

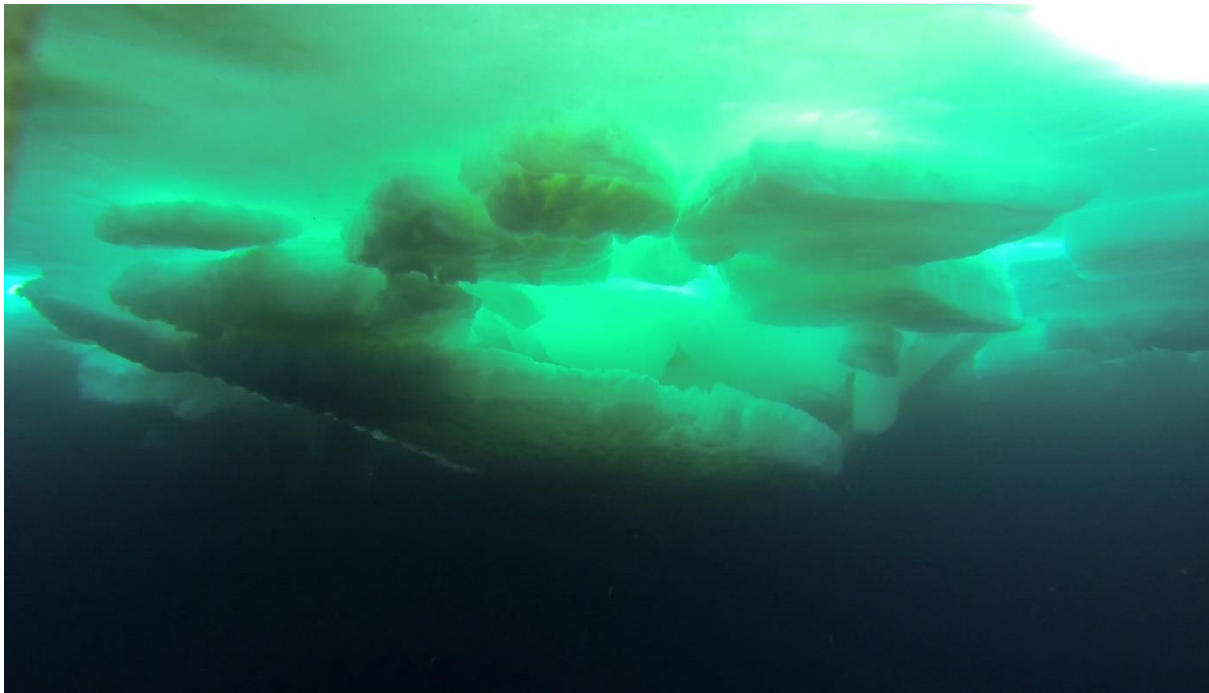


Nieuwsbrief 44 april 2016

Leven onder het ijs

Fokje Schaafsma

Grote delen van de poolzeeën zijn bedekt met zee-ijs. Van boven ziet het eruit als een kale witte vlakte, maar door het jaar heen ondergaat dit zee-ijs grote veranderingen. Deze veranderingen hebben invloed op het onderliggende water. Aan de onderkant van het ijs bevindt zich een wereld vol met leven. En ook het zee-ijs zelf vormt een thuis voor vele organismen. Het leven in de poolzeeën heeft zich niet alleen aan moeten passen aan een extreem klimaat, maar ook aan de veranderlijkheid van hun thuis. Hoe ziet het zee-ijs ecosysteem eruit? Hoe verandert het door het jaar heen? Hoe hebben organismen zich aangepast? En: **hoe onderzoek je dat eigenlijk?**



Wanneer	25 april 2016
Hoe laat	19:30 uur
Waar	Arctisch Centrum, A-weg 30 (ingang Herman Colleniusstraat)
Toegang	€ 2,00; studenten € 1,00

Komende activiteiten

Imaka

- 30 mei 2016 Tekke Terpstra over *Inuit buiten de Arctis*, door Tekke Terpstra.
- 11 juni 2016 Excursie naar het IJstijdenmuseum in Buitenpost
- 26 september 2016 Gerrit Jan Zwier over zijn boek *Naar de rand van de kaart*
- 31 oktober 2016 Stefan Ligtenberg over *IJskernenonderzoek op Anarctica*
- 28 november 2016 Coco Smits over *Mijnbouw op Groenland*

