



АРКТИЧЕСКИЙ  
НАУЧНО-  
ИССЛЕДОВАТЕЛЬСКИЙ  
СТАЦИОНАР  
Arctic Research Station



arctic\_lab\_yamal

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Ural Branch

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# Yamal-Nenets Autonomous District

Norwegian Sea

Sweden

Finland

Norway

750 000 sq.km

520 000 people

650 000 reindeers

Denmark

United Kingdom

Ireland

Belarus

Poland

Germany

Ukraine

Austria

France

Romania

Italy

Kazakhstan

Spain

Uzbekistan

Kyrgyzstan

Portugal

Greece

Turkey

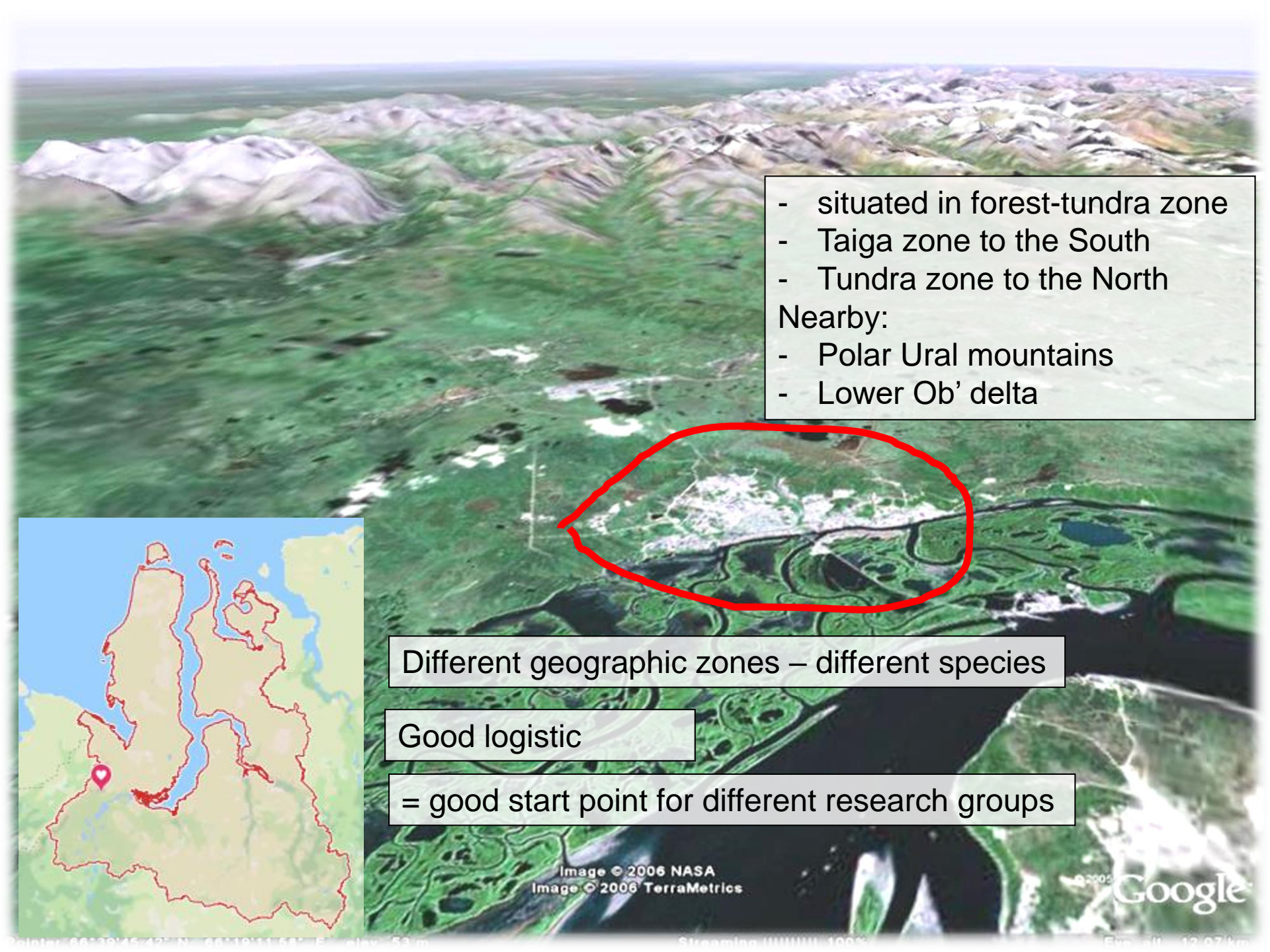
Turkmenistan

Google

Syria

Map data ©2019 Google, INEGI, Russia, Terms



- 
- situated in forest-tundra zone
  - Taiga zone to the South
  - Tundra zone to the North
- Nearby:
- Polar Ural mountains
  - Lower Ob' delta

