



Chapter 7

Traditional food systems of Indigenous Peoples: the **Ainu** in the Saru River Region, Japan

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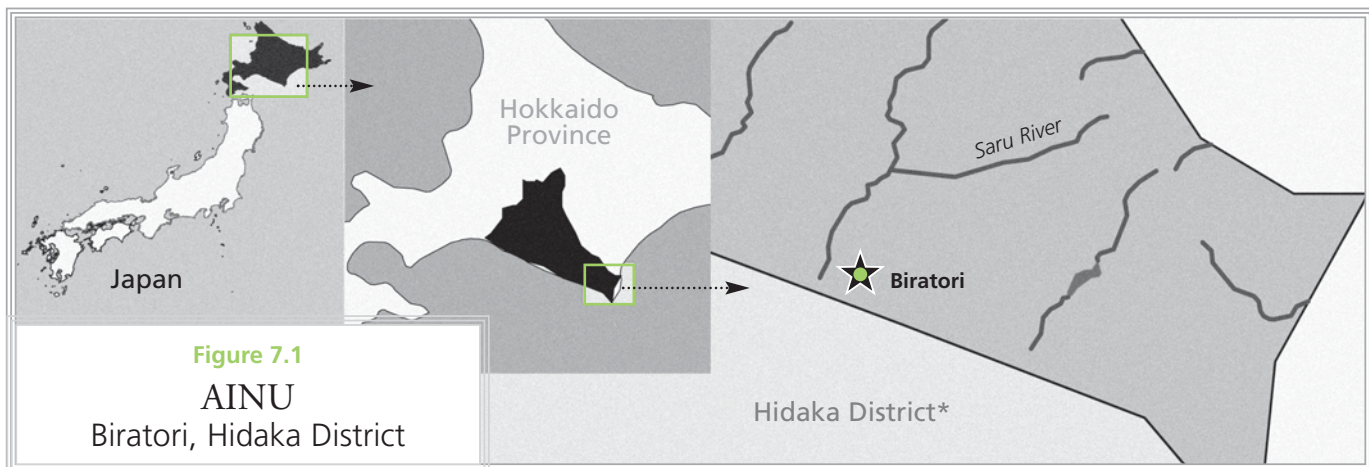


Figure 7.1
AINU
 Biratori, Hidaka District

Data from ESRI Global GIS, 2006.
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“Revitalizing the Ainu food culture will help to re-establish the dignity of the Ainu in the present society.”

Mr Koichi Kaizawa, community leader

Abstract

The Ainu are an Indigenous People who live mainly in the northern part of Japan. In 2004, a research team led by the community leader Mr Koichi Kaizawa began to examine the use of traditional food in the Saru River region. When they started the research, they found that the usage of traditional Ainu food was extremely limited because of the government's powerful assimilation of the Ainu into mainstream society. Thus, the research team decided to select the food items to be studied based on two criteria:

1. Traditional food that the Ainu continue to eat.
2. Traditional food that the Ainu would like to preserve for future generations.

Traditional knowledge regarding the use of these food items was collected and their nutritional composition was determined. In addition, an extensive effort was made to re-introduce the Ainu traditional food to the community through a series of cultural events in an attempt to create the kind of social change that will help the Ainu to regain their cultural health.

Introduction

Numerous researchers have had a keen interest in Ainu³¹ culture in the past and have examined various aspects of it. Among the many Ainu settlements in Hokkaido, the people living in the area along the Saru River have been the centre of academic research. While many academic papers have been written and published, the life of the Ainu living in this area has not improved and the decline of Ainu

culture continues. The research team, with the support and initiative of the community leader, aimed to conduct the kind of research that would make a positive contribution to the life of the local Ainu by ensuring their extensive involvement. The examination of the Ainu traditional food culture in the Saru River region began at the end of March, 2004. The research group spent three months conducting interviews with key informants and collecting basic archival material, as well as food samples for composition analysis. Since the research methods developed by the Centre for Indigenous Peoples' Nutrition and Environment (CINE) (Kuhnlein *et al.*, 2006) required modifications in order to examine the situation of the Ainu community effectively, the research group first considered appropriate approaches. As a result, it was decided to combine the CINE methods with research that the local Ainu group was already conducting in their efforts to preserve the Ainu traditional food culture. It was therefore not possible to include all of the CINE recommended methods.

The research group first collected basic relevant information on the area and the people. Data on Ainu traditional food were then collected using four different methods. In addition, the research group documented the ongoing efforts to preserve the Ainu traditional food and other aspects of Ainu cultural tradition. Particular emphasis was placed on analysing the history and cultural changes that led to the present situation of the Ainu people in the Saru River region. Following the completion of these steps, the team then proceeded

³¹ Ainu is also spelled Aynu in recent documents. In this chapter, the more conventional spelling of Ainu is used.

to determine the nutrient composition of selected Ainu food samples.

Research team and participatory research methods

The preparation for the research began in the spring of 2004 when Dr Iwasaki-Goodman contacted the Ainu community leader, Mr Koichi Kaizawa. After signing a research agreement, the research team was formed. The central figure was Mr Taichi Kaizawa of the Ainu Culture Research Center, whose ethnic background is Ainu and who worked as a researcher at the prefectural research centre, specializing in Ainu culture. His mother, Miwako Kaizawa, an Ainu food specialist, provided her expertise in conducting fieldwork. The research team was joined by Dr Hidetomo Iwano (specialist in food composition), Dr Hiroki Inoue and Dr Satomi Ishii (nutritionists). The research team members agreed that the goal of the research was to improve the socio-cultural environment for the Ainu, through promoting understandings of Ainu traditional food and revitalizing the use of it, thereby contributing to their emotional and physical health. The team especially agreed to ensure their actions would respect the dignity of the individual participants who provided private information. A written introduction on the purpose and the methods of the research was prepared in Japanese and, at the start of each interview, the project was explained to participants verbally. Each participant then signed a letter of consent.

Background

Biratori is a town located in the western end of what is called the Hidaka District in the southern part of Hokkaido, the northern-most island in Japan (Figure 7.1). (The name Biratori comes from the Ainu word *Pinaturu*,³² meaning the area between the cliffs.) Biratori's total land mass is 743 16 km², stretching 52.8 km on its east–west axis and 41.1 km on its north–south axis, with its town boundaries forming a triangular shape.

³² Ainu words are italicized to distinguish them from Japanese words.

Table 7.1 Households and population in the 17 sub-districts of Biratori

<i>Sub-districts</i>	<i>No. of households</i>	<i>Population</i>
Kawamukai	60	168
Shiunkotsu	107	340
Saruba	75	217
Nina	307	838
Honcho	795	1 792
Kobira	59	179
Nibutani	190	483
Nioi	103	250
Nukibetsu	248	640
Asahi	50	156
Memu	33	100
Osachinai	48	132
Horokeshi	25	80
Furenai	535	1 149
Iwachishi	43	138
Toyonuka	20	53
Niseu	2	8
Total	2 700	6 723

Biratori Town, 1999.