Nieuwe publicaties

IJslandse trilogie

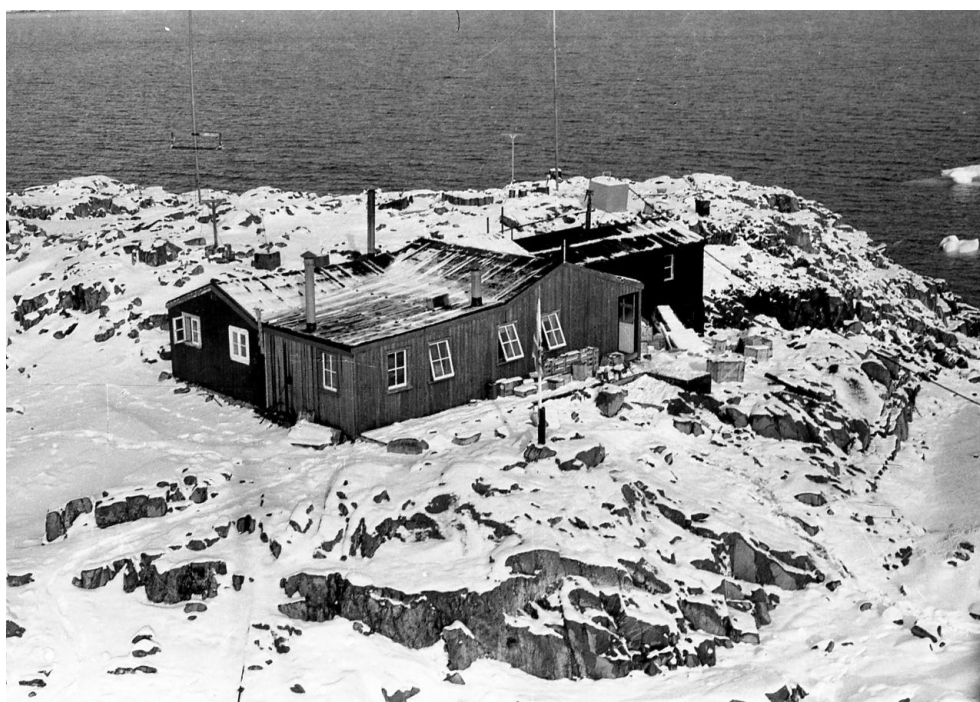
De IJslandse auteur Jón Kalman Stefánsson schreef een fascinerende trilogie over het leven in zijn land in de eerste helft van de twintigste eeuw.

De drie romans, *Hemel en hel*, *Het verdriet van de Engelen* en *Het hart van de mens*, beschrijven de lotgevallen van een jongen gedurende misschien een jaar en geven een boeiende inkijk in een traditionele boeren- en vissersgemeenschap.

Het ogenschijnlijk simpele verhaal krijgt door Stefánssons beeldende en poëtische beschrijvingen een grandioze uitwerking.

Jón Kalman Stefánsson, *Trilogie*. Vertaling: Marcel Otten. Ambo | Anthos, 2014. € 25,00, e-boek € 14,99

Historische foto van Port Lockroy. De bijbehorende Information Sheet vindt u op de laatste pagina van deze nieuwsbrief.



Green success in Arkhangelsk

The northwest Russian region cuts industrial emissions by a half in less than four years, much thanks to Barents cooperative efforts

Atle Staalesen

Figures from the Arkhangelsk statistical office, a branch of the federal service Rosstat, show that Arkhangelsk in the period 2010-2014 reduced its industrial emissions to air from 545 thousand tons to 262 thousand tons. The emission cuts were made in all the region's major cities, Arkhangelsk City, Severodvinsk and Novodvinsk.

Data for the City of Arkhangelsk alone show an impressive decrease in the period from almost 60,000 tons (2010) to 9300 tons (2014). In the neighbouring town of Severodvinsk the reduction was significant, but far more moderate than in Arkhangelsk. There, emissions dropped from 69,000 tons (2010) to 33,000 tons (2014).

Behind the success lies a transformation of several of the region's major industrial plants. Among them is the Arkhangelsk Pulp and Paper Mill (APPM), which over the last years have invested more than \$80 million on new technology.

