

BYSTRINSKY NATURE PARK, KAMCHATKA

REINDEER HERDERS' ROUTE MAPPING PROJECT



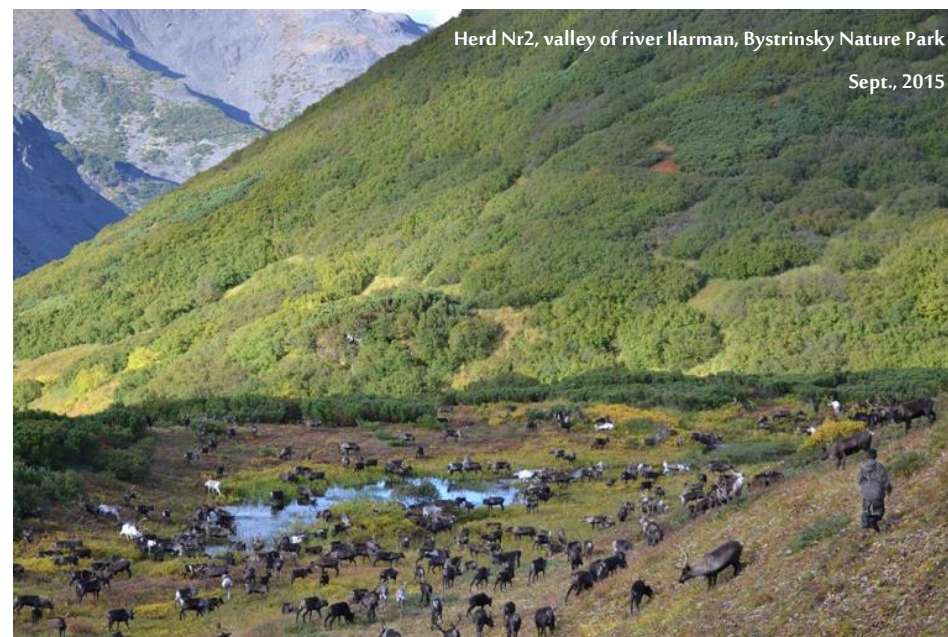
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to Manfred-Hermsen-Stiftung Foundation

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SYNOPSIS

Overview of the situation

From April 2015 at the territory of Bystrinsky Nature Park (BNP), Kamchatka, Russia was started a reindeer herders route mapping using GPS trackers. For more operative and successful project implementation was chosen relatively innovative GPS tracking method, which allows in real time receive data from different herds located all around BNP and beyond its territory.

Central Kamchatka mountain ridge and territory from the ridge to Okhotsk Sea historically formed as place where Even people (*Even, Eveny, Lamut*) in the middle of 19th Century settled with their reindeers to practice their traditional lifestyle – hunting, fishing and most important – reindeer herding. Evens are nomad people who mostly live in Yakutia (Sakha) and Magadan districts (total population about 20 000), but small group of people was forced to move away from these territories and came to Kamchatka, where they found free lands and since then this group's ancestors live and work in this relatively segregate Central part region.

Nowadays they are living separate from main Even people living area and sometimes been referred as *Bystrinsky Evens*. At the North from them (present - Tigilsky District) were territories of Koryak reindeer people but the lands where Even people settled, later in 1920's, were formed in nowadays known Bystrinsky District, largely (but not completely) based on Even people inhabited areas, which also reflected in district's first name - Bystrinsky Lamut Ethnic District. Later name of the district several times been changed; still it always have been a traditional land of Kamchatka (Bystrinsky) Evens. For long time Even herders were almost the only people living in this part of Kamchatka, latter, when collectivization reforms started, ethnic structure significantly changed – were built fist wooden houses, arrived Russian workers (administration workers, teachers, builders, etc.).

Today (based on 2010-2015 census), there are less than 2000 Evens in Kamchatka (about 0,5% of the total Kamchatka Region population), half of them living in Bystrinsky District's two villages and together with small number of Koryaks and Itelmens makes about 40% of total District population from whom approximately only 60 people are working in reindeer husbandry, majority of them - seasonally. In Kamchatka there are only about 4% indigenous small numbered peoples (Koryak, Even, Itelmen and others). Bystrinsky District is the main living area for Even people in Kamchatka and the only where Even people still practice reindeer herding in this region.

Even people and a small number of Koryaks in Bystrinsky District are the southernmost working herders in Kamchatka peninsula. They are significantly separated from the main

reindeer husbandry regions of North Russia and the only ones in the world who works in a volcanic region.

In 1995, part of the Central Kamchatka territory was formed into protected area (Bystrinsky Nature Park), originally planned as National Park, later formed as Nature Park with regional, not governmental, importance with one of the defined goals – **protection of reindeer herding lands and pastures**. Year later, BNP, together with five other territories, was recognized as one of the UNESCO World Heritage sites (natural heritage). BNP is the only from these territories with indigenous communities living in it.

At present, there are six reindeer herds (often called – brigades) working on the territory of BNP, Bystrinsky District. Five of them under *OOO* (limited liability company) "*Olenevod*" (Esso) control and one – *OOO "Akenman"* (Anavgay), which both been transformed from collective farms after fall of Soviet economic system. Total number of reindeers is about 7000-8000.

Although reindeer herding is one of the main form of traditional lifestyle of indigenous people in Kamchatka, and BNP largely is based on territories with reindeer husbandry, there haven't been made proper analyze of reindeer husbandry state on this protected territory. **Until mapping was started, it was not even certain which territories at present is being used by herders, the only available materials were from Soviet period – 30 and more years old.**

Herders are moving across wide territories, often hundreds of kilometers away from villages and roads. Their location can be specified by radio broadcasts from camps, usually by description of place regarding from nearby river, mountain, etc., often using unmapped place names, which is known only for people who have worked in these territories – following only this information it is impossible to map herders migration routes, often even for professional elder herders, who knows their lands, but have little knowledge about other pastures.

As it became clear during field works in summer 2014, even by getting to herders with prepared maps, might not bring success, as it may appear that herders in camp have small experience with paper maps and cannot note their pastures and routes. Situation is much different using trackers – when herders receive maps with already noted camp sites with just little missing information – for them it is much easier to note necessary information.

Mapping with tracking devices have approved as the most productive method which helps to achieve set goals and for first time map Bystrinsky reindeer herders lands.

WHY MAPPING IS IMPORTANT

how can it help and helps now



- **Territory planning and supervision/controlling instrument for parks' inspectors.** Mapping helps to specify which territories at present is being used by herders and divide one herding brigade grazing lands from another, with very high accuracy. This appears especially important for successful BNP territory zoning and proper supervision. Also this information is important in sorting different conflict situations between institutions.

Situation example 1: Before herder routes were tracked, there appeared situations when park inspector was not able to determine who may be responsible for occurred trespass on park territory, because there were no information about people working on this territory (specifically herders). Without information which herders (crews) are working on given area, herders feel free to ignore regulations as they believe that nobody can prove their relation with trespasses if they happens.

Similar – herders potentially are people who may testify third party illegal activities on their grazing lands (example, some herders have seen poaching from helicopters). By knowing who works in these lands, it is possible to contact them and ask whether someone and who have a witness trespass.

