

Current Status and Issues Surrounding Ecotourism in the Shiretoko Region (World Natural Heritage Site)

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Summary : Hokkaido-Shiretoko was placed on the World Natural Heritage List in July, 2005. Because of the high expectation that many people would visit from all over the world, new business opportunities were anticipated from the promotion of regional development and tourism. The benefit of nature in Shiretoko would be sought in a different way through ecotourism.

The concept of ecotourism usually implies “sustainable development” however ; the concept of sustainability is quite diverse while the concept of ecotourism is rather vague. The meaning of “ecotourism” used by travel agency and the mass media has been positioned as a kind of mass-tourism and developed similar to mass-tourism.

A similar vague concept was adopted in Shiretoko region, therefore, ecotourism has been developed as part of mass-tourism in the area. After registration as a World Natural Heritage site, the number of tourists and suddenly increased in Shiretoko area where visiting tourists were outnumbered the capacity of accommodation and the environmental load increased remarkably. Therefore, to plan a break from mass-tourism and to establish a tourism industry with no environmental load is now an important issue.

The establishment of “real” ecotourism in Shiretoko has been carried out mainly by Shiretoko Eco-tourism Association in line with the “Shiretoko Eco-tourism Action Plan” published by 2007. However, the factor of “Regional cooperation” and “Autonomy of the region” becomes important for carrying out the plan of ecotourism. How to abolish the harmful effects which lies between the local people and the implementing agency becomes an important issue.

This report considers the possibility of establishing ecotourism through autonomy in the region while paying attention to harmful effects.

Key words : mass-tourism, ecotourism, Carrying Capacity, Commons, resource management

1. Introduction

The Shiretoko region was inscribed as a World Natural Heritage Site in July of 2005. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has established four criteria for inscription as a natural heritage site : 1) geographical : to be an important landscape which illustrates (a) significant stage(s) in the history of the earth ; 2) ecological : ecologically unique as an example of a biological community ; 3) natural scenery : to contain superlative natural scenery or areas

of exceptional natural beauty ; and 4) biological diversity : to contain the natural habitats of the threatened species or the most important species in regard to the conservation of biological diversity. Of these criteria, the Shiretoko region was considered worthy on the basis of 2) and 4). In particular, the ecology of the region shows an interconnectedness of mountain, river, and sea, and accordingly, the ecology exhibits remarkable bio-diversity that is absolutely unique to this part of the world.

With this assessment, there have been proposals for

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green tourism, marine tourism, and eco-tourism with the idea that hands-on sightseeing centered on the natural resources of the region is a differentiated commodity unique to the region, and there are heightened expectations for a new tourism industry. In keeping with the expectations of local residents, tourist traffic increased after inscription on the UNESCO list in 2005, and infrastructure improvements to facilitate tourism were rapidly put into effect, including improvements to hotels, the creation of “road stations,” and widening of roads. However, infrastructure improvements were not timely enough, and a lack of parking lots in sightseeing areas, traffic jams, and a lack of lodgings became apparent as tourist traffic surged past tourist receptor capacity. Moreover, the environmental burden increased, and a toll was taken on the greenery in sightseeing areas, such as the Shiretoko five lakes, due to increased exploration of the region and the increase in automobile exhaust from the surge in tourist traffic.

Against this background, the fact that the Shiretoko region encompasses the administrative jurisdiction of both towns of Shari and Rausu has been raised as a factor in the issues and contributes to the lack of a unified vision for tourism. For the same reason, improvements were too slow to be implemented on the hoped-for development of hands-on tourism to further reap the benefits of natural resources, and because it was carried out in parallel with mass tourism, it had lost its significance.

The Shiretoko region has been compelled to bring on development contrary to the fundamental ideal of pursuing sustainable tourism while promoting environmental protection in regards to community-based tourism such as eco-tourism, which assumes “sustainable sightseeing industry.” The issue of the day for Shiretoko is building a tourism industry that is free from environmental burden in seeking to move away from mass tourism, and it must undergo changes in order to be come a sightseeing area capable of fulfilling its role as a World Natural Heritage Site.

In this report, the current status and issues surrounding eco-tourism in the Shiretoko region will be addressed while touching on problem areas related to eco-tourism and an examination of tourist receptor capacity and Commons Theory. In addition, due to the importance of factors such as “local cooperation” and “regional autonomy” as conditions to implement eco-tourism, we will examine the potential for the establishment of eco-tourism in the Shiretoko Natural Heritage region while considering how to regulate cooperation between the local citizens and the operating organizations.

2. Development of Eco-tourism and Related Issues

(1) The Advent of Eco-tourism

There has been a worldwide increase in environmental consciousness since the start of the 21st century.

While the tourist industry vacillates between development and the environment, it is currently a field in which there are great expectations for the potential for new growth toward environmental protection. In particular, eco-tourism, which has been garnering attention of late, has begun to thrive as a tourism industry in developing countries and has been highlighted for its potential to bring about sustainable development.

Eco-tourism is a term coined by Hector CEBALLOS-LASCURAIN (H. CEBALLOS-LASCURAIN 1992) in response to the “sustainable development” advocated by the United Nations Environment Programme (UNEP) in 1980. At first, eco-tourism addressed issues of how to make the economic development of developing countries sustainable while facing the social background of the North-South Problem. Eco-tourism, which continues in the tradition of the third principle of the Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), looks toward sustainable development¹⁾ although setting out from an Anthropocentrism perspective. While it has been referred to as “post-industrialization” and “smokeless industry,” it has also caused environmental destruction called “tourism pollution.”