Different geographic zones – different species

Good logistic

= good start point for different research groups



Image © 2006 NASA  
Image © 2006 TerraMetrics

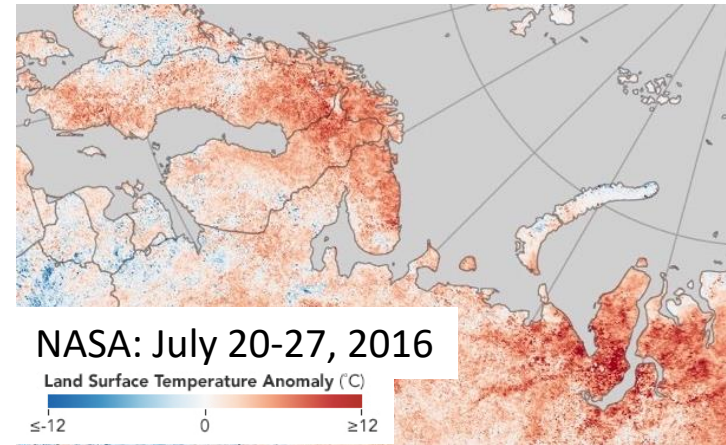
© 2005 Google

- Most important - to have an idea (scientific plan) behind the Station (infrastructure and personnel)



There are 2 major drivers of change in the Arctic:

- Climate change
- Industrial development
- Bonus in Yamal  
Herbivory (reindeers)  
grazing



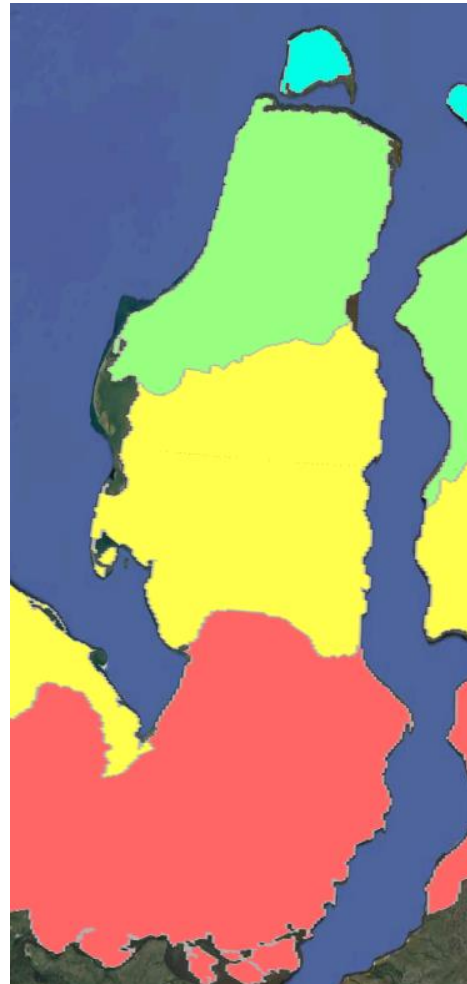
Yamal allow us to measure the influence of all three mentioned drivers of change on arctic ecosystems in different subzones of tundra