Biratori is approximately 20 minutes drive away from Monbetsu, the nearest city, and 70 minutes from Tomakomai, the nearest commercial and industrial centre. It takes approximately 2 hours to drive to Sapporo, the centre of Hokkaido, and 75 minutes to Chitose Airport, the gateway to Tokyo. Public transportation (buses and trains) connects Biratori town centre with these cities. However, bus services between Nibutani – one of the sub-districts of Biratori where the research was conducted – and other cities are infrequent. Although private cars are essential to meet basic needs in Nibutani, commercial districts providing meat, fish and vegetables are nearby.

Biratori is divided into 17 sub-districts. The total number of households and the population in each of these sub-districts is shown in Table 7.1. Research was conducted mainly in Nibutani, Osachinai, Shiunkotsu, Nukibetsu and Toyonuka because these are the communities where many Ainu live side-by-side with

non-Ainu. These areas are known for the highest concentration of Ainu residents in relation to the total population in Japan. Accurate statistical data on the population of Ainu in each municipality are unavailable because the national census does not differentiate Ainu from non-Ainu. However, the Hokkaido Prefectural Government conducts a survey every seven years to estimate the Ainu population. According to their 1999 report, 1 577 Ainu are living in Biratori. This figure includes only people that identified themselves as Ainu and does not include those that were not willing to identify themselves as Ainu because of the ongoing social prejudice. Furthermore, Biratori township³³ has always treated Biratori town as one community with Ainu and non-Ainu living side-by-side.

The people in Biratori enjoy four distinct seasons annually. The difference in seasonal temperatures during summer and winter is great, with a high of 31 °C in summer and a low of minus 25 °C in winter, with an average annual temperature of 7.7 °C. The number of days of snowfall in the winter is approximately 37, with a total accumulation of approximately 127 cm. While the weather in Biratori is typical for the northern part of Japan, it receives less snow than the central part of Hokkaido. Agriculture, dairy farming and animal husbandry are the main industries in Biratori. Rice production is the main agricultural crop, but Biratori is also known for its vegetable production (the tomato being the symbol of the town). Beef production and racehorse raising are also important to the local economy. In 1965, approximately half of the people in Biratori were engaged in agriculture, dairy farming and forestry. However, since that time the number of people in these primary industries decreased to about one-third of total employment.

There has been a gradual decline in the number of children in Biratori, which is reflected by school enrolment records. In 2004 a total of 394 students attended seven elementary schools, 192 students attended four junior high schools and 149 students attended a senior high school. In addition, 42 students attended a special school for children with disabilities at the

elementary, junior high and senior high school levels. At present, Ainu children go to school with non-Ainu children and receive the standard education, which follows the national curricula provided by the Ministry of Education.

In order to encourage children to appreciate local history and culture, the Biratori Education Board has produced supplementary material to be used at schools. These books focus on local history, where Ainu play a key role. Interest in these subjects among school educators is strong, and numerous lectures and seminars on Ainu culture have been given. In June 2004 the teachers in Biratori and surrounding areas organized a popular Ainu cooking workshop where cooking methods of Ainu traditional dishes were demonstrated.

History of Ainu in Biratori³⁴

The climatic and geographical conditions in the Saru River region have always been well suited for human habitation, plants and other wildlife. Numerous archaeological sites along the Saru River reveal evidence of human settlements dating from 6 000 to 9 000 years ago. In the long history of human settlement in this region, Ainu culture is believed to have been started by a pit-dwelling people that began to build houses on the flat ground and to use hearths around 1000–1100 AD. Artefacts with distinct characteristics of this period have been excavated in archaeological sites in the Saru River region, including 30 *casi* (stockade) remains, dated to 1500–1600 AD. Construction of a *casi* is believed to have been an important cultural element in Ainu culture of that period.

Ainu lived along riverbanks, where several households were grouped together, with each group led by a male Elder who served as a leader. They engaged in hunting, fishing and gathering. Ainu believed that *kamuy* (gods) provide food and other necessities in response to prayer and gratitude, expressed through a variety of ceremonial rituals. *Iyomante* (a bear spirit sending ceremony) is the most important ceremony and still continues to play a core role in Ainu culture.

³³ A “township” is a larger area in which there are towns.

³⁴ This section is a brief summary of Biratori Choushi, History of Biratori Town (1974).

As the Japanese began to migrate to Hokkaido from the main island around 1400 AD, contact between Ainu and Japanese became more frequent and often ended with confrontations. A series of wars between Ainu and Japanese immigrants led to the Shakushain War, where Ainu throughout Hokkaido fought against Japanese of the Matsumae Feudal Clan in southern Hokkaido. The leader, Shakushain, was poisoned at the reconciliation ceremony organized by the Matsumae Feudal Clan and the Ainu lost their power.

After this war, the Matsumae Feudal Clan established trading posts throughout Hokkaido to control the trade of goods from and to Hokkaido. A trading post was set up along the Saru River and Ainu began trading kelp, parched small sardines, Shiitake mushrooms, salmon, etc. It is recorded that Ainu suffered under an oppressive trading system in which they were forced to produce trading goods. During this period, Ainu in the Saru river region fished in the ocean in the spring, harvested kelp in the summer and fished for salmon in the autumn to produce trading goods. In the winter, Ainu men spent their time repairing and maintaining their fishing boats, while women wove *at-rus* (an Ainu robe). Ainu also cultivated vegetables and grains for food.

The beginning of the Meiji Era (1867–1912) marked the beginning of colonization of Hokkaido by the Hokkaido government (itself established in 1886). As a way to assimilate Ainu into mainstream society, the Hokkaido government passed the “Hokkaido Former Aboriginal Protection Law”, promoted Ainu agriculture and began forcing Ainu children to enter Japanese schools. At the same time, the Hokkaido government passed numerous regulations to prohibit Ainu from hunting and fishing and practising traditional rituals.

The Saru River region was not an exception and many immigrants (non-Ainu) from the main island moved into the area. The population of Biratori soon tripled and Ainu became a minority group. In 1899, the Biratori community, together with other neighbouring communities, established a town hall and began its administration, and in 1954 the community gained legal status as a township (Biratori Town, 1974).

Current issues in Biratori

In 1997 the Nibutani Dam was completed in the region, thus damming the most important river for the local Ainu in the heart of the Ainu settlement region. The dam construction seriously affected the socio-cultural spheres in the lives of the local people. Recently, the government announced that it intends to construct another dam in the tributary of Saru River for further management of the Saru River water system.

A three-year research project in Biratori was conducted from April, 2003 to March, 2006 to assess the impact that the second dam construction would have on the culture of the indigenous Ainu (Ainu Culture Preservation Research Committee, 2005). This research included interviewing Elders concerning their experience and knowledge of Ainu culture, which inevitably included Ainu traditional food culture.

That impact assessment project was one of the tangible outcomes of the “Nibutani Dam Case” that clarified the need for assessing the impact on Ainu culture prior to the initiation of development projects (Ainu Culture Preservation Research Committee, 2005). For the construction of the Nibutani Dam, two Ainu landowners refused to acquiesce to the expropriation of land they owned. This led to a legal contest in the Sapporo District Court in the early 1980s. After many years of courtroom trials, the Court handed down a decision in 1997 that declared the government’s actions in pursuing this development project as illegal. The Court stated that the government should have considered whether public interests, such as the control of floods provided by the construction of the Nibutani Dam, should have priority over the Ainu people’s rights to enjoy their culture. Additionally, the court stated that the government had failed to assess the effects that the construction of the Nibutani Dam would have on the local Ainu culture, thereby ignoring values that required serious consideration. This decision is significant, in that it made it mandatory for the planning of development projects to include an assessment of the impact on local Ainu culture. Evidently, this applies to the construction of the second Biratori Dam.

