



D4.2 Polarpedia Documentation with an alphabetical list of Arctic glossary and a list of educational resources

Report

(Public)

Project Acronym: EDU-ARCTIC

Project Title:

“Edu-Arctic – Innovative educational program attracting young people to natural sciences and polar research”

NUMBER — 710240 — EDU-ARCTIC

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Executive summary

The report is Deliverable D4.2 Polarpedia Documentation with an alphabetical list of Arctic glossary and a list of educational resources.

The report pertains to WP4 EDU-ARCTIC EDUCATIONAL PROGRAM.

The aim of the EDU-ARCTIC project is to encourage interest in science, technology, engineering and mathematics (STEM) education to secondary school students.

EDU-ARCTIC's Polarpedia is a free online, accessible to all without registration, Polar research-based encyclopaedia. It is dedicated to educators, schools and students, across Europe and beyond on various issues related to the diverse Arctic environment and societies.

Polarpedia is a component of EDU-ARCTIC's educational program, providing an extensive knowledge base and education support tools on the Arctic region with a direct link to the EDU-ARCTIC online lessons. It provides teachers and students with an educational support that can facilitate their work on scientific issues and expressions in English.

Currently 486 term entries are available in English, which is the projects principal language. Many of the entries have been translated into as many as 16 other national European languages, due to high external interest and support of educators, whereas only five languages where initially planned for.

The report includes documentation of the Polarpedia, including: the terms currently available in English in alphabetical order; number of translations in other languages; list of educational resources in forms of Games and Quizzes; analytics and analysis of Polarpedia users and technical parameters.

Analytics indicate that the number of users is constantly increasing. Search is the most common way of finding the program and its individual terms. The users have visited from almost all the countries of the world with Albania, Poland, Bulgaria and the USA topping the list.

As the analysis of the analytics strongly indicate the importance of increased internal references and optimization of search, to increase the page visits and extend the time spent per users, modifications are being implemented to aid the users in better understanding the scope of the Polarpedia, identifying related terms to their search as well as pointing to the terms of highest user interest.

Polarpedia can be accessed on the Edu-Arctic.eu main website or directly via polarpedia.eu



General information and objectives

The objective of the EDU-ARCTIC project is to encourage interest in science, technology, engineering and mathematics (STEM) education to secondary school students.

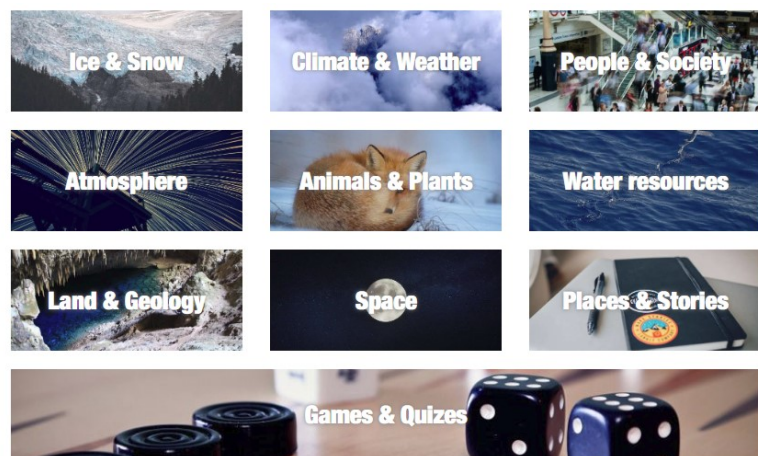
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Currently 486 terms in English, many of which have been translated into as many as 16 other national European languages due to high external interest of and support by educators, whereas only five languages were initially planned for in the project proposal.

Polarpedia terms are individual entries that contain text, written by scientist and professionals based on Polar research, on various Arctic issues relevant for educators and students. Further information include: photos; graphics; animations or videos. The Polarpedia is divided into ten categories:

- Ice & Snow
- Climate & Weather
- Plants & Animals
- Land & Geology
- Atmosphere
- Water resources
- Space
- People & Society
- Places & Stories
- Games and Quizzes



The main activities within the project task have been:

- Identification of key elements and phenomena;
- Preparation of full description of chosen expressions;
- Creation of multimedia materials representing them;
- Translation;
- Ongoing development and supplementing.



The Polarpedia terms are composed as support to the EDU-ARCTIC's online lessons. A direct link is made between lessons and applicable terms. Such resource bases joined together offer significant help for teachers and have helped them to be active players during on-line lessons transmissions. Teachers have been, and will continue to be, able to prepare themselves and students in advance of lessons by providing vocabulary and knowledge that is connected to the subject of a lesson. It has been and will be very helpful, considering the fact that scientific language is often perceived to be rather hermetic and many terms difficult, not least to non-English speakers. It is therefore useful to have Polarpedia terms with explanations of certain phenomena and processes at one's disposal, in multiple languages.

An additional part of Polarpedia, Games & Quizzes, contains a collection of educational resources for teachers and students in the form of online games, quizzes, worksheets, experiments or teamwork proposals.



[Contact](#)







[About Polarpedia](#)
[All Articles](#)
[Categories](#)
[Program](#)

















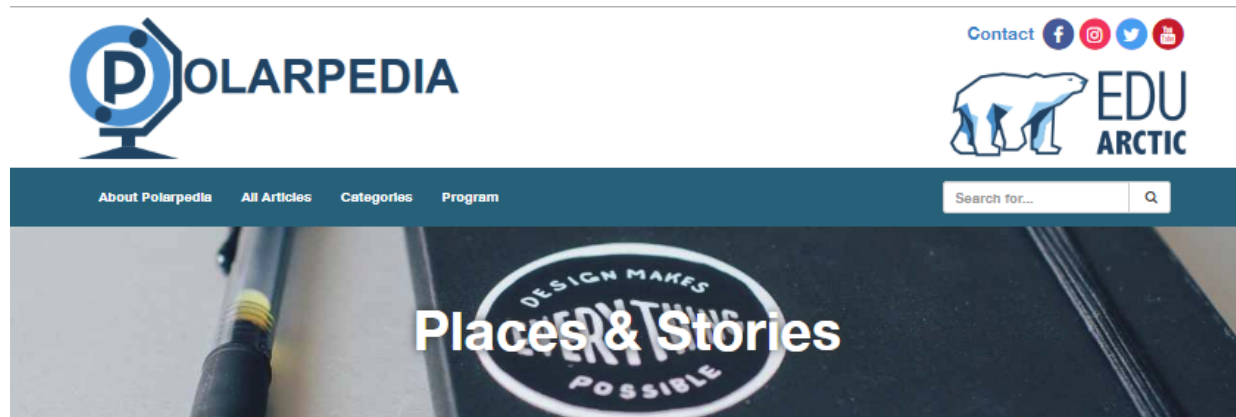
Newest term

- Sustainable energy
- Polaris (North Star)
- Kinetic energy
- Potential energy
- Non-renewable energy
- Okta scale
- Carbon capture and storage
- Biodiversity
- Ice shelf
- Ice sheet
- Renewable energy
- Emission scenarios
- Downscaling
- General Circulation Models
- Svalbard
- Krill
- Glaucous gull
- Governor of Svalbard
- Faroe Islands
- Orogeny

Polarpedia terms are created by [EDU-ARCTIC Consortium](#), which holds responsibility for quality of translations in following languages: Polish, French, Danish, Norwegian, German, Russian, Italian, unless indicated otherwise. If you see an error - please contact us: edukacja@igf.edu.pl



Example of a category: Places and stories. Terms available in English are visible in alphabetical order. National flags indicate translations available within the category.



A B C D E F G I K L N O R S T U V Z

A

- Amphibious vehicle
- AMUPS - Adam Mickiewicz University Polar Station
- Antarctic
- Antarctica
- Arctic
- Arctic Station

B

- Barentsburg
- Barrow Arctic Research Center and Barrow Environmental Observatory (currently Utqlegvik)
- Belgian Antarctic Expedition
- Birds' guano is cooling the Arctic
- Black skin of a polar bear
- Bruce Gordon and his pet polar bear

C

- Calypso Station
- Carrington event
- CEN Ward Hunt Island Research Station
- Conquest of the South Pole – Amundsen-Scott 1911-1913

D

- Discovery of Greenland
- Dying is illegal in Longyearbyen

E

- EQIP Field Station

F

- Faroe Islands
- Flashline Mars Arctic Research Station
- Fridtjof Nansen Arctic Fram's expedition

G

- Greenland
- Greenland Institute of Natural Resources

I

- Iceland
- Iqloolik research station
- Inuit throat singing

K

- KAFFYDYRA – Polar Station of Nicolaus Copernicus University in Toruń
- Kautokelno revolt

L

- Leestadianism
- Longyearbyen

N

- North-East Science Station
- Ny-Ålesund

O

R

- Research Station Samoylov Island

S

- Sermilik Research Station
- Siberia
- Siberian people
- Summit Station

T

- The Chokurdakh Scientific Tundra Station
- The origins of LIFE on Earth
- The Stanisław Siedlecki Polish Polar Station in Hornsund
- The Willem Barents Biological Station
- Toilik Field Station

U

- Villum Research Station

Z

- Zackenberg Station



Information Terms and national versions

Polarpedia's principal language is English. Many terms have been translated into other European languages, currently 16.

See list of languages and number of current translations (as per 15th July 2019) available below.

| Language | Number of terms |
|----------------|-----------------|
| Polish | 486 |
| Norwegian | 460 |
| Danish | 436 |
| French | 110 |
| German | 15 |
| Romanian | 123 |
| Italian | 198 |
| Greek | 133 |
| Bulgarian | 228 |
| Russian | 359 |
| Albanian | 446 |
| Serbian | 7 |
| Croatian | 31 |
| Macedonian | 88 |
| Icelandic | 90 |
| Spanish | 37 |

Consortium members as well as teachers and scientists from countries such as Greek, Albania, Bulgaria, Iceland and more have provided the Polarpedia with the additional translation of terms, in-kind.

Other languages are being prepared and likely to be entered in the near future, even though the EDU-ARCTIC project is coming to an official end the program has been developed as a standalone and the partner's intent to seek funding to support the existence of the Polarpedia component.




Languages available for each term are presented with a national flag of the country both in the overview category view as well as under the individual term entry.








Terms that are related to available Online lessons are marked with the EDU-ARCTIC hat.



Links to related Online lessons also directly available under the term (marked with red box on photo).



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Other languages:

English
 Polski
 Français
 Norsk
 Dansk
 Ελληνικά
 Български
 Русский
 Shqip
 IsiNkwa

Polar bear


Description

Polar bear (*Ursus maritimus*) lives in the Arctic beyond the Arctic Circle in Canada, Alaska, Greenland, Russia, and in the areas covered by sea ice around the North Pole. It does not hibernate during winter, and stays in areas with sea ice, which helps him to move from one place to another and hunting for seals, mainly ringed and bearded. During the summer, when areas of the Arctic ice are shrinking, stays in the coastal zone. Males can weigh up to 700 kg, females are an a half lighter, and weigh up to 350 kg.

After the mating season in April and May, the cubs are born in a snow den in December and January. In the spring they leave the shelter, and stay with their mother for approx. 2 years.

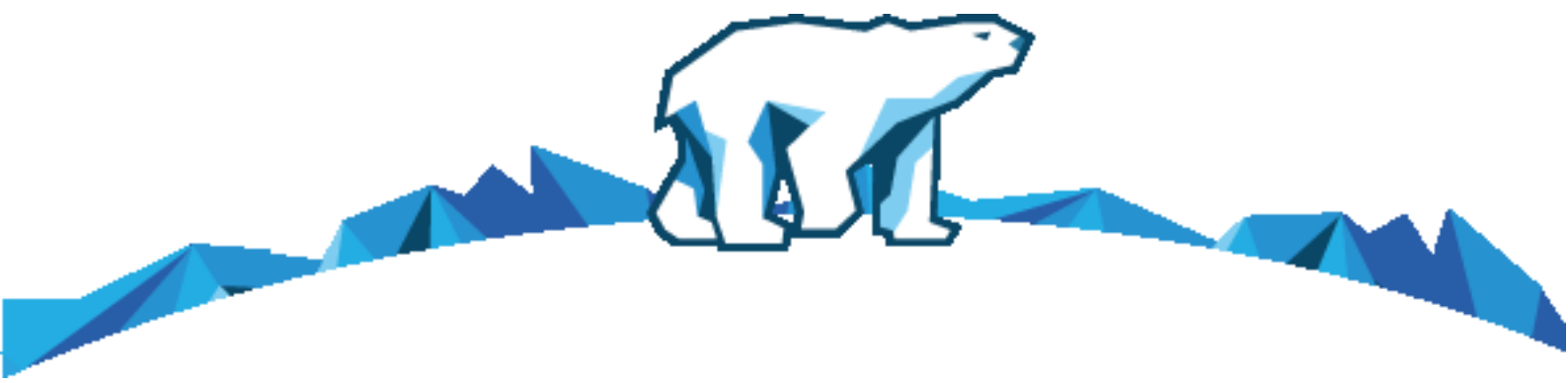
Contents [\[hide\]](#)

- 1 Description
- 2 Bear family
- 3 Ways of adaptation to Arctic climate
- 4 Threats and protection
- 5 Interesting facts




Related resources:





- [EDU-ARCTIC webinar: Polar bear-king of the Arctic](#)
- [Read more on polar bear from Norwegian Polar Institute](#)




Languages available for each term are presented with a national flag of the country under the individual term entry for the benefit of the user (marked with red box on photo).

Animals and plants now have a newly added information window with uniform detailed species characterizing information which increases the searchability of the term (marked with red box on photo).













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[Program](#)

Other languages:

 English
  Polski
  Français
  Norsk
  Dansk
  Ελληνικά
  Български
  Русский
  Shqip
  Íslenska

Polar bear


Description

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Contents [\[hide\]](#)

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Bear family

It includes, among others, mainly carnivorous polar bear, herbivorous giant panda and the brown bear, which eats meat as well as plant food. Evolutionary lineages of a polar and brown bears separated 5000,000 years ago, when the climate started to cool again, and the population of brown bears remain in areas further north.

Ways of adaptation to Arctic climate

Arctic climate with long and cold winters and the phenomenon of the polar night forced polar bears to evolve special features that help them to survive. Great sense of smell and long neck with narrow head make them easier to hunt for seals hidden under the ice. Wide paws covered with fur and claws curved in a special way help them not to sink in the snow, or slip on the ice. Fat reserves help them when fasting for several months due to not enough food, and the lack of sea ice that prevents from seal hunting.

Threats and protection

Pollution, hunting, human economic activities (eg. oil exploration), as well as the progressive melting of sea ice in the Arctic are

Related resources:

- [EDU-ARCTIC webinar: Polar bear-king of the Arctic](#)
- [Read more on polar bear from Norwegian Polar Institute](#)

Information:

Name: Polar bear
Latin name: *Ursus maritimus*
Family: *Ursidae*
Distribution: Alaska, Siberia, Canada and Greenland
Habitat: The Arctic
Size: 2.2–2.4 m
Weight: Males can weigh up to 700 kg, females can weigh up to 350 kg.
Number of young: 1 to 3 cubs
Lifespan: 25 to 30 years
Diet: Carnivore



Many of the terms have multimedia material such as videos and images as well as links to related material of interest and benefit to the user.



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Other languages:

English
 Polski
 Norsk
 Dansk
 Română
 Italiano
 Български
 Русский
 Shqip
 македонски јазик
 Íslenska

Gákti

Traditional Sami clothing, in the past made from reindeer leather and sinews, nowadays more commonly made from wool, cotton, or silk.

The traditional Sami costume is characterized by a dominant color adorned with contrast colored bands, plaits, embroidery, and often a high collar. Traditional gákti are most commonly in variations of red, blue, green, white, medium-brown tanned leather, or reindeer fur. The main part of the costume consists of a pullover, which is basically the same for men and women, the mens' version is a bit shorter hangs about mid thigh, while the womens' hangs to the knee or mid calf, depending on the local variation. Women's gákti typically consist of a dress, a fringed shawl and boots/shoes made of reindeer fur or leather, beautifully decorated silver jewellery. The boots typically have pointed or curled toes.

Gákts differ from community to community, for example, in southern parts of Sápmi is longer than the one in the north of the region.

The colours, patterns and the jewellery of the gákti are indicative of where a person is from, whether the person is single or married, and sometimes even a specific family. The shape of buttons on belt tells if the person is married or not. Square buttons mean that the person is married. Single people wear belt with round buttons.

They are worn both in ceremonial contexts and while working, especially when herding reindeer.

Photo: NN – norden.org



Sami People Documentary

Traditional Sami costume called Gákti (or kolt) is worn in weddings, funerals, religious festivals, but also worn while everyday work. People use leather, sinews, and wool, which are the most common material used, in order to make a gákti but it's often made with silk and velvet.