(2) Eco-tourism and Carrying Capacity

We can understand the uncertainty of eco-tourism through the concept of carrying capacity. The carrying capacity of a sightseeing area was defined by the United Nations World Tourism Organization (UNWTO) in 1981 as ensuring the maximum number of possible visitors to the sightseeing area without diminishing the satisfaction of the visitors or adversely affecting the physical, economic, sociocultural, and environmental resources²⁾. Figure 1 indicates five factors that compose the environment and the relationship with the community³⁾. These five factors composing the environment can bring about a sustainable society by mutually preserving balance. This report concerns the problems regarding increased environmental burden/impact from parading the region as in mass tourism by increasing the scale to invite tourists. The environmental burden may necessitate a long period of time for natural recovery, or at worst, even reach a level where recovery is impossible. However, while it does make possible the control of the environmental burden,

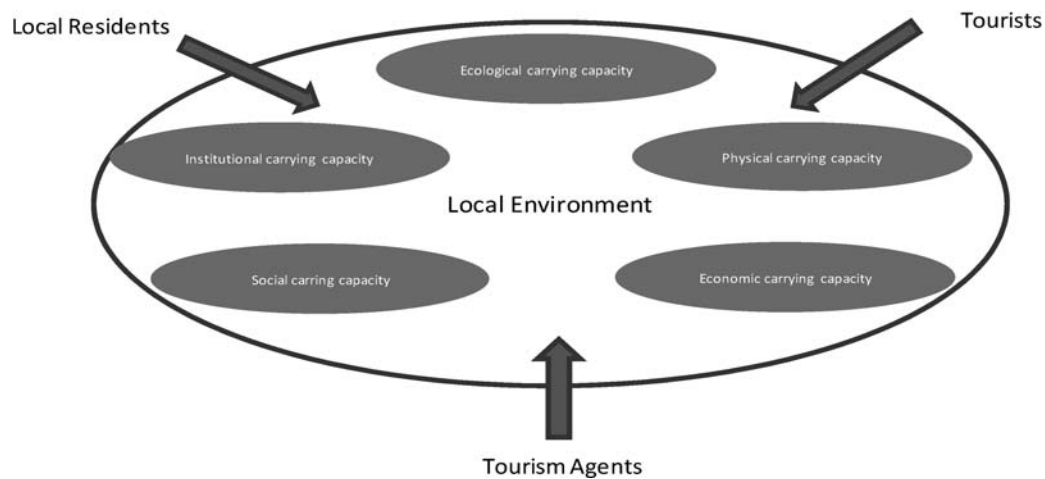


Fig. 1 Carrying capacity and links with community

Materials : Kanko Machizukuri Kenkyukai, *Tourism Town Development Engineering—Balancing Tourism Promotion and Environmental Preservation*, Gakugei Shuppansha, 2009, p. 20, figure 1

tourism on a reduced scale limits the number of visitors compared to mass tourism. Sustainable development is difficult in that it reduces profits and affects the livelihood of those in the tourism industry in order to preserve sustainable tourism.

This contradictory dilemma occurs between enlargement or reduction of scale, and in many instances when expectations arise as a new industry in developing countries, movements to enlarge scale stand out. For example, in a model case of eco-tourism in the Galapagos Islands of Ecuador, a carrying capacity of 12,000 tourists per year was set forth as acceptable in a 1973 master plan for preservation and usage of the islands. However, that number had been exceeded by 1977, and a new plan was made in 1981 supporting a flow of 25,000 tourists a year, and with 26,000 visitors in 1986, the carrying capacity was raised again, this time to 45,000⁴. After being inscribed in the World Natural Heritage List in 1978, the environmental burden on the native species increased precipitously along with increases in visitors through expansion of the tourism industry, of settled population, and of importation of foreign species through an increase in cargo shipments⁵. In 2007, the islands were placed on the World Heritage Endangered Sites List⁶, and three years later, on July 28 of 2010, they were taken off the list after it was determined at the UNESCO World Heritage session held at Brasilia, Brazil, that their issues had been addressed⁷.

(3) Development of Eco-tourism in Japan

In Japan, eco-tourism was investigated by the Environmental Agency in the first half of the 1990s, with local entrepreneurs starting up eco-tour activities in Yakushima of Kagoshima prefecture, and an eco-tourism

promotion council played a role in national environmental policy from 2003 to 2004⁸. However, when looking at eco-tourism in Japan, there are no outstanding movements compared to those overseas, and eco-tourism has been pursued with some very vague notions. The following three illustrations of the vagueness of eco-tourism development were culled from the efforts of travel agencies⁹.

- 1) When eco-tourism is organized as small tourism¹⁰, vendors without eco-tour know-how are prevalent given that eco-tourism is not in keeping with traditional practices of the major travel agencies.
- 2) There is a tendency for mass tourism sightseers toward eco-tourism, but major domestic travel agencies do not use the phrase “eco-tour” and instead develop ecological tours as brand package tours.
- 3) The results of the Japan Travel Bureau survey entitled “Traveler Trends 2000” showed that consumer awareness of the term “eco-tour” was low.

