



NEWSLETTER

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ARCTIC PORTAL

The Arctic Portal Newsletter is published three times a year to keep those interested in the work of the Arctic Portal and the Arctic in whole updated on the current state of events.

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An Introduction to the Arctic Portal

The Arctic Portal provides access to Arctic information and organizations across the Arctic on the Internet, with the objective to increase information sharing and cooperation between stakeholders across the Arctic and grant exposure to Arctic related information to parties from outside the area.

The Arctic Portal was created as an IPY-project, lead by Iceland's Senior Arctic Official in consultation and co-operation with other members of the Arctic Council and its Working Groups, Permanent Participants, Northern Forum, UArctic, The Arctic Centre at the University of Lapland, The Arctic and Antarctic Research Institute of Roshydromet, The International Centre for Reindeer Husbandry and others.

Initially, it was designed around the work of the Arctic Council Working Groups, but has evolved to become a powerful tool for sharing information on Arctic matters in hyperspace in cooperation with various organizations and other partners throughout the Arctic.

Recently, the International Polar Year launched a new website designed and hosted by the Arctic Portal. The new website is the main venue for an IPY related data and projects, not only restricted to the Arctic, but providing also information and links to scientific research and projects in Antarctica.

Various IPY projects are already visible in the Portal and in the past months some important Arctic partners have joined the portal, establishing their web presence through the Portal.

The Arctic Portal consists of three separate, but interactive features; home pages of various organizations dedicated to Arctic and Antarctic issues, assortments of outside sources, including multimedia sources and an interactive mapping tool for the presentation and interpretation of visual data.



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The Arctic Portal Community

- Easy way to find partners within the portal

The Arctic Portal hosts various websites for Arctic related organizations, affiliations and projects. At the moment some 18 Arctic actors have established their web presence in association with the Arctic Portal. This “Arctic Portal Community” provides a common venue for organizations and projects in the Arctic, giving them greater visibility in the virtual world.

The Arctic Portal Community includes websites of major international organizations, such as Arctic Council Working Groups for Conservation of Arctic Flora and Fauna (CAFF) and Protection of the Arctic Marine Environment (PAME), The Pacific Arctic Group (PAG), the International Permafrost Association (IPA) and International Polar Year (IPY). Further more, indigenous peoples are represented in the Arctic portal Community, this includes designing and hosting the Centre for Reindeer Husbandry (ICR), The Arctic Council Indigenous Peoples’ Secretariat (IPS) and The Finnish Reindeer Sámi (SBS). Research institutions also play a significant part within the Arctic Portal Community, which hosts websites for the Circumpolar Biodiversity Monitoring Program (CBMP), the Northern Research Forum (NRF), International Arctic Social Sciences Association (IASSA) and Sustained Arctic Observing Network (SAON) and thus enhances the distribution and outreach of Arctic related research material.

Here below a few of the many members of the Arctic Portal Community are introduced:

IPY

The International Polar Year was a large scientific program focusing on the Arctic and the Antarctic running from March 2007 to March 2009.

IPY, organized through the International Council for Science (ICSU) and the World Meteorological Organization (WMO), is actually the fourth polar year, following those in 1882-3, 1932-3, and 1957-8. In order to have full and equal coverage of both the Arctic and the Antarctic, IPY 2007-8 covered two full annual cycles from March 2007 to March 2009 and involved over 200 projects, with thousands of scientists from over 60 nations examining a wide range of physical, biological and social research topics. It was also an unprecedented opportunity to demonstrate, follow, and get involved with, cutting edge science in real-time.



The Arctic Portal was chosen to host what has become an IPY legacy, a fostering of international scientific cooperation, promotion of wide scale scientific knowledge and information sharing for the benefit of the generations to come. In addition of the material presented and hosted on its own website, the Arctic Portal hosts the web pages of the IPY International Office and the Swedish branch of the IPY.

Visit the [IPY](#) webpage.



SAON

Sustained Arctic Observing Networks is a process to support and strengthen the development of multinational engagement for sustained and coordinated pan-Arctic observing and data sharing systems that serve societal needs, particularly related to environmental, social, economic and cultural issues.

The SAON aims at creating a network of Arctic observing institutions and activities providing an access to free, open and high quality data both for the scientific community as well as for the public. The Arctic Portal hosts the SAON homepage where the development of the process can be followed.

Visit the [SAON](#) webpage.



ICR

The International Centre for Reindeer Husbandry (ICR), was established by the Norwegian Government in 2005 in Kautokeino, as a contribution to the unique international cooperation of circumpolar reindeer herding peoples. ICR is an independent professional unit, with its own board and budget. Its activity is funded by the Norwegian Government through annual grants from the budgets of the Ministry of Labor and Social Inclusion, the Ministry of Agriculture and the Ministry of Foreign Affairs.