## Uniqueness of Yamal

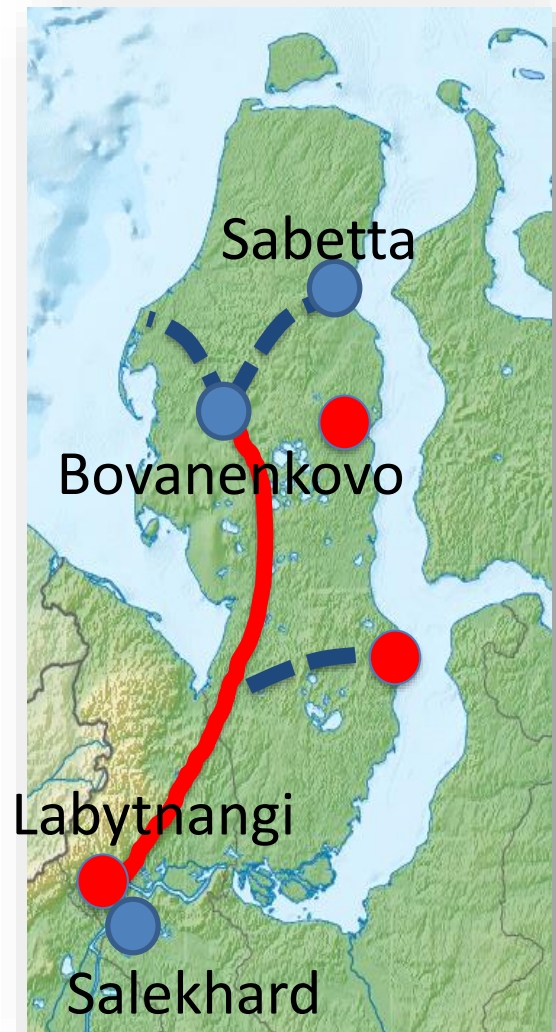
- Geography
- Logistics
- Long-term data



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Bioclimatic subzones CAVM team, 2003







Great social importance

Growing population of  
local people



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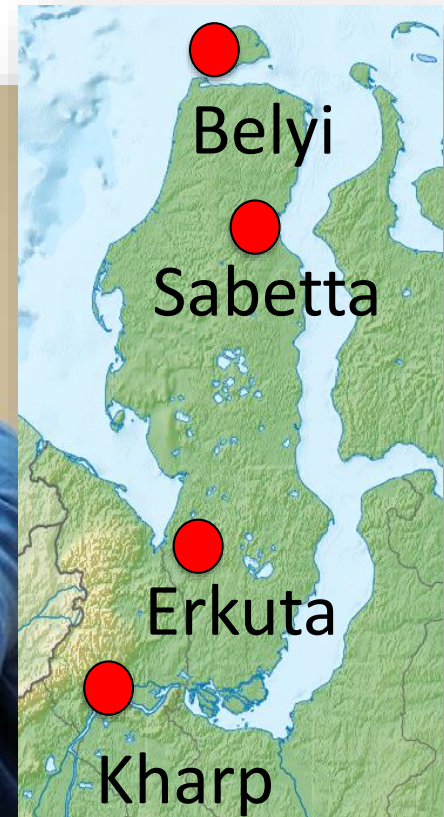
# Erkuta long-term monitoring site

- Annual expeditions started in 1999
- Since 2007 (IPY) – wide international collaboration
- Logistic and funding support from Yamal Government (2014-ongoing)
- 4 permanent containers (2 for living and 2 storage)
- Solar energy power supply
- Meteostation (HOBO) established in April 2017