These three instances interact with one another to show that eco-tourism has either been replaced by nature sightseeing and positioned as mass tourism or developed in a form very similar to mass tourism.

The development of eco-tourism in Japan has a background of promoting mass tourism. In 1979, starting with infrastructure improvements based on “Plan for Rebuilding, the Japanese Archipelago” under the Kakuei TANAKA administration, and in 1986, triggered by the domestic demand-driven economic structure of “The Report of the Advisory Group on Economic Structural Adjustment for International Harmony” (known as the

MAEKAWA Report), the following year saw the Law for Development of Comprehensive Resort Areas (Resort Law) in which there is an emphasis on developing standardized leisure spots (ski resorts, resort hotels, and golf courses) throughout the country, and the standardization of tourist resources has been planned. In the 1990s, international tourism was promoted by airlines for its low cost, and there was an escalation by travel agencies of package tours for low-cost overseas trips, and thus domestic tourism lost customers to overseas tourism. As a result, there was an increase in domestic mass tourism through intensification of price wars between domestic travel and international tourism, and mass tourism came to form the basis of the domestic tourism industry.

Although from this background it seems that in order to promote eco-tourism, it is realistic to promote it together with mass tourism, YOSHIDA states the following about vigilance regarding mass tourism methods that break into eco-tourism as stated by Nobuya SETA¹¹⁾.

- 1) Travelers must have a discerning eye to identify false eco-tours made from tours incorporating nature commentary to make their tours seem more attractive.
- 2) It is important not to choose solely based on "the simplified axis of cost" as the breadth of choices expands in today's information-based society.
- 3) We must prepare ourselves for a natural state other than we had envisioned since eco-tours are tours taken in partnership with nature. In other words, things may appear different from that expected on an eco-tour.

Although we do not specifically state it here since it is mentioned as a reference in YOSHIDA's thesis, in regards to (1), at the same time as there is a possibility for increasing environmental burden in the shift from mass tourism to eco-tourism, there are fears of inviting potential misunderstandings in fulfilling the function of environmental education. While (2) probably does not need to be touched on, (3) is the sponsor's (or producer's) natural resource-based tourist resource, and just as with the supply of an unstable commodity, guarantees are difficult; there is a lack of consumer awareness on this point. Efforts to change tourist awareness of eco-tours as a whole are important, and for the partial development from mass tourism to eco-tourism, there is a need to introduce efforts to get tourists to understand beforehand about the tourist-directed guidelines and as much specific information as possible, as well as phased commoditization of a level

commensurate with tourists' expectations.

Issues are not limited only to tourists, and there is a need to address issues including how to improve carrying capacity and how to gain the understanding of the local populace on eco-tourism. In relation to these points, the 2008 enacted eco-tourism promotion law made possible law-based regulations from previous efforts that were limited to autonomous regional regulations, and there are high hopes for efforts at preservation of bio-diversity.

3. Current Status and Issues Surrounding Ecotourism in the Shiretoko Region (World Natural Heritage site)

(1) Shiretoko—the Frontier Land

Hokkaido is considered the frontier of Japan, and Shiretoko is particularly identified as a frontier area. Primeval vegetation and an abundance of wildlife still abound in Shiretoko. Part of the reason for this diversity is that development had not spread to the area until recently.

The 2009 economics Nobel laureate Elinor OSTROM has spoken highly of Japan's common forests. There we can see a history of long maintained village communities. However, in Shiretoko, long maintained village communities and traditional common forest systems are quite rare. They may have formerly existed, but only traces remain of the original inhabitants of Shiretoko. Hokkaido today is based on settlement ranking. In other words, it is founded on a history of people who lived in Honshu and migrated to Hokkaido. This had been occurring from the Edo era, but it became standardized in the Meiji era with the onset of modernization. Thus, the people living in Shiretoko are those who migrated, longing for the frontier. If conditions were met, then forests could be felled and sold, and the land converted to fields. However, the tough weather conditions and the topography of Shiretoko prevented this, and wildlife remained. The Shiretoko of today is historically cut off from the Northern culture of antiquity and differs from the traditional village communities of Japan (it is known as a fact that their descendants migrated there but without continuity.). Therefore, Shiretoko is unique whether viewed in light of the Northern area or of Japanese history as a whole.

(2) Efforts at Nature Preservation in Shiretoko

Figure 2 above illustrates Shiretoko's primary merits in its classification as a World Heritage Site¹²⁾. Generally, heritage value is divided into utility value and non-utility value, and these elements of value differ depend-

