry. Tough competition with land and air transportation has forced the industry to shrink and rationalize itself. Thus lay-offs and early retirement squeezed many seamen out of employment. At the same time the rapid collapse of the Japanese North Pacific fishery caused by strict exclusion from the 200-mile economic zones of other coastal countries, has created high unemployment among Japanese seamen. For example, in 1970 there were 570,000 people employed in the Japanese fishing industry; by 1975 the number had decreased to 478,000, and in the next two years, a further 19,000 people lost their jobs in the industry. In the two-year period 1976-78, twenty-nine types of Japanese fishery were affected by foreign 200-mile fishery-zone extensions, during which period the number of Japanese fishing vessels decreased by 33.7 percent, and the number of fishermen (including whalers) by 26.7 percent (Totten et al., 1983: 34).

The only skills easily applicable outside the maritime industry are in cooking, which experienced cooks on the larger whaling vessels have acquired. Although not regarded as very highly skilled, nevertheless ships' cooks are considered employable as short-order chefs or as cooks in small family-owned restaurants.

In conclusion, whaler's skills have little, if any, marketability in fishing and other maritime industries in Japan today, where the decline of the maritime industry in general has shrunk the job market and where unemployment is pervasive. There is little hope that a large number of laid-off whalers who are presently unemployed will ever be re-employed in the maritime industry where their skills and experience have some, though restricted,

relevance.

Psychological and health-related problems

Almost all the laid-off whalers and prematurely retired whalers say they suffer from frustration, uncertainty about their future prospects, loss of status and pride, and feelings of powerlessness and uselessness. Many still wish desperately to recover their former occupations which they loved and were proud of, while others have resigned themselves completely from whaling and their former professional careers. Many claim that it hurts when neighbors and acquaintances enquire about their condition; "The psychological impact is more severe and painful than the economic impact", says the owner of a small-type whaling boat.

Those whalers, who had been employed on a full-time basis, were able to collect unemployment compensation, which helped their family finances considerably. But at the same time they were embarrassed to take the money without doing any work. To those who do not have a record of continuous employment at the same company, the allowance companies offered was small and unemployment benefits soon ended. Many small-type whalers belong to this category of worker and to them the economic impact is acute and severe.

Most Whalers' wives have part-time jobs, and a few even have full-time jobs, in order to supplement the reduced family income. However, this causes the husband to lose status as the money-earner in those households.

The levels of psychological stress appear to have risen considerably in some families. A nurse at the municipal hospital in Ayukawa was aware of two recent cases of suspected neuroses; one laid-off whaler and the wife of a laid-off whaler. Both were ashamed to come to the local hospital and chose to go to a hospital in Ishinomaki City where they can be more or less anonymous.

"I have a distinct impression that stress-related disorders such as stomach ulcers, are increasing in this town. There is also more mental stress, depression and neuroses among working-age men. We know patients who are suffering from depression, from seeing their medical records, but they don't go for treatment as its a cause of shame. However, the ulcer patients do get treatment."

(Public health nurse, Taiji).

To those who have been employed by larger whaling companies where work was more regimented, loss of jobs often means loss of the structure behind their daily and yearly cycle of activity. It is not at all easy to maintain a regular and healthy pattern of life without a job, especially when the wife goes out to work, leaving her husband alone at home. In these circumstance, some have turned to drinking. One out-of-work large-type whaler in Ayukawa died last year of liver disease caused by excessive drinking, and another laid-off large-type whaler in Taiji was hospitalized for liver disease also caused by excessive alcohol intake. Since alcoholism was not known and drinking was well controlled among the whalers in recent

years, there seems little doubt that these cases may be connected with the consequences of unemployment caused by the whaling moratorium.

There are also four other men who are suffering from various illnesses. Although it may be hard to demonstrate causal links between their illnesses and the loss of their long-held occupations, it is clear that their acute unemployment problem will hinder rather than help their recovery, which circumstance also works against their soon finding alternative employment.

Alternative, unfamiliar, employment has also caused some former Whalers' health problems. In Ayukawa, some whalers who have switched to salmon cultivation suffer from severe lower back problems caused by the nature of the work undertaken daily. As health officials in the town acknowledge, back pain is the most common problem encountered among many workers in salmon cultivation. The problem is quite serious for laid-off whalers, most of whom have been required to accept new jobs at a relatively high age (most of the laid-off whalers are in their late 40s and 50s). One small-type whaling company, which recently began salmon cultivation in order to secure some jobs for their employees, found that three out of six employees had back problems for which they have been hospitalized or examined by a physician. One of these workers had a particularly acute problem which kept him hospitalized for four months. This worker now has his lower back protected by a corset and continues to work against a doctor's advice. "My family would starve if I stopped working", this whaler stated.

THE IMPACT ON WHALERS' FAMILIES

Financial stress within the household

Since large-scale unemployment occurred as the most evident consequence of the ban on commercial whaling it is common sense to believe that the major impact occurred in the economic sphere of family and community life. However, in this report it is pointed out that individuals and families suffer from cultural, social and psychological stress in addition to their more obvious economic difficulties.

The economic impact has indeed been great since many men are unable to find new jobs, causing their families and themselves to suffer from considerable stress. Many out-of-work whalers are presently living on unemployment insurance, affording them a meagre income. From these men's view point, they experience extreme humiliation when going to the pension office for the small amounts of money they are entitled to receive. It is an exceedingly stressful situation for them, since as whalers they enjoyed status and respect and constituted an elite group in their communities. In addition, they also suffer from loss of their vocation, for reasons which make little sense seen from the perspective of their long held and cherished beliefs and experience.

Those who are Whalers' wives understand their husbands' frustration. No one wanted the conditions that

they now experience. None of the whalers wanted to leave their vocation; however, as the men had no choice, their wives are sympathetic to their plight. On the other hand, the drastic decline of family income is a serious matter. Most wives hold to the hope that their husbands will find jobs that they will like, but if the unemployment conditions continue, the wives may find it increasingly difficult to be so considerate to their husbands because household expenses are greater than their husbands' income and the difference is paid for by withdrawing money from the bank. Husbands fully realize the nature of the problem; as one Taiji ex-whaler said: "We cannot make a living by our pride only. We have families that we have to support".

It is necessary to point out that in Japanese society it is the women who control the family finances and household arrangements. They are also very largely responsible for the total upbringing of the children. This is especially the case in Whalers' families where the husband is ordinarily away from home for ten or eleven months of each year. It is this threat of being unable to adequately carry out their assigned responsibilities to uphold the honor of their role as homemaker and (especially) mother, that causes some wives to exert pressure on their husbands to somehow make sufficient money to adequately support their families.

In this search for more income, it is reported that former whalers are placed in the situation of seriously considering supplementing the unemployment insurance they receive by taking on a variety of casual or temporary work assignments. Unfortunately such action, though financially necessary, would place them in a situation of contravening the conditions under which unemployment benefits are paid to them.

Whalers do attempt to help each other, especially in their job searching. However, some men, especially those who held high rank on whaling vessels, find it very difficult accepting casual employment as a 'temporary' worker. To assist with meeting family expenses, some wives have taken jobs and are working part-time in supermarkets, hotels and restaurants. Sometimes, these wives' activities upset their husbands, especially when the husbands remain unemployed. In the past, whalers could afford their wives to be fulltime homemakers, yet now they are announcing their economic difficulties in public by having their wives go out to look for jobs. These incidents bring unemployed whalers loss of face and extreme psychic distress, with their frustration at peak due to having to accept the reality that their wives now support them in many cases in the prime of their lives. Accordingly, wives' employment may cause conflict within families. One ex-whaler's wife said:

"I want work whenever I think about my future. I have three children and I need more money in the near future to give them good education and to prepare for their marriages. But I cannot go to work now whenever I think about my husband. I cannot cause any more shame to my husband after what he has experienced. Even my children recommend

that I don't go out to work."

Older children understand their Parents' economic hardship. In one case, the oldest son decided to help his parent's financial situation by changing his mind and deciding to find work rather than to go to college. He insisted that he didn't like to study and preferred to work, and declined his parent's wish to go to college. One this occasion, his father who formerly was a captain, sobbed out of despair. It caused much pain for this father that he had failed to provide his son with a better education than he had himself received and that had been his dream, as well as constituting much loss of face in public. It is a general practice among Japanese, and is also well known among Japanese immigrants to other countries, that younger children worry about their fathers and discuss these worries with their mothers. These children are concerned about their parent's economic circumstances, and refrain from spending money, even on school-related activities. One Taiji mother said:

"My children don't trust me concerning money. They believe that I am acting so positively so as not to let them worry about it. I feel like I failed to be a good mother (because my children worry about money so much even though that is not their business to do so)."

Disrupted patterns of family life

Moreover, the impact on Whalers' families is not only economic but also social. Almost all families have had to adjust to a new way of life with fathers who, as whalers, did not spend much time with them at home. So the father's frustration and stress derives not only from their unhappy economic circumstances but also from an unexpected need to establish a new role in the household where, until recently, they were absent for much of the time.

Whalers spend most of their lives working on ships, and they would return home for as little as ten to forty days each year (Takahashi 1988: 15, 39). One harpooner's wife said that her children hardly remember their father's face when he came back from his voyage, and one of them was afraid of him because she thought he was a stranger (*ibid.*: 57). So that it was a wife's responsibility to raise their children, to give them a good education, to handle money matters and to maintain and protect the family; and she had to take care of these responsibilities by herself since her husband was away most of the time (*ibid.*:31). Thus, whalers' wives tend to be very independent and exercise strong control over all family matters; it is quite likely that among whalers' families there is a more strict division of labor by gender than among other Japanese households due to the long absence of the husbands.

After their husbands lost their jobs, the familiar pattern of family life necessarily changed. The father's constant presence at home required patience and forbearance from all family members. Each family (mother and children) had an accepted routine that was followed during father's absence. However, normally fathers did not spend enough time at home to understand these domestic routines, so that

through ignorance, fathers were liable to offend these codes and cause tension within a family, especially with respect to their children's activities. In such circumstances, children began to avoid their fathers because they are so often scolded by their fathers seemingly without reason. Sometimes children were confused and hurt because of differences they observed in their Parents' approach to school-related or household affairs.

While husbands were away, many wives participated in community activities, such as the women's association, since they had the time and benefitted from the mutual support provided by other wives. It is generally true that Japanese women prefer to spend their leisure time with their friends rather than with their husbands, and in similar fashion, their husbands choose to go out and socialize with their friends rather than stay with their families. Nowadays, with their husbands out of work, it is hard for wives to participate in these activities, both because of their husbands being at home, or because the wives have to go to work. Many Japanese men still want their wives to be at home when they are there, especially in the evenings, so their wives feel the need to request their husband's permission to go out, permission which in some cases husbands are reluctant to give. Women emphasise their need to see their friends, to talk over, and thereby reduce, the stress the present hardships have created in their lives.

Effects on children of whaling families

In some families where mothers are employed outside the home as part-time workers, children suffer more than do children whose mothers stay at home. A mother of three in Taiji complained that she had to work in order to make money for two children who are students at universities. And because of her work as a waitress at a restaurant, she cannot spend time with her youngest child even at weekends because weekends and holidays are busy times at the restaurant. This mother cannot attend any of the school activities that require Parents' attendance. It should be noted that generally speaking, no Taiji man ordinarily attends this kind of school activity since this is a mother's area of parental responsibility. This absence from school events breaks her heart as she feels so sorry for her child, who experiences such loneliness while other children are with their mothers. During winter, children return home from school to homes that are dark and unheated and with no-one waiting to welcome them; every mother feels bad about such a situation but they have no choice under present circumstances. In Japanese society a mother ordinarily expects to devote all her activities and attention to child-rearing, and such transgressions cause them great distress, especially whilst children are receiving their formal education and therefore potentially very vulnerable.

"My wife prepared herself for the effect of the moratorium — for having an out of work husband. She can't work outside of the home as our daughter is in the third year of high school and preparing for university entrance examinations, so her

mother must stay with her at this critical time for Japanese families.”

(58-year old ex-whaler, Taiji)

The whaling towns have long enjoyed the reputation for absence of crime and no problems with young people; however, town officials at Ayukawa, the most severely impacted of the whaling towns, now see disturbing signs of such anti-social trends, and the new phenomenon of children returning to homes without adults to supervise them is an evident cause of concern in both Abashiri and Ayukawa (Bestor 1989: 7-8). Parents in Taiji appear hopeful that such disturbing trends will not occur under similar circumstances that also prevail there: witness one former harpooner’s observation on the state of affairs in Taiji, despite the long absence of fathers at sea on whaling boats:

“We could talk with each other, and we knew about each other. Family violence has become very common in Japan, but not with us whalers. I have one daughter, and she has been exposed to and knew about anti-whaling movements since she was small; she has grown up with it, but she is still proud of her father. She will continue to respect her father. They, the children, know.”

Interpersonal stress and conflict

In the case of the husband and wife relationship, this is another source of tension in family life. The majority of marriages among middle-aged couples were arranged, so that spouses did not know each other very well at the time they married. A couple in their fifties said that even when they were a newly-wed couple, a husband who was a pelagic whaler had to leave home after one week of their marriage for almost a full year. Married couples therefore did not have enough time to understand each other at all as individuals; but as their married life is ‘role oriented’ rather than ‘love oriented’, and they understand the role of husband or wife as it is defined in Japanese society, their interpersonal relationships tend to be based on their role as a husband or a wife rather than on love. Furthermore, the time when husbands came home was so short that couples tended to act out their marriage more by role playing than by trying to really understand each other. After they become parents, most of their concerns focussed upon their children and they did not talk about themselves. An ideal Japanese husband is ‘a man who is away from home and is healthy’ according to a well-known Japanese saying. Accordingly, whalers were ideal husbands and in addition they were well paid. When husbands and fathers came home, they were welcomed by their families who treated them hospitably since they were like ‘special guests’ in each family. A young Taiji woman, remembering her childhood said: “When my father came home, my mother served us such a special dinner, one that we usually never saw”. Whalers were treated respectfully by their families and for a short time they were the center of family interest. All enjoyed the family reunion but it was special time that went very fast.

Thus, for these couples now, this is the first time in their marriage that they have spent time together long enough to understand each other. The wife of a Taiji whaling boat captain who has been married for 22 years observed:

“I was so disappointed with my husband. I did not understand him at all. And after 22 years of marriage, I found nothing in common with him. But this may be also the case from my husband’s point of view. He might be disappointed with me, too. Well this is the time of endurance for us.”

Men seldom speak about their life at home, but a husband/father who was a harpooner said that it took him about a year to make an adjustment to live with his own family.

In the Abashiri whaling community a significant amount of interpersonal conflict has occurred among whalers who until the 1988 ban on minke whaling regarded each other as ‘a family’. Hunting whales with the small boats used in the coastal whale fishery involves a high degree of cooperation, both at sea and whilst in port. When each of the two small-type whaling operators in Abashiri decided on different strategies to overcome the stricture imposed by the 1988 zero quota on minke whales the crew of the one boat whose employment was terminated became angry as they saw the other boat owner attempting to operate on a smaller quota of whales and also diversifying into catching other cetaceans. Interpersonal tensions among work associates who were formerly fully cooperative, added to the stress they felt concerning their family responsibilities in the face of impending unemployment in an uncertain job market. Table 12 illustrates the employment status and the numbers of dependents among the Abashiri whalers. Whalers and their wives report similar social and emotional impacts to those experienced by whaling families in the other whaling towns, e.g. problems associated with wives having to seek part-time employment, the unfortunate role-reversal that accompanies Whalers’ losing their jobs, and the looming financial problems resulting from job loss from small companies unable to pay ongoing pension or benefit allowances. The changes in spousal relationships are summed up by the wife of an Abashiri coastal whaler who observed:

“My husband starts to help me with the household chores, but I feel sad about that, because I am not used to it and also I want him to be manly and catch whales in the ocean.”

However, though the sentiment expressed is a common one among whalers’ wives, the reality is that most of the Abashiri whalers are, at the present time, no longer employed in active whaling; those who have maintained some similar employment are engaged in flensing on land or caretaking non-operating whaling boats.

Concern about family traditions disrupted by the whaling ban

Other concerns of these families involve cultural and traditional matters. One whaling town, Taiji, has an 800-

year involvement with whaling, and being a whaler is a family occupation. And even in those other towns having a shorter involvement with whaling, many whaling families include immigrants from regions of the country with a centuries-old whaling tradition (Akimichi et al., 1988: 26, 28). Some women who are whalers' wives themselves come from whaling families. In such cases they commonly express sorrow that they cannot pass on their family occupation to younger generations (Takahashi 1988: 13, 1955).

However, every Japanese shows respect to their ancestors and in their situation they suffer from guilt since their family occupation may have to end causing them to lose face toward their ancestors. This family trauma needs careful explanation to the children, yet as more than one whaling-town resident stated:

"I don't understand the anti-whaling activities so I can't explain to my child what's going on. We are frustrated as we don't understand the reasons for stopping whaling. We are proud of our traditions."
(Photographic-store owner, Taiji).

Because of gradual restriction of whaling over the past several years, nowadays, it is hard to acquire whale meat even in these whaling towns. For people who have been living in whaling towns, whale meat is 'to receive as a gift rather than to buy'. Pelagic whalers brought home whale meat that was shared, and people who were working at the local flensing stations or who had whale-related businesses usually received their share, and all these people shared the meat they received with their friends, family and associates. The loss of whale meat for one town, Ayukawa has meant a significant loss of community solidarity (Hardacre and Manderson 1988: 11, 15, 18; Takahashi 1988: 27). Because of this strong association of whale meat with gift-giving, and considering also the recent high prices of whale meat, many people have refrained from buying whale meat. However, older people express a strong preference for whale meat that they had eaten long before these restrictions applied. Despite being a younger generation, Taiji school-aged children prefer whale meat to any other kinds of meat (e.g. beef, pork and chicken; see Appendix III). However, because of the high prices of whale meat and its limited supply, many mothers use other meats than whale meat at home. And even when it is served, it is sashimi. A mother of three boys said that "whale is to receive as a gift and not to buy. If I pay money, I prefer to buy beef to whale meat because my sons like to eat beef, too". It appears to be a general trend that younger people prefer to eat meat cooked in oil rather than to eat it raw. Since whale meat is becoming a special food, rather than as earlier, an ordinary meal, most often whale meat is now served raw, as sashimi, rather than in cooked form. Accordingly, the young people have mostly developed a taste for sashimi but not much for other ways of cooking whale meat. It appears likely that some young women do not know how to prepare whale dishes other than sashimi, since they have had little opportunity to watch their mothers cook. In addition, because of restriction on

the harvest of whales, some ways of cooking whale meat have become rare due to the interruption in its ready availability. People of Ayukawa emphasized that different ways of cooking depend on the whale species as well as the type of meat product. This threat to the traditionally varied food culture of Japan worries many people, both in the whaling districts and throughout Japan (see Appendices III and IV; also Hardacre and Manderson 1988: 14; Totten et al 1983: 2-6).

Whale meat, especially in the whale towns, has particular added significance as a ritual food, served on particular occasions such as at New Year. Manderson and Hardacre in their recent study observe:

"Whale meat, particularly sashimi, is both the staple and the prestige food, and no ceremonial occasion, including New Year would be complete without it. Hence villagers were extremely grateful to receive meat through the auspices of the Town Office at the end of December, and all New Year evening meals included whale meat sashimi as the central plate."