Significant changes have occurred in the social and political environment in terms of the aboriginal issues in Japan. In 1997, “The Law Concerning Promotion of Ainu Culture and Dissemination and Enlightenment of Knowledge about Ainu Traditions” was enacted. The new law replaced the “Former Aboriginal Protection Law” that had been in effect for more than 100 years, and had served as the legal basis for assimilating the Ainu into mainstream society. In the new law, the government of Japan stated its intention to support the Ainu in preserving their cultural tradition and in creating the kind of society where they can maintain their pride as an ethnic group. The new law inevitably accelerated the revitalization movement of Ainu culture, which had been steadily but quietly happening during the 1980s. Thus, various branches of the Hokkaido Association of Ainu have been actively conducting Ainu culture promotion programmes.

On 12 May 2003, the town of Biratori established the “Committee for the Ainu Culture Preservation Research”, which includes local Ainu Elders, government officials and experts of related areas such as law, landscaping and anthropology (Ainu Culture Preservation Research Committee, 2005). The Committee was set up to supervise the Ainu culture preservation research and to make recommendations to the mayor of the town of Biratori. The Committee is composed of 15 permanent members, and invites advisors as needed.

Besides the Committee for the Ainu Culture Preservation Research, the Ainu Culture Preservation Research Office (ACPRO) was formed and four groups were established to conduct various tasks in the office (Ainu Culture Preservation Research Committee, 2005). The four groups were in charge of fieldwork data compilation, model building and computer simulations. Twenty local people were selected for their knowledge and interest in Ainu culture and hired on a full-time basis. The community leader of this research, Koichi Kaizawa, became the head of ACPRO.

In 2003, the three-year research began with the General Affairs section of the Ainu Culture Preservation Research Committee, 2005, drafting an overall schedule for the project. The first year was set aside for preparation and training of research staff for filing data, simulations

and fieldwork. The main research was conducted in 2004, with a focus on structured fieldwork, data filing, analysis and simulation trials. Also, the Committee considered some of the mitigation measures arising within the project, and methods of testing them. The final year (2005) was spent on finishing research activities, considering details related to mitigation and completing the overall research project.

Examining Ainu traditional food

Ainu and their traditional food uses in the changing social environment

In this section, background information is given on recent Ainu history in relation to food, and the research methods used to examine Ainu traditional foods.

One of the important issues regarding the changes in Ainu traditional food in the Saru River region is the social change that Ainu experienced when the Japanese began migrating into that area in the late-nineteenth century. As more Japanese moved into the region, the Ainu population diminished, became politically weaker and eventually constituted a minority group. Obviously, such changes had serious effects on the everyday life for the Ainu, where traditional food played an important role.

Having conducted a number of interviews with Ainu of various age groups, the research group learned that significant social changes in the last 100 years have created complex patterns of traditional food usage. It became evident that the way traditional food is viewed and utilized differed between age groups. The Ainu Elders learned traditional Ainu food use from their parents and grandparents at a young age, and later experienced the great social changes under the government’s assimilation policy that forced them to give up the Ainu way of life and live as Japanese. The second group was the middle-aged Ainu who lived mainly as Japanese, and the final group was the young Ainu who grew up with a limited exposure to Ainu culture at home and learned various aspects of Ainu culture by attending classes and other organized cultural events. The knowledge of traditional food

differed in these three age groups and they expressed different views on the issues related to its usage.

Ainu Elders and traditional food use

Those Ainu who experienced drastic social change in their childhood were in their seventies and eighties during the research period. They experienced the traditional Ainu culture and acquired knowledge relating to Ainu life at home. They also saw the government's assimilation policy gradually dismantling the Ainu traditional culture and, further, experienced severe social discrimination. Under such social conditions, many of the Elders suppressed their knowledge of Ainu culture while trying to adopt the Japanese way of life. They were discouraged from using their mother-tongue and forced to speak Japanese at school. Having become the social minority, the Ainu had no choice but to live their lives as Japanese. The Ainu Elders frequently offered such observations as, "I did not teach my children Ainu language and Ainu way of life, because I thought they wouldn't need it." Except for those who made their living in tourism, performing Ainu dance and music, Ainu did not openly practise their culture. As a result, Ainu culture gradually lost its vitality, and the traditional food – an important part of that culture – became blended into Japanese food.

Social discrimination is a serious factor in any social assimilation process. As an example, our research shows that Ainu avoided consumption of *pukusa* (wild onion) – an important traditional food – to avoid becoming subject to social discrimination. This tendency is found in our research for Ainu traditional food use in general. One Ainu elderly woman recalled that she stopped cooking Ainu dishes at home when she married a non-Ainu man. Many elderly Ainu women gradually shifted from cooking Ainu dishes to cooking Japanese dishes. It is clear that social discrimination against Ainu accelerated the Japanization of the Ainu food system.

In interviews with Ainu Elders, we heard such expressions as, "We ate ... [certain Ainu traditional food], since there was no other food to eat in the old days." This expression reflects the difficult socio-

economic condition in which a minority group, such as the Ainu, had to live at that time. Having lost the traditional subsistence way of life and being forced to adopt farming according to government policy, Ainu did not have much to live on. Needless to say, everyday food at home was affected significantly. Ainu traditional food, despite its social, cultural and nutritional value, became associated with the negative experience of that time. As the socio-economic condition surrounding Ainu improved, they gradually shifted to eating more Japanese food. Although many Ainu Elders expressed their preference for Ainu food, by making such comments as "I really like old food", others associated the Ainu traditional food with their poverty and regarded Ainu food as the food of the past and something they did not need anymore.

During the Meiji era, the government issued various regulations that restricted hunting and gathering activities among Ainu, and rice farming was introduced. Ainu began keeping domesticated animals, such as pigs, and began to grow potatoes and beans. These food items, as well as Japanese seasoning, such as miso (fermented soybean paste), were incorporated into the Ainu food system as new ingredients or substitutes for traditional Ainu food items. Such changes also prompted the Japanization of Ainu traditional food.

Middle-aged Ainu group and traditional Ainu food

At the time of the research, the children of Ainu Elders were 40 to 60 years old, and were the first generation of Ainu who had not learned the Ainu way of life, such as language and other aspects of Ainu culture. Rather, they spoke Japanese and lived as Japanese. This affected all aspects of Ainu culture, of which the food system is a very important part. Thus, the Ainu food culture that the Elder generation had fostered went through significant changes as this middle-aged generation grew up.

Two main patterns of change can be seen in Ainu traditional food in this period. The first pattern is that many food items, such as wild vegetables, were incorporated into Japanese cuisine. They no longer had the Ainu names and they were used as ingredients

for Japanese dishes, such as *cimakina* (udo) mixed with vinegar miso sauce, *pukusa* (wild onion) mixed with egg to make “wild vegetable tempura”. Those Ainu who were 40–60 years old at the time of this study had been eating wild vegetables mainly in Japanese dishes with Japanese names, rather than Ainu names. Many of the younger generation of Ainu cooked and ate these food items without knowing that they were actually traditional Ainu food.