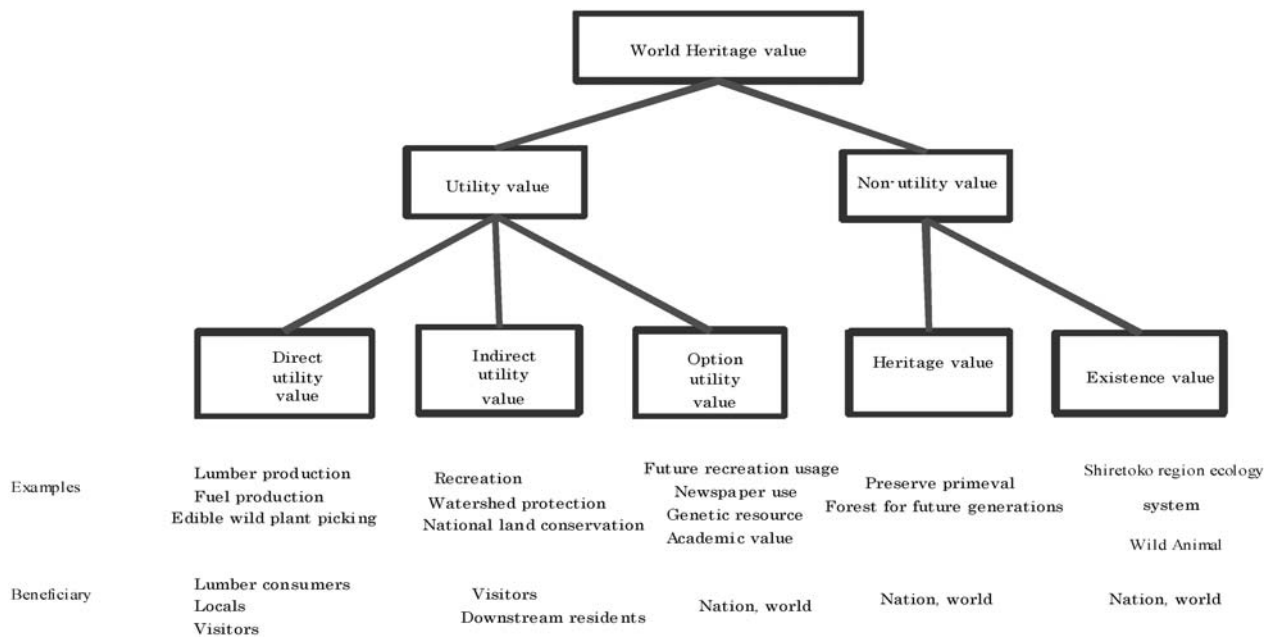


Fig. 2 World Heritage Value (Shiretoko region)

Original source : KURIYAMA, Kouichi ; KITABATAKE, Yoshifusa ; OOSHIMA Yasuyuki ; World Heritage Economics—Yakushima's Environmental Values and its Evaluation, Keiso Shobo, 2000, p. 13

ing on the beneficiary. The Shiretoko region was inscribed in the World Heritage List in July of 2005, and when considering the inscription criteria, it is particularly worthy for heritage value of non-utility and existence value. Attendant with this, tourism industry development is being planned as a component of indirect utility value. This value is mutually shared, and residents and tourists alike must keep this in mind and give back to the natural surroundings of Shiretoko the costs/benefits they receive. Shiretoko's state-owned forest lumber issue is representative of the vacillation between utility and non-utility value. The selected cutting of primeval tracts in the state forests in 1986 met local opposition and this was picked up by the national media where it gained national attention, spurring a trend for preservation of primeval forests and forcing suspension of logging plans in state forests. Furthermore, the "Shiretoko 100square-meters Movement" that started in 1977 was accelerated, and the trend in environmental preservation increased. To respond to expectations for national and world environmental preservation, there are strong calls to preserve continuity, sharing regional traits as common awareness. Therefore, the people of the nation and indeed the world are beneficiaries of the value of world heritage, and we must work for preservation and conservation of heritage sites.

As primarily the government of a member nation, the (Ministry of the Environment) must carry out procedures for heritage site preservation, and improve-

ments for preservation on a national basis are necessary. Conversely, in Shiretoko, there is the Shiretoko method of preservation. When the Shiretoko region was inscribed in the register of World Heritage Sites, a Shiretoko World Natural Heritage Candidate Site Correspondence Committee was established, and the Shiretoko World Natural Heritage Candidate Site Science Committee (hereafter the Science Committee) began operations, interfacing with and recommending World Heritage. This was a system that had not existed in the cases of Yakushima or Shirakami natural heritage sites, with experts giving out advice based on scientific inquiry, monitoring, and evaluation. One of the Science Committee's more successful efforts was through correspondence with the International Union for Conservation of Nature and Natural Resources (IUCN) petitioning for the establishment of sustainable fishing industry with marine area preservation and fishing regulation through written opinions offered by the Science Committee. The Science Committee is composed primarily of ecologists (marine, vegetation, and animal), and when the government responses on the sea area portions in response to IUCN correspondence were deemed inadequate, the Committee found accord with ecological preservation while preserving autonomy based on conversations with local citizens (fishermen). As a result, the Multi-use Integrated Marine Area Management Plan that was planned to be drawn up with the goal of a 5-10-year system was agreed to be composed within three years, and marine candidate areas