The head priest of the (Koganeyama) shrine commented: "We didn't know if we could get whalemeat sashimi for today's meal.... Since whale sashimi is eaten each year in Ayukawa we could not possibly have had this meal today without it.... and so we are deeply grateful for those who have provided it."

Another priest of the shrine elaborated the importance of whale meat...:

"... From the old days we have had whale meat and regard this as necessary: we offer to the gods whale meat despite the usual injunction of red meat.... So it's necessary to have whale meat for this meal: if whaling was prohibited then we'd also be in trouble."

(Manderson and Hardacre 1989: 37-38)

Many Japanese place the problem in the larger context: "Every country has its own food culture, and it is wrong to criticize other people's dietary habits that you don't share."

(6th grade student's essay, Taiji)

The cultural impacts associated with profound interruption of local whaling following the 1988 ban on minke whaling have been particularly intense among the 'core whaling group' (as defined in Iwasaki 1988) due to the fact that in this northern region of Japan other species of whale have not formed part of the customary cuisine; substitution, in the absence of supplies of minke meat, has not occurred. Thus even though small-type whaling boats continued to operate offshore of Hokkaido in 1988, all the Baird's beaked whales taken there were transported south to Honshu where the local need for the meat of this species is very great.

The main cultural effects of the lack of fresh supplies of minke meat in Abashiri include a marked reduction in the traditional seasonal gift-giving (see following), and for

those households who did not have a supply of salted blubber stored from the previous year, the near-disappearance of a traditional New Years ceremonial food (*kujira jiru* — blubber soup). Considerable anxiety is being expressed about the further potential unavailability of this traditional food as frozen supplies further diminish.

The effects of the whaling ban on traditional gift-giving ceremonies

Gift-giving in Japan serves an important social function, not only to mark important calendrical events, such as New Year, All-souls festival, or whaling festivals, but also sporadically throughout the year in order to reinforce social relationships (e.g. employer-employee, priest-parishioner, business and neighborhood associates, etc.) that structure the community.

“For two generations we had free meat, we never had to buy it. our especial relationship was with the Kyokuyō Company although we also had business with Taiyō Gyogyō and Nippon Suisan — and it was Kyokuyō especially then who provided us the fertilizer material. So we’d buy the scrap from the company (for fertilizer) then get the meat free.”

(Fertilizer manufacturer, Ayukawa, quoted in Manderson and Hardacre 1989: 18)

In the small whaling communities of Ayukawa, Taiji and Wada, and among the core whaling group in Abashiri, gift-giving might be expected to provide needed reassurance and coherence at this time of community disintegration. Unfortunately the whaling ban that has caused these disintegrating tendencies has also seriously eroded peoples’ ability to provide the customary gifts that might have served to strengthen community solidarity.

In their report on the effects of the moratorium on the whaling community of Ayukawa, Professors Manderson and Hardacre devote more than twenty pages to describing the different ceremonies when gifts (e.g. *oseibo*, *onenshi*, *otoshidama*, *ochûgen*, *fukuwake*) are given, most of which involve the gifting of whale meat. They observe that formerly whale meat was so widely distributed as gifts that no-one in Ayukawa had to purchase it (Manderson and Hardacre 1989: 22). At the present time gifting, and the community-wide visiting involved in appropriately distributing the gifts, has all but ceased with an associated weakening of community solidarity that such community-wide ceremonials traditionally effected (*ibid*: 4).

The same institutions have been negatively affected in the other whaling communities. For example, a supermarket manager in Taiji observed:

“When pelagic whaling operated it supplied the national market, so Taiji consumed all the small coastal whaling production. Now some of the small-type coastal whaling produce enters the national distribution system. The gifting system here has been almost destroyed. When I was young, whale was for giving and fish was for buying.”

Whereas whalers would gift whale meat, non-whalers in

the community receiving it would reciprocate with suitable gifts, either from their own labour (as fishermen, seaweed gatherers or cultivators, gardeners, etc.). In many cases gifts of produce may be accompanied by purchased items to enhance their value to the recipient. Merchants observed that their formerly high sales at *oseibo*-time (end of the year) and *ochûgen*-time (mid-summer) were now significantly reduced; these included merchants situated in neighboring towns. For example, in Shingu, a larger town adjacent to Taiji, merchants maintained a coupon-system whereby with each ¥1000⁽²⁾ spent the customer received a coupon which could later be redeemed. In Table 13, a suggestive trend is apparent, indicating that indeed despite the participation rate for Taiji customers (compared to customers from other towns) declining only slightly in recent years, the numbers and proportion of Taiji customers redeeming coupons has progressively and significantly diminished since the severe contraction of whaling started in recent years. The example given in Table 13 indicates a decline from 32.2 percent before the contraction of whaling to 14.3 percent (for coupon redemption during *oseibo*-gift purchase time) during the 1981-1988 period, and even more dramatically from 29.1 to 7.5 percent for redemptions during *ochûgen*-gift purchase time over the same two time periods.

The loss of sociability that results from a forced end to customary gift-giving causes stress within families as well as the community at large. The wife of one Abashiri whaler commented:

“My relatives must know that my husband is not catching whale this year, because they don’t even call to make an arrangement to visit us. They used to come every year to enjoy fresh whale meat at this time of the year.”

This change in visiting behavior is in large part caused by concern for the gift-givers drastically changed circumstance, an awareness of their sense of shame associated with loss of profession, and that the need to purchase a suitable substitute food or gift for the formerly-available whale meat would add to the hardship already being suffered. The scale of this gifting can be gauged from one Abashiri whaling boat owner’s comment that his father used the meat of three whales each year for gift purposes, and he himself would use up to two whales a year (reported in Bestor 1989: 13); in Ayukawa a boat owner reported he needed to use as many as five whales each year for gift purposes (Akimichi et al., 1988: 46).

There is obviously a high economic, as well as social, cost associated with observing these traditions. In order to attempt to rationalize some of these costs, the practice of individual’s keeping ‘open-house’ at New Year in Ayukawa has necessarily ended. Just recently the mayor of that town attempted to institute a community-wide New Year party in the town office in order to reduce the townspeople’s expense involved in individually hosting guests (Manderson and Hardacre 1989: 4). However, this substitute arrangement has itself ceased as the community can no longer afford the cost; the effect is to have “severely

reduced... the community's ability to renew itself or to maintain its social organization" (*ibid*: 4).

The end-of-year gift exchange (*oseibo*) has considerable social and cultural importance in Japanese society. Whale meat has formed the basis of *oseibo*-gifting among whalers, and given the esteemed nature of whale meat, finding appropriate substitutes has caused difficulties. Members of the whaling community in Abashiri have sought to overcome the lack of whale meat for gifting by two means: first, by purchasing expensive alternative gift-foods that enable them to convey the appropriate sentiment that *oseibo*-gifting enshrines, and second, by attempting to produce an acceptable whale-meat gift from unfamiliar whale products. The expensive substitute gifts include purchased salmon or salmon roe, which given the whalers' reduced financial circumstance has caused them to reduce the number of people to whom they would ordinarily send gifts, a necessary action which is nevertheless regretted. One whaler reported an expenditure of ¥300,000 for *oseibo* gifting, which ordinarily was accommodated by non-purchased whale meat. As 1988-89 is the first year these Abashiri whalers have had to cope with lack of whale meat, it is not possible to predict how they will manage in future years as their economic circumstances decline.

The importance of whale meat in the *oseibo*-gift ceremonial has caused the Abashiri whalers who did participate in the Baird's beaked whale fishery (and therefore received customary shares of whale meat) to have some of that meat canned by a local processor so as to constitute a new product which might therefore be appreciated despite the unfamiliarity of beaked whale in the local cuisine.

There are two main disadvantages associated with these compensatory actions. The first is the substantial cost the whalers now incur in order to participate in *oseibo*-gift exchange, and the second is the lack of symbolic meaning associated with the substitute gifts; red meat and white blubber provides the appropriate color symbolism that is especially appreciated by the recipient of the gift. Symbolism and aesthetic appeal rank very highly in Japanese ritual and ceremonial life.

The reduced extent of *oseibo*-gifting due to financial considerations has already been mentioned; this reduction is also, in part, due to the breakdown in work-related association. Whalers have developed the custom of exchanging *oseibo* with crew members on other whale boats who perform similar roles; thus harpooners exchange *oseibo* with harpooners, engineers with engineers, and so on. Whalers explain the breakdown in the custom this year as being due to the expense and the lack of interaction caused by non-whaling.

In conclusion, people of whaling towns are presently experiencing four-fold problems of an economic, psychological, social and cultural nature. Some of the problems they now have began soon after the restriction

of whale harvesting began. However, these problems developed most critically following the ban of commercial whaling and in similar fashion, following the limitation placed on small-type coastal whaling in 1988.

IMPACT ON WHALING TOWNS

With the end of large-type coastal whaling, several businesses in Ayukawa, Taiji and Wada (as well as neighboring towns) suffered significant financial loss. The main businesses affected will be discussed below.

Whale meat processors

In 1987, the year before the moratorium on whaling came into full effect, there were five processors in Taiji involved in various types of processing of the edible parts of sperm whale, bryde's whale and pilot whale.

These processors had contracts with a large-type whaling company which operated a landing station in Taiji. The processors undertook the fine cutting of the odd-shaped blocks of meat and handling the scrap meat of sperm whale and Bryde's whale which the whaling company's land crew was not able to handle. When the work was very busy, the whaling company asked the processors to assist in butchering work too. When fresh organ meat was available, these processors had the privilege of buying it at a low price. The boiled internal organs, especially small intestine and pancreas, are favored by local consumers. Pilot whale meat was sliced, salted and sun-dried. The largest processor was also engaged in salting of fluke meat and blubber, as well as producing *irikawa* (fried blubber) by extracting oil through cooking.

Cessation of large-type coastal whaling had a considerable impact on these processors. They lost almost all their business based upon various types of whale meat. Although pilot whales are still caught locally, the price of the meat has risen so high that it is not feasible to buy it for sun-drying (Table 14). The only product that is still available to these processors is an occasional supply of organ meat of the pilot whale. When they manage to acquire some, they boil it and sell it to the local retail stores.

The most severely affected was the largest processor in Taiji, who had been extensively involved in processing various types of whale meat. This processor, who runs his business with his 30-year old son and a dozen part-time female workers, decided to move to the processing of fish, mainly by salt-drying. This move required a considerable financial investment (about ¥15,000,000), for the purchase of a large walk-in freezer (to store fish) and an electrically-operated low temperature dryer (to dry fish). The small company did not lay-off its part-time helpers, nor did it reduce workers' wages (which were already minimal), but the hours of work were reduced. The women workers also lost the supplementary payment (10-20 percent of their basic wage) for laundering their work clothes that work with whale meat would have provided. As a result of these changes the part-time workers lost about 50 percent of their income during the whaling season. This particular processor has undertaken a

large risk, investing so large an amount of capital into a business which neither he nor his helpers had little previous experience with. The elderly processor stated:

“I know I am taking a big chance. I wouldn’t have done it if this business were just for myself. But my son, who is still young, must make a living here. So there is no other choice but to try.”

Other processors in the town had been processing fish in addition to whale meat, so they just expanded their fish-drying facilities to increase production. They invested in additional dryers or replaced old high-temperature dryers with more advanced low-temperature dryers in order to keep their businesses competitive. None of these processors laid off their part-time helpers who were all women, nor did they reduce the hours of working. However, the workers did forego the supplementary payments which they had received when handling whale meat.

The main problem these processors have to face is competition with producers outside the town of Taiji. Since dried fish are common commodities (unlike whale products), and not unique to Taiji, they must compete with all the producers throughout Japan. In addition, Taiji has a disadvantage in that it does not produce much low-priced small fish which is the most suitable for drying. Therefore, the processors have to acquire most of their supplies from the fish markets in other parts of Wakayama Prefecture and neighboring Mie Prefecture. This adds to their costs of production. It is still uncertain whether all of these processors will be able to get the necessary returns on their new investment and stay in business. If they fail, their failure could have serious social and economic implications, since these processors provide employment to many wives of out-of-work whalers.

Implications of the forced changes in Baird’s beaked whaling on local businesses

The IWC-imposed zero-catch limit on minke whales had a significant socio-economic impact on small-type whaling companies and various groups in the whaling locales dependent upon the whale products.

As described elsewhere (Akimichi et al., 1988: 86) in 1987 35 Baird’s beaked whales were caught and landed in Wada, and 5 were caught and landed in Abashiri. To summarize the 1987 situation, the Wada-based whaling company flensed and butchered all the 35 whales, and the meat (red meat) produced was sold only to the local processors and fishmongers. Some of the meat was locally consumed fresh, but the largest part was hand-processed and sun-dried either at the processors’ shops or on the beach. The five whales landed in Abashiri were flensed and butchered at the two small-type whaling stations there, but the meat was all shipped to the Wada area, where it was also sun-dried to make the local specialty, *tare*. Approximately 80 percent of the meat, both fresh and dried, was consumed locally within the south-western part of Awa county. The long-inherited local customs and values attached to whaling and whale-meat consumption made it

possible to distribute the meat through a dozen small processors (*tare* makers) and fishmongers, that were all family-run businesses, and a few peddlers on bicycle or motorcycle to the local consumers at a relatively low price. Thus the needs of the local producers, processors, distributors, and consumers were all satisfied by these customary practices in 1987, as in previous years (see Akimichi et al., 1988: 86-91 for additional information).

This delicately balanced system, however, was significantly altered by the new situation that has recently arisen because of the ban on coastal minke whaling and sperm whaling.

As stated before, the ban on minke whaling forced the small-type whalers to divide the allocated quota equally among them, and hunting occurred in three separate locations. As a result, the number of whales landed in Wada decreased by 15 (or 43 percent of previous years’ catches) which meant the amount of meat distributed from the whaling station also decreased. Accordingly, buyers were allocated smaller amounts of meat than in previous years.

A large part of the meat produced in Abashiri and Ayukawa was sent directly to Chikura, a town near to Wada, rather than consumed locally where produced, because the taste preference at Abashiri and Ayukawa is for the minke whale and not for Baird’s beaked whale. The largest processor in Chikura (a family operation with nine part-time workers) purchased all of the Abashiri and Ayukawa beaked whale meat. This increased purchase was possible due to financial backing from a regional bank. Most of the meat purchased was processed at this one shop, and was needed by the processor in order to cover the loss in supply of sperm whale meat. Hence, only a small amount of the whale meat from Abashiri and Ayukawa went to smaller processors, fishmongers and peddlers in the Wada area. Thus, Baird’s beaked whale meat was less evenly distributed last year than the previous years, with several consequences. Two processors stopped producing *tare* in 1988, because they could not get enough whale meat to make the business profitable. Two peddlers also were contemplating withdrawing from selling whale meat, because with the reduction of profit from the small quantity available, it was not considered worth their effort.

The largest processor who (with the bank’s help) was able to secure a sufficient amount of meat last year might not be so fortunate this coming year. Distributors, as well as consumers in the whaling communities of Abashiri and Ayukawa might increasingly favor Baird’s beaked whale meat as an alternative to the minke whale meat which they no longer are assured. In that case, a large amount of meat will be consumed locally in those communities, and in addition, some of the meat moves to the national market. In fact, the price of frozen minke whale meat, which was normally consumed raw, was about twice as high as that of the Baird’s beaked whale meat, which was predominately used for sun-drying. Thus the producers in Abashiri and Ayukawa who are not as morally obligated

to the processors and consumers in Wada as are the producers in Wada, have a financial incentive to distribute their products to more profitable markets, and thereby partly overcome the losses they have incurred from non-availability of minke whale meat.

The whale meat which moved out of the traditional distribution system of the whaling community will behave just like any other commodity. Therefore, the locally-based distribution system of the Baird's beaked whale meat in Wada will change drastically as a chain of effects of the minke whaling ban keeps reaching the community. It is now apparent just how vulnerable is this traditional local system when outside pressures create both changes in supply and competing non-local demands for the small amount of whale meat required to maintain the system.

Losses associated with closing on-shore whaling stations

With the end of the large-type coastal whaling, several businesses in Ayukawa, Taiji and Wada suffered financial losses. Several reported losses of around half their former revenue (see Table 15 for example) which in many cases caused retailers financial ruin.

"Business in this town has been affected, as people are not spending a lot of money. With whalers unemployed, people are shopping very carefully; they used to spend a lot of money in Taiji, but now, being more careful, they go to some of the larger towns to shop so businesses here are definitely affected.... Many small grocery businesses have been destroyed; about twenty are affected, a few are just hanging on, but many have gone out of business."

(Supermarket manager, Taiji).

"The number of whale-related businesses has declined from ten to only five over the past fifteen years. This has resulted in half the jobs being lost."

(Businessman, Taiji).

"In this town even though we have fish as well as whale meat, fish don't sell well. If there is no whale meat the fish store will also suffer. That is because you can't change people's taste from whale meat to fish overnight."

(Elderly woman, Ayukawa).

"People here are emotionally down, so they have lost the desire to shop, they just are not in the mood to spend money. This is very bad for my business."

(Electrical appliance retailer, Taiji).

"The housepainting business is definitely affected; people used to paint their houses ever two years; now its every four years."

(Painter and decorator, Taiji).

In Taiji the whale factory workers mostly lived in a company dormitory, though management personnel periodically visiting the operation would stay in local boarding houses (*minshuku*). The factory employed twenty-five or more workers for ten months each year and

the workers spent money in local restaurants and bars, and purchased liquor and other supplies from Taiji retail stores.

"My business lost about one million yen in sales after the whaling station closed two year ago."

(Gasoline retailer, Taiji).

Similarly in Wada, a large-type coastal whaling company (Nittô Hogeï) operated their flensing activities at the shore facility of a local small-type coastal whaling company (Gaibô Hogeï). For ten months of each year there were 30-35 flensers and office workers stationed in Wada; however, unlike the situation in Taiji, the large-type whaling company did not house its workers in a company dormitory, but complied with a local request to utilize lodging houses (*minshuku*) in the town. Employees stayed in seven local *minshuku*, which provided rooms and bathing facilities for the period April to July (for the Bryde's whale season) and October through March (the sperm whale season). The whaling activity was therefore carried on outside of the summer tourist season, so that it ensured year-round business for the *minshuku* owners.

Whale factory workers had meals provided by the small-type whaling company, which activity helped maximize the *minshuku* owners' profits:

"Accommodating Nittô Hogeï workers was very profitable; when I have to provide guests with meals I need to hire extra help, but the workers, being fed elsewhere in town, made that unnecessary."

(*Minshuku* owner, Wada).

The rate charged at a typical *minshuku* was ¥50 thousand per month for a room which would house from one to three whaling company employees. This charge increased about ten percent over the years; there were extra changes (e.g. for T.V. and services). Businesses in Wada, especially bars and stores selling liquor, benefitted from the presence of the factory workers and officials, and also from the two Nittô Hogeï catcher boats each with a twenty-man crew. The boat crew bought daily supplies in Wada, and Nittô Hogeï paid large fees to the town and Wada Fishery Cooperative for use of the harbour, purchase of ice and rental of vehicles and facilities (see below).

There are several *minshuku* in Taiji which offer travelling businessmen and tourists simple but inexpensive lodgings and meals. Some of these *minshuku* used to house the land crew of the large-type whaling company. Those *minshuku* acquired considerable amounts of whale meat free or at a very low price from these whalers in return for offering good services to them. This meat was then used to entertain tourists.