A second pattern of change was that many of the Ainu traditional dishes continued to be cooked for Ainu ceremonial occasions, in which they play symbolic roles. Although these food items and dishes were no longer parts of everyday food for many Ainu, they served to strengthen ties with Ainu culture and heritage on special occasions. The Elders took the central roles in preparing Ainu dishes for various ceremonies, often being assisted by those of the younger generations.

Changes in Ainu food use affected other aspects of their food culture, such as the traditional preservation method and the ecological knowledge used in harvesting food. Ainu Elders, who lived without refrigerators and freezers, dried wild vegetables so that they could be used year-round. When freezers became available, the next generation of Ainu began freezing them and did not practise the traditional drying method. Also, the Elders who went into the forest to hunt animals and gather wild vegetables had acquired the ecological knowledge required for sustainable harvesting of plants and animals. However, as such ecological knowledge was not sufficiently passed down to the younger generation, a depletion of these resources has resulted.

Many Ainu who were between 40 and 60 years old during the study did not learn enough about Ainu language and culture for its full preservation, and their homes were no longer places where Ainu traditional food was prepared and preserved. Instead, Ainu food became integrated into Japanese cuisine and, further, various traditional Ainu dishes were only preserved as ceremonial dishes. Those Ainu who grew up in that environment did not consciously appreciate Ainu food culture at home. Moreover, they grew up with the feeling that they “do not know much about Ainu food”.

Ainu youth and revitalization of Ainu traditional food

Many young Ainu grew up in homes where Ainu culture was not actively practised, but have been given opportunities outside the home to learn various aspects of Ainu culture. Ainu culture revitalization began in the 1980s, with the opening of Ainu language classes in Biratori. A variety of Ainu-themed events were held in the Saru River region, providing the opportunity to learn traditional dances, songs and food culture. One Ainu mother in her fifties said, “My daughter knows Ainu dishes better than I do because she has been attending Ainu language classes where she learned various aspects of Ainu culture including Ainu dishes.”

Recent Ainu social conditions differ from those of decades ago when Ainu food culture was losing its vitality and people faced severe social discrimination and poverty. Both the general public and the Ainu population themselves began to recognize the value of Ainu culture and made, and continue to make, conscious efforts to preserve the cultural knowledge that Ainu ancestors had fostered in the past. Changes are observed in the Saru River region: more local people are now studying Ainu language, making Ainu tools and performing traditional dances. Ainu traditional food also has been regaining the interest of local people.

The first example of the revitalization effort concerning food culture in the Saru River region was the “*Aep* Ainu food research project” in 1999. Local Ainu, 40 to 50 years of age, who themselves had little exposure to the Ainu culture in the home, served as the core of a research group that interviewed and recorded the knowledge of Elders, thereby directly learning traditional Ainu knowledge themselves.

Problems in gathering quantitative dietary data

The research group, after learning the complex patterns of Ainu traditional food use in the Saru River region, realized that collecting quantitative data on traditional food use in Ainu households would be challenging. For a start, there were few Ainu Elders who still held

Table 7.2. Ainu traditional food (20 species/varieties)

Scientific name	English/common name	Local name	Seasonality	Preparation
Wild vegetables				
1 <i>Allium victorialis</i> (2 var.)	Wild onion (fresh, dried)	pukusa	April–May	Cooked in soup
2 <i>Amphicarpa bracteata</i> <i>Edgeworthii</i> var. <i>japonica</i>	Aha bean	aha	November	Boiled, cooked with rice, dried
3 <i>Anemone flaccida</i> (2 var.)	Anemone (fresh, dried)	pukusakina	May–June	Boiled, cooked in soup
4 <i>Angelica edulis</i>	Angelica (fresh)	cihue	May	Peeled and consumed fresh
5 <i>Aralia cordata</i>	Spikenard (fresh)	cimakina	May–June	Fresh, pickled, boiled, grilled
6 <i>Lilium cordatum</i> (2 var.)	Perennial lily (root, powder)	turep	June–July	Used to make turep starch
7 <i>Lilium cordatum</i> var. <i>glehnii</i>	Fermented turep	on turep	–	Added in deer soup and vegetable soup
8 <i>Matteuccia struthiopteris</i>	Ostrich fern (dried)	sorma	April–May	Salted, deep fried, boil, dried
9 <i>Petasites Japonicus</i>	Butterbur (fresh)	korkoni	June	Boiled, peeled, salted, soup
10 <i>Phellodendron amurense</i>	Fruit of amur cork	sikerpe	–	–
Cultivated grains				
1 <i>Echinochloa crus-galli</i>	Barnyard millet	piyapa	September–October	Porridge, dried
2 <i>Panicum italicum</i>	Italian millet	munciro	September–October	Steamed, pounded to make cake
3 <i>Panicum miliaceum</i>	Egg millet	shipuskep	September–October	Dumpling, cooked with vegetable dishes, and thick soup, dried
4 <i>Solanum tuberosum</i>	Frozen potatoes	pene emo	April	Soaked in water, mashed, made in to balls, dried
Fish and game				
1 <i>Cervus nippon</i>	Hokkaido deer	yuk	January	Eaten raw as sashimi, barbequed, dried
2 <i>Oncorhynchus</i>	Dried salmon	atat	December–March	Cooked, broiled, soup
3 <i>Margaritifera margaritifera</i>	Freshwater pearl mussel	pipa	Summer	Cooked, and shells used as tools
– No data.				

traditional knowledge. There were only about 20 people available who knew the old ways in the Saru River region. Furthermore, the younger generation of Ainu, having had limited exposure to Ainu culture at home, identified the ceremonial dishes as Ainu traditional food, but had the perception that what they ate every day was not part of the traditional Ainu food – even though some food items were the same as that eaten by the Elders in former times. Another difficulty in collecting quantitative dietary data was that traditional Ainu food use varied a great deal depending on the composition of the household. In households with Elders there was apparently more Ainu food use, while those with younger Ainu used far less. Therefore, the research team decided to use only the qualitative data collected by interviewing local Ainu.

Methodology

In February 1998, the Biratori Ainu Culture Preservation Group (BACPG) organized an overnight camp in which local Elders and local youth discussed ways to protect the traditional Ainu food culture. The youth group collected information regarding where and how to gather wild vegetables, and how to preserve and cook them. After the camp, the youth group used information given by the Elders to collect wild vegetables. In the subsequent year the BACPG gathered additional information by conducting interviews with Elders.

In the spring of 2004, the research team conducted a new series of interviews with Ainu Elders. Each interview lasted two hours (approximately), where

Elders were asked questions regarding food use and preparation. The research group then conducted group interviews with Ainu youths living in the Saru River region. The questions asked derived from the results of the earlier interviews with the Elders, with the aim of investigating the level of knowledge regarding Ainu traditional foods among the younger generation of Ainu. Three groups, each consisting of two to four people, were interviewed, totalling seven young informants. In addition, three young Ainu were asked to write about their experiences relating to Ainu food.