Situation example 2: Now it is possible to provide institutions with actual and reliable data about herders migration routes and pasture territories, which already have been important in several situation related to new road building and land rights regulations between herders and hunters. Currently, reindeer husbandry enterprise OOO “Olenevod” mapping data uses for resolving land right conflicts between hunters and herders. Received data allows precisely determine which territories been used by herders. This is highly important issue for reindeer husbandry, as their land rights still haven't been resolved since fall of Soviet Union and it is important act, that park is being able to help in this problem situation.

- **Surviving the territory.** Gaining knowledge about existing infrastructure. Improve knowledge about park's trail system, which is being successfully used by herders, but much less known for park's staff and visitors.

Example: Route around volcano Ichinsky, which been developed starting from 2014, and in summer 2015 circulated for 3 times, is about ¾ based on existing herders trails, which

were not previously inspected. This type of hiking route development allows to escape negative human impact, which appears when people starts to build new trails and camping places instead of using existing ones. Unfortunately in Kamchatka it is very widespread issue. At the moment BNP already is capable of providing positive examples.

Among other Nature Parks, BNP is in much privileged situation as there is so much existing 'infrastructure' (trails, abandoned herders' huts, etc.), unfortunately little inspected and appreciated; however example above shows positive progress.

- **Base information for future researches in park. Trust gaining. Cooperation** between controlling institution (Nature Park) and people who live in it (reindeer herders). Preservation of precise data of migration routes can be source of future environmental based projects on climate, vegetation or other changes. At present this type of researches is not possible to carry, because there are very little information about migration in past. Mapping opens possibility for developing mutual partnership activities between park and herders related to territory protection, controlling and even monitoring.

Example: By knowing herd's annual route, we've been asking herders in certain locations to pay attention on specific rare plants. For herders it is interesting task and also possibility to gain new knowledge. For several times, herders have informed about rare and interesting discoveries. This natural interest and willing to share their observations holds large potential of possible cooperation, which is extremely important here, where territory is too big to properly control it only by few inspectors. It is necessary to involve people who are living and constantly moving in it.

- Aspect **of natural AND cultural heritage** component **preserving** activities in BNP. Mapping may serve as an example that **protection of traditional knowledge is largely related to sustainable use of biodiversity.**
- **Security ensuring.** Tracking data allows herding enterprise determine exact location of herd in extreme situations – this gives additional guaranty of security for herders if something happens in camp and there is need for operative help. Exact data is available only in husbandry and park; third person is not able to get them.
- **Environmental education providing.** Public informing tool. Park's visitors and even important part of local community (Kamchatka, also Esso) have very little understanding of reindeer herders every day work and life in wild. By

showing how much one herd moves during a year eases the explanation of this nomad lifestyle for those who haven't met them.

- **Community engagement.** Project involves two different organizations (Nature Park and Reindeer husbandry), where mapping may serve as an example of possible cooperation between them. Mapping involves not just one herd as it is common in other activities, but it **involves all herders in all herds** – so in this way they are similarly involved in one common activity.



MAPPING IMPLEMENTATION TECHNICAL DESCRIPTION

In this chapter is given technical information about mapping process and implementation using tracker devices.

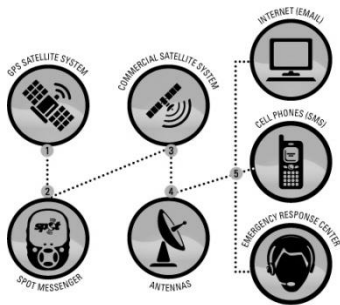
Tracking device technical description:

SPOT Trace messengers, 7x5x2cm, 90g, operating temp. -30C+60C, powering – 4AAA Lithium Batteries.

This tracker model is being chosen as one of the least complicated – it has only one on/off switch, if the device accidentally is being turned off, the signal is being sent to specific Internet account, same where all data storages. It is durable and very easy to manage.



How does it work:



Step 1 – Tracking devices which is being placed in herds (attached to radio transmitter, placed in herders' yurts) are sending signals with coordinates from its location place.

Step 2 – All data is being saved, different type incoming signals being analyzed and sorted, necessary data is being saved on maps using *OziExplorer*, *MapSource* and *SASPlanet* programs;

Step 3 – Data is being compared with radio transmission journal entries (journals where during transmission series with herders, radio operator in sometimes writes down place names of their location (if herders provides them));

Step 4 – Prepared printed maps is being given to particular herd herders for comparing and final analyze (they can make notes, precise place names, paths and other information). By receiving maps with already

marked places, where they have been, for them, it is much easier to complement maps, which before often was impossible.

Step 5 - Filling and checking maps. All data again is being stored.

Trackers are attached to radio transmitters. Transmitter is the most valuable article located inside yurt and always carried together with brigade.

Device is constantly switched ON. It is sending signal when movement begins (more than 2m from its starting point) and every day one *status* signal from its location place, regardless to fact that it might be placed at the same place.

Tracker works similar as any GPS navigation device, with the difference that data with location is not being send back and displayed on tracker, but send further to specific Internet account and/or email, telephone in this way providing information for third party. Uncontrolled data outspread is not possible. GPS system allows to use trackers in places where there is no telecommunication coverage, as it is almost everywhere in Kamchatka, besides the settlements and their neighborhoods. All data in account is being stored for 30 days and can be downloaded in GPX format. Coordinates being displayed in decimal degrees format, for using them in other programs, coordinates needs to be transformed in degrees decimal minutes and/or degrees minutes seconds format. All sorted data is being saved in *SASPlanet* and *Exel*.

After preparation of digital and printed maps, we are reaching out for herders to check them often for several times and fill missing or add new information – in this way it is being provided maximal possible accuracy.

Settings/activated signals used for tracking:

Tracking device allows to activate different signal types. Currently on all trackers is being used 10 min. signal interval during movement (when herders are moving from one camp to another) and *status* signal- signal which is being sent every day at the same time from the place where device (herders' yurt is located).

Status is the main signal that is being received, by this signal it is possible precisely determine where the camp is located, as the movement signal is not always working properly. If herders are spending at least one day at the same camp, *status* signal determines they location better than other signals.

There are also activated - *low battery*, *turn off*, *stop* and *beginning of movement* signal - these signals allows to control device working mode and act if and when it is being necessary.

Batteries/Powering:

Device is powered by 4 at once AAA *Lithium 'Energizer'* batteries.

Since April, 2015 until April 2016 – average consumption of batteries is - 10 batteries per one devise, those are two and a half battery packs for one year powering.

Initially it was planned to use *Eneloop* rechargeable AAA batteries to reduce battery waste, unfortunately this so far haven't succeed as rechargeable batteries expires significantly faster – it means one herd needs large amount of spare batteries for changing (there is no opportunities to charge batteries in herders camps) and used batteries should be send back to village for recharging, which unfortunately is not happening, due to fact that contact between herds and village is very irregular.

However, since 2014 BNP has battery gathering points in village (first and yet only place in Kamchatka), villagers as well as herders knows about this possibility and uses it (or their kids do), if some of park members finds batteries during summer field works, their also being collected and gathered to village. It appeared too difficult to operate with rechargeable batteries, but in our opinion, we have provided the best possible solution in this situation.



USED MAPPING METHOD SUCCESS/ PROS

Mapping with trackers have proved highly successful, although first few months took a lot of effort to understand how to manage them often directly from village (get in contact with herders), later appeared less and less problem situations and the ones that still are actual, are not unexpected anymore.

Although there've been difficulties especially at the beginning, the fact, that all placed trackers after a whole year are still working (and existing), is very rewarding.

