



ROSLAGENS GRASSLANDS



MANY THANKS
To all who have helped
finance the Roslagshagar
Project!



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THE ROSLAGSHAGAR PROJECT CREATES OPPORTUNITIES

In 2001, the Uppland Foundation and WWF Sweden, launched the Roslagshagar Project to preserve and protect rural landscapes. The method used involves restoring biologically valuable meadows and pastures in close cooperation with landowners and livestock owners. The Uppland Foundation has a free role in this endeavour; we are not a public authority, a fact that benefits us as a partner. The large effort made by local farmers and entrepreneurs and our capability of securing funds for restoration work and other purposes have both moved the work forward. As a result of the projects work, the chances of preserving the beautiful rural landscape along Uppland's coast have improved. We are now seeing results such as a growing number of young farmers who are raising their cattle on semi-natural grasslands and how a number of endangered species are increasing their populations.

NATURE CONSERVATION CAN ENHANCE PROFITABILITY

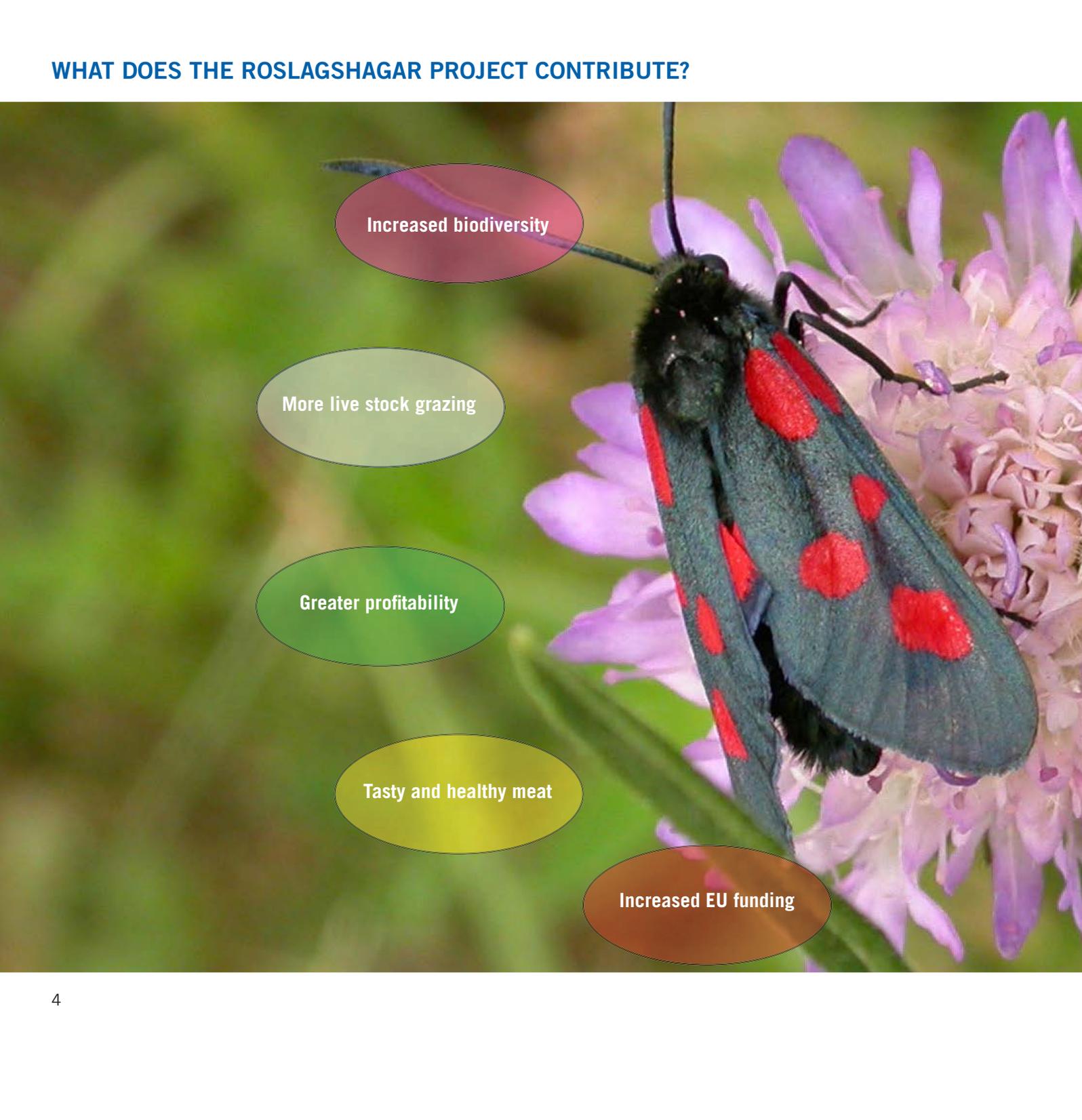
Besides the benefits for nature conservation, the measures taken often provide a much-deserved financial boost for those who are doing the work, i.e. the farmers of Uppland's coastal region! Today, EU subsidies represent a substantial share of agricultural income, and profitability can be increased by how the grazing is managed, directing live stock to pastures that give the highest income. The Roslagshagar Project has focused on what many view as major obstacles for continued grazing, helping for instance to build sheds for livestock that are easy to manage and to restore and fence large areas of land. In marginal areas with small-scale farming, such as coastal and archipelago areas, semi-natural grasslands can be particularly profitable as fewer animals are required per hectare. We have noticed that farmers now have more faith in the future as we are now getting more enquiries from livestock owners concerning available pastures, rather than enquiries about available livestock for grazing, as was the case at the beginning of the project.

