The Väinameri Project

Linking rural life and coastal nature

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Foreword

I welcomed the first foreign partners in Hiiumaa over ten years ago. Estonia had just recently regained its independence and the Soviet troops had just left the island that had been under strict military surveillance. We went to dine in a restaurant—the hope of an emerging market economy—and ordered a meat dish. "This is local meat, right?" – the Danish partners asked the restaurant owner. "Oh, no, definitely not! It is from Germany!" – declared the owner with undistinguished pride.

I recall this incident from time to time when I notice the extent of change in people's attitudes over the years. Especially when I see the farmers of Väinameri making attempts to market their produce as unique and representative of all that is local despite all the obstacles. Or when tourism entrepreneurs promote something special, unique and close to nature. Or when craftsmen capture old patterns and techniques in their creation.

Another great breakthrough has taken place in the last decade, I think, perhaps, throughout the whole world. The relations between nature protection and local people have shifted from being in opposition into co-operation. This applies to both sides. Nature protection has expanded its activities outside the protected areas by finding more values in semi-natural communities, heritage eco-systems which cannot survive without continuous management.

On the other hand, the inhabitants of areas surrounding the protected areas have begun to look for ways to link their economic activities with nature protection more and more, whether in the form of a business or endowments. And people have started to place increasingly more importance on the quality of the living environment and not just the material gains.

This has been the background for The Väinameri Project during the recent years. The Swedish World Wide Fund for Nature—WWF—planted the seed of this project in the coast of West Estonia, and—whether it was due to a favourable astrological position of the Moon or fertile soil—the seed has grown into a strong tree and its branches are reaching towards several points of the compass.

This book provides a summary of The Väinameri Project, its aims, activities, achievements and blunders. We hope that the experiences of this project can be used far from the sloping coasts of our cool sea.

Toomas Kokovkin,
editor

Introduction

The contents and tendencies of nature protection have gone through considerable turns during the last decade. The changes are especially remarkable in the case of the Estonian coastline. One might not think that surprising if we consider that the heavy shackles of Soviet occupation were lifted and Estonia became independent, the soviet border guard system disappeared, re-privatisation of land and democratisation of local management took place. However, the changes originate from much wider global trends, connected both to alteration in the "nature-protection-way-of-thinking" and to issues developing in European regional politics, as well.

So why just the coast? Why do we emphasize its special condition? For several reasons. First, we are dealing with a border area between physical environments. Here, all processes are relatively more dynamic than inland or in the sea. Tensions are higher. Live organisms thrive. In the coastal zone one finds multitudes of spawning sites and feeding areas for fish, resting and nesting places for birds, pupping and feeding grounds for sea mammals. People, too, have been drawn to the coast because the variety of available resources reduces survival risks. In the last century, new aspects of economic and strategic interests, associated with "leisure time" and "quality of life" have emerged. Tourism has exploded, further increasing pressure on the coast.

The need to search for the balance between increasing human impact and endangered natural landscape has become a common topic. For our purposes, the question becomes, how can we manage human activity at the coast? Sadly, if it was once possible to reach the aims of nature protection via the creation and functioning of a strictly *nature conservation* system, at the end of the twentieth century two facts became clear for the whole world. First, existing nature protection approaches can no longer ensure the level of nature conservation needed, as the sheer volume of external problems exceeds their capacity to respond. Second, individual countries can't finance the upholding of the ecological balance based on existing thinking.

Principal decisions became necessary: to leave the old paradigm which separates economics and nature protection, and to search for possibilities for the conservation of nature within society, *a propos* to revised theories of economic growth. In 1992, with the concept of sustainable development on the rise, the Rio de Janeiro conference took place, one reverberation of which was the passage of the Act of Sustainable Development in Estonia.

In the case of the coast, the aforementioned tendencies have led to *integrated coastal zone management (ICZM)* principles. In truth, requirements of the ICZM are so complex that no maritime nation's attempts to meet them have been fully successful. To reach the aim of nature protection alone we must fully consider the following:

- co-operation between the ecological systems of the sea and land,
- matching the interests of different economic sectors,
- consideration of special interests of individual regions,
- harmonisation of different management levels,
- guaranteeing the development of local life, taking into account culture and national origin.

Since dealing with the coastal management of an entire

country is an overwhelming task, some projects of more limited scope were instituted. The Väinameri Project, a cooperative effort of WWF-Sweden with Estonian partners, is one that developed from 1997–2004.

WWF-Sweden has been the initiator and main financial supporter of The Väinameri Project. That in itself reflects the changed understanding of the meaning of nature protection. The WWF is the "Panda-organisation," well known for its wide-scale campaigns to protect species of rare animals and ecological systems. But here in the Väinameri Project, we started with very anthropocentric action, namely coastal agriculture and the development of tourism and handicrafts. How is that connected to protecting nature?

The Estonian west coast and islands are unique because as the slowly but constantly rising land emerges from the sea, vast expanses of shallow coastal areas are formed, allowing light to reach the bottom. This phenomenon creates rich and diverse natural systems. Combine this diversity with Estonia's gently sloping beaches, with their widespread reed areas, coastal meadows and alvar regions, and the result is a coastal landscape with great natural value.

Although the Estonian coastal landscape formed over thousands of years, its natural status was impacted by human agricultural activity for many of those millennia. As soon as the land rose from the sea and could support vegetation, humans began using it for grazing and mowing. Thus its defining characteristics have developed through a balanced relationship between humans and nature. The semi-natural coastal plant communities that developed have today become a high priority for nature conservation. Continued preservation requires ongoing human activity.

Before we continue, you might ask, what does "semi-natural" mean? Let us give an example. In contrast with areas of the world that remain "untouched by humans," there are regions that have been developed by and in harmony with human activity, over thousands of years. For example, a forested region may have been inhabited for a time, some of the forest cut for firewood and ground cleared for the grazing of animals. New patterns of light and shade would then have allowed different plant life to adapt and develop, attracting different birds and wildlife. This interdependence of man and nature, continuing over millennia, results in what we call *semi-natural* ecological systems, in this example, a wooded meadow.

The Estonian coastal plains have also been affected by changing patterns of human habitation reflecting altering social and economic conditions.

During the second half of the twentieth century the semi-natural coastal areas have grown wild, grasslands and limestone regions have grown over, wooded areas have spread wider (similar tendencies on coasts and other border areas can be seen in the landscape of our neighbour countries, Finland and Sweden.) One reason is large-scale agriculture, characterised by the use of

Tiit Leito

powerful machinery and artificial fertilisers. Today, it is important for us that semi-natural open coastal landscapes are able to support a wide array of natural environments, habitats and ecological systems.

So the aim of the Väinameri Project is to preserve or restore the coastal semi-natural habitats. It is impossible for conservationists alone to combat the problem; it would simply be unaffordable. Furthermore, the influences of nature would eradicate the results of such single action within a couple of years. Consequently we must create a system that will maintain itself, involve active people, and be economically sound. Here, the landscape protectors of the Väinameri coasts have found an ally in a former adversary, the farmer. The increasing interest of farmers in breeding beef cattle and the potential of finding a niche in the agricultural product market has led to greatly expanded natural grazing.

A maxim from the business world—"the market will set things where they belong"—although simplistic, perhaps even naive, neverthless helps explain the essence of the Väinameri Project: to manage nature succesfully, one must ultimately address the wants of the consumer.

Here, a completely new task has confronted those who foster nature protection—to stimulate the marketing of high quality meat, raised according to organic standards, as a distinctive and attractive article for consumers interested in local products. The responsible eco-tourist, whose interests reach from the natural heritage of a place to its folklore and culture, is one such customer. Here we also understand why *nature protection* has become much more strongly bound with the development of *nature tourism* on the Estonian islands of Hiiumaa and Vormsi, and in the Matsalu bay area.

Nature tourism, or "eco-tourism" as it is becoming known, involves handicrafts and the use of local raw materials by small industries—wool and juniper, curative mud, wood-chips and reed originating from semi-natural coastal ecosystem—and will also require a balanced arrangement of nature and commerce.

We would like to emphasise one concept of ecology used in structuring the Väinameri Project: the analogy of the **food chain**. To ensure the continued functioning of coastal semi-natural plant communities, it is also necessary to create a continuous chain beginning from plants, at the bottom of the pyramid, including agricultural animals on the next level, and reaching the consumer, on the top of the pyramid. The levels are necessarily linked: the existence of a consumer depends greatly on the values of the coastal landscape. Thus the task of the coastal farmer of Väinameri includes keeping two values in balance: on one hand he has to be productive for his own business interests, and on the other, he has to help maintain an open landscape for the sake of the wider society.

Today, coastal management presumes the creation of powerful information systems to analyse changes in space and time. The more parties involved, the more information is needed in the decision possess, and

the broader must be the skills of the people involved. Results must reach the planners, and that, in turn, is very tightly bound to local politics. At the same time, all necessary information must be available for everyone whose interests involve the coast. During the Väinameri Project a large-scale "geo-info" system of coastal landscapes was set up to assess nature research, human activities, and to offer recommendations for land use, as well.

Prospects for the immediate future for Väinameri area lifestyles are connected with modern technology. Thanks to information technology, which is helping to create new jobs, the coastal area, with its secluded summerhouses/sanctuaries, will become a place where people can work outside of urban centres. The social structure of coastal areas will change, as well, since most people leaving the cities seem to want to come to the seaside. This tendency, although barely noticeable, has already started to influence the management of coastal landscape protection, because the need to preserve the values of nature is finding new and often very influential supporters.

There are very tight connections between the arrangements of coastal scenery protection, the development of local life and wider changes based on the example of the project in Väinameri.

The points of view regarding nature protection will change in the future, the key words being *management* of coastal preservation and *co-operation* with the people living in the area.

Young farmer Joosep Tikk with his horses on the coastal meadows of Kassari

Rationale of the Väinameri project

Chapter authors Lennart Gladh & Ola Jennersten

It was an early, warm October in 1990. All media attention focused on the rapid changes in Eastern Europe. The general image portrayed was of problems with criminality and the environment. We had difficulties naming the capitals of the new Baltic states — Riga … is that the capital of Estonia or Lithuania?

The aim of our first visit to Estonia was to establish contacts and partnerships. We arrived at Tallinn airport in the evening and were greeted by long queues, toilets that did not work, and men in dark suits who were checking all passengers. However, on the other side we could see lots of smiling people with flowers in their hands waiting anxiously for their guests. Two men stood there holding a sign with the name 'Gladh' written on it.

The drive to Matsalu took 1.5 hours in the dark. The car was a big Volga with a strong odour of petrol. It was a fast trip and quite silent due to language problems. When we arrived in Matsalu, we were served dinner at a table with the Swedish flag in the centre and a tape of the Swedish dance band Vikingarna playing on high volume in the background.

The next morning we took the first walk in Estonian nature and were overwhelmed by the large flocks of geese, swans, ducks, and, of course, stork nests. Huge reed beds and impressive coastal meadows proved the area's great Baltic and international value. The first ornithologists did not only appreciate the migrating birds but also the deciduous forests full of dead trees—an ideal place for black storks and woodpeckers such as the white-backed woodpecker—a species that was rapidly being lost in Finland and Sweden. Only later did we learn that these forests were sad memories of a dark period in Estonian history when Stalin deported thousands of people eastward and left rural areas more or less unpopulated.

Before lunch, the meeting started in the brand new and quite spectacular "House of Culture" in Lihula. All signs and road marks were still in Russian, therefore it was not easy to find places to eat and shop.

This is how it all started, with the visit to Matsalu in 1990. The idea was to establish contacts and to set up twinning agreements between important bird wetlands in Sweden and the Baltic States.

The first trip to Käina Bay, on the island of Hiiumaa, is also something to remember. We met at a small hostel close to Käina Bay in mid September 1991 to discuss budget and project organisation with Estonian partners. Participants were representatives from the Estonian Ministry of Environment and the World Bank.

Despite detailed discussions about formats and principles, the first day ended without reaching a common understanding. The evening started, naturally, with sauna. The problem was that the sauna session never seemed to end. When we, the non-Estonians, left quite late at night the discussions were still ongoing in the sauna!

Breakfast the next day started at 8 in the morning, but with no Estonians in sight. When they finally arrived, they were all very satisfied. All problems had been solved in the sauna, so the second day of meetings proved to be very effective and without any major problems. We quickly learned that the sauna is not only a place to get clean, but also an important meeting place where you discuss and solve problems!

We soon realised that the new changing political

environment jeopardised environmental values. The challenge was to maintain and manage the valuable and species-rich Estonian nature, like the coastal, alluvial, and wooden meadows.

The collapse of the Soviet state farm system (*sovchos* & *kolchos*) in the early 1990's caused a drastic decrease in the number of cattle (up to 50 %), but also resulted in unemployment and social problems in many rural areas.

The privatisation of agriculture led to the emergence of a number of smaller farms with very weak economies. The new landowners and farmers had no money for investments in fences, stables or machinery, and in addition, had no experience in private farming; in the Soviet state farm, the people employed had very specific duties.

The Estonian agricultural sector was also at a competitive disadvantage since Estonia did not offer any general agricultural support, tax cuts, or export subsidies for their agricultural products. Thus, imported agricultural products (often exported with subsidies) were substantially cheaper than Estonian products.

As foreign visitors, we were surprised at the amount of foreign coffee cream, butter and other products available in local Estonian stores. Even Swedish sirloin steaks could be purchased dirt-cheap in Tallinn food stores! The way Estonian farmers survived was to sell milk, meat and potatoes to neighbours or produce products that were not imported, such as sour milk (kefir) and sour cream (smetana).

Some people said that the badly needed political reforms would also inevitably lead to abandonment and overgrowing of the landscape and loss of its biodiversity. Efforts to maintain biological values would not be sustainable and only reflect nostalgic dreams.

However, the natural and cultural values in Sweden and Estonia, as in many areas of northern Europe, are intimately connected and interdependent upon traditional agriculture. Many species are well adapted to semi-natural grasslands, unfertilised meadows and pastures used by humans and their companions—horses, cattle and sheep—for hay production and grazing. Over centuries, plants and animals have become adapted to disturbances caused by cutting scythes and grazing

Tiit Kaljuste

Long-leaved Helleborine
Cephalanthera longifolia

muzzles, which have formed one of the most species-rich habitats in northern Europe.

Many of these habitats and species are now at stake and can be found in national "Red Lists" of endangered species, or in the appendices of the EU's Bird and Habitat directives.

The debate about preserving nature with or without management continued through the 90's. Abandonment of farmland was seen with both positive and negative eyes. The "wilderness view" was to let cultivated land return to Nature and possibly introduce wild or semi-wild grazers and browsers to create natural disturbance regimes. "The semi-natural view" believed in payment systems that gave farmers salaries for maintaining biological values in farmland areas. In Sweden, the semi-natural view dominated while in the Netherlands, for example, the wilderness view had most advocates. These differences are probably most easily explained by the differences in distribution and intensity of agriculture in the two countries. In Sweden agriculture covers only some 10% of the total area and agricultural land harbours a great deal of Sweden's biodiversity.

When the co-operation started in the beginning of the 1990's, the idea of positive interaction between humans and nature in Western Estonia was not accepted by everyone. However, the positive effects of traditional farming (i.e. grazing and mowing) on coastal, alluvial and wooden meadows became more and more accepted.

The need for an integrated environment and development approach, both in planning and management of the Matsalu area, was fully recognised by various international bodies, including the Helsinki Commission (HELCOM), the EU and the Ramsar Convention. Accordingly, HELCOM identified coastal lagoons and wetlands as areas of major importance for the Baltic Sea environment, and prioritised this field of work in the Joint Comprehensive Action Program.

Between 1993 and 1996, the World Wide Fund for Nature (WWF) was offered the responsibility to serve as lead party for HELCOM's Working Group on Management of Lagoons and Wetlands, under the guidance of the HELCOM Programme Implementation Task force. Six management plans were developed in the form of pilot projects. The management plans were developed for the following Task Areas:

- Käina Bay (Estonia);
- Matsalu Catchment Area (Estonia);
- Engure/Kemeri (Latvia);
- Kursiu/Curonian Lagoon (Lithuania/Russia);
- Vistula Lagoon (Russia/Poland); and
- Oder/Odra Lagoon (Poland/Germany).

The long-term goal of the pilot project was to contribute to ensuring the ecology of the Baltic Sea through elaboration and implementation of Integrated Coastal Zone Management (ICZM) plans for sustainable development in the coastal areas in the Southeast Baltic Region. Each plan would provide a synthesis of data as well as an overview of potential problems, thus signifi-

cantly improving the foundation for coastal planning in the areas.

WWF-Sweden decided to work in the two Estonian areas (Matsalu and Käina Bay) and start the implementation of the respective management plans when they were finalised and approved by HELCOM. Later, the island of Vormsi was also included in the project, which was named "the Väinameri project".

As a result of the decision to go ahead with the Väinameri project, a meeting was organised in the River Dalälven area in Sweden in 1997, and included deep discussions and long walks in Färnebofjärden National Park. It resulted in a detailed project concept that was based on biodiversity as the driving force for Väinameri rural development, with farmers as key stakeholders. The group consisted of Toomas Kokovkin and Aleksei Lotman from Estonia and Lennart Gladh and Ola Jennersten of WWF-Sweden.

The main obstacle to increasing project funds was to reach a common understanding with the Swedish International Development Agency (Sida). Biodiversity and rural development did not fit into Sida´s environmental priorities, which mainly focused on wastewater treatment plants and similar technical investments in the Baltic Sea region. In fact, the challenges of finding a common language took over a year to overcome!

The management of semi-natural grassland is dependent upon grazing by livestock and mowing for hay. Only if the farm is profitable and easy-to-work will long-time management be assured. In this case, the farmer is a producer of a species-rich landscape. WWF always discussed the double mission of the farmer—namely the production of good food and the production of species-rich landscapes. Since society (*i.e*. you and me) likes rich landscapes (common goods), it should also pay the farmer for his work, through taxes. The farmer's double task should thus be paid from two different sources—the market that pays for the food and society that pays for the common goods. Society can make these payments by means of agri-environmental measures, including support for vital investments such as winter barns for animals.

The aim of the Väinameri project was to restore and maintain the valuable coastal landscape, increase and sustain natural values, increase the attractiveness of the area, and create living conditions for people involved with agriculture, in a sparsely populated area. In other words, quality meat production with natural conservation as an added value. By purchasing "natural grazing meat" the customer not only pays for good quality beef but also for conservation and thus helps to maintain a coastal agricultural landscape.

The people of western Estonia have a long tradition of using natural resources in their everyday life.

Avocet *Recurvirostra avocetta*

Maintaining the semi-natural habitats results in by-products like wood of juniper and other tree species or reed or wool from grazing sheep—a perfect base for handicraft. High quality handicrafts may substantially increase earning opportunities for rural people.

Development of small-scale tourism based on natural values, cultural heritage and local handicraft production units also adds earning opportunities by using the natural resources produced when maintaining the landscape. Thus, development of sustainable agriculture, small-scale tourism and a regional production of both agricultural products and handicrafts will directly benefit both nature and local residents. This is what the Väinameri project is all about.

The results now indicate an increase of biological values like an area of maintained coastal, flooded and wooded meadows, species of orchids, Great Snipes and Dunlins. However, a more important result is that the project is also beneficial for the people of Väinameri. New sources of income, new jobs, improved co-operation. New non-governmental organisations and networks have been established, shops have been opened and people have been employed.

The results clearly indicate that the project was timely initiated—in the post-Soviet period—when bad economy, not least in the countryside, made life and visions of the future difficult and diffuse. The co-operation with Sida also gave the project the necessary funds to make a difference.

Now when Sida's bilateral funding to the Baltic States, including Estonia and the Väinameri project, has phased out because of EU membership, the project will move into a new phase. Important issues will include sustaining the enterprises in agriculture, handicraft and tourism, which the area's biological and cultural values depend on. Another important issue is the communication of experiences from the project, both to other regions and as an argument to influence policies in the Baltic area. The co-operation between the people of Olonets in Russian Karelia and those of the Väinameri area is a great example of experience-sharing.

Without a doubt, the spirit of Väinameri will live on after the life of the Väinameri project and we are convinced that Estonia as a member of the EU will preserve and develop the biodiversity and human initiatives started here. The experiences from Väinameri will certainly not only influence Estonia but will also affect projects and policies in other areas like Sweden, the other Baltic States, Russia and even Brussels.

The work with this project has brought us many wonderful moments and memories, good constructive meetings, nice field trips, hot saunas and most of all the fantastic men and women of Väinameri who made it all possible.


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Overview

Nature

The direct translation of Väinameri is "the sea of straits". It is a semi-enclosed coastal sea of about 2000 km² surrounded by the Estonian mainland and the islands of Saaremaa, Hiiumaa, Vormsi and Muhu. Väinameri is connected to the Baltic sea by five straits, thus the name of the area. The deepest point of Väinameri is only 22 meters in the Suur Strait, whereas most of Väinameri is less than 6 meters deep. The bottom topography is even, and the coasts are very gently sloping. Depending on atmospheric processes, the water level can change up to 1.5 meters, therefore in flat coasts the actual shoreline fluctuates tens to hundreds of meters.

The landscapes are spread on limestone bedrock covered with glacial and marine sediments which consist primarily of clay, loamy clay and shingle. The land surface is sloping, the coastal sea is shallow and the wave activity is not important in the coastal formation. The area lies within the *neotectonic uplift zone*, which means that the land emerges from the sea at the speed of about 20 cm per century.

Apart from the four major above-mentioned islands, there are numerous islets in Väinameri, their size rarely exceeding 100 hectares. The largest ones are Tauksi, Vohilaid, Heinlaid, Kaevatsi, Saarnaki, Hanikatsi and Kessulaid. There are also noteworthy bays and lagoons such as Matsalu, Haapsalu, Hullo, and Käina.

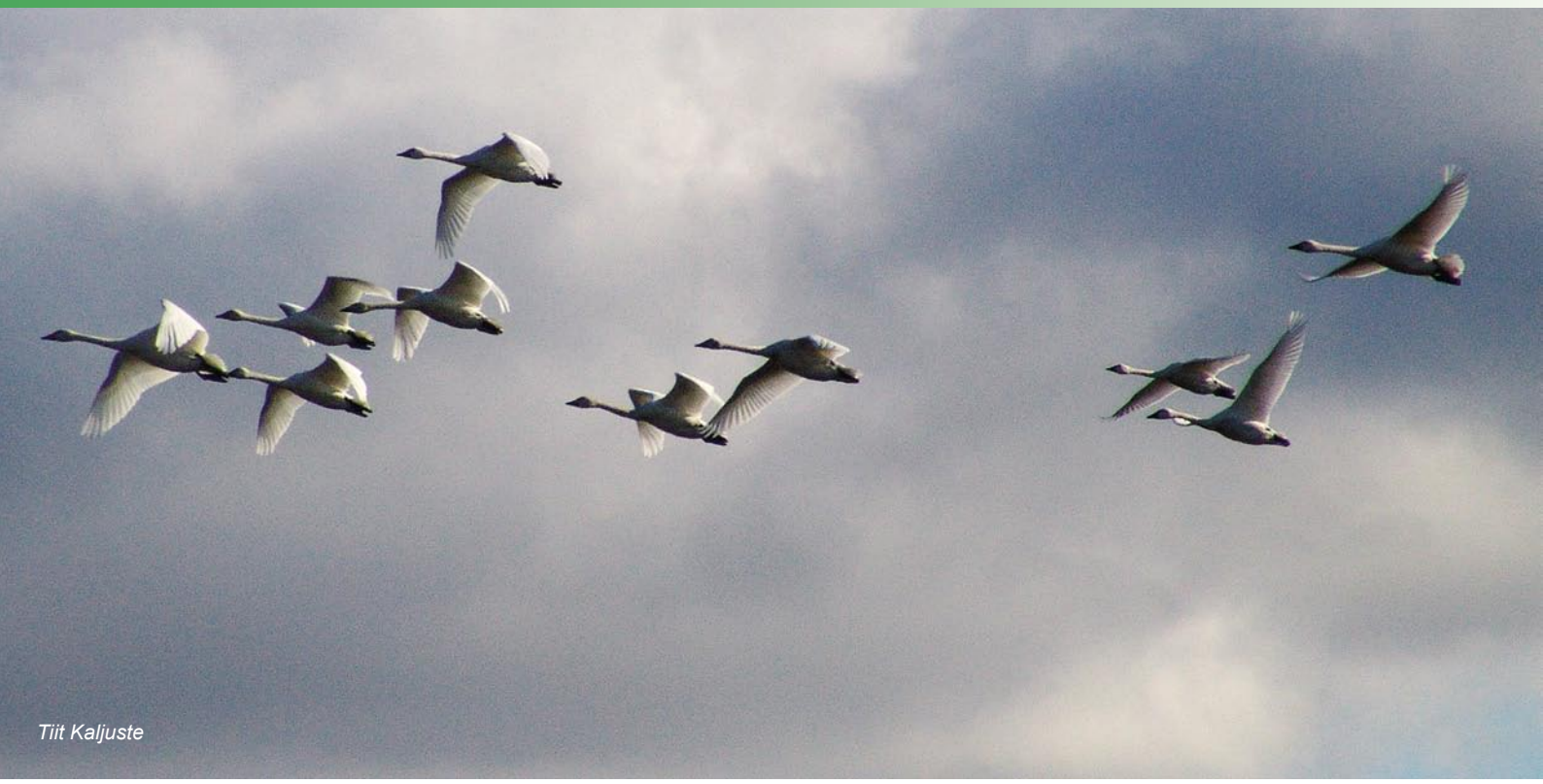
Väinameri is located in the Atlantic-continental climatic region of the temperate climatic zone, which is characterised by warm summers and moderately cool

Location of the Väinameri area in the Baltic sea

winters. February's mean temperature is –3 –4.5°C, while July's mean temperature is +16,5 +17°C. The annual mean temperature is +5,2 +5,8°C. Annual precipitation is about 600 mm, with snow cover lasting for 90 – 100 days. On an average, the sea becomes covered with ice in January, which may last until mid-April. During summertime, the sea water temperature reaches 20°C. Salinity of the sea water is about 6 – 6.5 per mil.

Located in the transition zone between temperate needle-leaf to broad-leaf forests, terrestrial habitats contain pine forests, mixed spruce and deciduous woodlands, juniper and coastal meadows, swamps and peat bogs. The alvar forests (spruce, pine or birch forest on limestone plains with thin soils) are of particular interest. Parts of the Väinameri area are designated as wetlands considered important according to Ramsar specifications. Seashore halophilous meadows comprise species such as *Eleocharetum parvulae*, *Triglochinetum maritimi*, *Bolboschoenetum maritime,* etc.; alvars characterized by *Juniperus communis*, *Lonicera xylosteum*, *Rhamnus catharctica*, *Ribes alpinum,* etc.; boreonemoral forests with *Pinus sylvestris*, *Betula pendula*, *Alnus glutinosa*, *Alnus incana*, *Picea abies*; sparsely broadleaf forest and wooded meadow with *Quercus robur*, *Tilia cordata*, *Ulmus glabra* and *Acer platanoides.*

The site is a complex of marine and coastal habitats. Thousands of waterfowl and waders that migrate through, nest, rest or moult here are dependent on these habitats. Biodiversity here is closely connected to the historical land-use, especially mowing and grazing that has created semi-natural meadow communities characteristic of the area. Therefore both land-use inten-



Tiit Kaljuste

sification and abandonment cause problems here; nature conservation is inseparably connected to resource management. Active management is required to secure favourable conservation status of the coastal and semi-natural habitats and thus ecological functions of the whole site.