Probably most value achievement is gained trust from herders. There are some very remote herder crews who have rather less contact with park, volunteers and other visitors and have greater suspicion towards park. At this point in all herds (also in remote ones) trackers are working well and it is being established reliable contact with their members.

Multiple persons among herders and herding company workers have showed their interest in happening activities and without asking for reward have helped to establish contact with herders, deliver batteries, maps, provide transportation etc. There are at least couple of people who are very reliable and as far as possible always willing to help.

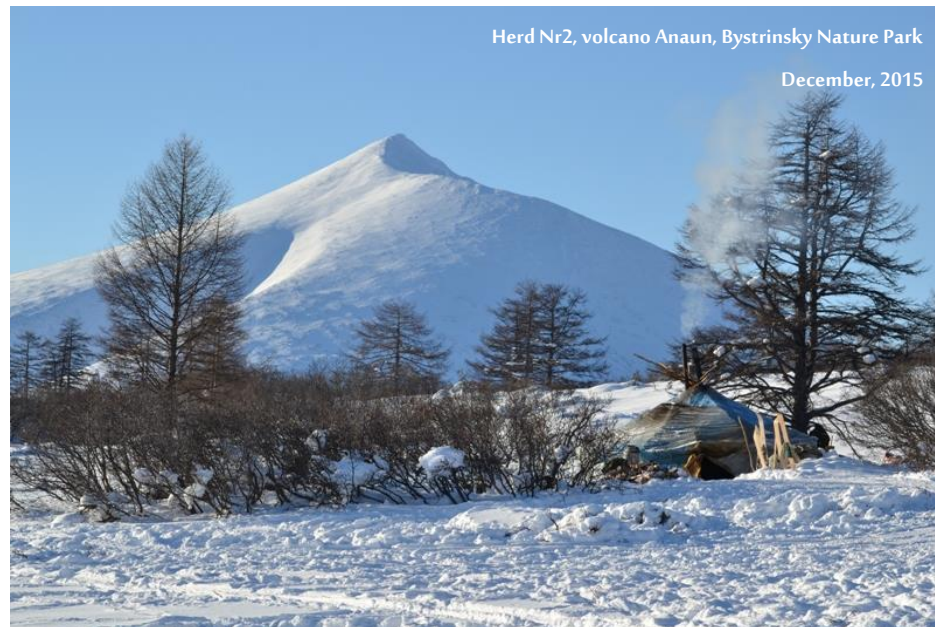
There have been received appreciations from different field experts.

USED MAPPING METHOD PROBLEMS/ CONS

Most of below listed problems/cons should constantly be considered and might be very little changed, others still looks for better solutions.

- It's been observed that signals from tracker devices not always been delivered, particularly *movement* signals; it might be related with weather, tracker disposition or other issues - it is yet unclear. For precise location determination is being used *status* signal (send once per day from location place) and migration routes/tracks are being specified during meetings with herders. Also from specific regions, signals come less often than from other ones.
- It took time to understand how successfully operate trackers both from village and for herders in wild. During these tryouts, some information is not being fixated in this year cycle and can be refilled only by continuing mapping.
- Rather difficult situation management - manage battery/device change in time (same with battery delivery), meetings with herders both in village and in herds. Often it takes a lot of time (and patience) to accomplish relatively easy tasks or issues.
- Trackers Internet account and basic GIS mapping software management appears too difficult to manage for people who have little or no knowledge (interest!) in computers and in basic English. So far there haven't been anyone from herding enterprise or related persons who would want to learn how this system is working, for enterprise it is easier to receive prepared information (coordinates, maps) directly from me and storage paper versions. Because of this I am interested that they receive maximum amount of information and when it is needed be able to find necessary information in maps/documents that have been provided for them. Similar problem is with Internet which is not available in reindeers husbandry office, computer in office is only for accountant and other workers do not use it.
- In small but notable scale exists pejorative and arrogant attitude in village towards indigenous people, especially towards those, who spend their life living outside village – often herders. Generally it based on personal unsorted conflicts and dislike, unfortunately this leads to significant **underestimation of these people still existing traditional knowledge and complicates any possible cooperation.**

- Great issue is lack of good map material. BNP has very poor material of map/GIS data, which significantly complicates different data implementation (not only herders data) and as the park has no specialists (or volunteers) in GIS this issue is sorted on our own efforts, what takes much longer that it would be for specialists in this field. Anyway, GIS specialist from TIG institute is helping and it is planned to guide practice for cartographers in park – with whose help it is planned to sort some of the most bothering issues.



INFORMATION ABOUT REINDEER HERDERS MIGRATION ROUTES, PASTURES IN PAST **Historical information importance in relation with mapping project. Issues**

For wider subject analyze and understanding, important part of the work is been dedicated to historical information gathering, mostly directly linked to reindeer herding land use in past and its comparing with nowadays situation.

Although mapping project direct goals are not related with historical information analyze, which would likely be task for ethnographers our historians, it appeared very important for better understanding herding evolution processes in this territory, also it significantly eases discussions with herders and helps better to express mapping importance nowadays. Also it allows note to what extend nowadays situation is alike to herding in past at given territories.

Historical information knowledge helps to create much deeper inters in project among herders themselves and at the same time reduces mistrust, that mapping might be only for controlling them. As an example of involving might serve fact, that herders are actively involved in old photo material analyze, they tries to recognize landscapes with herders pictured in different images, which is one of the method how to remodel reindeer herders pasture lands in past.

As it has been written before, Even incoming in Kamchatka been dated with fourth decade of 19th century, but up to 1930's -1940's (for the next 100 years), when collectivization in Kamchatka was started, there have been no special expedition to Even herders, at the same time Koryak life – Even northern neighbors at the very beginning of 20th century, have been described by well known researcher W.Jochelson and several other researchers. Jochelson only casually mentions Even herders in his works.

Similar fragmentary information about Even herders in nowadays Bystrinsky District until collectivization can be found in expedition materials of researchers N.Slunin, P.Novagrabenov, but the most valuable in so called Swedish expedition (Expedition of Sten Bergman) very rich material collection. Group of Swedish researchers at the second half of 1920's arrived in Kamchatka and dedicated several year work to this territory. They left wide collection of photography's and video (!), from which important part is being taken in nowadays BNP territory. Researchers many times met Even reindeer herders, took pictures of them and landscape surrounded. Nowadays, this is considered as the largest and oldest this kind of material, which allows to take a look into herders life then, recognize sites of nowadays Nature Park and sites where herders been working hundred years ago.