Related resources:

- [Sami people documentary](#)
- [EDU-ARCTIC: Saami: the Reindeer People](#)

Categories: [All Articles](#), [People & Society](#)



Alphabetical list of terms

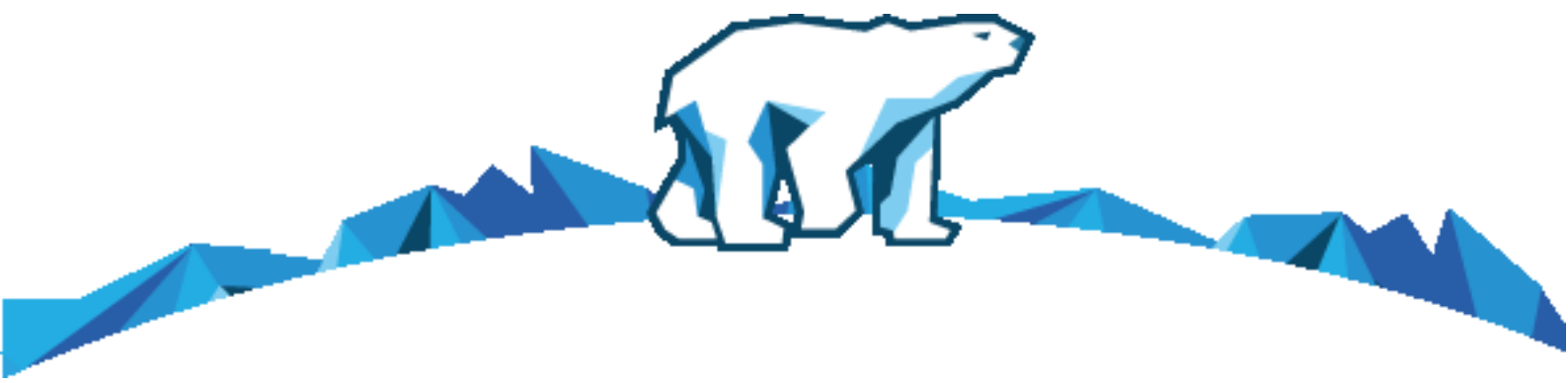
Polarpedia currently contains 486 individual terms in English (as of 15 July 2019). The full list of the terms, in alphabetical order, is the following:

A) 41 terms

| | |
|--|---|
| Abiotic environment | Antarctic |
| Ablation | Antarctic Treaty |
| Ablation stakes | Antarctica |
| Ablation zone | Anticorona |
| Academic writing | Apex predator |
| Accumulation | Archea |
| Acicular ice | Arctic wolf |
| Active layer | Arctic |
| Ada Lovelace | Arctic amplification |
| Alaska pollock | Arctic charr |
| Alass | Arctic Council |
| Albedo | Arctic fox |
| Alveolus | Arctic haze |
| AMAP | Arctic skua |
| Amphibious vehicle | Arctic station |
| AMUPS - Adam Mickiewicz University Polar Station | Arctic tern |
| Anadromous fish | Arctic tree line |
| Arctic tundra | Aurora (Northern/Southern Lights, Polar lights) |
| Asthenosphere | Auroral oval |
| Astronomical polar night | Autumn colouring |
| Astronomical twilight | |

B) 36 terms

| | |
|-----------------------|--------------------|
| Baleen | Biomass energy |
| Banded iron formation | Biome |
| Barentsburg | Biomining |
| Barnacle goose | Biotic environment |



| | |
|--|-------------------------------------|
| Barrow Arctic Research Center and Barrow Environmental Observatory (currently Utqiagvik) | Birds' guano is cooling the Arctic |
| Batagaika crater | Black carbon |
| Bearded seal | Black hole |
| Belgian Antarctic Expedition | Black skin of a polar bear |
| Beluga whale | Blubber |
| Benthic algae | Blue whale |
| Benthic fish and animals | Boreal forest(taiga) |
| Bern Convention | Bottlenosed whale |
| Bioaccumulation | Braided stream |
| Biodilution | Brinicle |
| Biodiversity | Brown bear |
| Bioleaching | Bruce Gordon and his pet polar bear |
| Biological clocks | Buryats |
| Biomagnification | Buryats cuisine |

C) 37 terms

| | |
|---------------------------------------|---|
| Calving | Conquest of the South Pole – Amundsen-Scott 1911-1913 |
| Calypso Station | Continental shelf |
| Capelin | Continuity |
| Carrington event | Convergent Plate Boundary |
| Carbon capture and storage | Coriolis effect |
| Catadromous fish | Corona |
| CATCHMENT | Coronal holes |
| CEN Ward Hunt Island Research Station | Coronal mass ejections |
| Chukchi | Corridor |
| Circadian rhythm | Cross-cutting relationships |
| Cirque | Crustaceans |
| Citizen science | Cryoconite |
| Civil polar night | Cryolite |
| Civil twilight | Cryopeg |
| Climate | Cryosphere |
| Climate lag | Cryoturbation |
| Cod | Cryptobiosis |



| | |
|------------------|---------------|
| Common eider | Cryptochromes |
| Confusion effect | |

D) 21 terms

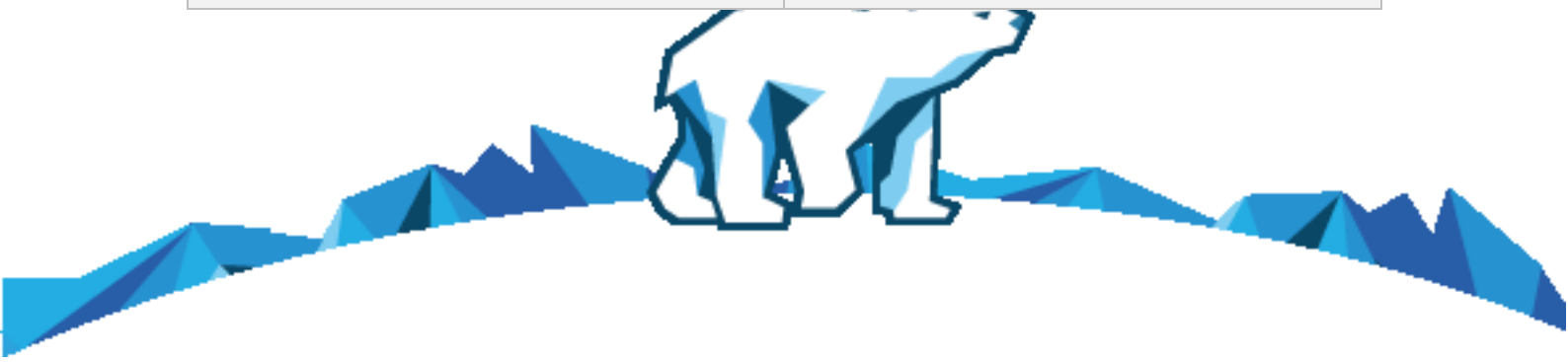
| | |
|--------------------------------------|----------------------------------|
| Declining Ocean Basin | Discovery of Greenland |
| Decomposer | Dispersal |
| Delayed implantation | Diurnal vertical migration |
| Depth Of Zero Annual Amplitude (ZAA) | Divergent Plate Boundary |
| Diagenesis | DNA |
| Diamictite | Dolphins |
| Diapause | Dorset culture |
| Diatomaceous earth | Downscaling |
| Diatoms | Drake equation |
| Dike | Dying is illegal in Longyearbyen |
| DISCHARGE | |

E) 12 terms

| | |
|---------------------------------|-----------------------------|
| Earth's outer core | Ernest Shackleton 1874-1922 |
| Eccentricity | Erosion |
| EGRIP Field Station | Esker |
| Embryonic Ocean Basin | Evenks |
| Emission scenarios | Event horizon |
| Equilibrium line altitude (ELA) | Evolution |

F) 22 terms

| | |
|--|--|
| Faroe islands | Fractals |
| Fast Radio Bursts | Freezing index |
| Fermi paradox | Freezing point depression |
| Fibonacci sequence | Fridtjof Nansen |
| Firn | FRIDTJOF NANSEN Arctic FRAM's expedition |
| Fjord | Frost Cracking |
| Flashline Mars Research Arctic Station | Frost flowers |
| Floating method | Frost quake |



| | |
|------------|------------------|
| Food chain | Frost smoke |
| Food web | Fulmar |
| Fossil | Fungi - Mushroom |

G) 37 terms

| | |
|----------------------------------|--|
| Gakti | Glaciospeleologist |
| General Circulation Models | Glaucous gull |
| Genetic composition | Global Seed Vault |
| Geoengineering | Governor of Svalbard |
| Geological Timescale | Grasshopper effect |
| Geologist and geomorphologist | Greenhouse effect |
| Geomagnetic storm | Greenhouse gas |
| Geostationary orbit | Greenland |
| Geothermal energy | Greenland Institute of Natural Resources |
| Geyser | Greenland shark |
| Glacial abrasion | Greenlandic language |
| Glacial earthquakes | Grounding line |
| Glacial karst | Growler |
| Glacial striations and scratches | Grumantbyen |
| Glaciation | Gulf-stream |
| Glacier | Gumpi |
| Glacier mass balance | Gyre |
| Glacier mill | Gyr Falcon |
| Glaciologist | |

H) 19 terms

| | |
|-----------------|--------------------------|
| Habitat | Higher plants |
| Haddock | Hindcasting |
| Hadley cell | Home range |
| Halibut | Horizontal gene transfer |
| Hanging valley | Horizontality |
| Harbor porpoise | Humpback whale |
| Hatching | Hydrology |
| Herring | Hydropower |
| Hiatus | Hydrosphere |



| | |
|-------------|--|
| Hibernation | |
|-------------|--|

I) 23 terms

| | |
|---------------------|--------------------------|
| Ice | Igloo |
| Ice age | Iglooik research station |
| Ice blink | Indicator species |
| Ice core | Indigenous people |
| Ice marginal valley | Interglacial age |
| Ice sheet | Inuit throat singing |
| Ice shelf | Inuit languages |
| Ice storm | Invasive species |
| Iceberg | Invertebrate |
| Icefall | Ionosphere |
| Iceland | Isohypse |

J) 4 terms

| | |
|---------------|----------------------|
| Jet stream | Jokulhlaup |
| John Franklin | Juvenile Ocean Basin |

K) 13 terms

| | |
|--|---------------------|
| KAFFYØYRA – Polar Station of Nicolaus Copernicus University in Toruń | Killer whale |
| Kams | Kinetic energy |
| Kardashev scale | King crab |
| Karst phenomena | Kiviak |
| Karst spring | Krill |
| Kautokeino revolt | Kunik |
| Keystone species | |

L) 18 terms

| | |
|---------------|-----------------------|
| Laestadianism | Light pillars |
| Langhus | Lion's mane jellyfish |
| Lapp | Lithosphere |



| | |
|----------------------------------|--|
| Lavvu | Little auk |
| Layers of Earth | Little auk - behaviour and natural habitat range |
| Lazarus taxon | Little auk: description, reproduction and individual development |
| Lichens | Little Ice Age |
| LiDAR | Living fossil |
| Life cycle of freshwater mussels | Longyearbyen |

M) 22 terms

| | |
|----------------------|-------------------|
| Mackerel | Microplastic |
| Magnetosphere | Midnight sun |
| Mass extinction | Migratory birds |
| Mattak | Milanković cycles |
| Mature Ocean Basin | MIMOSA |
| Medial moraine | Minke whale |
| Medieval Warm Period | Molecular clock |
| Membrane bioreactor | Moraine |
| Metamorphic rocks | Mpemba effect |
| Meteorologist | Muskox |
| Methanogens | Mycorrhiza |

N) 17 terms

| | |
|----------------------------------|----------------------------|
| Naledies | Non-renewable energy |
| Narwhal | North Atlantic Oscillation |
| Natural selection and adaptation | North-East Science Station |
| Nautical polar night | Northwest passage |
| Nautical twilight | Novaya Zemlya effect |
| Nenets | Nunatak |
| NIBIO | Nutrients |
| Nilas | Ny-Alesund |
| Non-invasive sampling | |



O) 10 terms

| | |
|---------------------|--------------------|
| Obliquity | Orbital forcing |
| Ocean acidification | Organic compound |
| Ocean current | Ornithogenic soils |
| Okta scale | Orogeny |
| Operation Popeye | Orographic clouds |

P) 37 terms

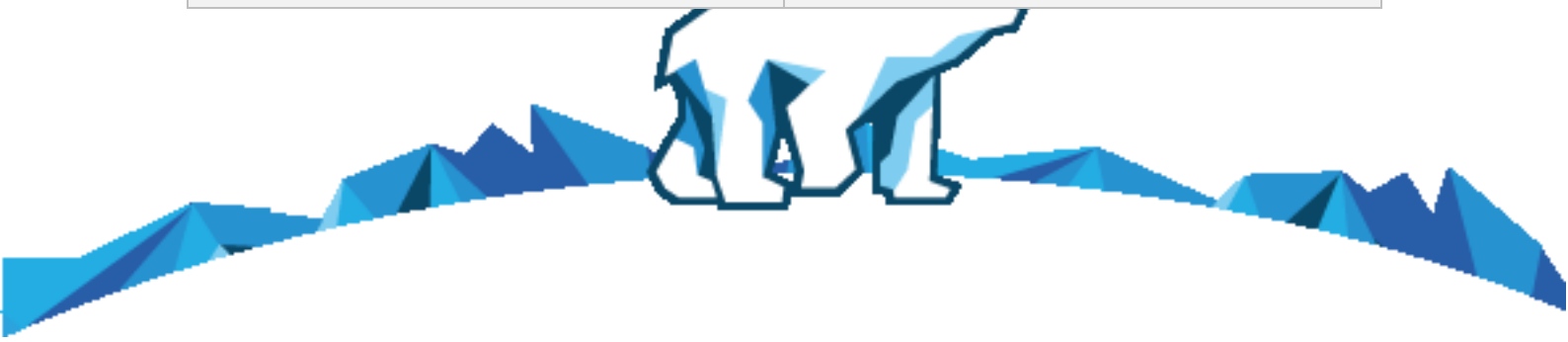
| | |
|--------------------------------|----------------------------|
| Pack ice | Polar air |
| Palsa | Polar bear |
| Parasitism | Polar explorer |
| PCR | Polar lows |
| Pearls from freshwater mussels | Polar night |
| Pelagic fish | Polar orbit |
| Permafrost | Polar stratospheric clouds |
| Permafrost Carbon Cycle | Polar syndromes |
| Perpetual frost climate | Polar vortex |
| Phenology | Polar willow |
| Philopatry | Polaris |
| Photoperiod | Potential energy |
| Photosynthesis | Precession |
| Physiological adaptations | Precipitation |
| Phytoplankton | Primary producer |
| Pile driving rig | Protolith |
| Pingo | Psychrophiles |
| Plankton bloom | Puffin |
| Plate tectonics | |

Q) 2 terms

| | |
|-------|----------|
| Qajaq | Quinzhee |
|-------|----------|

R) 12 terms

| | |
|--------------------|----------------------|
| Radiocarbon dating | Reverse osmosis |
| Redfish/rockfish | RNA World hypothesis |



| | |
|----------------------------------|-----------------|
| Reindeer | Roche moutonnée |
| Relative age | Rock glacier |
| Renewable energy | Rock ptarmigan |
| Research Station Samoylov Island | Runes |

S) 53 terms

| | |
|----------------------------|------------------------------|
| Saithe | Space weather |
| Salmon | Spawning |
| Sandur | Species translocation |
| Satellite | Sponges |
| Scavenger | Steam drilling |
| Sea floor spreading | Stratigraphy |
| Sea ice | Stratosphere |
| Sea Ice Extent (SIE) index | Stromatolites |
| Sea ice minimum | Suaasat |
| Seals | Subarctic |
| Sediments | Subsea permafrost |
| Seed bank | Sudden Stratospheric Warming |
| Sermilik Research Station | Summit Station |
| Sharks and skates | Sun dog |
| Shrimp | Supercontinent |
| Siberia | Superior mirage |
| Siberian people | Superposition |
| Sill | Supraglacial debris |
| Sled dogs | Surge |
| Smoltification | Sustainable energy |
| Snow blindness | Suturing |
| snow bunting | Svalbard |
| Snow cornice | Svalbard poppy |
| Snowy owl | Svalbard rock ptarmigan |
| Solar energy | Svalbard Treaty |
| Solar wind | Symbiosis |
| Space analogue | |



T) 24 terms

| | |
|--|--------------------------|
| Talik | Thermohaline circulation |
| Talus cones | Thermokarst |
| Tardigrades | Thermosphere |
| Temperature inversion | Toolik Field Station |
| Temperature profile (atmosphere) | Transform Plate Boundary |
| Terminal Ocean Basin | Tributary glacier |
| The Chokurdakh Scientific Tundra Station | Tropopause |
| The Ferrel cell | Troposphere |
| The origins of LIFE on Earth | Tsunami |
| The Polar Code | Tsunami Warning Systems |
| The Stanisław Siedlecki Polish Polar Station in Hornsund | Tundra climate |
| The Willem Barents Biological Station | Twilight |

U) 3 terms

| | |
|------------------|-----------------|
| Umbrella species | U-shaped valley |
| Umiaq | |

V) 2 terms

| | |
|-------------------------|-------------------|
| Villum Research Station | Volumetric method |
|-------------------------|-------------------|

W) 15 terms

| | |
|----------------------------------|-----------------------------|
| Walrus | Wildlife monitoring |
| Water sky | Wildlife problem individual |
| Watermelon snow | Wilson cycle |
| Weather | Wind power |
| Wildlife conflict and mitigation | Winter darkness |
| Wildlife forensic | Wolverine |
| Wildlife habituation | Worms |
| Wildlife management | |



Y) 3 terms

| | |
|--------|------|
| Yakuts | Yoik |
| Yedoma | |

Z) 3 terms

| | |
|---------------------|-------------|
| Zackenberg Station | Zooplankton |
| Zero curtain effect | |


Educational resources - Games and quizzes





An additional part of Polarpedia, Games & Quizzes, contains educational support resources for teachers and students in the form of online games, quizzes, worksheets, experiments or teamwork proposals and miscellanea.


