Ecological camps for children of indigenous peoples of the North: background and prospects

Yuri Sleptsov¹*, Anna Neustroeva², Tuyaara Fedorova², and Alina Kozhurova²

¹Institute for Humanitarian Research and Problems of Minorities of the North SB RAS, Petrovskogo St. 1, Yakutsk, 677027, Russia
²M.K. Ammosov North-Eastern Federal University, Lenin Ave. 2, Yakutsk, 677000, Russia

Abstract: To organize any environmental camp, it is necessary to find its prerequisites, from which the goals and objectives of the camp are established. Since 2000 up to the present time in the Republic of Sakha (Yakutia) nomadic camps - temporary educational organizations during summer days for children living in remote, hard-to-reach settlements of the Arctic, where indigenous small-numbered peoples of the North live. The article deals with the process of creating the first ecological camps for children of the indigenous peoples of the North - Evens, as well as the development and search for optimal options for new forms of temporary children's groups during the summer vacation days in the Republic of Sakha (Yakutia) for environmental education, rational nature management, teaching the native language and culture, including traditional economic activities of the peoples of the North. Experience has shown that the nomadic ethno-ecological camp is a new form in the field of environmental education. During the camps' activities, various technologies and methods were applied with the direct participation of conservationists and educators in the field of ecology and biology. Key words: Indigenous Minorities of the North, Eveny, school-age children, nomadic camp, environmental education, environmental management.

1 Introduction

Environmental education in the education system in the places of compact settlement of indigenous small-numbered peoples of the North, Siberia and the Far East is becoming one of the urgent tasks in the Republic of Sakha (Yakutia) and beyond.

In the system of nomadic educational systems in modern conditions there are different types of rural small-complete school in the conditions of the North. Six types of nomadic school function in the Republic of Sakha (Yakutia). The form of temporary educational association as a nomadic camp is the seventh type of education. Nomadic camps in turn differ in their directions: 1. Linguistic; 2. Ethno-ecological; 3. Occupational – on teaching traditional types of economic activities of northern peoples.

* Corresponding author: seva_may@mail.ru

© The Authors, published by EDP Sciences. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).
2 Methods

The first nomadic ecological camp, as a new form of educational organization, was organized at the request of Nikolai A. Bryzgalov, the principal of the Indigirsky secondary school in Buor-Syssy settlement, Moma district, Republic of Sakha (Yakutia). The prerequisite for the organization of the ecological camp was that in the Diring-Yuryue River, horse breeders found the remains of an ancient woolly rhinoceros or hairy rhinoceros (lat. Coelodonta antiquitatis) [1]. The route of the camp was developed based on various factors and preferences. It was decided to locate the main base at the base of horse breeders in the area "Toyon Uyalakh" (Eagle's Nest from Yakut), in the basin of the Arga Yuryakh River. Yakuts (self-name Sakha) named the area based on the peculiarities of the territory, so in the area "Toyun Uyalakh" nested golden eagle ("khotoi, toyon, toyon kyil, toyon kötö" Yakut.) Aguila chrysaetus L. [2]. Ethnocultural landscape is formed under the influence of a whole group of factors, among which one of the most important is the interaction of Yakuts with the surrounding natural environment [3]. Adapting to the natural environment, they form a complex system of spiritual ties with nature, thus defining a certain cultural niche for each individual natural object. For Yakuts the golden eagle is a totemic animal. It was considered a god in the olden days [4]. The self-name in Yakut is "toyyn", translated as "lord". If the Moma Yakuts come across a dead eagle, they lift it from the ground and hang it on a tree as high as their hand can reach. Northern Yakuts build a high burial platform "arangas", on one or two poles. On the burial platform they build a "saiba" - a low log cabin. The eagle's head is placed in the direction of summer sunrise (to the northeast) and wrapped in hay [5]. According to the belief of the northern Yakuts, having found a dead eagle, not to perform the rite of burial, then the clan who discovered the eagle, will encounter misfortune. They will die like an eagle that cannot fly, and they will become as weak and will be eaten alive by insects.

The participants of the environmental camp did find a golden eagle's nest, and in doing so they identified the bird's habitat. The habitat of an organism is the place where it lives, the physical environment, a specific area of the earth's surface, air, soil or water [6].