With the cessation of large-type coastal whaling these *minshuku* are not able to obtain inexpensive whale meat. These family-run lodgings have limited storage facilities, mostly home-size refrigerators and freezers, and could not keep a large amount of meat in stock. By the summer of 1988 these lodging places ran out of whale meat. Although

limited amounts of pilot whale meat and dolphin meat are still available locally, pilot whale meat is too expensive for these inexpensive lodgings and dolphin meat is unfamiliar to most tourists whose customary cuisine does not include dolphin meat. The inability to serve whale meat to tourists who expect it has led to loss of attractiveness toward these private lodging places in Taiji. The women interviewed who run *minshuku* lodgings say they are sorry when they see their guests disappointed and they fear they might lose their custom because the whale-based cuisine cannot be provided, as was the case before the moratorium came into effect.

The importance of whale meat to tourists visiting Taiji can be gauged from a report in the *Asahi Newspaper* (January 13, 1989) where it was reported that 6,000 whale-meat dinners were served at the National Inn, Taiji in 1987, compared to 2,450 dinners in 1986. The report stated the increase came from tourists who worried that whale-meat supplies were about to end with the moratorium in effect.

The nature of Japanese small business enterprises

The large number of businesses that are under discussion in this report are (with the exception of the four commercial whaling companies that ceased their operations in November 1987) essentially small, family-run enterprises. They are situated, after all, in small remote communities and in common with most family businesses in Japan they employ few workers. Table 16 indicates that of the 14 wholesale and 161 retail enterprises in Oshika Town (in which municipal district Ayukawa is situated), about three-quarters of the businesses employ two or less employees, and less than three percent employ more than five workers.

In considering the fate of these small whaling-related businesses, it is especially important to consider them in the context of Japanese society, where a completely different set of values and commitments inhere to maintaining the family business, often inherited from ancestors who worked hard to establish it and maintain its viability for the benefit of future generations.

Bestor refers to these matters in his report as follows:

“The traditional Japanese family... has always been organized around the principle of family enterprise as an enduring social and economic unit, which ideally exists through generations. It is a conception of family and household that is extremely different from the notions of family... in many industrial societies.... And within this family system, traditional notions of obligation and filial piety place the highest moral value on the responsibility of the present generation... by nurturing the family’s enterprise and property through careful stewardship so that it may be bequeathed to the members of future generation.” (Bestor 1989: 9-10)

Under the present circumstances, where the collapse

of most whaling-dependent small business enterprises in the whaling towns is an acute and progressive problem, the issue transcends mere economic malaise, and involves a pervasive sense of moral failure on the part of the numerous people affected (see Akimichi et al., 1988: 104; Bestor 1989: 10).

These moral and religious imperatives to respect the honorable labour of ones ancestors are implicit in the many statements of residents of the whaling towns:

“If the time comes that whaling must stop completely, then I feel that my ancestor’s work and history and culture will be gone.”

(Ex-harpooner, 30 years whaling experience, Taiji; reported in *San Francisco Examiner*, December 4, 1988, pp. 36-6).

“Here in Taiji we have eight-hundred years of whaling history... because just off Taiji is the whales’ migration route. We should start again from coastal whaling, go back along our eight-hundred years of history, take our food from offshore Taiji as our ancestors did.... I can’t die in peace if I haven’t passed on the skills of my ancestors.”

(58-year old ex-whaler, Taiji)

“My family have been whalers for so many generations I have lost count; on my mother’s side as well as my father’s side, and my wife’s family too. So it’s a concern not to be able to pass on the family tradition for the sake of my ancestors. Many of the other whalers are descended from whaling families and have this concern for their ancestors too.”

(58-year old former harpooner, Taiji)

This family tradition involves meat processors, flensers and retailers not just harpooners and other whale-boat crewmen; Manderson and Hardacre (1988: 49-52) report on an Ayukawa-area family of specialized processors of *kabura* (a food prepared from whale cartilage) who learned the technique from Taiji whalers. This family passed on the family business for four generations by a variety of adoption techniques in the absence of biological sons to maintain the family line. Similar family traditions among flensers are also reported (*ibid*: 45-49).

“All my ancestors were in the whale processing business....

I believe I am the eleventh generation. If I were the last generation I would just quit. But I still have a son....”

(Meat processor, Taiji; reported in *San Francisco Examiner*, December 4, 1988, p. 36.)

Bestor writes of one whale-meat distributor in Ayukawa who

“spoke with sadness at the estrangements in social and business relationships that he had suffered as a result of the moratorium, having to sever ties with other dealers with whom he had maintained close ties for decades....” (Bestor 1989: 21).

The Fisheries Cooperative Associations

Within fishing-whaling communities the Fisheries Cooperative Associations (FCA) assume an important role. Apart from operating the wholesale fish markets in these towns, they also operate financial and educational programs and carry out regulatory aspects of the local fishery. Clearly, any weakening of their ability to carry out their important roles will have serious consequences in these small communities where fishing activities involve the majority of residents and businesses.

A recent study by Professor Bestor has documented the changes occurring at the Oshika FCA located in Ayukawa; the executive summary of his report is provided as Appendix V. Bestor's report makes the following points in connection with the effect of the whaling ban on the Ayukawa FCA. First, the zero-catch limit appears to severely undermine the financial viability of both the local wholesale fish market, which is run by the FCA, as well as the FCA itself. The FCA is acknowledged to be the major institution in the economy of Oshika township (within which Ayukawa is situated). In the four years, 1984-87, the value of fresh whale meat sales through the market accounted for about two-thirds of the total sales, and this rose to almost 79 percent of market value in 1987 (the year before the minke whale ban came into effect; see Tables 17 and 18). Over the four year period the value of whale meat sales more than doubled (from ¥349 Million to ¥723 Million) whilst the value of other maritime products remained almost constant (Table 19). The commissions charged on sales of whale meat form a major component of the total revenue of the FCA, at a time of declining revenue from non-whale product sales. Other FCA operations also earned considerable portions of their revenue from whaling-related activities: e.g. freezing and cold storage services, and ice-sales to whalers (Table 20; see Bestor 1989: 23-25). Bestor concludes his analysis: "Thus the disappearance of whale-related revenues will severely undermine the financial viability of the Market and the FCA". (*ibid*: 26).

It is estimated that with the end of large-type whaling Wada Fishery Co-operative lost about ¥13 Million in revenues from total revenues averaging ¥18.5 Million over the previous three years (Tables 21 and 22).

Unfortunately this significant loss of income caused by an end to large-type whaling has been further amplified locally by the reduced small-type whaling activity that started in the 1988 season. In effect, about half of the Fishery Cooperative Association's total revenue has now been lost so that expenses now exceed revenues, forcing the cooperative to liquidate its principal assets, and in addition, borrow ¥340 million in order to continue operating.

The Wada Fishery Cooperative Association is the principal, if not sole financial institution serving local fishermen who make up the 214 regular and 232 associate members of the cooperative. Loans made to the members

are restricted, principally to boat building and gear purchases, though small emergency loans may be made once or twice a year (when fishing is bad, or when important ceremonial occasions demand attention). The main asset the cooperative possessed was land, and with the severe reduction in local whaling, this asset has been disposed of. Though the cooperative is in severe difficulties it has attempted to deal with its payroll problems without laying off workers, by hiring no new workers as employees retire or resign. Thus in 1979 there were 21 employees, but in 1989 there are 14 full time employees (ten male and four female).

The inshore fishery in the Wada area is now operating at near capacity, and the national policy is to restrict entry into the fishery so as to allow economic survival of existing fisher families. Thus there is no possibility of unemployed ex-whalers becoming fishermen. In connection with the reduction in small-type whaling in Wada in 1988, five whalers accepted early retirement and a further nine were laid off (for a total of 14 whalers losing employment). In addition, due to the reduced work at the local flensing factory (where ten fewer whales were flensed than in the preceding year) fewer part-time workers were employed.

Although whaling did not contribute a large proportion, monetarily, to the fishery production of Abashiri town (unlike the situation at the other whaling towns), the loss of whale product nevertheless has had an effect. According to the local fishery report (Suisan tokei, Abashiri 1988) the value of whale meat landed at Abashiri amounted to over ¥255 Million or about 2.8 percent of the total fishery production. A similar level of production was recorded for a local crab (¥259 Million) but both whale and crab were commodities that the fishery promotion authorities hoped to increasingly market as a special local commodity (*meisan*), a regional specialty important to the further development of tourism in the area. It is significant to note that the future status of scallops, the largest contributor to the local fishery economy (19 percent of total value of local sales), is threatened by water quality changes occurring in the marine lagoons where the shellfish is cultivated.

In Taiji it was estimated that the Fishery Cooperative lost sales in excess of ¥5 Million yearly when sales of ice and propane to the whaling station recently ended, as well as important commission-based revenues with the loss of other whale production locally.

Moreover, it should be noted that the loss of revenues from whaling (reflected in these business and Fisheries Cooperative Association losses) also carry through to a loss of tax revenues to the towns themselves. As can be seen from Table 23, whalers as a group in the immediate past have made a disproportionately large contribution to town tax revenues. This current loss of revenue comes at a time of increasing town indebtedness as declining revenues from whaling and fishing fail to keep pace with essential expenditures.

IMPACTS OCCURRING OUTSIDE THE WHALING COMMUNITIES

Health-related concerns

The extent of direct health consequences of the whaling moratorium on individuals and families in the whaling communities has been indicated earlier in the report. Due to the relative recency of the ban on whaling, it will be necessary to closely monitor the health situation especially in regard to certain chronic health conditions that so far are likely at an early stage of development.

Some of the health-related concerns related to researchers in the whaling towns reflect widely-held opinions concerning the nutritional and dietetic benefit of whale meat compared to beef, pork and other agriculturally produced meats.

“Seven years ago I examined the dental health of children in Taiji. Despite their eating some candies and so on, I was impressed by their strong teeth which I believe was diet related.... Now the diet is changing: earlier there was access to free and inexpensive whalemeat. Today whalemeat is more expensive and restricted so more beef, chicken and pork is included in the diet. There is a serious effect on peoples’ health; the over-40 age group has higher blood pressure, elevated cholesterol levels and more obesity now.”

(Public health nurse, Taiji).

“When lots of men were working in the Antarctic, their wives could afford to buy expensive meats. Those sales have dropped badly now, but the cheaper, fatty meats are selling instead.”

(Retail butcher, Taiji).

“I’ve been a butcher for eight years and I’ve spoken to a colleague who has been in business fifteen years: (we agree); now people only buy cheap meat, which may have an impact on their long-term health.”

(Businessman, Taiji).

“Whale meat is delicious and it won’t upset your stomach even if you eat a lot. It’s good to eat when you are anemic — the health workers always tell us that compared to beef, pork and other meats, whale is the easiest for us to digest.”

(Senior citizen, Taiji).

“I know very well that farmed creatures, fish too, are polluted with all kinds of stuff, so I want to go on getting whale for the health of my family. It is the best food for us.”

(Veterinarian, Taiji).

It has recently been reported (Bestor 1989), that due to the continuing demand for whale meat and the recent interruptions in supply caused by the whaling ban, some meat from net-entangled whales has entered the market. One such incident resulted in improperly handled meat making its way to consumers with some cases of sickness

resulting. As a consequence, the meat market in Sapporo has agreed to stop marketing whale products from such sources, though it seems likely that small amounts of meat from such occurrences are nevertheless consumed. (*ibid*: 32-33).

Of more national and profound concern however, is the impact of the shortage of whale meat (and its consequent increase in price) upon the clinically approved diet of infants and children required to include whale meat in their prescribed treatments.

Over the past ten to fifteen years the incidence of allergy problems among infants in Japan has risen 30-35 percent. Extensive testing of patients has indicated that the allergy problems of infants and children are commonly derived from particular foods. The most common foods that trigger the allergic reaction are: egg and chicken, cow’s milk, soy oil, pork, beef, rice, wheat, white potato and other vegetables and nuts. The symptoms and sequelae of infant food allergy are severe, and include bronchial asthma, allergic rhinitis, stomach aches, ulcers, vomiting and skin rashes. As infants from birth to eighteen months of age are among the highest frequency patients, these medical problems are serious for both patients and their parents. At the present time there are 1,500 households involved in diet-dependent treatment programs in fifteen major urban centres; the program is quite recent, and knowledge of the treatment tends to spread by word of mouth and through the popular media. It is anticipated that in the near future more groups of patients will undertake treatment as knowledge of the treatment spreads to smaller cities and towns and rural areas of Japan.

Treatment of patients is based upon a 5-7 day diet cycle based upon protein sources that do not aggravate the condition. Unfortunately, food-allergy patients are very susceptible to chemical contaminants found in agricultural products, so that the best dietary proteins are from wild meats; in the Japanese context these include fish, hare, deer, frog, kangaroo (imported) and whale. However, the required diet must be based on irregularly eaten foods, so many of the less expensive fish are not suitable for therapeutic purposes. Additionally, deer and hare are only seasonally available, and together with frog and kangaroo are unfamiliar foods to many families; all are expensive as well as difficult to obtain. Whale meat has proved to be the most hypo-allergenic meat tested to this point; it is also a familiar meat which was widely available and inexpensive until recently.

Many of the families with children suffering from this condition (dermatitis atopie) are young, and the cost of special foods required to treat their children creates a serious financial problem for them. In addition to the infants, the mothers are in most cases also placed on the same diet. Where a child suffers from this allergy program, the mother if pregnant is required to follow the rotational diet in order to prevent her newborn suffering from the allergy problem.

In order to economically provide the needed whale meat

to patients in this allergy treatment program, the Food Allergy Consultation Committee (based at Tokyo Medical College Hospital) recently petitioned the Institute of Cetacean Research for an allotment of the meat obtained from the 1988 Antarctic research program (see Appendix VI). This meat is distributed to patients' households at a cost of either ¥1,786 or ¥2,380 per kilogram (depending on quality). The high cost results from the need to establish a means of distribution from the hospital; availability of a regular supply through normal retail outlets would ensure lower cost and more efficiency in meeting patients' needs.

The fifteen parents' groups throughout Japan who follow this dietary regimen are listed in Appendix VI.

Concerns about foreign attacks on Japanese culture

According to various Japanese media reports there is growing resentment in Japan to attacks on Japanese food culture from activities in foreign countries. Though such attacks are mostly based on ignorance as C.W. Nicol writes (Appendix III) prejudicial statements directed to others' cherished food habits nevertheless cause offence. In a world increasingly beset with global problems requiring the utmost international co-operation and mutual understanding for the common good, raising international ill-will is clearly counter-productive.

"When I went abroad, I said to Americans: we don't just kill whales, we are grateful to the animals we must kill for food, and we hold memorial services to show our respect. But they still didn't understand, and to me, that's just racism."

(Town official, Taiji).

"Everyone feels sorry to see animals killed; but it is not meaningless — we don't waste anything."

(15-year old high school student, Taiji).

"Humans, especially Americans, believe people are the smartest animals and cetaceans the second smartest. Yet the smartest foul up the sea where the second-smartest are living. That's not too smart; I doubt the whales are that intelligent."

(15-year old high school student, Taiji).

"My father is a whaler, but when my younger brother saw a dolphin kill, or... a whale landed and flensed, he thought it was really sad. It is a pity to kill anything, but we must separate feelings from needs. My father understands that, and he fed us and many, many other Japanese."

(Teenaged son of unemployed whaling captain, Taiji).

The question of maintaining a traditional food culture is one that affects many groups, including immigrants to new homelands. But in the whaling regions of Japan, it has very profound significance.

"Local people's preference is for whale sashimi (sliced, raw meat) and older people can't eat raw beef. People here miss whale sashimi and boiled whale intestine; they used to entertain with these foods. Now, with these customary party foods missing, it's no fun to entertain. People complain

to me about the meat available (the boiled meat scraped from the bones)... It's cruel to deny us whalemeat."

(Supermarket manager, Taiji).

"There is no intention of giving up whaling here; there is a supply of pilot whales and we will continue to buy it — despite the rising cost — to maintain our food culture and so that tourists can continue to eat whalemeat. It's a human rights problems, not animal rights. No one has a right to deprive us of our best protein source."

(Town official, Taiji).

"We eat all of the whale and that is how we show our respect for it. Westerners don't appreciate our religion and customs and don't know how much we love and respect whales."

(Music composer, Taiji).

"Our food culture is different, so don't attack us and treat us like inferiors. Human population will increase and we will have to utilize resources, and we Japanese in Taiji feel that whale and other marine resources must be properly researched and managed."

(15-year old junior high school student, Taiji).

"Some people criticise us for eating whale meat. But it's none of their business. I never criticize other people for what they eat."

(Former whaler, 27 years experience, Taiji).

There are now, as a consequence of the imposition of the whaling moratorium, groups in Japan dedicated to the support of Japanese food culture, and opposed to the IWC moratorium. Such groups are active, e.g. in fund-raising to support cetacean research and through educational programs, especially with young people, and in raising national awareness of the issues involved. They appear to be effective, judging by the amount of funds raised (Appendix IV) and by the improved understanding imparted to school children (Appendix VII and VIII).

DISCUSSION AND CONCLUSION

Throughout this report, emphasis has been placed on evaluating the impacts of the moratorium in the appropriate social, economic and cultural context. With respect to the individuals most severely impacted by the whaling moratorium, namely the whalers themselves, it is necessary to consider their situation within the context of Japan's labor market as a whole. Although not as serious as in other OECD countries, Japan's unemployment problem has worsened in the last decade. In "Japan: An Economic Survey" (1986), OECD finds that "the labor market situation for older workers is particularly slack", and older workers, especially those aged 54-64, find few vacancies and face long-term unemployment (OECD 1986: 77-79).

Further, older whalers have lost their employment in their peak income years. As the statements from whalers

attest, for many men these are years of heavy financial obligation, especially when their children are in or soon to enter university.

The burden of long-term unemployment weighs especially heavily on individuals in a country where the five-day work week is uncommon, paid annual leaves are shorter than in most European countries, there is more overtime work and low absenteeism, and workers must labour longer on average to maintain their living standards. By way of comparison, Japanese workers average 2,152 hours per work year, significantly longer than in major western nations like the United Kingdom (1,938 hours), United States (1,898), Germany (1,613), and France (1,657) (OECD 1986: 78-79).

From the standpoint of employer-employee relations, the moratorium also strikes directly at a cultural system which favors 'life-time' employment:

"The importance of attachment to the firm in Japan is such that employers seek to avoid sacking their workers; equally, the fact that it is impossible to transfer in mid-career, from one enterprise to another generates loyalty." (OECD 1986: 68.)

However, long-term employment with pelagic whaling firms appears to have given former pelagic whalers somewhat more restricted social networks than men engaged in small-type coastal whaling. By contrast, small-type coastal whalers are believed to have a wider range of contacts ashore that might allow a greater variety of potential alternative employment opportunities than are available to pelagic whalers. If true, the moratorium has suddenly turned pelagic whalers' networks from a source of personal pride to an economic liability. It makes a mockery of their career identification and commitment, long service and highly developed, specialized skills. And, despite consistency with Japanese cultural ideals, these new circumstances place pelagic whalers at a distinct disadvantage when released from their profession and forced to readjust and seek out new employment, and indeed, a new way of life.

The IWC ban on commercial whaling has caused severe impacts on the lives of Japanese whalers and their families. As earlier described, unemployment or unstable employment, reduced income, change of work, loss of status and change in life-style are causing considerable stress to whalers and their families.