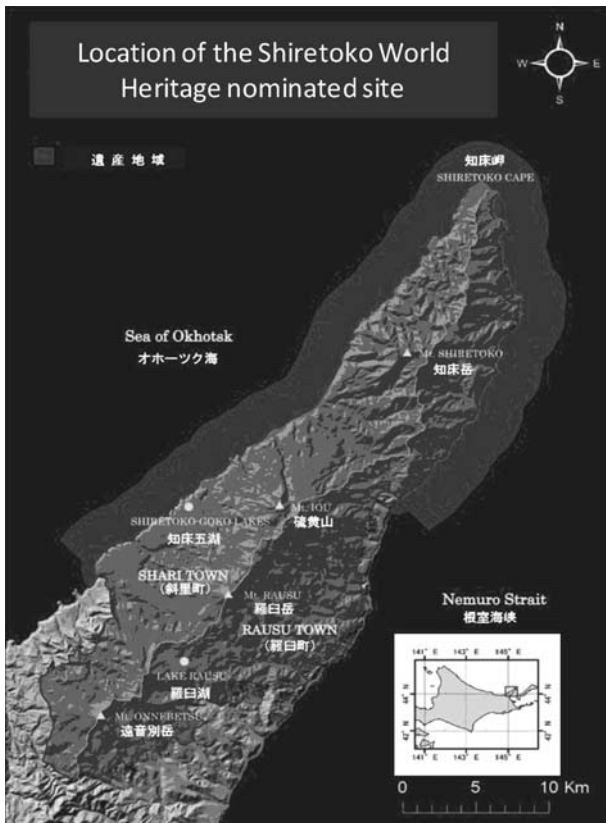


Fig. 3 Location of the Shiretoko World Heritage nominated site

Materials : IUCN Heritage Evaluation Report May 2005

were expanded from within 1 km to a 3-km distance from the coast (Figure 3).

Shiretoko has the aforementioned history in creating citizen-centered systems.

From the above points, Shiretoko differs from other Northern cultural areas. These endeavors may have been developed in the guise of a kind of “pseudo-frontier,” as “pseudo-commons” which search for new and ideal rules.

(3) Mass Tourism in the Shiretoko Region

There is a similar autonomy-seeking movement in the tourism industry. In particular, the Shiretoko tourist industry that develops community-based eco-tourism is recently planning a movement to break free of mass tourism.

Development of mass tourism in the Shiretoko region cropped up in the Plan for Rebuilding the Japanese Archipelago under the Kakuei TANAKA administration, and Shiretoko opened a trans-regional road through the subject land. The number of visitors who were newly able to venture to the hinterland of Shiretoko contributed to a marked increase in the year following the opening of the trans-Shiretoko road in 1981, and

Table 1 Numbers of tourists entering Shari region (past 10 years)

Year	Unit: 1,000 people									
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	1,770.2	1,629.9	1,656.2	1,605.3	1,560.8	1,556.5	1,732.0	1,656.4	1,436.1	1,318.0
Day visitors	1,119.0	1,037.4	1,041.5	1,008.9	981.3	978.3	1,123.8	1,055.3	916.2	837.3
Lodging visitors	651.1	592.5	614.7	596.3	579.5	578.2	608.2	601.1	519.9	480.6

Materials: Shari town

with travel agencies developing low-cost package tours in conjunction, mass tourism established rooted as the basis for tourism in the Shiretoko region. This form has continued to the present, with increases in tour participants being promoted through mass tourism in this region where travel costs are generally high.

Currently, the number of tourists is trending downwards. There was such a trend even after Shiretoko secured a spot on the World Heritage List in 2005, and the number of visitors fell to 1,318,000 in 2008 (Table 1). Although the recent downturn is affected by world economic trends, development is proceeding without plans to break free of the mass tourism style of sight-seeing. This can be explained by the following example(s).

Although it is not reflected in the numbers, concentrations of visitors are seen at the Shiretoko five lakes, the Oshinkoshin waterfall along the state highway, and the Kamuiwakka waterfall famous as an unexplored hot spring, where carrying capacity is being exceeded, and traffic congestion and tourists turning back are still regularly observed. In recent years, the number of visitors using secondary transportation has increased, and between the bus-using, mass tourism-based visitors, the proper adjustments to ensure ample parking space have not yet been made.

The increase in mass tourism-based visitors leads to overuse of local resources and affects observation of wild animals—a crucial element to eco-tourism in the Shiretoko region (Table 2)

For example, to attract visitors, large quantities of dead fish from seafood processing plants are sprinkled on ice floes as bait to attract White-tailed eagles and Steller's sea eagles from small boats in winter. An unnatural excess concentration is induced. Another example of excess use is nocturnal animal watching. During the peak season, more than ten buses a time flock to national park roads at night and shine searchlights. The air of glimpsing the true nature of nocturnal animals is lost. There is also the serious issue of brown bears, who become over-acclimated, causing danger to tourists and local towns alike with their incursions. Guides do not always give accurate explanations of these phenomena to visitors. Few guides

Table 2 Issues regarding the observation of wildlife in the Shiretoko National Park and surrounding areas

Issue	Species	Person causing problem	Problem	Remarks
Feeding by hand	Brown bear	Tourist	Bodily injury	White-tailed sea eagle/Steller's sea eagle Refraining voluntarily from 2006
	Red fox	Tourist	Ecological disturbance/over-acclimatization/Echinococcosis	
	Blakiston's fish owl	Accommodation staff, Photographer	Ecological disturbance	
	Eagle	Small tourist ship staff	Ecological disturbance/Eagle crash accident	
	Sea-bird	Small/Large tourist ship staff	Ecological disturbance	
	Brown bear	Tourist, Photographer, Media organization, Guide company staff	Bodily injury/over-acclimatization	
	Sika deer	Tourist, Photographer, Guide company staff	Bodily injury/over-acclimatization	
	Red fox	Tourist	Ecological disturbance/over-acclimatization/Echinococcosis	
	Large whale	Small tourist ship staff	Ecological disturbance	
	Blakiston's fish owl	Photographer, Tourist	Ecological disturbance/interference with breeding	
Overuse	Sika deer	Bus staff, Guide company staff	Worsening of observation environment	Nocturnal animal watching
	Red fox	Bus staff, Guide company staff	Worsening of observation environment	Nocturnal animal watching
	Brown bear	Small tourist ship staff	Worsening of observation environment	
Observation damage	Sea-bird	Small tourist ship staff	Ecological disturbance/worsening of observation environment	
Improper explanation	Small whale	Harpooner, Small whaler	Decrease in numbers, flight from observation boat	Dall's porpoise/Baird's beaked whale
	All species	Wildlife guide staff in general	Spread of misinformation, deterioration of education effect	