Research results

Research conducted by the Biratori Ainu Cultural Preservation Group (BACPG)

BACPG began their effort by holding an overnight camp to talk with local Elders in February 1998. They gathered information on Ainu traditional food through interviews with Elders and learned that there were slight differences in the methods of hunting, preservation and cooking between the areas of the upper, middle and lower parts of the Saru River. After this camp, BACPG held more interviews with Elders, collected wild vegetables, preserved and cooked them, following the information given by the Elders. BACPG put together the research results and produced a booklet titled *Aepu* [What We Eat].

Members of BACPG focused on the kinds of Ainu food that Ainu Elders currently used, as well as those that they did not use in everyday life, but wanted to be passed down to the next generations. As a result, 20 traditional food items were chosen (Table 7.2). BACPG also asked where these were found, and when and how to collect them, as well as the preservation and cooking methods used for them (Table 7.3).

BACPG also documented Ainu rituals for going into mountains and rivers for food gathering. In these rituals, the Ainu offer prayers to gods, and through the prayers they strengthen the spiritual ties with nature and give thanks to the gods. For each of the wild vegetables, BACPG documented the geo-physical

Table 7.3 Collection and preservation methods of some Ainu traditional foods

<i>Food names</i>	<i>Collection and preservation methods</i>
Wild vegetables	
Wild onion	Collect in April to mid-May, dry them by the end of May
Anemone	Collect in beginning of May to mid-May, dry them by mid-June
Udo, Spikenard	Collect in mid-May to mid-June
Japanese butterbur, coltsfoot	Collect in beginning to mid-June, dry them by the end of June
Angelica, fresh	Collect in mid to the end of May
Aha bean	Collect in beginning to mid-Nov, dry them by mid-Nov
Ostrich fern, fiddle head fern	Collect in mid-April to mid-May, dry them by mid-May
Perennial lily	Collect in mid-June to beginning of July, preserve them by mid- July
Cultivated grains	
Egg millet	Seed them in mid-May, weed in mid-June, harvest in end of Sept. to the end of Oct., dry them by mid-Nov
Barnyard millet	Seed them in mid-May, weed in mid-June, harvest in end of Sept to end of Oct, dry them by mid-Nov
Italian millet	Seed them in mid-May, weed in mid-June, harvest in end of Sept to end of Oct, dry them by mid-Nov
Frozen potatoes	Collect them in mid-April in the vegetable garden, soak in water and dry them
Fish and wild game	
Freshwater pearl mussel	Collect them in summer in fresh water
Dried salmon	Cut salmon into three (borne and top and bottom sides) and dry salmon outside in the cold
Hokkaido deer	Catch and cut in mid-Jan

characteristics of the area where they can be found, collection method, as well as preservation and cooking methods.

BACPG presented the Elders with pictures, so that a reader could follow the instructions. With *turep* (a wild tulip – see Table 7.1), from which the Ainu used to extract starch, BACPG gave detailed instructions, showing each step leading to the extraction of the starch. As for cultivated grains, they illustrated the steps from seeding to harvesting, as well as preservation of

grains and cooking methods. Traditionally, shells of *pipa* (freshwater pearl mussel) were an important material for making tools to harvest grains. BACPG documented and presented how to make the harvesting tools out of *pipa* shells. Preservation of salmon, and flensing of deer were also explained in detail, using pictures.

Every year, BACPG holds cooking classes in November, January and February to learn from the Ainu Elders and also to introduce various Ainu dishes to the people in the community. To date (2006), 13 dishes have been demonstrated in these cooking classes: 1) *cep obaw* (fish soup), 2) *citatap* (chopped mixture of salmon head and milt), 3) *kosayo* (bean soup), 4) *konp sito* (dumplings with kelp source), 5) *cipor sayo* (rice soup with salmon roe), 6) *aha mesi* (rice with wild beans), 7) *piyapa sayo* (rice soup with millet), 8) sweet bean soup, 9) *kina rur* (wild vegetable soup), 10) *pene emo* (frozen potato), 11) *turep sayo* (soup with wild lily), 12) *huype* (liver) and 13) *tonoto* (liquor).

Interviews with Elders

The Elders who were interviewed talked about various kinds of food items that they gathered, processed and ate. In the following paragraphs, 15 food items are described (including *pipa* shells) that the Elders identified as important to traditional Ainu culture.

Pukusa (wild onion)

Pukusa is currently popular among young people as well as elderly people. With cultivated *pukusa* becoming increasingly available it can be found in markets. Therefore, *pukusa* has gained popularity not only in Ainu communities, but outside them also. Interestingly, the Ainu Elders in Nibutani recall *pukusa* as the food that they avoided eating when they were young. Due to the strong taste of *pukusa* and the social prejudices against Ainu, *pukusa* became a negative symbol of the Ainu. Now people simply enjoy the taste and the nutritional value of *pukusa*. However, the traditional way of processing and cooking *pukusa* – by drying it in the shade and cooking it in soup – has not been sufficiently passed down to the younger generation.

Pukusakina (anemone)

Pukusakina was one of the wild vegetables mentioned frequently in our research, but outside the Ainu community it is not known to be an edible substance. However, not many people of the younger generation knew about *pukusakina* or knew how to eat it. The Elders explained that they collected *pukusakina* and dried them for use during winter, by tying them together like a reed screen and hanging them outside to dry. They also ate *pukusakina* fresh after boiling it in water to get rid of the harshness. *Pukusakina* was served in deer meat soup and vegetable soup and was said to be good in many dishes. It was used widely in the days before Japanese assimilation policies came into force.

Cimakina (udo, spikenard)

Cimakina is a well-known vegetable that is eaten in spring. There are two different uses for *cimakina*: food and medicine. Elders mentioned that they pickled it or ate it with vinegar and miso paste. This is apparently the modern recipe for eating *cimakina*, adopted from the Japanese cuisine. The Elders also talked about boiling and grilling *cimakina*. This is consistent with literature on traditional Ainu food culture, which recorded that Ainu used to boil the fully grown stem of *cimakina* and take it with them when they went into the mountains. The Elders said that they also used to eat it fresh, in the same manner that they ate *cihue* (angelica) (see next page). Fully grown *cimakina* was peeled and eaten. It was not as sweet as *cihue*, but was considered to be a good snack. According to the literature, Ainu cooked *cimakina* in hot water and drank the juice to cure scabby skin. However, this medicinal use was not mentioned by any of the Elders in our research.

Korkoni (Japanese butterbur, coltsfoot)

Korkoni is a very popular wild vegetable, eaten widely by Ainu and non-Ainu. Ainu used to gather *korkoni*, boil it in water, peel its skin and eat it in *obaw* (soup). It was also salted for preservation. Most traditional dishes using *korkoni* have been passed down to younger generations with some changes in recipes, such as frying it with oil.

Korkoni was used for purposes other than eating. People used the leaves for wrapping things or as a temporary pots and saucers. They also used *korkoni* leaves for wiping wooden floors to produce a shine. *korkoni* was also effective as a medicine for curing beriberi. The Elders still knew about its use for these purposes.

In the interviews, the Elders mentioned an interesting preservation method for *korkoni*. Fully grown *korkoni* is harvested, wrapped with leaves of Japanese knotweed and slightly salted. Treated in this way, *korkoni* stayed fresh, perhaps because of the sterilizing effect that the leaves of Japanese knotweed are known to have. However, this preservation method has not been passed on to the younger generation.