Valuable ecosystems

The sea. Almost the entire sea bottom in Väinameri is within the photic zone, i.e. the daylight reaches the bottom. Therefore, the biological production is huge (see Red list of Marine and Coastal Biotopes, 1998). Rare bottom-plant communities are present. In the central part, representative *Zostera* and *Zannichellia* meadows are extensive; in the western part, rare and unique *Furcellaria / Phyllophora* beds occur. Rare are also the dwarf-form *Fucus* stands (Oulasvirta, P., Leinikki, J. 2001). It is an important fish breeding area, as well, where the spawning sites of garfish (*Belone belone*) represent the northern limit of garfish in the Baltic Sea. Important moulting, feeding and breeding areas for Ringed and Grey Seals are on shallows in the central part of Väinameri. Shallow parts are also important stop-over and moulting sites of Long-tailed ducks, Scoters, Goldeneyes and other waterfowl. Significantly, parts of the area are becoming increasingly important for tourism.

Bays, lagoons and reed-beds. Thousands of migrating Whooper and Bewick's swans, geese and dabbling ducks stop here. Here, also, are the important fish spawning areas—white-tailed eagles and other species come to catch them—that are also important for commercial fishing. Reed, used as thatching material, is a potentially significant source of renewable energy. An interesting resource is mud, which has medicinal properties. There are mammals, otter, for instance. Most valuable are Matsalu and Haapsalu bays and the Käina lagoon, but other bays and lagoons are also rich in biodiversity.

Rivers and ditches. Most of the rivers and creeks have been dredged, reducing their natural diversity and value. In addition the rivers and streams have transported a significant pollution load for years. However they still have importance as inflows of bays and lagoons, fish migration corridors and spawning sites, feeding sites of birds, otter and beaver habitats, and popular sport fishing sites. Fortunately, their value has been enhanced by the decrease in pollution load during this decade. Most important is the Kasari river system, but Vaemla, Suuremõisa, Taebla and other streams are also valuable. Restoration of more natural flow patterns could further improve the value of the rivers, streams, bays and lagoons they flow into.

Grasslands (coastal, alvar, alluvial or marshy). These are valuable sites for many rare and endan-

gered plant species, nesting and migrating waders like Dunlins, Ruffs, Black-tailed Godwits, Redshanks, migrating Barnacle Geese and other geese species including Lesser White-fronted Goose. The most important coastal meadows are found around Matsalu bay, Haapsalu bay, Kassari islet and Käina lagoon. The biggest alluvial meadow lies in the Kasari delta. These grasslands have been used as pastures and hay-meadows for millennia, and some have significant value for out-door recreation.

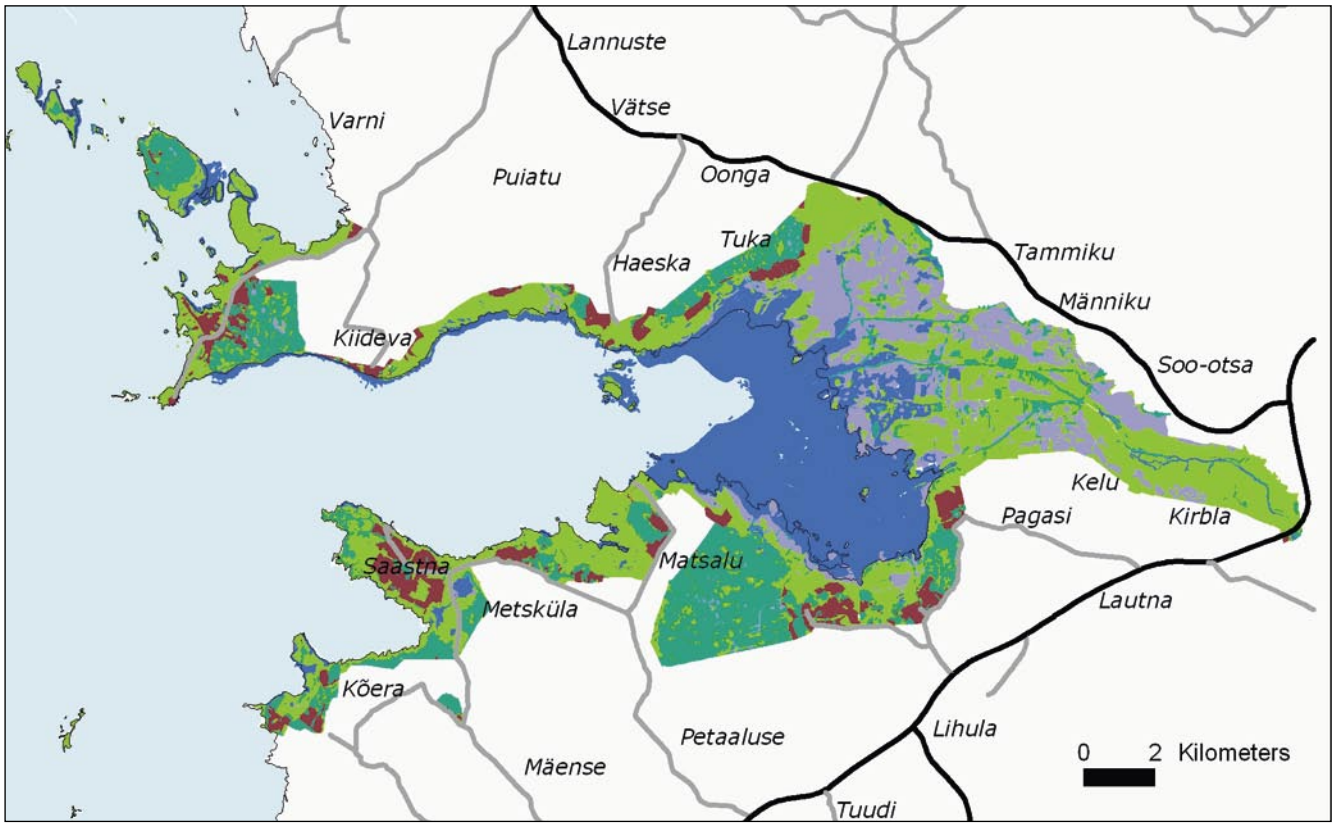
Woodlands. Most valuable are those wooded meadows that are regularly mowed, but wood-pastures and other old forests are valuable as well, the large ones providing nesting sites for eagles and black storks. The woods are characteristised by high plant diversity including an abundance of orchids, fungi connected to old trees, and a rich bird population. The outstanding wooded meadow in the area is Laelatu, but Allika, Viita and other sites in the Matsalu wetland, and several sites in Kassari, are also very important. Regularly mowed areas in Laelatu are 10 ha, on Matsalu wetlands 15 ha, and in Kassari 10 ha. In total, less than 100 ha in the area are mowed. Wood-pastures still exist in some locations. A rare plant community that is not grazed now is Sarve alvar birch-wood.

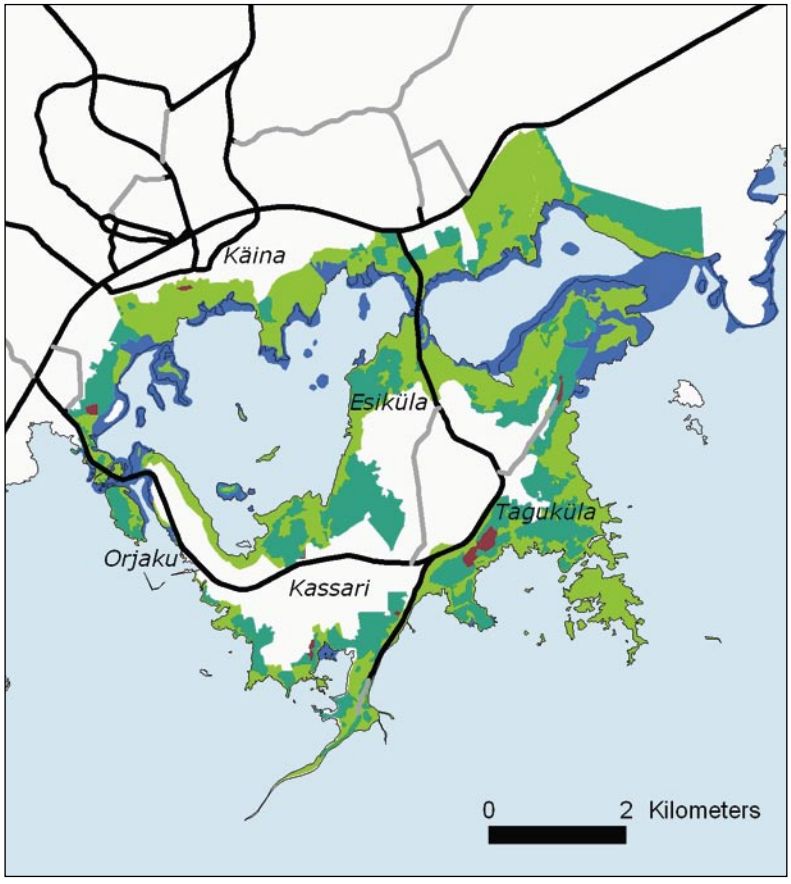
Islets. Uninhabited islets form compact systems of the above-listed communities. Most of the larger ones (Tauksi, Kumari, Papi, Saarnaki, Hanikatsi, Hobulaid, among others) have been inhabited at one time. In fact, all islets except the very smallest ones have experienced some human impact: temporary dwellings of fishermen, grazing, mowing, etc. Summerhouses exist nowadays on Hobulaid, Kaevatsi and Saarnaki. Most of the islets have overgrown, some to a large extent, meadow flora has declined and meadow birds have almost vanished as a result of past human influence. Much of that is not realistic to restore. However, cooperative interaction with people from the closest villages could lead to the restoration and maintenance of some of the former natural values of the islets. Some grazing and mowing is carried out on Saarnaki and Hanikatsi in the Hiiumaa Islets protected landscape. A good possibility for the islets is nature tourism.

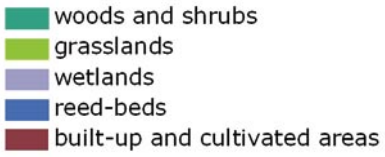
Fauna

Due to high species richness, now rare in the Baltic region, the area represents typical habitats for Estonia. Especially important are alluvial and coastal meadows, alvars and wooded meadows. It is obvious that landscape, vegetation and fauna are closely interconnected. Therefore the problems and solutions to these are also interwoven.


Tiit Kaljuste







Vegetation maps of Matsalu area (top) and south-east Hiiumaa (left)

Birds

Birds—including globally threatened species—are among the most important indicators of the natural values and diversity of the Väinameri area. It is strategically located for migratory birds (especially arctic waterbirds) and provides them excellent feeding and staging grounds by coastal meadows, a shallow water shelf with small islets and bays, reed beds, sand dunes or brackish and freshwater coastal lagoons and lakes. The variety of suitable sites for migratory birds is mixed with valuable habitats—floodplains and wooded meadows, alvars, grasslands, coniferous, mixed and deciduous forest—for numerous breeding bird species.

Väinameri's position in the Africa–Eurasian water bird migration flyway has led to its designation by BirdLife International as an Important Bird Area. In this very important staging area, sites for certain species (with more than 1% of flyway populations) could be found during the winter or migration period, as well as moulting congregations in summer. Examples: Divers, Bewick Swan, Common Crane, Mute Swan, Goldeneye, Long-tailed Duck, Velvet Scoter.

Over 270 bird species have been registered in the area, and 175 of these nest here. A list of birds is presented in the annexes of the book.

The Väinameri area hosts five globally threatened bird species: Steller's Eider (*Polysticta Stelleri*), Corncrake (*Crex crex*), and the White-tailed Eagle (*Haliaeetus albicilla*) are found in the archipelago. Matsalu National Park and Silma Nature Reserve provide feeding and staging areas for rapidly dwindling Lesser White-fronted Goose (*Anser erythropus*) and breeding sites for Great-Snipe (*Gallinago media*).

Migration

With its location on the East-Atlantic flyway, the area hosts the migration of over 2 million waterfowl in spring. A total of over 50,000 black-throated and red-throated

Arne Ader

divers pass on transit migration, most of them various ducks that stay here a week or two. Diving ducks like Long-tailed ducks (up to 1.6 million), Velvet Scoters (ca 400,000), Common Scoters (ca 200,000), Scaups (ca 30,000) and Ggoldeneyes (10000) stop in shallow parts of the open sea and in Hari strait. Bays and lagoons, open-water patches in the reeds and in flooded meadows welcome Goldeneyes, Pochards, Goosanders, Smews, Tufted ducks (over 30,000) and tens of thousands of dabbling ducks including Mallards, Wigeons, Teals, and Pintails. Greylag, Bean and White-fronted Geese (ca 20,000 in total), Whooper and Bewick's swans (over 10,000), and Barnacle geese (ca 60,000) stop on the bays, in the reeds and on the coast for a month or more. Most of the European population of the lesser White-fronted Geese (ca 40 individuals) also migrate through the area. Various waders stop on low coasts, shallow waters and floodplains. Lapwing and Ruff are most common among them and can be found on the seashore and in the alluvial meadows. (The Ruff population, once about 15,000, has dwindled to about 10,000.) Wood Sandpipers (up to 5,000 counted), Green Sandpipers, Black-tailed Godwits and Snipes stop in alluvial meadows, while other waders like Redshanks, Spotted Redshanks, Greenshanks, Avocets (over 30 at a time have been counted), numerous Plovers, Bar-tailed Godwits, Ringed Plovers, Dunlins and others can be seen on the islets and the coast where the low water level exposes the bottom. The islets and coast are also important migration corridors for passerines.

In autumn, most of the same species migrate through the area. Since some birds fly over the northern part of Hiiumaa island, several species are less abundant around Väinameri. However, Common Cranes are more abundant then (over 25,000), feeding mostly in the fields and resting on the coast. Coots and Pochards are also more regular visitors in autumn. Migration begins in August, culminates in September–October and ends in November.

The dabbling ducks, geese, swans, cranes and waders stop in the biggest numbers in Matsalu bay and the surrounding meadows, but are also numerous on Haapsalu bay and its surroundings, Topu bay with its coast and islets of Tauksi, Liia and Sõmeri, Käina bay, the northern and eastern coast of Kassari, and the Hellama bay area.

Moulting

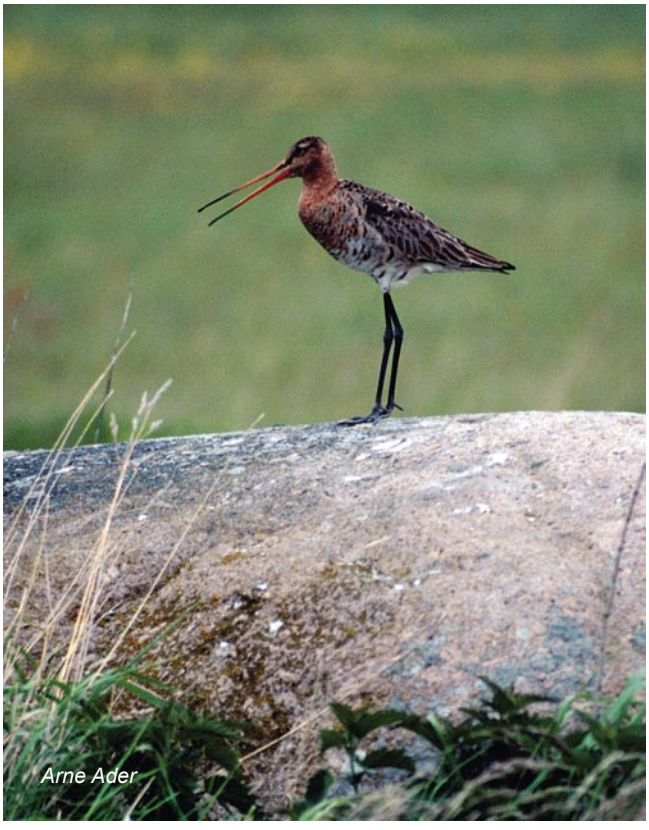
The moulting bird population has increased over the last decade and now boasts Eiders (over 15,000), Goldeneyes (ca 17,000), Mute Swans (ca 3,000), Greylag Geese, Wigeons and Mallards. There are fewer Scaups, Goosanders and Cranes.

The most important waterfowl moulting areas are shallow parts of Hari strait, Käina bay, Õunaku bay in Hiiumaa, the islets from Kõrgelaid to Kõverlaid, the surroundings of Tauksi, Liia and Sõmeri, east from Kumari, Papi and Kessu to the northern and eastern parts of Matsalu bay. Several hundred cranes moult in Kasari delta and in coastal marshes in the inner part of Matsalu bay. A smaller moulting site is located in the Vaemla river mouth area.

Nesting

Coastal meadows are characteristically inhabited by nesting ducks, waders and passerines, but are found in seriously dwindling numbers: on Matsalu, long-tailed ducks have not been seen nesting during the last decade, Shoveler has become very rare; around Käina bay, long-tailed ducks and Garganeys are all but gone. Numbers of Ruffs, Black-tailed Godwits, Dunlins and Lapwings have also strongly declined. Fortunately, since these waders have declined elsewhere as well, the project area still holds a significant proportion of

Black-tailed Godwit *Limosa limosa*



Estonian populations of these species. Snipes, Curlews and Oystercatchers have increased, open-landscape passerines have increased almost three-fold, and the population of passerines, typical in woodlands and reed beds, have flourished.

Reed-beds are inhabited by Great Crested Grebes, Bitterns, Mute Swans, Grey-lag Geese, Mallards, Pochards, Tufted Ducks, Marsh Harriers, Water Rails, Spotted Crakes, Little Crakes, Little Gulls, Black-headed Gulls, Black Terns, Great Reed Warblers, Reed Warblers, Sedge Warblers, Reed Buntings, Savi's Warblers (since 1977), Bearded Tits (since 1990). Geese and swans have increased and have inhabited several smaller reed-beds. Gulls, Grebes, Pochards and Coots have declined.

Islets are the most densely populated sites (over 300 pairs per hectare on several islets) in the area, hosting most of the same species as coastal meadows. However, Cormorants, Barnacle geese, and Velvet Scoters, for example, nest only on the islets. Although some species present on the coast do not nest here, many do so at much higher densities. Over time, significant differences between the islets can be observed.

Oystercatcher *Haematopus ostralegus*

Changes in bird population

Typically for stony marine islets, the bird population has shifted over the past few decades. In the seventies, Eider became the dominant species, replacing Common and Black-headed gulls. By the nineties, Herring gulls ranked second. A number of species have declined in number, for example, smaller birds like dabbling ducks, waders, common and black-headed gulls. Only the mallard has sustained its population.

The larger birds, both nesting and non-nesting types, have increased in number and nesting density. Eiders, Grey-lag geese and large gull populations have increased, and new large species like Mute swan, Barnacle goose and Cormorant have begun nesting in increasing numbers, with Cormorants now numbering 3,000 pairs on islets; more numerous non-nesting cormorants total about 10,000.

Some coastal area islets formerly used for haymaking have become severely overgrown with reed and high grass. Here, abundant populations of gulls, terns, waders and water-fowl have disappeared, and have been replaced predominantly by passerines like Yellow Wagtail and Meadow Pipit, or Reed Bunting and Sedge Warbler. The same is true of several larger islets where the meadows have overgrown, resulting in an increase of passerines typical to woodlands.

Alluvial meadows, which also have seen population changes, are home to about 20 typical species of waders and ducks, as well as Corn-crake and Spotted crake, and passerines such as Sky-lark, Yellow Wagtail, Meadow Pipit, Reed Bunting, Sedge Warbler. In Kasari floodplain, are four leking sites—mating areas—with 30 – 35 males of the endangered Great Snipe species. Open–landscape passerines have increased in recent decades, while major declines have been seen among waders in the late eighties; now only Curlew and Redshank populations are comparable to earlier times. Especially dramatic in the last few years has been the decline of Black-tail Godwits and Ruffs. Concurrently, Corn-crakes have increased, and, due to over-growth of some meadows, woodland passerines have increased as well.

To summarize, the bird fauna is constantly changing, and not all the changes have positive explanations. Many duck and wader species are declining, apparently primarily due to over-growth of the meadow communities. A general decrease in habitats in the woods and reeds could take its toll on some other species. On the other hand, Cormorants, mute swans, geese, eiders,

large gulls, and several passerines are on the increase. Happily, the Väinameri project area still holds a significant proportion of the populations of these species. Given that bird decline is widespread, and perhaps more pronounced outside the area, that is good news.

Mammals

There are above 40 species of mammals in the area, over half listed in the Red Data Books of the Baltic region and Estonia. Both grey and ringed seals live in Väinameri and sometimes enter the bays or even rivers. The largest concentration of ringed seals, about 70 animals, can be found around the Hiiumaa islets, and a total of 400 – 500 grey seals can be counted in the three largest resting-sites. Despite mortality of young seals, which drown in fishing-gear, seal numbers exhibit moderate increase. The drowned animals have been in good shape, exhibiting lower concentrations of chlorinated organic compounds than in other studied sites. Numbers of beavers and otters are high in Läänemaa, low on Hiiumaa, and are not found on the islets, the otter, especially, preferring rivers, creeks and ditches, and sometimes the bays.

Estonia boasts healthy populations of large carvnivores (brown bear, wolf and lynx) and smaller mammals, such as, fox, raccoon, and mink. Väinameri is home to many.

Wolf and lynx are quite common in most of Läänemaa, lynx on Hiiumaa and Vormsi. Bear is common in the northern woody part of Läänemaa but a sporadic visitor in coastal area of Väinameri and absent from small islets. The smaller animals—fox, racoon dog, American mink—and occasionally wild boar sometimes move to the islets and can severely impact the bird population when they do. Elk, wild boar and roe deer population numbers were very high in late 70's, dropped in the late 80's and early 90's and are now slowly increasing. Red deer are numerous in the woody, western part of Hiiumaa and is less common on the Väinameri coast; they rarely visit Läänemaa. Most Estonian bat species can be found on the Läänemaa mainland, four on Hiiumaa and one on Vormsi. The water-vole is found everywhere.

An interesting note: American mink, once residing on the island of Hiiumaa, were removed in 1999 and 2001 to allow to restore the natural European mink population. Current number of European mink here is about 20 and the recovery project is continuing (LIFE Nature project, 2001–2004).

Amphibians

Five species, all are included in the Baltic Red Data Book, are Smooth Newt, Common Toad, Natterjack Toad, Common Frog and Moor Frog.

The only species of these included in Estonian Red Data Book is the Natterjack Toad. This now threatened

Grey Seal *Haliochoerus grypus*

species was widespread throughout coastal areas in 1950's but exists now only in small and probably declining relic populations on Kumari, Vormsi, Kõverlaid and Noarootsi.

Reptiles

Four species, all of them listed in the Baltic Red Data Book but common in Estonia, are Adder, Grass Snake, Slow Snake and Common Lizard. Important hibernation sites are Salevere hill in Läänemaa, and Ussikelder and Valipe hillock on Hiiumaa. On Läänemaa mainland coast the grass snake is generally more common than the viper, but farther inland the viper is also common. The viper also frequents Vormsi. Small and unstable reptile populations exist or have existed on islets.

Fish

The waters of the Väinameri area play host to more than 40 species of fish and lamprey species, including most of the fresh-water species. Species composition varies in space and time. Marine species live mostly in Väinameri and open bays or outer parts of the larger bays. Baltic herring spawns along most of the coast and in open bays, the reproduction of this species in the area determining to a large extent its numbers elsewhere in the Baltic. Freshwater species dominate in the middle and especially eastern parts of Matsalu and Haapsalu bays and even more in the lagoons. Marine species enter these waters to spawn. Even the freshwater species partly move out into deeper waters in summer. During the recent years predatory species have decreased and cyprinids and sticklebacks increased.

Both perch and pikeperch are common in the area. Perch, which declined following the intensification of catch in 1993, is slowly recovering. Pikeperch spawns in Matsalu bay but seldom reaches its eastern part. Pike, another previously numerous species, is present throughout the area in low numbers.

Roach is numerous in the bays and spawns in rivers. Larger individuals move out into deeper waters in summer. Only pike seem to feed on this species. Vimba bream spawns in Kasari river but lives mostly in Väinameri.

The areas bays, and lagoons, and particularly Matsalu and Käina bays, and the Kasari River and floodplains are breeding sites of several commercial species. Concentrations of mercury and other heavy metals in Matsalu bay fish, relatively high in the 80's, have declined by now and tend to fluctuate within limits posing no threat to consumer health.

Invertebrates

Terrestrial invertebrates have not been sufficiently investigated. Slightly over 2000 species have been described in the area but the probable number is ten times more.


Tiit Leito

Socio-economic life

Population

Man has inhabited the coasts of Väinameri since land appeared from the sea as the result of a continuous geological process, the uplifting of the earth's crust. In pre-agricultural times, when most of the area was under the sea, it is likely that the hunters and fishermen intensely used the coastline. The population of the coastal plains increased with the introduction of agriculture about 4,000 years ago, when the Väinameri coasts and islands were already inhabited by Estonian tribes.

But—and here, a brief history lesson may help explain the current demographics of the project area—Estonia has not always been in the hands of its own people. Beginning in the middle ages and until quite recently, various peoples have settled in Estonia, causing shifts in population. In the 20th century alone, changes have been dramatic. In the early years, Germans were major landowners, and operated as a powerful upper class, but lost their privileged status after 1918, when Estonia enjoyed a brief period of independence (1918–1940). Following World War II, most Germans left the country. After the World War II, the Russian population increased significantly in Estonia.

A centuries-old Swedish population of the coastal areas remained here until the World War II. In fact, Vormsi (Ormsö), Noarootsi (Nuckö) and parts of north Hiiumaa (Dagö) were primarily Swedish-speaking until the end of the war. Some who have returned to Sweden remain as landowners in the Väinameri region, a fact that will affect the future of the project and the prosperity of its residents.

Also during the war years, numbers of Estonians fled to Sweden. Others left villages for towns, and many were deported to Siberia, causing depopulation of the area. Then, in the relative stability of the Soviet era of the 1970–80's, the area became well populated due to large agricultural and fishing enterprises. The current project area is home to about 5,000 people.

According to the Rural Development Plan of Estonia, the size of the rural population has not changed significantly since 1995. However, unemployment has been on the rise. Peripheral areas, such as Väinameri, are today characterised by socio-economic marginalisation. In addition, the relatively low qualifications of the rural labour force, and the unsatisfactory level of infrastructure all contribute to low income in rural areas. Significantly, following the collapse of Soviet large-scale agriculture in the early 1990's, agricultural employment has been reduced by more than half. Not surprisingly, as rural jobs have been decreasing, people have been seeking employment in cities. The socio-economic development in rural areas illustrates the need to reduce dependency on agriculture and stimulate non-agricultural activities.

Fluctuating social and economic realities have probably influenced the state of these coastal ecosystems throughout history, but, as stated above, we have witnessed dramatic changes during the second half of the 20th century. Industrialized agriculture and a repressive regime in Estonia resulted in a considerable decrease in the immediate coastal population, and in nature-friendly coastal lifestyles. The economical and political liberation of the 1990's led to opposite threats: overexploitation of coasts and the selling of land for various non-productive (in terms of ecosystem manage-

ment) practices, such as housing and tourism. Today, in order to reach long-term sustainable solutions, it is necessary to integrate nature conservation, agriculture, regional and rural development as we seek to restore well functioning semi-natural coastal ecosystems.