ICR is to be a knowledge base for providing and exchanging information and documentation between different reindeer peoples, national authorities and research- and academic communities at the national and international levels.

The Centre will thus contribute to adding value, to improving information and to enhancing understanding for world reindeer husbandry and reindeer peoples, their traditional knowledge and their future development.

The Arctic Portal welcomes any new member at the site to establish their visibility, either by joining the Arctic Portal web hosting or by a link through the Arctic Portal navigation bar.

Visit the [ICR](#) webpage.





Arctic Portal Portlets

The Arctic Portal is in the process of creating portals to cover the most prominent issues in the Arctic by the creation of information portals. These portlets are intended to give users access to comprehensive collection / set of material about these issues suited to their needs. Individuals who are interested in a brief overview on the subjects would find links to the most recent information from newspapers, reports and similar items. Individuals interested in commencing research or finding more thorough material will be presented with scientific reports and articles.



The three portlets, which have been created and published so far, are portals on shipping, energy and a climate change. All of these portals will be updated on a regular bases and offering the newest available information on each of the subjects making it easy to gain a comprehensive overview of the issues at hand.



Shipping Portlet:

Trans arctic shipping has been a dream dating back from the early days of Arctic exploration and is by many believed to be a viable option in global shipping in a not so distant future. Such a route or routes would possibly shorten international traffic lines significantly and lower the cost of shipping from the Pacific Ocean to the Atlantic Ocean. There are however numerous uncertainties, and predictions vary if or how this will be realized.



Energy Portlet:

With a growing global energy demand, rising energy prizes, new technologies and the reseeding of the ice cap, the quest for oil and natural gas is venturing further north. With an estimated 25% of the worlds undiscovered hydrocarbons reserves lying in the Arctic it is clear that there is a significant gain to be made. Currently large quantities of hydrocarbons are being extracted in the Arctic and they are believed to increase as new areas become accessible.

Climate Change Portlet:

Climate Change is by most considered the most prominent issue of the Arctic. The Arctic regions have been called the worlds “canary” referring to when coalminers used canaries, which are more sensitive to poisonous gas as a warning signs, if the canary died it was time to evacuate the mine. Similarly the Polar Regions are considered sensitive warning spots to warn us of oncoming danger. This is however not undisputed and a fraction of climate change skeptics still claim that humans have had no impact on climate change. Within the climate change portlet information can be found on all aspects of climate change and as with the other portlets will continue to grow as new material is presented.



A fishing portlet is under construction, which will give an overview of the various issues connected to fisheries.

These portlets can be accessed under the projects page on the Arctic Portal webpage <http://arcticportal.org> or by following the links below:

- » [Shipping Portlet](#)
- » [Energy Portlet](#)
- » [Climate Change Portlet](#)

“UArctic Atlas Co-operation commences between University of the Arctic and Arctic Portal ”

UArctic Atlas

The University of the Arctic Atlas was initiated in early fall 2008 with the objective of becoming a visual online based learning resource both for UArctic students and anyone else interested in the features of the region. Currently, the UArctic Atlas presents a visual and geographic overview of the Arctic region, including its physical environment and socio-cultural life.

Over the summer months of 2009 it was decided that the UArctic would team up with the Arctic Portal for further development of the Atlas. The second edition of the UArctic Atlas aims at becoming a more comprehensive online encyclopedia with visual, geographical and text based information about the Arctic. This project builds on the experience of the pilot phase of the UArctic Atlas and extends it further using the network of top-level Arctic scientists and academics in the University of the Arctic, Arctic Portal's online 'Inter-Map' interactive map viewing technology, and the vast amount of new data available through our common network of external partners in the Arctic community.

Data within the mapping system is provided by the UArctic, the Arctic Portal as well as a number of affiliations and organizations that work in collaboration with the Arctic Portal and UArctic, such as Arctic Council Working Groups, National Snow and Ice Data Centre, International Centre for Reindeer Husbandry, UNEP Environment Programme / Grid-Arendal, Circumpolar Arctic Vegetation Map (CAVM), The Circumpolar Rangifer Monitoring & Assessment (CARMA), and other data sources.