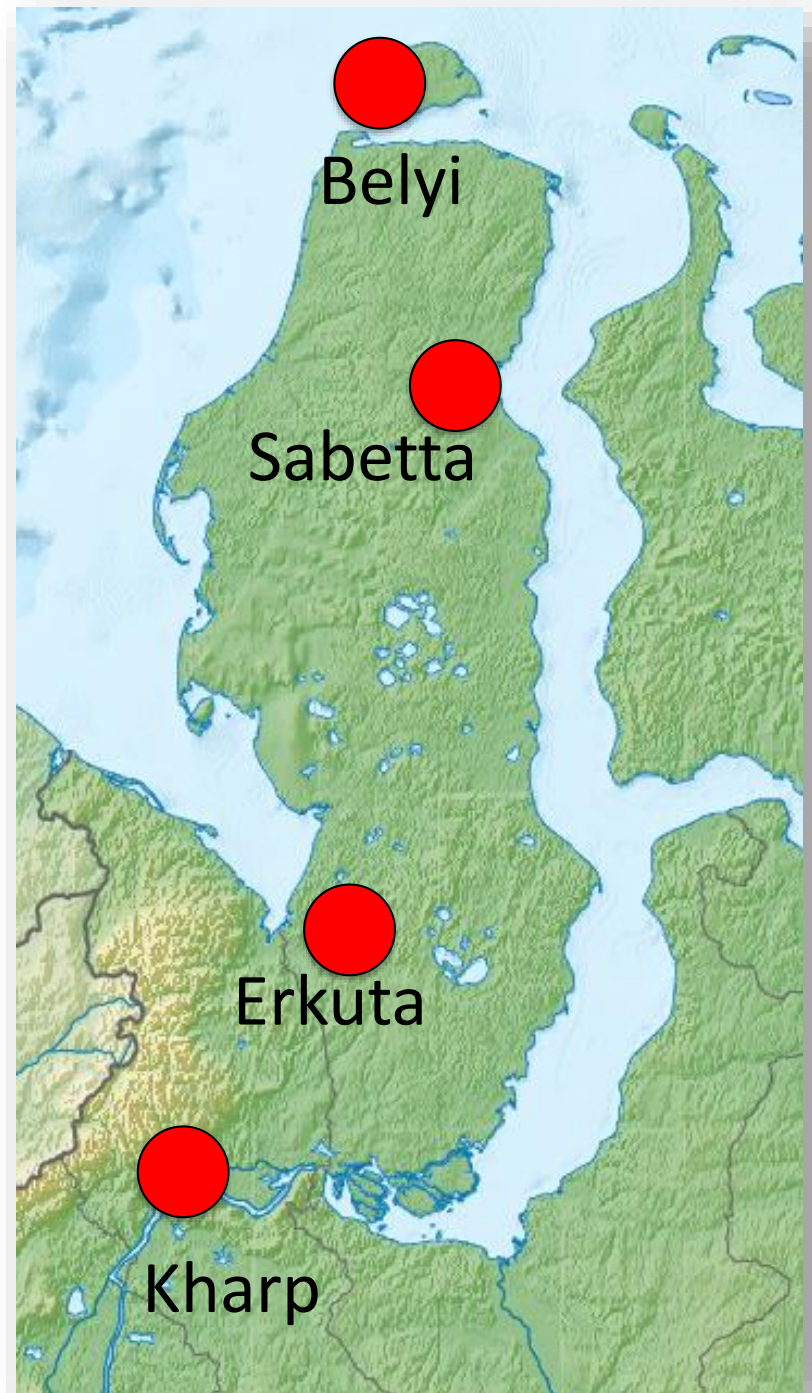




- Dmitry Kobylkin, Governor of Yamal (now Minister of natural resources) support the idea of creation of latitudinal gradient of field research stations on base of long-term monitoring plots – Feb 2014