In an interview with Barents Saga, a newsletter published by the International Barents Secretariat, Chief Engineer of APPM, Mr. Viktor Zhitnukhin says that the company started to address the greenhouse gas emissions in year 2000 and that the company leadership and main shareholders early recognized the seriousness of the problem. Furthermore, the company actively used the business potential provided by the emissions trading mechanisms of the Kyoto Protocol.

The Arkhangelsk company has been awarded for its actions: it was the first company in Russia to receive ISO 14064-1:2006 standard on greenhouse gas management and was nominated as the best performing Russian company in the international Carbon Disclosure Project in 2014.

The company is now also taken out of a list of environmental hotspots in the Barents Region. Also several other regional companies are on their way to jump off the list, among them the Severodvinsk Heat and Power Plants 1 and 2, the Arkhangelsk pulp and paper mill in Novodvinsk and the Koryazhma branch of Ilim Group, the website of the Barents Environmental Hot Spots informs.

The original list was made in 2003 when the Barents Euro-Arctic Council foreign and environment ministers set a target of launching environmental measures at all of the hot spots within 10 years by 2013. The 42 hot spots were defined by the Nordic Environment Finance Corporation (NEFCO) together with the Arctic Monitoring and Assessment Programme (AMAP). The Arkhangelsk industry has also benefitted from the region's increasing use of natural gas. Over the last years, bigger parts of the region have been gasificated thus making a number of companies cut dependency on coal and heavy oil. The central part of Arkhangelsk Oblast is today connected with the federal gas pipeline grid.

Arkhangelsk Oblast is well known for its powerful paper and pulp industry, traditionally one of the region's main industrial polluters.

January 2016

Bron: <http://thebarentsobserver.com/ecology/2016/01/green-success-arkhangelsk>



Key parts of the regional Arkhangelsk industry is located along the Dvina river. Photo: Atle Staalesen

Russia plans new floating Arctic research station

Trudy Petterson

Amidst Arctic sea ice reaching all-time minimum for late winter, the Russian Ministry of Natural Resources says that Russia plans to establish a floating research station on an ice floe. According to the Ministry, the floating research station “North Pole-41” is already in the making.

“The station will be an important instrument in securing Russian presence in the Arctic, and will give Russia the opportunity to give new priorities to scientific research from the ice,” the Ministry of Natural Resources says, according to RIA Novosti.

Russia has had floating research stations in the Arctic since 1937. Normally a station was established on an ice floe in September-October, and some two dozens of scientists would spend the winter there, measuring climate and weather conditions. The researchers and all the needed equipment has usually been brought to the ice by icebreaker, but this year the plan is to drop everything in parachutes from planes, much the same way as the annual Barneo station is established, SeverPost reports.

During the last couple of years, it has become more and more difficult to find ice floes solid enough to hold a station, and last year The Arctic and Antarctic Research Institute recommended stopping using manned stations on ice floes because of the high risks. The last station Russia established in the High North, “North Pole-40”, had to be evacuated in May 2013, because the ice floe the base was placed on, started to break apart. The sixteen scientists that had spent the winter on the floe had to be picked up by a nuclear-powered icebreaker sent out from Murmansk. Russia has not had any similar station in the Arctic during the two last winters.

A recent study shows that the ice in the central Arctic Ocean has thinned dramatically over the last 40 years – from 3.59 meters to 1.25 meters between 1975 and 2012.

Russian authorities have earlier announced plans for construction of self-propelled, ice-strengthened floating platform to replace the natural ice floes for future research stations. In 2013 1.7 billion rubles (then €42 million – now €25,8 million) was allocated to this project, but since that, there have been no news about the platform.



North Pole-40 was Russia's so far latest floating research station in the Arctic, operational from October 2012 to May 2013. (Photo: AARI)

Bron: <http://barentsobserver.com/en/arctic/2015/03/russia-plans-new-floating-arctic-research-station-18-03> (March 18, 2015)

Websites

Het zuidelijkste postkantoor ter wereld

Deze link <http://www.pbs.org/wnet/nature/penguin-post-office/11498/> brengt u naar het zuidelijkste postkantoor ter wereld, Port Lockroy. U vindt op deze website ook enkele leuke filmpjes die avonturen van de burens laten zien: de pinguïns.