Aha (aha beans)

Aha is not used as much by the present Ainu because other beans (soybeans, red beans, etc.) have become available. Also, it is time consuming to harvest, wash and process these beans. Some participants mentioned that *aha* was tasty but that they did not go to collect it. Others said that they knew where they could pick a lot of *aha* which they then boiled and ate. Most often *aha* was cooked with rice, in much the same way as *sipuskep* (egg millet) and *piyapa* (barnyard millet) are cooked. The Elders recalled *aha* being slightly sweet and tasty.

Sorma (ostrich fern)

In the earlier research, it was reported that *sorma* was eaten in some areas, but not in every Ainu community. Elders from the Saru River region said that they boiled them in water, dried them for preservation and that they also salted *sorma* for preservation. Drying was the traditional method of preservation, while salting was introduced under the influence of Japanese dishes. It was also reported that people now deep-fry *sorma* or cut it into small pieces, deep-fry them and eat with soy sauce and sugar seasoned with red pepper.

Turep (wild lily)

Turep is uniquely an Ainu food item in that it was one of the most important wild vegetables in Ainu food

culture, yet it was never adopted into Japanese cuisine. In the Saru River region, the root and the stem grow up to several centimetres above ground, and these were used to make *turep* starch. The tuber was mashed and strained to make two kinds of starch: *ichiban-ko* was the finest starch and *niban-ko* was less refined. Since only a small portion of *ichiban-ko* is produced in the process, it was very precious and some Ainu used it as stomach medicine. *Niban-ko* or *turep* was mainly used to make dumplings. The doughnut-shaped *turep* was hung to dry with a string running through a hole in the middle – a way of preservation without leaving waste. What was left after making *turep* starch, mostly fibre, was wrapped with leaves of *korkoni* and mugwort, and left to ferment for about two weeks. After further processing the fermented *turep* to make more starch, it was made into a ball and dried for preservation. Dried *turep* was eaten in deer soup and vegetable soup. Since the fermentation process requires special knowledge and produces a strong smell, it is now rare to find anyone who ferments *turep* for everyday use. In addition, other kinds of starch are now widely and cheaply available in stores.

Cihue (angelica)

Ainu used to eat *cihue* while they were on outings. One Elder recorded, “We found *cihue* in the mountain, and we picked it, peeled it and ate it fresh. Depending on the area, some *cihue* are sweet and others are bitter. We ate it only fresh (not cooked).” The peel of *cihue* is hard. However, once it is removed, the inside is soft and good to eat. Well-grown *cihue* contains slightly sweet water-like juice in the centre. In the early summer when people went into the mountain to pick *turep*, they enjoyed *cihue* to quench their thirst or eat as a snack. Today it is very rare to find young Ainu who know the use of *cihue*.

Sipuskep (egg millet)

Sipuskep was brought to the area a long time ago and was incorporated into Ainu food culture. There are two kinds of *sipuskep*: *nitne sipuskep* (hard egg millet) and *riten sipuskep* (soft egg millet). One Elder said, “*nitne* is rice, *riten* is sticky rice”. *Nitne* can be a meal

by itself and it is tastier than *piyapa* (barnyard millet). The Elders said how much they enjoyed eating *sipuskep*, but since it was not abundant it had not become one of their everyday foods. *Sipuskep* was popular among the Ainu in Saru River region, and they liked *sito* (dumplings), made of ground *sipuskep* flour. The flour was also used to make local specialties, such as *ratashikep* (cooked vegetable dish) and *kosayo* (sweet thick soup with beans), which children generally like for its sweetness.

Piyapa (barnyard millet)

Piyapa was also called *aynu-amam* (grain for humans). Since rice is called *sisam-amam* (grain for Japanese), the name indicates that *piyapa* was an important part of Ainu food culture. *Piyapa* grew liberally around Ainu houses, and people considered it as an “everyday food”. Ainu used to eat *piyapa* regularly before the Meiji era (began 1867) when rice became available. The most common way of preparing it was *piyapa sayo*, i.e. *piyapa* porridge.

Munciro (Italian millet)

Munciro was an important part of Ainu food culture in times past. Like *piyapa*, it was called *aynu-amam* (grain for humans). There were also two kinds of *munciro*: *nitne* and *riten*. However, one Elder recalled, “We did not grow *nitne munciro* (rice millet). We steamed *riten munciro* (sticky rice millet) and after cooling it, we pounded it and made tasty sticky *munciro* cake.”

Pene emo (frozen potatoes)

Pene emo was introduced to Ainu relatively recently; therefore, the pronunciation of *emo* (potatoes) is similar to that of the Japanese. Previously, it was prepared only among the Ainu in the Saru River region. In the spring, Ainu collected the potatoes left in the field over the winter that the Japanese farmers did not pick in the previous autumn, as they were too small. They first soaked them in water and mashed them, made them into balls and cooked them in the hearth. The freezing of potatoes during winter increases their sweet flavour and children enjoyed eating *pene emo* as a snack.

Atat (dried salmon)

Salmon was called *kamuy cep*, meaning “fish of gods”, was the most important food in an everyday Ainu meal. Salmon has been precious food from the past to the present and Ainu upstream and downstream the Saru River region all harvested and ate salmon in various ways. One Elder recalled, “I broiled and cooked salmon and enjoyed eating it. My father, on his way home, found dead salmon along the riverbank and used to bring them home. We made *ruype* (repeatedly freezing and drying salmon) and ate it”. One Elder who lived upstream of the Saru River said, “We did not get much salmon. But every once-in-a-while, my elder brother used to catch some. Even if it was midnight, we made *ohaw* (soup) and woke everybody up, even our neighbours and enjoyed the soup together. We would also stick *imanit* (skewer used for broiling fish) through salmon and broil it.” Salmon dishes have been passed down to younger people and *ruype* is a popular local speciality.

Yuk (Hokkaido deer)

Most Elders said that they did not eat deer when they were young. *Yuk*, along with salmon, was one of the most important food items in Ainu culture, but in recent years it was not a familiar part of everyday food among the Saru River Ainu. The reason for this decline has been the requirement of deer hunting licences that have not been readily available for Ainu. Also, it was not possible for Ainu men to leave home and work for many days to hunt *yuk*.

When Ainu did acquire *yuk*, it was considered a special treat. They ate the meat, internal organs and also the blood and processed every part of the *yuk* in various ways. Now, people eat *yuk* meat and liver raw as sashimi, or as barbeque.

Pipa (freshwater pearl mussel)

Pipa, especially the shells, was closely related to Ainu life. The shells were used as a tool for harvesting grains such as *sipuskep*, *puyapa* and *munciro*. The Elders said that they did not eat *pipa*, but used the shells as tools for harvesting grain. *Pipa* refers to shells, but the people in the Saru River region also used the term to refer to

the tool for harvesting grain. In this area, there used to be a river valley where *pipa* were abundant, and it was named *pipauci*, the river valley with shells. The Ainu settlement nearest to this valley is called *pipauci kotan* (pipauci village) currently in the centre of Nibutani. Although *pipa* was not eaten regularly, it became an important food during periods of food shortages.