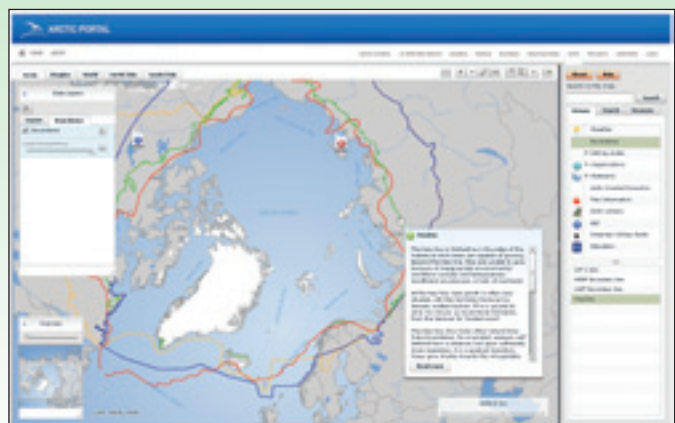




Arctic Portal Inter-Map Mapping System

The Arctic Portal Mapping System was designed to provide visual geographical information about Arctic related data. Currently the mapping system is used in a variety of ways to present data. Examples of its use are distribution of vegetation data, permafrost information, spread of indigenous languages and information about Arctic affiliations and organizations, Shipping routes and many more.

The Arctic Portal as well as a number of affiliations and organizations that work in collaboration with the Arctic Portal provide data displayed in the mapping system.



The Arctic Portal Mapping System is powered by the Inter-Map mapping system, which is a graphical, interactive information and communication system. It is an online mapping tool, coupled with a database that enables non-tech administrators to quickly and easily associate and update any type of information related to any single part of a map or plan thus enabling visitors to a website to observe and obtain this information instantly. Inter-Map is a digital map content management system (DM-CMS) that can act as a stand-alone system or as part of a larger content management system.

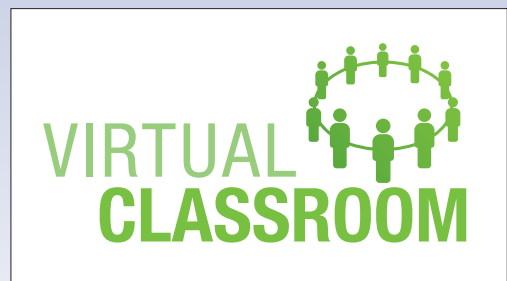
All Arctic related data is welcomed into the Arctic Portal Mapping System and interested parties are welcome to contact us at info@arcticportal.org. Information can be added to the existing information database on the Arctic Portal within the existing mapping system or specific applications created using Inter-Map like the Fishernet.is project.

Go to the [Arctic Portal Mapping System](#).



Virtual Learning Tools Project

Current distance learning systems that offer two-way communication between users are often tedious, complex, expensive and require the student to be in a high-tech center capable of hosting distance learning classes. Such centers are not often within reach for residents in the Arctic. Most rural communities are few and scattered throughout the Arctic and do not have the capacity for such facilities, hindering the distance learning opportunities for those communities. The Arctic Portal participates in a Virtual Learning Tools project that aims to enhance educational opportunities for all communities in the Arctic, no matter the size, remoteness, or resources. As a part of the Virtual Learning Tools Project, led by the University of the Arctic, a Virtual Classroom project was initiated in the beginning of 2009. The project aims at creating a distance learning solution in the Internet that can be entered from private computer anywhere where Internet connection is available.



As a part of this process virtual learning tools project requirement study was carried out in fall 2009, to evaluate user requirements and provide valuable technical information. The results of this work suggest that distance learning will gradually move towards a more open sourced multimedia-oriented approach. A modern distance learning solution needs to offer options for both synchronous and asynchronous communication, equally in actual teaching as well as student-to-student interaction. There are technical and financial challenges in providing modern distance learning solutions to Arctic residents, which include:

- Internet connection quality
- Equipment availability
- Financial strength
- Difference in time zones
- Language barriers

these challenges emphasize importance of affordable and user-friendly Virtual Learning Tools.



The results of this process were presented during a poster session in Tromsø during the Arctic Frontiers conference in January 2010. www.arcticportal.org/vlt



The dire situation of the world's fisheries: The Arctic

Fishing within the North East Atlantic has been a significant economic resource as well as a practice that has become rooted in the culture of fishing nations utilizing the resource. In the Icelandic sagas, the fish was considered to be a gift from the gods and free for all who sought it. This has however changed in Iceland as well as the world in whole.



Technological advancements have multiplied the possible catch of each vessel and the world's population growth has increased the demand for fish significantly. Legal issues in connection with maritime boundaries and rights to fisheries both in countries' economic zones as well as international waters have mostly been settled under the UNCLOS. The realization that stocks would have to be managed to yield a maximum return has led to the establishment of fisheries management schemes the world over, both within countries' Exclusive Economic Zones and multilateral cooperation's in connection to the high seas and migratory stocks.

Despite measures taken, the somewhat dire situation of the world's fisheries has become increasingly apparent, which can mostly be contributed to overfishing and the effect global warming has on the world's fish stocks. These findings, call for evaluation and further examinations of both the regulatory framework in place as well as the existing management schemes and cooperation's.