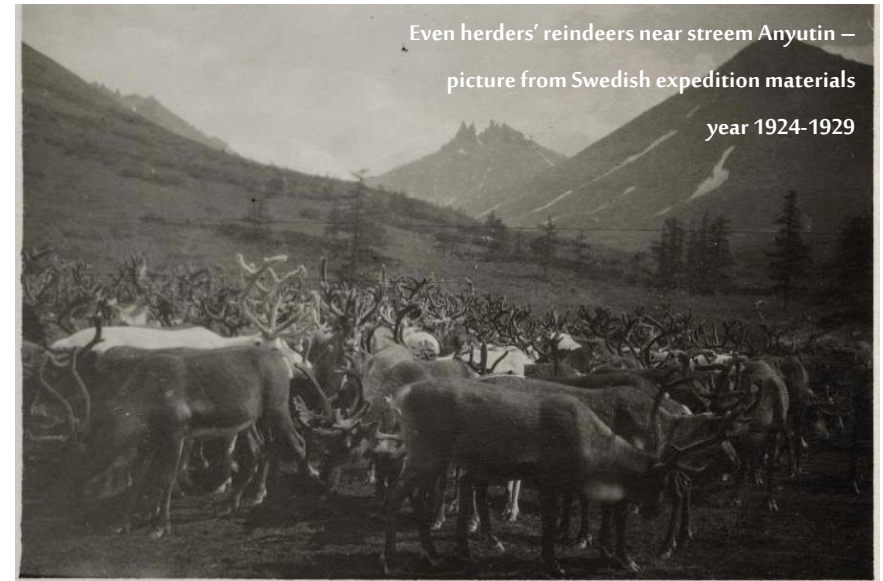
But the most detailed information was found in Kamchatka archive documents from the beginning of collectivization campaign on these lands – in expedition materials are described how many people are working here, how much reindeer and dogs they have, where and how their live, age, amount of yurts in settlement (there were no houses yet) and many more interesting information, that shows absolutely different life style less than hundred years ago. Unfortunately work in archive is not been completed, archive holds very great amount of documents and it is almost impossible to predict where could be found information that may restore at least some part of herders migration routes in past. Although archive has very unpleasant working hours for people who are not living in city, there have been found many valuable materials, specifically description of Even pasture lands and old settlements – the ones that was before Esso and new centre of Anavgay. In these documents often is being used old/different geographical place names, which know does not allow to fully reconstruct where Even people were living before collectivization, but the information that can be reconstructed already shows, that some of the nowadays herders lands are used very similar as it was about 80 and very likely even more years ago.

This type of information gathering means searching for small pieces in many different sources - relatively fast it became clear that there is no single source about herding lands.

Information, that in some way refers to herding in Bystrinsky District is found in Kamchatka museums (*Kamchatka Regional Museum* in Petropavlovsk and its branch in Esso - *Bystrinsky Regional Ethnographic Museum*), *State Archive of Kamchatka Krai*, private collections and narratives as well as some random finds in libraries and Internet sources (digitalized museum collection archives).

However, all these sources offer pieces, which may or may not lie into larger 'picture'.

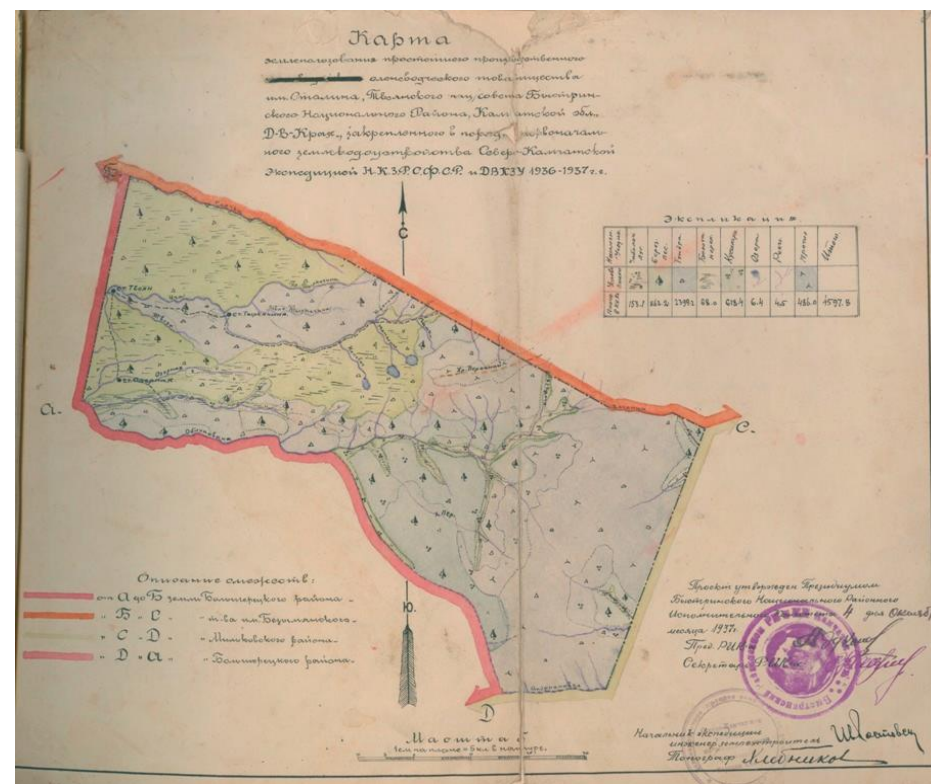
Nowadays, people who had worked or still works in herding, usually carries memories from Soviet era, especially last period, when there were large number of herding brigades and animals carried all across Central Kamchatka – even reaching volcano Tolbachik (territory of Nature Park Kluchevsky), territories of nowadays Kronocky Reserve and going far south from village Milkovo. These territories had little, or more often no, connection with Even people traditional herding lands, but was part of collective farming constant productivity raising tendency, where reindeer herding was no exception.



Much complicated is to precise traditional territories of herding, before collectivization. In search for more detailed information (old herding routes), similar as it appeared during first mapping try-outs, people struggle to show on maps information that they have in mind as they never felt need to use maps during their work. Usually elders, men who still carries memories from past, in villages are women. These are women who have spend their childhood and working years in herding brigades – knowledge about land/territory/migration routes for them usually is much harder or impossible to explain, as most of the time females spend near yurt, doing everyday jobs, often without leaving campsite.

This is common problem situation in communication with reindeer people about places where they or their families have worked in past and how it refers on how herders are working nowadays. **It also reflects fragility of this knowledge – unless it has been documented on paper, there is almost impossible to reestablish lost information.** Knowledge about territory is being carried from one generation to another with hope that there always will be someone to whom ask.

In current situation – the lack of systematic information about herders migration in past - does not allow to make proper analyzes how climate or, for example, vegetation changes have affected reindeer herders in Central Kamchatka, it is not possible fully reestablish migration routes from past and compare them with existing ones.



Very rare example of old map which describes territory of Even people in nowadays Bystrinsky District. Found accidentally in Kamchatka achieve materials.

ACTUAL REINDEER HERDERS MAPPING RESULTS. IV2016

Starting from April, 2015 until April, 2016 tracking devices have fixated about 140 different herders' camp sites. In most cases these are sites, where herders set up their yurts, much rarer - small cabins and closed down settlements (like former Even settlements *Tvojan, Lauchan*, etc.).

A little more than a half of these camp sites are situated on BNP territory, rest on area of Bystrinsky District which is larger than park, few is located outside park and Bystrinsky District on Tigilsky and Sobolevsky District lands. What is significant, the only herd, which now is without tracking devise, is working almost only on parks' lands (North regions) – in a result amount of camp sites on park territory is distinctly larger than on other territories, but their cannot be divided.

For first time it is been carried out this precise and detailed mapping work which now allows to circle approximate boundaries of herders working areas and helps to explain 'the big picture' of parks' present situation, its usability by indigenous community.

Mapping data allows to analyze different type of information (time spent in one camp/place, distance from one camp to another, total migration year cycle distance, herds altitude in different seasons, etc.). Bystrinsky herders move their camp for about 30 times (!) in a year, which makes them extremely mobile nomads. Most active migration period starts from June after calf birth and ends in about October, November - in this time herders may stay in one camp even just for 1-3 days and then move forward. In winter (November, December-May) herders may stay in one camp even for two months.