We would like to say A LARGE THANK YOU to all who have taken part in the project so far, and we hope our joint efforts will be equally rewarding in the future as well.



PHOTO: Maria Hoflin,
Gillis Aronsson,
Eva Medin Johansson

WHAT DOES THE ROSLAGSHAGAR PROJECT CONTRIBUTE?



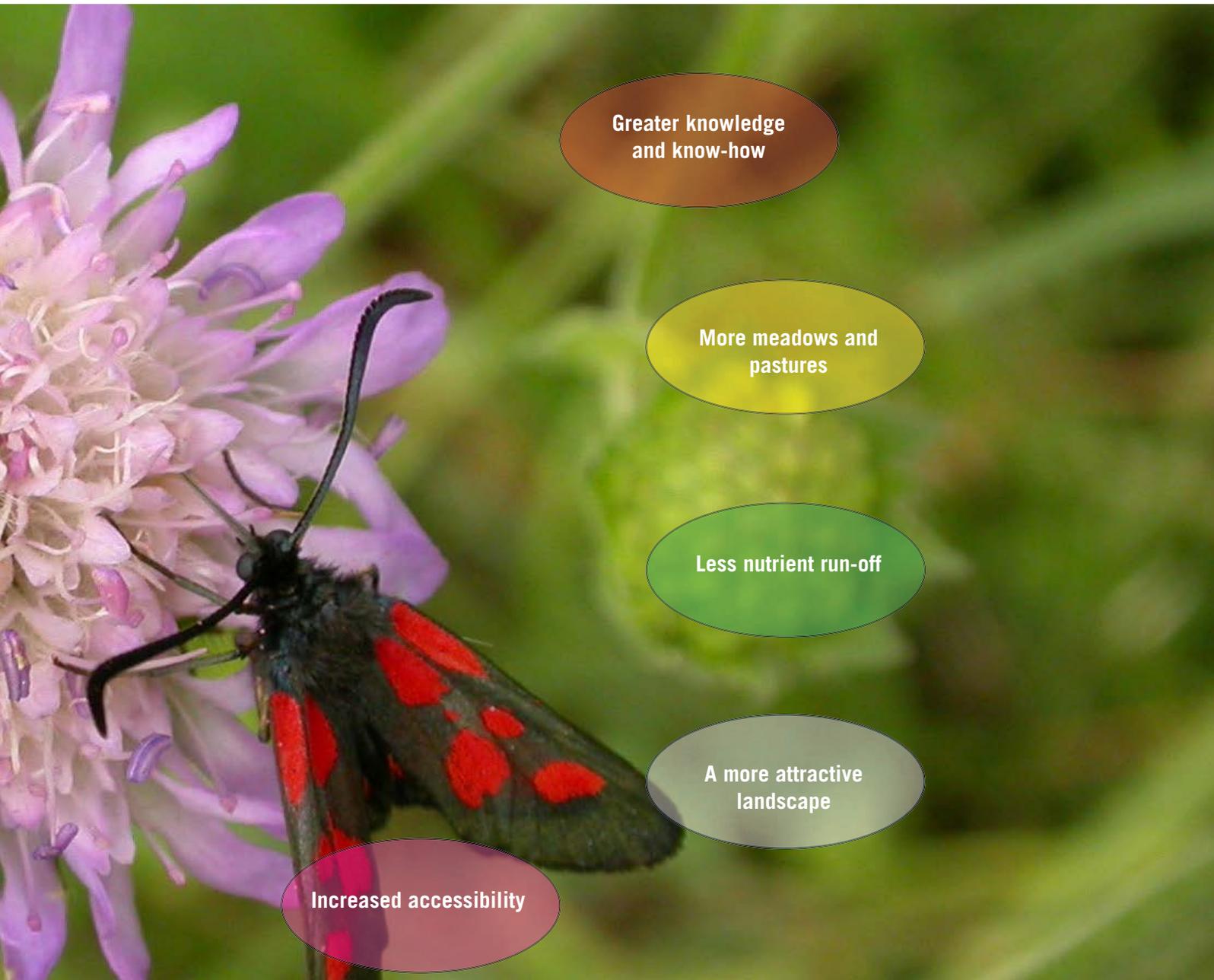
Increased biodiversity

More live stock grazing

Greater profitability

Tasty and healthy meat

Increased EU funding



**Greater knowledge
and know-how**

**More meadows and
pastures**

Less nutrient run-off

**A more attractive
landscape**

Increased accessibility

PROJECT AREA

THE PROJECT AREA

The Roslagshagar Project covers the coastal and archipelago areas of Uppsala County. A number of sub-projects, however, are limited to parts of the area. The catchment area for 'Pasture Meat from Roslagen' is larger and includes the Norrtälje district.



HABITATS AND SPECIES

Meadows and pastures have a wider array of species compared to most other types of habitats in Sweden. Many species thrive together in a small space as grazing or mowing means that no single species can take over. If grazing or mowing ceases on the grassland, the swards of grass are loosened up and shrubs and trees move in. An unusually large amount of semi-natural grasslands are still to be found along Uppland's coast, often including pollarded trees, traditional wooden fences and traditional barns for meadow hay. There are different types of semi-natural grasslands, and among those that are typical for the area are coniferous forest pastures on calcareous soil, coastal meadows, pastures with broad leaved trees and the remains of meadows with pollarded or coppiced trees.

There are a number of endangered and rare species within the project area. The butterfly fauna is particularly rich; it still includes a number of species that are no longer found in other parts of the country. The Clouded Apollo (*Parnassius mnemosyne*), the Twin-Spot Flat-Body (*Agonopterix bipunctosa*), the *Depressaria Nemoella* moth and the Tortoise Beetles *Cassida ferruginea* and *Cassida murraea* are examples of endangered species that have valuable populations in the area and which we are therefore making extra efforts to preserve.

FACTS

Meadows and pastures are semi-natural grasslands that are managed by mowing and grazing respectively. They have not been ploughed, fertilised, sprayed with herbicides or pesticides or sown with forage plants in modern times. They tend to be unusually rich in species.

Read more more about Uppland's valuable coastal areas in Landskap att värda, which may be ordered from the Uppland Foundation (in Swedish).



*There are still many species-rich habitats to be found along the Roslagen coast, including meadows with pollarded trees and roadside verges. Pictured here are the Twin-Spot Flat-Body (upper right) and a Tortoise Beetle *Cassida ferruginea* (lower left).*

PHOTO: Anett Persson, Jan-Olov Björklund, Niklas Bengtsson, Frida Hermanson.