However, the situation may become even more severe. Many laid-off whalers received compensations from the company and the government last year, and most have some savings. Governmental compensation will be terminated shortly and the whaler's savings will eventually be depleted. Further deterioration of health, spirit, family ties, friendship, and overall quality of life among whalers appears to be certain if an extension of the current ban on whaling continues. Given the nature of the rural and remote communities where whalers live and their ages and the kinds of professional skills they are specialized in

and hence limited by, the employment situation for them is unlikely to improve. Without whaling there appears to be little hope for these people to recover their steady employment and the quality of life they used to enjoy.

It should be clear that until the moratorium and associated campaigns opposing whaling, Japan's whalers had thought themselves engaged in an honorable profession with a long tradition. But now they have been condemned outside of Japan as parties to an essentially 'immoral', 'inhumane', and sometimes 'criminal' enterprise. The moratorium seems to them arbitrary, and the condemnation an expression of cultural ignorance, and ethnocentric bias, if not crude racism. They also suspect a measure of economic jealousy on the part of American and other western countries lies behind this attack on their industry. The dishonesty, misrepresentation and unmerited dishonour represented by such labelling and suspicions makes their situation all the more stressful.

The socio-economic impact of the whaling moratorium is felt throughout the whaling towns. Town officials and leaders expressed great concern about the business failures, the loss of economic prospects for young people, and those now forced to seek new business opportunities, the out-migration of workers and the splitting of families that the economic consequences of the whaling ban have recently caused.

Whereas in the western industrial countries such matters are purely secular, in the Japanese context there are important spiritual implications to be considered when social institutions begin to unravel.

A complex of values placing stress on sustaining family, community and national ideals underlies contemporary Japanese religious life. In the context of the coastal whaling communities, ceremonial and religious observances express the great importance of continuing whaling as the main subsistence activity. The present-day whalers are custodians of a lengthy historical tradition, and failure "to maintain whaling is to fail in a central obligation toward the ancestors (which) is a central message of much of the ceremonial of these towns" (Hardacre and Manderson 1988: 11). Professors Hardacre and Manderson have further explored the importance of continued coastal whaling in the context of Japanese social, symbolic, ceremonial and religious life, and the following section draws heavily upon their perceptive analysis. They point out that distinctive ideas about space and time shape the social and cultural life of Japanese communities; a preoccupation with the four seasons structures religious observances that in agricultural communities focus on the annual cycle of rice growing and harvesting more especially.

In Japanese whaling communities, however, the fishing season for whale species, rather than the rhythms of the rice cycle, is the most important influence on the structure of time. The fishing seasons for whale are accompanied by ceremonial observances for boat and crew. Ritual connected

with whaling dominates temple and shrine ceremonial life throughout the year.

“It begins at the New Year with... ritual purification of boat and crew by the Shinto priest of the local tutelary shrine, renewal of the ‘boat souls’ enshrined under the main mast, group pilgrimage by the crew to local shrines (including pilgrimage on board the whaling boat...), as well as ceremonial meals hosted by the boat owner for the crew, at which whale meat is consumed to seal agreements about the crew’s division of labor during the New Year....” (*ibid*: 12)

Whale memorial services (*kujira kuyō*), a distinctive Buddhist observance, and parallel memorial rites for spirits of the ancestors, both similarly aim to console the souls of whales that have been killed as well as the souls of whalers lost at sea. The prayers recited at these ceremonies seek peace for the whale and human souls and collective repentance for the unavoidable sacrifice required by these subsistence pursuits. This ritual therefore treats animal and human souls identically.

“Both are spoken of as ‘hungry ghosts’ (*gaki*), beings who must depend upon ritual acts of feeding by a Buddhist priest in order to achieve rebirth in a higher level of existence. These souls remain intimately connected with humanity and depend upon human beings for this symbolic nurturance, just as the human community depends for its sustenance upon whaling.” (*ibid*: 13)

The New Year and all-souls (*O-bon*) ceremonial acts are continued at other occasions throughout the year, when the first catch of the season is celebrated by a widespread sharing of meat throughout the whaling community, and by feasts held throughout the whaling season to celebrate successful catches. The ceremonies, whether at temples or shrines (on boats, at homes or elsewhere) and the other communal celebrations express locally distinctive traditions, yet importantly, elements of a common whaling culture that whalers and many others in Japan view as distinctively Japanese.

“Whale meat is offered on the private altars of this community precisely because it is the food that most uniquely symbolizes the source of communal solidarity. Because Ayukawa’s social and economic organization is so dependent upon whaling, whale meat is particularly appropriate as an offering to the community’s tutelary deities, enshrined at the Jumano and Koganeyama Shrines. After it has been offered to the deities by being placed on an altar, this whale meat is taken down and served in the communal meal shared by the parishioners, and putatively, by the deities as well....

“... The idea is that the deities impart their own potency to the food offered upon their altars, and that potency is then imparted to parishioners. This

infusion of human beings with the sacrality of deities is accomplished here by the eating of whale meat, and hence this meat becomes an important symbolic vehicle for continuing reciprocity between human and divine realms in the local world view.”

(Manderson and Hardacre 1989: 24)

Increasingly Japanese people are coming to view the disappearance of whaling as a loss for Japan and Japanese culture, and attempts by non-Japanese to impose their alien points of view as an uncalled for attack on their history, culture and religious beliefs.

It must be remembered that the smaller whaling towns derived a great deal of their social and economic vitality from whaling, despite the presence of an active inshore fishery component. Data presented in this report indicate the recent stagnation and over-capacity of the local inshore fishery, and the increasingly important role the whale fishery came to play in maintaining the viability of the Fisheries Cooperative Association as a major community institution. The ban on whaling seriously compromises the future existence of the cooperatives and consequently the economic viability of the large number of self-employed fishermen and marine-product-related small businesses in these vulnerable communities. But the social destruction is not caused by economic failure alone.

Consequently, in this report, the destructive impacts of the moratorium upon the social, religious and cultural life of these small whaling communities has also been detailed. Insofar as whaling underlies both strong local and national traditions, the contraction of whaling to its present endangered occupational status is a cause of more than just local concern. However, obviously the greatest impact and concern is felt locally, in the whaling communities, because of the immediate socio-economic, emotional, and cultural consequences which are seen to threaten the very existence of the individual, family and community itself.

A recent scholarly study of the impact of the moratorium in the two whaling towns, Ayukawa and Taiji, detailed the effects of loss of whaling on identity, social relations, the human-environmental relationship and religious and ceremonial life. The study concluded that these disruptions confuse and compromise the basis of social, symbolic and religious relations such that in the absence of any practical alternatives “the fabric of social relationships begins to unravel. The end of whaling means the end of these towns as viable communities.” (Hardacre and Manderson 1988: 28). This report provides additional information that wholly supports that serious conclusion.

END NOTES

¹ Table 6 indicates a harvest of 128 pilot whales rather than the 98 provided for in the small-type coastal whale fishery. The reason for this apparent discrepancy is that the small-type fishery allocation is made by the federal authorities for pilot whale stocks in northern waters, but an additional, prefecturally-regulated fishery takes place in southern waters.

² ¥135 = US \$1.00 (January 1989)

TABLES

Table 1: Employment data, Nippon Kyôdô Hogeï, 1976-1987

	Number of Employees:		Retired:		Left employ:		Annual payroll (¥Millions)
	Vessels	Land	Vessels	Land	Vessels	Land	
1976	1466	97	—		—		1,174
1977	1456	97	2		10		2,074
1978	1300	95	3		156	2	4,998
1979	679	87	1		621	11	3,756
1980	668	88	3		11	3	3,594
1981	665	83	2	3	5	6	3,742
1982	664	83	5	2	9	5	4,200
1983	651	81	5	2	13	2	4,081
1984	636	75	10	2	15	6	4,236
1985	591	65	29	2	45	10	3,966
1986	541	55	26	2	50	10	3,679
1987*	464	43	68	9	77	12	3,989

*The company closed down in November 1987.

Source: Nippon Kyôdô Hogeï company records

Table 2: Economic situation of Nippon Hogeï (large-type whaling company) 1976-87

Year	Catcher Boats		Land Stations	Wages & Bonuses (¥Millions)	Capital Losses (¥Millions)	Losses Due to:
	No.	Tonnage				
1976	2	1,035.60	2	408		
1977	3	1,466.51	2	646		
1978	3	1,466.51	2	550		
1979	3	1,466.51	2	714		
1980	3	1,466.51	2	856		
1981	3	1,466.51	3	841	6	Wakkanai facility closed
1982	3	1,825.40	3	692	8	Scrapped 399.44 ton catcher boat
1983	2	1,189.24	3	676	11	Scrapped 636.26 ton catcher boat
1984	2	1,189.24	3	603		
1985	2	1,189.24	3	681		
1986	2	1,189.24	3	574		
1987	2	1,189.24	3	591	113	*

*Losses due to closing land facilities at Ayukawa (¥39 Million), Ogasawara (¥42 Million) and Taiji (¥9 Million) and scrapping two catcher boats (431 and 758 tons; ¥23 Million)

Source: Nihon Hogeï company records

Table 3: Employment data, Nihon Hogeï, 1976-87

Year	Number of Employees			Annual Payroll (¥Millions)
	Vessels	Land		
		full-time	part-time	
1976	129		23	408
1977	125	100	23	646
1978	109	96	12	550
1979	100	83	13	714
1980	93	80	9	856
1981	92	80	9	841
1982	84	72	11	692
1983	75	72	13	676
1984	61	52	31	603
1985	61	52	40	681
1986	56	51	43	574
1987	48	47	31	591

The whaling division of the company closed down in December 1987. Out of a total of 95 employees, 82 lost their jobs, three retired or resigned, and ten were transferred to non-whaling sections of the company.

Source: Nihon Hogeï company records

Table 5: Employment data, Nittô Hogeï, 1976-1988

Year	Number of Employees			Annual Payroll (¥Millions)
	Vessels	Land		
		full-time	part-time	
1976	76	72	20	406
1977	76	72	17	50
1978	77	72	14	461
1979	74	68	17	588
1980	74	66	21	671
1981	61	66	16	723
1982	61	64	14	801
1983	59	62	14	755
1984	54	62	14	752
1985	54	60	12	677
1986	51	60	12	762
1987	51	59	11	732
1988	0	5	0	

The workforce of 121 (110 fulltime and 11 part-time employees) in 1987 is currently deployed as follows: 116 (105 fulltime and 11 part-time employees) lost their jobs, out of which number 13 employees retired or resigned, a further 31 and 20 finding fulltime employment on vessels and land respectively, and another nine in part-time land-based work. Forty-three former workers are still seeking employment, of which number 13 are currently in retraining programs.

Source: Nittô Hogeï company records

Table 4: Economic situation of Nittô Hogeï (large-type whaling company), 1976-1987

Year	Catcher Boats		Land Stations	Wages & Bonuses (¥Millions)	Capital Losses (¥Millions)	Losses Due to:
	No.	Tonnage				
1976	3	1,519.29	2	406		
1977	3	1,519.29	2	504		
1978	3	1,519.29	2	461		
1979	3	1,519.29	2	588		
1980	3	1,519.29	2	671		
1981	3	1,519.29	3	723	85	Closing Kiritappu land
1982	2	1,089.40	3	801		
1983	2	1,089.40	3	755	22	Scrapping 429.89 ton catcher boat
1984	2	1,089.40	3	752		
1985	2	1,089.40	3	677		
1986	2	1,089.40	3	762		
1987*	2	1,089.40	3	732	197	**

* The whaling division of the company closed in December 1987.

** Losses due to closing land stations at Osawa (¥75.88 Million), Ogasawara (¥64.76 Million) and Wada (¥2.73 Million) and scrapping two catcher boats (471 and 619 tons; ¥54.05 Million)

Source: Nittô Hogeï Company Records

Table 6: Small-type coastal whaling production statistics, 1982-88

		1982	1983	1984	1985	1986	1987	1988
	Minke Whale	324	290	367	327	311	304	
	Baird's Beaked	60	37	38	40	40	40	57
	Pilot Whale	85	125	160	62	29		128
	Killer Whale					2		7
	Cuvier's Beaked		1					
	Total (no.)	469	453	565	429	382	344	192
Minke	Meat	378,800	358,700	550,840	499,330	465,500	489,900	
	Blubber	83,400	119,000	191,420	191,420	177,900	162,600	
	Oil	2,800						
	Other	38,600	32,750	57,000	45,200	24,100	21,250	
	Total (kg)	503,600	510,450	799,540	735,950	667,500	673,750	
Beaked	Meat	127,400	86,400	99,000	106,200	109,300	107,800	200,063
	Blubber	12,200	73,300	82,700	89,100	90,100	103,900	172,476
	Oil	97,000	6,700	4,300	16,300	17,300		
	Other	19,600	18,100	28,100	30,700	22,100	55,200	
	Total (kg)	256,200	184,500	214,100	242,300	238,800	266,900	372,539
Pilot	Meat	47,800	54,500	82,600	22,500	12,200		66,108
	Blubber	29,700	41,900	66,500	16,800	8,200		53,138
	Oil	7,000	1,600	1,800				
	Other	11,800	15,000	5,100	9,000	3,860		
	Total (kg)	96,300	113,000	156,000	48,300	24,260		119,241
			1,330 *			4,800 **		15,913 **
Total Production (kg)		856,100	809,280	1,169,640	1,026,550	953,360	940,650	507,693

* Cuvier's Beaked Whale; **Killer Whale

1st column: Figures denote number of whales taken. 2nd, 3rd & 4th column: Figures denote kilograms.

Source: Japan Small-type Whaling Association

Table 7: Employment status of former large-type whalers, 1988

Employed on permanent base:		23
Mariculture:	6	
Cargo boat and tanker:	5	
Fishing and small-type whaling:	2	
Other boats:	2	
Company's Food Processing Division	2	
Relative's business:	2	
Other:	3	
Unknown:	1	
Temporarily or occasionally employed:		15
Fisheries inspection boat:	7	
Mariculture:	4	
Other:	4	
Unemployed (including 4 who are ill):		42
Dead:		1
Unknown:		1
Total:		82

Source: J. Takahashi interviews

Table 8: Employment status of former large-type whalers, 1988

ID# (Boat Crews)	OCCUPATION	AGE	EMPLOYMENT STATUS
1	H	49	Unemployed
2	Cp	57	F: Domestic cargo ship
3	1M	45	F: Domestic cargo ship (B)
4	EC	56	T: Truck Driver
5	E	45	T: Steelwork shop
6	E	50	F: Domestic cargo ship
7	Com	55	T: Fisheries inspection boat
8	SO	-	Unemployed
9	B	50	T: Fisheries inspection boat
10	DH	55	Unemployed
11	DH	48	T: Fisheries inspection boat
12	DH	51	T: Mariculture
13	DH	47	Unemployed
14	DH	40	F: Taxi driver (?)
15	DH	50	F: Tug boat
16	DH	52	Unemployed
17	DH	43	Unemployed
18	MO	37	F: Fisheries inspection boat
19	Ck	45	Unemployed
20	Ck	38	T: Fishing boat's (trawler) cook
21	Com	51	Unemployed
22	SO	42	Unemployed
23	H	49	Unemployed
24	Cp	55	F: Harbor pilot (#24 has a college degree)
25	1M	42	F: STCW company
26	2M	41	T: Fisheries inspection boat
27	EC	55	Unemployed
28	E	49	Unemployed
29	E	48	Unemployed
30	Com	-	Unemployed: Studying for navigator's licence
31	SO	50	Unemployed: Preparing to open a noodle shop
32	B	49	Unemployed
33	DH	48	T: Fisheries inspection boat
34	DH	48	T: Fisheries inspection boat
35	DH	44	F: Plasterer (former occupation)
36	DH	55	Unemployed
37	DH	52	Unemployed
38	DH	48	Unemployed
39	DH	43	F: Domestic tanker
40	MO	36	F: Domestic tanker
41	Ck	41	Unemployed
42	Ck	-	Unemployed: studying cooking
43	E	-	Unemployed: ill
44	SO	-	F: Manager at wife's restaurant
45	Ck	47	Unemployed
46	F	-	F: Mariculture
47	F	-	Unemployed
48	F	-	F: Mariculture
49	FM	-	Unemployed

ID# (Boat Crews)	OCCUPATION	AGE	EMPLOYMENT STATUS
50	F	-	Unemployed
51	F	-	Died
52	F	-	T: Boilerman at municipal hospital
53	F	-	Unemployed: ill
54	F	-	F: Mariculture
55	F	-	Unemployed: being trained to be a plumber
56	F	-	Unemployed: being job trained
57	F	-	Unemployed
58	F	-	Unemployed
59	F	-	T: Mariculture
60	F	-	Unemployed: failed in many attempts
61	F	-	F: Same company's food processing division
62	F	-	Unemployed
63	F	-	Unemployed: ill
64	F	-	F: Same company's food processing division
65	F	-	T: Mariculture
66	F	-	Unemployed
67	F	-	Unemployed: has a barber's license but wants to work in mariculture
68	F	-	Unemployed: there is a chance that his relative might hire him
69	F	-	Unemployed
70	F	-	T: Security guard, etc.
71	F	-	?: left town
72	F	-	Unemployed: ill
73	F	-	Unemployed
74	F	-	Unemployed
75	O	-	F: Mariculture
76	O	-	F: Maritime product distributor (?)
77	O	-	F: ?
78	O	-	F: Hired by a relative (left town)
79	O	-	F: Mariculture
80	O	-	T: Mariculture
81	O	-	Unemployed
82	O	-	F: Mariculture and STCW

Abbreviations:

- H = Harpooner
- Cp = Captain
- 1M = First Mate
- 2M = Second Mate
- E = Engineer
- EC = Chief Engineer
- Com = Communications Officer
- SO = Sonar Operator
- B = Bos'n (Boatswain)
- DH = Deck Hand
- MO = Machine Operator
- F = Flenser
- FM = Flensing Master
- O = Other (Office Manager and/or clerk)
- F = Fully Employed
- T = Temporarily or Occasionally Employed

Source: J. Takahashi interviews

Table 9: Changes in small-type coastal whaling employment, 1986-89

Company	1986			1987			1988			1989		
	Vessel	Land	Total									
A	8	0	8	7	1	8	6	1	7	8	2	10
B	8	3	11	8	1	9	0	1	1	0	0	0
C	7	3	10	7	1	8	0	1	1	0	1	1
D	7	2	9	7	1	8	7	1	8	7	1	8
E	8	6	14	8	1	9	8	1	9	0	1	1
F	14	8	22	14	8	22	6	3	9	7	3	10
G	5	1	6	5	1	6	5	1	6	5	1	6
H	8	3	11	8	1	9	6	0	6	8	0	8
TOTALS	65	26	91	64	15	79	38	9	47	35	9	44
No. of Vessels operating	9			9			6			5		