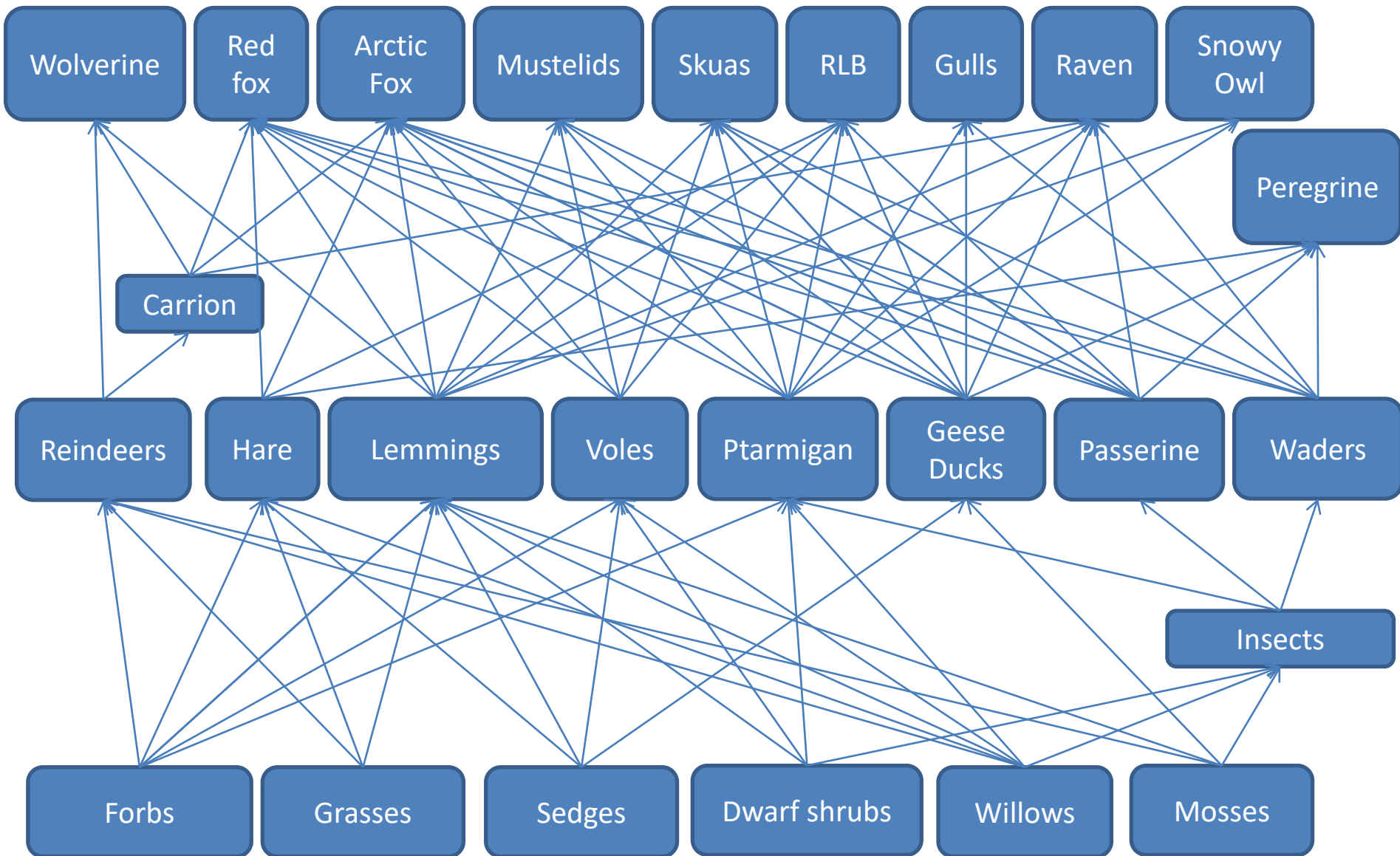


- Modern latitudinal transect of field stations
- Belyi (73,3N) – 2015-...
- Sabetta (71,2N) – 1980-th, 2014-...
- Erkuta (68,2N) – 1999 - ...
- Kharp (66,7N) – 1960-th, 2011-...