ACTIVITIES AND RESULTS IN THE FIRST TEN YEARS (2001–2010)



Plant inventories are one of the methods used to evaluate what impact a restoration has had on biodiversity in a given area.

PHOTO: Lisel Hamring

INVENTORIES

- Some 5 000 hectares of overgrown meadows and pastures have been documented. Almost 60 per cent of the total acreage is classified as being of high or medium-high priority for restoration.
- Butterfly populations have been extensively surveyed, primarily moths. In all, inventories of 120 areas have been carried out. Red-listed species and species classified as of interest for nature conservation have been found in 62 of the areas.
- An inventory of farms with livestock has been done on the headland of Söderön (2001).
- Species specific inventories have been carried out and new areas have been found with the endangered species: the Clouded Apollo, the Twin-Spot Flat-Body, the *Depressaria Nemoletta* moth and the Tortoise Beetle *Cassida ferruginea*.

FENCING, RESTORATION AND MANAGEMENT

- As a result of the project, a total of about 2 200 hectares of meadow and pastures have been restored and brought under management, or improved management.
- Fencing grants have been paid out for fencing material, to 50 farmers or landowners distributed on over 100 areas. Almost 120 kilometres, mainly electric or woven wire fencing (for sheep) has been erected, resulting in a total of approximately 1 300 hectares of pastures.
- During the project, some 350 hectares have been restored in a total of 27 areas. Measures include removing trees and brush that has come up during a period of overgrowth and in some cases stump grinding and tree pollarding.
- More than 6 hectares of meadows have been restored and/or is being managed by the project.

CONNECTING LIVESTOCK AND LAND

- Livestock owners and landowners have been put in touch with each other in 12 cases giving new forms of cooperation when managing pastures.

EQUIPMENT FOR MANAGING MEADOWS AND PASTURES

- Motor manual sickle bar mowers and a rock drill have been purchased by the project. They can be borrowed free of charge for the management of small meadows and for the fencing of rocky terrain.
- Transport wagons for livestock have been purchased to facilitate the transportation of animals to and from semi-natural grasslands a distance from the farm.



Mowing with a motor manual sickle bar mower.

PHOTO: Maria Hoflin

ADVISORY WORK AND TRAINING

- About 100 livestock owners/landowners have received individual visits and advice on management and restoration of semi-natural grasslands, or special guidance on animal husbandry and financial aspects.
- Five study trips have been organised.
- Thirteen village meetings have been organised, focusing on the future management of the villages land.
- Twenty-six guided nature tours have been organised, on a range of themes.

INFORMATION

- A number of larger information meetings have been held around the region.
- Newsletters have been sent to farmers and landowners twice a year.
- Brochures, reports and publications have been produced.
- Signs on fences and project signs have been put up.
- Two walking trails have been constructed.
- The project has been represented at markets and fairs.
- An information trip has been arranged for politicians, sponsors and others (2006).
- A one-day festival, Tvärnö Day, has been organised at Östra Tvärnö yearly since 2007.

SHEDS FOR LIVESTOCK

- The project's work has led to the erection of 7 new sheds for livestock in the area. This has secured a long-term management of over 800 hectares of valuable semi-natural grasslands, primarily in nature reserves.

PASTURE MEAT

- WWF Sweden, has put together criteria for Pasture Meat from Roslagen.
- A feasibility study for the Pasture Meat from Roslagen initiative was undertaken in 2005–2006.
- Sales and the development of Pasture Meat from Roslagen took place during 2007–2009.



Långalmastigen, on the headland of Söderön, is one of the nature paths that has been constructed in the project. PHOTO: Anett Persson

PHOTO: Eva Medin Johansson







A well-grazed coastal meadow at Ledsjär. PHOTO: Berndt Godin

EXAMPLES OF ACTIVITIES

RETURN OF THE CLOUDED APOLLO BUTTERFLY



Fumewort (*Corydalis solida*).