Rural employment

Although agriculture traditionally has been a vital sectors in the Estonian economy, the relative share of agriculture in overall economy has declined since Estonia re-gained its independence.

Both the contribution of agricultural output to GDP and the share of agriculture to total employment have decreased significantly, but these indicators are still above the average of the European Union. It is anticipated that, without investment support, agricultural income will decrease further. Under imposed land reform and the increasing number of farms, the priority of the agricultural sector for the future will therefore be to stabilise agricultural income and to avoid further decreases in employment.

The Väinameri project is located in two administrative units, the counties of Läänemaa and Hiiumaa. We possess no figures for the employment rate of the project area as such, therefore the following table gives an overview of the whole population in broader regions.

Labour status of population aged 15–74 by 3rd quarter of 2004 in West Estonia (counties of Hiiu, Lääne, Pärnu and Saare). Source: Statistical office of Estonia.

Population aged 15–74 thousands	123.9
Labour force, thousands	72.8
employed, thousands	69.4
unemployed, thousands	3.4
Employment rate, %	56.0
Unemployment rate, %	4.7

Unemployment rate by counties, annual average of 2003, thousands. Source: Statistical office of Estonia.

County	unemployment rate
Hiiumaa	5.9
Läänemaa	11.3
Estonia total	10.0

We want to draw attention to the comparatively low unemployment rate (5.9%) in the island of Hiiumaa, which is the result of so-called "hidden unemployment". Approximately a fourth of those employed actually work not on the island but on the mainland, away from their families, which is causing additional social problems, e.g. family discord, and may well contribute to the labour drain in the future.

Agriculture

Agriculture is obviously the human activity with the strongest long-term impact on the area's nature. The traditional coastal landscape featured relatively densely ditched small fields and unaltered large hay-meadows and pastures, with patches of woodlands used for haymaking or grazing. Stone walls often marked historical borderlines between fields and meadows/pastures. Such a landscape pattern was especially typical to the Matsalu wetland on the Estonian mainland. On the islands, the historical network of ditches is not that dense and the coastal meadow belt is less extensive.

quickly: cattle dropped in half, pigs, by a third, sheep almost five times. Coastal and alluvial meadows quickly started to fall out of use.

The cessation of grazing and mowing triggered overgrowth of formerly open habitats. The drier areas of the grasslands became overgrown with tall herbs and bushes, the wet parts and lagoons, with reed. Overgrowth is currently the main threat to area's biodiversity and its international importance.

The retreating coastline has been used as pasture for millennia, creating areas where reed and bush could not take hold. Presumably the floodplains were once pastures and have mostly been used as hay-meadows in recent times. Woodlands were often used for hay-making and grazing, resulting in the formation of forest meadows and pastures.

The impact of collectivisation and concentration of agriculture on traditional landscape was rather dramatic after the Second World War. Most of the wooded meadows were abandoned during the sixties, and agricultural activity shifted to wetlands areas, many of which were drained, creating large fields. Open ditches were replaced with under-ground pipes on 80% of them. The agricultural use of open alluvial meadows continued, but tractors replaced the hand-mowing and horse-driven machines. The more distant wetlands gradually fell out of use. Grazing and mowing ceased on most of the islets. Intensely concentrated, mechanized farming combined with the use of chemicals resulted in increasing pollutant run-off that peaked in the 1980's.

The regaining of its independence in the early 1990's also impacted Estonian rural life. The country experienced radical de-regulation of agriculture (including unregulated import of products), resulting in a dramatic drop of agricultural production throughout Estonia. Consequently, the use of chemicals and pollution dropped as well. Many fields were abandoned, e.g. cereal grain fields decreased by about one third. The number of domestic animals in West Estonia decreased

Fishing and Hunting

Fishing and hunting were vital for the first settlers in the area. Migrating birds, spawning fish and seal-nurseries did not lose their importance even with development of agriculture. During the middle ages, a significant part of the hunting and fishing rights were monopolised by the landlords. The situation changed radically with Estonian independence in the 1920's. Matsalu bay and surroundings became intensive fishing and hunting areas. The next wave of changes was after World War II. With the creation of the Matsalu Nature Reserve in the late 50's hunting was banned there and fishing restrictions were set. Due to the creation of protected areas hunting and fishing restrictions were later set for Käina bay and the Hiiumaa islets, in the second half of the 80's on Vormsi island (Rumpo peninsula and Hullo bay islets), and in the late 90's on Haapsalu bay.

In Läänemaa County, in the 1920's and 30's, fishing was main source of livelihood for 100 – 150 families and part-time occupation for about 500 families. There were about ten fishermen's organisations. Following World War II, what had been small fishing kolkhozes were gradually united into one large fishing kolkhoz called 'Lääne Kalur'. In the 1990's, fishing was decentralised; accelerated coastal fishing followed. The number of fishermen increased from 300 to 500, which put rather strong pressure on the fish stocks. Currently, fishing is the main source of income for about 200 fishermen here.

The history of fishing in Hiiumaa was similar and for several years the fishing kolkhoz 'Hiiu Kalur' united the professional fishermen. Currently 190 professional fishermen and 200 part-time coastal fishermen make up seven professional fishing organisations, four of these being direct descendants of 'Hiiu Kalur'. On Vormsi, there is virtually no professional fishing; however so-called "free time-fishing" provides a significant supply to local families. Approximately 40–50 people catch fish on the island of Vormsi.

There was a quick drop in pike, pikeperch and perch catches during the 1990's, while catches of cyprinids tended to rise. In the second half of the nineties several restrictions were set in order to protect the stock. By now the pressure of professional and semi-professional fishing has decreased, due to restrictions and as a direct consequence of the scarcity of marketable fish. Sport fishing is popular in spring on the rivers, in summer, from the sea boats and in winter, on ice.

Hunting is primarily a hobby and hunting-related employment is small. Areas close to nature reserves are usually good hunting grounds because of game spreading out from the reserves. Hunting of some species—American mink, raccoon dog and a few native species—is allowed in nature reserves also, mostly for management purposes. Hunting tourism has been on a rise through the last decade, resulting in certain areas for goose, duck or game hunting.

Forestry

Forestry has played a moderate role in the coastal areas, the immature woods being of use primarily as firewood. The exception is the off-coastal areas of the Väinameri region, where cutting of wood has been extremely high within last decade. Forestry is even more important on the Kasari river catchment, and in central parts of Hiiumaa and Vormsi.

A significant part of the coastal forests in Läänemaa, Hiiumaa and Vormsi are wet, but contain ditches, many of which have overgrown. The result is the return of an almost natural water balance.

Tourism industry

Tourism, and tourism-related employment in rural areas is small, but on the rise.

Läänemaa's 30 lodging places welcome over 20,000 overnight visitors every year, 6 – 8,000 of them from foreign countries. There are also one-day visitors and campers, many of them Estonian school children. Springtime bird watching is a popular attraction for both groups. Most overnight accommodations are in the Haapsalu or Ridala municipalities. A hotel opened recently in Lihula, and Kukeranna and Topu have camping sites.

Vormsi Island currently offers two camping sites and six lodging places, with more anticipated.

Hiiumaa offers visitors a wide variety of accommodations. In January 2004, there were 53 accommodation enterprises with more than 1200 beds altogether, in hotels, motels, camping houses, rest houses, tourism farms and home accommodations. The yearly number of visitors is about 120,000 people. At the coasts of Väinameri, the major tourist attractions are in Kassari, Käina and Suuremõisa.

Management plans

The first attempt to view the Väinameri area in an integrated way was made in the late 1980's. A 'Scheme of Nature Use and Conservation of Väinameri' commissioned by the Hiiumaa Forest Service was prepared in 1987. The social changes of the late 80's and early 90's

rendered it outdated before any major implementation, however parts of the approach in this scheme can be used currently.

The first plan to significantly influence local life after the regaining of independence was the management plan for the Matsalu wetland endorsed by the minister of environment in 1994. The plan set out an overview of the specific values of the wetland and threats to these. The most important threat was identified as the over-growth of meadows, and their best protection, management contracts with farmers. Some modest foreign financing assistance was obtained, most notably from WWF-Sweden, and minor bush cutting and wooded meadow mowing was carried out. The Estonian Parliament made funds for large-scale grazing and mowing available in 1996.

Other proposed plans can claim both successes and areas that still need attention. Integrated coastal zone management plans for Matsalu and Käina areas were ready for implementation in 1996, with stated goals of decreasing the pollution load, and establishing a plan for fisheries and tourism. The management plan for the Matsalu area further elaborated the management plan for the wetland, complementing it with a plan for the catchment area. Some of the proposed wastewater treatment plants are complete, including the Lihula treatment plant and a constructed wetland. A major action in the Käina bay management plan—installation of water level regulation on the outlets of the bay—has been implemented.


Ola Jennersten

Socio-economic targets of the Väinameri project

Apart from the biodiversity- and landscape-related targets, the Väinameri project is aimed at socio-economic results, such as:

1. Creating a viable coastal countryside society,
2. Supporting strong families with multiple livelihood options,
3. Networking of people, and
4. Encouragement of voluntary association of individuals.

The human living environment should be of high quality, diverse and comfortable, including both means for economy and natural values. Only in this way may we achieve sustainability of rural development, which encompasses the environment, the economy, the cultural sphere and social issues. Such an approach, with a touch of idealism, has been behind the Väinameri project's "in-the-field" activities. The latest socio-economic changes in Estonia have been favourable for achieving these targets, even though the processes were not favourable for individual people in the countryside. Let's discuss this in brief.

The economic crisis in the countryside in the mid-1990's, accelerated by the liberal agricultural policy of post-Soviet Estonia and the land reform, had brought to life the preconditions for the Väinameri project:

- Reduction of non-point pollution in the agricultural landscape,

- Widespread abandonment of former kolkhoz and sovkhoz fields,
- Privatisation of agricultural lands,
- Surviving of efficient farmers, who began looking for new production niches,
- Liberation of thinking and the underpinning of creativity by a market economy,
- An increase in democracy, self-decision and decentralisation.

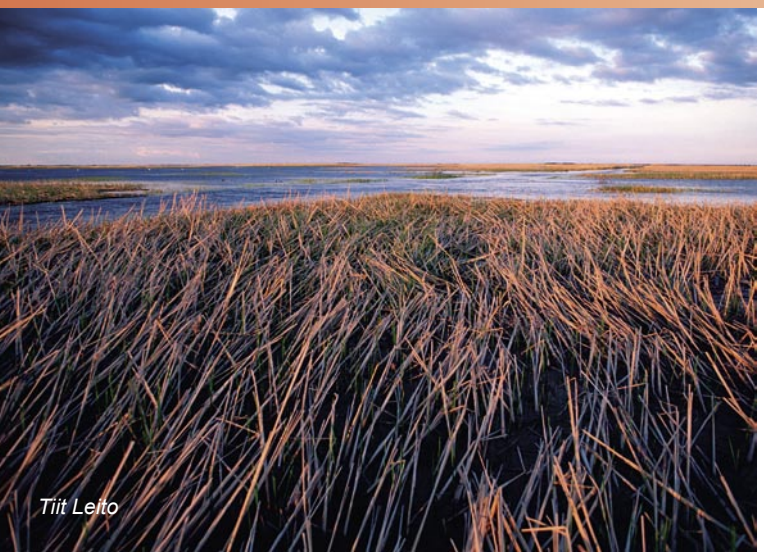
The main constraint in the project area is insufficient economic resources available to the key stakeholders and a poor understanding of the issues related to coastal and semi-natural habitat management in the community. Due to inadequate agricultural policies, the farming economy in Estonia is weak and ability of the farmers to invest is largely lacking. Therefore, the Väinameri project aimed to benefit both the conservation value of the habitats and the diverse countryside economy. This should have allowed the project to overcome the obstacles posed by insufficient financial resources available to the rural people. However it is important to keep an eye on general development in the Estonian agricultural sector and avoid any tendencies of intensification at the expense of more sustainable extensive land-use systems.

The Väinameri project happened "in the right place at the right time" because the lands were under reclamation and new management models were expected. The people who remained in the countryside were eager to arrange their social life and, more importantly, to esteem their valuable living environment as opposed to the booming city life. The Väinameri project, thus, acted as a catalyser of rural improvement, through:

- Assistance in purchasing small scale machinery, tools and electric fences,
- Creation of pure breed beef cattle stocks,
- Branding/labelling, and marketing of local handicraft products,
- Creation of nature trails, watching towers and demonstration sites,
- Study tours to Sweden, and within regions of Estonia,
- Lectures and consulting by high-level experts,
- Encouraging creation of societies for farmers, artisans and entrepreneurs,
- Maintenance of information exchange and networking among local actors.

In close co-operation with local farmers, the topic of nature conservation and management in the coastal areas is rather well accepted by people. Education in this field is, however, more important for the decision-makers on different levels whose understanding of problems is still insufficient. This could lead to improper infrastructure development and intensification of agricultural production at the expense of extensive farming practices favourable for the conservation of habitats.


Tiit Kaljuste


Tiit Leito

Project concept

The aim of the Väinameri project is to restore and maintain the valuable coastal landscape, increase and sustain natural values, increase the attractiveness of the area, and to create better living conditions for rural people in sparsely populated areas. This goal can be achieved by improving the conditions for a sustainable agriculture based on the existing high natural values and the current low use of fertilisers and chemicals.

The basic concept is close-to-earth quality production, with nature conservation as an added value. By purchasing "naturally grazed meat" the customer not only pays for a good quality product but also for conservation, thus helping to maintain a coastal agricultural landscape. The development of small-scale tourism based on natural values, cultural heritage, and local handicraft production will create additional job opportunities for local residents. The natural resources gained while maintaining the landscape can be used as material in handicraft production. Thus, development of sustainable agriculture, small-scale tourism and regional production of both agricultural products and handicrafts will directly benefit both nature and local residents.

Semi-natural grasslands are some of the most biologically rich habitats in the agricultural landscape. They have been managed for hundreds (or even thousands) of years, but that has been drastically decreased during the last century. Initially, this decrease was due to modernization of agriculture (cultivation and fertilisation), but more recently, because of low profitability for the farmer. This trend is particularly drastic for continental Europe, but areas with natural values still exist in Northern and mountainous parts of Europe. The key to reversing the trend is to increase the profitability for the farmer. How? For example, by introducing niche production of higher priced items, ensuring additional payment for landscape management (agro-environmental schemes), ensuring economic support to the farm-work (modern easy-to-work animal stables, clearing of overgrown land, fencing), the farm might be sustainable for a long time. Specifically, beef production is one suitable way to increase grazing pressure on semi-natural grasslands.

In summary, the farmer is the key person for the management of semi-natural grasslands. Only if his/her farm is profitable and easy-to-work, will the long-time management of semi-natural grassland be assured. In this case, the farmer's double task—producing high quality, naturally grazing beef and helping to create species-rich landscapes—can, in fact, be balanced with the "double concerns" of the public for such quality food products and for that agriculturally-friendly coastal landscape. Thus, in a successfully sustainable system such as that employed in the Väinameri project, the farmer's two-fold task receives two-fold financial compensation—from a beef-purchasing public, and by societal support for agro-environmental schemes.

We want to emphasize once again, that **the Väinameri project is not only about beef cattle and farming**, although grazing and mowing are among the most efficient ways to maintain semi-natural plant communities. Instead, the project aims at improving the life conditions and job opportunities of coastal people, who are intimately related to their home landscapes. Consequently, through the activities of these people, the management of coastal landscapes may be sustained indefinitely. This is why, apart from farming, the project has been dealing with handicraft artisans, small-scale eco-tourism, and raising public awareness of both concerns and possibilities.

Quality economies

The millennium has introduced a new concept in the vocabulary of nature-friendly economy, which is the *quality economy***.** This concept does not only refer to quality products or good trade practice but comprises much deeper relations with the environment and culture. What exactly does that mean?

Quality economy is based on the sustainable use of local natural and human resources, and is built on the long-term perspective, not on short-term profit. Quality products represent both local nature and long-term traditions; they are distinctive and descriptive of their place of origin. The aim is to increase the earnings of local people, establish new jobs and create additional values locally. A quality product must also have high practical value, which rules out the production of pseudo-national souvenirs but instead involves the revival of what are sometimes ancient local work traditions. This type of product must also be nature-friendly and "pure," and is directly linked with its natural surroundings through the use of local resources.

A quality economy views the "cultural landscape" as a living environment, formed through a process involving and respecting the mutual influence of people and nature, and can only be preserved with the help of continuous management.

The price of quality products is likely to be higher than the price of mass-produced items, manufactured in far away places, which complicates setting up quality economy on purely economic grounds. Supporting local quality products does not only implicate support to businesses, it is indirectly influencing the entire local social and natural environment in a positive way. This is why support is needed from the rural municipality and the state, along with awareness and consensus from the people.

The consumers of attractive nature areas are becoming known as "eco-tourists." Eco-tourism refers to travelling to nature-rich areas, in ways that do not damage the environment, taking interest in the natu-

ral and cultural heritage of the area, and consciously promoting local sustainable economy. Therefore, ecotourism is much broader than simply "going for a hike" in primeval nature. Tourism in protected areas should be 'product-based' instead of being 'determined by the market'. Obviously, the creation of such a tourism product requires deeper knowledge of and respect for nature and native culture, an educated guide service, and stronger environmental regulations, all taking into account both local and national social features.

How could... and would it work?

The development of quality economy could be conducted in three stages: First, locating existing products and services that comply with the principles of sustainable nature in the region. Some European examples: the discovery of old sheep breeds and handicraft associated with them; restoration of apple yards the subsequent production of apple drinks; introduction and processing of traditional cheese varieties; reviving ancient woodcraft techniques; promoting the local architecture. When a few effective examples are developed, promotional campaigns, emphasizing information for consumers, are conducted.

The second stage includes the formation of a "circle of partners" among local entrepreneurs who share the same principles, and are willing to cooperate in helping to preserve a balanced environment while ensuring local employment. The partners would follow fixed criteria (Pokorny, D., 2001). The criteria recommend adhering to already existing regulations, i.e. organic farming provisions, but also to principles relevant to the specific area, for example, the connection between agriculture and the maintenance of a certain type of landscape type, the use of certain breeds, etc. The project partners could assemble in a private initiative association, which would organise and coordinate relevant economic activities.

The third stage would engage in developing a system for branding/labelling products and services. This labelling would emphasize *features* of products rather than the participating enterprises, in other words, promote the item itself, not the "sponsors". The criteria behind labelling should be simple, clear and manageable. The principles of labelling would be widely introduced to consumers in order to establish a clear link between the products and the local natural environment, and to channel the preferences of consumers.

Green meat

Here, we need to distinguish between the often-used term "organic" and "green" which has an added connotation.

While many cattle, including dairy cows, may be raised "organically"—that is, in clean surroundings, free of fertilizers, etc., to be considered "green" cattle must be raised on pasture land that will not only feed them, but will also have a positive impact on the biodiversity of the semi-natural landscape. Even their winter forage is cut from pastures that have been managed according to the principles of sustainable development of those grasslands. Finally, green cattle are raised specifically for the purpose of providing good quality, good-tasting meat. These are the specifications of Väinameri project cattle.

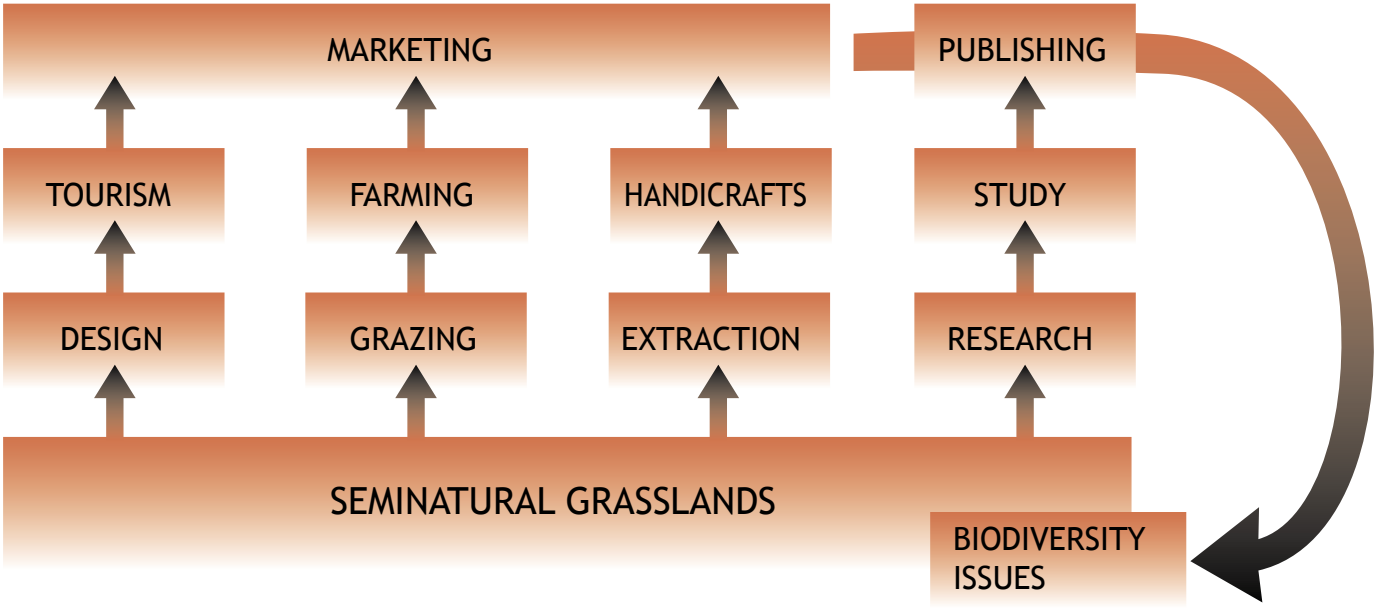
Studies in Sweden have shown, not surprisingly, that customers will more readily accept higher prices if the product is of high quality. With beef, high quality may include natural growth (out-door life, natural feed), regional production, and, most of all, taste.

Marketing this kind of high quality product as "green meat" not only attracts connoisseurs but, when communicated as such, engages consumers with "conservation of semi-natural grasslands", as the added value. By buying the product, the customer is not only assured of a high quality product but also assists in the management of a bio-diverse agricultural landscape.

"Food chain"

Science provides the familiar concept of the "food-chain", which refers to a sequence of organisms that are mutually related *through* nutrition and as the object *of* nutrition. The simplest food-chain is the following: on the first level, plants, which generate organic substances on the basis of energy and substances received from the environment; on the second level, herbivores; the third stage is comprised of predators—carnivores who feed on second level animals.

In a certain sense nature-friendly economy and trade by human beings form a similar sequence. Food production is divided into three sectors, similar to those of the ecological food chain. The first level is comprised of primary production: agriculture, forestry, and fishery; on the second level, the production of goods from raw materials acquired on the first level. The third level involves service and trade. The consumer is located here.



The „food chain“ concept in the Väinameri project

According to the vision of the Väinameri project, the first level should operate sustainably, taking account of natural values. The second level production should proceed from local skills, thereby ensuring both product quality and diversity of income sources. The third stage should exhibit links between the product, natural and cultural values; i.e., customer service should be of educational nature, ensuring respect for the region and increasing the dignity of local people. This type of model is based on consumer preferences. Consumer choices and the value she/he places on goods influence the first and second level processes, and that in turn affects landscape features and the conservation of natural values.

To achieve its conservation objectives, the Väinameri project aims at influencing all segments of the product chain. Activities include encouraging the capabilities of farmers, craftsmen, and tourism entrepreneurs; introducing appropriate cattle and sheep breeds; providing a supply of tools and machinery; logistical support, labelling and advertisement; assistance in networking, environmental conservation and equality.

The Väinameri project strives for a holistic approach to the management of coastal ecosystems, and was built on the following assumptions:

- Environmentally friendly cattle farming is essential to ensure high biological and cultural values, and diversity in agricultural landscapes.
- Prospects for sustainable agricultural production in unfertilised semi-natural grasslands are good. Both the interest in diversification of products and the demand for healthy and safe food are constantly increasing. Results of several polls show that locally produced goods are of high priority to Estonian consumers.
- Diversification of work opportunities and wise use of natural resources is necessary to achieve sustainable rural development.
- Directed subsidies involving environmentally friendly commitments are a strong force towards achieving environmental objectives and ensuring more sustainable development.
- Consumer selection of food products is a strong and important force for agricultural policies and can mediate conservation of biologically valuable areas.

Following EU enlargement, the common agricultural policy (CAP) must be reformed to place much greater emphasis upon the delivery of environmental improvements alongside sustainable rural development. Directed agro-environmental subsidies must replace environmentally unfriendly production subsidies to achieve this goal.

Prospects of grazing

Semi-natural grasslands, such as coastal meadows, wooded meadows, wooded pastures and floodplain meadows, need low-intensity mowing or grazing for their preservation. Beef cattle, alongside with sheep and horses, are considered most suitable to maintain these types of habitats.

Estonia possesses about 50,000 hectares of valuable semi-natural grasslands. Approximately half of these depend directly on grazing, the other half should be managed primarily by mowing. Grazing pressure that best maintains the values of those habitats ranges between 0.3 and 1.5 livestock units per hectare. To maintain good conditions, the number of animals grazing should amount to at least 16,700 livestock units. For instance, one cow or an adult bull is equal to one animal unit, a young cow equals 0.7 animal units, and a calf, 0.2 animal units.

Considering the current total number of livestock in Estonia and the grazing habits of different species, the ideal species ratio for effective nature conservation would be the following: cattle 14,200 livestock units, ovine 1,500 livestock units, and horses, 1,000 livestock units. Since 2001, the Estonian government has been subsidizing the restoration and management activities of semi-natural communities through "nature management payments," for which the annual budget has been 19 million Estonian kroons (about 1.2 million Euros) over the past 3 years. Based on this state support, in 2001, 16,360 hectares of semi-natural areas were restored and/or managed; in 2002 and 2003, that number grew to approximately 18,000 hectares. The areas selected for restoration and management activities have mainly been in protected areas, or those identified as "having significant nature conservation value."

The overall number of cattle has, however, declined drastically over the last decade in Estonia. There were 614,000 cattle 10 years ago, in December 2003, only 260,000. The main reasons are low prices and lack of marketing possibilities. For instance, the average sum paid for one ton of beef in 2002 was 22,637 EEK (about 1480 EUR), while in 2003 the sum was 18,436 EEK per ton (or 1180 EUR).

Regarding beef cattle, by the end of 2003 the number of pure and cross-bred beef cattle was about 9,000 animals, or 3% of the total cattle numbers, a small but constantly growing number. Most are being raised in the western Estonian counties and islands. The most common breeds are Hereford, Aberdeen-Angus,

Historical and extrapolated change in herd size and grazing area on project farms.