The Games and Quizzes are available in five languages a part from English: Polish, Norwegian, Italian, Russian and Albanian.

| Languages | Online Games | Quizzes | Worksheet | Experiments | Teamwork | Miscellanea |
|-----------|--------------|---------|-----------|-------------|----------|-------------|
| English | 47 | 24 | 24 | 7 | 5 | 14 |
| Polish | 7 | 5 | 6 | 1 | 1 | 2 |
| Norwegian | 1 | | 4 | | | |
| Italian | | 1 | | | | |
| Russian | | 1 | | | | |
| Albanian | | | 3 | | 1 | |












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Games & Quizzes


ALL










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Wheel of Fortune

Spin the wheel and check your knowledge. All the answers are POLARPEDIA terms. Can you guess all 8 of them? Each time you spin the wheel, you indicate a CONSONANT (h, r etc.) You gain points and that allows you to buy a VOWEL (a,e,u etc.). Check the clues and find the answer!

Categories: Games & Quizzes, Online games

PLAY







POLAR SUDOKU

The objective is to fill a 4x4 grid with images of Arctic animals: ARCTIC TERRESTRIAL, HARBOR SEAL, PUFFIN and MUSK OX in such a way that each column, each row, and each of the 2x2 grids that make up the larger 4x4 grid contains all of the images, and every image appears only once. This game can [...]

Categories: Quizzes
Tags: biology

DOWNLOAD







Biological clocks

This worksheet accompanies the webinar "Biological clocks in the Arctic". Related Polarpedia terms: biological clocks, circadian rhythm, hibernation, midnight sun, phenology, polar night, polar syndrome, winter darkness

Categories: Worksheets

DOWNLOAD





MUSHROOMS IN NATURE – OUR HELPERS

Did you know there are mushrooms even in the Arctic? Use this worksheet to learn about the role of mushrooms in nature. It is possibly larger and more diverse than you are aware of. Relevant Polarpedia terms: fungi, decomposer, mycorrhiza, lichen, symbiosis

Categories: Worksheets

DOWNLOAD

<https://polarpedia.eu/en/category/games-quizzes/>



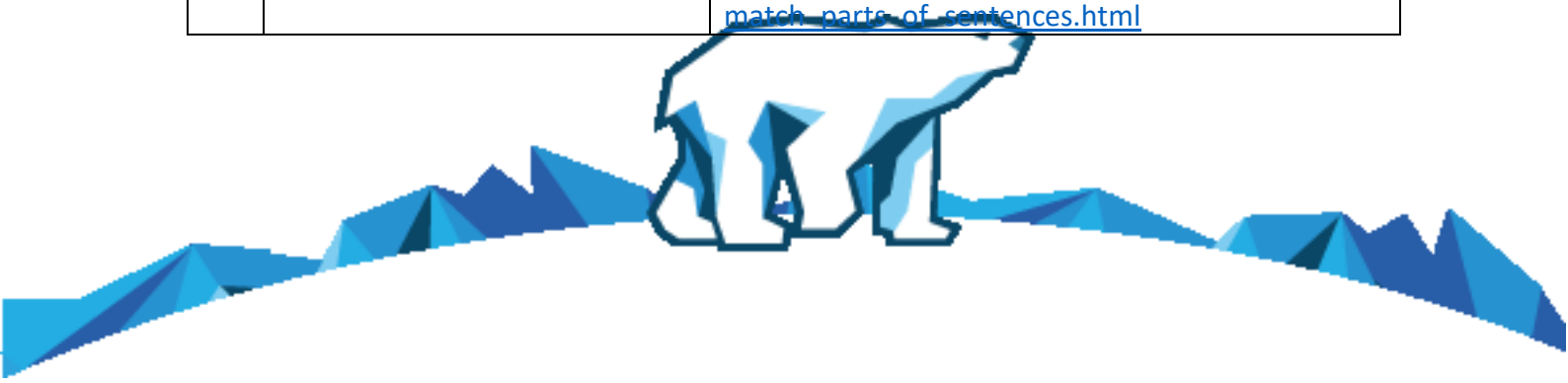
Following is a full list of educational resources to support educators and students in English currently available in the Polarpedia.

Online Games

| No. | List of Online Games in English | Links |
|-----|---|---|
| 1 | Wheel of Fortune | https://www.wisc-online.com/users/eduarctic/games/36282/wheel-of-fortune |
| 2 | Nerdy Crossword | https://www.wisc-online.com/users/eduarctic/games/26794/nerdy-crossword |
| 3 | Memo – Flags of Arctic countries | https://www.educaplay.com/learning-resources/3826707-flags_of_arctic_countries.html |
| 4 | National emblems | https://www.educaplay.com/learning-resources/3826765-national_emblems.html |
| 5 | Memo – Spitsbergen | https://www.educaplay.com/learning-resources/3826778-obrazy_ze_spitsbergenu_d.html |
| 6 | National flags and emblems | https://www.educaplay.com/learning-resources/3828464-national_flags_and_emblems.html |
| 7 | Buzz-in | https://www.wisc-online.com/users/eduarctic/games/26504/buzz-in |
| 8 | Icy Bingo | https://www.wisc-online.com/users/eduarctic/games/26494/icy-bingo |
| 9 | Bee-an explorer | https://www.wisc-online.com/users/eduarctic/games/26422/bee-an-explorer |
| 10 | Arctic TimeOut | https://www.wisc-online.com/users/eduarctic/games/26421/arctic-time-out |
| 11 | Polar TIC-TAC-TOE | https://www.wisc-online.com/users/eduarctic/games/26401/polar-tic-tac-toe |
| 12 | Arcade Snake – ARCTIC RACE | https://www.wisc-online.com/users/eduarctic/games/26399/arctic-race |
| 13 | Who wants to be a polar researcher? | http://www.superteachertools.us/millionaire/millionaire.php?gamefile=57583 |
| 14 | Arctic mammals: living on the edge – Kahoot! Quiz | https://play.kahoot.it/#/lobby?quizId=dce64676-45b3-492e-88ed-2c97dfd4c2ff |



| | | |
|----|--|---|
| 15 | Spot the connection! | https://www.classtools.net/connect/201805_QHH_UJ6 |
| 16 | Online jigsaw – Faroe Islands | https://puzzlefactory.pl/pl/puzzle/graj/krajobrazy/176201-faroe-islands |
| 17 | Online jigsaw – PUFFIN | https://puzzlefactory.pl/pl/puzzle/graj/zwierzeta/176161-puffin-fratercula-arctica |
| 18 | Wordsearch puzzle: find 5 Polarpedia terms | https://www.educaplay.com/learning-resources/3441671-find_polarpedia_terms.html |
| 19 | Match definitions and terms | https://www.educaplay.com/learning-resources/3441673-match_terms_and_definitions.html |
| 20 | Arctic fauna: match definitions and images | https://www.educaplay.com/learning-resources/3440299-what_does_the_image_show.html |
| 21 | Arctic fauna – hangman puzzle | https://www.proprofs.com/games/word-games/hangman/how-well-do-you-know-arctic-animals/ |
| 22 | Arctic animals – brain teaser | https://www.proprofs.com/games/brain-teasers/arctic-animals-and-plants/ |
| 23 | Wordsearch puzzle: find 5 Polarpedia terms | https://www.educaplay.com/learning-resources/3439432-find_polarpedia_terms.html |
| 24 | Polar JEOPARDY game | http://www.superteachertools.us/jeopardyx/jeopardy-review-game.php?gamefile=2426115#.XQD7xIj7S9J |
| 25 | Polar bear ve. Penguin – Kahoot! | https://create.kahoot.it/share/f1654ba3-8b7b-4234-897c-a5e6fa4e096a |
| 26 | Icy crossword | https://www.educaplay.com/learning-resources/3441879-icy_crossword.html |
| 27 | Jumbled word – “Animals & Plants” | https://www.educaplay.com/learning-resources/3442855-put_letters_in_correct_order.html |
| 28 | Jumbled word – “People and society” | https://www.educaplay.com/learning-resources/3442850-put_letters_in_correct_order.html |
| 29 | Jumbled word – “Ice & Snow” | https://www.educaplay.com/learning-resources/3442844-put_letters_in_correct_order.html |
| 30 | Jumbled sentence – subsea permafrost | https://www.educaplay.com/learning-resources/3442841-put_the_words_in_correct_order.html |
| 31 | Matching columns | https://www.educaplay.com/learning-resources/3441573-match_parts_of_sentences.html |



| | | |
|----|---|---|
| 32 | Matching game – build the mosaic | https://www.educaplay.com/learning-resources/3442798-match-photo-with-name-term.html |
| 33 | Arctic riddle: what is it? | https://www.educaplay.com/learning-resources/3442006-it-s-in-the-north-and-growing-fast.html |
| 34 | Fill in the gaps – FIBONACCI SEQUENCE | https://www.educaplay.com/learning-resources/3441985-polarpedia-term-missing-words.html |
| 35 | Fill in the gaps – SEA ICE EXTENT INDEX | https://www.educaplay.com/learning-resources/3441572-complete-polarpedia-term.html |
| 36 | Fill in the gaps – Arctic amplification | https://www.educaplay.com/learning-resources/3440315-complete-polarpedia-term.html |
| 37 | Polarpedia alphabet game | https://www.educaplay.com/learning-resources/3441956-polarpedia-alphabet.html |
| 38 | Polar – STEM crossword | https://www.educaplay.com/learning-resources/3440283-polar-stem-crossword.html |

Quizzes

| No. | Quizzes in English | Links |
|-----|---|---|
| 1 | POLAR SUDOKU | https://polarpedia.eu/en/category/games-quizzes/quizzes/ - download sudoku |
| 2 | How can people live among the rocks? | https://play.kahoot.it/#/?quizId=8989042f-6196-4cf5-998b-6fdf722a61b8 |
| 3 | Types of research in the polar regions | https://quizlet.com/297744937/types-of-research-in-the-polar-regions-flash-cards/ |
| 4 | QUIZ – “Greenland – Kalaallit Nunaat in a nutshell” | https://play.kahoot.it/#/?quizId=ee992826-0efc-4492-84d2-892ed7e88237 |
| 5 | “How it’s made – satellite photos” – Kahoot quiz | https://play.kahoot.it/#/?quizId=c9a3e719-59b9-4d8b-91e9-0e17404039b8 |
| 6 | “Iceland – the land of air and water” Kahoot! Quiz | https://play.kahoot.it/#/?quizId=fb0b5d5d-bb24-4f54-b9b9-a78d35819410 |
| 7 | “Volcanoes and humans” KAHOOT quiz | https://play.kahoot.it/#/?quizId=5dff0447-e7b2-497a-9f30-1b61a41e25ff |
| 8 | Sixth mass extinction (and previous 5) | https://play.kahoot.it/#/?quizId=6b8aba1d-8afb-41bf-9d7e-dc14bd91200a |
| 9 | Arctic fauna quiz | https://www.educaplay.com/learning-resources/3441913-arctic-fauna-quiz.html |



| | | |
|----|--|---|
| 10 | Are you an “Arctic expert”? | https://www.educaplay.com/learning-resources/3440322-polarpedia_quiz.html |
| 11 | When living is toxic: bioaccumulation and biomagnification | https://play.kahoot.it/#/?quizId=66e883ec-0d87-4d0e-adbc-a2c8636ef59d |
| 12 | Jumble sentence – BRINICLE | https://www.educaplay.com/learning-resources/3441685-put the words in correct order.html |
| 13 | Climate change – myths vs science | https://play.kahoot.it/#/?quizId=40b4b6d0-bf21-4c34-8e4c-37f9c299890f |
| 14 | Ocean currents – the dance of water | https://play.kahoot.it/#/?quizId=fe7bac75-4fb4-48c3-948c-5937d14d803d |
| 15 | Tadigrades – the ultimate survivors | https://play.kahoot.it/#/?quizId=50c29a8b-f59c-4f9e-901a-d82f127fad84 |
| 16 | Weirdest Arctic Fun Facts | https://play.kahoot.it/#/?quizId=8d3faff8-38ef-479b-8bfa-24c2265a49e7 |
| 17 | Adapt or die: how do organisms react to climate change? | https://play.kahoot.it/#/?quizId=0bb0740e-c08e-4f2c-b77d-e25fe7303c44 |

Worksheets

| No | Worksheets in English | Links |
|----|---|--|
| 1 | Biological clocks | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |
| 2 | MUSHORROMS IN NATURE – OUR HELPERS | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |
| 3 | How does Arctic charr cope with everything | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |
| 4 | “The Arctic – people’s land” – worksheet | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |
| 5 | “Iceland – the land of air and water” worksheet | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |
| 6 | “LiDAR: laser in humanity’s service” worksheet | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |
| 7 | Worksheet Great Migrations | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |
| 8 | Worksheet megafauna | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |



| | | |
|----|---|--|
| 9 | Worksheet – flying penguins | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |
| 10 | Worksheet – Polar bear vs. penguins | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |
| 11 | Worksheet – When living is toxic – environmental cycles | https://polarpedia.eu/en/category/games-quizzes/worksheets/ download |

Experiments

| No. | Experiments in English | Links |
|-----|--|--|
| 1 | Thawing permafrost | https://polarpedia.eu/en/category/games-quizzes/experiments/ download |
| 2 | Ocean acidification | https://polarpedia.eu/en/category/games-quizzes/experiments/ download |
| 3 | Global Conveyor Belt – How does it work? | https://polarpedia.eu/en/category/games-quizzes/experiments/ download |
| 4 | How are icebergs formed? | https://polarpedia.eu/en/category/games-quizzes/experiments/ download |
| 5 | Fake “BRINICLE” | https://polarpedia.eu/en/category/games-quizzes/experiments/ download |

Teamwork

| No | Teamwork in English | Links |
|----|--|---|
| 1 | Quest: Sving Global Seed Vault | https://polarpedia.eu/en/category/games-quizzes/teamwork/ download |
| 2 | Polar JEOPARDY game | http://www.superteachertools.us/jeopardyx/jeopardy-review-game.php?gamefile=2426115#.XQEcG4j7S9J |
| 3 | Glassroom game – story of birds’ migration | https://polarpedia.eu/en/category/games-quizzes/teamwork/ download |

Miscellanea

| No | Miscellanea in English | Links |
|----|---------------------------------------|--|
| 1 | Polar taboo | https://polarpedia.eu/en/category/games-quizzes/miscellanea/ download |
| 2 | MOBILE “Augmented reality” POLAR QUIZ | https://mtvrs.io/InfiniteGrowingHorsefly scan and play |



| | | |
|----|---------------------------------------|--|
| 3 | Answer and draw! | https://polarpedia.eu/en/category/games-quizzes/miscellanea/ download |
| 4 | MOBILE APP – Polar match | https://polarpedia.eu/en/category/games-quizzes/miscellanea/ download app |
| 5 | MOBILE APP – Polar scratcher | https://polarpedia.eu/en/category/games-quizzes/miscellanea/ download app |
| 6 | MOBILE APP – POLAR WORDSEARCH | https://polarpedia.eu/en/category/games-quizzes/miscellanea/ download app |
| 7 | Polar Cryptograms | https://polarpedia.eu/en/category/games-quizzes/miscellanea/ download |
| 8 | Polar MAZE | https://polarpedia.eu/en/category/games-quizzes/miscellanea/ download |
| 9 | Which Arctic animal am I? | https://polarpedia.eu/en/category/games-quizzes/miscellanea/ download |
| 10 | Boardgame – MASTER OF CITIZEN SCIENCE | https://polarpedia.eu/en/category/games-quizzes/miscellanea/ download |
| 11 | POLAR BINGO | https://polarpedia.eu/en/category/games-quizzes/miscellanea/page/2/ download |
| 12 | International Space Day – space rocks | https://www.youtube.com/watch?v=e23eWdssV7E |