PHOTO: Gillis Aronsson

BUTTERFLIES IN UPPLAND ARE IMPORTANT TO PRESERVE

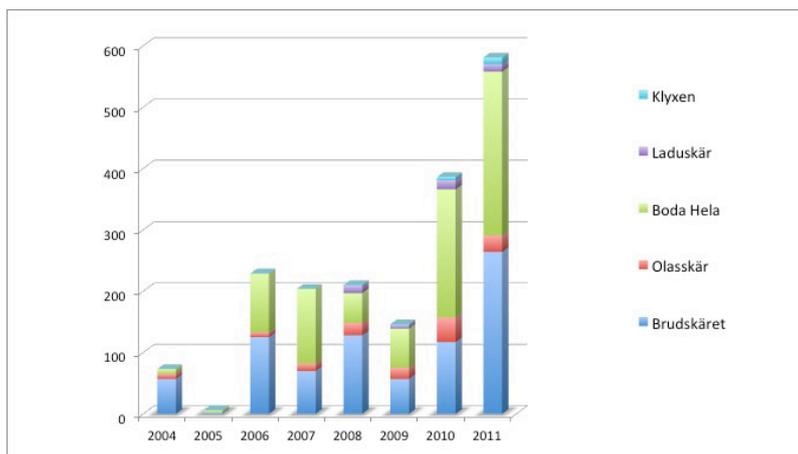
The Clouded Apollo butterfly population has shrunk drastically in Sweden over the past 20 years. This butterfly now only exists in a few locations in Sweden, in the Blekinge coastal region, in the Indalsälven river area and along the Uppland coast. The Clouded Apollo is classified as an endangered species on the red list. We have one of the country's most abundant concentrations of the Clouded Apollo in our coastal area, which is why it is extra important to preserve this species in the county. Also, its habitat is home to many other sensitive species that will benefit from measures put in place for the Clouded Apollo.

MEASURES TO INCREASE POPULATIONS OF THE CLOUDED APOLLO

The Clouded Apollo is found in meadows and pastures with a mosaic structure. The areas with the butterfly are difficult to manage since the host plant, Fumewort (*Corydalis solida*), cannot survive overgrowth, whereas the caterpillars and pupae are sensitive to early grazing/mowing. The Roslagshagar Project has introduced careful clearing and fencing and late, extensive grazing at three Clouded Apollo locations and in adjacent areas. Stands of trees have been left as wind protection. Groups of bushes and individual bushes have been left as protection for the butterfly's eggs. All the measures have been taken on private land, in close cooperation with livestock owners and landowners. In all cases, Clouded Apollo populations have increased significantly within a year (see figure below).

To improve the species chances of spreading, the Clouded Apollo has been reintroduced in three locations, in one of them successfully. Mated females were moved to suitable restored areas.

Number of Clouded Apollo butterflies observed in areas restored in the Roslagshagar Project. The populations have increased significantly following restoration and the introduction of late, extensive grazing. Bad weather at the time of the inventories in 2005 and part of 2009 means that the figures for these periods are unreliable.



FACTS

The Clouded Apollo is a large butterfly with a wing span of 55–68 mm. The wings are white with clear black veins. The caterpillar, which lives on fumewort, hatches in mid-April. About three weeks later, it turns into a pupa in a dry leaf. The pupal stage lasts about four weeks. The actual butterfly is hatched in early June and flies throughout the month. The species hibernates as an egg. (Ref: Artdatabanken)

PHOTO: Pär Eriksson



FENCING GRANTS A GOOD INCENTIVE

OPPORTUNITY FOR NEW FENCING

Restoring overgrown meadows and pastures and bringing them under management is one of the most important ways of improving biodiversity. One of the Roslagshagar Projects most important instruments has been the possibility to give grants for fencing semi-natural grasslands. In fact, fencing grants are what have attracted most farmers to the project. Anyone who owns or manages semi-natural grasslands are eligible for this funding, whether they are farmers, landowners or owners of weekend cottages. All are required to sign an agreement to manage the land for at least five years.