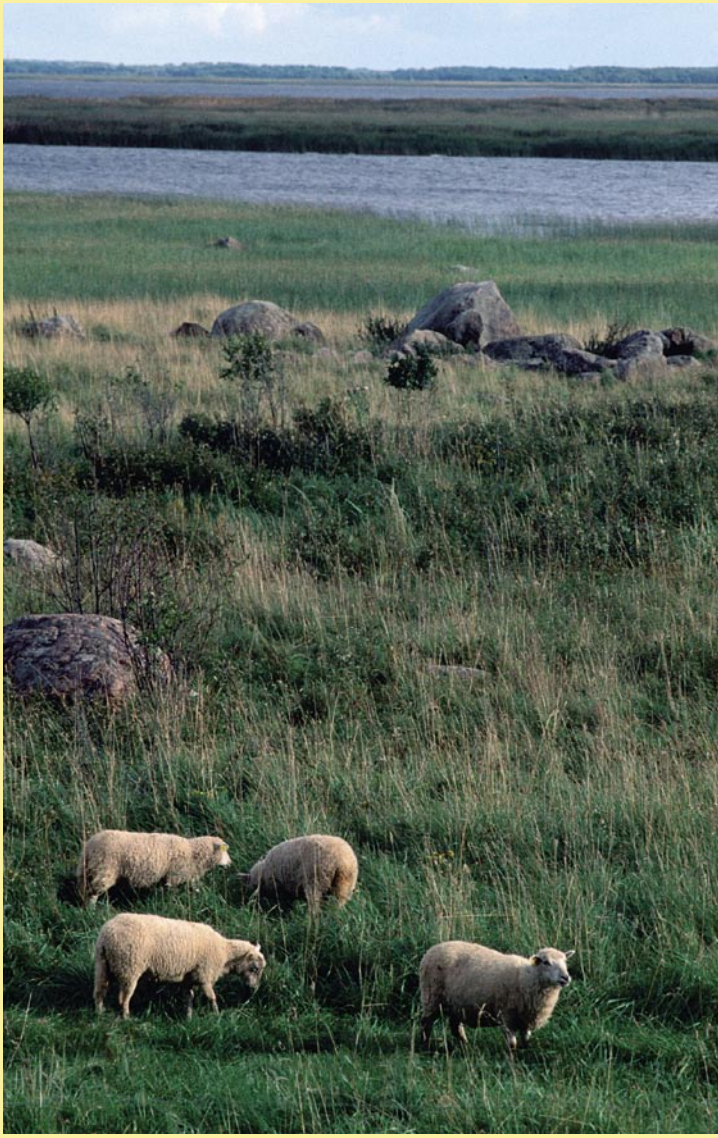
	Initially		2003		2008		2010	
Farmer	animals	ha	animals	ha	animals	ha	animals	ha
Kaptein	82	110	125	213	150	250	200	300
Tikk	84	197	110	300	140	300	170	300
Vichterpal	25	20	31	24	35	40	40	50
Pruul	48	89	63	89	100	100	120	120
Hein	35	45	107	105	125	130	140	150
Uusoja	42	147	92	200	100	200	110	200
Streng	0	0	14	27	20	27	25	27
Reppo	10	15	16	15	20	15	25	15
Lepik	0	0	36	70	36	70	36	70
Madisson	0	0	9	110	25	110	25	110
Kogermann	3	10	9	25	14	25	20	25
Total	329	633	612	1178	765	1267	911	1367

What is a coastal meadow

A coastal meadow is a flat and low coastal section, where pasturage and haymaking are always practised. A considerable section of the coastal meadow is regularly flooded with saline seawater. The coastal area and islands of West Estonia are rich in coastal meadows. The total of several dozens of coastal meadows with the size of over 10 ha and over ten coastal meadows with the size of over 100 ha can be found here.

In case the pasturage or haymaking is discontinued, the reed might spread to the entire low section of the coastal meadow in 5–10 years. The drier part of the meadow will be covered with junipers, alders or willows and become a forest in time. Although the coastal forests can become considerably rich viable associations, several species would disappear from our biota if the last coastal meadows were to perish.

The coastal meadows have been used mainly as pastures throughout our history. Often several farms would use one pasture. This type of joint farming is still practiced today. The haymaking in coastal meadows might have played an important role in the lives of coastal farmers when storing forage for winter. Livestock was kept away from the meadows as long as possible during the vegetation period and led to the coastal meadows only after the haymaking was completed in the middle of July. Early reed was also collected and considered to be good quality forage crop. At present, haymaking in coastal meadows has become even more rare than pasturage.



Pasturage or haymaking is a pre-requisite for long-term preservation of the nature of coastal meadows. The meadows will begin to grow over without management; this will also result in the restriction of living conditions for the type of plant and animal species that need open coastal meadows for their existence. Grazed coastal meadows have a great importance today for several types of older open landscapes, especially because traditional land use is ended in other types of open landscapes. The majority of still existing plant and animal species that are dependant on human influence are often related to preserved, grazed coastal meadows.

and Limousin. Where there are high landscape values and tourism routes, attractive Scottish Highlanders are popular as well.

The Väinameri project was one of the first of its kind to address the whole cycle, from basic nature conservation to the consumer. During the project the first Scottish Highlanders were brought to the coastal grasslands of western Estonia in 1999, and since then Hereford and Aberdeen-Angus breeds have been imported.

The market factor is crucial in the increase of grazing. In Estonia, there is no strong tradition of consuming beef, mainly because high quality beef has not previously been available to buy. Meat factories have also cut back their use of high quality local beef in their products, as they can easily import cheap pre-processed meat, thus avoiding transport and slaughter costs.

The current situation, where the sale of beef to meat processors has become very difficult, or in some cases impossible (waiting lists for slaughter houses may be nearly a year long), has made many farmers cautious and skeptical, and poses a threat to the positive steps made for the protection of biodiversity in coastal areas.

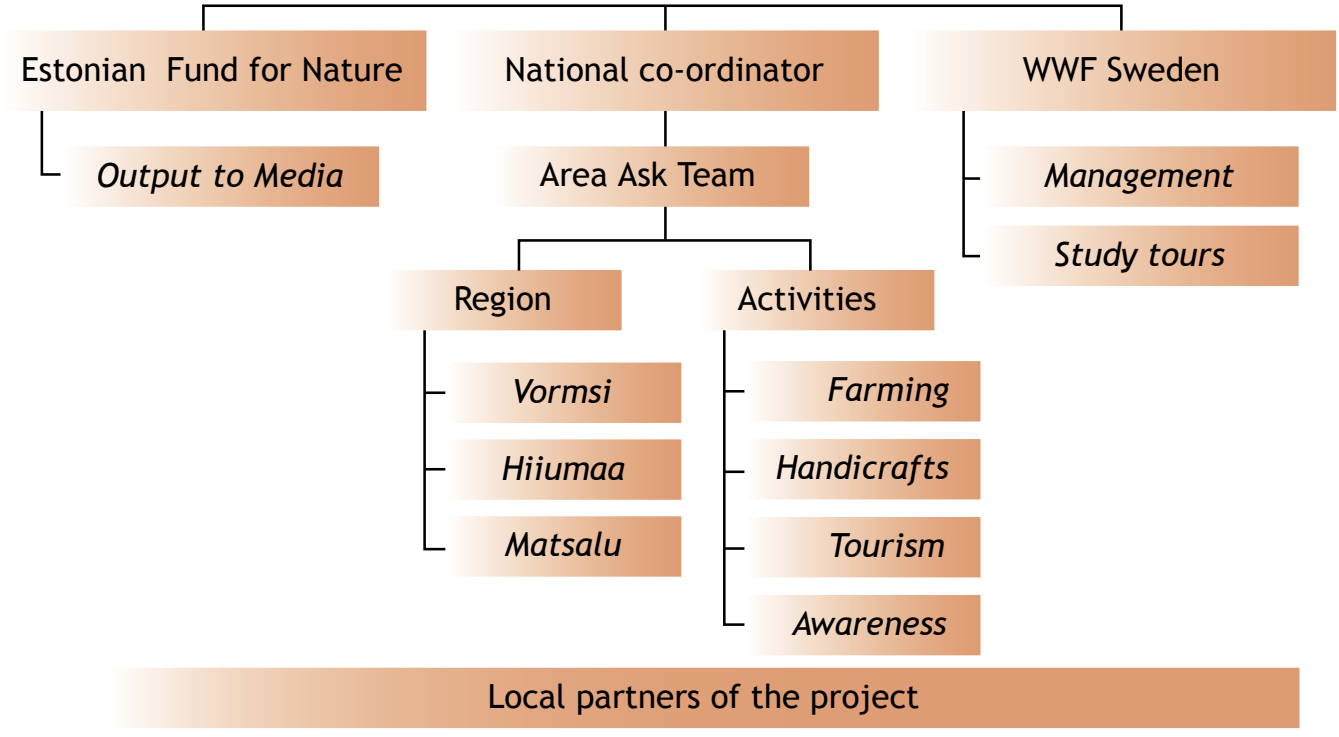
Project organisation

Structure of the project

The organisational structure of the Väinameri Project is rather complicated, with a large number of partners involved. Major acknowledgement should go to WWF-Sweden for elaborating the overall ideology of the project, as well as for their overall support and the backing of the project. In 2000–2003 WWF-Sweden applied for additional aid from SIDA, the Swedish International Development Agency.

In Estonia, two major organisations led the project. The national co-ordinator with the NGO *Arhipelaag* was an engine of the project in the Väinameri area. Its task was to co-ordinate the on-the-spot activities in the project sites and in special components such as farming, handicrafts, tourism and awareness building. The Estonian Fund for Nature was responsible for securing and implementing the nation-wide information campaigns, to work with media and to carry out financial administration of the Estonian part.

Organisational scheme of the Väinameri project



Which livestock to use?

Bovine animals are excellent for the maintenance of coastal meadows. They willingly take to shallow water and, thus, are able to prevent the spreading of reed. They feed on almost all the plants. At the same time bovine animals are not particularly keen on eating underwood and do not feed on grass that grows on their manure. This causes the occurrence of the so-called manure coppices in the pastures of bovine animals. Young beef animals in particular are better suited for coastal meadows because they do not need to be attended to every day and can stay on pastures for longer periods of time.

The most appropriate breeds from cattle breeds are: Estonian native cattle; middle size beef breeds from beef animal breeds i.e. Hereford, Aberdeen Angus and Scottish Highland Beef Cattle. The advantages of aforementioned beef animal breeds:

- These breeds are undemanding about the quality of food.
- They endure extreme weather conditions well.
- Long grazing period enables economizing on additional forage and reduces the generation of dead grass (they feed on dry grass and underwood in winter as well).
- Because of their light weight they do not trample on vegetation too much nor get in danger in muddy reed-beds.
- Their meat is tasty.

Horses are suitable for drier areas with solid surface. They can also feed on reed in water bodies with solid bottoms. Horses are suitable as an addition to bovines because they make vegetation low and they also feed on vegetation that grows on bovine manure. The intensity of pasturage must be reduced during the nesting period of birds when farming with only horses; horses move around a lot; they may cause excessive disturbance to nesting birds and destroy bird nests by stepping on them. The most suitable horse breed for coastal meadows is the small and strong Estonian horse.

Sheep are fussier about food. They prefer to eat juicy herbs and leave behind the stiffer stems of grass. At the same time sheep stop the spreading of underwood. Drier areas are suitable for sheep, who don't like wet areas. Reed may become rampant in wet areas when sheep farming is practised on coastal meadows. It is recommended to use sheep together with bovines. Like horses the sheep also disturb birds that nest on the ground because they move around a lot and are a tighter flock than the bovines.

In the three regions, namely on the islands of Vormsi and Hiiumaa, and in Matsalu National Park, the activities were co-ordinated by local bodies. In Vormsi, an NGO *Läänerannik* took responsibility for the project; in Hiiumaa, the NGO *Arhipelaag*, and in Matsalu, the National Park staff itself took charge.

Apart from the above-mentioned participants, there is a very essential group of local people, who have been sustaining the success of the project in their land, farms, enterprises, shops. Although these people are the beneficiaries of the project, they have provided its most tangible results. And, when the project is formally complete, they will carry on the ideas we worked out together.

We would be happy to name all of them, but that is difficult, as there are more than one hundred persons who have in one or other way contributed to the achievements of the project. We will name a few outstanding contributors:

Grassland management: Ahto Kokk, Eha Salus (Vormsi), family Kaptein, family Tikk, family Uusoja, Ly Kogermann, Aivi Jesmin (Hiiumaa), Tauno Tähe, Argo Hein, family Lepik, family Madisson (Matsalu).

Handicrafts: Kristina Rajando, Ene Rand, Marju Terro (Vormsi), Merike Liivlaid, Marje Loide, Epp Kärvet, Silvi Saarlo (Matsalu), Marika Elmi, Ain Jepishov, family Valdma, Janek Äkke (Hiiumaa).

Tourism: Anu Streng, Maris Rinnak, Valvi Sarapuu (Vormsi), Marika Mann, Ants Ale (Matsalu), Margit Kääramees, Lea Vaher, Omar Jõpiselg, Marika Mikk, Ly Kaups (Hiiumaa).

Reference group

The Reference group of the project consists of Estonian officials and local administrators, who were invited to follow the project, to consult and to express their opinion. The current list of the Reference Group:

L. Saarkoppel	Ridala vald
Ü. Ehrlich	Institute of Economy
A. Kendra	SAPARD
E. Kivi	Pühalepa vald
M. Merilai	Merchants' Union
M. Mägi	Vormsi vald
Ü. Padari	Käina vald
U. Sinijärv	Ministry of Environment
T. Kivipuur	Martna vald
M. Källe	Lihula vald
Ü. Vannas	Käina vald
E. Lepmets	Ministry of Agriculture


Ola Jennersten

The meetings of the Reference Group took place regularly, once a year, as follows: November 2000, meeting in Hiiumaa island. June 2001, meeting in Matsalu area, southern coast. September 2001, the meeting on Vormsi failed due to the storm. May 2002, meeting in Matsalu, northern coast.

The Ministers of Agriculture met with the project staff twice. On the 16th of February 2001, Minister Ivari Padar visited Hiiumaa island, meeting first with the farmers involved in the Väinameri project. Several positive ideas, for instance, the

Opinion from the reference group (wording by Ms Urve Sinijärv):

Ten people with different backgrounds representing different institutions were the reference group of the Väinameri project, who in one way or another are involved in the decision-making in the Väinameri project area.

We could see that the Väinameri project engaged in promoting the development of rural life in the widest sense. The foreign financial support has turned into natural values as well as human values during the project and thus, the output of the project can be viewed as multileveled. Training courses, creation of jobs, giving value to local produce and promoting them are the factors that create further conditions for the revival, preservation and expansion of the diversity of Estonian semi-natural coastal landscapes. Another important output is the increasing of overall awareness and drawing attention to mutual relations between things: if we do not have a local person, who is conscious, motivated and interested in keeping the close-to-nature life style alive, then those valuable natural communities that we are used to considering as our own and precious due to their diversity of species as well as aesthetic qualities that are also valued highly on an international level, will disappear.

The overall opinion of the reference group was that the investment made during the Väinameri project by Sweden has proven very effective because the created values are not single-use but focused on development.

possibility of being a pilot area for Estonian agro-environmental programs, emerged. On the 23rd of June 2002, the Minister of Agriculture Jaanus Marrandi attended a meeting on Hiiumaa Island, related to green animal slaughtering, at which he was introduced to the main aspects of the Väinameri project.

Role of NGO-s

The role of Estonian NGOs in supporting efforts to improve conditions for cattle grazing and breeding has been very significant, and is a good example of how environmental organisations have grown to understand and become active in a holistic approach to nature conservation and sustainable development.

The Väinameri project is essentially an NGO project. Initiated by the Swedish WWF, it has been managed in Estonia by local non-governmental organisations, primarily by the Arhipelaag. It should be emphasized that in the mainland area, the leading governmental institution was Matsalu National Park. On the island of Vormsi, the project was executed by the organisation called Läänerannik.

The Estonian Fund for Nature has been behind a general increase in awareness-raising efforts to explain the connection between animal grazing and the protection of internationally important bird areas and botanical values.

In tight co-operation with the Väinameri project,

Vitaly Tsypnyatov

the society of Upkeepers of Väinameri Heritage Landscapes, composed of local farmers, was established. The society members husband the project cattle, which at the end of 2004 claimed 300 offspring of the first 30 animals.

Another NGO, the Estonian Society of Beef-cattle Breeders, has been recently formed. It is active and so far effective in coordinating breeding activities and in searching for marketing possibilities for high quality beef products. By now, the first animals have been sold to fine restaurants.

The understanding still is not sufficient. Most large-scale meat producers do not understand why environmental organisations are fighting against the import of cheap, low-quality block meat. And despite significant efforts to promote sustainable grazing activities, most meat producers do not grasp the perspective of quality beef products, because of its cost and the low buying capacity of consumers. Consequently, the market has no expectations of high-quality, naturally grazed beef products.

However, by increasing both production capacity and awareness among local stakeholders, the probability of self-sustained agriculture and long-term maintenance of natural values has been increasing. On-site demonstrations or model pastures/meadows show real solutions. Marketing is of special importance for ensuring sustainable future solutions and production lines.

Apart from the Väinameri project, other NGOs have also been contributing to the purchasing of animals via various projects. For example the Estonian Ornithological Society, through its LIFE project in the Häädemeeste area in south-west Estonia, has purchased 10 Estonian native breed horses, 15 Limousin and 30 Hereford cattle, and 60 sheep.

Through a Dutch-supported project, the Estonian Semi-natural Communities Conservation Association has purchased cross-bred Aberdeen-Angus and Hereford cows and bulls. The Kihnu Bay Marine Park Association also organised the placement of Holstein calves in two coastal herds for mating with a beef cattle bull.

The Kääramees family – Mäeotsa Tourist Farm

"Study trips under the Väinameri project attempted to cover topics that were of great significance here. After all—we can already see results: handicraft shops, Estonian Beef Breeders Association, the programme of our own study trip for other tourist enterprises. In any case, thanks to this we can see development in close and wide range—within an enterprise and on a regional level. Participation in the Väinameri project has given our family the courage to be ourselves as well as the confidence to continue and develop our activity.

Organisation of study trips in Hiiumaa has been an excellent opportunity to help others, in other words, to help others by introducing ourselves.

In our opinion, the most important result is the introduction of Scottish Highland Beef Cattle to the region as well as the reconditioning of coastal areas. For Hiiumaa it is important to promote the issue of handicrafts, the tradition of crafts fairs, especially the revival of Christmas fairs."

Arne Ader

Indicator species on a coastal meadow

Indicator species are plant or animal species the presence or absence of which provides information about the condition of the meadow.

SEA PLANTAIN (*Plantago maritima*) is found on maintained coastal meadows. It grows in the seawater zone. Its natural site will be taken over by reed if maintenance is not performed.

MARSH HELLEBORINE (*Epipactis palustris*). This orchid is quite common on damp meadows. Treading supports its growth. When maintenance is finished, it remains on its natural sites for some time (right bottom).

MUSK ORCHID (*Herminium monorchis*) is a hardly perceptible orchid but typical to damp meadows. It is more rare than Marsh Helleborine and only grows on maintained coastal meadows (right top).

Both MEADOWSWEET (*Filipendula ulmaria*) and REED (Phragmites communis) point to insufficient pasturage load.

CREEPING BENT (*Agrostis stolonifera*) endures moderate salinity but grows on areas that are flooded with fresh water. It endures treading well.

NATTERJACK TOAD (*Bufo calamita*) spawns in shallow puddles, where Creeping Bents are often found. The presence of Natterjack Toads points to a good condition of the coastal meadow.

WADERS (*Charadriiformes*) are the best indicators of a coastal meadow's condition. Waders disappear from areas with high grass. Access to the sea is also important to them.

LAPWING (*Vanellus vanellus*), DUNLIN (*Calidris alpina*) (top) and REDSHANK (*Tringa totanus*) have a quick reaction to the changes in the coastal meadow's condition.

Tiit Leito

Tiit Leito


Ramunas Danisevicius

Activities and initiatives

Landscape management

Increased cultivation of naturally unfertilised grasslands is necessary for maintaining the area's biological values. The project area's high natural values exist within meadows and pastures, unfertilised grasslands, that, during thousands of years have been cultivated by humans and their helpmates. The main goal of the project is to ensure the long-term cultivation of these areas to maintain the area's rich biological diversity. This can only be done by offering farmers and their families possibilities for survival. Increasing competence in animal husbandry, breeding and business economics are therefore of the utmost importance. This part of the project aims to develop efficient production units and production networks, quality production (meat, wool), ensure availability to market, and evaluate the effects on nature.

The project included the following activities to achieve the desired results in the grassland management tasks:

- Creation of model pastures;
- Establishment of high-quality beef cattle herds and pure-breed farms;
- Education and training of farmers in landscape management, beef cattle breeding, marketing;
- Creation of a "green" meat brand.

How it started

The Väinameri project had a valuable model in a plan undertaken by Matsalu Nature Reserve, which was the first organization in Estonia to establish contracts with farmers for the upkeep of land. Other reserves were to follow suit. The same principle was implemented by the Väinameri project in its first years on valuable coastal meadows around the Käina Bay in Hiiumaa. For two years, Swedish WWF paid the local farmers for pasturage according to the land size. Bush-cutting and mowing contracts complemented the grazing contracts.

This initial financial backing proved to the farmers that interested parties willing to pay "real cash" for natural values do exist, and that natural resources and values held by farmers can co-exist. In truth, however, such assistance could not last forever, as it conflicted with the project's long-term objective: to create a sustainable, self-sufficient system for the management of coastal meadows.

A more productive arrangement followed with free, long-term rental of various tools and facilities, with project money being used to purchase bush-cutters and saws, protective clothing, electric fences, mowers, and even a tractor. The Husqvarna company's donation of tools was a considerable help.

In June 1999, an event of an unexpected attention and importance took place. Six Highland cattle breed (two bulls, two cows and two calves) arrived in

Estonia, and were placed on Hiiumaa for quarantine. Three of them (one bull, one cow and one calf) were later taken to Matsalu.

The animals were the first of this breed in Estonia, and became very popular in the Estonian media. Even representatives of the Estonian Government visited them during the summer outdoor-session!

Much more valuable than the publicity, though, is the growing interest in beef cattle among coastal farmers. In fact, by the end of 1999, the prospects of producing this valuable breed led to the creation of a society of cattle breeders.

In 2000, 24 Highlanders and Aberdeen-Angus, were purchased from Sweden. The Society of Upkeepers of Väinameri Heritage Landscapes, comprised of the Väinameri project's partner-farmers, assumed responsibility for farming and tending the animals.

Later the project purchased 12 Hereford cattle to be used in the Matsalu area. Although 10 of the animals were of pure breed, none of them had documents of confirmation. Of these, 2 were used in Haeska village, 5 in Kirikuküla and 5 in Matsalu village. Unfortunately, some of the animals were in poor condition and were later slaughtered.

Model pastures

At the beginning of the project, model-pastures or "demo corrals" were formed to allow visitors to witness the effect of pasturage on reed control and the formation of low grass meadows. These "demo corrals"—set up on the farmers' lands in Keemu in the Matsalu region, on the Rumpo peninsula on Vormsi and in Esiküla in Hiiumaa—proved valuable. A particularly good outcome was achieved in Hiiumaa where, in collaboration with farmers, a hidden watchtower was built among the junipers, and an old gravel hole was converted into an outdoor classroom with an information board. In Vormsi, a sun battery was applied to the electric fence of the demo corral to promote the sustainable production technique of electricity, which is spreading persistently throughout Estonia.

The Keemu demo site

The former Keemu village with its small port is situated on the south coast of the Matsalu Bay. When the old farmers died and their children moved to towns, the well-kept coastal meadows became wild again. Flocks of geese and brents devastated the fields, and farmers sought compensation from for the damage from the state. After the restoration of coastal meadows, via the Project's model-pasture program, the brents cause so few problems that the farmers now see no point in asking compensation. It's a clear signal: the coastal meadows of Matsalu are well kept again. And, now, even people in the peripheral area understand the concept of "a hereditary habitat"—which means working in accordance with Nature to maintain the natural processes that have shaped the Estonian, landscape, people and way of life.


Vitaly Tsypnyatov

Argo Hein – Paali farm, beef animal farming

"The project provided a steady direction to engage more seriously in beef animal farming. Purebred bovines were a great help. Our farm is made up mainly of Herefords; cattle size is currently about 100. We intend to increase the main cattle to 150, when we might face a problem with pastures.

The beef cattle have received the "organic" recognition. Practice has shown that there is demand for beef produced in Matsalu, which indicates that Matsalu brand sells well. If more money were paid for this meat then more people would be interested in beef animal farming.

Unfortunately, Estonian consumers are still uneducated at the moment and unable to appreciate the quality of meat".

Tauno Tähe – veterinarian, owner of the Kuke farm, an Aberdeen Angus breeding farm

"The Väinameri project has been fantastic! It has had an influence on the development of the entire region, people have become involved in animal farming and taking care of land.

It would be more useful for a better development of the region if local inhabitants in particular took greater interest in animal farming and pasturage. Local life is not being developed when animals from elsewhere in Estonia are brought here for seasonal pasturage.

In addition to material subsidies the project has also helped to improve the theoretical knowledge of farmers. Until now there was no experience of beef animal farming in Estonia. The expert of the project Stefan Thorssell did a great favour in teaching the animal farmers the principles of free beef animal farming and how to manage such animals overall. I personally learned a lot of practical methods and skills on handling beef animals from him."

Kalju Hallik – Kopli farm, sheep farming

“Thanks to the Väinameri project sheep farming has expanded 2 to 3 fold in the region and the special objective is to acquire raw material for handicrafts. When more yarn was sold in the past, then now the focus has shifted to selling more finished goods.

The project has also provided people with mental support and inspiration. Another important outcome is the launch of the Lihula handicraft shop.

The project has given local people a direction and a new impulse to engage locally, to stay in the countryside and not move to the city. New ideas have been received on how to manage life in the countryside. New areas of activity have received increased support, which has attached people to this place. The Väinameri project arrived here on the last minute!”

Ly Kogermann – Kadaku farm, cattle breeder

“The Väinameri project mainly provided us with the idea on how to recondition our lands and recover overgrown coastal meadows.

The project fundamentally changed my way of thinking as a livestock specialist. Now I look at racing—whose cow is able to produce the most milk—as completely pointless. Free farming of animals is in harmony with nature, it is a natural way of life. The project initiated beef animal farming in Hiiumaa.”

Bigger herds and more breeding

In the course of the project, the serious beef farmers are shifting from the initial Highland Cattle breed towards more productive breeds such as Hereford and Aberdeen-Angus. As a direct result of the Väinameri project, the Limousin breed has also increased. However, the most substantial event has been the creation of the **pure breed farm** of Aberdeen-Angus in Läänemaa county, close to the Matsalu Nature Reserve, which began with the purchase of 10 cows and 2 bulls from a Swedish farmer. The farm deals mainly with embryo-technology to provide pure breed cattle to farmers in the surrounding coastal areas.

The sheep is also increasing in popularity among farmers. Although they have limited positive effect in coastal grasslands, sheep are indispensable in dry grasslands and among juniper bushes and alvars. The sheep is a good "project animal" due to its direct link to the handicraft component: skins and wool are the main source for artisans from the coastal areas. Sheep essentially belong to the romantic Estonian west-coast landscape image, together with wind-mills, juniper shrubs and the seascape. Strangely, however, people here do not appreciate mutton. Only in the last few years has the demand for quality lamb rapidly increased. The Väinameri project has assisted farmers in purchasing pedigree rams of Icelandic breed, and has promoted traditional local breeds.

Another beautiful animal, the horse, has been outside of the direct project scope. However, a traveller at the seacoast will notice horses accompanying the cows. Revival of the traditional Estonian horse is an impetus for several farmers in the area, who began offering horseback riding as an attraction on their tourism farms.