Group interviews

In the spring of 2004, a series of group interviews was conducted based on data collected in 1998 in the BACPG study and in subsequent interviews with Elders. Seven women, 20–50 years of age, familiar with Ainu traditional dishes were selected, and asked about their experience with cooking and eating food items mentioned by the Elders. All participants expressed positive attitudes towards these food items, showing that the Ainu traditional food culture was being preserved in some Ainu households. The participants said that they ate wild vegetables in the spring, and preserved *pukusa* and *pukusakina* to eat in soup throughout the year. They have been cooking Ainu dishes with miso paste, rather than salt. They also talked about their experience of avoiding eating *pukusa*, when they became old enough to know the social prejudice against Ainu, which is associated with its strong smell.

The participants recalled eating various kinds of wild vegetables and fish when available. Eating Ainu foods was more than filling their stomachs with food. They remembered the pleasant experience of walking into the mountains with their mothers, sisters and friends to collect wild vegetables, enjoying the fresh air, sharing fun time. In winter, they recalled eating deer and bear. As for the changes in preservation methods, they concurred that they now freeze many of the wild vegetables, rather than drying them as they used to do in the past.

Written questions

A list of 15 Ainu food items, including *pipa* shells, was shown to three participants, who were then asked to write down their experience with these Ainu foods.

This method was used with those participants who have experience with Ainu traditional foods, but were not able to participate in interviews.

The results were consistent with those of the interviews. Among eight kinds of wild vegetables, the participants said that they had eaten most of them. *Chifue* was the one item that three participants had never had. As for cooking methods, the participants described a variety of ways to cook *pukusa* in miso soup, egg omelettes, stir-fry(s) with other vegetables, or marinated in soy sauce mixed with miso paste. Among the three kinds of cultivated grains and vegetables, *sipuskep* (egg millet) was commonly eaten, but the other two were not. The participants answered that they ate about half of the dishes that were listed.

Market research

There were only two Ainu wild vegetables sold in the markets: *pukusa* and *korkoni*. Fresh *pukusa* was sold at markets around May, but it was cultivated specifically for market sale. The price of *pukusa* was about 190 yen per 10 g. Since the nutritional value of *pukusa* has become well known the demand for it has increased, and *pukusa* has become widely available in markets in urban areas such as Sapporo. Also, *pukusa*, marinated in soy sauce, was sold at the market for about 400 to 450 yen per 50 g. *Korkoni* was also a popular food item throughout Hokkaido, and it was sold at markets year-round. The price of *korkoni* was similar to that of other vegetables: about 180 to 190 yen per 100 g.

Salmon was also a very popular food item in average households in Hokkaido, and was sold in markets all year long. The price of salmon varied depending on the species and quality, as did the method of processing (fresh, salted, dried and others). However, salmon was a common fish and its price varied.

Nutritional components of traditional food

Since the Japan Food Composition Database did not include many of the wild vegetables and meat mentioned here, the research group conducted their

Table 7.4 Nutrient composition of Ainu traditional food (per 100 g of edible portion)

Food items	Moisture		Energy		Protein	Fat	CHO	Fiber (soluble)	Fiber (insoluble)	Fiber (total)	Ash	Vit A	Vit A
	g		kcal	kJ	g	g	g	g	g	g	g	RE µg	RAE µg
Wild plants													
Aha bean ¹	48.7		230	959	15.1	6.7	27.2	–	–	8.4	2.3	–	–
Anemone, dried ²	5.7		371	1 551	26.3	6.6	51.6	3.6	28.3	31.9	9.8	–	–
Anemone, fresh	90.5		36	152	2.6	0.4	5.6	0.4	3.1	3.5	0.9	–	–
Angelica, fresh	91.7		31	130	0.6	0.2	6.7	–	–	–	0.8	–	–
Butterbur, fresh ³	95.8		13.2	55	0.3	0	3	0.1	1.2	1.3	0.7	8.16	4.1
Fermented Turep	11.2		351	1 469	3	0.2	84.4	1.6	5.7	7.3	1.2	–	–
Fruit of armur cork ²	8.8		389	1 624	12.1	8.9	65	–	–	–	5.2	–	–
Ostrich fern, dried	7.8		376	1 570	36	4	48.9	–	–	–	3.3	–	–
Perennial lily, powder	17.8		330	1 371	0.1	T	81.9	–	–	–	0.2	–	–
Perennial lily, root	75.6		95.4	399	1.4	0.2	22	0.2	1.6	1.8	0.8	–	–
Spikenard, fresh ³	94.4		21	89	0.8	0.1	4.3	0.3	1.1	1.4	0.4	0	–
Wild onion, dried ²	5.6		366	1 530	35.4	4.5	46	–	–	–	8.5	–	–
Wild onion, fresh	88.8		42.2	176	3.5	0.2	6.6	0.5	2.8	3.3	0.9	347.5	173.7
Cultivated grains													
Barnyard millet ³	13.1		362	1 512	9.7	3.7	72.4	0.4	3.9	4.3	1.1	0	0
Egg millet ³	14		356	1 463	10.6	1.7	73.1	0.1	1.6	1.7	0.6	–	0
Italian millet ³	12.5		359	1 499	10.5	2.7	73.1	0.4	3	3.4	1.2	0	T
Potatoes, frozen	15.7		340	1 421	1.5	0.8	81.7	–	–	–	0.3	–	–
Fish and game													
Hokkaido deer ²	70.8		156	653	19.5	8.7	0	0	0	0	1	3	3
Pearl mussels, fresh water	82.9		70	293	10.3	1.4	3.2	–	–	–	2.2	34	34
Salmon, dried ³	64		153	638	25.7	5.5	0.1	0	0	0	4.7	43	43

CHO Carbohydrate.

T Trace value (Below detection limit).

– No data.

own analysis in May 2004. Samples of vegetables or meat were collected and preserved in the traditional ways by freezing or drying and sent to the Food Science Laboratories of the Rakuno Gakuen University. Composite samples from several like plants (n = 1) and one sample of deer meat were made. Of the 15 items that were identified as important in the interviews, *pipa* was not analysed, since it was not usually used for food. Local deer hunters provided deer meat in January when the deer-hunting season began. Standard food composition analyses and microanalyses were conducted using the general component analysis in Japan. Moisture was determined with vacuum drying, protein determined

with the Kjeldahl method and multiplied by 6.25. Sodium was determined by atomic absorption spectrometry, and ICP luminescence was used for calcium, phosphorus, iron, potassium, magnesium, zinc and copper. Soluble and insoluble dietary fibre were determined by the Prosky-Strange method and combined for total dietary fibre (Iwasaki-Goodman *et al.*, 2005, 2006).

The nutrient composition of Ainu food items is shown in Table 7.4, which contains values from these original analyses as well as data from the Japanese Composition Tables.

Results for dried *pukusa* (wild onion) showed that it had a ten-fold higher energy level than fresh *pukusa*.