Source: Japan Small-type Whaling Association

Table 10: Employment status of small-type whalers, 1988

ID#	OCCUPATION	AGE	WHALING: 1988	EMPLOYMENT STATUS
1	Ck	55	Participated	U: Laid off, Dec. 88
2	E	34	Participated	U: Laid off, Dec. 88
3	F	41	Participated	U: Laid off, Dec. 88
4	DH	43	Participated	U: Laid off, Dec. 88
5	DH	40	Participated	U: Laid off, Dec. 88
6	E	61	Participated	U: Laid off, Dec. 88
7	Cp	51	Participated	U: Laid off, Dec. 88
8	H	59	Participated	U: Laid off, Dec. 88
9	Cp	65	No	Retired
10	DH	38	No	F: Land survey office
11	E	37	No	F: Same whaling company
12	DH	43	No	F: Cook (brother's shop)
13	DH	40	No	F: Same whaling company
14	H	51	No	F: Construction (in-law's)
15	DH	35	No	F: Mariculture boat
16	F	54	No	T: Day laborer (left town)
17	H	47	Participated	F: Same whaling company
18	Cp	35	Participated	F: Same whaling company
19	E	44	No	T: Fishing boat
20	DH	58	No	Unemployed
21	Ck	59	No	T: Construction laborer
22	DH	35	No	T: Fishing boat
23	CH	26	No	?
24	F	65	No	Unemployed: ill
25	H	48	Participated	F: Same whaling company*
26	Cp	41	Participated	F: Same whaling company*
27	E	53	Participated	F: Same whaling company*
28	DH	49	Participated	F: Same whaling company*
29	DH	35	Participated	F: Same whaling company*
30	E	32	Participated	F: Same whaling company*
31	Ck	32	Participated	F: Same whaling company*
32	Cp	62	No	Unemployed
33	H	59	No	T: Inspection boat
34	E	58	Participated	U: Laid off, Dec. 88
35	DH	47	Participated	U: Laid off, Dec. 88
36	B	56	No	T: Mariculture
37	DH	48	Participated	U: Laid off, Dec. 88
38	E	33	No	T: Dock, construction, fishing boats, mariculture, etc.
39	Ck	60	No	T: Food delivery (at daughter's shop)
40	H	60	Participated	U: Laid off, Dec. 88
41	O	53	Participated	F: Same whaling company*
42	B	49	Participated	F: Same whaling company*
43	E	58	Participated	F: Same whaling company*
44	F	53	Participated	F: Same whaling company*
45	F	55	Participated	F: Same whaling company*
46	F	51	Participated	F: Same whaling company*
47	E	46	No	T: Small fishing
48	F	20	Participated	F: Same whaling company*
49	Cp	40	Participated	F: Same whaling company*

ID#	OCCUPATION	AGE	WHALING: 1988	EMPLOYMENT STATUS
50	DH	53	No	T: Small fishing
51	E	54	No	T: Small fishing
52	B	41	Participated	F: Same whaling company*
53	O	40 (f)	Participated	F: Same whaling company
54	O	26	Participated	F: Same whaling company
55	B	50	Participated	T: Small fishing
56	Cp	30	Participated	F: Same whaling company
57	DH	48	Participated	T: Small fishing
58	DH	40	No	T: Factory, small fish
59	DH	44	No	T: Fish boat, small fish
60	H	61	Participated	Same whaling company
61	O	57 (f)	No	Unemployed
62	E	54	Participated	U: Laid off, Dec. 88
63	Ck	46	No	T: Temp. work in Osaka
64	Cp	42	Participated	F: Same whaling company
65	B	56	Participated	U: Laid off, Dec. 88
66	DH	53	No	T: Small fishing
67	DH	48	No	Unemployed
68	H	65	Participated	U: Laid off, Dec. 88
69	DH	48	No	T: Small fishing
70	H	-	Participated	U: Laid off, Dec. 88
71	Cp	-	No	T: Dock, fishing boat, food processing, etc.
72	E	-	No	Fishing boat
73	E	-	No	T: Small fishing
74	Ck	-	No	T: Small fishing
75	O	-	Participated	F: Same whaling company*

Abbreviations:

- H = Harpooner
 Cp = Captain
 B = Bos'n (Boatswain)
 DH = Deck hand
 E = Engineer and/or communications technician
 Ck = Cook
 F = Flenser
 O = Other (managerial and/or clerical worker)
 (f) = Female
 F = Fully or regularly employed
 T = Temporarily or irregularly employed
 U = Unemployed
 * = Engaged in mariculture in addition to whaling

Source: J. Takahashi interviews

Table 11: Age composition of small-type coastal whalers' workforce, April 1986

Employees Ages (Years)	Working on:		Total
	Vessels	Land	
Younger than 20	0	0	0
20-30	7	2	9
30-40	18	3	21
40-45	12	4	16
40-50	6	7	13
50-55	10	7	17
Over 55	12	3	15
Total	65	26	91

Source: Japan Small-type Whaling Association

Table 12: Employment status of small-type whalers, Abashiri, December 1988

Whaler	Age	No. years as whaler	Job	When laid off	Present situation	No. of dependents
1	55	14	cook	Nov, 88	unemployed	1
2	34	15	deck-hand	Nov, 88	unemployed	5
3	47	13	flenser	Nov, 88	unemployed	4
4	34	20	deck-hand	Nov, 88	part-time	3
5	31	23	deck-hand	Nov, 88	part-time	3
6	61	7	engineer	Nov, 88	part-time	1
7	51	10	captain	Nov, 88	unemployed	2
8	59	40	harpooner	Nov, 88	unemployed	1
9	65	39	captain	June, 88	part-time	1
10	38	14	deck-hand	June, 88	employed	2
11	37	15	engineer	Continued to be employed		0
12	43	8	deck-hand	June, 88	employed	3
13	40	8	deck-hand	Continued to be employed		4
14	51	4	harpooner	June, 88	employed	3
15	35	8	deck-hand	Nov, 87	employed	1
16	54	34	flenser	June, 88	part-time	0
17	55	28	boat owner	—	—	3
18	51	33	office work	Dec, 87	unemployed	3
19	34	10	boat owner	—	—	3

Source: M. Iwasaki interviews

Table 13: Redemption of discount coupons obtained from Shingu merchants by Taiji customers, 1963-72 and 1981-88

	OSEIBO (end of year)			OCHÜGEN (mid-summer)		
	Individuals from Taiji cashing coupons	Percent of households cashing coupons	Customers from Taiji as percent of all customers	Individuals from Taiji cashing coupons	Percent of households cashing coupons	Customers from Taiji as percent of all customers
1963	352	31.6	2.0	243	21.8	2.3
1964	262	23.5	1.6	285	25.6	1.8
1965	613	50.5	2.8	354	29.1	2.1
1966	351	28.9	1.5	537	44.2	3.1
1967	366	30.1	1.7	320	26.3	2.1
1968	206	17.0	1.1	252	20.7	2.0
1969	334	27.5	2.0	256	21.1	2.0
1970	660	47.2	3.1	567	41.4	3.4
1971	542	39.6	2.4	465	34.0	2.9
1972	351	25.6	2.4	361	26.4	2.5
1981	412	27.7	2.6	126	8.5	1.4
1982	224	15.1	1.6	124	8.3	1.9
1983	213	14.3	1.8	N.D.	N.D.	N.D.
1984	200	13.4	1.8	113	7.6	1.8
1985	173	11.6	1.5	105	7.1	1.3
1986	124	8.3	1.8	107	7.2	1.8
1987	117	7.9	1.6	130	8.7	1.7
1988	238	16.0	1.9	74	5.0	1.6

Source: Taiji Town Office records

Table 14: Meat prices, Taiji fish market and retail stores, 1985-1989

	Unit Price	Source (Date)
Bottlenosed dolphin	¥40,000/carcass	Kinan (13-11-87)
White spotted dolphin	¥10,000/carcass (50-60kg)	Yomiuri (29-10-88)
White spotted dolphin	¥300/kg (wholesale)	Yomiuri (6-10-86)
Striped dolphin	¥300-350/kg	Kishu Shinpu (14-12-88)
	¥100-300/kg	Sankei (8-12-88)
Dolphin	¥250-300/kg (wholesale)	Minami Kishu (11-1-89)
	¥800/kg (retail)	
	¥2,280/kg (sashimi-retail)	
Grampus	¥68,000/carcass (4m long)	Sankei (21-12-88)
Pilot whale	¥1,800/kg (red meat-wholesale)	Kinan (13-5-88)
	¥3,000-10,500/kg (onomi-wholesale)	Kinan (13-5-88)
	¥3,980-6,000/kg (retail)	Kinan (13-5-88)
	¥1,000+/kg	Sankei (8-5-88)
	¥1,500/kg (red meat-wholesale)	Mainichi (1-1-88)
	¥4,000/kg (onomi-wholesale)	Mainichi (1-1-88)
	¥5,000/kg (onomi)	Asahi (21-1-88)
	¥1,500/kg (red meat)	Minami Kishu (22-1-88)
	¥4,000/kg (onomi)	Minami Kishu (22-1-88)
	¥5,000/kg (onomi)	Asahi (13-10-87)
	¥800-1,400/kg (red meat)	Asahi (13-10-87)
	¥500/kg (wholesale)	Sankei (9-1-85)
¥600/kg (wholesale)	Yomiuri (9-1-85)	

Source: Newspapers on file, Taiji Town Office

Table 15: Monthly gross sales of retail fishmonger, Ayukawa, before and after zero-catch quota for minke whale

Sales	1987	1988	Percentage Change 1987 to 1988
April	7,501,470	3,228,220	-56.96
May	5,737,720	3,246,860	-43.41
June	3,798,165	2,533,190	-33.30
Total	17,037,355	9,008,270	-47.13

Source: After Bestor 1989: Table 1

Table 16: Sizes of retail and wholesale enterprises in Oshika Town, 1988

Number of employees	Number of businesses	Number of businesses as % of total
1	60	34.3
2	68	38.9
3	25	14.3
4	10	5.7
5	7	4.0
6	1	2.8
10-30	4	
Total	175	100.0

Source: After Bestor 1989: Table 2

Table 17: Commissions earned on sale of whale products and other fishery products, Oshika-cho Maritime Wholesale Market, 1984-87

	Commission on whale products (¥ Millions)	Commission on other fishery products (¥ Millions)	Total Commissions (¥ Millions)	Whale Commissions as percent of total commissions
1984	10.469	7.318	17.787	58.86
1985	8.780	9.156	17.936	48.95
1986	12.517	10.556	23.073	54.25
1987	21.706	5.855	27.501	78.76
Average	13.368	8.221	21.589	61.92

Source: After Bestor 1989: Table 6

Table 18: Gross fishery sales at Oshika-cho Maritime Wholesale Market, 1984-87

	Whale-product sales (¥ Millions)	Other fishery sales (¥ Millions)	Total Sales (¥ Millions)	Whale-product sales as percent of total sales
1984	348.967	190.407	539.374	64.70
1985	292.677	253.709	546.386	53.57
1986	417.253	272.339	689.592	60.51
1987	723.538	193.177	916.715	78.93
Average	445.609	227.408	673.017	66.21

Source: After Bestor 1989: Table 5

Table 19: Average wholesale price of whale meat at Oshika-cho Maritime Wholesale Market 1978-87

Year	Price/kg	Year	Price/kg
1978	¥671.10	1983	¥768.95
1979	¥773.53	1984	¥784.18
1980	¥853.92	1985	¥1,100.47
1981	¥763.47	1986	¥1,290.88
1982	¥706.51	1987	¥1,515.83

N.B. Figures obtained by dividing gross sales by gross weight sold

Source: After Bestor 1989: Table 3

Table 20: Revenues from ice sales, Oshika Fishery Co-operative Association, 1984-87

	Ice sales for whaling-related purposes (¥ Millions)	Ice sales for other purposes (¥ Millions)	Total ice sales (¥ Millions)	Whaling-related ice sales as percent of total ice sales
1984	20.838	7.321	28.159	74.00
1985	18.010	8.870	26.880	67.00
1986	14.613	17.154	31.767	46.00
1987	13.224	24.557	37.781	35.00
Average	16.671	14.476	31.147	53.52

Source: After Bestor 1989: Table 7

Table 21: Revenues of Wada Town Fishery Co-operative, 1984-86

INCOME SOURCE	1984 ¥ Thousands	1985 ¥ Thousands	1986 ¥ Thousands
Vehicle leasing	106.00	472.34	743.60
Boxes, materials	83.10	119.80	90.20
Land/facilities rentals	3,427.24	3,208.18	3,577.26
Commissions from Whaling sources	8,771.88	19,413.28	15,526.35
Total	12,388.22	23,213.59	19,937.42
Whaling-derived revenue as percent of total market revenue	70.80	83.60	77.90

Source: Annual Reports, *Wada Machi Gyogyô Kumiai*

Table 22: Revenues from whaling contributed to Wada Town Fishery Cooperative

	1984	1985	1986	1987	1988
Revenues (¥ Millions)	8.77	19.41	15.53	2.00	2.20

Source: Annual Reports, *Wada Machi Gyogyô Kumiai* and *Gaibô Hogeï*

Table 23: Declining contribution by whalers to Taiji town tax revenues and increasing town debt, 1962-1986

	1962-67 (average)	1978	79	80	81	82	83	84	85	86
Town population	4,639	4,800	4,791	4,539	4,661	4,618	4,584	4,542	4,314	4,443
No. of whalers	192*	75***	60	59	66	55	66	55	55	54
No. of whalers as percent of town population	4.8	1.6	1.3	1.3	1.4	1.2	1.4	1.2	1.3	1.2
Town total tax revenues (¥ Millions)	8.705**	70.48	65.0	76.33	78.72	82.44	90.80	95.43	108.90	—
Taxes paid by whalers (¥ Millions)	5.821**	10.47	4.53	7.63	7.82	8.0	6.54	3.84	8.19	12.27
Whalers taxes as percent of total tax revenues	66.9**	14.8	6.9	9.9	9.9	9.7	7.2	4.0	7.5	—
Accumulated town debt (¥ Millions)	—	586	600.5	613	748	867	1,017	1,085	1,095	1,270

* Range from 170-268 over 1962-7 period

** Based on 1966 and 1967 data only

*** In 1977, due to gradual decline in pelagic whaling, three whaling companies joined to form one single company.

Source: Taiji Town Office

Appendix I

THE DISTRIBUTION OF WHALE MEAT BY-PRODUCT FROM 1988 ANTARCTIC SCIENTIFIC RESEARCH

INTRODUCTION

The International Convention for the Regulation of Whaling provides for the rational utilization of whale by-products from research activities. In the Japanese context, this rational utilization necessarily involves distributing the edible whale products that have for centuries been an integral part of the Japanese diet and food culture. Furthermore, the government believes that a more universal rationality requires that the high cost of the research on whales (¥1,350 million) be offset by selling the edible whale products so that the interested public pay some of the cost of this research.

However, the supply of meat from research activities is severely limited; 550 tons of good quality red meat, and 578 tons of secondary quality meat and viscera, which quantity represents 10 percent¹ of the quantity produced during the last season of commercial whaling (1986-87). Data on the consumption of whale meat in Japan, collected by the Prime Minister's Office, indicated that over the previous four years, eighty-five percent of consumption occurred in twenty (out of forty-seven) prefectures. However, in order to meet the requirement of a fully rational utilization of whale product, it was necessary that the distribution system be both fair to all consumers and

also accord with Japanese trade laws and customary business practices. In order to meet these stringent requirements the Institute of Cetacean Research was requested to develop an acceptable system for distributing the meat.

Deciding on the Appropriate Distribution System

The Institute of Cetacean Research (ICR) formed a national committee to recommend a rational distribution system; this committee was composed of sixteen prominent scientists, business and government officials at the rank of director or department head. However, these senior-level individuals required the advice of managers (at deputy-director rank) more familiar with market conditions; thus a twenty-person committee of advisers was constituted. Several meetings of this committee were held and priority users were identified. These high-priority users included, e.g. patients required to eat whale meat for medical reasons, and school lunch programs where public funds were used to meet a widely-accepted public interest.

The committee also developed a policy of waiting for requests for whale meat to be received, rather than proactively offering it to former whaling towns, for example. Another policy was developed to make the distribution balanced, to avoid any bias toward high-demand areas where whaling was formerly carried out (e.g. in Kyushu).

Requirement of Japanese Law

When commercial whaling was carried out, the five whaling companies handled sales of whalemeat and edible products. However, with the amalgamation of these companies into one company (due to the contraction of pelagic whaling in the 1970s) it was necessary to keep the selling of the meat under the control of company shareholders in order to avoid conflict with Japanese anti-monopoly laws. However, the by-product from Antarctic

research activities is distinct from the product of commercial whaling and represents a public good, public property in effect. The most appropriate distribution mechanism is the prefecturally controlled public markets for the good quality red meat, and directly from the frozen stores to the meat processors for the secondary meat and viscera (as has been the practice in the past).

National Distribution Ensured

Public bidding for produce in the open market is required by the Japanese Fair Trade Commission, in order to conform to anti-conspiracy laws. However, in order to ensure fairness and to prevent resentment that might compromise the widespread support in Japan for continued Antarctic research, a ceiling price is imposed, as well as a proportional distribution to the public markets based on the average of the past four years regional consumption of whale meat. Thus each of the forty-six prefectures in Japan where whale meat sales were recorded in the past four years, received some of the best quality red meat, in comparison to the commercial distribution in the past where the best quality meat was principally purchased for markets in Osaka and Kyushu. (See Table 1.)

Meat Processors

It was ascertained that fifty-one meat processing companies use whale parts for food production. Using the earlier production figures as a guide, it was found that the processors' demand for whale parts was twenty-times greater than the available supply. However, an equitable system has been developed, and the distribution commenced on February 10; (the red meat distribution occurred over the period January 10-27, 1989). In the past, whale meat distribution was accomplished shortly after the antarctic fleet returned in April, but in 1988, the distribution was delayed for ten months whilst studies and discussions were carried out in order to fully rationalize the distribution of the limited quantity of whale products.

Prefecture	Tonnage	Prefecture	Tonnage	Prefecture	Tonnage
Osaka	61.0	Kyoto	10.0	Iwate	2.0
Tokyo	59.0	Wakayama	9.6	Ibaragi	2.0
Fukuoka	54.4	Chiba	9.1	Tochigi	2.0
Hyogo	29.7	Kochi	9.1	Miyazaki	1.5
Nagasaki	20.7	Aomori	7.6	Gumma	1.5
Hokkaido	19.2	Oita	7.6	Ishikawa	1.5
Ehime	19.2	Shiga	6.1	Shizuoka	1.5
Yamaguchi	18.7	Niigata	5.5	Yamanashi	1.5
Saga	16.6	Nara	5.5	Shimane	1.5
Kanagawa	16.6	Yamagata	4.6	Tottori	1.0
Hiroshima	15.1	Akita	4.0	Tokushima	1.0
Okayama	13.1	Kukushima	4.0	Kagoshima	1.0
Kumamoto	13.1	Kagawa	4.0	Toyama	0.5
Miyagi	12.1	Mie	3.5	Fukui	0.5
Aichi	12.1	Gifu	3.0	Okinawa	—
Saitama	10.1	Nagano	2.5		

The Price-Setting Mechanism

The cost of whale meat distributed nationally is more or less set due to the need to raise revenues to support the Antarctic research program. The scientific program costs ¥1,350 million and the national government initially contributed ¥350 million as a direct subsidy. The remainder is to be raised from the sale of whale products and from public contributions to the research program.

Compared to the last commercial whaling harvest (1986-87), the middleman receives more per unit handled, as quantities were considerably larger in earlier times; however, the price paid by consumers is now lower than for the earlier commercial catches.

The Institute of Cetacean Research sets the price ceiling for middlemen, who bid for the meat at the prefectural markets from two wholesalers. The meat is distributed by the vessel owner (Kyôdô Senpaku) to the prefectural markets, to the meat processors, to public institutions (e.g. hospitals), and to some local governments for use in school lunch programs and for similar public purposes. The Institute of Cetacean Research (ICR) allows a 5.0 percent brokerage fee to be charged by Kyôdô Senpaku to cover distribution and handling costs to prefectural markets. The

ICR nominates a price for Kyôdô Senpaku to sell product to the meat processors, but cannot set the processors' selling price as meat processing involves variable costs depending on the amount of processing required.