Source materials: Yamanaka, Masami, Wildlife Observation as Eco-tourism in Shiretoko – the Significance and Danger of Observing, Wildlife Forum, Wildlife Protection Society, Vol. 13, No. 2, 2008, p. 25.

have received specialized training in biology and ecology, and there is currently no system to help maintain a certain standard for guides. There are large numbers of short-term part-timers brought in to maximize capacity during the peak season¹³⁾.

These are clearly efforts to suit the patrons of mass tourism and are quite different from the endeavors of eco-tourism.

How the Shiretoko region can respond to the increase in visitors following inscription on the World Natural Heritage List was an issue addressed by the IUCN upon the site's inscription, and popularization of eco-tourism as the best route of the tourism industry is an urgent issue for the region as a World Heritage Site.

(4) Development of Eco-tourism in the Shiretoko Region

The Shiretoko Nature Foundation made the first efforts at eco-tourism in the region in 1991. From that point, private businesses have taken the lead in the development, primarily through guide service endeavors.

Initially, there was variance among the efforts due to questions of environmental burden and handling of wildlife being at the discretion of the participating companies. There was danger to this as some of the preceding problems emerged (Table 2) as part of efforts to maximize customer satisfaction through customer securing competition among the various entrepreneurs.

In response to the need to establish rules for eco-tourism in the Shiretoko region, the two municipalities of Shari and Rausu were selected as eco-tourism model areas by the MOE in 2004, and the Shiretoko Eco-tourism Promotion Council was established. With member organizations from the two municipalities in a wide range of fields (27 organizations including tourism, fishing, agriculture organizations, transportation relations, nature conservation societies, guide councils, and

mountaineering groups), the council, in its three-year model business, is engaged in efforts at investigating the ideal form of eco-tourism for Shiretoko, stay-style model tour promotion, development of eco-tourism in league with local businesses, guide training seminars, holding inspections and workshops, and promotion of activities to attract overseas visitors¹⁴⁾. A Shiretoko Eco-tourism Promotion Plan was produced in March of 2007¹⁵⁾, the final year of the model business, and the council determines three and five-year goals for implementing a range of efforts including: the creation of Shiretoko style eco-tourism principles, guidelines for visitors or guides for eco-tourism in Shiretoko, promotion of stay-style tourism, integration of information dispatch, planning and development of locally dispatched tours, education and training of nature guides, implementation of Shiretoko nature preservation activities, improvement of existing sightseeing areas, construction of a system for returning tourism revenue to environmental preservation, improvement in implementation systems and organization, and securing independent assets for eco-tourism promotion.

However, there are still a number of issues to be addressed. For example, although the Promotion Council is making efforts at running independent model programs and tie-ups with travel agencies on model tours to initiate a shift from passage-style tourism to stay-style tourism, mass tourism-based travel agencies lack continuity with a tendency toward tie-up products with a set time limit.

In addition, regarding the development of eco-tourism in collaboration with local industry, the council is investigating hands-on programs making use of primary industry arising from the Shiretoko region including fishing and agriculture, conducting trial programs for tours, and hands-on net-fishing and harvesting. However, continuity is lacking due to the impossibility of

carrying out such endeavors without cooperation from the producers composing the primary industry and the fact that the attendant burden of increased working hours adversely affects the lives of the primary industry producers. Furthermore, it is difficult to develop large-scale tourist agriculture because agricultural producers are based on large-scale land ownership.

Therefore, there is no choice but to develop conventional local tour guide-centered efforts as permanent tours. However, awareness of visitors and tour guides is changing through the spread of guidelines and the holding of workshops for nature guides (on the host side).

Although it may be an overstatement to say that the spread of guidelines and workshops for nature guides have produced a direct effect, we can consider that these model period efforts have contributed to changes in awareness regarding the environment in the Shiretoko region as a whole.

As a prominent example, usage classification on the elevated tree road and lake-side walkway in the Shiretoko five lakes was carried out as a pillar in the usage adjustment classification system by the natural park law ; the latter included a toll, with a limit of ten people per tour, and mandatory lectures for participants ; these regulations will be instituted next year.

The Shiretoko World Natural Heritage Region Science Committee, which carries out preservation management based on new scientific information, and the Shiretoko World Natural Heritage Region Proper Use and Eco-tourism Investigation Council (April 2010), composed of Shiretoko World Natural Heritage Region Correspondence Council-based working groups and sectional meetings, themselves comprising autonomous bodies, local organizations, and citizens involved in daily preservation and usage of the heritage site have continued to develop the eco-tourism efforts to date.