The work of the ecological camp lasted two years, children surveyed the basin of the Chibagalakh river of the right tributary of the Indigirka river [7]. The campers explored a vast area of their native land, where they practically studied ecology, toponymy, collected herbarium.

3 Results and Discussion

As a result of this camp, 8 children out of 12 later became certified teachers of various professional fields, who work in various districts of the Republic of Sakha (Yakutia).

At the request of the residents of Sasyr settlement, in 2002, a nomadic camp "Garpanga" (First Rays of the Sun from Even) was organized at Ulakhan-Chistaya secondary comprehensive school in the locality "Marble Mountain" on the territory of the Moma National Nature Park [8]. Subsequently, the camp began to work in the clan communities of Evenes and has been working until the present time.

The choice of the location of the ecological camp is not accidental.

The purpose of the camp was: Environmental education and upbringing of young people of Sasyr settlement and schoolchildren of Yakut schools, based on the use of the territory of the park, through their involvement in the observation of wildlife, their protection, the methods of traditional environmentally friendly nature management by the local population, the beginning of scientific environmental monitoring research.

The tactics of achieving the goal - organization of cognitive ecological expeditions in summer time, carrying out scientific research and works on the territory of Ulakhan-Chistai
on studying ecology in accordance with the prospective plan of research and development, with wide involvement of high school students and teachers-naturalists of schools of Moma and other regions, with subsequent winter scientific processing of field materials and wide representation of participants of field and desk works in scientific-practical conferences, ecological contests and Olympiads.

The main base was located at the foot of the mountain Yuryung-Taastakh ("Mountain with white stones" from Yakutian), better known as Marble Mountain and also as the "Solnechny" deposit. Indeed, the mountain consists of marble alone. According to forecast data, the reserve of marble in the deposit "Solnechny" is 10 billion cubic meters [Glushkov, Osadchy. [9]. The base was organized in the prospect of marble development, but due to the costliness of the transportation scheme marble mining is not carried out. The base in the future can be re-equipped as a tourist recreation center and health camp, for this purpose it is necessary to carry out a number of works, such as transfer of a toilet, installation of stationary stoves, etc. The location of the base is 41.4 km, by land route 45 km from the village Sasyr.

On the mountain break, 2 km from the base, there is a beautiful waterfall, it can be seen from the side of the height of the break. To reach the waterfall, you need to pass several stepped terraces. Here you can have a rest and take pictures. The stream of the waterfall is unusually clear, where you can see in all its glory different kinds of marble.

In the north-west of the base at a distance of 36 km is the highest point in the Far East and the Far North Mount Pobeda (3147 m), which has been visited by more than 130 groups, different in composition and direction.

In the west 15 km from the base there is a rare beauty Red Mountain, which can also attract tourists. In ancient times, the Evenes used cinnabar from this area to dye their clothes, which gave a contrast of extraordinary patterns.

Before sending children on the route, it is necessary to conduct reconnaissance of the area in advance. Here it is important to take into account the age of the group, from this factor is taken into account overcoming the distance and the target direction. Before the hike, the group is briefed, where the route of travel, the object of study is stipulated. Each time stipulated ways of collecting herbarium, otherwise children do not concentrate their attention on plants, incorrectly and untimely make out the label of the herbarium.

If the group passes near nomads, where elderly people live, a mandatory condition is set to perform the task of collecting firewood or other work - this instills in children a sense of respect and honor for the elderly and senior people.

Each member of the group has his or her own unyielding duties. For example, the boys at the place of stop should immediately choose a parking place, put up tents and prepare wood for the fire, meanwhile the girls should prepare dishes, draw water, cook food. When the boys go for firewood, the girls' dry clothes, if the crossing was through water obstacles, and prepare sleeping places.

When crossing water obstacles, the group must necessarily pass together, holding hands. The river in the mountainous area is very dangerous, fast current and low water temperature complicate the crossing. Particular attention should be paid to the weather, a mountain river after rain quickly gathers strength and rapidly fills with water. There are examples when neglect of weather conditions led people to isolation from the outside world. Therefore, tourists, especially where there are children and women, should take this factor into account. Do not be lazy to remind every time to be careful, if you follow the rule, then everything will be fine, the group can timely choose a place of forced stop in inclement weather. It is necessary to choose an area where trees grow. In no case should you stop while traveling in rocky valley areas, the weather in the mountains changes very quickly, especially at night.