Tocht Henry Worsley

De website <http://www.nrc.nl/next/2016/01/28/avontuur-op-de-zuidpooltot-in-de-dood-1581270> bevat informatie over de tocht dwars over Antarctica van Henry Worsley eind 2015.

De homepage van Worsley's fascinerende expeditie: : www.shackletonsolo.org.

Antarctic Heritage Trust Information Sheet



Port Lockroy, Base A

Goudier Island, Wiencke Island 64°49'S, 63°29'W

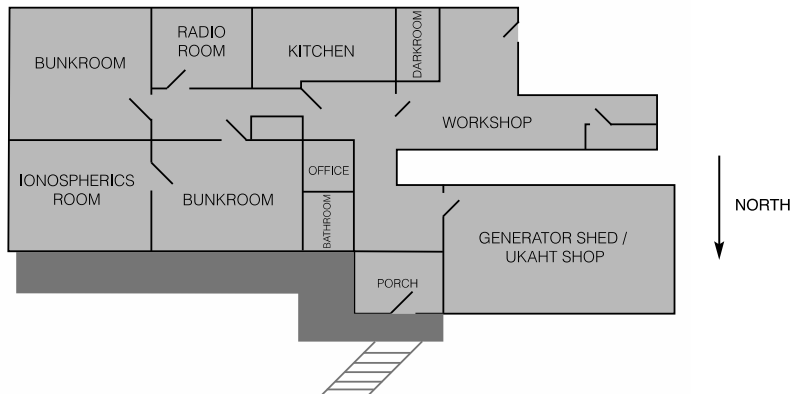
Historic site and Monument No 61

History of site

- Discovered in 1904 by Jean Baptiste Charcot, captain of the 'Francais', during the first French Antarctic expedition. It was named after a French politician who helped fund the expedition.
- The Port became known as a safe harbour and secure anchorage and was used by the whaling industry from 1911 - 1931. In those days they needed a good supply of fresh water to process the whales so proximity to the glacier was important.
- The base at Port Lockroy was established in 1944 during 'Operation Tabarin', a British World War II expedition (named after a famous Parisian nightclub of the time). The purpose of the Operation was to observe wartime enemy activities in and around the Peninsula.
- Following the end of the war the base was handed over to science. The British Antarctic Survey (BAS) operated the base as a science research station until 1962.
- The primary scientific work at Port Lockroy was ionospheric research (the study of the upper atmosphere) which was critical in understanding high frequency radio. Other scientific work included the study of how lichens, birds and mammals survived the harsh conditions of the Antarctic.
- The base closed in 1962 as the British had established other stations along the Peninsula.
- Port Lockroy's historical importance was recognised in 1995 when the Antarctic Treaty designated the site as Antarctic Historic Site and Monument (HSM) No 61.
- In 1996 a small team of four carpenters spent two to three months restoring the base as much as possible to its 1962 condition.
- The United Kingdom Antarctic Heritage Trust (UKAHT) took over management of Port Lockroy in 2006 and maintains the base on behalf of the UK.
- The UKAHT, a not-for-profit charity, employs a small team during the summer months to operate the base and welcome visitors. It is operated as a museum and representative British Antarctic base from the 1950s. The small gift shop and post office help to finance the operation of the museum, ongoing maintenance work to the buildings at Port Lockroy and all the conservation work that is carried out at other Historic Sites and Monuments on the Peninsula.

Building and structures Guide

- The main base building is Bransfield House constructed in 1944. It was enlarged in 1952 and 1953. In 1958 the generator shed was added to the main building.
- Today the generator shed houses the gift shop and post office that funds the UKAHT. The whole building is operated as a museum and as a representative British science base from the 1950s. Visitors are encouraged to explore the building. A number of interpretation posters are on site and the Port Lockroy team are on hand to answer any questions.
- The smaller structure to the north of the island is the boatshed, constructed in 1958. Nowadays it is used for storage.



Nissen hut (staff accommodation)

In 1944 a Nissen hut was built at Port Lockroy and used (for storage) throughout the bases operation. The original building collapsed sometime in the 1990s. The Nissen hut now on site is a replica of the original and was reconstructed in 2010 as accommodation for the seasonal staff. It is not part of the museum and therefore there is no entry to visitors. We ask that you please respect the privacy of the team.