Norwegian Institute for Nature Research

a research institute with an international profile
NINA – an international partner in nature research

NINA’s researchers work on a wide range of species across a diversity of ecosystems, using the research tools from multiple disciplines. Since it was established in 1988 there are few areas where NINA researchers have not been involved, but in this brochure we focus on the ecosystems and species groups where we have a core of long term expertise.

Although the bulk of our work is conducted in the field, NINA has a number of modern laboratory facilities, including a large freshwater research facility, a genetics laboratory, laboratories suitable for autopsy and age determination of mammals and fish, as well as laboratories suitable for studies of invertebrates. In recent years, NINA has invested considerable resources in the development of internet platforms suitable for the entry, storage, sharing and communication of data.

An example of NINA’s wide international experience in applied research is working with acoustic, radio and GPS telemetry of wildlife to improve the knowledge base for management. This leopard is being radio-collared within a collaborative project in India. Photo: © Jørn Thomassen/NINA
The figure illustrates that NINA researchers work on a range of scales from species to ecosystems, with many species, in many biomes and in a wide range of theoretical and applied contexts.

NINA has research partners all over the world. Here we study the freshwater resources, their utilization, and management in Southern Africa.

Photo: © Eva B. Thorstad/NINA
Long term monitoring

NINA is responsible for a number of national environmental monitoring programmes that provide constantly updated data on the status of Norwegian nature to management agencies. These national monitoring programmes include topics as diverse as seabirds, large predators, large ungulates, raptors, vegetation, small rodents and fish. These national datasets are incorporated into a variety of international monitoring programmes, such as the LIFEWATCH initiative. In addition, NINA has assisted many countries to establish similar programmes.

Design and implementation of long term environmental and biodiversity monitoring programs is an essential basis for applied nature research. This picture shows NINA researchers analyzing vegetation in permanent plots in a monitoring program that has provided detailed data on vegetation trends in Norway for more than 20 years. This helps document effects of climate change and pollution in terrestrial ecosystems. Photo: © Dagmar Hagen/NINA
All the large rivers in Southern Africa are shared by several countries. Fish do not know borders and are a multinational resource which calls for harmonized fishing regulations. With the use of radio telemetry we here study the movements of fish in the Upper Zambezi River which borders four countries in the area. Photo: © Eva B. Thorstad/NINA

NINA scientists come from a range of disciplinary backgrounds that include; ecologists, botanists, zoologists, computer technicians, taxonomists, biostatisticians, geneticists, economists, sociologists, geographers and anthropologists. NINA is therefore able to deploy well integrated multi- and inter-disciplinary teams that can adopt holistic approaches to applied problems.
NINA has the twin goals of conducting science that is both of very high quality and of an applied nature. This is facilitated by our funding which comes from a diversity of sources. These include management agencies that sponsor very applied work, and research orientated funding such as the Research Council of Norway and the European Union. We also have active cooperation with universities and make our data available for students which allows the maximum scientific potential to be extracted from data. The long term environmental monitoring datasets which NINA manage are a good example. Their collection is primarily motivated by management purposes, but they contain a wealth of data that can be used to address more fundamental ecological issues.
As an applied research institute, NINA places a large emphasis on engaging with society. As a result, NINA researchers spend a considerable amount of time in activities that communicate their results to decision makers, key stakeholders and a wider public. NINA have considerable experience in structured processes that seek to promote public participation in research activities and policy processes. These often involve the inclusion of stakeholders in research project planning and data collection, as well as through formalized reference groups.

There are many conflicts between the various users of natural resources, and NINA works with many of these, seeking to both understand the nature of conflicts and to identify potential mitigation measures. Examples include human-wildlife conflicts, environmental impact assessments, conflicts between domestic and wild species and conflicts between renewable energy production and wildlife.

Societal engagement

Studying conflicts between resource users

Resource use and biodiversity conservation involve various levels of conflict among societal groups. The Sami reindeer herders portrayed in the winter picture experience a range of conflicts with both infrastructure development and the conservation of large predators. NINA are currently engaged in a series of projects designed to understand the extent of these conflicts and to identify any possible mitigation measures. Working on such controversial issues requires a constant dialogue between researchers, the management authorities, and a diversity of stakeholders. Photo: © Roy Andersen/NINA
Management of natural resources often brings conflicts of interest to the surface. Moving beyond simply describing conflicts, NINA’s staff try and promote resolutions by developing routines and methodological approaches in participatory dialogue processes. The outcome is stakeholder ownership to the conflict, an improved understanding of knowledge needs, the creation of new arenas for further dialogue, and mutual sharing of solutions.

NINA’s applied research profile places us at a key junction between science and policy. Many of our results, from national and international activities, are constantly integrated into policy development and routine decision making processes. This has given us considerable experience at the real-time transfer of the latest scientific information to those who need it, and when they need it.
Building personal and institutional capacity in applied nature research requires both practical and theoretical skills. Here, students from Central America learn field techniques for sampling grassland biomass in silvopastoral systems in Nicaragua. Photo: © Graciela M. Rusch/NINA

Although NINA is not a formal teaching institution, our scientists are often engaged as lecturers and supervisors for students based at universities and colleges. Students are routinely integrated into our projects. In the international arena, many of our projects have a strong capacity-building component that is achieved through engaging in cooperative research activities. The result of these projects is always a two-way exchange of experience resulting in mutual benefits.

Hunting of large ungulates and freshwater fisheries are important economic activities in countries like Norway, and NINA has a long tradition of conducting the research which is needed to ensure that these natural resources are exploited in sustainable ways. Our research focuses on both the ecology and monitoring of the resources and on the behaviour, motivations and social context of the hunters / fishers. NINA has routinely helped other countries improve the sustainability of their natural resource management.

Capacity-building and education

Sustainable use and harvesting
Management to conserve selected species requires a solid understanding of the species’ ecology. Measurements of a puffin on the island Røst, Norway, provide information on, i.a., the nutritional status of the birds. Photo: © Signe Christensen-Dalsgaard/NINA

NINA was established as an independent foundation in 1988 based around the staff from the Directorate for Nature Management’s research department. This privatisation was motivated by a desire to create a greater degree of separation and independence between the knowledge providers (researchers) and the knowledge users (policy makers).

Since then NINA has grown, and exceeded 200 employees in 2011. The vast majority of NINA’s funding (approximately 85%) comes from competitive contracts obtained from sources such as the Research Council of Norway, the European Union’s Framework Research Programmes, and a wide range of state sources at all levels, from the municipal to the international, in addition to the private sector. The remaining funding (approximately 15%) comes as a block grant of core funding from the Ministry of the Environment.

NINA has its head office in Trondheim, with offices in Tromsø, Oslo and Lillehammer. In addition, NINA maintains three field stations in connection with seabird research, a captive breeding facility for arctic foxes and an aquatic research station. NINA’s ambition is to operate a streamlined administration with flexible structures, hence the staff are organised into very broad divisions under 5 research directors who report directly to the Managing Director.
NINA is an attractive partner in international cooperation projects. These maps provide an indication of the current level of international activity. The map of Europe shows the cities where our partner institutions are based. The global map shows the countries where we have active project cooperation.