Creation of a "green" meat brand

Although, in some countries bovines are simply used as "lawn-mowers" who are kept on the nature reserve until they die of old age, this is not deemed suitable for Estonia, where the aim is a functional and open circle in which nature conservation is not set apart from "normal" life. It would not make sense to keep animals in closed reservations until they die, paying the local farmers subsistence benefits, then import cheap bone meat mass so that a poor person would be able to buy cheap sausage. This was the reasoning for the nature conservation organisations' support for an interim plan by the Estonian Ministry of Agriculture, which imposed a ban on meat mass import into Estonia. However, this was not implemented due to the pressure from mass producers.

The local farmers' and entrepreneurs' interest and readiness in developing a distinctive "green meat" product is very high (see chapter on "Quality economies" above). A seminar in Matsalu on the topic, with the participation of the Swedish expert Peder Larssen (ICA) and Lennart Gladh (WWF), was a major event in 2003. Seven reports were followed by extensive discussion by 55 participants. The participants identified a major economic obstacle for the development of local nature-friendly beef: it is the importing of cheap, low quality "dumping-priced" meat. The participants made several proposals for decentralising meat processing and for new policies resulting from Estonia's accession to the European Union (EU). The Väinameri project subcontracted Ms Kaia Lepik from the Estonian Fund for Nature to complete a survey of "green meat" in Estonia and to work with agricultural policy. Results of this survey are partially presented in the chapter 'Prospects of grazing'.

The tradition of beef consumption is not particularly strong because it has been practically impossible

to find good quality beef. The meat industries have also reduced the beef content in their products because importing cheap bone meat mass or prefabricated beef allows them to eliminate the inconvenient and costly transport and slaughtering of bovines.

The objective of the Väinameri project is to make good quality beef available for the consumer, while educating the consumer to understand that when purchasing beef originating from coastal areas s/he will also contribute to the preservation of natural values of the region as well as the local rural life.

With an eye towards long-range sustainability of their market, farmers are willing to enlarge their herds instead of slaughtering the animals, thus the production of high quality beef is still rather low, and can not be supplied to shops in the immediate future. Therefore, in order to introduce "green meat" to potential customers, some high-quality restaurants were chosen.

A prime example: in Autumn, 2003, Ammende Villa in Pärnu was the site of the first ceremonial tasting of Limousin pedigree beef, raised on the coastal meadows of Matsalu, in cooperation with the natural qualities of the area, and in keeping with the objectives of the Väinameri project.

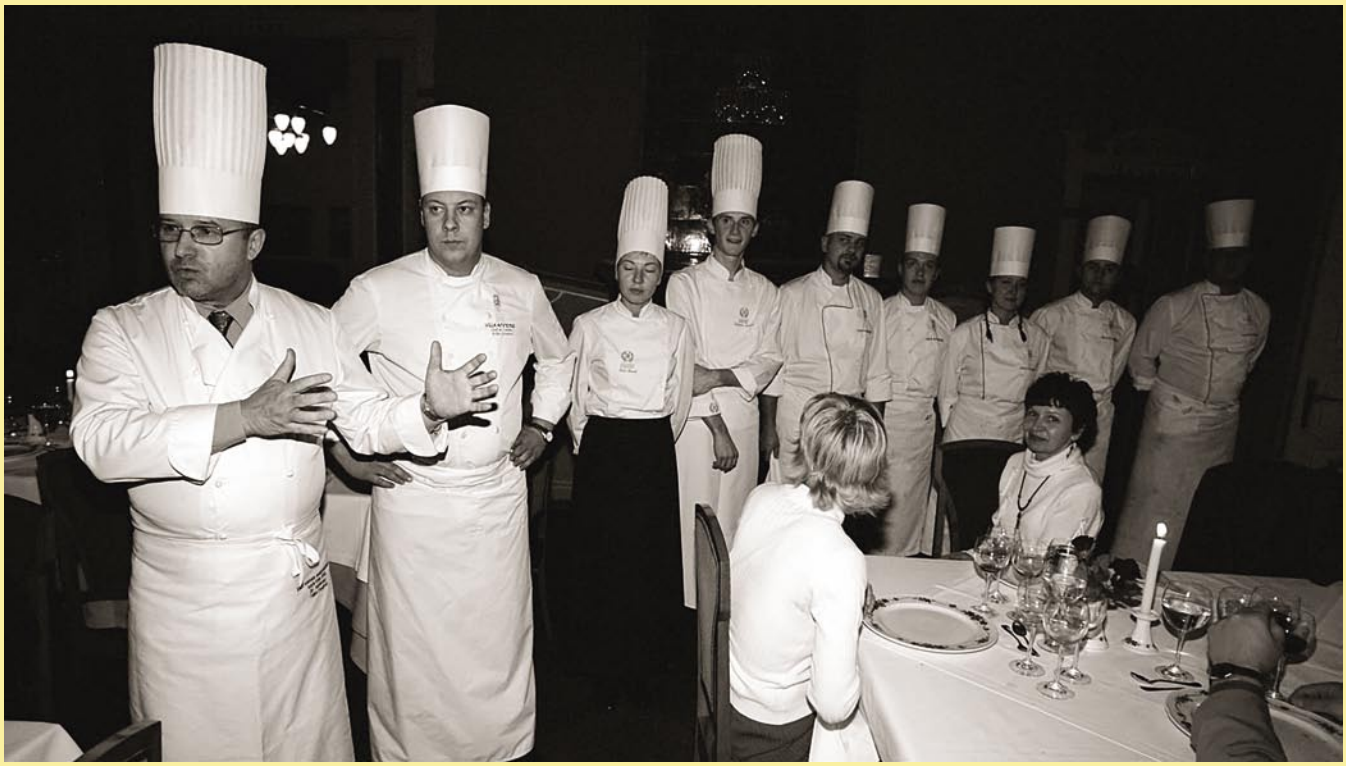
This makes clear the need for effective cooperation among farmers. If there is to be a continuous supply to the restaurant, there must be an increase in herds, as one farmer cannot butcher the necessary number of animals at one time. If the farmers cannot see the potential in beef farming and sell their animals (at very low prices) to "secret slaughter houses", then it will be extremely difficult and expensive to start the revival of heritage landscapes in the future.

The necessary components of the marketing chain, such as *coastal grasslands–farmers–meat processing–restaurant* have been identified. Several restaurants are willing to promote the beef as a means for biodiversity enhancement. Unfortunately, there are still considerable obstacles in the model.

The main problem is that restaurants are only interested in the best cuts of meat, i.e. the filet. The rest of the carcass should be processed into various products such as sausage and semi-finished products, however, no small "green" meat industry exists in Estonia yet. The recognition of this problem requires the attention of a wider regional policy, emphasizing the need for acquiring state support for local small-size production.

Expert opinion: Stefan Thorssell

Beef animal farming in Estonia seems to be considerably more profitable than some time ago. I probably should not say this, but I would personally make more money if I moved back to Hiiumaa with all my animals and machinery and engage in beef animal farming on semi-natural pastures, with all the pasturage subsidies that were paid out in 2001 in comparison to my current income in Sweden, even when taking into account the subsidies received through the EU. However, if we cannot find enough people in Estonia who would like to engage in this type of production, then it is very likely that other European farmers who already have the animals and machinery, will spot a good opportunity to make more money with their production in Estonia rather than their own country. This tendency already exists in Europe. Dutch farmers are moving to Denmark, Danish to Sweden and Swedish to … ???



Meat tasting in Ammende Villa

The Greens degusted the beef grazed on the seaside meadows

by Viio Aitsam
Maaleht, 28.11.2002
Photos by Toomas Kokovkin

In the movie showed in the Ammende Villa, a man from Hiiumaa, the Manager of Research Centre Ahipelaag Toomas Kokovkin, ate the meat of beef animal and compared it to wine: people are used to value the origin of wine, but pay much less attention to the origin of meat.

Many nature conservationists, businessmen, cattle breeders and environmental officials were invited to the Villa. The Chairman of the Board of the Estonian Nature Foundation Robert Oetjen expressed his hope that they all will contribute to the promotion of beef cattle breeding.

"As it became obvious from the study carried out this summer the interest towards the so-called green meat is big and the consumer agrees to pay for it even up to 10% more. But the distributors expressed their wish to also taste this meat," said Oetjen.

One could only surmise the grandeur of the meal at the villa—five sets of knives and forks, four drinking glasses, candles and the best chefs supervised by Dmitri Demjanov.

Demjanov came to the dining hall to introduce each new dish. Thin torn raw meat (Carpaccio with Toscana oil and Parmesan cheese), slightly sauted thick fillet with the piece of liver (Tournedos), thin processed slices of fillet (Roastbeef with fresh radish), beef Stroganoff (traditional Stroganoff) were tasted, as well as one salad in between and in the end a dessert with fruits.

Wines will not be mentioned, because meat had all the attention. From the rich furshette table later on one could simply not try everything.

"All dishes are a bit raw so that you understand the taste of meat better," said Demjanov.

The meat came from the Limousine beef. The importer of Limousine cattle, the head of Karitsu Ranch Leimo Vessart also attended the dinner. Karitsu Ranch operating in Kaiu grazed this year already for the second time half of their Limousine cattle on the Matsalu nature reserve.

The presentation in Ammende Villa was organized by the Estonian Fund for Nature, Research Centre

Ahipelaag, Swedish WWF, who was represented in Pärnu by the nature conservationist and breeder of beef animals Stefan Thorssell.

Poet Karl Martin Sinijärv:

This meat is indeed different. It was interesting to notice the colour of meat in case of Carpaccio: it was not brownish like mature fillet not bright red like fresh meat, but slightly pinkish. By its tone it rather resembles a fish. It seems that the selected nutrition really influences the beef well.

It is not possible to prepare such delicate things from any slab of beef, or if so then thanks to forceful pounding, long marinating process with which a tough piece of meat can be made edible. I do hope that the Limousine, the gentle cow can be found on the counters soon.

Editor of the Green Gate Aivar Õepa:

I very much hope that the time will come when pure meat will ward off the meat of cows fed with grass meal.

Industrial meat will remain on the market, because there will always be buyers who simply cannot afford the eco-meat. But when the consumption will increase, then probably the price band will also change and there will be more buyers who value not so much money but the idea.

Handicrafts

Handicraft has been one of the "low-key" parts of the Väinameri project, but undoubtedly a successful part. Why? Primarily because craftsmen are creative people, many of them loners by nature, whose business objectives are overshadowed by their artistic aspirations.

In comparison to farming or tourism, the effect that handicraft has on local ecosystems is quite minor. We cannot speak about hundreds of grazed hectares or miles of hiking-tracks. When referring to the budget of the project, resources for handicraft are several dozens of times smaller than for tourism or upkeep of landscape. Its value to society, however, is anything but small.

Historical significance

The social implication of handicraft becomes apparent when thinking of the development of rural life in general and, specifically, in diversifying the possibilities for rural families. Generation after generation, skills and traditions grounded in local nature are passed on through handicraft. Materials, techniques, technology and patterns come straight from nature, and are given added value with the experience and knowledge of centuries of history. Preserving the connection between generations is crucial to passing on handicraft skills.

Our project cannot take the credit for the survival of handicraft in the Väinameri region. Local traditions are much more deeply rooted than a short-lived shimmer of a project. However, the project has definitely played a notable role in two areas that help to promote handicraft and establish clearer ties between handicraft and local landscapes.

First, cooperation between craftsmen. Thanks to study trips and seminars organised through the project, greater networking has been developed, leading to the establishment of several smaller associations and handicraft shops, and the launching of the tradition of summer and winter fairs. The project gave coastal artisans courage to act on a wider scale.

Second, the issue of quality. Contacts with project experts and introduction to marketing emphasized the importance of the quality of a product, right down to the details. In the modern world flooded with goods, handicrafts sell only when performance and design live up to the expectations of the most demanding customers.

The main objectives of handicraft development within the Väinameri project were:

- promotion of handicrafts based on coastal grassland management,
- establishment of new marketing opportunities (fairs, market days),
- education,
- information leaflets
- labelling (Väinameri brand),
- international contacts (Swedish handicraft association),
- improvement of wool quality, and sheep breeding.

"Nature-friendly" handicraft

The Väinameri project has made attempts to revive traditional ancient handicraft, using raw materials from


Dainius Labutis

nature that have been successfully used for centuries, but to assist both craftspeople and consumers to view these creations from a more "holistic" perspective.

Several types of materials, taken from nature, support the maintenance of semi-natural areas, for example reed, juniper, and osier, which are collected when the areas are cleaned. In the hands of local craftsmen these become local produce kitchen utensils from juniper or baskets made of osier. But that isn't the whole story. The project reminded people that pasturage of coastal meadows is extremely important. In this sense, one of the best "project animals" is the sheep, that help keep the landscapes clean, give wool, skin and meat. The skin and wool of sheep farmed on coastal areas are as much a part of the semi-natural landscape as the plant life, such as junipers, and the weather conditions, like the sea breezes. It is also said that the meat of sheep farmed on coastal meadows is tastier.


Ramunas Danisevicius

The inventiveness of people living on poor coastal limestone soil knows no limits—they come up with all kinds of solutions in order to survive here. They have been natural "re-cyclers" for centuries, making good use of reed and the sea-eroded stones; old textile is put to new use as a rag-carpet; a blanket is fashioned in patch pattern. But farm work never ends. Fortunately the booming beef farming introduced through the project gives the farm family enough time to engage in other activities. Now, the farm ladies get together to do handicrafts and art, and the farmers make plans for the development of tourism trade.

The concept… and its development

In the area of handicraft, the Vänimeri project based its work on the following premise: A craftsman is a creative person, who loves to work on his own and often resists leaving his art to engage in cooperative ventures. However, in reality, it is difficult make artistic creation viable, economically, and to adjust to contemporary requirements. It is vital, therefore, that the craftsmen come together.

The following paragaphs record the unfolding process and events, in the words of project area residents and their Scandinavian mentors who helped make it all happen.

Research

The handicraft segment of the Väinameri project began with research in 1999, which indicated problem areas and summarized the current situation. It is interesting to take a look back and see what was concluded six years ago (from the handicraft survey dated 1999):

According to the survey, we received a summary of products made in Hiiumaa, materials used, marketing, promotion and problems relating ton handicrafts. We found out the main issues of concern related to handicraft in Hiiumaa, which are:

1. *Mediators of handicraft, who run down the buying-up price; sometimes the manufacturer's labels were removed;*
2. *Need for special legal and business consultation;*
3. *Absence of market in winter.*

Discussions were held on how to add value to handicrafts. The main idea was that since handicrafts are not mass production but unique hand-made items, they must definitely be protected with their own labels.

The places where handicrafts are sold are also important. It has been said that museums are much better

Eha Salus – sheep farmer and artisan

“The Väinameri project has provided many different development opportunities for people. Those who have been willing have received ideas from study trips as well as skills from practical seminars.

The project affected our family in a way that eventually helped us to make a decision in favour of sheep farming. Our aim now is to expand the sheep farming even further. Sheep are so versatile, which makes it possible to develop many different products; I would sell even the sheep baa, for example.”

Ene Rand – artisan

“Co-operation is very important in this country! The Väinameri project has provided us with well functioning contacts between different regions. For example, the wool of Vormsi sheep is taken to the Vaemla wool factory in Hiiumaa, from where the yarn is taken back to Vormsi and then turned into a local product by the craftsmen of Vormsi. A local product is something that is actually manufactured locally. The clock-socks of Vormsi have been made from the wool of sheep that have cleaned the landscape of Vormsi!”

Merike Liivlaid – sheep farmer and artisan

“The Väinameri project triggered my serious engagement in handicraft. I would like to get more involved in sheep leather processing in order to make different leather products. The quality of wool must be enhanced in order to improve the marketing of leather products as well as knitted items from local yarn. For this we will expand sheep farming, use rams with higher quality wool in our flock. The objective is to make handicraft our main source of income.”

Kristina Rajando – chairperson of the Vormsi Handicraft Society, crafts teacher

“Sheep are once again introduced to the landscape of Vormsi. Lamb wool, yarn and leather have become important again! It has become necessary to practise handicraft, which after all is a natural activity for rural people. Simple things that surround us as well as activities are returning and people have come to value them again.

Vormsi Handicraft Society has set an objective to produce good quality handicraft items with modern design but which are inspired by traditions!”

at selling handicrafts than shops, where items are often thrown on top of each other in heaps and cannot be seen.

The Swedish experience should also be taken into account, where sheep farming is adjusted to market demand. The problem of lack of winter market would be eased by organising a big winter handicraft fair like the one we saw in Västervikin Sweden.

Specific projects for the future:

1. Information day for craftsmen;

2. Winter handicrafts fair;

3. Own product label.

Societies

The cooperation between craftsmen in the Väinameri project began with business courses. The meetings showed us the importance of having handicraft societies to unite and support the people in this field. This can include participation in fairs, organising competitions or setting up expositions. For a start, the project initiated the Hiiumaa Handicraft Association. Matsalu and Vormsi followed the example. Currently, there are three active regional handicrafts associations, and smaller local societies and clubs are active.

Perhaps the best example of the importance of having a craftsmen network: wool produced on Vormsi island is made into yarn in Hiiumaa, passes through the hands of knitters in Läänemaa, then is taken back to Vormsi as a beautiful product!

Shops and fairs

Study trips to Sweden have been extremely useful to our craftsmen. Besides the marvellous idea of a winter fair, our Swedish colleagues alsoencouraged our idea of setting up local handicraft shops to sell local products, with the craftspeople themselves performing the duties of shop assistants. Furthermore, the courage we received from the trip was the driving force behind opening the new handicraft shop in Kärdla, followed by one in Lihula.

Estonian people are starting to value handicrafts more and more, so the trade is not so dependent on the tourists. The events spawned by Swedish example are proving to be valuable for visitors to the islands and to the craftspeople themselves.

Good examples are the midsummer and pre-Christmas handicraft fairs in Hiiumaa. Now in its fifth year, the Christmas fair continues to grow, discovering new artisans as it goes, and has become an extremely popular family event. The summer fair brings in trade from other parts of Estonia as well. The most important thing is that children are increasingly being included in the fair activities, encouraging them to take home their

Epp Kärvet – the founder of Lihula shop, master craftsman

"The study trip to Sweden changed my way of thinking considerably. It provided me with courage and enthusiasm to initiate operations. The trip brought the craftsmen of the region together for the first time; we discussed our experience together and made plans for the future. We tried to find solutions to our problems together, how to promote and market our production more efficiently. The most important result for us was undoubtedly the launch of a handicraft shop in Lihula.

The quality of products is very important. We want to manufacture items that would last for several generations, like blankets and carpets. After all, it is no good when items are disposed off quickly and replaced with new ones. This is also an issue of nature preservation.

It is safe to operate knowing you've got backing. The feeling that someone is supporting you—is a great feeling!"

Expert opinion: Eva Andersson

… To reach a larger market the quality and design of some products needs to improve. Many craftsmen are in great need of practical workshops, on topics such as the connection between raw material, design and the finished product, exhibiting product, developing labelling, and how to review handcraft and use special labels and economy/prices…

… The Vormsi craftsmen showed great enthusiasm and many products are developing. There is a great need of shared development and marketing. The understanding of cooperation is growing…

… The craftsmen have a strong motive to improve their products; they need both inspiration and knowledge to be able to continue their work. There is a need for a mentor and to gain economic advice from professional advisers with knowledge in micro-enterprise. The craftsmen expressed the wish for continuing workshops in exhibiting, marketing, sales techniques and raw materials…

first handicraft, and experience a bit of "promotion and sales" in the process.

Product innovation

Handicraft competitions have played a dual role, creating new products and ensuring their quality. Various practical seminars have improved and expanded people's handicraft skills, and have helped them—and customers—begin to respect the ways natural processes can add value to contemporary life. For example, products made from wool dyed with plants do not contain chemicals, and the colours are natural and long-lasting.

Advice and consultation by the Swedish WWF's expert Eva Andersson have had a positive influence on product innovation and sales. Her seminar showed us how to revive oft-forgotten ancient handicraft. She impressed upon us how vital it is to have cooperation between an artist-designer and a craftsman, and, as a foreign expert, she was able to shed light on the newest requirements on products sold in Europe.

A nice surprise: Thanks to the learning gained here, there have been two handicraft exhibitions in Sweden, with the participation of top craftsmen from Vormsi, Matsalu and Hiiumaa! Ties of cooperation have been established with "Svensk Slöjd" handicraft store in Stockholm, where the first Väinameri products were displayed, to the delight of Swedish buyers.

In Vormsi, local artisans are actively arranging workshops on topics such as 'Skin tanning' or 'Natural dye' workshops, for the whole Väinameri region, thanks to the expert assistance of Ms Eva Samuelsson.

An interesting enterprise was started as a result of the Christmas Fair. A Norwegian designer, Anne Helene Gjelstad, launched a company in Estonia to employ women from Hiiumaa and West Estonia to produce knitwear using her designs. This enterprise is not related to the Väinameri project (it does not use local wool), but it serves as a good example of how important it is to spread the information about useful skills in a region.

Project manager Lia Rosenberg has been successful in reinforcing the network of artisans in the Väinameri project. On their consultation trips around the Vainameri area, Swedish experts Eva Andersson and Eva Samuelsson have assisted with seminars focusing on ancient methods of wool and skin production, networking, and local brand (labelling) development.

Seminars and training

One of most memorable seminars, on felting and dying with plants, took place on Vormsi Island, 19–21 April 2002, led by Eva Samuelsson from Gotland. Local craftspeople also invited artisans and art students from the neighboring islands of Saaremaa, Muhu and Kihnu, to participate in workshops.

Traditional methods from Kihnu island were introduced by Rosaali Karjam from Kihnu island, felting was taught by Kristina Rajando from Vormsi island, and Marja Leskinen, from Finland, explained the process of dying from the chemist's point of view. Special certificates were awarded to 29 participants. Local co-ordinator of the seminar was the NGO Läänerannik.

The seminar resulted in a do-it-yourself booklet on dyeing, felting and tanning. This booklet, written in Estonian, continues to be popular and is still available in digital form to download from the internet at www.arhipelaag.ee.

During the course of the Väinameri project, several Swedish artisans helped their Estonian counterparts with seminars and workshops, and by making a series of tours in the region to evaluate progress.

Tourism

The Väinameri project is active in more senses than one when it comes to promoting nature tourism. First of all, the promotion of local sustainable economic activities and diversification of employment opportunities. As we have repeatedly discussed, the valuable semi-natural areas will only be able to last if moderate management is applied. However, it is necessary to diversify the activities in order to have a lasting rural life and income on the peripheral regions. Nature tourism, especially in rich natural areas like the coast, is currently a growing form of business and can be combined well with farm households.

Second, wider introduction of the project's results. The Väinameri project is not something on its own, its far-reaching idea is to offer a typical solution i.e. a model to other rich natural areas; how to preserve the biological diversity in cooperation with and through the local people. For this purpose, the project set up demonstration areas as well as hiking tracks.

The third idea is related to the previously mentioned "food chain" idea. Tourist business enables to set up a local market for produce received from coastal meadows, by offering meat and handicrafts in local shops-restaurants, for example. At the same time

Information signs of the Ristitee nature trail in Kassari

to offer the tourists what they actually travel for—a complete "feeling of a place". Unfortunately, this last component has proven particularly difficult because the formation of the local product group is a far more complex undertaking than how it seemed at first—we do not have enough skills, motivation and favourable legislative acts.

Demo-corralls and nature trails

The idea is to design the nature trails and demo areas with the assistance of good nature experts, to write texts for posters and booklets, and to produce the signs. Whereas farmers are supposed to put up the trails and to take care of them. This unfortunately did not work out in all cases: fixing of broken signs proved to be of low priority to some farmers.

We mentioned the demonstration pastures when discussing management of coastal meadows. The total of four "demo corralls" have been set up by the project. In addition to them, the total of seven trails have been created:

1. Sviby-Rumpo trail, Vormsi
2. Laiandi trail, Matsalu
3. Kiideva-Puise trail, Matsalu
4. Kirikuküla trail, Matsalu
5. Ristitee trail, Kassari
6. Pihla trail, Hiiumaa
7. Nasva trail in Hiiumaa

Vormsi hiking track is six kilometres long and runs along the Southern coast of the island from Sviby to the tip of the Rumpo peninsula. The track passes through wide coastal grasslands, where meadows are mixed with junipers, forest and reed patches. The coastal natural values and methods of management are introduced here. Watchtowers have been erected on the Rumpo peninsula to provide a better opportunity to watch the nature.

In Matsalu area, the nature study trail is created on the lands of Laiandi farm, in Kiideva-Puise, and in Kirikuküla. The project supported publishing of leaflets and construction of signs.

In Hiiumaa, nature trails have been established in Pihla farm, Ristitee farm and the Kogermann's tourism farm, with the aim to demonstrate the cultural landscape and the effects of grazing.

One can encounter Scottish Highland Cattle and horses and find plants and communities typical to coastal meadows on the Ristitee hiking trail. Here

Nature Holidays in West Estonia

In an aim to conserve the natural and cultural values found in Väinameri, the World Wide Fund for Nature (WWF) and Estonian conservation teams have partnered with local tourism entrepreneurs as a way of showing the values for the protected areas system and the natural heritage of Estonia. During the summer months the cottages are usually fully booked, so you are advised to make early reservations during this period. The spring and autumn bird migrations, however, are in the low season and the most recommended time for travel for nature experiences. Orchids are in full bloom usually by the first week of June. The Riga Bay lift off of huge numbers of geese bound for the Arctic is during the end of April and early May, whereas many rare species will arrive during the latter half of May. Having said this, west Estonia is well worth a visit during any time of the year. Many of the properties have saunas—a dedicated love shared by Estonians and Finns. If you are interested in a real winter escape, there is little in northern Europe that can beat the unhurried life in Väinameri during this time.

The large island of Hiiumaa has some 10 000 inhabitants that lead an unhurried lifestyle. It is safe, and locals seldom lock their doors of cars and homes with a key. Hiiumaa (www.hiiumaa.ee) is excellent for bike trips, and cottage rental. Interestingly, most parts of the interior if the island are totally uninhabited.

Matsalu Bay is the area of highest priority for Estonian conservation. It has the largest amount of reed beds of the entire Baltic Sea, as well as wolfs and moose next to the Baltic Sea. Numerous bird towers make bird watching the number one choice to come to Matsalu Bay. But it is also a wonderful area during the peak of the summer, when the islands may be crowded. This is an area where you better come with your own, or a rented car.

Vormsi is a smaller island with only some 260 inhabitants. It was a Swedish speaking island until the majority of the Swedes fled to Sweden and elsewhere at the end of the Second World War. Vormsi is perfect for bike trips and discovery.

For more information, please visit the website at www.arhipelaag.ee/vainameri/nature_holidays.html

you can see the results of management of the coast for yourself, enjoy the historic and cultural monuments, hear legends and stories about old Estonian beliefs. Nearly twenty different bird species in total can be found here. The most common ones are lark, redshank, pewit, oyster catcher and ringed plover. One can hear the sedge warbler and reed bunting in the reed-bed and whitethroat and barred warbler in bushes.