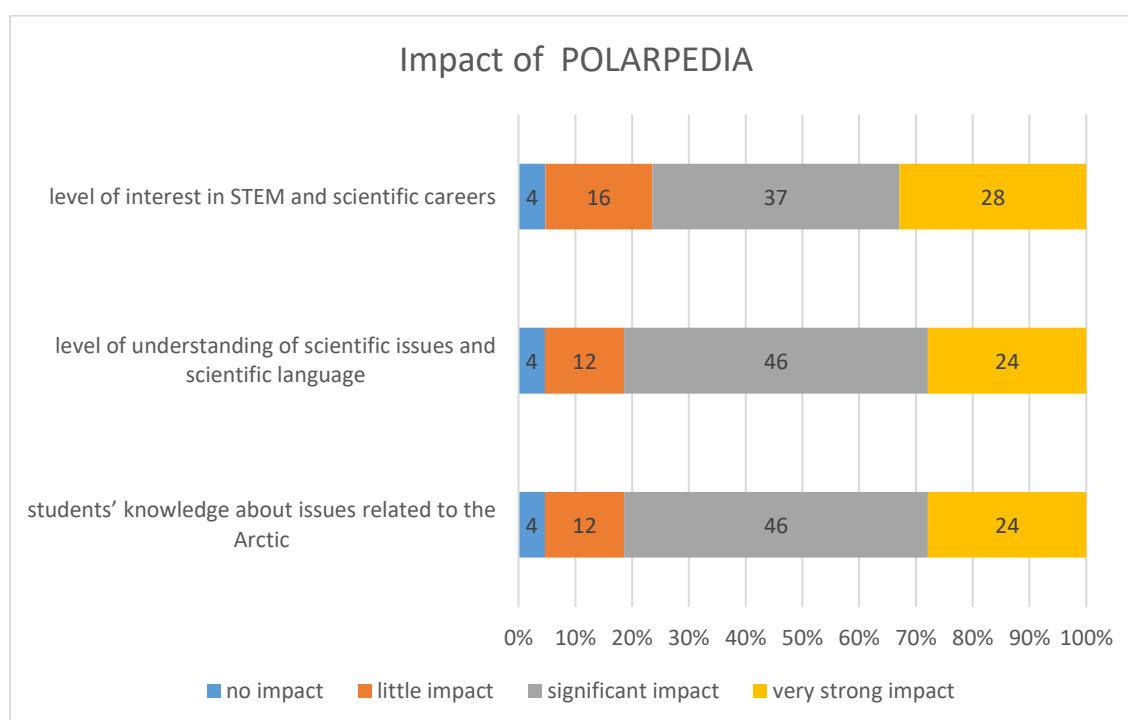


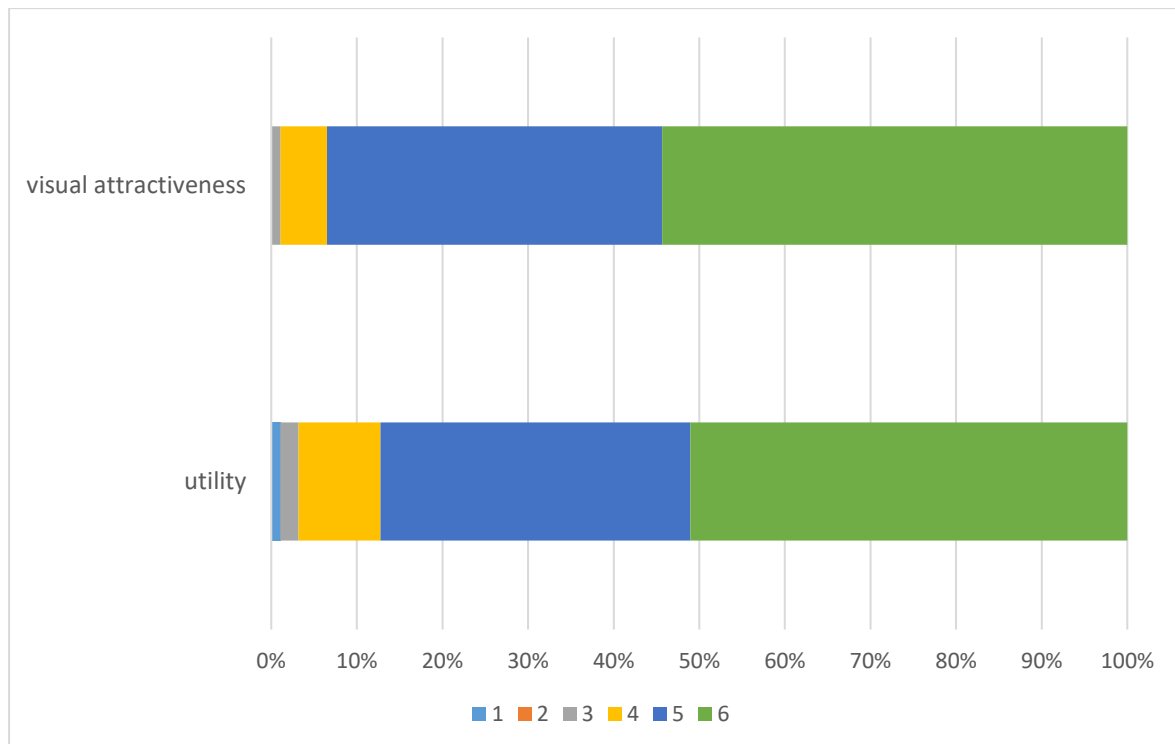
Audience, Analytics and Analysis

Impact of Polarpedia

As part of the project assessment on the impact of participation in the EDU-ARCTIC program, the project collected measures on students' interest in STEM and their knowledge. The technique used for collecting data is CAWI surveys. CAWI (Computer Assisted Web Interviews) research technique is an interview in which participants fill in an online questionnaire or survey received via the Internet. Currently the CAWI method is one of the most popular and fastest-growing research methods. The surveys consist of questions about changes in pupils' behaviour, openness and scientific courage due to participating in EDU-ARCTIC. During the period 7.01.2019.-20.02.2019., after two years of running the program, a survey was conducted assessing the general impact of the project and all particular activities implemented within. 80 full surveys and 19 partially completed surveys were obtained from participating teachers and educators from 19 countries. The survey was available to all teachers, who were active in the program for at least one full year. The survey was divided into 2 parts: (1) TECHNOLOGY including 3 questions about the various modules of the EDU-ARCTIC portal and (2) FACTUAL including 6 questions about the impact of the project on students (e.g. interest, understanding, knowledge).

Following are charts with aggregated survey information on the **Impact** on students, **Visual attractiveness** and **Utility**. Results are displayed as low on the left to very strong on right.





To assess the utility and attractiveness of Polarpedia, teachers were requested to give marks on a scale of 1 to 6, where 1 is the lowest and 6 the highest. The results are presented above.

The response from the teachers through the survey is very positive and promising for the sustainability of the Polarpedia as the majority finds that it makes a significant or very strong **Impact** on students, is highly **Visually** attractive and very good or exceptional in **Utility**.

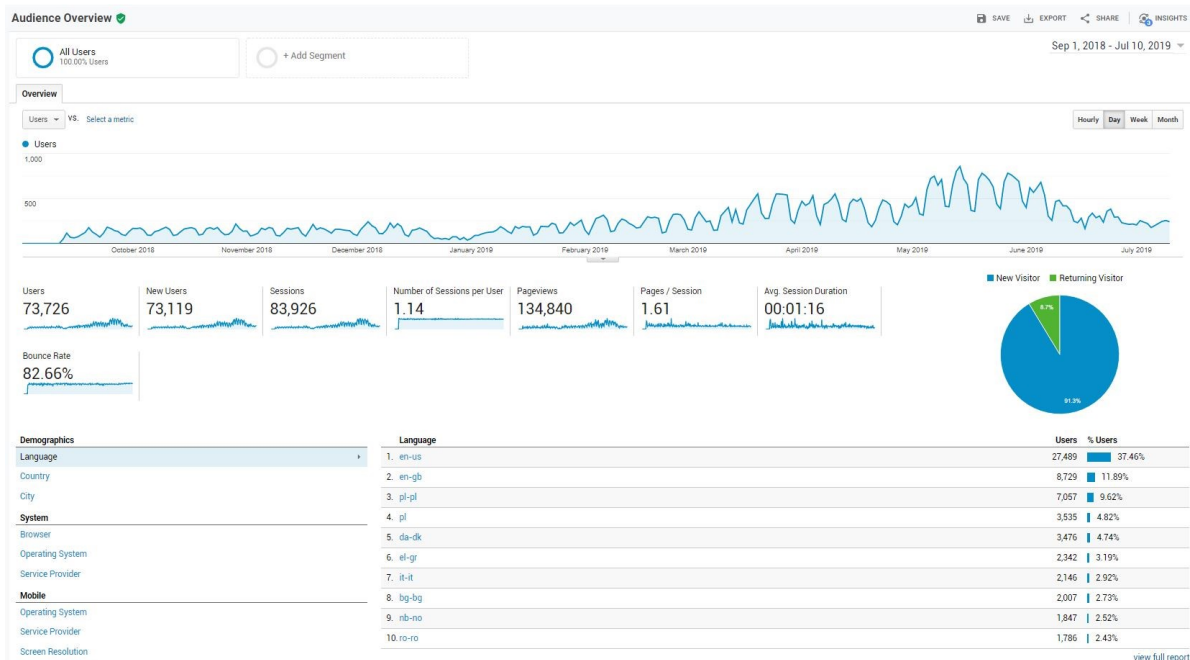
It should also be noted that the Polarpedia has increased and improved significantly in content and usability since the time of the survey, which should support the review of the teachers even more.

The increase in content has further resulted in a sharp increase in the number of users, as can be reviewed in the following chapter on analytics and their analysis.



Analytics and Analysis

The project has collected user statistics for the Polarpedia part of the project since October 2018, using Google Analytics. The start of collecting of statistics reflects the period from when the Polarpedia was considered complete enough to attract general audience.



The graph, showing the period from October 2018 until 10 July 2019 clearly indicates that the number of individual users is steadily increasing, reaching highest 866 individual users in late May ([see bigger photo in Appendix No 2 page 60](#)).

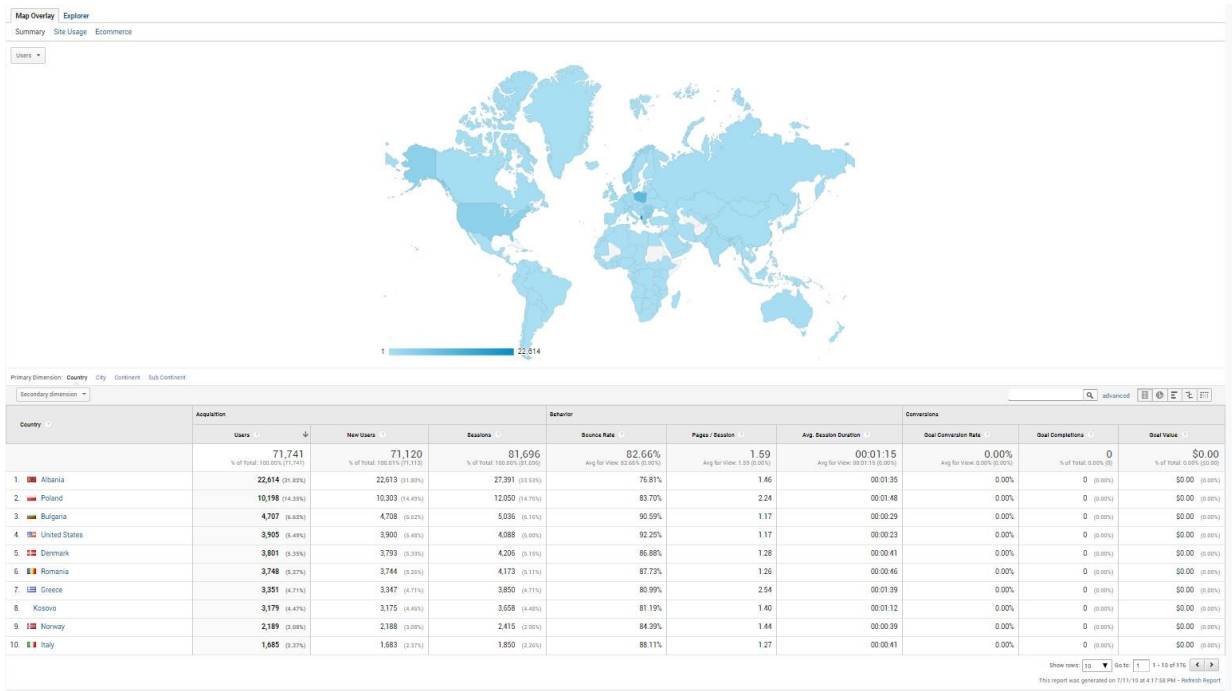
It also shows that the user's traffic drops significantly on Fridays and Saturdays, strongly indicating that the Polarpedia is used for educational purposes.

The drop by end of June reflects the end of the school year. Interestingly the use is still considerable, constantly around 300 individual users/ IP addresses in July.

The statistics further reflect that English is by far the most used language, around 50% of users, though other languages as Polish are growing, now at around 15%. This can be seen reflecting the accessibility of translated material which has been constantly increasing throughout.

As it has been identified that Page visits per visitor are rather low, links between individual terms are being improved. The change will support visitors in identifying the categories available within the Polarpedia, browse through terms as well as making it easy to explore other related terms, most viewed per category and more.



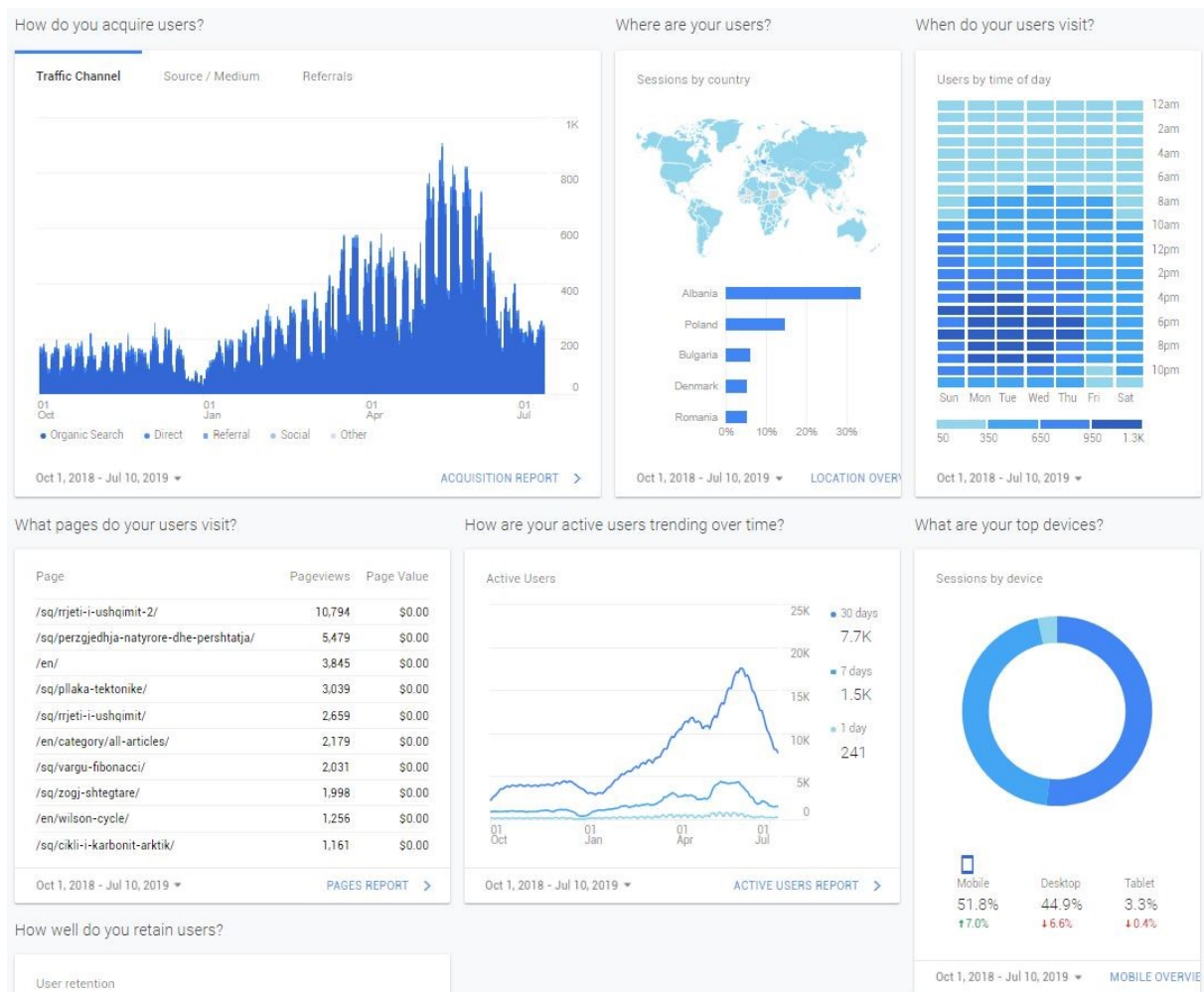


Visits to the Polarpedia are international as seen on the World map, with visits from almost all world countries ([see bigger in Appendix No 2 page 61](#)).

Highest individual countries clearly show the interest in STEM and the Arctic from Eastern Europe with Albania, Poland, Bulgaria, in top three.

Interestingly USA is number four, reflecting that most users visit the Polarpedia through online search. Denmark, Romania, Greece and Kosovo are very equal closely following the USA.

