

## Who are you? Sitting on the dinner table next to me?



Ny-Ålesund is a community with a mix of nationalities and a lot of variation in period of stay or years of visit. Part of the inhabitants are old friends or respected colleagues, but do you know something about your neighbour? On the web there is a special page hidden in the Netherlands station website, where you can present yourself and learn names of inhabitants. Ideally everyone should register and spend a few minutes, so new people can see who is who. Go to [www.arcticstation.nl/inhabitants](http://www.arcticstation.nl/inhabitants)

### website

A lot of information about Ny-Ålesund can be found on the website [www.arcticstation.nl](http://www.arcticstation.nl). If you have an interesting video placed on youtube, which is taken in a special location in the village, we can place it in our streetview: [arcticstation.nl/streetview/hotspots](http://arcticstation.nl/streetview/hotspots). We encourage you to present your own research on youtube.



NETHERLANDS  
ARCTIC STATION  
NY-ÅLESUND · SPITSBERGEN

## NySCIENCE 29 June 2011 year 1 number 1

NyScience is a new irregular local newspaper with information about science in Ny-Ålesund. The plan is that every station produces several issues a year. Production and coordination is with the weekly meeting of station managers. This is the first issue, produced at the Netherlands Arctic Station. Enjoy.



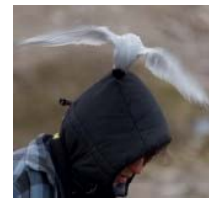
### The Netherlands moved

The Netherlands Arctic Station main building moved from London 2 (the most original from the protected London houses) to London 4 (renovated in 1990) and has opened for the summer. Welcome.



### wildlife news

**Foxes:** You must have noticed: no polar foxes denning under the London houses this year. The reason of the disappearance is unknown. Usually survival is very low, but since 2000 the den produced many puppies which were marked with colours in the ear. If you observe any fox, note the colours for each ear (left and right as seen from the fox) and report to NPI or Maarten. Dead animals are collected for autopsy. Watch out, because the cause of death might be rabies instead of starvation. Do not feed or litter as your action will affect fox survival and nature around town.



**Arctic terns:** We miss the foxes but the consequence is clear, arctic terns are nesting and defending vigorously their nest. The birds and nests are protected by law and disturbance is forbidden (where to go?). Carry a thick hat or a stick in a fixed position over your shoulder. The birds might shit on you but appreciate their parental care and the tremendous migration to the Antarctic each year.

**Barnacle Geese:** The first families have hatched and are entering town. They are used to people as long as you stay within the buildings and on the streets. Note that some families behave undisturbed, but you are moving flocks of geese in the distant when changing these rules. Geese will become flightless soon and are nowhere on the world as approachable as in Ny-Ålesund.



## Science projects in the Netherlands Arctic Station

### open top chambers or OTC's

Every year from the beginning of June, til the end of August, you can find these strange constructions on the tundra east of the camp ground, flashing in the sunlight. These are open top chambers to warm the tundra approx. 2 degrees Celsius. In an experimental set-up of 17 OTC's and 17 control plots (mind your steps), Jelte Roze of the Vrije University of Amsterdam is studying growth of Cassiope heath.



### trophic mismatch

The grass area below the oil drums has been taken over by circles of chicken wire, half of them wrapped in foil. This is the playground of Dagmar Egelkraut from Wageningen University, making a study on the effect of global warming on timing of plant quality. The geese migrate north to feed on high quality food plants in summer. But is their timing of breeding still in phase with the food plants. Dagmar will mimick goose grazing by clipping grass leaves and finally open plots to geese and observe their feeding.



### moss diversity

For the fourth year, Michael Stech and Hans Kruijer of the Netherlands National Herbarium in Leiden are visiting town to study mosses. They have gathered a large collection of species and study changes in the moss carpet following grazing by geese and reindeer.

Their student Elspeth Kolvoort will look at selection of mosses in a goose diet and will combine observations with diet analysis from droppings.

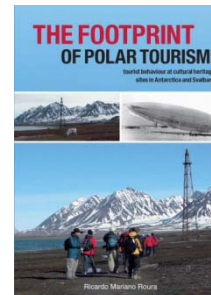
## Barnacle goose ecology: adaptations to a changing world

The Barnacle Geese in Kongsfjorden are studied intensively since 1990. Many of the individuals are marked with plastic coloured and engraved rings, which makes it possible to identify an individual with a telescope from 200 meters distance. The lake Solvatnet and the bay Thiisbukta have the highest density of geese in the ford. With no fox present, the geese will move in between the houses during night time to feed.



We observe timing of breeding, timing of moult, dominance hierarchy and food selection. Since 2000, very few goslings have survived but 2011 seems a new opportunity for the geese. Previous years, the focus has been on behaviour, population processes, effects of grazing and transport of diseases. This year we focus on timing and food quality.

**international cooperation** Our research is only possible thanks to many colleagues, helpers from other stations, institutions and Kings Bay. We enjoy the interaction and are stimulated by your science interest and effort. All people in the Netherlands Arctic Station are grateful to be part of this community.



### tourists under observation

In 2007, Ricardo Roura stayed in Ny-Ålesund for two weeks and studied tourism and cultural heritage. In 2011 he defended his thesis with several chapters on tourism behaviour. His thesis can be ordered from [www.arctic-centre.nl](http://www.arctic-centre.nl) (publications, circumpolar studies). In 2011, Nicole Miedema will stay in our station and study what tourists have learned during their stay, by taking questionnaires when the tourists return to their boat.



**insect traps** : for the 4th year, we are measuring insect abundance as people did observe an increase .



**ringed grasses**: in town there are 10 plots were we ring grasses and study growth and consumption.



**arctic tern nesting**: there was a clear pattern in which the fox predated on tern nests. Where to breed best?