INCREASED EU FUNDING FOR THE PROJECT AREA

As a result of fencing grants, many overgrown pastures have been restored, and are grazed again. Giving farmers in the project area the possibility to apply for new EU funding (single area payments and agri-environmental payments) for pastures to the value of approximately SEK 5 million per annum. Where previously livestock were grazing grass lays, this land can now be used more effectively to provide winter fodder so that more animals may be fed.

The Roslagshagar Project has contributed to almost 120 kilometres of new fencing.

PHOTO: Magnus Johansson



COOPERATION WITH LIVESTOCK OWNERS AND LANDOWNERS

The Roslagshagar Project is based on a close, cooperation with livestock owners and landowners. This is important, since it is usually privately owned land that we work with, and it is often farmers who will be managing it after receiving initial help from the project.

PLANNING OF RESTORATIONS

Many landowners/farmers want help in planning the restoration of their pastures. The project can draw up restoration plans and mark trees prior to felling trees and clearing away brush. It is very important that clear instructions are provided to the entrepreneur. In some cases, we can also help people apply for restoration grants (Investment support from the Rural Development Programme) and arrange for restorations by entrepreneurs. The aim of the restorations is to preserve and enhance biodiversity and to ensure that the restored land qualifies for EU's agri-environmental payments so that its future management is financed.

THE PROJECT RENTS AND MANAGES LAND

In areas with endangered species, which tend to be hard to manage, the Uppland Foundation can rent the land and organise both restoration and management of the land, if the landowner wishes. In such cases, we often apply for restoration grants and thereafter agri-environmental payments to finance the management. We rent the land and make agreements for grazing with livestock owners, or with entrepreneurs for mowing.

RESTORATION AND MANAGEMENT THROUGH COOPERATION



A small track harvester is useful for tree felling on sensitive land. PHOTO: Maria Hoflin



Some areas that we lease are managed by mowing. PHOTO: Anett Persson

SHEDS FOR LIVESTOCK ENSURE BIODIVERSITY



NEW BUILDINGS ENSURE FUTURE MANAGEMENT

The Roslagshagar Project has managed to gather a range of parties, within the area of nature conservation, willing to help improve buildings for livestock grazing nature reserves, Natura 2000 areas or other especially valuable land. The Uppland Foundation, WWF Sweden, the Uppsala County Administrative Board, the Swedish Environmental Protection Agency and the Municipality of Östhammar have all contributed to the buildings. The farmers themselves have financed the remaining costs and have carried out much of the construction work. Long-term management of more than 800 hectares of especially valuable semi-natural grasslands within the project area has thereby been ensured. The new buildings are more rational when caring for the livestock, which enables farmers to improve their finances and also increases the possibilities for younger generations to take over the farming.

FURTHER NEEDS

There is a considerable need to build more sheds for livestock, but it is unsure whether the project will be able to find sponsors for this in the years ahead. Investment support can, however, be applied for from the County Administrative Board. The Roslagshagar Project can give advice on the planning of the building and help calculate costs, the number of animals, and pasture acreage etc. We also offer advice on what types of animals are suitable for the pastures and may be able to help find pastures if needed.



During the period 2003–2009, seven new or converted sheds for livestock were erected with the aid of the Roslagshagar Project.

1. Kallriga
2. Lönnholmen
3. Öster-Mörtarö
4. Hovön-Alnön
5. Björnäs
6. Östra Tvärnö
7. Gräsö farm

Left: Kallriga cattle shed.

PHOTO: Maria Hoflin

INDIVIDUAL ADVICE

In connection with fencing grants, we always visit the land in question and offer advice concerning management and restoration. Many farmers also want advice concerning other pastures. The rules for agri-environmental payments for pastures are highly complicated and are constantly changing, which means the need for advice in this area is considerable. Advice on issues relating to sheds for livestock, breeding and farm economy is also offered.