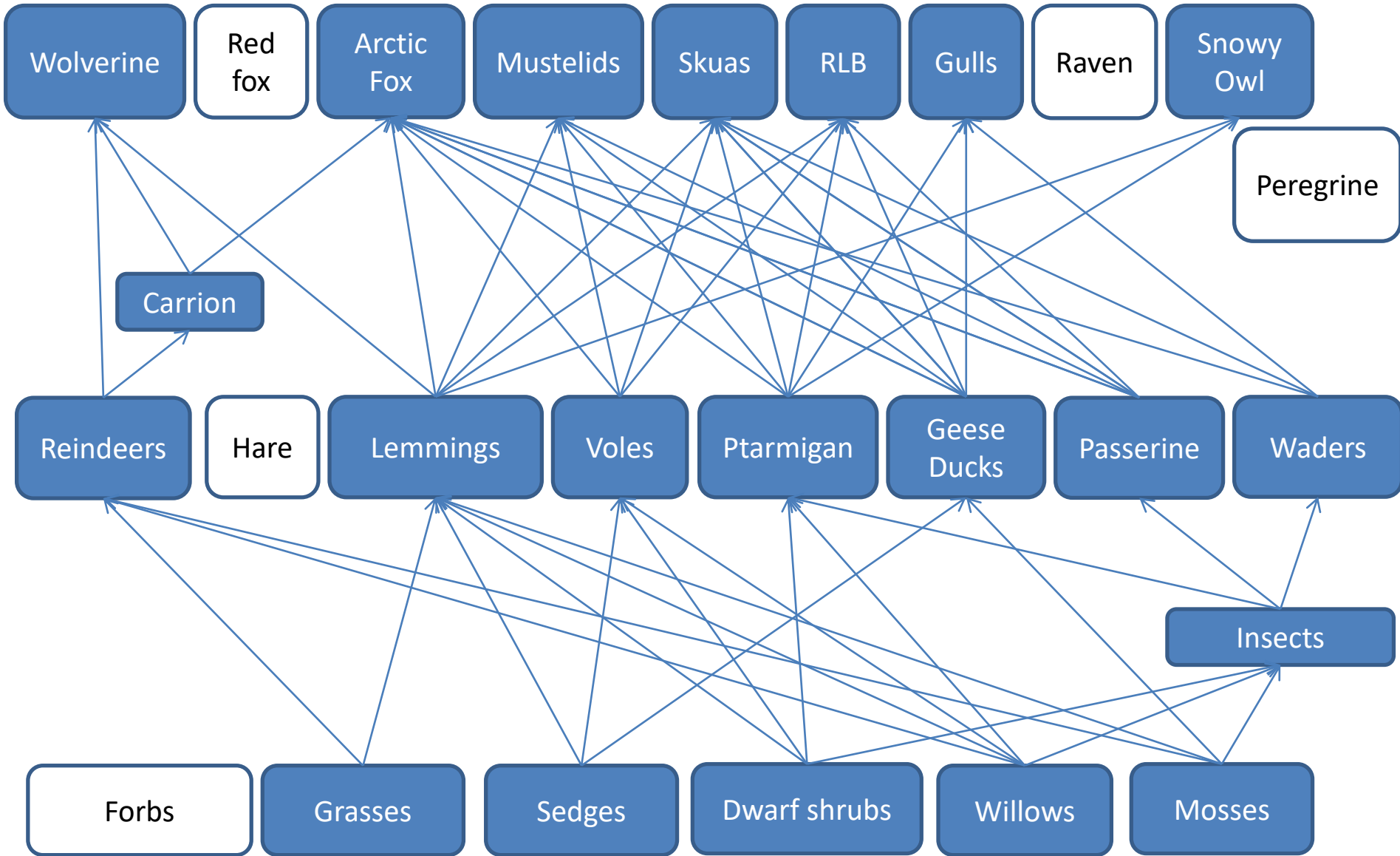


# Erkuta



# Sabetta

???

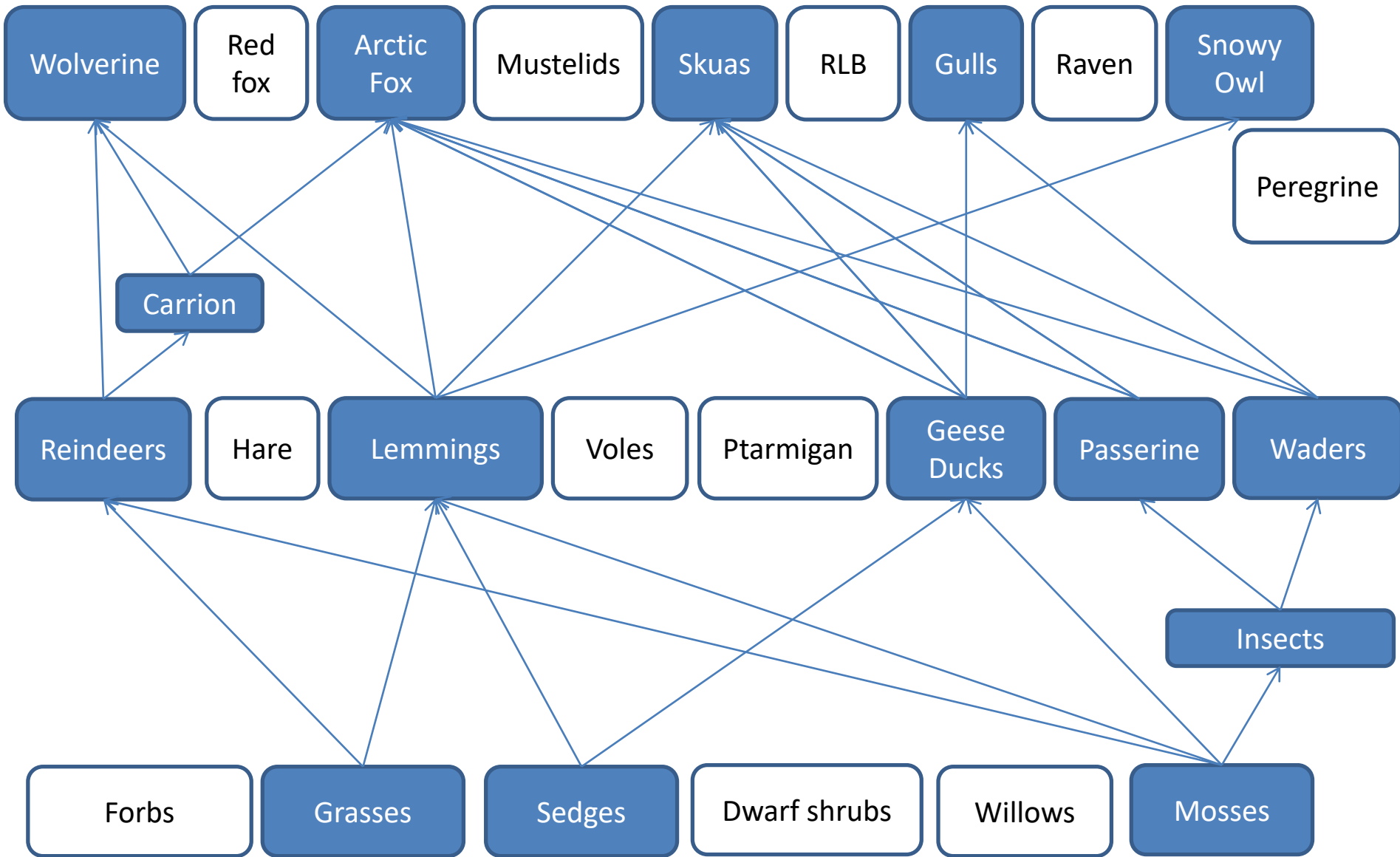


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# Beliy

???