The Nasva hiking trail is situated at the Käina bay in the landscape reserve. The trail is 1.5 km long and it takes about an hour to pass through. Here one can see a 100-year old juniper forest, unusual twisted pines, an open view of coastal pastures and the lagoon with its attractive reed islets. The trail also shows the local history spiced with several legends. In May 1999 the first specimens of the Scottish Highland cattle were brought exactly here.

Nature tourism packages

The aim was to take nature tourism further than just a passive preparation of hiking tracks within the Väinameri project. It was decided to make three tourism packages for this purpose, which would be complete, with well-weighed logistics and which could be marketed through tourist agencies. The packages would cover three areas: bird-watching, flora (with focus on orchids) and family holidays in a farm.

In association between the Swedish expert Jan Wigsten and the local entrepreneur Marika Mann, the within-mentioned tourism packages were prepared and tested by the group of the Swedish WWF under the guidance of professor Staffan Ulfstrand. After the testing period the tourism packages were given to the use of Kumari Reisid—a company based in Matsalu, who has successfully been promoting them.

The study tour for local entrepreneurs to Hiiumaa in September 2003, was focused on family accommodation issues. The tour examined both positive and negative examples of Hiiumaa farm tourism, bed and breakfast and guesthouse accommodation.

Nature guide training

An extensive course of nature guide training took place in the Matsalu area from spring till autumn 2002. First seminar of nature guides was held in Matsalu on April 12–14, 2002; its main aim was studying nature, especially the spring migration of birds. The participants were guides from Matsalu, Vormsi and Hiiumaa.

For the second time, on July 3–5, 2002, guides gathered in Matsalu, where they were taught first aid, plant and bat identification, they watched birds and learnt other things about nature.

The third seminar took place in Matsalu 11–13 November 2002. The topic was bird identification and the video-training of a guide behaviour.

Expert opinion: Jan Wigsten

Our local partners have developed an impressive understanding of tourism issues. I believe they would have developed such a understanding on their own, but I believe, as a direct result of the Väinameri project, the cross sectoral networks are organized also to deal with this and bring action to it. Natural resource management and economic development managers are transparent with each other and are at the same table through the Väinameri project, which is the added value of this kind of cooperation. Estonians have a welcoming attitude to the issues of sustainability. Yet, everyone involved, are participating in such processes for the first time. There is, needless to say, a need for further involvement; on the part of WWF to safeguard the sustainability issues of the work that already have been done. One kind of winter tourism has developed by itself, and it is hunting of waterfowl, by Italian hunters, and others. For which WWF also have know-how and own networks. Not the least, to guide our partners into the EU bureaucracy and its inherent opportunities and threats for the natural environment.

We have at the seminars discussed the semantic differences of "cooperation" and "coordination". A weak point being, entrepreneurs have a weak understanding of distribution and sales of their products or services, and therefore have to find a market on their own. As opposed to linking with other sales outlets. Hence, the outreach to market is limited. It takes time before they leave the phase of "coordination" (talking to each other and agreeing on principles) and entering into phase of "business cooperation" where different businesses link their core business to each other using each other strengths. Targeting true economic cooperation sharing client base and further specialization in SME development.

Publications

In May 2002 three tourist maps were published. They help to discover the natural values of the south-east coast of Hiiumaa, the island of Vormsi and the Nature Reserve of Matsalu. The maps depict some birds and plants typical to the area. The text describing the values is in Estonian with short translation into English. Also, a short description of the Väinameri project aims is included.

The maps were made in co-operation with the Research Centre "Arhipelaag", the Nature Reserve of Matsalu and the Society "Läänerannik". Artist: Elen Apsalon.

Moonsund Eco

New enterprise called Moonsund Eco started in 2003, with emphasis on high-quality lodging for demanding birdwatchers. This enterprise has used know-how elaborated by the Väinameri project, in particular in terms of appropriate service style, and relations to local agricultural and handicraft market. In the nearest future the company will provide handicraft tourism packages with options to visit artisans and learn traditional techniques. Please visit the website of the company at www.moonsund.ee.

Tõnu and Sirje Kaptein – Ranna farm, beef animal farming

"We were introduced to the project through study trips. What we saw on those trips gave us an idea of what coastal semi-natural areas could become when beef animals are farmed. This provided our farm with an idea how to expand our operations, to engage in beef animal farming by starting to use overgrown coastal meadows again.

The project enabled us to understand the natural processes that surround us and to see how everything is interconnected in the ecosystem of a coastal meadow. The project showed us the way to cooperation. It generated the necessity for cooperation to share and also ensure the necessary pasturage load and employ the system of bull exchange.

The Väinameri project expanded the concept of "quality"! When previously only the "Organic" label with strict regulations was known, then the project promoted the use of "nature-friendly product" and "green product". The conception was also changed: not to produce a maximum quantity of meat but mainly to generate maintained nature!

One of the particular features of the project is also the fact that when other projects have a beginning, process and end, which are fixed by a final report, then the Väinameri project is still ongoing regardless of its official end!"

Tiiu and Jüri Valdma – handicraft shop and wool-mill

“The Väinameri project is a success because what is done properly and from the heart is functional. This project is so close to life that it can never end. The study trips were very efficient; they broadened the people’s horizons. People began to understand how important it is to revive animal farming and what impact cattle farming has on the nature.

We are not engaged in animal farming but we are cooperating with farmers who use our lands for pasturage. We place great importance on having the semi-natural areas near the seaside maintained.

A circle of people with similar ideas has been formed as a result of study trips and other common events—these people in turn influence an entire community, so we have received new friends and supporters through this.

It is really important that we revive the Christmas fairs, especially when thinking of our wool production. The fairs play a great role in forming consumer taste. The production is no longer considered as expensive, people would rather pay more money for natural products and value handmade products highly.

The quality of products sold at fairs has improved over the years. Those with good reputation must safeguard it; those who have not got it yet must pursue it!”

Awareness of people

While working with sustainable development projects it is essential to promote environmental awareness. Only with awareness and knowledge will short-term market economy plans be coordinated with long-term nature protection objectives. Otherwise pragmatic considerations and striving for profit may cancel the values of natural environment that are important for the society as a whole.

In the *market economy model* of society each resource is seeking production methods that guarantee the maximum profit. At the same time, the greatest profit for the owner does not always coincide with the greatest good for the whole society. Competition for the use of natural resources in a manner that includes the preservation of nature can be successful only if there is a consensus in the society that it is not wise to exhaust every potential natural resource, and that restricting the use of a certain amount of natural resources will be profitable for the society in the long run (Ehrlich, 2003). We can try to resolve this antagonism legally but the real solution rests deep in the mind of each citizen.

In modern society the role of nature protection is no longer restricted to purely biological evaluations and restrictive policies. As the concept of nature protection is becoming more widely accepted in all of society, we need to attend to the following concerns, at the very least:

- equal access of people to resources;
- recognition of natural values (species, ecosystems, landscapes) as national heritage which must be sustained;
- promotion of the notion of "well-being," the definition including the "health" of the natural world;
- equal availability of resources for present and future generations;
- survival of a cultural space related to natural environment.

The Väinameri Project has worked diligently to expand the awareness of people. Of course, it would be naive to think that "wise" project managers know better than local farmers how to live and manage in the coastal landscape! Centuries of experience have given the coast dwellers and islanders knowledge that is very close to the one that we now understand as "sustainable" nature use. However, it remains necessary to continue to work for changed attitudes towards nature protection, to underscore the reality that the protection of nature is inevitably intertwined with the rural economy, and to demonstrate that by means of examples.

The Väinameri Project has assisted in building awareness on three levels: among local people, on the level of Estonian decision makers, and on international level, i.e. European Union environmental and agricultural policy, and cooperation with partners from Russia as well.

Prospective label of the Väinameri brand

Working with media

Newspapers

We have repeatedly used county and national newspapers to promote the ideas of the project, and also published separate newsletters as supplements to the newspapers. This proved to be the best way to reach people, since every subscriber received the addendum in his mailbox.

In February 2001, a project newsletter named "Elu Maal" (Life in the Countryside) was published by the Estonian Fund for Nature and distributed as a supplement to three newspapers: "Maaleht"—a national paper—and the county newspapers of Läänemaa and Hiiumaa. In November 2003, the newsletter entitled "Inimene ja rannik" (People and the coast) was distributed to about two thousand readers.

Tourism booklets

In May 2002, three tourism map-booklets were published describing the main objectives of the project, nature values, and identifying project sites such as demonstration areas, nature trails, bird towers, and village life related to the project.

TV programmes

The first programme about the Väinameri project was filmed and broadcast in June 2001, and received very good responses. The programme gave an overview of project aims both in the mainland and islands, plus interviews with farmers, scientists, and project managers. In December 2001, a second programme covered ecotourism and handicraft. Later the project was reflected several times in the weekly programmes "Osoon" (Ozone) and "Tasakaal" (Equilibrium).

Participants of the Väinameri conference 2002

Making the film about the Väinameri project

Films

Two films were produced in 2000, the first, a 17-minute video n Estonian, called “The coast needs care” introducing the primary semi-natural values of Väinameri: grasslands, alvars, wooded meadows and reeds. The other 15 minute film, produced in co-operation with the Russian company NTV for its audience, depicted life on the Estonian coasts, and the relationships of people and nature.

A new film “Väinameri. Coastal nature and people” was finished in spring 2002, in Estonian and English, with a Russian translation. The film grew out of a number of interviews with local farmers, tourism managers, handicraft artisans, and the project staff.

Photography

The first photo contest was announced in June 1999, and by October we received 226 pictures from 27 authors. The subject, “Taastatud väärtuste teel” (The way to restored values) was selected to promote quality pictures about people’s activities in the coastal zone, and to draw attention to the value of semi-natural areas. Out of the photographs presented, four were given awards, and 25 pictures were selected for the exhibition, which was arranged so that it can be easily installed in most venues.

From August 4–8, 2002, the ‘Photo Days of Väinameri’ took place. The idea was to invite professional photographers from neighbouring countries to capture the relationships between people and nature, nature protection and development. Ten photographers from Armenia, Byelorussia, Lithuania, Russia, and Estonia participated. The “residual benefits” are about 1500 frames of negatives for future use.

Website

The project website is active, constantly updated and frequently visited—about 1000 hits per month. Several materials are available for downloading in pdf-format. The most popular is the Handicraft Manual, which has been downloaded about two hundred times.

The website address is: www.arhipelaag.ee/vainameri/. The project is also presented on WWF Sweden’s homepage http://www.wwf.se.

The Väinameri Conference 2002

A major conference was held 7–9 November 2002 in Haapsalu, Estonia, to offer a summary of the results of the Väinameri project to date, and to make plans for its project out-phasing. Fifty-six people from four countries participated and/or presented; there were 3 presentations from Sweden, 1 each from Russia and Brussels, and from the Estonian regions of Hiiumaa, Saaremaa, Vormsi, Läänemaa and Pärnumaa, as well as from institutions in Tallinn.

Titles of presentations at the plenary session:

The Project concept — Rural Development and "Green meat". Ola Jennersten and Lennart Gladh, WWF-Sweden

Nature Protection and Rural Development in an enlarged Europe. Elizabeth Guttenstein, WWF European Policy Office, Bruxelles

Meadow conservation in Western Estonia, experience of Matsalu. Kaja Lotman, Matsalu NR

Lessons learned from The Väinameri project. Toomas Kokovkin, Arhipelaag

The role of NGOs in sustainable rural development. Robert Oetjen, ELF

"Green meat" on the Estonian market: results of the survey. Kaia Lepik, ELF

Väinemeri project and nature education for children: an example from Vormsi island. Maris Puurmann, Läänerannik

Coastal area: arena for conflicts and/or co-operation—the case of Muhu and Orissaare. Tiina Peil, SEI

Project analysis by the Reference Group. Urve Sinijärv, Ministry of Environment

There was a poster session with the following presentations:

ELF Poster exhibition "The Eagle knows!" Aile Villemson, ELF

Natural materials in the handicrafts of Väinameri. Lia Rosenberg, Arhipelaag

Semi-natural grasslands of Hiiumaa, their management and research. Kai Vahtra, Arhipelaag

LIFE-project "Restoration and management of Häädemeeste Wetland Complex". Mati Kose, EOÜ

And three thematic workgroups provided results on:

Rural development and EU accession;

Väinameri project and local economies;

Väinameri project and nature conservation;

The conference produced a statement, which was sent to media, ministries and officials.

Conference statement

09 November 2002, Haapsalu, Estonia

STATEMENT on sustainable rural development from the Väinameri Project.

The Väinameri Project was initiated in the early 1990's as an innovative approach to sustainable rural development in the remote coastal areas of western Estonia. The project provides a model for how rural development can directly benefit both environment and natural resources of international importance, as well as local people. The aim of the project is to support the management and restoration of the coastal landscape through diversifying the local economy. It has three main components, all based on the sustainable use of natural resources: farming, handicrafts, and tourism.

The project has resulted in a significant improvement in coastal landscape management and protection of natural values. Nearly 3000 hectares of valuable coastal grasslands have been restored and are now managed by more than 300 high quality beef cattle and sheep. New jobs have been created in the traditional handicrafts and tourism industries within the local communities. Three small businesses and several societies have been created as a result of the project.

The new phase of the project foresees building greater sustainability of the activities in order to secure the long-term maintenance of the natural values and smooth entry into the European Union. It will be in the hands of the Estonian policy decision-makers and local initiatives to secure the continued success of the project results.

When Estonia joins the European Union in 2004, the government will define a rural development strategy as required under the Common Agricultural Policy. This represents a unique opportunity for the government to use EU funds to deliver integrated, sustainable rural development. Participants from the conference held on 7–8 November urged the government to define a clear strategy for Estonia's rural area, based on the integration of social, environmental and economic objectives. Furthermore, they asked that all rural stakeholders, including farmers, NGOs, local municipalities must be full-scale partners in the creation of the rural development plans for Estonia, and their concerns fully addressed. These approaches have proven successful in the Väinameri project.

The intensification and rationalisation drive of the CAP are a real threat to Estonia's marginal, semi-natural grasslands (coastal and alluvial meadows, alvars, wooded meadows and pastures), which may be abandoned. Production payments, with their quota and premia levels, should be made to ensure the continued economic viability of traditional grazing and mowing. Rural development funds must target these areas and, as a priority, areas of special environmental interest such as nature protection areas, NATURA 2000 sites, Ramsar sites and the Unesco biosphere reserve.

Arhipelaag, Estonian Fund for Nature, WWF

Spreading the results

Study tours

The study tours were without any doubt the most efficient way to provide knowledge and shape attitudes. We conducted study tours within Estonian counties and abroad, and trips to the Väinameri region were organized for foreigners. In five years, a total of 86 Väinameri residents visited Sweden to gain from experience there. The effectiveness of the trips surpassed all expectations because, upon returning from Sweden, the Estonian participants immediately started to work—establishing societies and companies, conducting workshops and organizing an information exchange. Indeed, quite often the trips seemed to be the only realistic way to relieve rural workers of their everyday routine and "free up" their thinking. Of equal importance was the night and day interaction with people sharing the same ideas, and whom they might not have met otherwise.

A special study tour to Sweden was arranged for Estonian local and regional authorities in October 2003. Nine local-level administrators from eight municipalities and one association member participated. The aim was to learn, from Swedish experiences, ways to assist the establishment and sustaining of local and regional enterprises, with special attention to effectively using EU funding opportunities for capacity building and investment.

Based on connections made during these foreign trips, we started to organize "getting-to-know-Estonia" trips during which several regions were able to introduce their strengths. In this way, there were tourist trips to Hiiumaa; handicraft was admired in Vormsi; the management of protected areas was discussed in Matsalu.

Estonian and Karelian farmers discussing different cattle breeding concepts

As these trips developed, an understanding of learning and teaching possibilities began to develop, and the tour groups began to include interested visitors. We have welcomed single visitors and small groups from a dozen countries. The most extensive were three tours organized for our partners from Russia and Karelia. Soon, we will begin to prepare tour packages for the participants of the *One Europe More Nature* Programme.

Olonets

WWF-Sweden plans to apply the principles worked out through the Väinameri project in the surroundings Olonets, a town in Karelia (Russian Federation).

The Olonets region is located at the eastern side of the Ladoga Lake, some 10–15 km from the coastline. It is situated in the extensive alluvial plains of the Olonka river valley, which are heavily ameliorated. In some respect, the agricultural landscapes of Olonets may be compared to those of Matsalu floodplains in Väinameri area, but the latter is less densely populated. The landscape of Olonets gives the impression of intensive large-scale agriculture as a result of highly concentrated dairy production with hundreds of cows in large barns.

Farmlands of the Olonets plain are Europe's largest spring stopping place for White-fronted Goose (*Anser albifrons*) and Bean Goose (*A. fabalis*). At the height of migration, over 110,000 birds a day may sometimes be recorded in the fields. Feeding flocks of 2,000–3,000 (up to 10,000) individuals are not a rare phenomenon here. Suitable feeding conditions exist because of vast agricultural lands, mostly occupied by perennial grasses. However, the fields used by geese have steadily been over-grown by bushes, mainly *Salix* species, due to a decrease in grassland management. Proper cultivation of the fields has not been possible because of economic difficulties during the last decade. It became clear that for conservation of geese staging sites on spring migration, it was necessary to prevent reduction of agricultural areas (Source: Baltic Fund for Nature).

To improve the situation, there is a possibility of applying the "model of Väinameri", which entails co-operation of farmers and small rural enterprises in fostering nature conservation in semi-natural areas. This is an interesting and challenging task, since the area of Olonets is significantly different from the Väinameri area. The differences occur both in the natural environment and in the socio-economic conditions.

When working in the Olonets area, one may sense a strong centralised administration. This applies to decision-making in both public sector and private businesses. Local power is not much in the hands of municipalities; many responsibilities of local development and communal services are carried out by *sovkhoses* (large agricultural enterprises). Centralisation and large-scale organisations are the main socio-economic characteristics, which differentiate the Olonets area from Väinameri. This centralisation is obvious in local administration, communal services, retail and tourism businesses.

Olonka river in Karelia

Regarding tourism, although many tourism entrepreneurs in the area run their own small companies, they are essentially ruled by one major tourism enterprise. There are no such things as single small-scale firms, who provide tourism accommodations or services independently (as in Estonia), and who would strive towards co-operative networks. Instead, there is a "top-down model", which is well suited to Russian circumstances.

Concerning handicrafts, there exist brilliant artisans, and there is much knowledge about the traditional skills, but little about the marketing of the products. In fact, the handicraft as business is not developed in Olonets, rather it is treated more as a hobby and ethnography, and for teaching the children (the latter much more than in Estonia). Ideas about marketing and local branding are in a very initial stage. Many artisans prefer to sell products directly to tourists, to avoid taxes, etc.

More significant differences exist. In Estonia, virtually all the agricultural lands were privatised during last decade. In Russia, although the Russian Land Code presumes all different land ownership modes, one can hardly find any private agricultural land in Olonets.

In Olonets, virtually all the agricultural production remains in two–three large enterprises. In comparison to Estonia, it presumes a completely different approach for the WWF project, since decision-making in Olonets is "farther from the ground". However this fact enables easier logistics in many cases.

Estonia has undergone the deep and painful liberalisation of its economy, which generated a layer of small businesses in the countryside. In Karelia the situation is different; small businesses are not that common, and public opinion seems not to support private entrepreneurship in the countryside.

Many active people start developing their own "market niches" based on the natural values of their area. In Väinameri, the project relies on the networks of small-scale private companies and individual entrepreneurs such as farms, eco-tourism services, handicraft shops and artisans. The main partners among decision-makers in Estonia are the lowest level rural municipalities. Taking into account the more centralised character of rural administration and economies in Olonets, the target groups may be different. The partners for the project in Karelia could be primarily sovchoz leaders and large tourism company employees.

One Europe More Nature

One Europe More Nature (OEMN) is a programme started by WWF in 2003. The idea behind it is to catalyse and facilitate farmers, consumers, businesses and policy-makers to re-create living river basins so that new ways of farming—making a living—ensure biodiversity and ecological functioning in Europe's changing landscapes. OEMN was initiated by WWF-Netherlands together with WWF International.

OEMN has chosen several areas in Europe to demonstrate this concept. These "field sites" have been selected in order to highlight important lessons and opportunities that can be used to influence the Common Agricultural Policy reform and provide opportunities for local people to preserve their natural heritage and livelihoods. The programme works primarily in two main areas, i.e. Doñana (Spain) and Tisza river basin (Hungary and Romania) together with five other existing successful projects linked into common network. These are Prespa (Greece), Ardennes (Belgium), Carpathian carnivores project (Romania), Geldersepoort (Netherlands) and Väinameri in Estonia.

These projects chosen by OEMN should fulfil a number of criteria:

- the example must contribute to WWF's freshwater targets in Europe (a consequence of the fact that the One Europe More Nature Initiative is lead by the European Freshwater Campaign)
- the example must be a working field example (so, policy or communication projects do not qualify for this particular purpose).

In addition to fulfilling the above preconditions, One Europe More Nature examples should show forms of land-use:

- which are environmentally and economically sustainable,
- which are not dependent for the long-term on project subsidies,
- which are not dependent long-term on product subsidies,
- which are replicable on a regional scale, at least (i.e. not site specific).

The example must be fit to influence EU policies and practices

- where a 'new economy' is happening or can happen,
- in areas or projects which are accessible and marketable,

- where partnerships exist/are drivers, especially where private sectors are involved,
- in areas where there has been a clear evolution of/from agricultural or forest land-use.

The Väinameri project is a suitable example for conducting, testing and influencing EU policies because it succeeded in building a new economy—albeit small scale—which provides new perspective for the people and the landscape in the project region. Solutions can be seen working in the field and the area is fairly easy to reach. A weak point could be that the basis for the new economy is rather small (cattle farming and tourists)—possibly this could be broadened if other habitats of the project region (forests, marshes) are 'drawn' into the project.

Message from Latvia

From: Inga Racinska

To: Lia Rosenberg

Sent: Monday, May 31, 2004 11:44 AM

Subject: RE: About Väinameri project

The visit to Hiiumaa brought us some important messages:

1. It proved that it is possible to achieve coexistence of high nature values and sustainable farming practice, at the same time securing the future of local farmers.

2. Support of the local community is of crucial importance if you wish to achieve any goals on any levels – and it is possible to gain this support if you address local communities openly and provide them with support from your side.

3. When introducing new farming practices it is very important to ensure also the market for the production – not to exclude the activities from the economic context in the country.

These were 3 main messages we got from the tour, apart from very pleasant experiences from meeting nice people and seeing well managed sites:-)

I am also sending one picture from the study tour.

Inga Racinska

project manager

Latvian Fund for Nature

Door-signs of the project

By 2003, the project had established a wide network of partners who had a good knowledge of our endeavour, and who were very co-operative in achieving common results. To make these people more visible, we produced special door-signs, or certificates, signifying their active participation in the project. All in all, fifty persons, farms and enterprises received a sign. The text is written in three languages—Estonian, English and Swedish—and it explains in short the main purpose and supporters of the project.

Maris Rinnak – lady of the Laurase farm, producer of the Vormsi home bread

"The study trip to Sweden gave us lots of examples and new ideas on how to manage life in the countryside the most efficiently. It is important to find your own niche, your own special product, which would make you stand out. The more nature-friendly the product, the healthier it is. Bread products that are produced in Laurase farm have been granted the organic label. Spelta herbal whole wheat bread from our bakery is very popular and it is also a great product for people with allergies who normally cannot consume any flour products at all.

The Laurase farm also has a small cafeteria, where you can also buy local handicrafts. In order to survive on this island one must engage in many activities."

Tiit Madisson – Lihula rural municipality mayor, owner of the Laiandi farm

"The Väinameri project has given new ideas, hope and encouragement to local people. A certain fellowship has been formed where everyone wants to belong. People get together, engage in joint activities and pursue common goals. Being part of this environment gives me new impulses over and over again to push myself further.

It is easier to get information and to provide information about my activities when working together. Associations and organisations that were set up during the project are functioning and people who have joined the project are active. In order to survive in the countryside, we must support one another.

The project has also provided material support without which small farmers would have become extinct. Based on the study trip to Sweden a college specialised on nature is being founded in Lihula and this certainly plays an important role in image development. Studies that specialise on nature are a perfect addition to our "green rural municipality". Our rural municipality is going to do everything in their power to keep young people in the countryside.

Once all the project activities have been initiated, they will make the rural municipality more attractive, which in turn will bring recognition to the region!"

The Uusoja family – Ado-Tooma farm

"There was a time when our coastal areas were considered to be low in value and unfit for use. Nevertheless, we decided to start farming our animals in old coastal pastures, which had overgrown with reed and bushes. People thought we were crazy!

After a few years things began to change, we received additional encouragement from the Väinameri project, which ensured us of the importance of what we were doing.

The Väinameri project helped us to understand the essence of natural values we were surrounded by. Now the farmers, the project partners have become public activists themselves and, based on their own experience, share the knowledge on the importance of cattle farming and land maintenance to land owners whose land they use for animal farming.

Beef animals are the best maintainers of coastal areas—they give value to food on coastal pastures, they are strong, they do not require much attention and they provide the farmer with an opportunity to get profits from other areas of activity such as tourism or handicrafts.

The Väinameri project has brought people to work together; currently farmers, tourism enterprisers and craftsmen are engaged in cooperation. Experience is shared, people engage in joint ventures. Nature tourism is spreading to the pastures of farmers where unique plant communities as well as various bird species can be found."

Marika Mann, OÜ Kumari Reisid, nature tourism enterpriser

"I personally took a considerable step forwards in personal development and the development of my business. The Swedish expert Jan Wigsten had a great influence on me— he guided me to the world of travel services. Fortunately, I'm a good student! By now it is clear to me that what Jan taught me is actually functional and I've been assured about this too.

The Väinameri project has significantly changed the people's attitude towards nature preservation and safeguarding it. Whilst other activities in the Väinameri project help to directly implement the objectives of the project, then tourism enterprises can educate the tourists on the nature and environment through this activity.

Different tourism packages initiated by the project are still being developed further!"

Marju Terro – member of the Vormsi Handicraft Society, Swedish language translator

"The practical seminars that were conducted by the Väinameri project have revived people's interest in sheep farming once again. Now people have began to farm sheep with the purpose of production.

Those who participated in the seminars are trying to employ their acquired skills in daily life and pass knowledge on to others. Many have started to dye the yarn with plants on their own, both dyed yarn as well as items made from it are being sold.

Natural grey and black wool are still held in high value, rams with good quality wool are sought after in order to use them to improve their flock of sheep."


Tiit Leito

Project in a nutshell

Goals

- A sustainable use of natural resources
- Conservation of biological diversity
- Increased knowledge, participation and involvement of the local residents towards the sustainable development of the area

Expected results

- Increased number of visitors and income from local production
- Maintained and restored biodiversity
- Shifts in the approaches to balanced ecosystem management, agricultural and regional development policies
- Increased awareness in Estonia and neighbouring countries
- Creation of complete production chains (meat, handicraft, tourism) including international links, capacity building of local authorities for enterprise support, thus giving the project a “market”-oriented base.