<i>β</i> -carotene	Total carotene	Folic acid	Vit B ₆	Vit C	Vit D	Vit E	Vit B ₁₂	Calcium	Iron	Zinc	Phosphorous	Magnesium	Sodium	Copper	Potassium
μg	mg	μg	mg	mg	μg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg
–	–	–	–	–	–	–	–	42	4	–	240	98	3	–	1 000
–	–	–	–	–	–	–	–	1 100	19.5	2.5	450	210	7	0.58	3 600
–	–	–	–	–	–	–	–	56	1.4	0.3	43	22	2	0.06	400
–	–	–	–	–	–	–	–	34	0.2	0.1	15	11	2	0	390
49	49	12	0.01	2	0	0.2	0	40	0.1	0.2	18	6	35	0.05	330
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	1 500	6.2	0.4	160	65	16	0.31	1 500
–	–	–	–	–	–	–	–	230	8.7	5.6	640	160	260	3.1	630
–	–	–	–	–	–	–	–	3	0.5	–	–	–	–	0.28	13
–	–	–	–	–	–	–	–	9	0.2	–	–	–	–	0.09	350
0	0	19	0.04	4	0	0.3	0	7	0.2	0.1	25	9	T	0.04	220
–	–	–	–	–	–	–	–	330	9.6	4	730	220	7	1.43	3 600
2 000	2 170	85	0.16	59	0	0.9	0	29	1.4	0.4	30	22	2	0.16	340
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
0	0	14	–	–	–	–	–	7	1.6	2.7	280	95	3	0.3	240
0	0	13	–	–	–	–	–	9	2.1	2.7	160	84	2	0.38	170
–	–	29	–	–	–	–	–	14	4.8	2.7	280	110	1	0.45	280
–	–	–	–	–	–	–	–	24	3.1	0.9	71	20	8	0.7	23
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	1	0.52	1	T	0.5	0.6	3	3.5	2.5	220	23	43	0.17	360
–	–	42	0.02	–	–	1.1	10.3	43	3.5	1	160	73	540	0.05	230
–	–	10	0.52	0	28	1.2	8	19	0.8	0.5	240	20	1 500	0.07	250

¹ Report of Health Promotion Project using Ainu plants, Ainu Museum, 1996.

² Composition analysis was completed in 2005 at Rakuno Gakuen University.

³ Japan Standard Food Composition Chart.

It contained more potassium, phosphorus and iron than when fresh, which showed that the drying method significantly enhanced the nutritional values of *pukusa*, through the loss of moisture. Similarly, dried *sorma* (dried ostrich fern) was a good source of energy, but also a good source of sodium, zinc and copper. The energy level of *turep* (wild lily) was found to be higher than in potatoes, and *turep* was a good source of carbohydrate and calcium. The first batch of starch made from *turep*, called *ichiban-ko*, can be used as medicine. *Turep* fibre and leftover starch were rich in both soluble and insoluble fibre. *Yuk* (deer meat) contained less energy than beef, because these wild animals tend to be lean.

Community activities

Ainu cooking workshop, 23 June 2004

On 23 June 2004, an Ainu cooking workshop was held for teachers of home economics in both elementary schools and junior high schools in Biratori. The Research Council of Educators in Biratori organized the workshop, “food culture” being their chosen research theme, which focused on Ainu traditional food as their subject. The teachers of six elementary schools and eight junior high schools in Biratori, and three teachers from outside of Biratori participated. The instructor demonstrated the

cooking of three dishes: *yuk ohau* (deer soup), *sipuskep meshi* (rice with millet) and *konp sito* (dumpling with kelp sauce), while participants observed and took notes.

Most participants had never had Ainu dishes before and had various thoughts on Ainu food culture after the cooking workshop. One participant thought that deer, being wild meat, must have a distinct taste that would require an effort to enjoy. However, participants found the deer soup tasty. Other participants indicated that they had never eaten wild vegetables, despite the fact that they see them around their homes. Participants were also surprised to learn about the ancient skills of the Ainu, e.g. cultivating grains such as millet, etc. They were interested in the fact that the word *konp* (kelp), which is a part of Japanese vocabulary, is originally an Ainu word.

After the cooking demonstration, a discussion was held about how to introduce Ainu traditional food culture to students at school. The participants expressed their willingness to incorporate various aspects of Ainu food culture into class material. Teachers who came from outside Biratori were eager to organize similar cooking workshops for teachers in their regions. Some participants expressed the need for providing nutritional information and recipes for the Ainu dishes.

“Hararaki Time”: introducing Ainu culture at school

Nibutani Elementary School began its efforts teaching the children the unique characteristics of the local community in 1996, when a prefectural conference on education was held in Nibutani Elementary School. Teaching Ainu culture was one component of such effort, and the programme called “Hararaki Time” has been held every year since. For “Hararaki Time”, one area of Ainu culture, such as food culture, craft or language, was chosen at the beginning of the year, and a series of workshops organized, inviting local people as instructors. All students take part in “Hararaki Time” at least twice before graduating from elementary school.

Studying about Ainu food culture was, reportedly, one of the most popular workshops. Students learned

about Ainu cultivation of grains such as millet, starting with planting, weeding and harvesting. First, the students were divided into small groups that worked together to take care of gardens planted in spring. In summer, students went to Chitose to collect *pipa*. They learned how to make tools with the *pipa* shells and used the tools for harvesting grains in mid-September. After drying the millet, the students learned to cast off the husks and grind the millet to make millet powder. They eventually learned to make dumplings with the millet flour.

Conclusion

The situation of the Ainu in the overall context of the Indigenous Peoples’ Food Systems for Health Program demonstrates how a cultural group of Indigenous Peoples can begin the first steps to revitalize their culture that is close to complete assimilation in the larger Japanese national society. Traditional food is used as the avenue for this revitalization. Here the understanding, appreciation and use of traditional Ainu food in the contemporary context are described, with special attention to differences among three generations of Ainu. Interestingly, foods formerly part of the Ainu culture but now adapted for use by the larger Japanese society, are no longer considered “Ainu”, resulting in a very short list (15 items) of foods which are uniquely Ainu. An impediment to the nutritional status survey was the difficulty in identification of Ainu participants because many Ainu in the region were reluctant to self-identify as Ainu, due to the discomfort of potential discrimination by their non-Ainu neighbours. To date there were no health surveys in the region disaggregated by ethnicity with which to understand Ainu health status – therefore, this information could not be reported here.

Following the Nibutani Dam court decisions that required an assessment of the impacts of flooding the traditional Ainu territory containing many traditional foods and medicines, and that recognized the Ainu right to enjoy their culture, the Ainu research team conducted research from 2004–2006 under the leadership of Koichi Kaizawa, the Ainu community

leader. They conducted primary qualitative research, and included results derived earlier by the Biratori Ainu Culture Preservation Group. Interview information from local Ainu Elders and younger Ainu developed two criteria used to choose Ainu foods for study and cultural preservation: 1) Ainu traditional foods that Elders continued to appreciate over the years, and 2) Ainu traditional foods that they would like to preserve for future generations. From this list 15 food items (one was used to make tools) were identified and studied. The research group also collected these food samples for composition analysis at the Department of Food Science at the Rakuno Gakuen University in Hokkaido.

The results of both interviews and composition analysis showed that Ainu have fostered rich knowledge about interesting and nutritionally sound traditional Ainu foods. The research team plans to re-introduce this basic information to the Ainu community in the Saru River region with various education activities. This will enable the Ainu to promote an appreciation for the Ainu culture within and outside of the Ainu community, thus creating the kind of social change through which Ainu will regain a culturally healthy environment ●

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