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# Erkuta long-term monitoring site

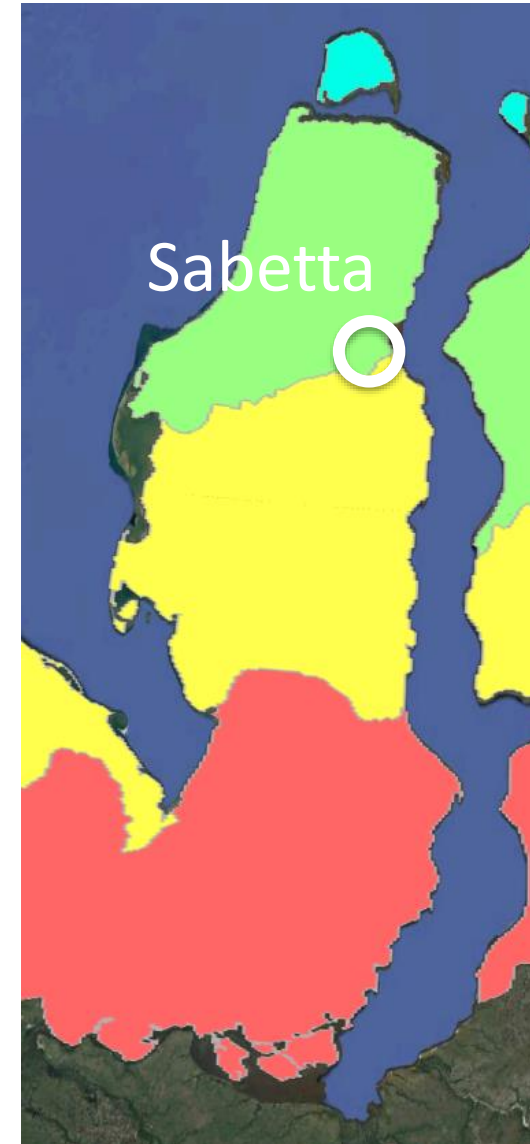
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# Sabetta. Yamal LNG.

- Unique project for LNG above Polar Circle
- In peak month's up to 25-30 000 people attend