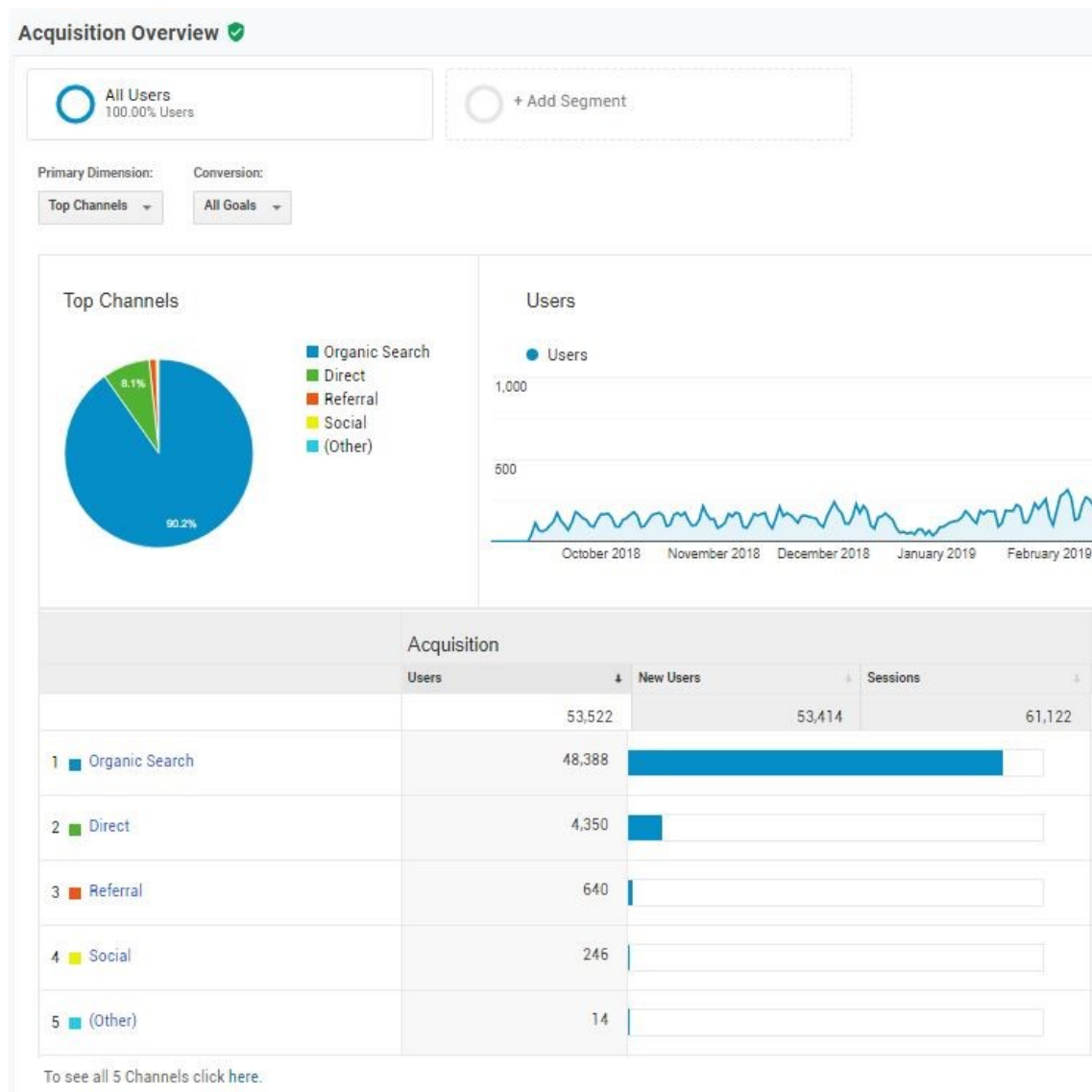




Another issue indicating the type of users and the link to education is the diagram showing how the majority of users access the Polarpedia in the morning in European time zone ([see bigger photo in Appendix No 2 page 62](#)).

It is highly important that the system is responsive and Mobile friendly as 51.8 % of all user's access the Polarpedia do so using their mobile device, versus 44.9 % using desktops.



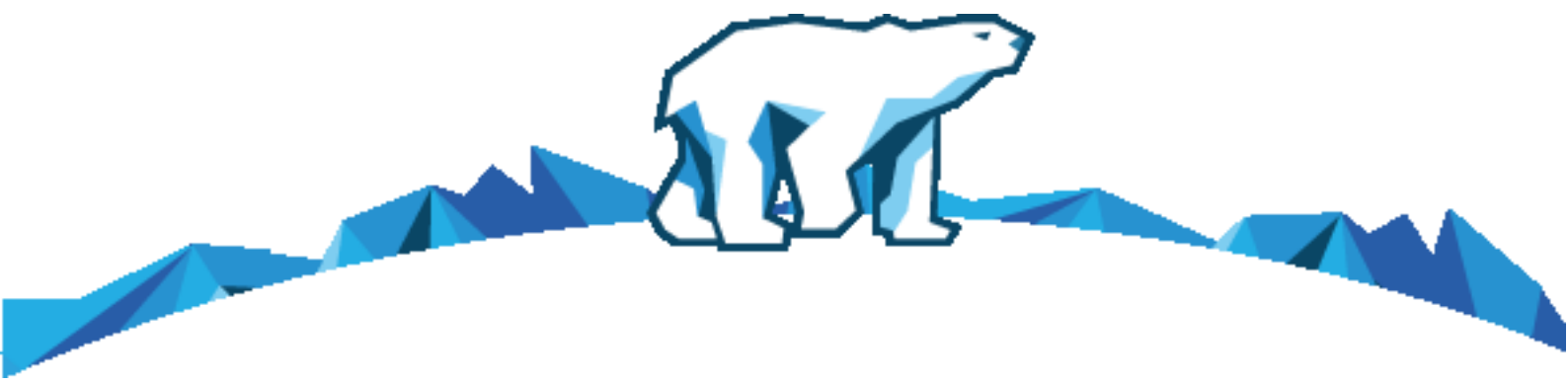


The graph shows how users find and access the website.

This clearly indicates that the majority of users find the Polarpedia and its content using organic search.

The above provided information on how the material is accessed as well as the average time spent and to limited number of page visits on the website per user indicates, for future reference, the need to carefully monitor the use and seek ways to optimize the search and the internal referral between terms and entries within the Polarpedia and other components of the project.

This should be noted in further EDU-ARCTIC activities or similar programs.



Based on the observation of this deliverable the following changes are being implemented into the Polarpedia: all categories are made visible and accessible when viewing a term by adding the logos; obvious links are made to the previous and next term in alphabetical order within a category; related terms to the term being viewed are highlighted. Additionally, a list of most viewed terms will be added on the main page of each category.

As it is not possible to add related terms to all the current terms in the system before the end of the project, related terms will be first added to the most viewed terms. The change will be applied before the project closure and thus give a good opportunity to analyse the impact on use of the Polarpedia.

Analytics will be continued to help monitor and analyse the user response to the recommended improvements and changes.



Technical parameters

Programming language and used technologies

The Polarpedia web application is built on:

- programming language PHP, version 7.1;
- web server Apache, version 2.4;
- database MySQL, version 5.7.

More technical information:

Server operating system:

- Ubuntu 16.04.6 LTS

Docker:

- Docker, version 17.05
- docker-compose, version 1.21

Web server:

- Apache 2.4

Database software:

- MySQL 5.7

Deployment:

Deployment is facilitated by Docker, who manages all the containers required by the production environment:

- polarpedia: app server for Polarpedia;
- polarpedia_spare: spare app server for restarts;
- polarpedia_db: database of Polarpedia;

Software

Polarpedia is based on content management system WordPress and uses custom theme build by American Systems. Polarpedia has 13 plugins installed.

WordPress is on GPLv2+ License.

Plugin list:

- Categories Images – Version 2.5.4
- Classic Editor – Version 1.4 | GPLv2 License
- Duplicate Post – Version 3.2.2 | GPLv2 License
- Google XML Sitemaps – Version 4.1.0 | GPLv2 License
- Polylang – Version 2.5.3 | GPLv2 License
- Polylang assets URLs fix – Version 1.1 | GPLv2 License
- Post Views Counter – Version 1.2.14 | MIT License
- Rank Math SEO – Version 1.0.23 | GPLv2 License



- Responsive Lightbox & Gallery – Version 2.1.0 | MIT License
- Table of Contents Plus – Version 1601 | GPLv2 License
- TinyMCE Templates – Version 4.8.1 | MIT License
- Wordfence Security – Version 7.2.5 | Wordfence Free License
- WP Mail SMTP – Version 1.4.2 | GPLv3 License

Installation guide

Required operating system: Linux.

Required software: Docker and docker-compose.

For proper installation, perform the following command in the terminal:

Cloning a project from the repository:

```
$ git clone --recursive git@git.american-systems.pl:eduarctic/eduarctic.git
```

Copying files from environment variables:

```
$ cp .env.example .env  
$ cp app/.env.example app/.env  
$ cp polarpedia/.env.example polarpedia/.env
```

Building according to defined files in Docker Compose:

```
$ docker-compose build
```

Start the server with applications:

```
$ docker-compose up polarpedia polarpedia_db
```

Backups

The system provides the ability to backup both applications, data applications and the entire operating system.

A copy of the same application can be easily created using the tar command:

```
tar -cvpzf /copy_dir_name/copy_name.tar.gz /application_dir_name/
```

A copy of the application data (databases) can be created using command:

```
/application_dir_name/bin/docker-compose exec polarpedia_db bash -c  
'MYSQL_PWD="$MYSQL_ROOT_PASSWORD" mysqldump -u wordpress wordpress' >  
copy_dir_name/polarpedia_dump.sql
```

The cron allows for automatic backup. To add a backup command to the list of commands executed every 24 hours, enter the command:

```
crontab -e
```

and add the line to open file:

```
0 3 * * * command
```

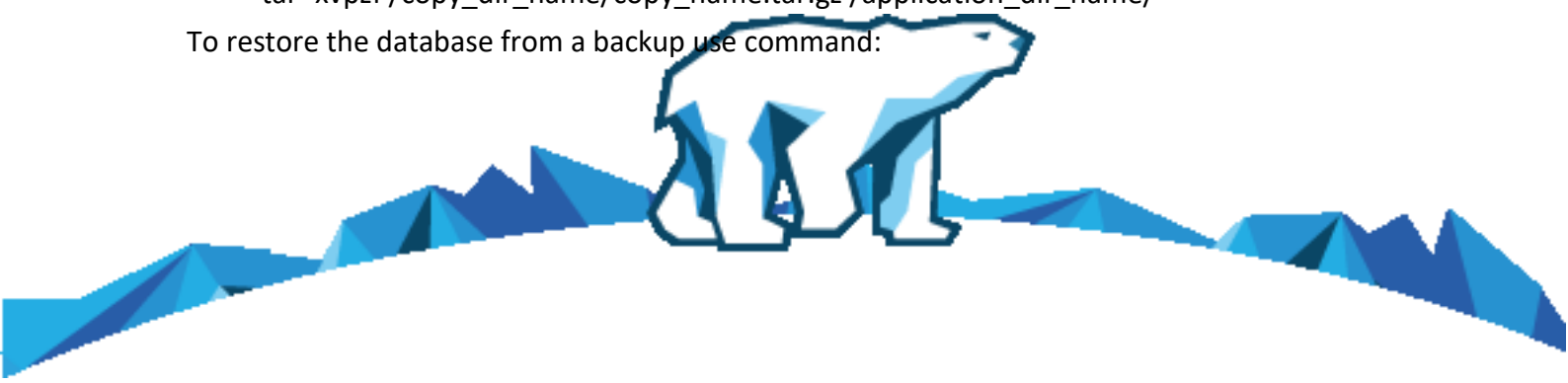
which will trigger the action of the same command at 3:00 every night.

Restore backup

A copy of the same application can be easily restored using the tar command:

```
tar -xvpzf /copy_dir_name/copy_name.tar.gz /application_dir_name/
```

To restore the database from a backup use command:



```
cat copy_dir_name/polarpedia_dump.sql | /application_dir_name/bin/docker-  
compose exec polarpedia_db bash -c 'MYSQL_PWD="$MYSQL_ROOT_PASSWORD" -u  
wordpress wordpress'
```

Database

MySQL is an object-relational database management system (ORDBMS).

Polarpedia database contains 48 tables:

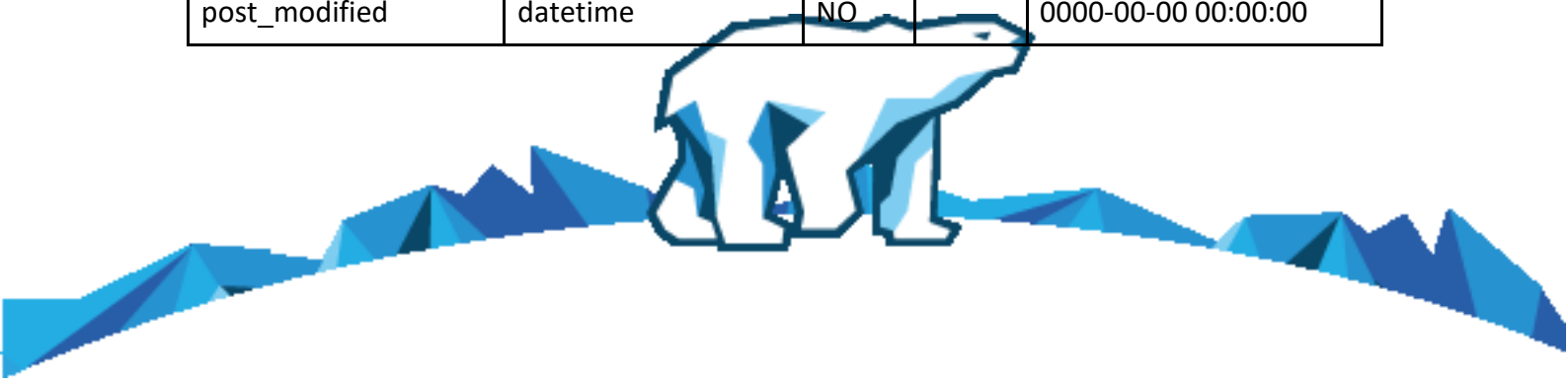
- wp_commentmeta
- wp_comments
- wp_links
- wp_options
- wp_post_views
- wp_postmeta
- wp_posts
- wp_rank_math_404_logs
- wp_rank_math_internal_links
- wp_rank_math_internal_meta
- wp_rank_math_redirections
- wp_rank_math_redirections_cache
- wp_rank_math_sc_analytics
- wp_term_relationships
- wp_term_taxonomy
- wp_termmeta
- wp_terms
- wp_usermeta
- wp_users
- wp_wfBadLeechers
- wp_wfBlockedCommentLog
- wp_wfBlockedIPLog
- wp_wfBlocks
- wp_wfBlocks7
- wp_wfBlocksAdv
- wp_wfConfig
- wp_wfCrawlers
- wp_wfFileChanges
- wp_wfFileMods
- wp_wfHits
- wp_wfHoover
- wp_wfIssues
- wp_wfKnownFileList
- wp_wfLeechers
- wp_wfLiveTrafficHuman
- wp_wfLockedOut



- wp_wfLocs
- wp_wfLogins
- wp_wfNet404s
- wp_wfNotifications
- wp_wfPendingIssues
- wp_wfReverseCache
- wp_wfSNIPCache
- wp_wfScanners
- wp_wfStatus
- wp_wfThrottleLog
- wp_wfTrafficRates
- wp_wfVulnScanners

Table `wp_post` contains 23 fields (stores all created articles in the Polarpedia):

| Field | Type | Null | Key | Default |
|----------------|---------------------|------|-----|---------------------|
| ID | bigint(20) unsigned | NO | PRI | NULL |
| post_author | bigint(20) unsigned | NO | MUL | 0 |
| post_date | datetime | NO | | 0000-00-00 00:00:00 |
| post_date_gmt | datetime | NO | | 0000-00-00 00:00:00 |
| post_content | longtext | NO | | NULL |
| post_title | text | NO | | NULL |
| post_excerpt | text | NO | | NULL |
| post_status | varchar(20) | NO | | publish |
| comment_status | varchar(20) | NO | | open |
| ping_status | varchar(20) | NO | | open |
| post_password | varchar(255) | NO | | |
| post_name | varchar(200) | NO | MUL | |
| to_ping | text | NO | | NULL |
| pinged | text | NO | | NULL |
| post_modified | datetime | NO | | 0000-00-00 00:00:00 |



| | | | | |
|-----------------------|---------------------|----|-----|---------------------|
| post_modified_gmt | datetime | NO | | 0000-00-00 00:00:00 |
| post_content_filtered | longtext | NO | | NULL |
| post_parent | bigint(20) unsigned | NO | MUL | 0 |
| guid | varchar(255) | NO | | |
| menu_order | int(11) | NO | | 0 |
| post_type | varchar(20) | NO | MUL | post |
| post_mime_type | varchar(100) | NO | | |
| comment_count | bigint(20) | NO | | 0 |

Table `wp_users` contains 10 fields (stores users of the Polarpedia):

| Field | Type | Null | Key | Default |
|---------------------|---------------------|------|-----|---------------------|
| ID | bigint(20) unsigned | NO | PRI | NULL |
| user_login | varchar(60) | NO | MUL | |
| user_pass | varchar(255) | NO | | |
| user_nicename | varchar(50) | NO | MUL | |
| user_email | varchar(100) | NO | MUL | |
| user_url | varchar(100) | NO | | |
| user_registered | datetime | NO | | 0000-00-00 00:00:00 |
| user_activation_key | varchar(255) | NO | | |
| user_status | int(11) | NO | | 0 |
| display_name | varchar(250) | NO | | |



Back-end functions and roles

- Administrator (slug: 'administrator') – somebody who has access to all the administration features within a single site.
- Editor (slug: 'editor') – somebody who can publish and manage posts including the posts of other users.
- Author (slug: 'author') – somebody who can publish and manage their own posts.
- Contributor (slug: 'contributor') – somebody who can write and manage their own posts but cannot publish them.
- Subscriber (slug: 'subscriber') – somebody who can only manage their profile.



Appendix No 1 – Polarpedia User Manual



Summary

Polarpedia is a large, complex and continuously growing platform as a component in the EDU-ARCTIC educational project.

Polarpedia uses the Wordpress (Content Management System) as engine which provides many development options.

This manual is not a complete overview but explains the most important parts as related to the page creation and page management.