VILLAGE MEETINGS, STUDY TOURS AND COURSES

Activities targeting livestock owners and landowners have attracted great interest. Village meetings have been held regularly to discuss individual village's opportunities to develop management of the rural landscape and different forms of cooperation. Study tours to newly built sheds for livestock and to farms in Uppland and Åland have been organised, as well as courses for both farmers and officials dealing with nature conservation. The need for training and information is large and more activities will be organised in the future.

We advertise such activities in our newsletter, on our website and sometimes in local papers.

ADVICE AND TRAINING IS NEEDED



Above: On-the-spot advice.
PHOTO: Pär Eriksson

Below: Guided tours for farmers and the general public has been an important means of spreading awareness about the many values in the rural landscape. PHOTO: Berndt Godin



DEVELOPMENT OF THE PROJECT FROM 2011



THE ROSLAGSHAGAR PROJECT CONTINUES

There is still a great need to restore overgrown meadows and pastures and to re-introduce a management of these. The Uppland Foundation plans to continue its work with fencing grants, restorations and measures to protect endangered species as part of the Roslagshagar Project. We will also continue to provide advice, information and training.

COOPERATION WITH WWF IS DEVELOPED

The cooperation with WWF will continue and is developed to also include wetlands and the reduction of nutrient run-off to the Baltic Sea. WWF actively seeks to influence agricultural policy, and one of the project's tasks is to provide information about the difficulties and bottlenecks associated with the rearing livestock on semi-natural grasslands.

FINANCING AND COOPERATION WITH OTHER COUNTRIES

The Roslagshagar Project is an umbrella organisation with a role to seek funding from various places and to run sub-projects of limited duration. The total budget for the ten-year period 2001-2010 amounted to approximately SEK 25 million, of which 70 per cent was in the form of external project funding. We have applied for and have been granted EU funding for major initiatives a number of times, in cooperation with other Baltic countries. The Rural Development Programme and the Swedish Environmental Protection Agency are other important sources of funding. The future course of the project will be partially determined by which kinds of external funding are available.

FURTHER INFORMATION

Further information about coming projects and activities will be published in our newsletters and on our website.

Common Milkwort is found in semi-natural grasslands. PHOTO: Anett Persson

ABOUT THE UPPLAND FOUNDATION



PHOTO: Gillis Aronsson and Anett Persson

Over the past 15 years, the Upland Foundation has been proactive in developing the region's rural landscape. The methods and areas have varied over the years but in most cases the goal has been the same: to increase biodiversity, to spread knowledge and heighten awareness, and to encourage rural development.

The Upland Foundation was founded in 1972 to “facilitate and encourage outdoor recreation among the general public” and to “strive for the preservation and protection of the Upland countryside”. It runs a wide range of projects, both to promote nature conservation and to develop outdoor activities. It also owns and manages more than thirty nature areas in the county, of which half are nature reserves. Some are recreational areas with camping sites or holiday cabins, beaches and walking trails. In others, the principal aim is to protect species and natural habitats. The foundation is also responsible for three canoeing trails.

Through our nature schools, we encourage teachers and students to engage more in outdoor activities. We spread information about the county's nature, nature conservation activities and recreational opportunities via publications, folders, our website and the museum Biotopia.

The Upland Foundation's members are the County Council and the municipalities in Uppsala County.

THE ROSLAGSHAGAR PROJECT

The Roslagshagar Project is run by the Uppland Foundation in cooperation with WWF Sweden. Its aim is to preserve and develop the rural landscape along the northern Uppland coast. The project cooperates in this endeavour with livestock and land owners, the County Administrative Board and other parties. With the aid of the project a considerable amount of meadows and pastures along the Uppland coast have been restored and are now being grazed or mown once again. This work helps to preserve one of the most valuable rural landscapes in Sweden, containing a rich array of flora and fauna associated with meadows and pastures.

This publication describes the principal activities in the Roslagshagar Project and the lessons learned in the process.



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EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND
INVESTING IN YOUR FUTURE

This document, which has been produced as part of the EU project SNOWBAL (Saving the Sea from Nutrient Overload by managing Wetlands/grasslands BALtically), represents the Uppland Foundation's own views. The Managing Authority cannot be held responsible for the information contained in the document.