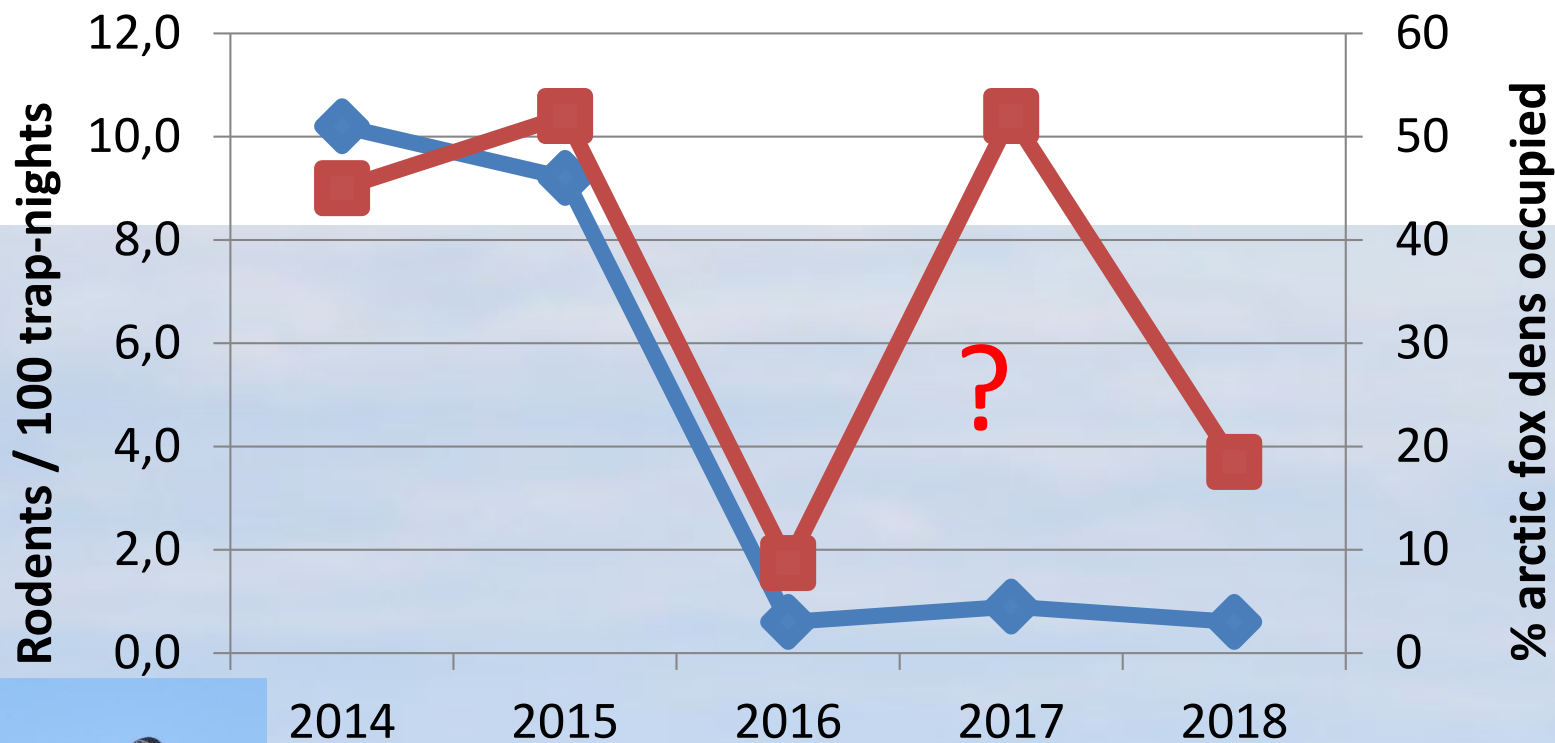
# Sabetta



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rodents

arctic foxes







Biggest and one of the rarest falcon species in the world – the Gyrfalcon.

Usually nest on rocks or trees



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## Changes on species distribution:



- Biggest and one of the rarest falcon species – the gyrfalcon successfully breed. First time on human construction in use!





# Unprecedented support by Yamal Gov.



New 200 m<sup>2</sup> office building.  
Material produced in Yamal.  
New 200 m<sup>2</sup> garage  
New equipment (equiv. 285 000 EUR)

Buildings property of RAS  
Equipment – free use



# National federal project “Science”



- 300 new labs in RF
- 1 of it in Labytnangi – 10 permanent positions (70% must be below 40 y.o.)
- Multidisciplinary lab “Dynamic of arctic ecosystems” (biologists, anthropologists, permafrost researchers)
- Federal law – researchers should have double salary from average of the region (Yamal – highest in Russia)





New lab in new office with new equipment  
has new salary =

# 13 papers published in 2019 in:



The Auk  
**Ornithological Advances**

QUATERNARY  
SCIENCE REVIEWS  
The International Journal of Earth, Climate and Life Interactions

**Journal of Animal Ecology**

**ECOGRAPHY**

**Polar Biology**

**Science**

 **frontiers**  
in Ecology  
and Evolution

**PHILOSOPHICAL TRANSACTIONS  
OF THE ROYAL SOCIETY B**

**BIOLOGICAL SCIENCES**

**nature  
ecology & evolution**



# What the papers are about:



# Outreach and public relations



241      1 619      573  
Публикации   Подписчики   Подписки

## Arctic research station

Образование

Арктический научно-исследовательский  
стационар Института экологии растений и  
животных УрО РАН (Лабытнанги)

 YouTube: Arctic lab Yamal  
[openlab.timepad.ru/event/1235886/](http://openlab.timepad.ru/event/1235886/)

- Instagram account
- Regular TV coverage (town-region-federal-international)
- Excursions for pupils
- “Open door days”
- Festival “Science 0+”
- “Open lab” event
- Lectures open for wide public





Until September 2019 it's believed not more than 20 walrus around whole Yamal, and far not every year. Uniquely fast and effective expedition organized by Yamal Government And "Gazprom Dobycha Nadym" confirm biggest ever haul-out – more than 1000 animals. A VERY big media attention.

#walrusesyamal

#моржинаямале



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