The final price charged by retailers cannot be set, as the Japanese Fair Trade Commission's rules forbid price fixing in that manner. However, retailers have been reminded that they are retailing public property, and that a fair margin only is to be charged over their cost from the middleman. Middlemen are required by law to report prices charged by their retailer customers, so following an extensive public education program (the reason for the delay in instituting the distribution) it is believed the system will work as intended. Middlemen must report on price level to the prefectural government and the reporting requirements are stringent, with any detected irregularities resulting in lower allocations in subsequent years.

END NOTE

¹ Antarctic research activities in 1988 collected 273 minke whales, compared to 1941 minke whales harvested during the last commercial season. Furthermore, the commercial whalers selected large-sized whales, whereas the randomly sampled research take was of large, medium and smaller-sized whales.

Appendix II

WAGES, SUPPLEMENTARY PAY AND BONUS SYSTEM PAID BY SMALL-TYPE WHALE-BOAT OPERATOR, TAIJI

Basic salary (<i>hon kyû</i>) plus food costs and supplemental pay (see below)	etc.
Retainer salary (<i>yobi kyû</i>) 60 percent of salary when not actively whaling (excludes food and supplementary pay)	<i>kaibô teate</i> - for flensing whales (in Hokkaido waters)
Bonuses (<i>hakkenryô</i>) - for spotting a whale:	<i>bôto hogyô</i> - for assisting in handling whales
- for minke whale: ¥10,000	
- for beaked whale: ¥5,000	
- for pilot whale: ¥1,000	
Bonuses (<i>buai</i>) based on numbers of whales caught (represents 12 percent of profit, shared according to rank on board, i.e. harpooner and captain receive largest shares).	
Supplemental pay:	
<i>bôto teate</i> - for going in chase boat for minke whale (high bonus as dangerous work)	
<i>shokumu teate</i> - to harpooner, chief engineer, bo'sun, captain (for remaining on board)	
<i>suichû sagyo</i> - for working in water, diving,	

In addition to wages and bonuses, crew receive shares of meat: 10kg per person per whale caught during the season.

Boat owner distributes ca. 150kg for community purposes and a small allotment to each crew member at time of first catch of season (*hatsuryô*).

RATIONALE FOR WHALE-SPOTTING BONUS DIFFERENTIALS

The minke whale bonus is highest, because this species only surfaces for a short time so the spotter must be alert and quick to sight minke, which can't be seen when the sea is rough. Beaked whale are much easier to spot, as they stay on the surface for a few minutes, and can be spotted at a distance of six miles (from the mast barrel at 7m height) as they jump out of the water; minke on the other hand can only be seen up to one mile distant from the boat.

THREE REPORTS:

**OBSERVATIONS ON TAIJI ATTITUDES AND DIET AS REFLECTED BY THEIR WHALING HISTORY
REACTION TO THE WHALING MORATORIUM
ON THE CLAIM THAT WHALE MEAT IS ONLY SERVED AND EATEN IN EXPENSIVE RESTAURANTS**

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OBSERVATIONS ON TAIJI ATTITUDES AND DIET AS REFLECTED BY THEIR WHALING HISTORY

I first met Taiji men in a whaling ship off the coast of Canada. The ship was a British-built catcher that had been sold to Japan and renamed '17 Kyokuyō Maru'. She was engaged in coastal whaling out of the Newfoundland port of Dildo, hunting mostly for fin whales. The ship was entirely crewed by Japanese, while the whaling station employed both Canadians and Japanese. It was a joint Canadian-Japanese venture, with the meat being carefully graded, frozen and sent to Japan for human food. That was in 1966.

Sailing aboard this ship I was extremely impressed with the seamanship, cleanliness, friendliness and pride of the Japanese whaling men. At that time, the gunner, Mr. Shoji Mineo, said to me;

"We Japanese do not have the wide prairies that you have in Canada, but we have five times the number of people. The seas are our prairies, and we must take food from the seas to feed our peoples."

There was no doubt that the Japanese, at least the ones I knew, liked, even preferred, whale meat. Aboard that ship in 1966 whale meat was served at lunch, dinner and late supper every single day, and I, like the crew, never got tired of it.

When I sometimes went ashore to see to the training of assistants who took biological samples from the landed whales, I was confronted with the food prejudice of locals, who thought eating whale meat was disgusting... even if they had never tried it.

Our food preferences are governed very mainly by environment, by the upbringing that is a result of that environment, and also by history and tradition... which again are strongly modified by the environment. It is a sad fact too, that a lot of prejudice, cultural and racial prejudice, is manifested by slurs on the diet of another people. The list of these diet related slurs is very long,

and very insidious.

We are all aware of dietary restrictions placed by religions. The forbidding of eating pork by Islam, by the Jewish faith, by Coptic Christians, and the forbidding of eating of beef by the Hindus. So many, many diet restrictions, all over the world! Being British-born and raised, I or my family would have been horrified at the thought of eating horse or dog, and, come to that, frogs and snails. In those days though, I did not hear anybody object to the whale oil in our margarine.

In the context of the Japanese, it must be appreciated that the influence of Buddhism in the country placed dietary restrictions on the eating of meat from four-legged animals. The taboo was so strong that the peoples who handled the disposal of four-legged animals, tanning and so forth, were so discriminated against that they were made to live in certain areas and were terribly restricted in their daily and personal lives. The Japanese government in the last decades has been doing its best to overcome that ancient prejudice, going so far as to even ban the use of the words 'four-legged' and other vaguely related words on national radio and television.

There was though, at the same time, an ancient hunting culture in Japan, that still manifests itself in mountain-living peoples' traditions, folk tales, hunting and gathering methods. The eating of deer, wild boar and hare was and still is very common in the mountains. However, because of the Buddhist taboos, wild boar meat was called 'mountain whale' and hares were counted by numerals associated with the counting of birds.

Whale meat however, was valued highly, and regarded not as the meat of mammals such as cows, but rather as fish. The character in the Japanese writing system for whale is indeed written with a fish radical. Of course, the ancient whalers were aware the whale was warm-blooded, milk-giving, and that it bore live young, but still it was not taboo to kill and eat, as it was categorized as a 'fish' (i.e. not four-legged).

During the Edo period, the capital city of the Shogun was the largest city in the world. There were other large

cities too. With restrictions on the eating of raised animals such as cattle, sheep and pigs, there was a demand for protein that could not possibly be satisfied by the mountain hunters and trappers, although small amounts of hare, boar, deer, pheasant and ducks did get sold. The long and complicated coastline of Japan and the rich variety of flora and fauna were utilized to an extent undreamed of in Europe.

The Japanese ate every kind of edible protein from the seas and coasts, and had very many ways of preserving these foods. Away from the coast, wild mountain herbs, roots, mushrooms and even grubs and insects supplemented the diet. However, there was a hunger for protein, and for many areas, the whale became a primary source. In the Edo period (1603-1867) Taiji supplied both the Shogun's and the Emperor's capitals with dried and salted whale meat, as well as the markets in Osaka, Wakayama, Shingu and other places that could be reached by sea.

Taiji is uniquely situated to catch whales and other small cetaceans, being at the tip of a large peninsular. Not far offshore flows the warm current of the Kuroshio, while there is cooler water inshore. The headland lookout points were in sight of the migration routes of right whales, sperm whales, humpback whales, gray whales and other whale species.

Behind the shoreline, steep hills of dense forest prevented the cultivation of rice and severely restricted movement except by sea. It wasn't until the Taisho period (1912-1926) that a tunnel was cut through a hill to Taiji to allow anything other than small handcarts land access to the town. Taiji was isolated except by sea. Even today it takes longer to reach Taiji from Tokyo than it does to travel to Hokkaido.

The whaling history in Taiji can be traced back eight hundred years, but the use of cetaceans for human food in the Japanese archipelago can be traced back to the Jomon period (1000-8000 B.C.).

It was in the Edo period that a whaling industry evolved, using many boats and a work force of about six hundred men. The whales most sought after were the right whales, the humpbacks and the grays, although sperm whales and other smaller whales were taken. Large rorquals were generally not hunted, with the rare exception of sei or Bryde's whales. The Taiji whalers would drive whales into large sets of stout rope nets, harpooning and entangling them, before cutting a hole and passing a rope through the septum, then finally securing the whale between two boats with beams of wood over the back and ropes under the belly for the final lancing and then the long haul back to the village.

By far the most valuable product was the meat, of which every last scraping was used for human food. Blubber was also eaten, or rendered into oil. The dry blubber biscuits, produced from rendering the oil from the blubber was also used as food. Tongue, heart, liver, kidney, stomach wall, intestines and lungs were boiled and eaten. Cartilage was

also eaten, as were the gums. Although sinew, baleen, and bone were used in many craft industries, such as armor making, toy making, and puppet making for example, the greatest value of the whale was for food, though the oil was also important as an insecticide applied to rice paddies in agricultural areas of the nation.

Because of the success of Taiji whaling, and the taxes and tributes the whalers were able to pay to the government, other fiefdoms requested the expertise of the Taiji whalers. Thus Taiji whalers went to Shikoku, to the Goto Islands, to Iki Island, and north to the Date clan's ports near Sendai. They were far more respected and honored than any other kind of fishermen, and allowed greater freedom of travel because of it.

However, in the mid-nineteenth century the whalers of Taiji began to experience lean times. In the 1820s the so called 'Japan Grounds' had been discovered by foreign whalers, and by the late 1840s there were an estimated seven hundred foreign whaling ships operating off the coasts of Japan. America's large whaling fleet was dominant in the region.

At that time Japan was closed to foreign ships, peoples and influences, with the only exception being the Dutch and Chinese who were restricted to the tiny island of Deshima, Nagasaki. As the coast of Japan is hazardous, especially in the typhoon season, safe ports were needed by these foreign fleets. At that time shipwrecked ships were seized by the Shogun's government, and sailors, whalers and passengers were interned and sometimes treated harshly.

It was due to this that a strong whaling-industry lobby in the United States pressured the American government into sending a powerful fleet of warships to force Japan to open to outsiders. There were other reasons, of course, but a careful reading of the report of the American squadron under Commodore Perry, indicates that safety for whaling was very much an issue to be settled between the two governments at that time.

Very few westerners seem aware that America forced Japan to open for the sake of the large numbers of whales being taken off Japan. The people of Taiji though, are well aware of this.

Another result of this large concentration of foreign (American, British, Dutch and Russian) whale ships off Japan was the serious depletion of the whale stocks that the Japanese in places like Taiji relied upon. Especially the right whales, which was the most valuable. The sad truth of the matter is that foreign whaling, for oil and baleen, was terribly wasteful, especially compared to the careful human-food use of the total whale carcass by the Japanese.

The net-whaling industry collapsed, and Taiji was given a terrible additional blow by a disaster which cost one hundred and eleven whalers' lives and the loss of their valuable boats and equipment (in 1879).

Taiji, which a few decades before had been one of the

most prosperous and admired small coastal towns, now became desperately poor. Encouraged by the new central government, many Taiji people left Japan, emigrating to Hawaii, Canada, the United States and Australia.

With the outbreak of World War II, many Taiji people returned home just before hostilities started, or were interned and came back afterwards. Many Taiji people (including the present mayor) were in fact born abroad.

As Japan was opened up to western influences it was inevitable that the new Norwegian techniques of whaling, with the use of the steam catcher, winch and the Svønn Foyn whaling harpoon, would be adopted. In 1902 three Norwegians came to live and whale in Taiji, hunting mainly for large rorquals. With the new whaling techniques and the almost untouched populations of large rorquals, over forty whaling stations were opened around the coast of Japan, and the appetite for whale meat increased enormously, especially as canning factories could now preserve great quantities of meat to feed the men fighting the Russian War.

With this kind of uncontrolled whaling Taiji enjoyed prosperity for a while and their men went off to whale all over Japan.

As, inevitably, the stocks of the great rorquals faltered, many whaling stations closed. Taiji, however, had developed small scale boats which used a harpoon gun developed by a Taiji man who had learnt gunsmithing in America before returning to his birthplace. This gun, the Maeda gun, fired either five harpoons (in the early version) or three in a later version, and was in use until quite recently. The lighter harpoons were effective, especially with pilot whales, which for centuries had been a staple food of Taiji people. The lighter-colored meat of baleen whales was mostly sold in better-paying markets away from Taiji, although the whalers and associated support industries in Taiji received gifts of certain parts of these baleen whales. However, the darker-fleshed pilot whale meat was more commonly eaten in Taiji.

When Japan began Antarctic whaling, especially after the end of World War II, Taiji men were the most experienced whalers, with a long, largely unbroken history of whaling experience that had seen constant enforced adaptation to new situations, methods and prey. In the years of the so-called 'Olympics' of antarctic whaling there were about six-hundred Taiji men employed by the whaling industry, either in pelagic fleets or in both large-scale and small-scale coastal whaling.

Long months of isolation at sea, facing hardships, being away from families and sweethearts, gave Taiji men a special character. At sea they had the *senpai-kohai* (senior-junior) relationship as well as working alongside fathers, uncles, cousins, brothers and neighbors to strengthen a sense of pride in their calling and in their ancestry.

Very many of the family names of Taiji are whaling names, and at the end of the Edo period and beginning of the Meiji period, these names reflected the whaling

profession of the families... harpooners, watchers, net makers, sinew processors, blubber boilers and so forth. Harpooners, captains and chief bosuns were especially respected, even hero-worshipped. When the whaling fleets departed or returned it was to throngs of well wishers, with bands, streamers, and enormous national pride, of which Taiji men felt they were justly due.

It was the whalers of Japan who provided twenty-five percent of animal protein for school lunches after the war, when Japan was desperately short of food. Whale was the most common, nutritious, and usually cheapest, of meats when I first came to live and study in Tokyo in 1962.

However, as the country became more affluent, people who in former times had not been used to eating whale, were easily weaned away from that particular dietary item. This coincided with a marked decrease in supplies of Antarctic whale meat.

However, and this cannot be stressed enough, there were many communities who had been used to eating whale meat for centuries, especially in areas where the whaling industries had operated since the Edo period. People in these particular areas definitely had a preference for whale foods and had consequently developed a diversified whale-based local food culture.

I have lived and worked in Europe, Canada and Africa, and I can emphatically state that Japan has by far a more varied diet, a more regional diet, a more seasonal diet than encountered in other places. Throughout Japan you will find strong regional food preferences, and even food prejudices. For example, in northern Nagano, in the Japan Alps, there are country people who love to eat the grubs of the underground nests of a small wasp, also... at great risk... the grubs of hornets, then grasshoppers in the rice paddies close to harvest time, grubs of a beetle found in hardwoods, and dragonfly larvae. I eat and enjoy them myself. Many Japanese though, could not even think of eating such things. In the same area thinly sliced raw horsemeat is also considered a delicacy, but that is certainly rare in Tokyo.

Many foreigners, and some Japanese, who only have knowledge of Tokyo or Kyoto or Osaka, will make sweeping generalizations about diet preferences that apply only to the locality and the limited range of acquaintances they have. This judgement is incorrect, unfair, and culturally and environmentally unsound. There are Taiji people who have never eaten snow hare, and Shinshu people who have never eaten pilot whale, but to say that Japanese don't eat hare, or don't eat whale, is wrong. It would be a mistake to try to force Shinshu people to eat boiled pilot whale viscera, or Taiji people to eat wasp grubs. Eleven years ago when I came from Canada to live in Taiji for a year in order to research a historical novel I became reacquainted with men I'd met at sea, and soon made friends with other Taiji whaling men. The rising prejudiced hysteria of foreign anti-whaling movements, based largely on the false premise of the imminent extinction of all whales, or the equally false belief that

Japanese hunted whales for petfood and lipstick, etc., etc., etc., ad nauseum, was not only offensive, but extremely puzzling to the Taiji people.

As they frequently said at the time, and continue to say now, they themselves never attack other people for their food preferences, so why should foreigners attack them? Wasn't the killing of terrified, penned, domestic animals a greater cruelty than the taking of a wild whale at sea, with a harpoon that usually killed instantly?

The Taiji people could look back on a long and honorable history of taking cetaceans to feed their own people and their nation, but also on a history where foreigners have repeatedly meddled, usually for very selfish and prejudiced reasons. The people of Taiji are a very courageous, stoic and proud people, and they are being economically deprived and gravely insulted, especially by a nation that is forcing them to import beef, a food that is banned by the Buddhist religion, even if it is increasingly popular since the forceful opening of Japan by the same foreign country that sought to protect and expand its own whaling industry at the expense of the Japanese coastal whale fishery. Some Taiji people remarked too, that the former president of the particular country was a beef rancher, and that his wife was a Greenpeace sympathizer.

"How would they feel" asked one old Taiji man, who had been interned during the war, "if we had won and if we and India had made them stop killing cows and had enjoined them to eat dolphin and pilot whale meat like us?"

There is of course no room in this debate for prejudice, yet on the western side the prejudices loom so obviously. Taiji people feel they have a right to go on living from the resources they have at hand.

I would like to offer some words of caution to some people who scoff at Taiji and deny whalers' pride. While in London, talking on a television program about these problems, an Englishman made some derisive remarks about "boy's own adventure attitudes". Taiji whalers have for centuries risked their lives at sea to feed their people and maintain their traditions. For example, my friend, gunner Seko, whom I had the privilege of sailing with in the Antarctic in 1980 retired after over thirty years of whaling last year. His father was a harpooner, as was his grandfather, and his great-grandfather. The tradition of whaling is very much alive in Taiji, and if insulted, this will eventually offend large numbers of Japanese in other areas of national life.

The Reaction to the Whaling Moratorium

On January 3, 1989, Japan's national television network (NHK) carried a two-hour drama about an unemployed whaler. This was late in the evening, at prime viewing time. The play reflected very well the anger of many Japanese to the unfairness of the whaling ban and the refusal of western countries to understand that Japan has special reasons for needing whale-protein. What was alarming however, was that while the play reflected quite good knowledge about the status of minke stocks in the Antarctic, whale protein

use, whaling history and whaling in general, it had a very jaundiced view about western ethics. For example, in one part of the play a Japanese Christian minister from Kyushu argued very volubly that the taking and eating of whales was against Christian ethics, and against all western philosophy and feelings.

Well, Greenpeace and other fanatics may be pleased to hear that said, but it isn't true, and the Bible does not tell us not to eat whales. Some Japanese phoned in to NHK to say that they also thought that whaling was barbaric, but they were much in the minority; after the play, which I discussed with many people, I detected a very widespread anti-western reaction.

As I have been outspoken in my defence of Japanese whaling over the past twelve years, on television, radio and in print, I do get many letters, hundreds in fact, agreeing with me. In Japan I did receive a letter disagreeing with me, and it was typical of its kind. In Canada I got many more, including threatening letters.

Taiji town gets a similar reaction from the public at large: mostly sympathy and support. The anti-whaling people write letters saying all Taiji people should die, and similar sentiments.

My friend Mr. Ishida, bosun, with thirty-seven years of experience at sea relates an incident which happened when his ship called in at Freemantle. With two foreign scientists aboard they had been on a long, non-killing whale-sighting cruise. The harpoon gun was securely lashed and wrapped in canvas. When their ship got into port, they were met by a mob of what he is personally convinced were mostly paid protesters. One of them climbed the mast and chained himself up there. Others sprayed the ship with huge letters: "Whale Killers". The Japanese whalers do not want to be violent, they are probably more even-tempered than anybody I know, but in the end, to stop these excitable people from vandalizing their ship, which was on a research cruise as the foreign scientists tried to explain, the whalers had to keep them off with fire hoses.