Overview of activities

The Landscape / Grassland management

- Increased cultivation of naturally unfertilised grasslands is necessary to maintain the area's biological values
- Establishment of high-quality beef cattle and sheep herds
- Increased grazing of coastal grasslands
- Creation of model pastures and demonstration areas
- Education and study visits
- Indicator species survey

Area grazed yearly	about 2000 ha
Area cleaned from bushes	110 ha
Area mowed yearly	about 2800 ha
Number of cattle related to the project (i.e. pure breed and crossings)	about 500
Number of sheep related to the project	about 400
Number of bush cutters	18
Number of chainsaws	8
Length of electric fence	about 60 km
Study tours (number of participants)	1. Agriculture in Sweden, 1999 (18) 2. Sheep breeding in Sweden, 2000 (9) 3. Vormsi people to Matsalu, 2000 (8) 4. Abattoirs in Sweden, 2001 (9) 5. Saaremaa island, 2003 (12) 6. Individual course for T. Tähe in Öland, 2002 (1) 7. Hiiumaa island, 2004 (17)
Seminars arranged	1. Beef production, Jan 2000 2. Project management and labelling, Apr 2000 3. Beef cattle breeding, Sept 2000 4. Environmental issues, Oct 2001 5. Beef cattle breeding, Feb 2002 6. ICA-seminar in Matsalu, Aug 2003 7. Evaluation tour by Stefan Thorssell in Estonia, 2004, 2 seminars (10 + 5)

Handicrafts

Handicraft production makes use of the area's natural resources, which are obtained when maintaining the landscape and which ensure long-term subsistence for the local residents:

- Promotion of handicrafts based on coastal grassland management
- Establishment of new marketing solutions (fairs, market days)
- Education
- Information leaflets
- Study visits
- Assisting in job creation
- Improvement of the quality of products
- Increase of market options
- Labelling (the "Väinameri brand")
- International contacts (e.g. Swedish handicraft association)

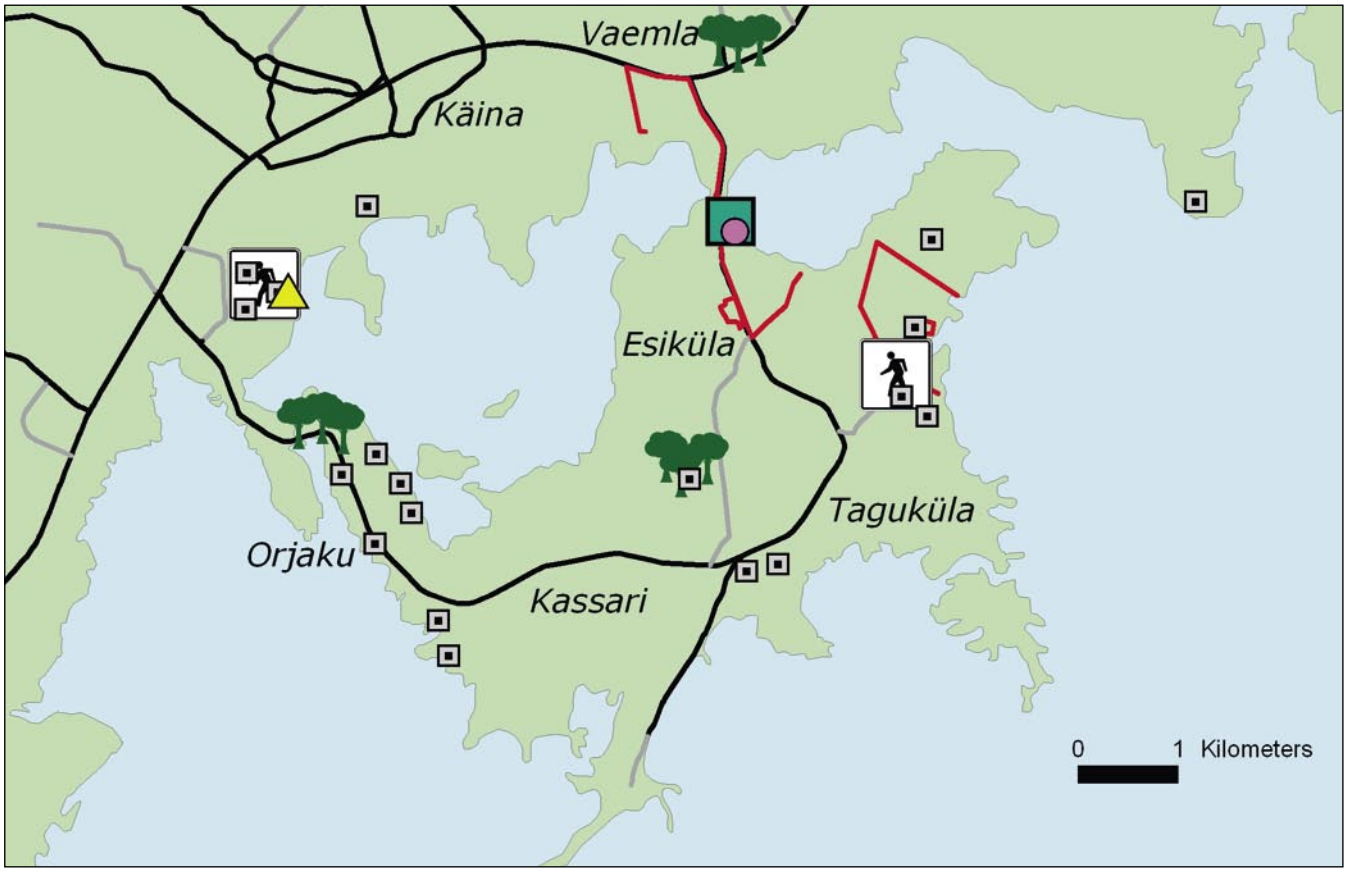
Names of new companies (10 new jobs)	1. Lihula handicraft shop 2. Close Knit World OÜ
Handicraft markets and fairs organised	In total 5 summer markets and 5 Christmas fairs organised
Study tour (number of participants)	Handicrafts in Sweden, 2000 (15)
Titles of workshops (number of participants)	1. Felt making, 2000 2. Booklet preparation, 2000 (7) 3. Natural Tanning, 2001 (32) 4. Taxes and legislation (15) 5. Handicraft developments (24) 6. Plant dye making and felting, 2002 (29) 7. Handicraft in Hiiumaa, 2003 (25) 8. Evaluation tour by Eva Andersson, 2004, three seminars (13 + 10 + 11)
Other arrangements	1. Investigation on Handicrafts in Hiiumaa 2. Handicraft Booklets 3. Handicraft contest "Forgotten techniques" 4. Children handicraft contest 5. Handicraft contest "New presents" 6. Book "Nature friendly skin tanning, dyeing and felting" 7. Väinameri handicrafts exhibition in Stockholm at SIDA-week, 2004 8. Presentation of Hiiumaa handicrafts on CD, 2004 9. Commercial exhibition of handicrafts in Svensk Slöjd Butiken, Stockholm, 2004 10. Contest "Invent new Christmas present", 2004

Nature tourism

Increasing the area's attractiveness for small-scale nature tourism, which adds to the local resident's earning potentials:

- Education
- Information leaflets
- Study visits
- Nature trails
- Ready-made tourism packages
- Fulfilment of tourist network including international contacts.

Location of Nature trails	1. Sviby–Rumpo, Vormsi 2. Laiandi demo area trail 2 km, Matsalu 3. Kiideva–Puise trail, Matsalu 4. Kirikuküla trail, Matsalu 5. Ristitee trail, Kassari 6. Pihla trail, Hiiumaa 7. Nasva trail in Hiiumaa
Location of Demo areas	1. Sviby–Rumpo grassland, Vormsi 2. Salmi grassland, Matsalu 3. Kirikuküla–Laiandi, Matsalu 4. Laisna grassland, Kassari
Titles of study tours (number of participants)	1. Study Tour to Sweden, 2001 (9) 2. TUR 2002 in Göteborg (9) 3. Sollentuna Fair, 2002 (9) 4. Study Tour to Hiiumaa, 2003 (13)
Tourism packages created	1. Vormsi nature & tradition 2. Bird watching 3. Plant studying 4. Nature holidays 5. Moonsund Eco bird-watching package 6. Handicraft tour (under completion) 7. Study tour for One Europe More Nature programme (under completion)
Connected activities	1. Crane day in Matsalu 2. Training of guides 3 Estonia-wide handicraft days 4. Bird guide training course 5. Ecotourism seminar 6. Seminar in Lihula, 2003 7. Evaluation tour by expert Jan Wigsten, 2004, four meetings (8 + 13 + 20 + 27)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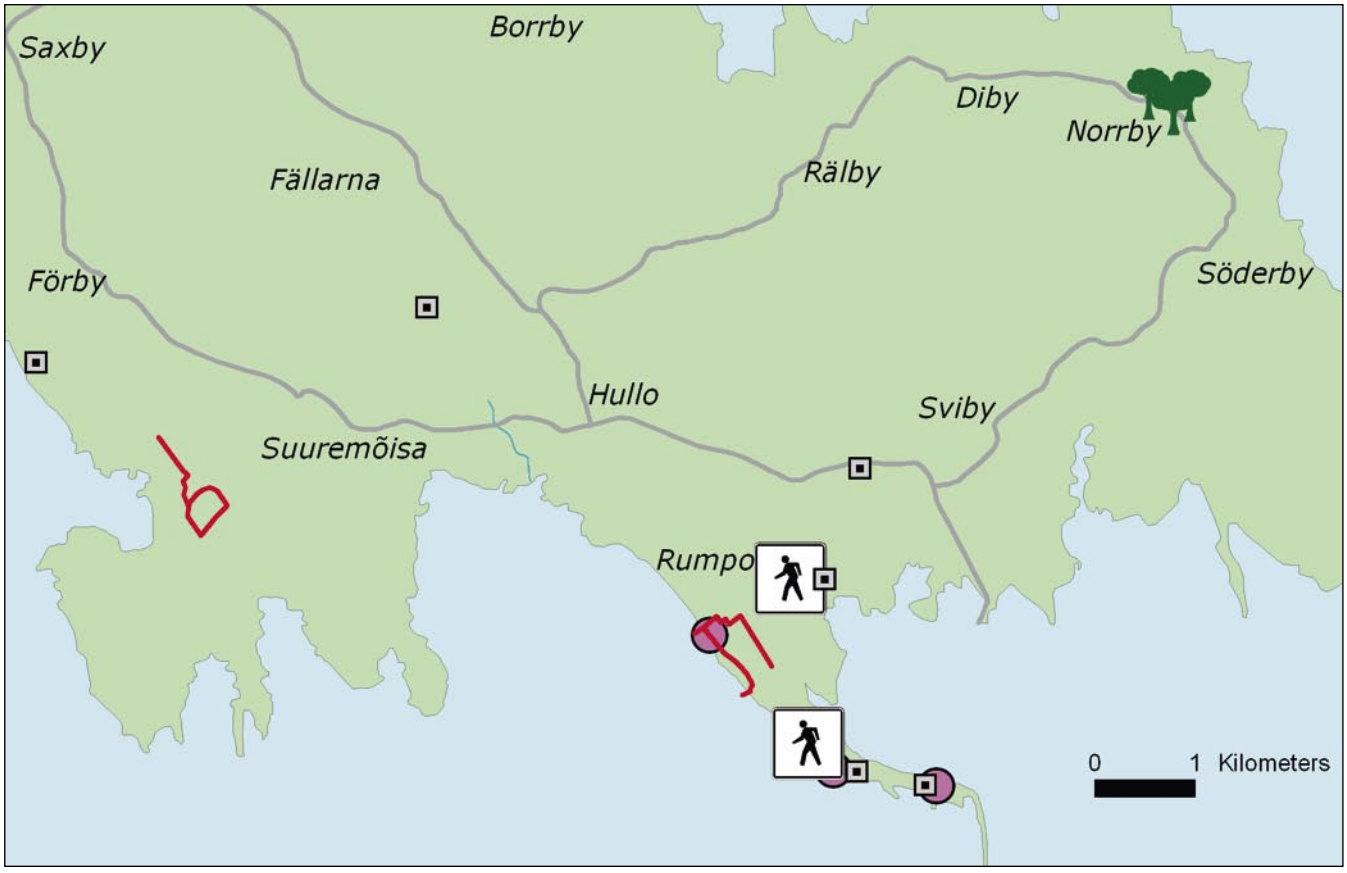
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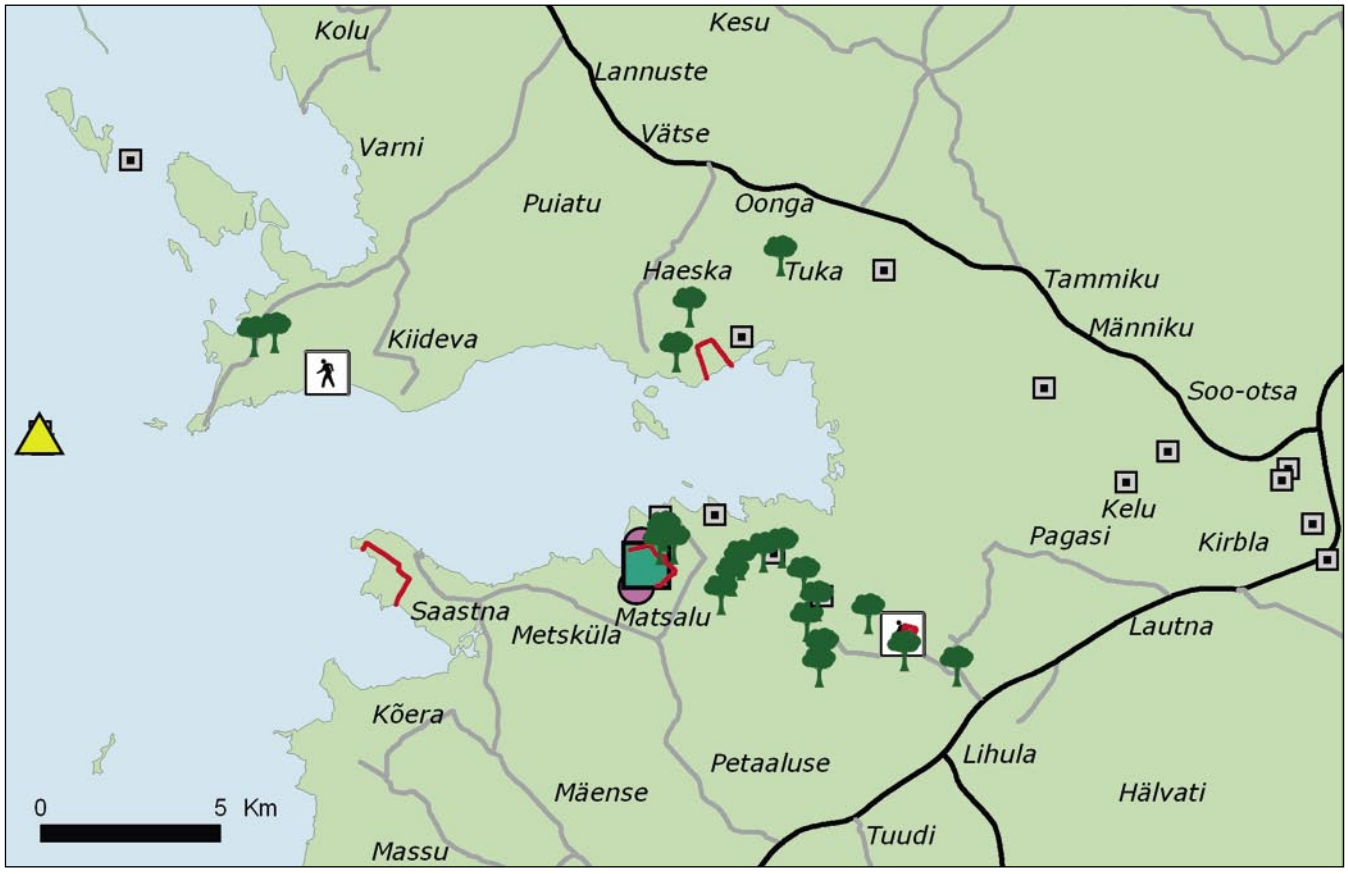

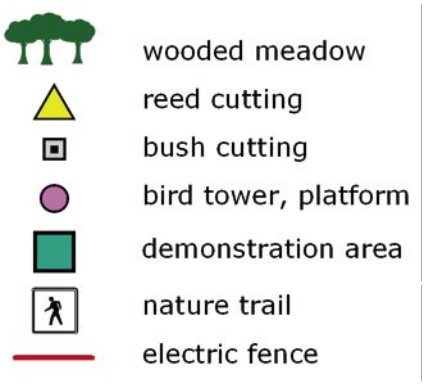

Maps of main on-the-ground activities
of the Väinameri project in Hiiumaa (opposite top),
Vormsi (opposite bottom) and Matsalu area (above).

Awareness & Outreach

Outreach of information, experiences and result to general public, media and authorities.

Leaflets	1–3. Handicrafts in Vormsi, Matsalu and Hiiumaa 4–6. Ecotourism maps in Hiiumaa, Matsalu and Vormsi 7. Newsletter, Feb 2001 8. Newsletter, Nov 2003
Brochures	1. Nature-friendly skin tanning, dyeing and felting 2. Coast needs care (aimed at farmers) 3. Beef cattle breeder's manual
Titles of radio programmes	1. Pereraadio "What is up in Matsalu" (in Estonia) 2. KUKU, Väinameri project (in Estonia) 3. Naturmorgon "green meat" (in Sweden) 4. Naturmorgon "nature & tourism" (in Sweden)
Titles of TV programmes	1. Estonian TV, Osoon, 1999 2. Estonian TV, Osoon, 2000 3. NTV, Russia, about the Väinameri Project, 2000 4. Estonian TV, Osoon, Dec 2001 5. Estonian TV, Tasakaal, Nov 2003 6. Estonian TV, Osoon, Dec 2003 7. TV Sweden, Mitt i Naturen "About Matsalu"
Titles of films made	1. Coast needs care, 2000 2. Eco-trips, by Sergei Vorobjev, Russia, 2000 3. Väinameri—Coastal nature and people, 2002 (in Estonian, English, Russian) 4. People & Nature in East, by Tom Arnbom, 2004
Exhibitions	1. Estonian horse, photos by Ago Ruus 2. Birds in nature, photos by Ivar Ojaste 3. Values of coast, photography contest exhibition 4. Natural materials used in handicrafts 5. Handicrafts at SIDA week
Study tours (# participants)	Estonian local authorities to Sweden, Oct 2003 (9)
Selection of presentations	1. Vormsi Swedes, meeting 2001 2. Nybro commune in Sweden, Villnet project, 2001 3. AVA seminar, Denmark, 2001 4. FoodChain, Uppsala, 2001 5. Envisions, Västerås, 2001 6. Biosphere reserves in Russia, Krasnoyarsk, 2001 7. Green week, Brussels, 2002 8. Farming with Nature, Utrecht, 2002 9. Grazing seminar, Brussels, 2004 10+. Several presentation in different Swedish universities (e.g., Uppsala, Gävle, Stockholm, Karlstad)
Websites	www.arhipelaag.ee/vainameri/ www.wwf.se
Other arrangements	1. Sustainable Day of Vormsi 2. School conference Väinameri, 2001 3. Green Spots meeting, 2002 4. Photo Days of Väinameri, 2002 4. Väinameri door-sign, 2003 5. Sida Baltic week, 2004 6. WWF International programme One Europe More Nature

Local networking

Names of societies initiated	1. Vormsi handicraft society 2. Upkeepers of Väinameri heritage landscapes 3. Society of handicraft of south Läänemaa 4. Hiiumaa handicraft society 5. “Salumäe society” in Matsalu 6. “Kiideva Greens” in Matsalu
Numbers of private Nature Guides	8 nature guides as private entrepreneurs
Other arrangements	1. Local co-operation with NGO’s, entrepreneurs and the biosphere reserve programme 2. Co-operation with Olonets region in Karelia

Estonian participants of study tours to Sweden

	Participants
farmers that participated in study tours	30
artisans that participated in study tours	15
tourism entrepreneurs that participated in study tours	29
decision-makers that participated in study tours	12

Project sustainability

The Väinameri project has been successful in influencing its region and people. Some 50 enterprises or about 100 people have been indispensably involved in the project, and several new enterprises were established as a direct result of the project. Since the success of these enterprises is also of major importance for WWF's overarching project goal—the conservation and management of semi-natural grasslands and their associated flora and fauna—their long-term sustainability is of vital importance.

The plan for the near future is therefore to follow-up and support these enterprises in different ways. WWF plans to have a budget line for Väinameri for the next few year, at least.

In this report we summarise ongoing and planned activities aimed at sustaining obtained results.

On-going activities

The non-governmental organisations created by or because of the Väinameri project are all active. For example, the cattle-breeders society is expanding and organising study-tours for themselves and farmers from neighbourhood areas.

The handicraft and local-product fairs have become a tradition in the island of Hiiumaa.

The tourism packages arranged by the project are being used by small enterprises and are regarded as good examples that have encouraged people to expand this business.

Väinameri as a model for others

The Väinameri project has become a study area for similar projects in Latvia and Russia. To date, one group from Latvia, three from Russia and one from Finland have visited the area, and more are scheduled in the near future. Individual experts, who have visited the area and wanted to learn about the Väinameri project, came from Iceland, Japan, Italy, Russia, Germany, France, Spain and Finland.

The Väinameri project has been chosen by WWF programme *One Europe More Nature* (OEMN) as one of four demonstration sites as a good example for rural development and nature conservation. It will increase overall attention from the Western European countries, and may help attract more people to visit the area.

The outputs of the Väinameri project are used as "inputs" in the UNESCO Biosphere Reserve programme, which is under development in the West Estonian archipelago. It means that the best examples and the networks established serve as a local supporting system in the biosphere reserve.

Firstly tested in the Väinameri project, the Estonian Government pays grazing premia for semi-natural grassland management. In addition, as a new EU member, grassland management is also included in the Estonian CAP system as an agro-enviromental measure.

Links to other programmes

- GEF Baltic Sea Regional Programme.
- WWF's Green Spots project—linking environmental education to ongoing conservation projects.
- EU-LIFE project with Natterjack Toad as flagship species, "*Boreal Baltic Coastal Meadow Preservation in Estonia*" co-operates with the Väinameri project and uses the Väinameri project as model and an example of good networking within the area.
- EU-LIFE project Engure in Latvia uses Väinameri as model. Cattle grazing is now used as a nature conservation method in Engure.
- UNESCO MAB Biosphere reserves programme — The UNESCO MAB Biosphere Reserve programme would consider the Väinameri project results as one of the most successful examples of the sustainable coastal rural development.
- EU Interreg III B application for project "Coastal Sustainability as a Challenge", which is a co-operation among national parks and biosphere reserves around the Baltic Sea.
- WWF International has recently decided to apply the Väinameri project as a model in its *One Europe More Nature* programme.

Lessons learned

The Väinameri project has, via a regional project executant and local co-ordinators, managed to mobilise a broad variety of local stakeholders in the project area. This has caused many unforeseen but positive side ef-

fects: local NGO's have been established, jobs have been created and the project has affected Estonian practices and been a model for other areas both in Estonia and the surrounding region.

WWF considers the following keywords as being the main factors in this project, which have been preconditions of the project success:

- fulltime regional project executant,
- local co-ordination and delegation,
- process-oriented implementation,
- timing (early post-soviet period),
- linking on-ground actions with policies.

The main message from the project is that biodiversity can be an important component of rural development, which does not necessarily contradict economical prospects and social aims of rural communities.

Concluding remark

I would like to make a brief summary of the most important results of the Väinameri project. There are three of them:

First, a large group of local people was brought together during the project years comprising a hundred persons for sure, who have begun to share thought and activities in order to preserve the nature of the coast. The project has provided support to them with technology and knowledge but the basic work has been done by the people themselves—craftsmen, farmers, businessmen, teachers, municipal officials. A circle of people has been formed who want and know how to go into the future together.

Second, the project will not vanish into thin air. Pre-requisites have been set up so that the project may continue. Handicraft fairs, new products, pedigree bovine cattle, prospects for marketing good quality meat, hiking tracks, continuous training courses, numerous support materials, video films and Internet web pages are just a few results, which can act as the basis for activities in the coming years. The focal point of the project will continue to be active, and it is connected to the entire circle of project partners just like a "spider web."

Third, the project has had wide exposure worldwide; interest has been shown from the East and West. A rural life development project is being initiated in Karelia near Lake Ladoga in Russia, which uses the experience of Väinameri to balance the natural values and local life. The Swedish aid organisation Sida and WWF-Sweden are the primary financers of that project as well.

Life on our coastal areas has changed rapidly along with the rest of Estonia. Currently the local residents are looking at new possibilities and dangers related to the European Union. Financing schemes are changing, the market and administration of nature preservation are changing—take a look at the formation of the Natura 2000 network, for example. Our coastal life has passed through a difficult era financially and spiritually, when a helping hand was loaned by our Swedish friends, from their nature foundation WWF-Sweden. We thank them for their kind help.

What about the future? The possibilities are numerous but one thing is clear—we must stick together. Fortunately, there is an excellent opportunity for continued cooperation—the biosphere reserve programme of UNESCO—which shares the objective of finding a balance between the preservation of nature and development of rural life. The Väinameri project gave us a strong core, enabling us to extend the kind of cooperation we experienced from the pastures to others—fishermen, foresters, businessmen, and others.

We have learned that linking rural economies to nature values is keeping the chain of life in the coastal areas unbroken.

Toomas Kokovkin,
editor

Väinamere projekt: kokkuvõte

Väinamere projekti taust

Inimasustus on ajast aega koondunud lähemale rannikule, kus kalapüük, karjakasvatus ja põllundus on olnud rannarahva põlised tegevusalad. Koos talumajapidamisega, kus peeti loomi ja kasutuses oli iga väiksemgi maalapp, kujunes välja rannamaastik oma poollooduslike taimekooslustega. Puisniidud, rannaniidud ja loopealsed püsivad ainult tänu pidevale inimtegevusele: raiele, niitmisele ja karjatamisele. Inimese jaoks omab rannik suurt majanduslikku tähtsust, see on maavarade, metsa ja vee kõrval omamoodi ressurss. Samas on rannik kergesti haavatav, siinne tasakaal on väga ebakindel. Nii vale tegevus kui ka põhjendamatu tegevusetus võivad ranniku seisundit järsult ja pöördumatult muuta.

Eesti saarte ja lääneranniku loodus on väga rikas. Ulatuslikud rooväljad, rannarohumaad ja loopealsed on kodupaigaks tuhandetele lindudele, paljudele loomaliikidele ja haruldastele taimedele. Puhas madal meri, kus valgus ulatub põhjani tuhandete ruutkilomeetrite suurusel alal, on samuti rikka elustikuga. Tõsi, suurem osa eesti rannamaastikust pole kunagi olnud puhtlooduslik. Aastatuhandeid on inimesed asustanud randu ja tegelenud põllumajandusega, siin on alati olnud karjatamist ja niitmist.

Kuid kahekümnenda sajandi teisel poolel on Läänemeres tervikuna tekkinud olukord, kus inimese põllumajanduslik tegevus taandub rannaaladelt. Selle tulemusel kasvavad rannad kinni, sellega seoses väheneb ka looduslik mitmekesisus. Aastatuhande vahetuseks jõudis looduskaitse veendumusele, et paljusid loodusväärtusi saab kaitsta vaid kestva ja alalhoidliku põllumajanduse abiga. Selleks on juba mitu aastat tehtud koostööd kohalike elanike, maaomanike, talunike ja kaluritega nii Matsalu Rahvuspargis kui ka Lääne-Eesti Saarestiku Biosfääri Kaitsealal. Rootsi looduskaitse organisatsiooni WWF toetusel võeti Väinamere rannikute väärtuslikumad poollooduslikud maastikud suurema tähelepanu alla 1990. aastate keskel. Käivitati "Väinamere projekt", mille eesmärk on säilitada rannikute kultuurmaastikud või taastada kinnikasvavad pärandkooslused.