Climate change and predicted fluctuations in fish stocks have been a constant through the earth's history, the rapid change now and in the foreseeable future is however unprecedented. Climate change is increasing the world's temperature and one of the consequences is the migration of fish stocks towards the two poles to cooler water's. Stocks already residing in cooler waters this may have a severe affect and recent studies indicate that the Atlantic cod stock may be significantly challenged. The warming will lead to a loss of habitat by the Cod in its more southern range and reduce survival during early life and offset growth. This is estimated to result in a decline of the Atlantic Cod stock by as much as 50% by 2050, and cause it to migrate further north.

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Fish and fisheries are extremely important to the Arctic region as its waters are often considered to be one of the richest fishing grounds in the world. Despite the drastic effects the significant fluctuations or collapse of the stock would have on the northern hemisphere its counterparts in the south would be considerably more vulnerable. Nations within Africa, who many of them are among the least developed nations in the world, generally have a less diversified economy and fewer means to deal with such change. In a global context fisheries are a significant part of the worlds nutritional intake, with at least 20% of the worlds annual consumption of dietary protein.



Due to negative reports of the state of the fisheries globally, international and regional bodies are starting to react. One of the most commonly criticized fishery policies or organization is the European Union, which has recently addressed the issue of over fishing within its chambers. At the end of May 2009 European fisheries ministers concluded in a meeting to effectively scrap current rules that decide fishing quotas. Given this conclusion the European Union has decided to draw up a new common fisheries policy before 2012.

It will be interesting to see if the new fishing policy will be adequate to deal with E.U problems in connection to fishing as 80% of E.U fishing grounds are estimated to be overfished. Similarly it will be interesting to see how regional bodies like the North East Atlantic Fisheries Committee (NEAFC) will be able to manage changes in migratory patterns of stocks.

The position as it is portrayed by many of the leading specialist's and organizations on a global scale will demand for close cooperation and some difficult decisions so world fishing can become sustainable within the changing environment at hand.

Illegal and unregulated fishing also continues to be an important issue. It's value has been estimated being between \$4bn and \$9bn. It also presents a further danger to species, which are already under threat of being overfished. Some interesting videos on the matter can be seen by following the links bellow:

Illegal Fishing: [Blocking Access to the EU market](#)

Illegal Fishing - [Japan](#)

Illegal, [Unreported and Unregulated \(IUU\) Fishing, FAQ of the UN](#)

For sources follow this [link](#)



Fun facts about the poles and their wildlife

The Arctic:

- » The Arctic Ocean's ice sheet is four times as large as the state of Texas.
- » Norilsk, Russia is the farthest northern city and the coldest with an average temperature of -28.8° degrees celsius (-20° Fahrenheit).
- » More fish live along the edges of the Arctic Ocean than anywhere else on the Earth.
- » The Arctic is the only place polar bears live.
- » The Titanic struck an iceberg from the Arctic.
- » The Arctic Ocean is roughly 8 percent the size of the Pacific Ocean.



The Antarctic:

- » The continental ice sheet of Antarctica contains about 11.3 million miles of ice (7 million miles), 90% of the world's total.
- » The world's lowest temperature of -88.8° degrees (-128° F) was recorded at the Russia Vostok Station in Antarctica.
- » If all of the ice in Antarctica melted, sea levels would rise between 50 and 60 m.
- » Antarctica is the driest place on earth. In some places like the Dry Valleys, it has not rained for thousands of years.
- » The temperature in Antarctica once dropped 18.3° degrees (65° F) in 12 minutes.
- » Antarctica is 10% of the earth's land area.

Wildlife:

- » Polar bear cubs learn to freeze and remain still while their mother hunts. If they move, the mother disciplines them, with a whack to the head.
- » Polar bears swim using their large front paws to propel themselves through the water and their back legs to steer.
- » The Arctic fox is the only one from the dog family to change its colors.
- » The arctic fox can run at the speed of around 50 Kph (30 Mph). These are also known to skid on ice as well.





Upcoming Projects

The Arctic Portal will continue to focus on enhancing and expanding the portal by welcoming new Arctic agents to join the Arctic Portal Community and working in various cooperative projects with several organizations.

New Arctic Portal portlets are under construction, dealing with fisheries, education, arctic economies and other prominent arctic issues. Furthermore the Arctic Portal intends to create a business and cultural portal on the web. The aim of the project is to promote businesses and services, along with promoting cultural heritage of remote regions and increase interconnectivity between and within rural and urban areas in the north through an interactive communal portal. The final outcome of the project will be a comprehensive information gateway about business and culture in the area. Such a common information database will benefit and elevate both sectors and contribute to increased interoperability and synergy between business and culture.

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