4. In order to solve regional issues Shiretoko Ecotourism

(1) Commons Research and Carrying Capacity

The 2009 economics Nobel laureate Elinor OSTROM is a political scholar and Commons advocate. Her argument is a theory that is composed by extension of a refutation (with an example) to Garrett HARDIN's "The Tragedy of the Commons"¹⁶⁾. Thus, first we must speak of Commons. HARDIN's thesis is correct in certain assumptions¹⁷⁾. However, reader's faults were hidden in making an overall application of the understanding that privatization clarifies the whereabouts of responsibility and plans appropriate resource management. We can consider the community as a destroyer inviting

resource exhaustion. However, things are different in actuality. As investigations are conducted, examples opposite to this become apparent. The explanation is that communities include both a forbidden side and a free side. There are rules for everyone being able to freely secure something and use it, as well as rules forbidding everyone from using something. That delicate conflict and exquisite means of resource management are conveyed to the next generation as part of the folk traditions of the community members. This extremely clever system has existed since ancient times. There is research that evaluates and looks into memes for cultural diversity and communication¹⁸⁾. Human culture significantly excels the speed of evolution ; i.e., the speed of replication and mutation that produces biological and genetic diversity. A countermeasure for the overuse in Shiretoko would seem to be contained in these views.

(2) Systemic Diversity and a Method for Promoting Eco-tourism

"System diversity" is part of OSTROM's work. As the name of the research implies, system accompanies diversity. Different rules exist through differences in economic zones, regions, and communities. What is defined as correct may differ completely depending on the people living in the place in question.

Therefore, the label of wrongdoing is affixed occasionally by time and place. Terrorism and wars break out. Even if that is somewhat of an exaggeration, it is likely that the judgment of good or bad by the majority causes reconstruction of the minority's systems. Yet we cannot determine whether that kind of decision is correct or not. However, in respecting the decisions made among individual small societies, we must make separate preparations for an indicator other than ones judging whether it is beneficial or selected on a scientific basis.

OSTROM says, "The major issue of understanding systems is related to the diversity of present living situations."¹⁹⁾ Shiretoko may well be part of the major issue in understanding systems.

As a World Heritage Site, Shiretoko has gradually begun searching for the ideal form of eco-tourism, planning a transition to be able to break away from the mass tourism model. Eco-tourism efforts in Japan have been a little slow to gain traction compared to efforts overseas, but finally, there is a feeling that the country is ready to embrace the movement including the passing of eco-tourism promotion legislation. Preparations are being made to institute eco-tourism in the Shiretoko region in response to the movement. The greatest ad-

vantages of the eco-tourism promotion legislation are that it respects regional planning ability including : allowing municipal heads to make designation of regions containing the breeding grounds of flora and fauna as natural tourism resources, placing limits on numbers of visitors, and setting restrictions by season and time. The flow of environmentalism as a world trend has finally penetrated even to small societies, and efforts are being supported by countries and other institutions, with the traditional top-down institutional flow shifting to a bottom-up approach. Determining the passage of tourist industry efforts in the Shiretoko region is an issue for the future.

In the future, tourism in Siretoko will change its definition desirability from standardized mass-tourism to the promoting of diversity as E. OSTROM suggests.

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- 2) UNEP, UNWTO, Guidelines for Carrying Capacity Assessment for Tourism in Mediterranean Coastal Areas, 1997
- 3) "Ecological carrying capacity" denotes ecological destruction including damage to the earth, water, and air, and "Physical carrying capacity" indicates the space in which travelers are active. "Institutional carrying capacity" indicates infrastructure including roads, sewage systems, and parking lots. "Economic carrying capacity" indicates the balance of supply and demand, when demand increases in response to tourism activity-based economics or services. "Social carrying capacity" denotes the interactions between permanent residents and visitors, and the visitors' safety and sense of ease. YASUJIMA, Hiroyuki, Editors, Kokudo Sougou Kenkyu Kikou Kanko Machidukuri Kenkyukai, *Tourism Town Development Engineering—Balancing Tourism Promotion and Environmental Preservation*, Gakugei Shuppansha, 2009, p. 20, figure 1
- 4) The 1974 master plan presented seven goals : to protect ecology, prevent invasion of foreign species, urge appropriate use by visitors, offer information to tourists, educate locals, promote economic development, and promote scientific inquiry. In addition, five zones were set up to protect the ecology of the island : Intensive Use Zones, Extensive Use Zones, Primitive Use Zones, Primitive Scientific Zones, and Special Use Zones. EGUCHI, Nobukiyo, *Tourism as a Comprehensive Phenomenon*, Koyo Shobo, 2005, pp. 148–150.
- 5) Reference (3), p. 23.
- 6) From UNESCO World Heritage Center published materials. As of July 2009, there were 31 entries on the endangered list.
- 7) In addition to restrictions on migration from the mainland, it was praised for reducing the burden on the environment including limits on influx of foreign species and adoption of solar energy generation. *Hokkaido Shimbun*, July 30, 2010, p. 5.
- 8) Ministry of the Environment, Natural Environment Department homepage. Accessed July 30, 2010. <http://www.env.go.jp/nature/ecotourism/try-ecotourism/about/history.html>
- 9) Reference (1), pp. 40–46.
- 10) The definition of small tourism is as classified in a scatter diagram of mass tourism, medium tourism, and small tourism, with mass tourism entailing a high level of realization of the wishes of the tourists, and with number of tourists and tourist facilities both on a large scale ; small tourism is when those categories are all at low levels. Eco-tourism and green tourism are included in small tourism. Reference (1), p. 89.
- 11) Reference (1), p. 39 SETA, Nobuya, Information Age Eco-tours, *National Parks*, No. 398 1983, p. 215.
- 12) KURIYAMA, Kouichi ; KITABATAKE, Yoshifusa ; OOSHIMA Yasuyuki ; *World Heritage Economics—Yakushima's Environmental Values and its Evaluation*, Keiso Shobo, 2000, p. 13. KURIYAMA *et al.* mention value classification with examples from the Shirakami mountain range. Those forms/classes have generally been constructed in World Natural Heritage Sites. However, sites inscribed for geographical characteristics or topography (the Cappadocia caves for example) may have little direct value from a usage value standpoint. We would like to indicate the sole point that value classification varies with the heritage characteristics of the site.
- 13) YAMANAKA, Masami, *Wildlife Observation as Eco-tourism in Shiretoko—the Significance and Danger of Observing*, Wildlife Forum, Wildlife Protection Society, Vol. 13, No. 2, 2008, p. 25.
- 14) Ministry of the Environment 1st Eco-tourism Promotion Orientation minutes, February 23, 2005. <http://www.env.go.jp/nature/ecotourism/try-ecotourism/env/seminar/h17OrtRpt01.html>
- 15) Shiretoko Eco-tourism Promotion Council published materials. <http://shiretoko-eco.net/modules/pico1/index.php/content0003.html>
- 16) HARDIN's thesis refers to the paper that biologist Garret HARDIN submitted to the journal *Nature* in 1968 which was met with great controversy. HARDIN's conclusion was that "commons lead to depletion and destruction of resources." The biologist's simple conclusion led to political and social-scientific debate. HARDIN did not comprehend the social-scientific meaning of what he wrote, but he had no ill-will toward commons *per se*. The basis is in setting aside emotion and getting results from calculations. "Ranchers raised cattle on the A commons. B rancher added one head of cattle. a) : On the positive side, the rancher which added the head of cattle received the profit. The effect of this was +1. b) : On the negative side, a head of cattle was added to the commons and contributed to over-grazing. All of the ranchers share in the effects. c) : The end result of the aforementioned is failure. The freedom of the commons leads to the failure of all." Later, the Commons faction retained feelings of legitimacy in their objections but did not deny the logical approach. This led to variation in methods of commons land management. OSTROM invokes game theory in her logical approach and may