Completed activities

List of activities carried related to herders' route mapping project

- Mapping technical functioning providing.

Tracking devise preparation for their functional work in field, constant trackers checking, controlling their functionality, informing husbandry about issues, deliver necessary items to herds. Managing trackers work, constant data storage and analyze. Data implementation using GPS mapping software programs. Preparing maps for park and reindeer husbandry needs, also map drafts for herders' notes;

- Communication with local community, both Russian and indigenous. Visiting herds and herders.

This summer it was possible to meet all herds, which was not possible before. Talk about problems they care, park and its activities, territory, poaching, checking maps,

old photos. Provide historical materials to herders, as they have great interest in them. Gathering information about geographical places in park territory (mountain/forest/river passages, herder and hunter trail directions, location of huts, etc.). Current reindeer herding photo fixation. Regular communication with herding enterprise;

- Fixation of before officially unnamed geographical object **place names** (toponyms) in Even and Russian. Fixated about 20 officially before unknown place names. Because herders often struggle with problem, that they don't know how to correctly write down name, which being used only orally in Even, these fixated place names, further needs to be passed to Even language linguists. These names have great importance as in many areas, place names are the last testimony of some cultures' once existence on given lands, as in many places it is proved with Itelmen place names - culture which is know existing on just few places, but their place names can be found all across Kamchatka;

Because park is often giving new names for different objects (huts, routes), it may be a good tradition to use place names which is being used by herders (indigenous people) for the given territory, as it is have been done now with one of the new cabins near stream '*Ochamnay*'- name given by herder, who's working nearby. Stream has no official name on maps, but traditional name now is being used for cabin near the stream;

-Involving herders in other parks' activities. We are trying to involve herders in activities which is important for park and local community, for example, last year's article about Kamchatka snow sheep (*Ovis nivicola*) was largely based on information provided by herders, they are also very interested in local flora and now actively reports what they have seen during the summer (we are now trying to realize a small pocket plant guide book for herders (hunters/fishers) – in this way they would recognize which are very rare and Red Book List plants);

- **Work with historical materials.** Gathering and analyze materials from Kamchatka museums, archives and private collections. All materials from museums are being analyzed;

- **Providing information** about reindeer herders in park and mapping project for parks' visitors and other interested persons (also local community). **Preparing material** about reindeer herders in park and mapping project – articles, publications, letters, official talks;

- **Creating new maps** with GIS and CorelDraw programs for data implementation (important and very time taking part of the work, which unfortunately is connected with

many problems, partly mentioned above – most important, park has very poor map material for different data implementations (not only herders' routes)).

As my work is related with park and everyday life is largely connected with all activities happening in here, there are also other activities, which has been done, but have no connection to current project, some of them are (period 04.2015.-04.2016.):

- Most notable - new information board lay-outing and all information preparation – now in village there are 6 new good quality information boards with Esso map and parks' route description, we were lucky to receive funding for this (1 board printing – 8 000RUB);
- Continue to maintain parks' website which is being actively used (this summer we noticed few tourists with printed materials from site);
- When necessary, work with tourists, visitors, working in visitor-centre;
- Layout for front page of BNP book-monograph dedicated to its nature (should be published in summer, 2016);
- Helping with botanical material gathering, analyze, photo fixation. At the moment we have richest photo material of Kamchatka plants in all Kamchatka. Co-author in 3 new scientific publications;
- Talks for villagers about parks objects (photo exhibition in village library about Ichinsky volcano).

ARTICLES IN NEWSPAPERS / INTERNET AND PUBLICATIONS DEVOTED TO HERDERS' PROJECT:

- *Картирование исторических стоянок и маршрутов движения оленеводческих звеньев быстринского района*, Available: <http://bystrinsky-park.com/News.aspx?lang=ru>. (08.2015);
- *Картирование исторических стоянок и маршрутов движения оленеводческих звеньев быстринского района*, Заповедная территория, 08.2015. Стр. 2. (PDF version available- http://kamchatkzt.ru/files/PDF/8_143.pdf);
- Бурый В.В., Лаце А. *Экспедиционные работы в природном парке «Вулканы Камчатки» (Быстринский кластер) в летний период 2015 г.* Международная научная конференция «Сохранение биоразнообразия Камчатки и прилегающих морей», 11.2015;
- Poster presentation - Лаце А. *Картирование современных маршрутов и стоянок оленеводов Быстринского района (Камчатский край)*. Международная научная конференция «Сохранение биоразнообразия Камчатки и прилегающих морей», 11.2015;
- J.Phillips. *Blitzen Trappers*. Available: <http://www.buzzfeed.com/jkbphillips/russian-reindeer-herders#.eaMnYEOr8> (12.2015)

(Writer's article dedicated to Bystrinsky reindeer herders and mapping project – in the article are many unpleasant mistakes and misleading information related to herders and mapping - author has apologized for it. Anyhow, so far this has been one of most analyzing popular article about herders' life and have stimulated interest about park.)

In all listed articles it have been mentioned that project is supported by Manfred-Hermesen-Stiftung foundation.

Currently under preparation translation of J.Phillips article for local community and publication of current mapping results and importance to local conference «Крашенинниковские чтения» (Камчатка).

PROJECT SUPPORT FROM OTHER ORGANIZATIONS/EXPERTS IN FIELD:

In April 2015 has been received financial support (48 000RUB) from **Association of Specially Protected Areas of Kamchatka (ООПТ Камчатка) / Ассоциация ООПТ Камчатки**. Funding was used for additional tracking device and battery purchasing. For 2016 year period available funding for Nature Parks is reduced, however, we received positive words from director of 'Volcanoes of Kamchatka' and application documents is being prepared and send to direction of association. Founding should cover part of tracking service year payment and new battery purchase in the amount of 600EUR. Decision should be announced until summer, 2016.

Project from its beginning is being supported by **reindeer herders' enterprise ООО "Olenevod"**, Esso (director – I.N.Solodikov). Enterprise has no financial resources to pay for tracking service or batteries, but it has always helped to deliver necessary information, batteries, maps, etc., and whenever it has been possible helped to reach herd or/and herders.

Without enterprise support and its positive influence on herders, successful project implementation would not be possible.

Throughout all project, several important experts from different fields have expressed very positive valuation to the work that is being happening. Although this valuation could not be expressed in monetary terms and at least for now, does not eases searching for differed founding sources, they confirm that project is needed.

Some of them are:

Project has been positively approved from **Kamchatka Branch of the Pacific Institute of Geography (KG TIG DVO RAN)**, especially specialists – Olga Chernagina, Tatyana Mihailova and Vadim Kirichenko, who latterly has supported us by valuable map material from BNP territory;

Mihail Pogodajev (Executive Chair of the Association of World Reindeer Herders, Executive Director of The Northern Forum) – Mr. M.Pogodajev personally has been interested in mapping project, although at the moment he couldn't offer any additional financial support for project continuance (trackers service payment), he potentially offers to take part with this project in Northern Forum which happens once every two years and next time is being held in Stockholm, 2017. He is hoping that Kamchatka region takes part in it with our indigenous community and nature parks' cooperation experience;

Andrey Golovnev (Russian anthropologist, since 1990's working with Yamal reindeer herders) now working in Chukotka, proposed idea to try add Bystrinsky Nature Park Herders Route Mapping to his team's new Arctic indigenous culture preserving project. He have received general information from us about project, further information should fallow in summer;

Dr. Alexandra Lavrillier - (French anthropologist, Associate professor and president of the French-Evenk Association, Associate professor at the European Center of the Arctic – OVSQ/University of Versailles (France)) very positively refers to project also suggested us to get in contact with A.Golovnev and M.Pogodajev.