Polarpedia can be accessed on the Edu-Arctic.eu main website or directly via polarpedia.eu



General Information

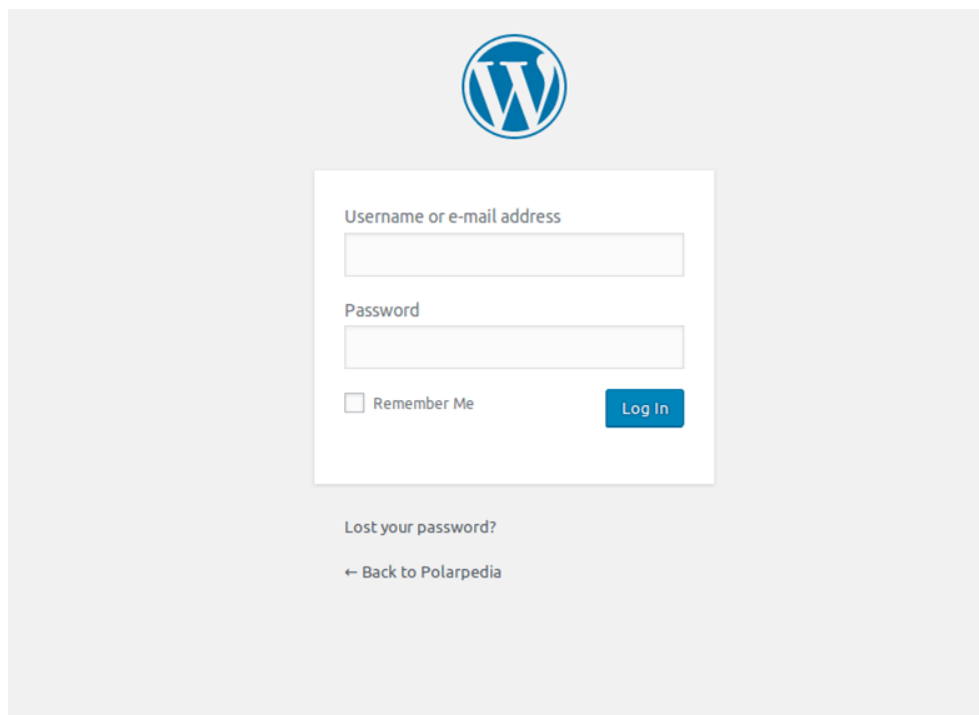
This document provides guidance on how to work with the Polarpedia CMS, especially how to create and manage new terms (new expression).

The document fulfills several basic goals:

- Guidance
- Tips
- Warnings
- Shortcuts “Polarpedia” – a web open encyclopedia on polar research will be prepared and shared with schools and students via the project’s portal. Polarpedia will be found at: <https://polarpedia.eu/>

Logging in

In order to login please follow the below steps: Go to: <https://polarpedia.eu/wp-login.php>
You will then be prompted to enter your user name/e-mail and password.

A screenshot of the WordPress login page for Polarpedia. At the top center is the WordPress logo (a blue 'W' inside a circle). Below it is a white login box with a light gray border. Inside the box, there are two input fields: the first is labeled 'Username or e-mail address' and the second is labeled 'Password'. Below the password field is a checkbox labeled 'Remember Me'. To the right of the checkbox is a blue button with white text that says 'Log In'. Below the login box, there is a link that says 'Lost your password?' and a link with a left-pointing arrow that says '← Back to Polarpedia'.

If you click the box "Remember Me", you will not have to give your password again, when you access Polarpedia from the same computer.



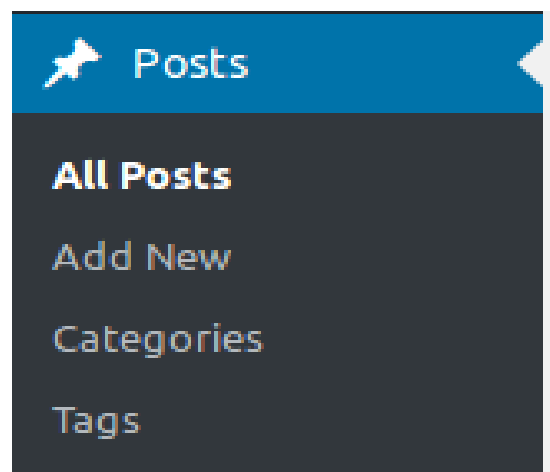
Creation of a new term

To create new expression, go to "Posts":

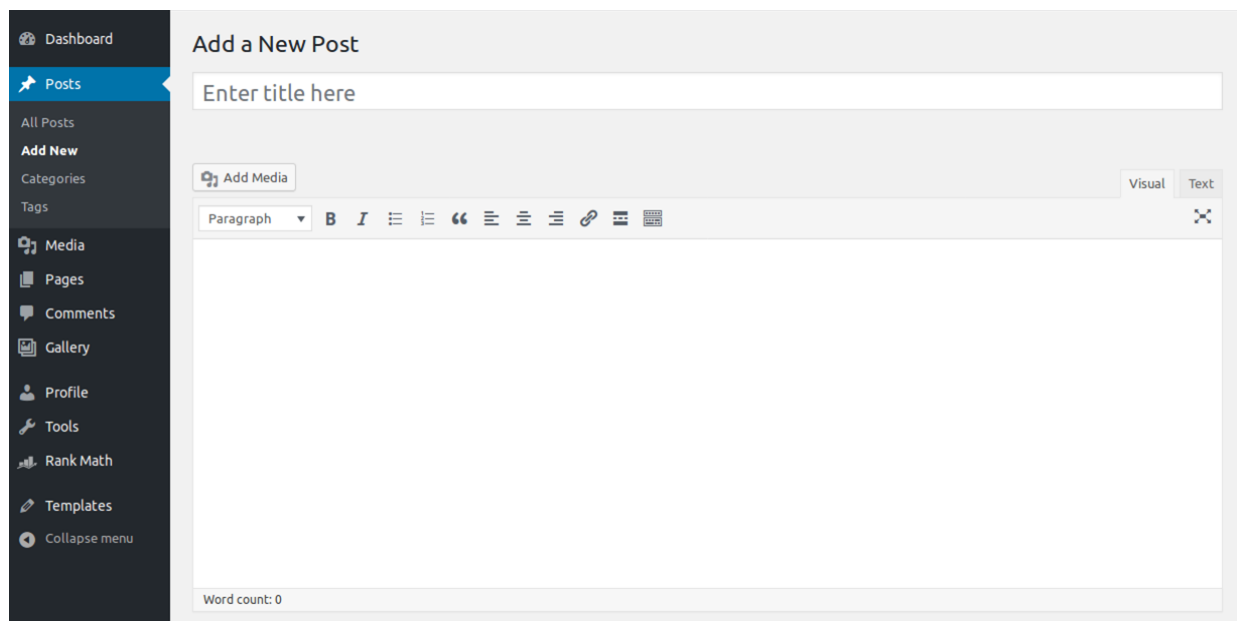


The screenshot shows the WordPress 'Posts' dashboard. The left sidebar contains the following menu items: Dashboard, Posts (highlighted), All Posts, Add New, Categories, Tags, Media, Pages, Comments, Gallery, Lightbox, Appearance, Plugins (3), Users, Tools, Settings, and Rank Math. The main content area is titled 'Posts' and includes an 'Add New' button. Below this, there are filters for 'All (3,892)', 'Mine (1)', 'Published (3,839)', 'Drafts (53)', 'Bin (2)', and 'Pillar Content (0)'. There are also bulk action buttons and a search bar. The posts list shows two entries: 'Naledies' and 'Oso Polar', both by 'k.man', published on 2019/06/20. The 'Add New' button is located in the top right corner of the posts list.

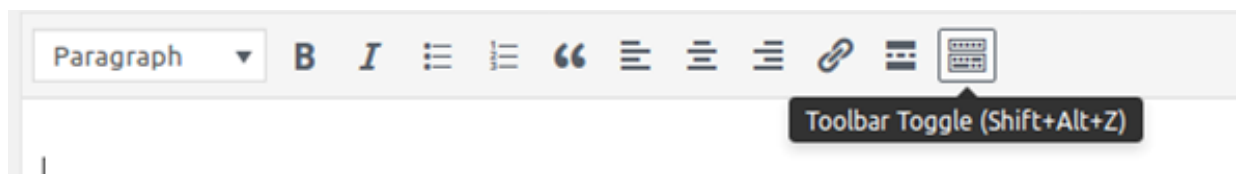
Select "Add new":



On page "Add a New Post" you can add title and content of new term.

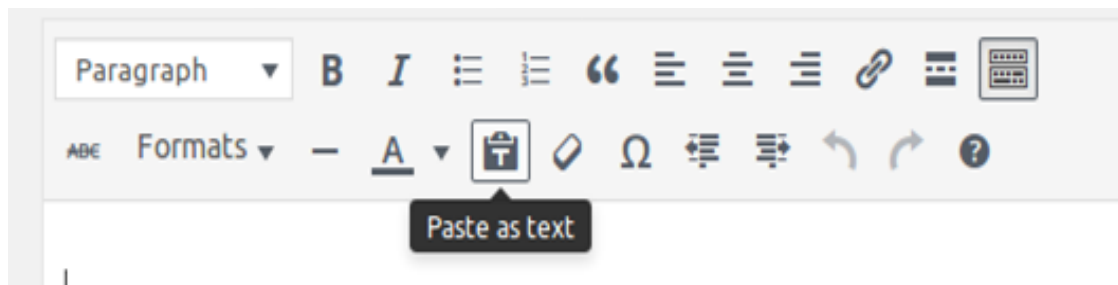


You can format your content by using tools form "Toolbar". You can find more tools after you click on "Toolbar Toggle".



Caution! Please be aware if copying your styles from other programs (ex. Word, Writer).

You can remove formatting by using "Paste as text" or "Clear formatting" (next to previous button).





You can save your work by clicking on “Save as draft” or “Publish”. You can also preview your work before saving by clicking “Preview”.


Publish


Save Draft


Preview


 Status: **Draft** [Edit](#)

 Visibility: **Public** [Edit](#)

 Revisions: **2** [Browse](#)

 Publish **immediately** [Edit](#)

 Post Views: **1**

 **SEO: 12 / 100**

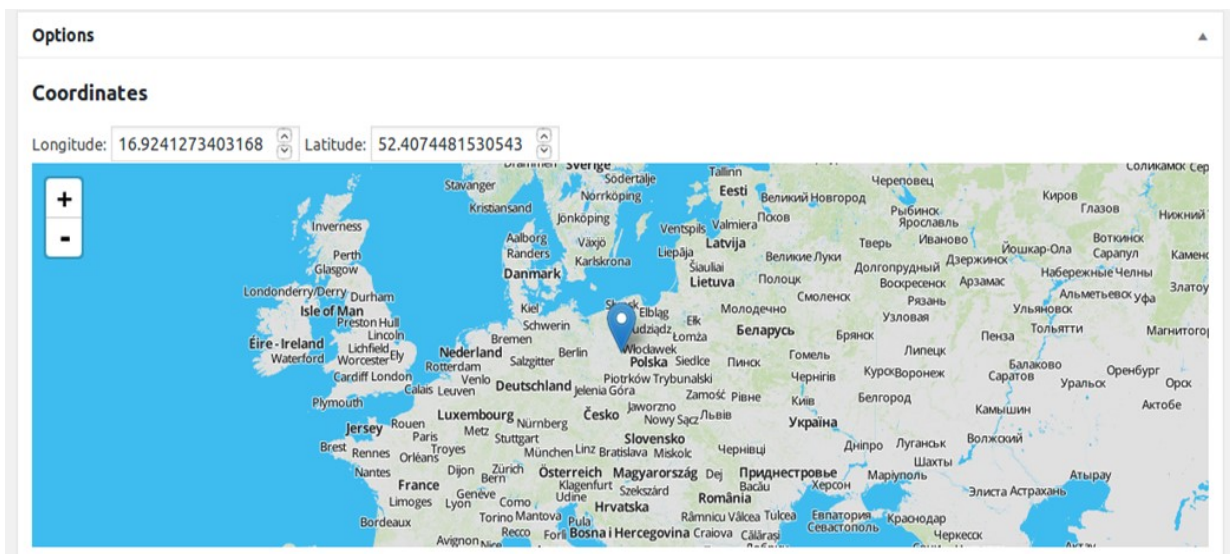
[Copy to a new template](#)
[Copy to a new draft](#)
[Move to Bin](#)

Publish

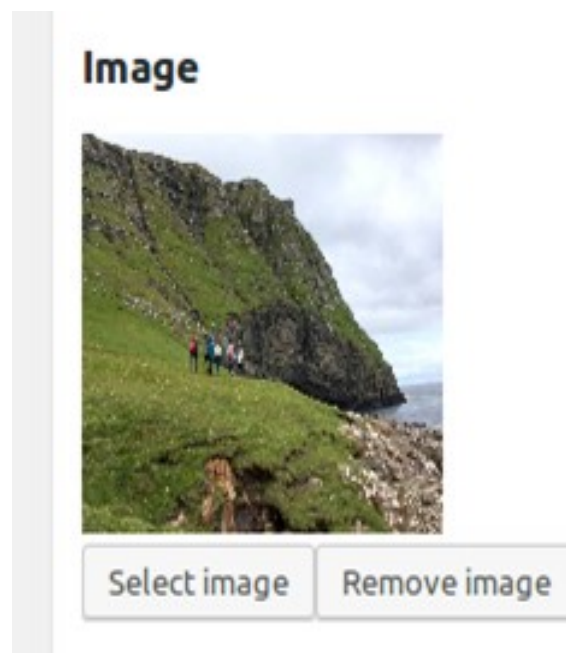


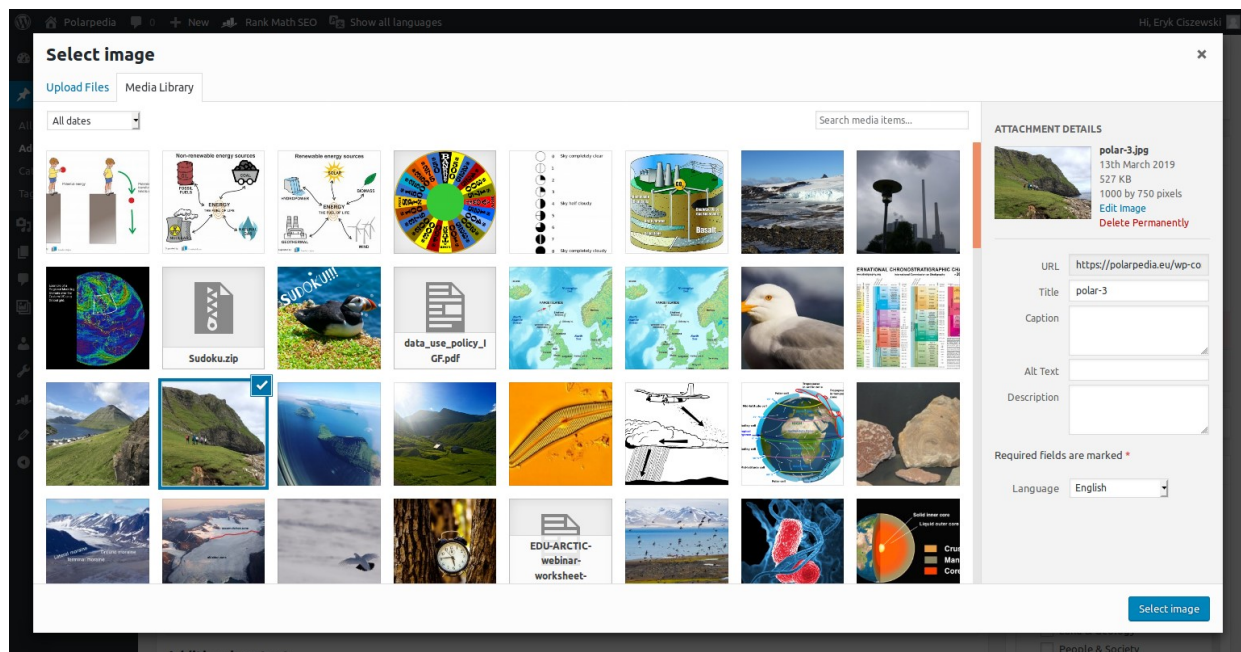
You can add more information to your expression/term in "Options" section:

- Coordinates – you can paste “Longitude” and “Latitude” or use map to select your coordinates. Map zoom is preserved on expression page.



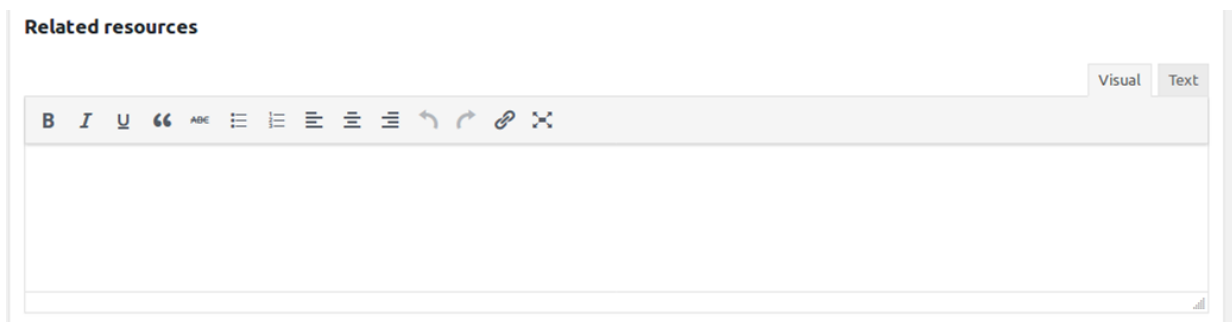
- Add an image





Remember: If an image is selected, map is hidden.