Do not hesitate to ask local people about the nature of rivers and terrains, mountain passes, possible places of forced stops. If you pass near the camps, stop, talk to people, ask them about the availability of radios. They, in their turn, will inform everyone about the group's
passage by radio, and this will give approximate coordinates and time of movement of your
groups. If the group has a radio, then from time to time get in touch, do not keep silent, the
lack of communication can lead to anxiety of people close and responsible for you.

By strictly following the above, we never once got into difficult situations. Although
every day we reminded children about the rules of behavior in an extreme situation. We
taught them how to prepare kindling during rain, as firewood should always be prepared.

Taking into account the age of children, it is necessary to warn them about the danger of
mountain climbing, as the sense of self-preservation is underdeveloped in children. It is
especially important when climbing steep slopes and in places of rockfalls.

Therefore, every time it is necessary to teach children not to separate from the main group.
Usually, children do not have the patience to wait for stragglers. The sense of collectivism
should be developed more than ever. The strong should help the weak, boys should help girls.

During the route, children are not very attentive to their surroundings until you show the
most interesting object. Interest comes during the showing of certain sights of nature.

A special difficulty at first was experienced when filling in the diaries. If you read the
diaries at the end of the camp, you notice that the children every day more and more write
about their impressions, keeping a diary becomes more detailed and interesting. In order to
achieve quality, every evening I collected the diaries for inspection. Children who did not
complete the day's assignment were penalized, i.e. they would get up early in the morning,
fill out the diary and do chores. A child's diary, in which the most interesting observation was
noted, was read aloud and set as an example to all the others, then encouraged. This served
as a stimulus for observational work in children.

In fieldwork, herbarium folders and presses for drying plants are necessary and it is
important to have enough old newspapers used to make herbarium "shirts". When each
participant has their own herbarium folder, it helps in deducing the individual child's results.

During long passages we stopped for a break, gave the children a chance to take a break,
eat, talk about the interesting phenomena seen. At the same time, we gave them tasks to look
at natural objects. If the groups were walking not far from each other, for example, one group
was walking along the mountains, and the second group was walking along the lower part,
along the valley part, we agreed in advance on the place of meeting. If you find an interesting
object, you should gather the whole group and show it, if you know this or that object, show
and tell the guys about it. So, in the morning I noticed how the relief of sand in the creek
changes, I called the children, showed them, and they were surprised how the sand rolls over.

The experience of the nomadic camp was of interest to specialists from the United States,
who developed the project "Deer Trail", adapted by the indigenous peoples of Alaska [10].
Unfortunately, the joint work was suspended.

Let us consider how ecological camps developed in the Moma district of the Republic of
Sakha (Yakutia) (fig.1).

![Fig.1. Development of ecological camps in the Momsky district of the Republic of Sakha (Yakutia).](image-url)
The diagrams show that ecological camps remain in a stable state, although it should be noted that there is a prospect of development. Ecological camps operate outside the field of employees of specially protected areas and environmental protection bodies.

In 2002 and 2006, the workers of the Moma Nature Park provided assistance, both practical and material. Since 2010 this practice has been suspended. The main reason, changes in the country's budget policy and laws in the field of nature protection. The resumption of joint work depends on the management of the Ministry of Nature Protection of the Republic of Sakha (Yakutia) and the administration of Moma district.

5 Conclusions

Practical experience has shown the effectiveness of ecological camps. In the course of previous work, a large amount of field materials were collected, and they formed the main fund of herbariums in schools. Endemic plants were discovered. The collected plants aroused interest of professional workers in the field of biology and nature protection. Based on the results of the ecological camps, various scientific expeditions to the places where the camps were held were organized.

When organizing an ecological camp, it is necessary to find a starting point, i.e., an interesting natural object for future research, which can interest the children, as a result of which next year the children will be able to participate in the work of the camp with pleasure.

It is necessary to work closely with nature protection authorities, and it would serve as career guidance work, thereby preparing future employees of the Moma Nature Park.

References