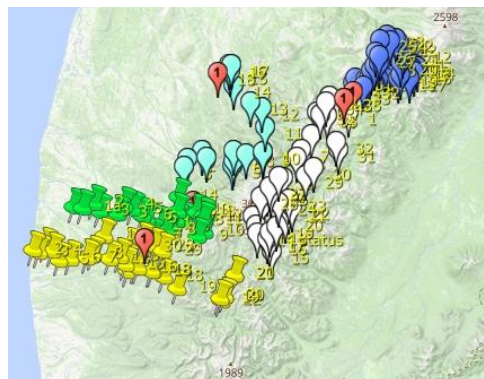
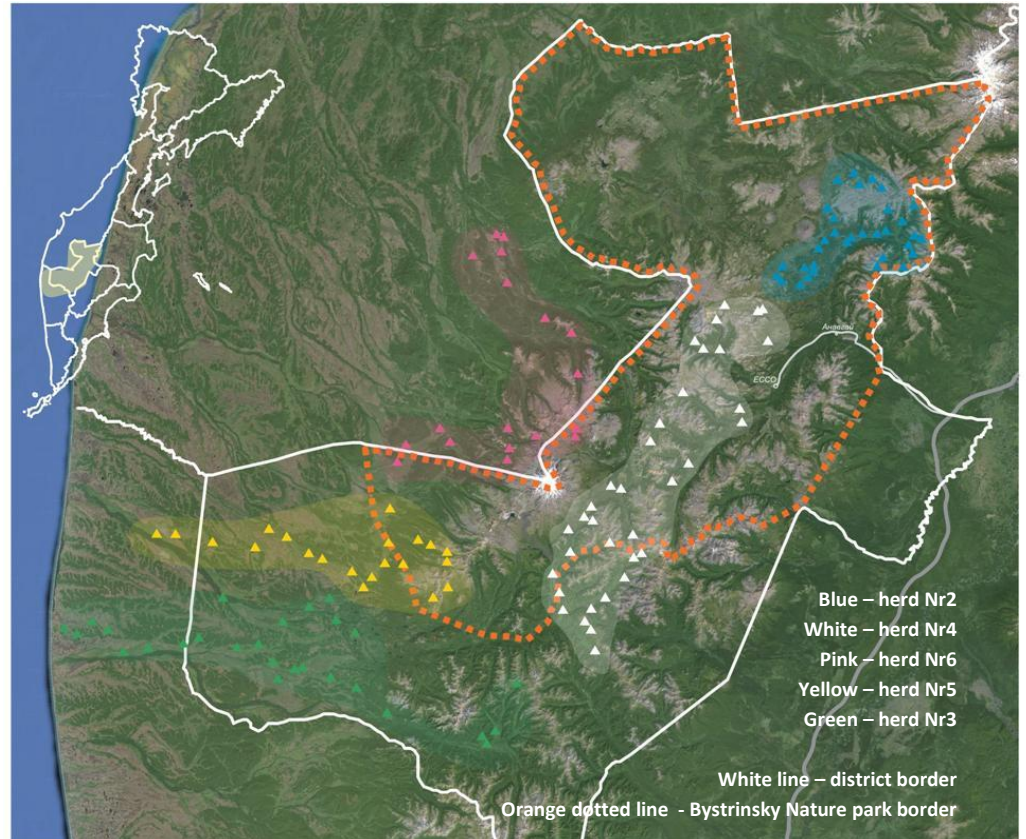
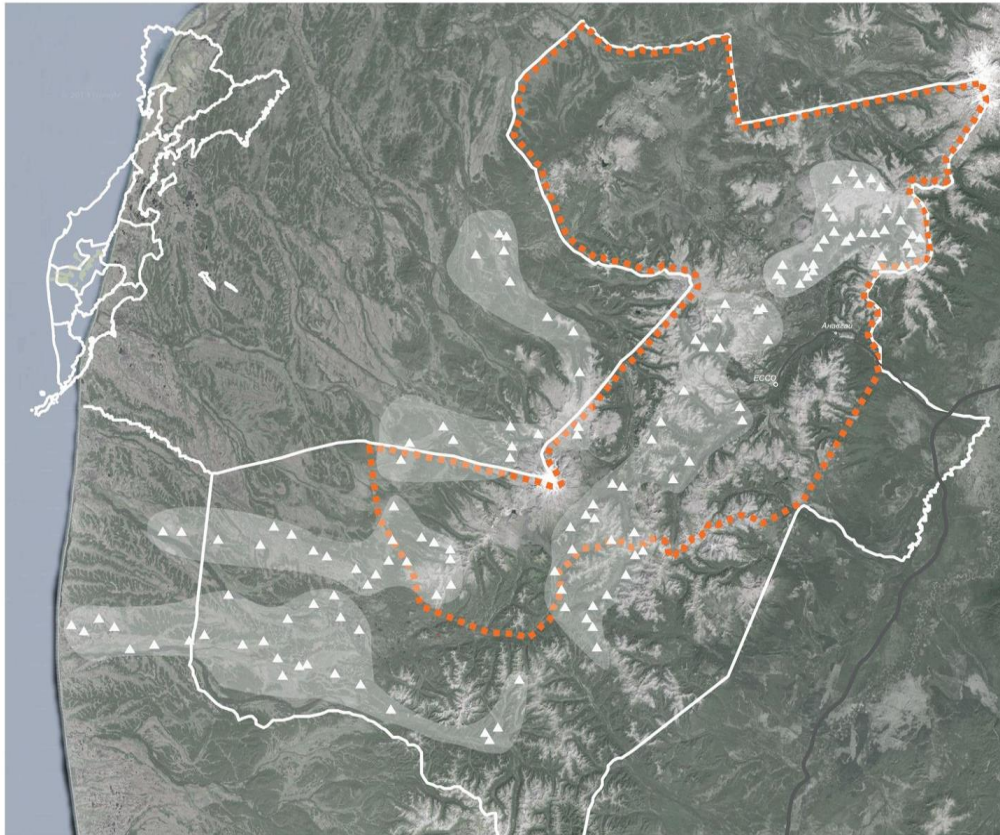
Ongoing correspondence with **SPOT tracking product enterprise** about possible discounts for further tracking service payments.

Organized group of tourists, 15pers. (taking part in botanical photo expedition this summer) offered to take one pack of batteries each for supporting herders project. For one person this is small money, but all together this is about 100EUR support.

ANNEX 1

Mapped camp sites of five herding teams, period IV2015-IV2016

Map approximately shows what territory is being used by herders and how herds are dislocated.



Example of one herd mapping data (list of camp sites, maps)

MAPPED CAMP SITES OF BRIGADE/HERD №2

(ООО „Olenevod“, Bystrinsky District, Esso, main herdsman (zvenevoy) – *Valentin Pelat Eggilevich* (Валентин Пелат Эггилевич), nationality – Koryak).

Territory of grazing lands – Northeast of Bystrinsky Nature Park

Tracker located in (active from) 26.04.2015

Tracker service payment until 19.04.2016

36 - mapped camp site places

- 33 – mapped with tracking device,
- 3 – left out by tracker, latter added by herders,
- 1-21 – camp place locations, names and routes checked by main brigade’s herdsman Valentin Pelat.
- 3 – new place names

All camp sites of herd №2 are located on the territory of Bystrinsky Nature Park.