- Related resources – additional paragraph in sidebar with header: “Related resources”



- Additional content – additional paragraph in sidebar with template select

Additional content

Add Media
Insert Template

VisualText

Paragraph
B I

Insert Template

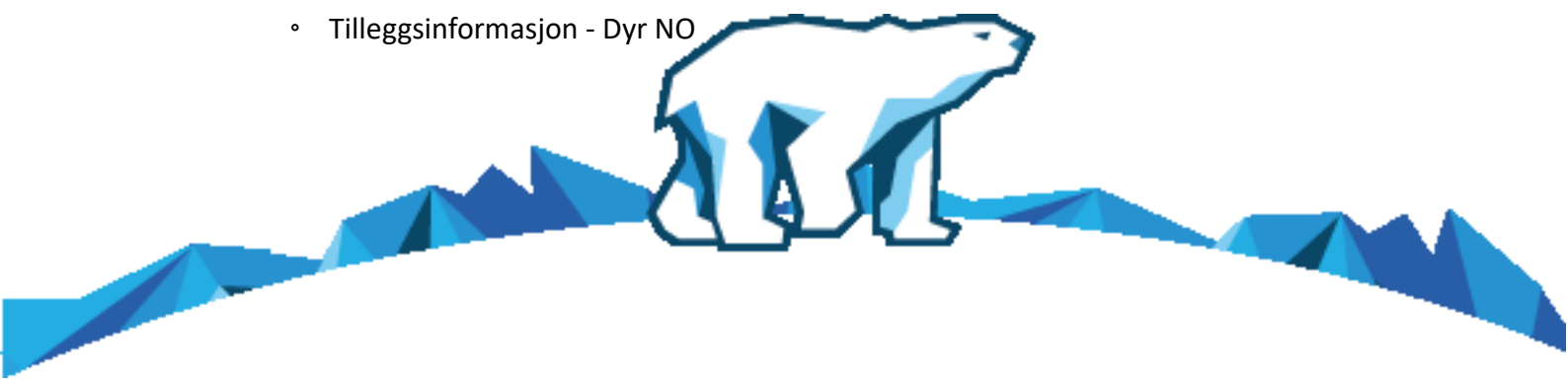
Additional content - Plants EN

Information:
Name: Name
Latin name: *Latin name*
Family: *Family*
Distribution: Distribution
Habitat: Habitat
Lifecycle: Annual / Biennial or Perennial (how many years?)
Size: Size
Leaf characteristics: Leaf characteristics
Flowers: Flowers

Insert Template

List of available templates:

- Additional content - Plants EN
- Additional content - Animals EN
- Additional content - Birds EN
- Viðbótarefni - Dýr ÍSL
- Viðbótarefni - Fuglar ÍSL
- Viðbótarefni - Plöntur ÍSL
- Tilleggsinformasjon - Dyr NO



- Tilleggsinformasjon - Fugler NO
- Tilleggsinformasjon - Planter NO
- Yderligere information - Dyr DK
- Dodatkowe informacje - Ptaki PL
- Dodatkowe informacje - Zwierzęta PL
- Dodatkowe informacje - rośliny PL
- Information additionnelle - Animaux FR
- Information additionnelle - Des oiseaux FR
- Information additionnelle - Les plantes FR
- Yderligere information - Fugle DK
- Yderligere information - Planter DK
- Informatii suplimentare - Plante ROU
- Informații suplimentare - Animale ROU
- Informații suplimentare - Păsări ROU
- Ulteriori informazioni - Animali ITL
- Ulteriori informazioni - Uccelli ITL
- Ulteriori informazioni - Piante ITL
- Πρόσθετες πληροφορίες - Φυτά GRK
- Πρόσθετες πληροφορίες - Ζώα GRK
- Πρόσθετες πληροφορίες - Πτηνά GRK
- Дополнительная информация - Животные RU
- Дополнительная информация - птицы RU
- Дополнительная информация - Растения RU
- Допълнителна информация - Растения BG
- Дополнительная информация - Животные BG
- Допълнителна информация - Птици BG
- Informacione shtesë - Bimët AL
- Informacione shtesë - Kafshët AL
- Informacione shtesë - Zogjtë AL



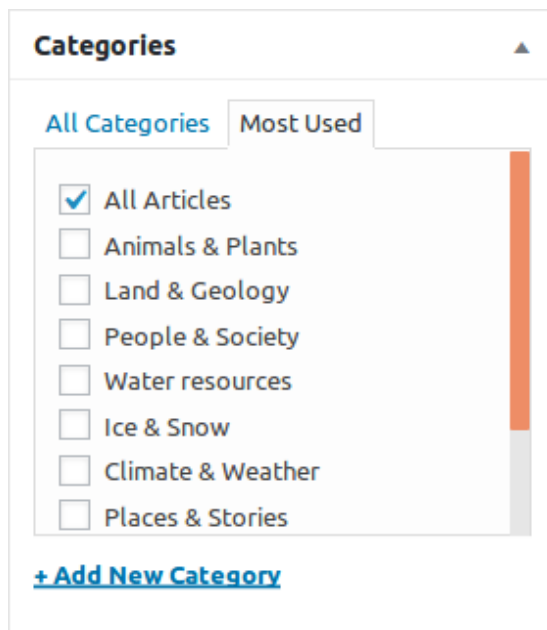
- Dodatne informacije - Biljke HR
 - Dodatne informacije - Životinje HR
 - Dodatne informacije - Ptice HR
 - Додатне информације - Животиње RS
 - Додатне информације - Птице RS
 - Додатне информације - биљке RS
 - Дополнителни информации - растенија МК
 - Дополнителни информации - животниа МК
 - Дополнителни информации - Птици МК
 - Zusätzliche Informationen - Pflanzen DE
 - Zusätzliche Informationen - Tiere DE
 - Zusätzliche Informationen - Vögel DE
-
- Related webinar – enables icon of “graduation cap” on expression list
 - Translated by teacher – if filled, shows information on expression page
 - Author – if filled, shows information on expression page
 - Text of button – if filled, shows big button on expression page
 - Link of button – button link

| |
|------------------------------|
| Related webinar |
| <input type="checkbox"/> |
| Translated by teacher |
| <input type="text"/> |
| Author |
| <input type="text"/> |
| Text of button |
| <input type="text"/> |
| Link of button |
| <input type="text"/> |



Catagories

Each term is assigned to an applicable category, one or more.



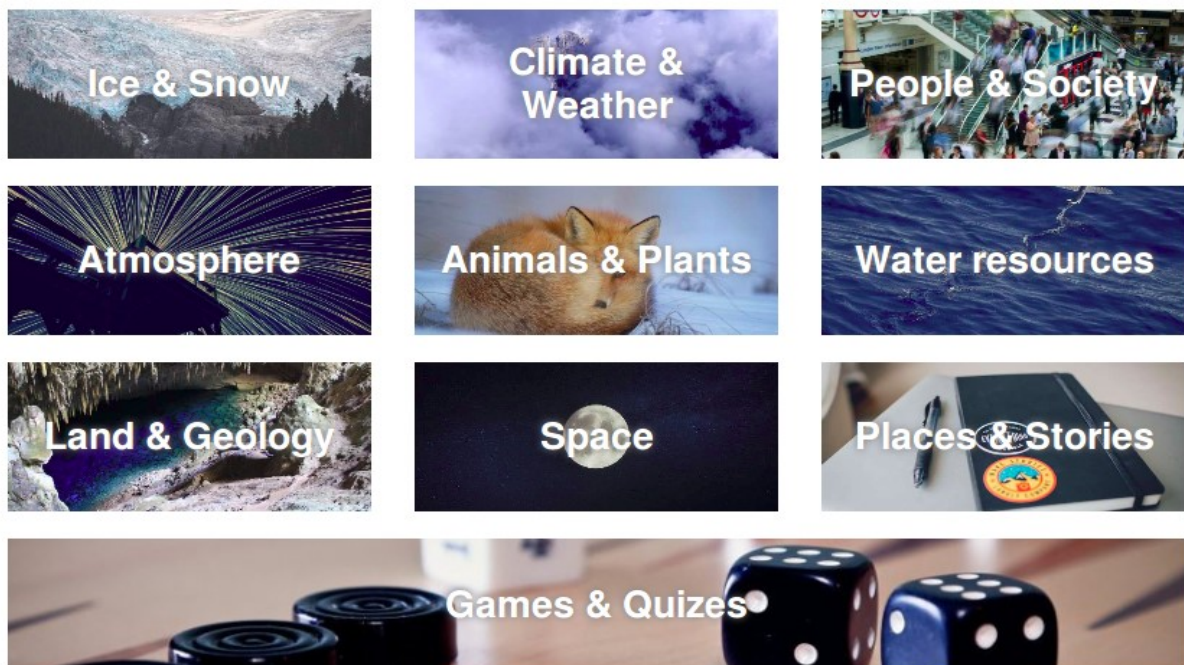
Categories

All Categories Most Used

- ☒ All Articles
- ☐ Animals & Plants
- ☐ Land & Geology
- ☐ People & Society
- ☐ Water resources
- ☐ Ice & Snow
- ☐ Climate & Weather
- ☐ Places & Stories

[+ Add New Category](#)

Categories organize the content on the site, making it easier for users to find them.



List of Polarpedia categories in English:

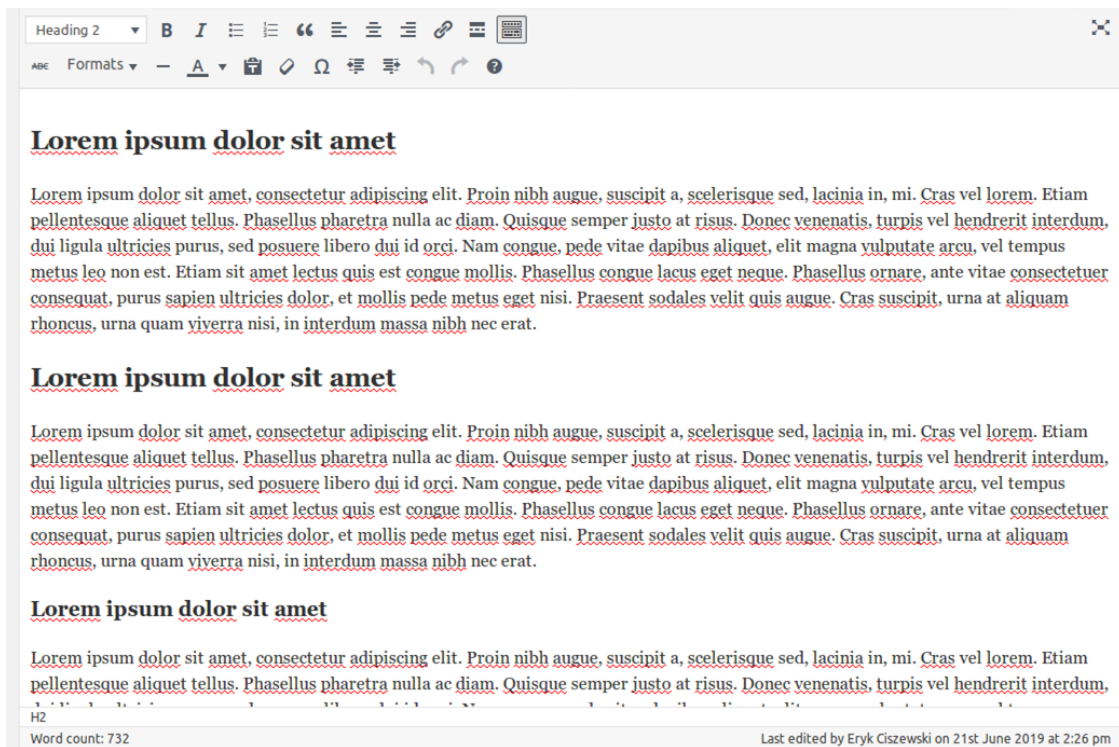
- Animals & Plants
- Atmosphere
- Climate & Weather
- Ice & Snow
- Land & Geology
- People & Society
- Places & Stories
- Space
- Water resources
- Games & Quizzes
 - Experiments
 - Miscellanea
 - Online games
 - Quizzes
 - Teamwork
 - Worksheets



Table of content (Headings)

A table of contents (TOC) is automatically generated on a page when "Heading 2" is used.

Example:



Heading 2 B I [List Icons] [Link Icon] [Table Icon]

ABE Formats [Text Color] [Background Color] [Link] [Unlink] [Image] [Table] [Table of Contents]

Lorem ipsum dolor sit amet

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin nibh augue, suscipit a, scelerisque sed, lacinia in, mi. Cras vel lorem. Etiam pellentesque aliquet tellus. Phasellus pharetra nulla ac diam. Quisque semper justo at risus. Donec venenatis, turpis vel hendrerit interdum, dui ligula ultricies purus, sed posuere libero dui id orci. Nam congue, pede vitae dapibus aliquet, elit magna vulputate arcu, vel tempus metus leo non est. Etiam sit amet lectus quis est congue mollis. Phasellus congue lacus eget neque. Phasellus ornare, ante vitae consectetur consequat, purus sapien ultricies dolor, et mollis pede metus eget nisi. Praesent sodales velit quis augue. Cras suscipit, urna at aliquam rhoncus, urna quam viverra nisi, in interdum massa nibh nec erat.

Lorem ipsum dolor sit amet

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin nibh augue, suscipit a, scelerisque sed, lacinia in, mi. Cras vel lorem. Etiam pellentesque aliquet tellus. Phasellus pharetra nulla ac diam. Quisque semper justo at risus. Donec venenatis, turpis vel hendrerit interdum, dui ligula ultricies purus, sed posuere libero dui id orci. Nam congue, pede vitae dapibus aliquet, elit magna vulputate arcu, vel tempus metus leo non est. Etiam sit amet lectus quis est congue mollis. Phasellus congue lacus eget neque. Phasellus ornare, ante vitae consectetur consequat, purus sapien ultricies dolor, et mollis pede metus eget nisi. Praesent sodales velit quis augue. Cras suscipit, urna at aliquam rhoncus, urna quam viverra nisi, in interdum massa nibh nec erat.

Lorem ipsum dolor sit amet

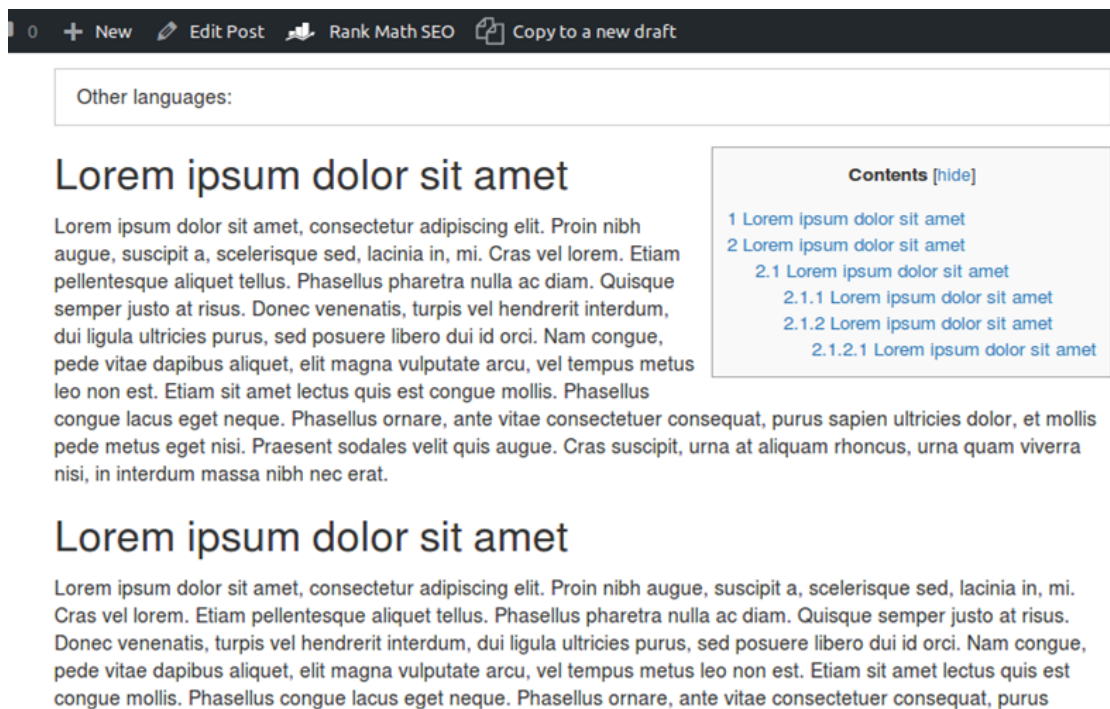
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin nibh augue, suscipit a, scelerisque sed, lacinia in, mi. Cras vel lorem. Etiam pellentesque aliquet tellus. Phasellus pharetra nulla ac diam. Quisque semper justo at risus. Donec venenatis, turpis vel hendrerit interdum, dui ligula ultricies purus, sed posuere libero dui id orci. Nam congue, pede vitae dapibus aliquet, elit magna vulputate arcu, vel tempus metus leo non est. Etiam sit amet lectus quis est congue mollis. Phasellus congue lacus eget neque. Phasellus ornare, ante vitae consectetur consequat, purus sapien ultricies dolor, et mollis pede metus eget nisi. Praesent sodales velit quis augue. Cras suscipit, urna at aliquam rhoncus, urna quam viverra nisi, in interdum massa nibh nec erat.