Similarly, anti-whaling protesters have thrown ink on Japanese delegates, publicly burned the Japanese flag, and recently, rammed a whaling ship engaged in antarctic research. They are, in the view of Taiji men (and myself) nothing less than fanatics and terrorists.

However, despite the barrage of insults and provocations, I know of no time that the Japanese whalers have responded violently. They have always been gentlemen.

Despite long absences at sea, there has been very little family trouble among whalers. As gunner Kohama Wataru says:

"We could talk with each other, and we knew about each other. Family violence has become very common in Japan, but not with us whalers. I have one daughter, and she has been exposed to and knew about anti-whaling movements since she was small;

she has grown up with it, but she is still proud of her father. She will continue to respect her father. They, the children, know.”

That certainly is the case. Taiji children, formerly open to foreigners because their fathers, uncles and other relatives spent so much time abroad, now have started to resent foreigners, especially Americans. When, in February 1989, we tried to gather some junior high and high-school students to talk with us, many of them refused, at first believing that as we were westerners we were anti-whaling people, and therefore to be disliked and distrusted. The attitudes of many Taiji children are reflected in the words of a fifteen-year old boy:

“Foreign governments are cowardly. Our food culture is different, so don’t attack us and treat us like inferiors. Human populations will increase and we will have to utilise resources, and we Japanese in Taiji feel that whale and other marine resources must be properly researched and managed. Me, I feel more sorry for broiler chickens, for they never see the sun and they face certain death. Whales are free and only a small percent of them are killed.”

Another boy of the same age, whose father is an unemployed whaling captain, said the following:

“My father is a whaler, but when my younger brother saw a dolphin kill, or when he saw a whale landed and flensed, he thought it was really sad. It is a pity to kill anything, but we must separate feelings from needs. My father understands that, and he fed us and many, many other Japanese.”

I have known Japanese whalers for over twenty-three years, and have lived in Taiji and visited there many times over the years. I have sailed aboard whaling vessels in the North Pacific, the North Atlantic and the Antarctic; I believe the whalers now trust me. In a period of ten days in Taiji, specifically devoted to finding out how the people really felt, I was increasingly saddened by the rising frustration, the bewilderment and the hostility toward the west. To quote some of the Taiji men:

Unemployed, bosun, 37 years of whaling experience:

“So many people connected to whaling have been affected. Now we don’t have the resources to give higher education to our children; the moratorium is cutting off all our hopes.”

Unemployed captain, 27 years of whaling experience:

“My daughter now needs to go to university, but with me unemployed our biggest worry is how to live.”

Unemployed chief whaling deck hand, 36 years of whaling experience:

“After the age of fifty I can’t find a job. Our standard of living has dropped. I’ve got two children ready for higher education and I need a job which has a good pension and benefits, but I’ve got no chance of that now. If whaling is ever resumed, I wonder if

they’ll need me?”

Unemployed harpooner, 34 years of whaling experience:

“We need work! Work with benefits and pensions, but how can we get it? We all need this, we can’t just wait around doing nothing. I’ve got five more years until I can get a government pension, and that’s totally inadequate. I’ve got two children, one in junior high school.”

Unemployed harpooner, 33 years of whaling experience:

“I’m angry, and I’m sorry, but I can’t even feel happy that we’ve got this chance to talk with you. Our family is almost destroyed. I’ve been whaling since I was sixteen, that’s all I know. What chance have I got now? Looking at present-day Japan, I think none. I’m angry and disappointed with our government, who can’t even let us whale in our own two-hundred mile territorial waters. This involves more than money: it is our job, our vocation, our life! I’ve got two children, one in middle school, one in kindergarten.”

Unemployed bosun, 39 years of whaling experience:

“There is no other suitable job for me, I can’t adjust. One hundred percent of the people in Taiji suffer from this moratorium. I took part in whale research and talked with scientists from Canada and England, and they told me that the whale population is not declining, but increasing, and I felt relieved about this. So what is happening now?”

Unemployed second engineer, 10 years whaling experience:

“There is no suitable job for us. Tankers and such have different rules. I feel the same as everybody.”

Unemployed chief engineer, 34 years of whaling experience:

“I was eighteen when I started whaling, and now I’m fifty-three. Whaling was my whole life. Here is Taiji we have eight-hundred years of whaling history. Why is that? Because just off Taiji is the path of the whales, their migration route. Whaling began as coastal whaling, then it spread to the Antarctic. When Kyôdô Hogeï was formed the government just tried to protect Antarctic whaling, but companies like Nihon Hogeï were not protected. The government should go back to a coastal whaling base. However, why throw away this tremendous, long-protected resource of whales? We should start again from coastal whaling, go back along our eight-hundred years of history, take our food from offshore Taiji as our ancestors did, from those whale migration routes. There are lots of sperm whales out there, pilot whales and dolphins too. Look, for just three hundred sperm whales in the quota, why should tens of thousands of people suffer? Why? Why can’t they weigh the value of three-hundred sperm whales, a resource which is renewing itself even

at a greater rate, with the lives of ten-thousand people? As for me, I can't die in peace if I haven't passed on the skills of my ancestors. I have two sons in university, and my family is really suffering. Really."

Unemployed harpooner, 34 years whaling experience:
Whaling was our life and we knew no other. What else can we do? I'm too young for a pension and I haven't got a job, not even a chance."

Unemployed radio officer, 27 years of whaling experience:
"I can't get a job, can't go fishing, and nobody needs me on land. I have a child in university, and I can't pay for the final year. The world tells us that eating whale is savage, but we don't criticize their cultural foods, so don't criticize ours."

Unemployed captain, 32 years of whaling experience:
"I've retired; I'm 62 now, but I feel the same way as everybody else, and my heart is heavy to see the men having to come off the boats."

In dozens of conversations with whaling people I heard even stronger emotions, especially when invited to homes or out drinking with them in the small Taiji bars (which businesses are also suffering from lack of custom compared to the times when the whalers were working).

When whalers were asked could they not take up fishing, they answered that the waters were already over-fished, and if they went fishing they would be infringing on others livelihoods, and anyway could barely survive from the meagre catch. Whalers have very special skills, developed over years, and they can't simply switch jobs. One man, very angry, said:

"The Americans said they'd kick us out of their 200-mile zone if we didn't quit whaling. Well, we quit, and they kicked us out anyway! I can't understand, I can only see the result, and that is simple: American force stopped our livelihood."

One young dolphin and small-cetacean hunter said this to me:

"In foreign countries there are religious taboos on certain foods. The Muslims can't eat pork. The Hindus can't eat beef. The Jew's can't eat pork, certain kinds of animals with certain kinds of feet, all kinds of things. Usually it's because they consider the taboo animals unclean. Then you take the Christians: they say that Jesus Christ is the 'Lamb of God', and they have a ceremony where they take bread and wine and say it is the flesh and blood of the 'Lamb of God'. Why can't they understand that to us the whale is not unclean, not taboo? The whale is a god to us, and we take the god from the sea to feed ourselves and family. If they try to force me to stop I don't mind going to jail, I'm going to take whales with my harpoon no matter what anybody says. I don't mind dying if I have to. The Americans and all the rest are ignorant and cruel, and I hate them."

A very definite concern among several Taiji people is that restrictions imposed on coastal whaling will result in an increased take of various species of dolphin and pilot whales for example, and put too much pressure on those other species. The dolphin-hunting group, who call themselves *Isana Kai* claim that they have not increased the hunt. However, there have been large-scale harvests in the recent past and a lot of Taiji people worry about that. The dolphin hunters, when they drove in large herds in the past, would slaughter according to the demand of the market for a few days, then release the rest of the dolphins; however, they don't release any now.

As to the charges of cruelty in whaling, I can say that most of the thousand or so minke whales that I saw killed in the Antarctic died in less than two minutes, many died instantly with a heart shot, those that didn't were quickly winched to the bow and dispatched with electric lances. We asked Captain Isono how long it took to kill minke or Baird's beaked whales with the fifty-millimetre gun he uses on his small (15-ton) ship. Captain Isono takes very careful data of all his operations, and reported 35 to 36 per cent of the whales die instantly with a heart shot. Otherwise it doesn't usually take more than five minutes and never longer than ten for the whale to die. He also uses extra kill shots and the electric lances.

Many Taiji men feel that slaughter houses are more cruel because the animals are not free, they are penned and know they will certainly die.

If five minutes may seem a shocking time to die, a documentary film on the execution of a young black youth in the United States, quoted prison officials testifying that it took twelve minutes for that young man to die in the gas chamber.

A fifty-year old whaling bosun said to me:

"In America they are shooting each other all the time over drugs and such. Well, in our town we never had drugs, or gangsters, or people shooting each other. They should look to what is happening to themselves before criticizing us for taking whales for food. I think it is just a cover to make their people feel better about all that shooting in their towns, and probably about the bombs and poisons they dropped on the Vietnamese. Did you notice that? They started on the anti-whaling business, and it's really big business we know, just after they quit doing all their cruelty in Vietnam."

It is not only whalers and their families in Taiji who are angry about the moratorium. For example, a veterinarian said:

"I know very well that farmed creatures, fish too, are polluted with all kinds of stuff, so I want to go on getting whale for the health of my family. It is the best food for us."

The change from whale meat and organ meats to beef, pork and other fatty meats is likely contributing variously

to some serious effects on Taiji health now being observed: higher blood pressures and cholesterol rates, heart disease, depression.

Older Taiji people told us that whale meat is the most delicious, and even if you eat a lot of it your stomach will be fine, it's so good for the health.

Many Taiji people said that in the past they did not buy whale meat, it was given to them. I know from experience that was the case, because when I lived in Taiji I was regularly given whale meat and boiled whale intestine and other viscera, and that was my main source of protein for the year. As in Ayukawa, Taiji people "buy fish, get gifts of whale". Now of course there is limited whale meat entering the town, and on the shelves of the supermarket it is mostly pilot whale; people now have to buy it, but they want to maintain an assured local supply.

A young lady composer said:

"The Alaskan efforts to save those whales in the ice was a pointless fiasco, just to show off. We eat all of the whale and that is how we show our respect for it. Westerners don't appreciate our religion and customs and don't know how much we love and respect whales. Even if we are (individually) not directly connected to whaling we have a pride in whaling. We worry that this will all go, and be lost in mere nostalgia. We cannot understand why whaling must be stopped. How can we teach our children and explain what is going on? We feel a terrible frustration."

An ex-whaler who has taken over his father's fish shop said:

"You must understand that whaling to us was not just business, even though the moratorium has affected every business in this town. The men who went to the Antarctic had good wages and a lot of pride. However, meat from pelagic whaling did not come to the fish shops in Taiji to be sold. Meat

was, however, freely given by the local whalemeat processors, and whalers got gifts of meat from the companies, which they shared."

The importance of sharing and gifting continues: although I now live in the mountains of Nagano, I was, until very recently, frequently sent blocks of frozen whale meat, tail meat, red (back) meat, 'bacon' and blubber. It is only in the last year that I've been buying whale from my local fish merchant, and he gets meat mostly from small toothed whales that are entangled in trap nets on the Japan Sea coast.

A local artist and potter said:

"Taiji was and is a whaling town. Whaling was Taiji's main sales point. If this is gone, however, it'll just be tourism, and we can't trust this. Personally, I was going to build a new house, but I've lost the will to do it. People here are in limbo."

An interesting point was brought up by the local butcher. We thought that with a lack of whale meat, his sales must have gone up. It was not that simple.

"When lots of men were working in the Antarctic, their wives could afford to buy expensive meats. Those sales have dropped badly now, but the cheaper, fatty meats are selling instead."

Conclusion

It is obvious that the stopping of whaling has adversely affected Taiji in many ways. It is also obvious that this is an outside and unwarranted interference with the Taiji culture. What is especially worrisome is that among Taiji residents especially, but similarly among many other Japanese, there is a growing resentment that is being directed, fairly or unfairly, against America; the western anti-whaling movements, with their extreme prejudices are creating a noticeable backlash of prejudice in Japan.

Taiji may not make a large contribution to the economy of the nation, but in the overall cultural mosaic of the nation it is vital and the residents use of local natural resources is their historic and legal right. The use of some of the locally

Table 24: Supermarket prices for meat and fish, Taiji, February 1989

	Value of whale meat sales (¥)	Whale meat price (¥ per 100 grams)	Farm-animal meat (¥ per 100 grams)	Fish/Shellfish (¥ per 100 grams)
Dolphin organ meats (cooked)*	23,803	78	Chicken/Hamburger 88	Mackerel 78
Dolphin meat scrapings (cooked)	13,911	78-118	Chicken 108 (white meat deboned)	Tuna 168 (average quality)
Dried/marinated whalemeat	6,622	194-198	Chicken 118 (dark, deboned)	Squid 178 (good quality)
Sliced fluke cartilage (sperm whale)	10,560	450	Chicken 148 (filet)	Eel 298
Salted blubber	2,366	248	Hamburger 190 (low quality)	Crab 350-495
Cooked blubber (pilot whale)	—	600	Pork 218 (deboned, cutlet)	Yellowtail 450
Minke whale red meat	98,400	780	Beef 550 (frozen)	
Red meat (sashimi) frozen	—	1,680	Beef 600-1,500 (tenderloin)	

(N.B. January sales data from one supermarket, Taiji; prices from two Taiji supermarkets)

Source: Supermarket store survey, February 1989

available whale stocks for food removes a great pressure from other resources and thereby contributes to sustainable ecological balance.

ON THE CLAIM THAT WHALEMEAT IS ONLY SERVED AND EATEN IN EXPENSIVE RESTAURANTS

Last week in Taiji I enjoyed a dish of *onomi*. This is by far the most expensive whale-meat dish. It is the tender marbled meat, in this case from a minke whale, from the few kilos of vestigial muscle in the sides of the 'tail' region, near where it flares out into the flukes. This meat is, and always has been, the ultimate luxury in whale eating, and one that most Taiji folk would enjoy only rarely. Yes, it certainly can be found on luxury menus. For seven slices, three to five millimetres thick, with a sauce of grated ginger and soya, and a side dish of white radish, plus green tea, the cost was ¥1,500.

As I write this in the Capital Tokyo Hotel, a hotel I use regularly when I come to Tokyo, I have beside me their room service menu. Chicken in a basket is ¥2,800. A very small Kobe steak is ¥7,200!

There are many species of whale, and hundreds of whale dishes. Whale meat is carefully graded. This luxury dish of tail meat is in many cases the only part of a whale served in an expensive Tokyo eatery, but to judge whale cuisine on that alone would be worse than judging the price of best Canadian back bacon to be a representative price of all parts of pig, or the cost of filet mignon steak as representative of the price of cow or steer meat.

Before the whaling moratorium, people in Taiji rarely if ever bought whale meat or organ meats, for they received them as gifts. The same was true in Ayukawa. A very common dish in Taiji was boiled pilot whale organ meats, a mixture of stomach, kidney, liver, heart and intestines. Last week in Taiji it was on sale in the supermarket at ¥78 per hundred grams. In comparison in the same store, moderately priced beef was ¥400 per hundred grams, and better quality beef was ¥1,500 per hundred grams.

For the quality and volume of good protein, even in Tokyo speciality restaurants, whale dishes are still far better value than beef, and moreover, whaling village people know that eating whale does not cause the heart and cholesterol problems that a beef-based diet does.

Apart from the small quantity of marbled tail meat (*onomi*), the more abundant red meat from the large muscles of the trunk has no visible fat and very little sinew, and is

excellent value. Meat from the ventral folds, called 'bacon' by many Japanese, has blubber, but fat from whales does not cause health problems.

On my recent visit to Taiji, I spoke with thirty-five Taiji children of primary school and middle-school age. They were asked to put up their hands in answer to the following questions:

Do you like eating whale?

All hands up.

What kind of whale?

Minke... 19 children

Pilot whale... 11 children

Sperm whale... 2 children

Pilot whale organ meat... 20 children

Dolphin... 20 children

Whale sashimi (thinly sliced raw whale)... 31 children

What is your favorite meat, (from among chicken, pork, beef and whale)?

13 children voted for beef; 22 voted for whale; none voted for chicken or pork.

All the children said they enjoyed various whale dishes at festivals, rather like the way we westerners enjoy turkey.

When Taiji was still harvesting baleen whales, children were given strips of baleen, to which the gum was attached, on which to chew. A British maker of Blackpool 'rock', a kind of stick candy, said that whale oil was an essential ingredient to that traditional English seaside treat; so please, don't despise the Taiji children's food choices. To summarize, whale foods vary widely in price according to species of whale, quality of the meat and its manner of preparation.

Coffee shop menu, Wada, January 1989

(for set meals, includes soup, rice and tea)

¥1,000	Fried whale meat
¥850	Curried beef
¥850	Curried seafood
¥800	Deep-fried pork
¥750	Hamburger
¥700	Chicken dish
¥700	Deep-fried chicken
¥700	Sauteed beef
¥300	Tea or coffee

Source: Field notes, Wada, January 31, 1989

Appendix IV

FUND RAISING FOR SCIENTIFIC RESEARCH

Between April 26 and June 30, 1988 five rallies were held to raise funds for Antarctic research activities. The first two meetings attracted about 140 people, but at each

of the next three meetings progressively larger number of participants attended.

Before the June 30 meeting a total of ¥31.5 million had been raised to support research. By February 1989 donations had been received from more than 2,000 individuals and

groups, who have so far collected ¥65 million in support of research activities in the Antarctic.

What follows is an announcement concerning the organization provided as general information to the public.

**GEIRUI CHOSA SUISHIN BOKIN BOSHU ZIN-KAI
(Fund Raising Organization to Support Scientific Research)**

On 26th April, 1988, a group of artists, actors, writers and entertainers met to establish a Committee to Support Scientific Research in the Antarctic.

The committee is headed by Mr. Shotaro Akiyama, an internationally known art photographer, followed by Mr. Takashi Atouda, Prize-winning novelist, and Mr. Fumio Watanabe, a veteran actor.

Supporting this cause are such prominent individuals as Professor Takeo Koizumi, Tokyo Agricultural University, Professor Tadae Takubo, Kyorin Medical University, Ms. Chizuko Togaeri, an influential essayist and Kikuzo Hayashiya, famous Rakugo entertainer. More

than ¥332 million have been provided as a subsidy by the Government of Japan to the research undertaking in the Antarctic Ocean, but this is simply not enough to assure the continuation of research in the coming years. Therefore, the fund raising campaign by this committee has started with the first assembly held at the Royal Hotel, Osaka on 26th May, 1988, followed by similar assemblies in Fukuoka (New Ohtani Hotel) on 13th June, and culminating on 30th June, 1988 in the assembly at Aoi Kaikan, Minato-ku, Tokyo, where more than 300 people attended. The committee has set the target amount at ¥200 to 300 million to contribute to the Institute of Cetacean Research which is the body responsible for the Antarctic Research Program.

The committee holds a strong opinion in connection with protecting the food culture of the Japanese people, and the whale meat diet in particular. It argues strongly against the ethnocentric western coercion to change Japanese eating habits. The members regard whale meat as the symbol of the Japanese traditional diet.