Tracker located in camp’s yurt in 26.04.2015. Until 04.2016 it has tracked **36 different camp site locations**, 33 of them have precise geographical coordinate data received from tracker, 3 have been marked down by herders during data comparing meetings (herders stayed there only for 1-2 days and it seems that tracker couldn’t reach server during this period).

Below is given numerated list of all camp sites mapped during the project, starting from „1” – where the tracker was located, till „36” – where the herders are at the moment, when this report is being prepared (04.2016).

In list is given geographical description of camp place location and the name which is used by herders to describe their location – both descriptions does not allow for unauthorized person track down these places, precise coordinates and exact dates are available, but will be given in this list.

With **orange** is marked place names given by herders in Even or Koryak languages and is not being found in any of existing maps.

All names and descriptions will be given in Russian or Even as they are being used.

APRIL/АПРЕЛЬ, 2015

26.04.2015 – Tracker located in camp

**Camp site/
Стоянка**

№1 - Описание географической местоположений стоянки / geographical description of camp site location):

3 от сопки Клион (1109м), верховье руч.Сухой (названия неотмеченно на картах) - п.приток р.Куюл, Быстринский район, территория природного парка «Быстринский»;

- **Названия использованное пастухами / camp site name used by herders:**

«Верх. р. Сухая»/ «руч. Сухой».

№2 - С3 от сопки Клион (1109м), под сопкой 944м, район, территория природного парка «Быстринский»;

- «Без им. сопка, 944 м».

MAY/МАЙ, 2015

№ 2 ---“--- (the same location)

№ 3 - Анаунские тундры, возле вездеходной дороге Анавгай-Усть Хайрюзово;

- «Верх. Сухой речки».

JUNE/ИЮНЬ, 2015

№ 4 - Долина р.Куюл, возле вездеходной дороге Анавгай-Усть Хайрюзово;
- „р.Куюл”.

№ 5 - Долина р.Куюл (ниже по течение), возле вездеходной дороге;
- «11 НУП».

№ 6 - Долина р.Куюл (выще по течение), возле вездеходных дорог;
- «Кораль».

JULY/ИЮЛЬ, 2015

№7 - Оз.Илмаган;
- «Оз. Илмаган (или **Магдилы** – эв.грязные червы)».

№8 - Долина р.Анавгай;
- (place name used by herders has not been established yet)

№9 - Долина р.Анавгай (выще по течение);
- «**Чукчанапча**».

№10 - Долина р.Анавгай (выще по течение), другое место;
- «**Чукчанапча**».

№11 - Долина р.Анавгай, выще устье р.Олкая;
- «Кабинка».

№12 - Долина р.Анавгай (выще по течение);
- «Чемпура»/ «стар. Снежный».

№13 - Долина р.Анавгай (выще по течение), Апапельские источники;
- «Апапель».

№14 - Верх. р.Анавгай;
-«**Увкичепчи** - лицо вилезло».

№15 - Долина р.Опалка;
- «Кораль».

AUGUST/АВГУСТ, 2015

№15 ---“--- (the same camp site location)

№16 Долина р.Опалка (выще по течение);

-

№17 - Анютин ключ;
- «**Агликич**» / «ниже коралья»

№18 - Анютин ключ (выще по течение);
- «**Верх. Агликича**» / «кораль».

SEPTEMBER/СЕНТЯБРЬ, 2015

№19 - Анютин ключ (выще по течение);
- «**верх. Агликича**» / «кораль».

№20 - Верх. руч. Ленинградский;
- «**Лютин ключ**»
07.09.– low battery signal

№21 Верх. р.Иларман
- «Иларман»
18.09. – main herdsman checked the map, changed batteries

№22 - Верх.руч.Длинный-л.приток руч Агликич
- «руч. **Длинный**»

ОКТОBER/ОКТАБРЬ, 2015

№22 ---“--- (the same camp site location)

№23 - Долина р.Анавгай, бараки;
- (camp place name by herders haven't been specified yet)

№24 - руч.Михайловский;

-

№25 - Верх.р.Средн.Копкан;

-

№26 - Верх. р.Верх.Копкан;

MARCH/МАРТ, 2016

№27 - Тундра среди рек Алал и Верх.Копкан, возле автозимника Анавгай-Палана;

№35 ---"--- (the same camp site location)

APRIL/АПРЕЛЬ, 2016

№36 ---"--- (the same camp site location)

NOVEMBER/НОЯБРЬ, 2015

№28 ---"--- (the same camp site location)

№29 - Анаунские тундры, сухое русло р. Балыгинган, возле автозимника Анавгай-Палана;

№30 - Анаунские тундры, возле сопки 994.7м;

№31 - Лиственничник, В от г.Анаун;

DECEMBER/ДЕКАБРЬ, 2015

№31 ---"--- (the same camp site location)

№32 - Анаунские тундры, В от с.Анавгайчик;

JANUARY/ЯНВАРЬ, 2016

№32 ---"--- (the same camp site location)

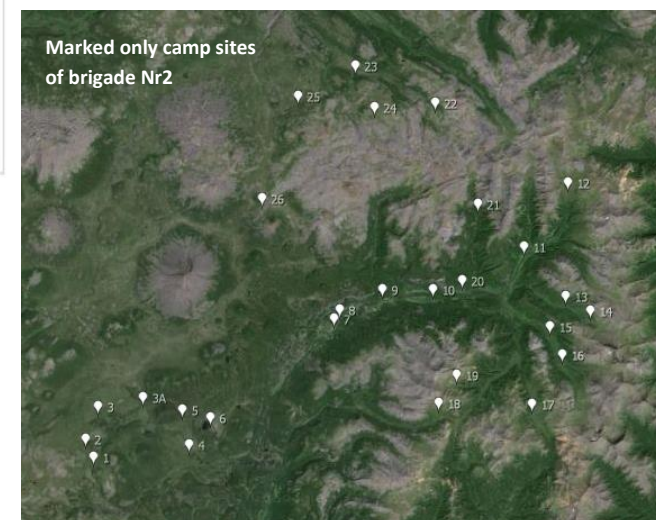
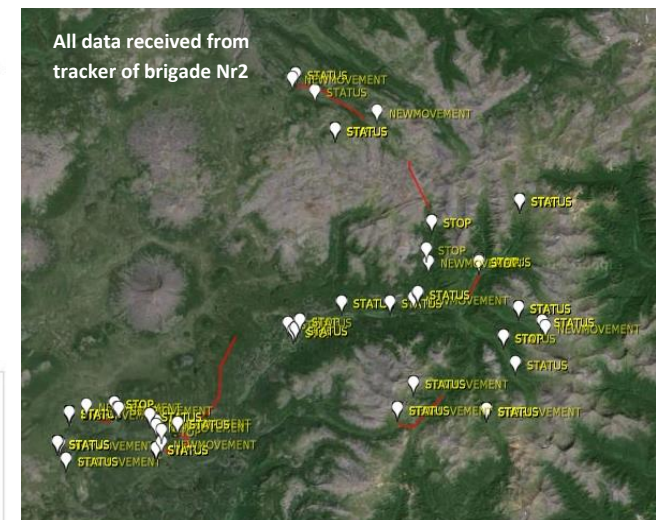
№33 - Оз.Медвежье;