H2

Word count: 732

Last edited by Eryk Ciszewski on 21st June 2019 at 2:26 pm

Creates this:



0 + New Edit Post Rank Math SEO Copy to a new draft

Other languages:

Lorem ipsum dolor sit amet

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin nibh augue, suscipit a, scelerisque sed, lacinia in, mi. Cras vel lorem. Etiam pellentesque aliquet tellus. Phasellus pharetra nulla ac diam. Quisque semper justo at risus. Donec venenatis, turpis vel hendrerit interdum, dui ligula ultricies purus, sed posuere libero dui id orci. Nam congue, pede vitae dapibus aliquet, elit magna vulputate arcu, vel tempus metus leo non est. Etiam sit amet lectus quis est congue mollis. Phasellus congue lacus eget neque. Phasellus ornare, ante vitae consectetur consequat, purus sapien ultricies dolor, et mollis pede metus eget nisi. Praesent sodales velit quis augue. Cras suscipit, urna at aliquam rhoncus, urna quam viverra nisi, in interdum massa nibh nec erat.

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Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin nibh augue, suscipit a, scelerisque sed, lacinia in, mi. Cras vel lorem. Etiam pellentesque aliquet tellus. Phasellus pharetra nulla ac diam. Quisque semper justo at risus. Donec venenatis, turpis vel hendrerit interdum, dui ligula ultricies purus, sed posuere libero dui id orci. Nam congue, pede vitae dapibus aliquet, elit magna vulputate arcu, vel tempus metus leo non est. Etiam sit amet lectus quis est congue mollis. Phasellus congue lacus eget neque. Phasellus ornare, ante vitae consectetur consequat, purus sapien ultricies dolor, et mollis pede metus eget nisi. Praesent sodales velit quis augue. Cras suscipit, urna at aliquam rhoncus, urna quam viverra nisi, in interdum massa nibh nec erat.

Contents [hide]

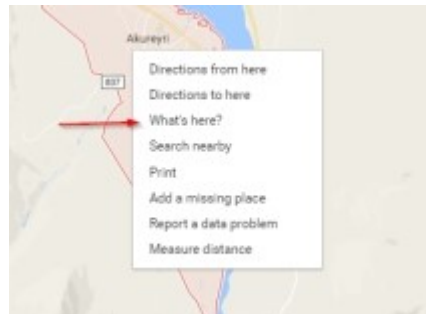
- 1 Lorem ipsum dolor sit amet
- 2 Lorem ipsum dolor sit amet
 - 2.1 Lorem ipsum dolor sit amet
 - 2.1.1 Lorem ipsum dolor sit amet
 - 2.1.2 Lorem ipsum dolor sit amet
 - 2.1.2.1 Lorem ipsum dolor sit amet



Coordinates

If you want to display a map you must get coordinates for that. Please perform the following activities:

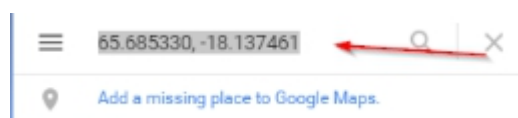
- 1) Go to Google maps;
- 2) Write the location you want to display;
- 3) Once located, click right mouse button and choose "What's here?";



- 4) Click on the coordinates;



- 5) You will get coordinates on search box on the upper right – copy;



- 6) Paste the coordinates in the text box in Polarpedia in the right place – See "How it works – creation of a new expression"



Youtube

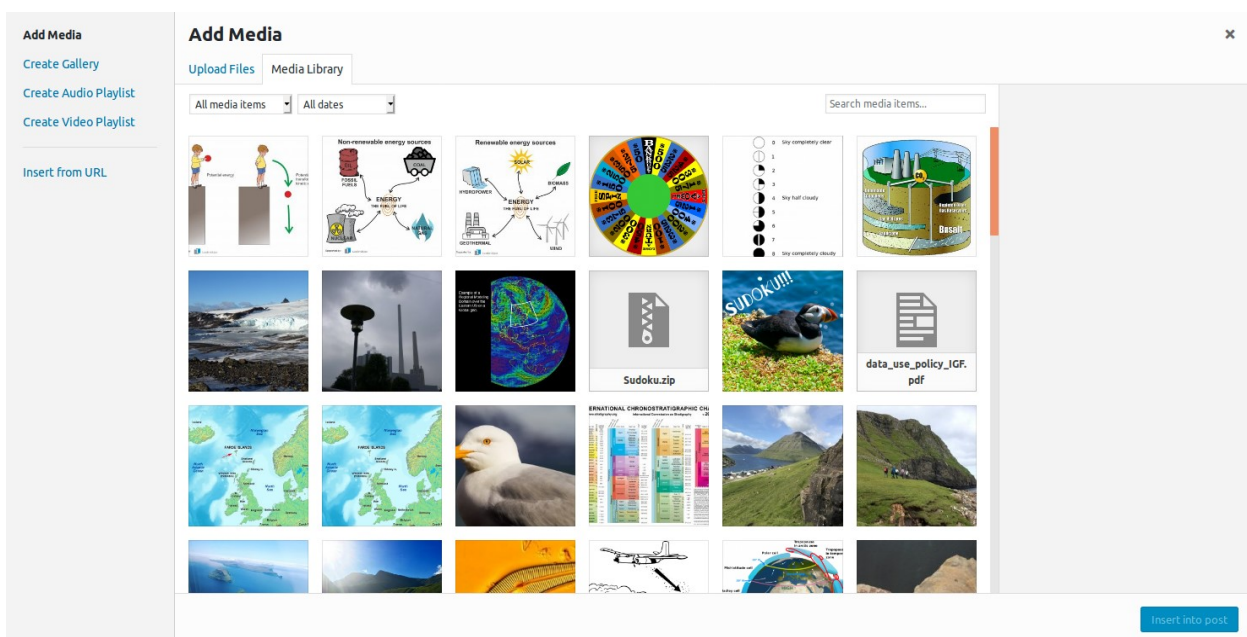
In order to add youtube video please decide where you want to add video and paste a link to video.

You can find more detailed information on <https://en.support.wordpress.com/videos/youtube/>.

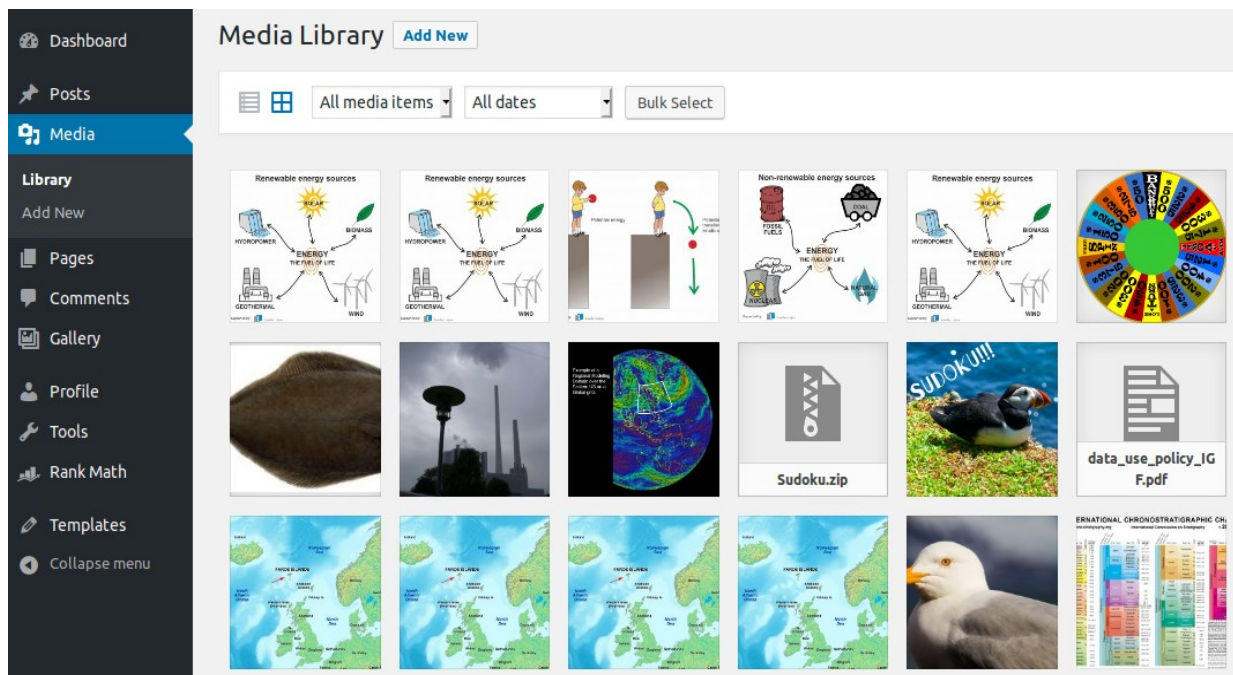
Images and Galleries

By clicking “Add media” button you can add photos and galleries to your term.

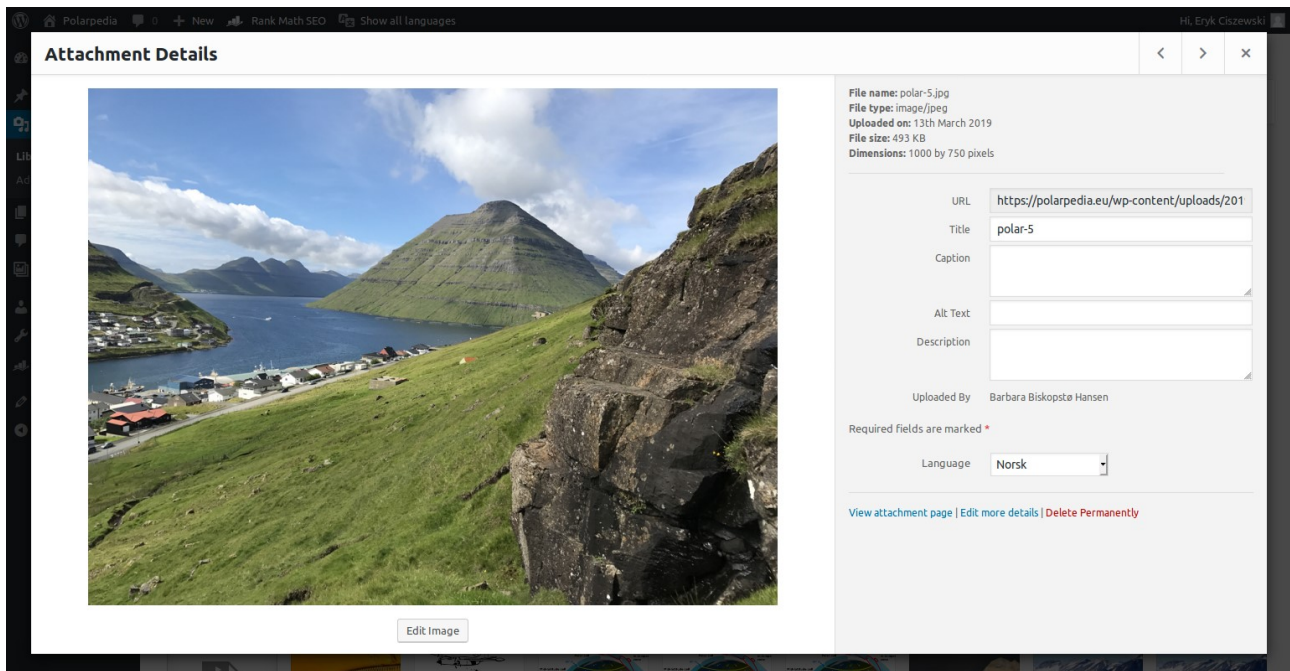
You can upload files or use already existing files in media library.

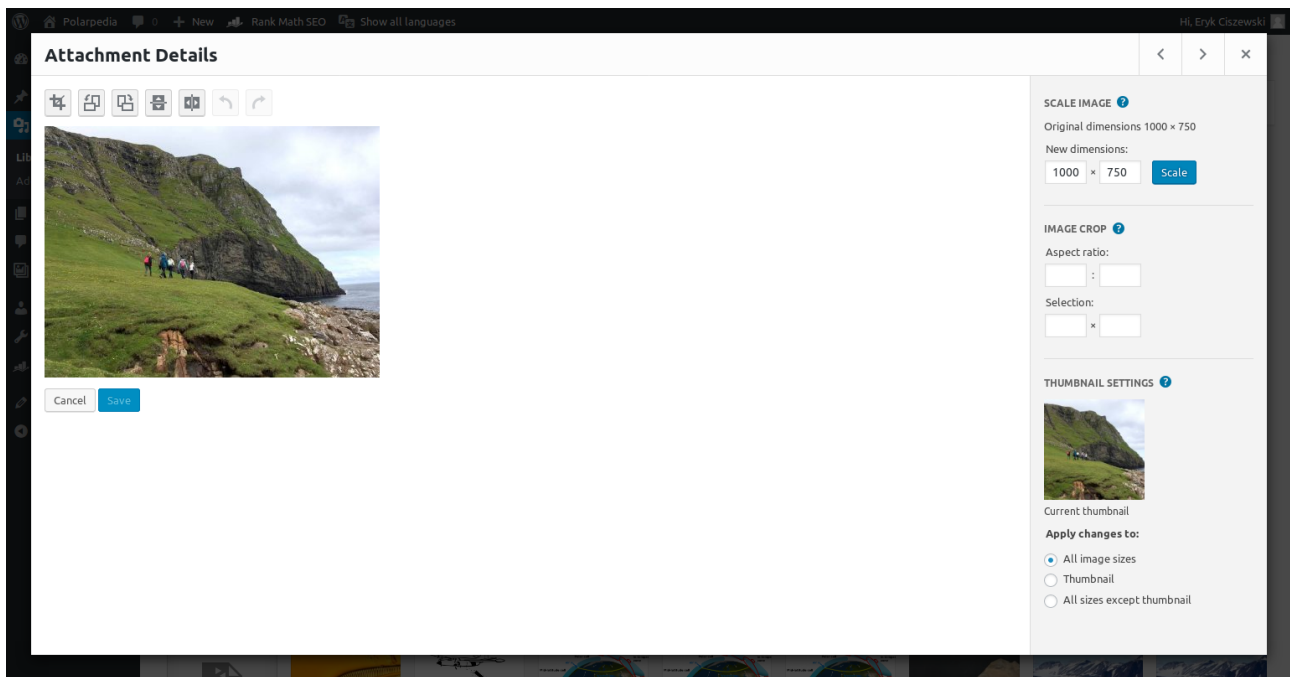


You can manage media file from “Media Library”.



For each file you can fill in detailed information that can be used in a term page and run simple edit tasks for images.





Translation

You can translate any term by editing and selecting language form "Languages" menu.

Languages ▲

Language



Translations

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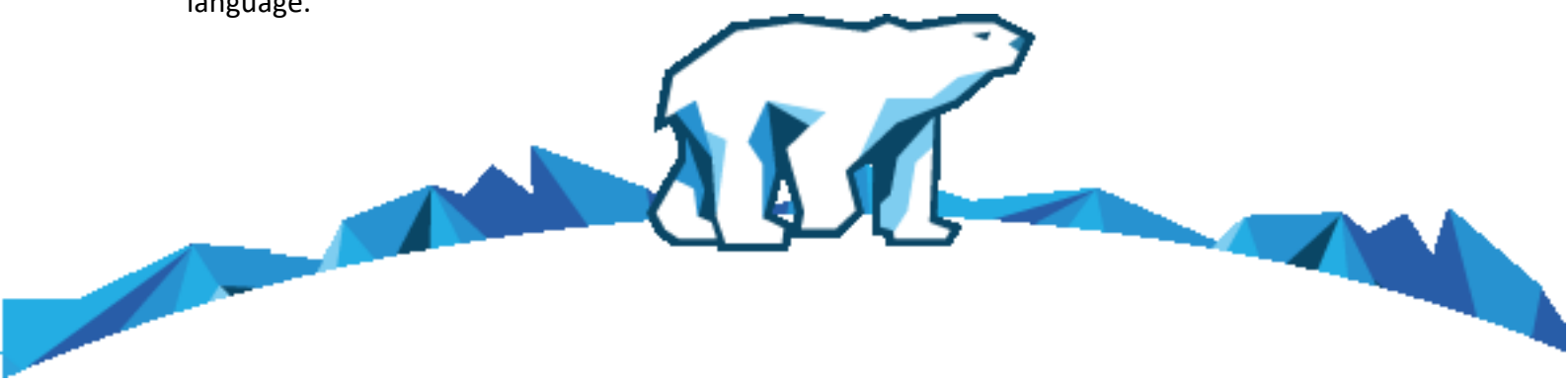
 +

 +

 +

 +

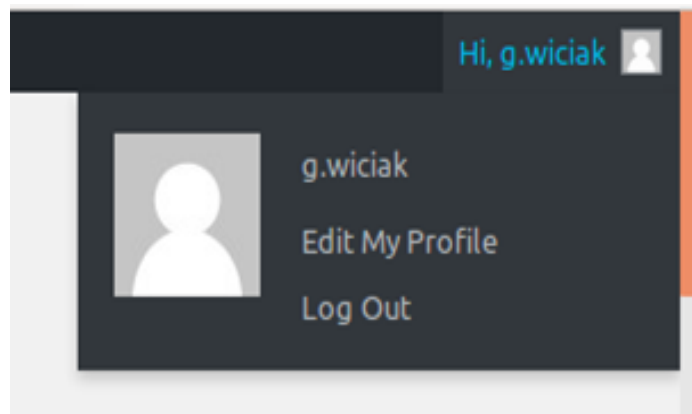
Caution! When you translate a term content of options section is copied from the main language.



User profiles

Clicking on the "Edit my profile" link in the upper right while logged in allows you to change your preferences.

You will be presented with the Profile section. I assume you would like to change your password and that section allows you to do so.



Appendix No 2 – Analytical information