be seen to be a successor in the scientific viewpoint. HARDIN, G. (1968), "The Tragedy of the commons", *Science* 162, pp. 1243-48.

- 17) With OSTROM too we observe hypotheses that foster debate. It seems that commons understanding is eliminating the one-sided emotion of natural preservation factions and the community fantasy. It is fairly logical. Below is the cited portion: "If the social union composed of each individual does not understand rules, since the rules will influence the complex ecology and cultural environment, rule changes sometimes lead to unforeseen tragic results." OSTROM, Elinor (2005) *Understanding Institutional Diversity*, Princeton University Press, p. 3.
- 18) This is the logical development of biologist Richard

DAWKINS. SEKI, Yoshiki deals with the links between complex adaptive systems and DAWKINS' "memes" concept. SEKI, through a process of linking complex systems with adaptive systems, seeks the high adaptability of human culture from memes. DAWKINS sees the gene as the adaptation units of animals, and the memes as the adaptation unit of human society, and emphasizes memes as having intrinsic will that leads to modification and high variation that is incomparable to that of genes. SEKI, Yoshiki, *The Regeneration of Rainforests in Complex Adaptive Systems : from Illegal Logging to Sustainable Forestry*, Ochanomizu Shobo, pp. 3-42.

- 19) OSTROM, Elinor (2005) *Understanding Institutional Diversity*, Princeton University Press, p. 4.

知床（世界自然遺産）地域における エコツーリズムの現状と課題

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要約：2005 年 7 月に知床は世界自然遺産に登録された。世界中から多くの人々が集まるという期待があったことから、地域振興・観光振興という新たなビジネスチャンスが期待された。エコツーリズムを通じ、知床という自然の恩恵を異なる形で受けようとする試みが始まったといえる。

しかし、エコツーリズムの概念は「持続可能な開発」を意味するものの、概念があいまいなままで多様化された。旅行会社やマスメディアなどによって用いられた“エコツーリズム”は、一部はマスツーリズムの中に位置づけられるか、あるいはマスツーリズム化に近い形で展開されてきた。

このような、曖昧な概念は、知床地域にも適用され、マスツーリズムの中でエコツーリズムを展開することとなった。遺産登録後、観光客が急激に増加した知床地域は、観光客の受容量を大きく超え、環境負荷が著しくかかった。そのため、マスツーリズムからの脱却を図り、環境負荷がかからない観光産業を築くことが今日の課題となる。

この知床地域のエコツーリズムの確立に向けた取り組みは、知床エコツーリズム推進協議会が中心となり、平成 19 年に発行された「知床エコツーリズム推進実施計画」に沿って実施されている。しかし、エコツーリズムの実施は、「地域協力」、「地域の自律性」というファクターが重要となる。知床地域でもこの取り組みを通じ、地域住民と実施機関との連携をいかにして築くのが、重要な課題となる。

本報告は、この問題に着目しながら地域の自律性を通じ、エコツーリズム確立の可能性を図る。

キーワード：マスツーリズム、エコツーリズム、環境容量、コモンズ、資源マネジメント

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