№34 - Оз.Илмаган;

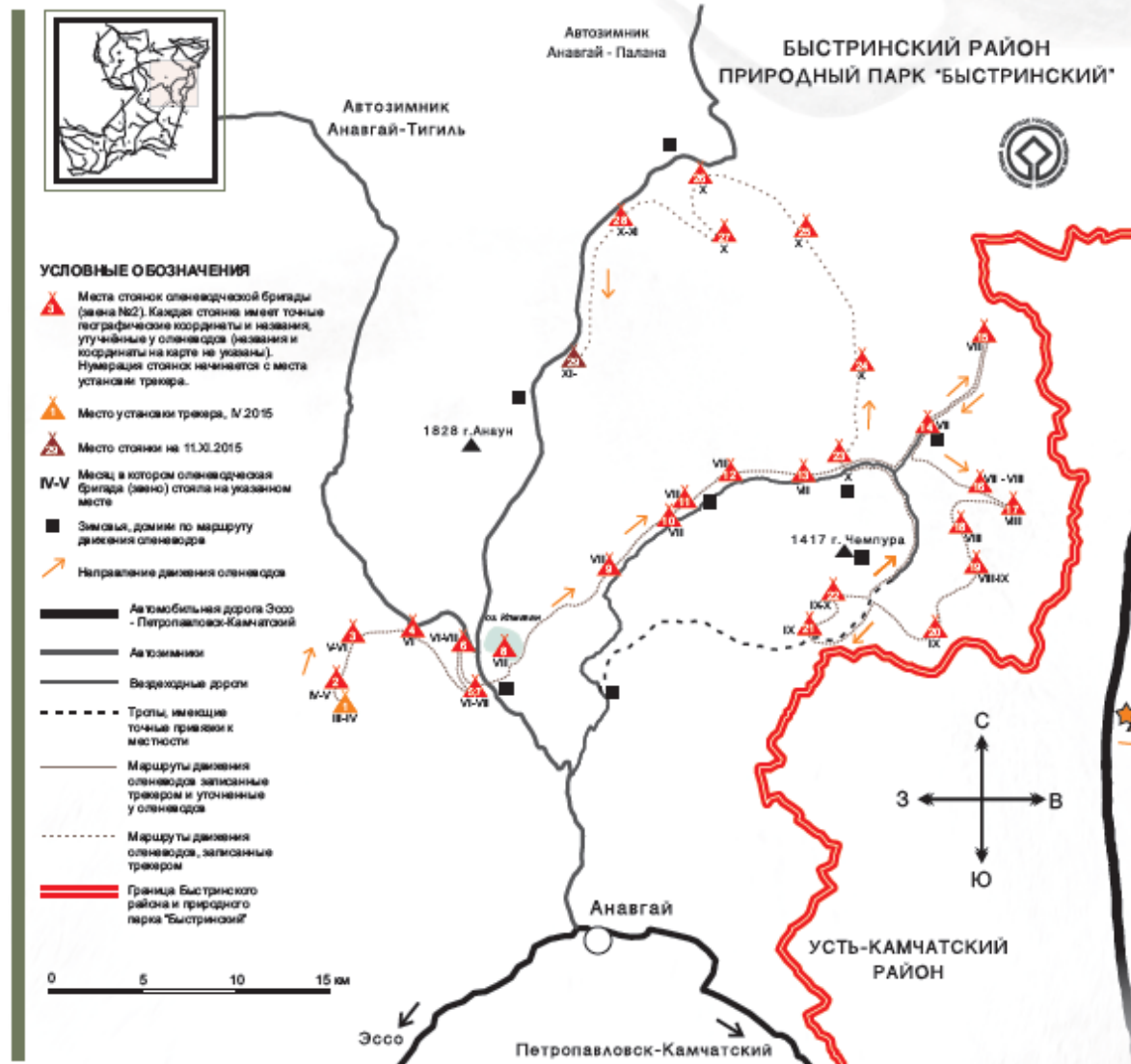
FEBRUARY/ФЕВРАЛЬ, 2016

№34 ---"--- (the same camp site location)

№35 - Долина р.Невта



**ПРИМЕР КАРТЫ (РАБОЧЕЙ) МАРШРУТА ДВИЖЕНИЯ
ОЛЕНЕВОДЧЕСКОЙ БРИГАДЫ
(ЗВЕНО №2, ООО "ОЛЕНЕВОД" С.ЭССО)**



**СХЕМАТИЧЕСКАЯ КАРТА СТОЯНОК
(РАБОЧАЯ) ОЛЕНЕВОДЧЕСКИХ БРИГАД
БЫСТРИНСКОГО РАЙОНА**



ANNEX 3

Brief statistics about received data from trackers in herd Nr4,3,5,6

BRIGADE/HERD NR4

(ООО „Olenevod”, Bystrinsky District, Esso, main herdsman (zvenevo) – **Kiryak Petrovich Adukanov** (Кирьяк Петрович Адуканов), nationality – Even).

Territory of grazing lands – Central and South part of Bystrinsky Nature Park, outside park lands – South of Bystrinsky District

Tracker located in 30.04.2015

Service payment until 04.04.2016

35 - mapped camp site places all mapped by tracking device,

14-22 – needs to be checked by herders,

24 – located in Bystrinsky Nature Park,

11 – outside park territory, territory of Bystrinsky District.

BRIGADE/HERD NR3

(ООО „Olenevod”, Bystrinsky District, Esso, main herdsman (zvenevo) – **Valeriy Yakovlevich Cherkanov** (Валерий Яковлевич Чурканов), nationality – Even).

Territory of grazing lands – Southwest part of Bystrinsky District, North of Sobolevsky District

Tracker located in 19.04.2015

Service payment until 09.04.2016

29 - mapped camp site places,

25 – mapped with tracking device,

4 - left out by tracker, latter marked down by herders,

X – unknown number of sites (1-4?) haven't been mapped due to system problems, needs to be specified,

17 – located in Bystrinsky District,

7 – outside Bystrinsky District, in Sobolevsky District.

BRIGADE/HERD NR5

(ООО „Olenevod”, Bystrinsky District, Esso, main herdsman (zvenevo) – **Leonid Iljich Adukanov** (Леонид Ильич Адуканов), nationality – Even).

Territory of grazing lands – Southwest part of Bystrinsky Nature Park, Bystrinsky District

Tracker located in 18.04.2015

Service payment until 19.04.2016

21 – mapped camp site places,

X – unknown number of sites haven't been mapped due to system problems, needs to be specified,

9 – located in Bystrinsky Nature Park,

10 – located in Bystrinsky District,

2 – outside Bystrinsky District, in Sobolevsky District

BRIGADE/HERD NR6

(ООО „Olenevod”, Bystrinsky District, Esso, main herdsman (zvenevo) – **Ilya Perovich Adukanov** (Илья Петрович Адуканов), nationality – Even).

Territory of grazing lands – West part of Bystrinsky Nature Park, North of Tigilsky District

Tracker located in 13.07.2015

Service payment until 04.06.2016

18 - mapped camp site places,

18 – mapped with tracking device,

3 – located in Bystrinsky Nature Park,

7 – outside Bystrinsky District, in Tigilsky District.

Anavgay brigade (ООО “Akenman”, Bistrinsky District, Anavgay) – in summer 2015, tracker was not possible to locate in camp.