Appendix V

**SOCIO-ECONOMIC IMPLICATIONS OF A ZERO CATCH LIMIT ON
DISTRIBUTION CHANNELS AND RELATED ACTIVITIES IN HOKKAIDO
AND MIYAGI PREFECTURES, JAPAN**

Theodore C. Bestor
Department of Anthropology
Columbia University
February 18, 1989

This background report is for the use of the Institute of Cetacean Research in preparation of materials for submission to the International Whaling Commission's Ad Hoc Working Group on Socio-economic Implications of a Zero Catch Limit. It may not be circulated, cited, or quoted for any other purpose without the written permission of the author.

EXECUTIVE SUMMARY

Anthropological field research on the lives of people involved in small-type coastal whaling (henceforth STCW), the distribution of whale meat, and related activities was undertaken in Hokkaido and Miyagi Prefectures, Japan, during the Spring and Fall of 1988, the first year in which the taking of minke whales was totally banned.

The imposition of the zero catch limit has had impact on communities in Hokkaido (especially Abashiri) and Miyagi Prefecture (especially Ayukawa) in many direct ways:

- on employment in enterprises involved in whaling production, processing, and distribution, and hence on the life of families whose livelihood had depended on this employment;
- on the viability of family enterprises that in some cases are several generations old;
- on customary social relations, patterns of reciprocal gifting, and other social rituals within

whaling communities;

- on the viability of key institutions in the general maritime economy of Ayukawa, such as the Maritime Wholesale Market and the Fisheries Cooperative Association;
- on other economic foundations of community life, such as tourism; and,
- on patterns of consumption influenced by the strongly held dietary preferences of local consumers.

The impact of the zero-catch limit is particularly evident in Ayukawa, where the impact is intensified by the concentration of whaling activities, processing and distribution, consumption, and whale-related social and ritual activity all largely centered on a single small, isolated community. In Hokkaido, where these constellations of activities are more geographically dispersed, the impact is not so immediately evident, though it is clearly as severe in its effect on the 'core whaling community' (Iwasaki 1988).

January 9, 1989

Mr. Ikeda, Ikuo

Director

Institute of Cetacean Research

A Petition for whale meat allocation

Dear Mr. Ikeda:

The increase of food-allergic is becoming a current social issue. As I wrote in my books, *Revolving Diet* and *Understand Allergy: Questions and Answers*, whale meat, as well as rabbit meat, frog meat and venison is an important source of protein for allergic infants and children, in contrast to egg, beef, chicken, milk, pork and soy bean that are often the cause of their allergy.

Presently, there are about 20 parents' organizations all over Japan actively involved with their physicians in food-treatment programs for these patients (who include pregnant women). For those parents of food-allergic patients, whale meat is a safe protein resource for their children. This is the reason why we are writing to ask if you could regularly allocate to us this safe protein for these patients. We do realize that whaling in Japan is experiencing difficulties due to international anti-whaling actions.

However, for this reason I have mentioned in this letter, please consider a special allocation of minke whale meat from antarctic research for these patients.

We are looking forward to hearing from you soon. Mr. Nakata will write to you again about the quality and quantity of minke whale.

Thank you.

Matsunobu, Masayuki

Food Allergy Consultation Committee

**DISTRIBUTION OF MINKE WHALE MEAT
FROM RESEARCH OPERATIONS: FOOD
ALLERGY CONSULTATION COMMITTEE**

Dr. Masayuki Matsunobu

Tokyo Medical College Hospital

(Tokyo Ika Daigaku Byôin)

The committee gives consultation to the rearing of infants who are allergic to ordinarily available animal protein, particularly in the cases where the infants suffer dermatitis atopie. Those infants react severely to eggs, chicken, milk, beef, and soybeans. The strategy to alleviate

such reactions is to take up a 'revolving diet' which consists of a different protein-source intake every day selected from hare, deer, frog, and kangaroo meat as well as fishes. The 'revolving diet' should be arranged so as to provide the patients a different protein intake every day. Amongst the non-allergy-inducing animal proteins, whale meat has been tested and proved to be one of the most desirable for such infantile-allergy cases.

The committee has written a letter to petition the Institute of Cetacean Research to give high priority in its distribution of the minke whale meat yielded from the Antarctic research operations to the group of allergic infants and children.

Note: There are more than 15 groups of parents having such allergic children in Japan.

(See the following list.)

**PARENTS' GROUPS PETITIONING FOR
SUPPLY OF ANTARCTIC MINKE WHALE**

Kobayashi Child Care Groups (*Kobayashi Aiiku Kenkyukai*), Maebashi 371

Friends Group, Ichikawa Citizen's Clinic (*Tomo No Kai*), Ichikawa 272

Chiba Kensei Hospital Child Care Division (*Chiba Kensei Byoin Shouni-ka*), Chiba 281

Killifish Group (*Medaka No Kai*), Tachikawa 190

Non-Allergenic Food Group (*Tabemono Allergy Jokyoshoku No Kai*), Matsumoto 390

Nagano Central Pediatric Hospital (Nagano Chuo Byôin), Nakamo 380

Koyou Co-operative Pediatric Hospital (Koyou Seikyo Byôin), Fukui 910

Allergy Study Group (*Allergy Wo Kangaeru Kai*), Nagoya 458

Green Leaf Group (*Wakaba No Kai*), Inazawa 492.

Ninwa Pediatric Patients Clinic (*Ninwa Shinryajo Shouni-ka Kanjyukai*), Kyoto 602

Allergic Children's Parents Group (*Allergy No Ko Wo Motsu Oya No Kai*), Hiroshima 733

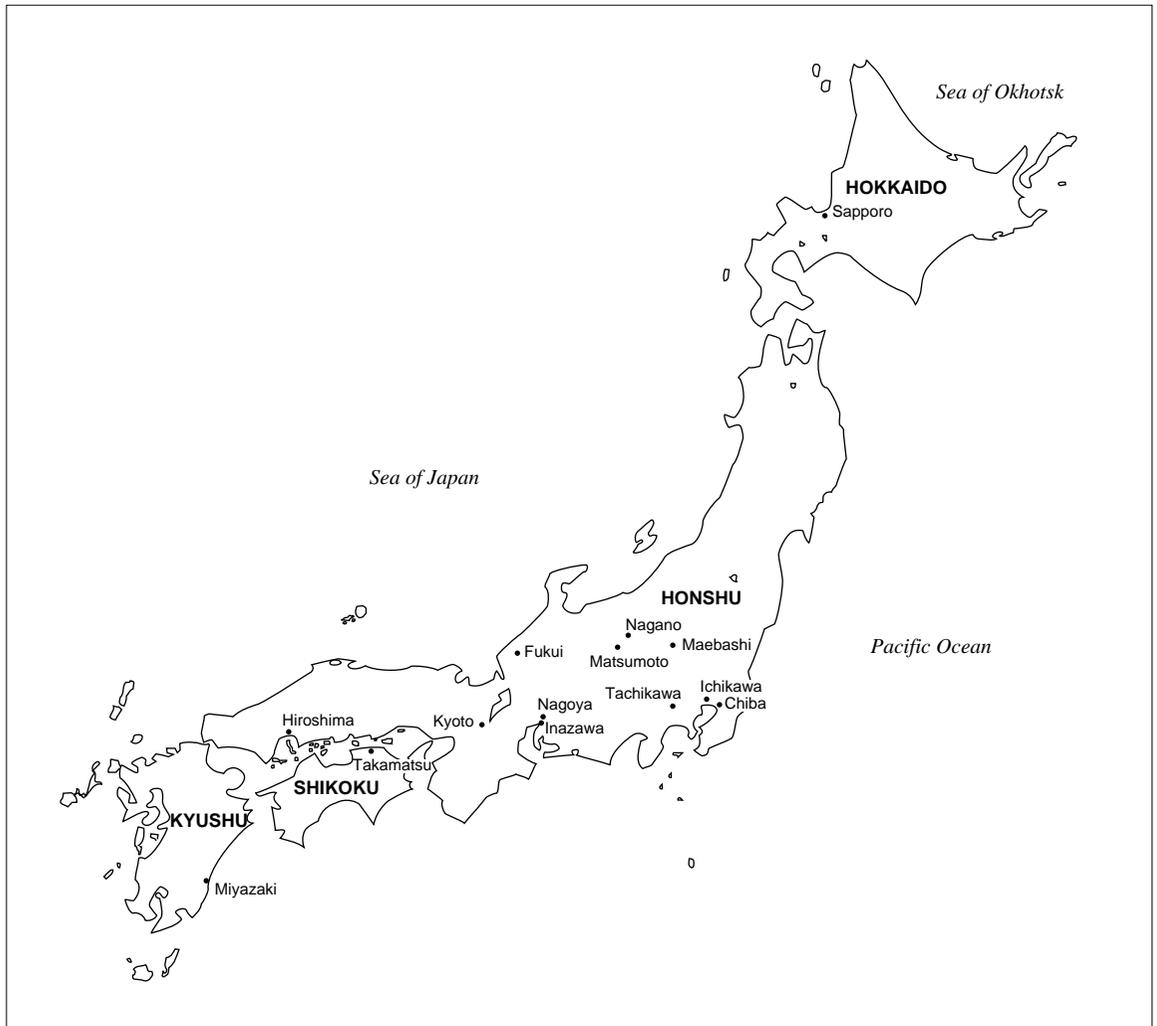
Dandelion Group of Allergy Patients (*Allergy Kanjyai Tanpopo No Kai*), Takamatsu 760

Allergic Children's Parents Group (*Allergy Ji Wo Motsu Oya No Kai*), Miyazaki 880

North Pinokio Group (*Kita No Pinokio Kai*), Sapporo 006

Allergic Childrens Parents Group (*Allergy No Ko Wo Motsu Oya No Kai*), Ichikawa 272

LOCATION OF PARENT GROUPS INVOLVED IN CHILD-ALLERGY TREATMENT PROGRAMS



Appendix VII

**ELEMENTARY SCHOOL STUDENTS AT NARA PREFECTURE:
CLASS DEBATES ON WHALING**

Classroom debates on whaling were held by fifth grade pupils under the guidance of their teacher, Mr. Iwai Kunio at an elementary school attached to Nara Women's University. The first debate was held in September 21, 1988 for two hours devoted to 'business (social) study'. The class split into half; one supported whaling and the other supported anti-whaling. Following a discussion, a third group was formed that held a position between the first two groups. Numbers of pupils and the opinions expressed by each group are as follows:

Anti-Whaling Group (10 pupils)

If you allow (whalers) to harvest whales, it is apparent that they will over exploit whales and this will lead to extinction.

The reason for a ban of whaling is because we exploited whale resources in the past and whales are now in danger of extinction, so now we should protect whales.

We should protect nature and conserve natural resources.

We are living creatures of this earth and so is the whale.

We can live without harvesting whale.

We can eat something other than whale.

Whalers should look for other jobs.

We should utilize fish resources rather than whale.

I feel sorry for the whales that are killed.

People say that they will not over-exploit whales; however, they are harvesting whales, and there is no distinction between exploitation and harvest.

I feel sorry for whales considering the practices of foreign countries where whales were thrown away after only the oil had been extracted.

Whaling Support Group (6 pupils)

There is no way that whales will become extinct.

There is no way that whales would become extinct for the harpooners assert this.

We still have whales and their populations will grow.

Whaling is a part of Japanese culture and tradition so that we should continue whaling.

Middle Group: Intermediate position

We can take some whales without over-exploiting them to the point of extinction.

We should listen to whalers since they have been harvesting and dealing with whales and know about whales best (and they say we still have enough whales).

We should just harvest adult whales and not the young whales.

We should allow whale hunting as a seasonal activity.

We should just harvest males.

We should not harvest them during the breeding season.

We should farm whales.

Some people want to eat whale meat.

Whalers would lose their jobs.

I feel sorry for harpooners.

Whalers cannot find new jobs so easily.

Whalers cannot take other fishing jobs because ways of harvesting are quite different.

Coastal whaling should continue.

We should import whale meat from some other countries.

One week later, on September 28, the students held a further discussion. On this occasion also, the pupils could not reach a consensus. This time the anti-whaling group increased to 19 pupils, and the whaling support group increased to 18 pupils. For about two hours both groups argued rationally for their point of view, yet could not settle the issue. Finally, the teacher suggested to the students that each group should write a letter to Mr. Kohama, a well known harpooner from Taiji.

On October 8th, Mr. Kohama's reply arrived. His letter was full of information that they were not aware of. The whaling issue had moved from science-based conservation to international politics. The teacher found difficulty making his pupils understand these complicated matters, and decided to guide them by way of a better understanding of the whale itself. He also suggested they study the biology of whales, how to utilize whale products and cook whale dishes, in addition to studying the organization of the International Whaling Commission.

Soon after the students read Mr. Kohama's letter, many left the anti-whaling group and joined the whaling support group. The discussion on October 21 went as follows:

Anti-Whaling Group (5 pupils)

Even if we harvest a small number of whales, we are harvesting them (and that is not good).

Whale resources are so depleted that we can only harvest three species now.

If we continue to harvest whales, Americans will kick us out from their 200-mile zone.

We should protect whale life that is a part of nature.

Some other countries, not only Japan, are also harvesting whales so that their populations will become depleted.

Cows and pigs will not become depleted since we are farming them.

Whaling Support Group (32 pupils)

We no longer harvest endangered species.

We will be allowed to only harvest small numbers that

will not upset the entire population.

The minke whale population is as many as 420,000.

We should keep our tradition, skill and history of whaling.

It is hard for whalers to find new jobs.

Whaling is manly work.

If we ban whaling, many people would lose their jobs and be in difficulties.

Another discussion meeting was held on November 2, and pupils criticized the U.S. (the leading anti-whaling country) and discussed how whaling is related to human rights, conservation, international politics, the economy and trade, and war and peace. The last class discussion was held on November 9. On that day the class studied small coastal whaling in Japan and whale festivals held all over Japan. After the students had studied the material, all anti-whaling group members had become persuaded to join the whaling support group. On this occasion, the class reached a

consensus to support whaling under certain conditions, namely (1) we should only harvest whales whose population is abundant and not in danger of becoming extinct; (2) we should conduct international research on whales as a marine resource, and the scientific committee of IWC should supervise the level of harvest.

In order to reach consensus, two points were crucial:

1. Students understood from Mr. Kohama's letter that Japan only harvests some of the 75 whale species; and the claims of the U.S. and other anti-whaling groups are unreasonable. In addition, the students understood the importance of whaling traditions and culture and believe these should be maintained.
2. Students came to understand how the Japanese respected whales, rather than just killing them, through studying whale festivals. They recognized that whalers were people who really cared for whales. Sometimes, whales were given posthumous names and treated as gods.

Appendix VIII

ESSAYS WRITTEN BY TAIJI SCHOOL STUDENTS (TRANSLATION)

The regrettable whaling ban

Our town, Taiji, has been catching whales for over 400 years. Most Taiji people worked in some kind of whale-related business.

In the olden times whales were our basic, everyday staple food, and especially during the time of food crisis after World War II whale meat stilled our hunger and was the important source of protein. However, whaling ended about a year ago because of pressure from environmental groups such as Greenpeace. Anti-whaling countries like the U.S. say "We should pity the whales" to which Japan replies "Don't you take pity on your cows?" to which they answer "Cows are O.K. because we raise them for food." I just can't understand or accept their logic: it is acceptable to kill animals you raise but its not good to kill wild animals, which we should pity. I believe we should take pity on every animal, whether domestic or wild.

Every country has its own food culture, and it is wrong to criticize other people's dietary habits that you don't share.

Some people speak about declining stocks; I believe it will be perfectly alright to harvest about one percent of the entire stock as determined by scientific research. For example, I heard that minke whales in the Antarctic number at least 400,000; one percent of that number is 4000. I believe that a harvest that size won't deplete the whale stock and the whaling businesses could support themselves.

I heard that the U.S. had been taking large numbers of whales in the past. But their purpose was only to get oil, not meat for food. They stopped whaling because they discovered kerosene as a substitute. The U.S. whalers only took the oil from the whales and threw away the rest of

the animal. On the other hand, Japan makes use of everything: whale oil, meat, teeth, bones and internal organs. If you consider that, we are not using it as a luxury in the way Americans did. We lived with whales. I believe that if these anti-whaling countries were whaling countries like Japan, they would better understand our position

I feel such regret that we had to stop whaling, even though there are plenty of whale resources, because of pressure from the anti-whaling countries.

(6th grade student's essay, Taiji)

Whaling town, Taiji

I never expected that whaling would stop. I heard from my teacher that nothing can be thrown away from a whale. We can eat the meat and use its skin — we can use everything and nothing is thrown away. If we can't hunt any whales that will be the end of "whaling town Taiji". We can't be proud of Taiji as a whaling town any longer.

My friend says "The Americans are unreasonable, if they were they wouldn't kill their cows..." I agree with my friend.

If we can't get any whales I feel sorry for people who like to eat whale meat. And the whalers are in trouble. It is selfish (of Americans). I hope that they will talk to each other about it.

That's so: they should have a conference once more and should discuss the issue. If they do, they may tell us it's alright to hunt whales. I don't understand why the Americans decided that we can't hunt whales since they are killing cows. We are all the same.

Now, we have many tourists coming to this town. However, if we can't get any whales, their numbers would decline. I want to make a complaint about this. I want my town Taiji to be "whaling town Taiji".

(4th grade students essay, Taiji).

Taiji and whaling

My town, Taiji has 800 years of whaling history. My town has a tradition and even now about half of the entire Taiji population have fishing-related work. Among these, about one-third are whalers. My father is one of them; he is a harpooner.

However, it is unfortunate that our 800-year whaling tradition would come to an end next year, due to a decision at the IWC to ban commercial whaling.... Why can't we take whales? It is reasonable that humans eat animals; this is the way it is. The U.S. on the other hand has childish opinions, such as "whales are the largest mammals so we shouldn't eat them". If we follow this logic there is a contradiction because they eat mammals too; their favourite meats are beef and mutton — don't they feel pity for cows and sheep? These are mammals like whales.

It is not possible to cause whales to become extinct if we continue to hunt them properly; the populations are not gradually declining.

In the mid-19th century, the Americans hunted whales, but that was different from Japanese whaling, as the Americans only needed the oil and they threw away the meat. The Americans took more than 10,000 whales each year, whereas the Japanese, who made full use of every whale, hunted about 200 whales each year.

There is no excuse for the Americans to feel pity for whales now; in the past they were terribly reckless hunters. We Japanese are human too; we have sympathy for whales. However, I believe it is wrong to not hunt whales because of this sympathy. Humans have to kill and eat animals to live; this is the way it is, and without killing them no-one can survive.

(Excerpt from junior high school student's essay, Taiji)

My father's job

My father's job is harpooner. The other day he left home to go to work for six months; I really miss him, no-one can replace him.... Recently my father told me about his work, and whenever I listen to him I understand more, and realize his work is very responsible. (Though) each whaler has a responsibility, my father's work is the most responsible because there is only one harpooner on each ship... and the entire operation would go wrong if he was to get sick. The position of harpooner is not the kind of work anyone can do. Because of these factors, my father would be under tremendous pressure (to perform his job well).

It was my father's dream to become a harpooner; now his dream has come true and he is a respected harpooner. I believe he has done so by much effort and has gone through hard times. I am proud of my father, who is such a hard working person.

I am not sure about my own future. But if something comes to my mind that I want to achieve, I want my dreams to come true as they did for my father even though it requires patience and hard work.

(Junior high school student's, Taiji)

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