Väinamere projekti ülesanne on toetada maaelu arengut rannikul. Pakutakse välja mudel, kuidas maaelu arendamine võib soodsalt mõjuda nii loodusväärtuste säilitamisele kui ka kohalike inimeste elule. Projekti eesmärk on toetada väärtuslike rannamaastike kujundamist ja taastamist kohaliku majanduselu mitmekesistamise kaudu. Seda on tehtud näiteks tööriistade, tõuloomade ja koolituskursuste näol. Pikaajaline eesmärk on aga püsiva tasakaalustatud looduskasutuse taaselustamine. Nii pannaksegi rõhku ka käsitöö toetamisele, kvaliteetse loodusliku põllumajandustoodangu turustamisele, ökoturismile. Talunike, käsitööliste ja väiketurismiettevõtjate koolituskursusi viidi läbi nii Rootsis kui Eestis.

Väinamere projekti huviorbiiti jäävad looduskaitseliselt vaid kõige väärtuslikumad alad: Käina laht ja Kassari, Sarve poolsaar, Hiiumaa ja Matsalu laiud, Matsalu lahe rannaalad, Vormsi lõunarannik. Kahjuks ei suuda rahvusvahelised projektid päästa kõiki meie hääbuvaid poollooduslikke rannikumaastikke. Vajalik on pidev riigi toetus, suunatud regionaal- ja põllumajanduspoliitika ning koostöövalmidus kohalikul tasandil.

Ranniku väärtuslikud ökosüsteemid

Rannaniit on rohttaimedega kaetud tasane ja madal rannalõik, mida saab karjatada (rannakarjamaa) või niita (rannaheinamaa). Rannaniidu taimed taluvad üleujutusi, tuult ja soolapritsmeid. Erinevalt sisemaast iseloomustab rannaniitude taimkatet soolalembeste taimeliikide rohkus, kohati moodustuvad haruldased soolakud. Mereäärsetel rannaniitudel on ülisuur tähtsus paljude linnuliikide pesitsus- ja puhkealadena. Lääne-Eesti mandriosa ja saared on rannaniitude poolest väga rikkad. Kokku on siin mitukümmend üle kümne hektari suurust rannaniitu, teistkümmend rannaniitu on aga 100 ha või suuremad. Eesti suurimad rannaniidud asuvad Matsalu märgalal, siin on neid üle kolme tuhande hektari.

Karjatamise ja niitmise lakkamisel rannaniidud hääbuvad. Pilliroog võib 5-10 aasta jooksul levida pea kogu rannaniidule, mille kuivem osa omakorda võsastub kadaka, lepa või pajuga ning ajapikku metsastub. Kui soovime päästa avamaastikulisi rannaniite, tuleb meil kindlasti jätkata karjatamist või mõningatel juhtudel ka niitmist. Siia sobiksid vähenõudlikud koduloomad, näiteks šoti veis.

Laugel mererannal, kus on toiteaineterikas vesi ja mudane põhi, tekivad rannaroostikud. Roostiku põhiosa moodustab pilliroog, mis kasvab kõige paremini poole meetri sügavuses vees. Roostik tungib suure kiirusega ka karjatamata rannaniidule. Tihe roostik pakub varjepaiku pesitsevatele lindudele; vaheldusrikas, vaba vee laikudega roostik on toitumiskohaks nii pesitsejatele kui ka läbirändajatele. Paljud kalaliigid käivad roostikus kudemas või toitumas. Inimene on juba aastasadu roogu kasutanud katuse- ja soojustusmaterjalina. Suvine mahlane roog on väärtuslik loomasööt. Talvine roolõikus jäält on kasulik pilliroo piiramiseks ja lindude elupaiga mitmekesistamiseks. Soovitav on roogu lõigata mosaiikselt, jättes alles roovälju lindude pesitsemiseks.


Tiit Leito

Väärtmajandus

Aastatuhande vahetus tõi loodussõbraliku maamajanduse sõnavarasse uue mõiste, see on quality economies ehk kvaliteetmajandus, mida eesti keelde võiks suupärasemalt tõlkida kui väärtmajandus (vt ka: Kohtumispaik. Biosfääri kaitsealade kogemus maailmas ja Eestis, iseäranis Hiiumaal. Kärdla, 2004). Väärtmajandus põhineb kohalike loodus- ja inimressursside säästval kasutamisel. Väärttoodetes kehastub kohalik loodus ja pikaajaline traditsioon, need on omanäolised ja iseloomustavad oma valmistamispiirkonda.

Väärtmajandus on üles ehitatud pikaajalisele perspektiivile, mitte lühiajalisele efektiivsele kasumile. Taotletakse kohalike inimeste sissetuleku suurenemist, töökohtade loomist ja kohapealse lisaväärtuse tekkimist. Lisaks kõigele peab väärttoode olema ka kvaliteetne ja kõrge tarbimisväärtusega, siin ei räägita mitte pseudorahvuslike suveniiride tootmisest, vaid kohalike töötraditsioonide elustamisest. Niisugune toode peab olema ka loodussõbralik ja puhas. Väärttoode on kohaliku ressursi kaudu seotud vahetult ümbritseva loodusega. Tõenäoliselt on väärttoodete hind kõrgem kui massikaubal, mistõttu kohaliku väärtmajanduse sisseseadmine puhtmajanduslikel alustel on keeruline. Seetõttu ei saa siin läbi ilma valla ja riigi toetuseta, inimeste teadlikkuse ja üksmeeleta. Kohaliku väärtkauba toetus ei tähenda ainult ettevõtja toetamist, see on

kaudselt kogu kohaliku sotsiaalse ja looduskeskkonna mõjutamine positiivses suunas.

Toitumisahel

Ökoloogiast on hästi tuntud mõiste “toitumisahel”, see on jada organisme, kes on omavahel järjestikku seotud toitumise ja toiduobjektiks olemise kaudu. Lihtsaim toitumisahel on järgmine: esimese taseme moodustavad taimed, kes toodavad orgaanilist ainet keskkonnast saadud energia ja aine alusel; teisel tasemel on taimetoidulised loomad; kolmandal tasemel kiskjad - lihatoidulised loomad, kellele on teise tasandi loomad saagiks. Teatud mõttes moodustab inimese looduslähedane majandus ja kaubandus samasuguse jada. Inimeste maailmas jagatakse tootmist primaar-, sekundaar- ja tertsiaarsektoriks, milles võib näha ökoloogilise toitumisahela teatud analoogi. Esimesel tasandil on esmane tootmine: põllumajandus, metsandus, kalandus. Teisel tasandil on toodete valmistamine esimesel tasandil hangitud toorainetest. Kolmandal tasandil on teenindus ja kaubandus, siin asub tarbija. Meie nägemuse järgi peaks esimene tasand toimima säästvalt, olema jätkusuutlik ja arvestama loodusväärtustega. Teise tasandi tootmine lähtuma kohalikest oskustest ja traditsioonidest, tagama toote kvaliteedi ja inimeste elatusallikate mitmekesisuse. Kolmas tasand peaks näitama kauba seoseid loodus- ja kultuuriväärtustega, teenindus peaks olema hariva iseloomuga, tagama paikkonna austamise ja tõstma kohaliku inimese väärikust.

Niisugune mudel on tagasi sidestatud tarbija eelistuste kaudu. See, mida tarbija ostab ja milliseid tingimusi ta kaupadele-teenustele seab, mõjutab omakorda protsesse teisel ja esimesel tasandil - kuni maastiku omadusteni ja loodusväärtuste säilitamiseni välja.

Väärtmajanduse väljakujundamist võiks ellu viia kolmes etapis. Alguses leitakse piirkonnas niisugused olemasolevad tooted ja teenused, mis vastavad loodushoiu põhimõtetele. Euroopa eri biosfääri kaitsealadelt võiks näidetena tuua vanad lambatõud ja nendega seotud käsitöö; õunaaedade taastamise ja õunajookide (ka õunaõlle) tootmise käivitamise; traditsiooniliste juustusortide valmistamise ja tutvustamise; meeste puidukäsitöö taaselustamise ja kohaliku arhitektuuri toetamise. Niisugused tooted ja teenused kujundatakse piirkonnatoodeteks, aidatakse läbi viia nende turustamiskampaaniat, teavitatakse tarbijaid. Selle tulemusel kujundatakse paar-kolm hästi toimivat näidet. Teises etapis kujundatakse ettevõtjatest partnerite ring. Partnerid võiksid koonduda eraalgatuslikku ühendusse, kes korraldaks ja

Tiit Leito

koordineeriks vastavat majanduslikku tegevust. Näiteks Väinamere projekti partneriks on saanud ettevõtjad, kes jagavad samu põhimõtteid, aitavad säilitada tasakaalustatud keskkonda ja tagavad kohalikku tööhõivet. Kolmandas etapis tuleks välja töötada toodete ja teenuste märgistamisesüsteem. See märgistus peaks olema seotud pigem kaupade omadustega, mitte osalevate ettevõtetega. Märgistamise kriteeriumid peavad olema lihtsad, selged ja kontrollitavad. Märgistamise põhimõtteid tuleks laialdaselt tutvustada tarbijatele, et luua selge seos toodete ja looduskeskkonna vahel ning suunata tarbijate eelistusi.

"Roheline liha"

Väinamere projekti idee kohaselt peetakse loomi küll maheloomakasvatuse nõuete järgi, kuid erinevuseks on asjaolu, et tarbijani jõuab üksnes kvaliteetne lihaveiste liha (mitte näiteks mahepiima tootmistalu vana lehmaliha). Loomi karjatatakse ja nende talvesööt varutakse looduskaitselistel eesmärkidel karjatamist ja/või niitmist vajavatelt pärandkooslustelt. Matsalu Looduskaitseala oli esimene piirkond Eestis, kus talunikega hakati sõlmima maahoolduse lepinguid - seda mõni aasta enne, kui vastavad meetmed võeti kasutusele kõigil looduskaitsealadel. Sama põhimõtet rakendas Väinamere projekt oma esimestel aastatel väärtuslikel rannarohumaadel, mis jäävad Käina lahe ümbrusesse Hiiumaal. Siin maksis Rootsi WWF talunikele karjatamise eest kaks aastat, võttes aluseks karjatatava maa suuruse. Niisugune praktika andis talunikele märku, et on olemas huvipooled, kes on nõus maksma "päris raha" loodusrikkuste eest, ja et loodusväärtused kuuluvad ühte koos teiste talus toodetud väärtustega.

Kuigi WWF-i toetus oli Väinamere projekti talunikele suureks abiks, ei saanud niisugune toetamine kesta kaua, sest läks vastuollu projekti pikaajalise eesmärgiga luua jätkusuutlik, eneseküllane süsteem rannarohumaade majandamiseks. Palju tõhusamaks võiks lugeda mitmesuguste tööriistade ja vahendite pikaajalist tasuta rentimist talunikele. Nii osteti projekti rahadega võsalõikureid ja saage, kaitserõivaid, elektrikarjuseid, niidukeid, ja isegi üks traktor. Suurema annetuse tegi firma Husqvarna oma riistade näol.

Suurima investeeringuna osteti aastatel 1999 ja 2000 Rootsist tõuveiseid. Esimesel aastal toodi Eestisse kuus šoti mägiveise pulli ja lehma, teisel aastal lisandusid nendele 24 šotlast ja aberdiin-angust. Karjatamisekohustuse ja hoolitsemise loomade eest võttis enda peale ühing Väinamere Pärandkoosluste Säilitajad, kelle liikmeteks on Väinamere projekti partner-talunikud. Rannaniitude karjatamise tulemuste tutvustamiseks hakati kohe projekti alguses kujundama nn mudel-karjamaid või näidisalasid, kus külastajad saaksid oma silmaga näha karjatamise mõju pilliroo tagasihoidmisel ja madalmuruse rohumaa tekkimisel. Niisugused näidisalad rajati talunike maadele Matsalu piirkonnas Keemus, Rumpo poolsaarele Vormsis ja Esikülasse Hiiumaal. Eriti hea tulemus saavutati Hiiumaal, kus koostöös talunikega ehitati kadakate vahele varjatud vaateplatvorm ja tehti vanasse kruusaauku väliklass koos infotahvliga. Vormsi demoala elektrikarjuse jaoks võeti kasutusele päikesepatarei, et ühtlasi tutvustada elektrienergia säästvat tootmisviisi.

Eestis pole veiseliha tarbimise traditsioon eriti tugev, kuna kvaliteetset veiseliha polegi õigupoolest müügil olnud. Ka lihatööstused on vähendanud veiseliha osakaalu oma toodetes, kuna võimalus importida odavat kondilihamassi või eeltöödeldud veiseliha võimaldab ära jätta tülikama ja kulukama veiste transpordi ja tapatoimingud. Väinamere projekti eesmärk on kvaliteetse liha jõudmine tarbijani, kusjuures tähtis on ka see, et inimene mõistaks, et ostes rannikualadelt pärit loomaliha, on tal võimalus kaasa aidata loodusväärtuste säilitamisele ja maaelu püsimisele. Restoranide ja kaupluste pidev varustamine nõuab talunike head omavahelist koostööd, kuna praegu tahetakse veel karju suurendada ja ühest talust ei saa eriti palju loomi korraga tapale viia. Kahjuks on restoranid huvitatud ainult liha kõige parematest osadest (näiteks sisefilee), ülejäänud rümp tuleks aga töödelda mitmesugusteks toodeteks nagu vorst ja pooltooted "rohelises" lihatööstuses. Selle probleemi teadvustamine ulatub aga juba laiemalt regionaalpoliitikasse ja kohaliku väiketootmise riikliku toetamise vajadusse. Kuigi mõnes riigis kasutatakse veiseid lihtsalt "muruniidukitena", kes kuuluvad näiteks looduskaitsealale ja surevad kord vanadusse nagu metsloomad, ei sobi see Eesti oludesse. Meie eesmärk on katkematu ahel, kus looduskaitset ei lahutata muust elust. Ei ole ju mõttekas pidada loomi kinnistes reservaatides, maksta kohalikele elanikele toimetulekutoetust ja importida odavat kondilihamassi, et vaene inimene jõuaks osta odavat vorsti.

Käsitöö

Käsitöö on olnud Väinamere projekti üks vaiksemaid tegevusi, kuid kahtlemata edukas. Miks "vaiksem"? Eeskätt seetõttu, et käsitöömeistrid on oma iseloomu poolest üksitegijad; paljud on loomingulised inimesed, kelle ärilised eesmärgid jäävad kunstiliste püüdluste

varju. Kui rääkida projekti eelarve mõistes, siis käsitööga seotud vahendid olid kümneid kordi väiksemad kui turismi või maastikuhoolduse omad. Tagasihoidlik on käsitöö võrreldes talunduse või turismiga oma looduses avalduvate mahtude poolest. Siin ei saa rääkida ei sadadest puhastatud hektaritest ega matkaradade kilomeetritest. Seda enam kerkib esile käsitöö vaimne ja sotsiaalne tähendus. Käsitöö kaudu kantakse edasi oskusi ja traditsioone, mis on kujunenud siinse looduse põhjal. Materjalid, tehnika, võtted ja mustrid tulevad otse loodusest ja saavad tuge sügavalt ajaloost. Käsitöö sotsiaalne tähtsus tuleb eriti esile, kui mõtleme maaelu terviklikust arengust, maaperede võimaluste mitmekesistamisest. Väga tähtis on põlvkondade vahelise sideme säilitamine käsitöö oskuste edasikandmiseks.

Väinamere projekt ei saa endale võtta au käsitöö edenemise pärast piirkonnas, need traditsioonid on siinkandis palju sügavamad kui ühe projekti lühiajaline pinnavirvendus. Kuid kahes valdkonnas on projekt kindlasti kaasa aidanud käsitöö arengule ja selle selgemale sidumisele kodumaastikuga. Esiteks käsitööliste omavaheline koostöö. Tänu projekti korraldatud õppereisidele ja seminaridele on süvenenud võrgustumine, mille tulemusel tekkis mitu väikest ühingut ja käsitööpoodi, rääkimata suve- ja jõululaada traditsiooni kujunemisest. Projekt andis julguse tegutsemiseks laiemalt. Teiseks kvaliteedi küsimus. Kontaktid projekti ekspertidega ja tutvumine turustamise võimalustega andis arusaamise sellest, kui oluline on tootekvaliteet kuni pisiasjadeni. Tänases kaupadega üleujutatud maailmas on võimalik ka käsitööd müüa ainult siis, kui teostus ja disain vastavad kõige nõudlikuma ostja soovidele.

Väinamere projekt on püüdnud taaselustada vana traditsioonilist käsitööd uutes tingimustes, mille tooraine on loodusest tulnud ja mis on ajast aega hoidlikult kasutuses olnud. Materjale, mida loodusest saadakse, ja mille kasutamine toetab poollooduslike alade püsimist, on igasuguseid – pilliroog, kadakas, pajuvits – mida alade puhastamisel saadakse ja mis käsitöömeistrite käte läbi kohalikuks tooteks muutuvad, olgu see siis kadakast köögiriist või pajuvitsast korv. Kuid, nagu teame, väga oluline on rannarohumaa karjatamine. Selles mõttes on üks parimaid "projektiloomi" lammas, kes aitab maastikke puhtana hoida, annab villa, nahka ja liha. Just mereäärsetel aladel karjatatud lamba nahk ja vill on hinnatud, see on looduslike (kadastikud) ja ilmastike (meretuuled) tingimuste tõttu eriline. Väidetakse, et rannakarjamaadel kasvanud lamba liha on ka maitsvam.

Käsitööliste ühistööd Väinamere projektis alustati ettevõtlusalaste koolitustega. Kogunemistel sai ka selgeks, kui tähtis oleks asutada käsitööseltse, mis ühendaksid ja toetaksid tegijaid. Olgu see ühine messidest osavõtt, käsitöömüük, konkursside korraldamine või näituste ülespanek. Nii puhus Väinamere projekt elu sisse Hiiumaa käsitööühendusele. Eeskuju järgisid Matsalu ja Vormsi. Tänaseks tegutseb kolm piirkondlikku käsitööühendust, kus omakorda löövad kaasa väiksemad kohalikud seltsingud ja klubid.

Õppereisid Rootsi on olnud meie meistritele väga kasulikud. Peale toreda jõululaada pidamise idee saadi kinnitust mõttele luua kohalikud käsitööpoed, kus müügil kohalikud tooted ja müüjateks tegijad ise. Just reisilt saadud julgus hoogustas Kärdlas uue käsitööpoe avamist, Rootsi kogemustega loodi kauplus ka Lihulasse. Käsitöö läheb üha rohkem hinda ka eestlaste hulgas, mis tähendab, et äri ei sõltu enam nii palju turistide voolust. Heaks näiteks on Hiiumaal peetavad käsitöölaadad, mida peetakse juba viiendat aastat järjest kesksuvel ja enne jõule. See on üritus, mis on hinnatud nii külastajate kui ka meistrite poolt. Üks projekti tähtsamaid saavutusi on käsitööliste võrgustiku tekkimine. Parim näide on see, kuidas Vormsil kasvanud lamba vill Hiiumaal lõngaks tehakse, mis edasi Läänemaale kudujate kätte läheb ja siis hiljem nägusa tootena Vormsil müügile jõuab. Uute toodete tekkele ja kvaliteedi kindlustamisele on kaasa aidanud käsitöökonkursid. Mitmed praktilised seminarid on huviliste käsitööoskusi arendanud, harrastatakse uusi võtteid, näiteks viltimist ja taimedega lõnga ning villa värvimist.

Turism

Loodusturismi toetamisel on Väinamere projekti seisukohalt mitu mõtet. Esiteks: kohalike jätkusuutlike majandustegevuste edendamine ja tööhõive võimaluste mitmekesistamine. Kuid selleks, et maaelu jätkuks ja äärealadel oleks tagatud sissetulek, tuleks tegevusi mitmekesistada. Loodusturism, eriti loodusrikkais paigus nagu seda on rannik, on tänase seisuga kasvav ettevõtlusvorm ja väga hästi kombineeritav talu-majapidamisega. Teiseks: projekti tulemuste laiem tutvustamine. Väinamere projekt ei ole asi iseeneses, selle kaugeleulatuv mõte on pakkuda tüüplahendust teistele loodusrikastele aladele; kuidas bioloogilist mitmekesisust säilitada koostöös kohaliku inimesega ja kohaliku inimese kaudu. Selleks rajas projekt näidisalasid ja matkaradasid. Kolmas mõte on seotud eelpool

räägitud “toiteahela” ideega. Turismi-ettevõtluse abiga saab tuua rannaniidult saadud toodangu turu kohapeale, pakkudes näiteks liha ja käsitööd kohalikes poodides-restoranides. Ühtlasi pakkuda huvilisele loodusturistile seda, milleks ta tegelikult rändabki – “paikkonna hingust”. Kahjuks on just see viimane osutunud eriti keeruliseks, sest kohaliku tootegrupi väljakujundamine on palju keerukam üritus kui esmapilgul tunduda võib – jääb puudu oskustest, motivatsioonist ja soosivast seadusandlusest.

Kaunid looduspiirkonnad näevad tarbijana ennekõike nn ökoturisti. Ökoturism tähendab niisugust reisimist looduspiirkondadesse, mis ei kahjusta keskkonda, kus turist huvitub loodusest ja kultuuripärandist, toetab teadlikult kohalikku säästvat majandust. Seega mõistetakse ökoturismi laiemalt kui lihtsalt matkamist ürglooduses. Turism kaitsealadel peaks olema ‘tootepõhine’, mitte ‘turu poolt paika pandud’. Niisuguse turismitoote loomine eeldab sügavamate teadmiste kasutamist looduse ja kultuuri vallas, hariva iseloomuga giiditeenindust, kõrgemaid keskkonnanõudeid, kohaliku sotsiaalse ja rahvusliku omapära arvestamist. Väga heal tasemel ei pea olema mitte ainult üksikud turismiettevõtted (majutuskohad, söögikohad), vaid praegu peaks arendama just kvaliteetseid turismitooteid tervikuna, pakettidena.

Esimesed sammud on tehtud Väinamere projekti toel spetsiaalsete pakettide väljatöötamisel, meil on pakkuda linnuvaatlus-, orhidee- ja jalgrattapaketid. Paketi puhul peab kvaliteetne olema kõik, alates reisikorraldusest, majutuskohast, söögist kuni iga konkreetse probleemi lahendamiseni. Nii võib turismiettevõtjal kasu olla väärtusliku puhta veiseliha tootmisest ja omanäolise käsitöö edenemisest. Rahule peab jääma iga nõudlikeim turist. Sellised inimesed jaksavad kvaliteedi eest ka vastavalt kõrgemat hinda maksta. Paketid võimaldavad müüa edukamalt ka hooajavälist aega. Väinamere projekti loodusturismi arengus sooviti minna kaugemale kui passiivne matkaradade ettevalmistamine. Selleks otsustati koostada kolm turismipaketti, mis oleksid sisemiselt terviklikud, läbimõeldud logistikaga ja mida saaks turismiagentuuride kaudu turustada. Paketid kataksid kolmeteemat: linnuvaatlus, taimestik (eeskätt orhideed) ja perekonna puhkus talus.

Lõppsõna

Mis on Väinamere projekti kõige olulisemad tulemused? Neid on kolm: esiteks kujunes projektiaastate jooksul suur kohalik seltskond, kindlasti üle saja inimese, kes on ranniku loodushoius hakanud ühes suunas mõtlema ja tegutsema. Projekt on aidanud neid nii tehniliselt kui ka teadmistega, kuid põhitöö on teinud need inimesed ise – käsitöömeistrid, talunikud, ettevõtjad, õpetajad, vallaametnikud. On kujunenud tutvuskond, kes oskab ja tahab koos edasi minna. Teiseks, projekt ei jää õhku rippuma, vaid loodud on eeldused tegevuste jätkumiseks. Käsitöölaadad, uued tooted, tõuveise karjad, kvaliteetse lihaturustamise võimalus, matkarajad, jätkuvad koolituskursused, hulk abimaterjale, videofilme ja internetileht on valik tulemusi, millele saab rajada tegevuse ka järgnevatel aastatel. Tegevust jätkab projekti keskus, mis omamoodi “ämblikuvõrguna” on kontaktis kogu projekti partnerite ringiga. Kolmandaks, projekt on silma paistnud laiemalt, selle vastu tuntakse huvi nii läänest kui idast. Venemaa Karjalas, Laadoga järve ääres on algamas maaelu arengu projekt, mis kasutab Väinamere kogemust loodusväärtuste ja kohaliku elu tasakaalustamisel. Ka seal on projekti põhirahastajateks Rootsi riiklik abiorganisatsioon Sida ja WWF-Rootsi.

Elu meie randades on kiiresti muutunud koos kogu Eestiga. Praegu vaatavad randlased uute võimaluste ja ohtude poole, mis on seotud Euroopa Liiduga. Muutuvad rahastamise skeemid, muutub turg ja looduskaitsekorraldus - vaadake kasvõi Natura 2000 võrgustiku kujunemist. Meie rannaelu on läbinud majanduslikult ja hingeliselt väga raske ajajärgu, mil abistava käe ulatasid meie randlastele rootsi sõbrad sealsest loodusefondist WWF. Kuidas edasi? Valikuid on palju, kuid üks on selge - tuleb hoida kokku. Hea võimalus ühistöö jätkamiseks ühe mütsi all on ka olemas – see on UNESCO biosfääri kaitseala programm. Ka biosfääri kaitseala eemärk on leida tasakaal looduse hoidmise ja areneva maaelu vahel. Väinamere projekt andis väga tugeva tuuma, mille põhjal ranniku loodushoiu tegevusi laiendada – edaspidi koos kalurite, metsameeste ja ettevõtjatega.

Annex 1

List of the bird species of the Väinameri area

Accipiter gentilis	Goshawk
Accipiter nisus	Sparrowhawk
Acitis hypoleucos	Common Sandpiper
Acrocephalus arundinace.	Great Reed Warbler
Acrocephalus dumetorum	Blyth's Reed Warbler
Acrocephalus palustris	Marsh Warbler
Acrocephalus schoenobaenus	Sedge Warbler
Acrocephalus scirpaceus	Reed Warbler
Aegithalos caudatus	Long-tailed Tit
Aegolius funereus	Tengmalm's Owl
Aegypius monachus	Monk Vulture
Aix sponsa	Wood Duck
Alauda arvensis	Sky Lark
Alca torda	Razorbill
Alcedo atthis	Kingfisher
Anas acuta	Pintail
Anas clypeata	Shoveler
Anas crecca	Teal
Anas penelope	Wigeon
Anas platyrhynchos	Mallard
Anas querquedula	Garganey
Anas strepera	Gadwall
Anser albifrons	White-fronted Goose
Anser anser	Grey-lag Goose
Anser brachyrhynchus	Pink-footed Goose
Anser caerulescens	Snow Goose
Anser erythropus	Lesser White-fr. Goose
Anser fabalis	Bean Goose
Anser indicus	Bar-headed Goose
Anthus campestris	Tawny Pipit
Anthus cervinus	Red-throated Pipit
Anthus hodgsoni	Olive-backed Pipit
Anthus petrosus	Rock Pipit
Anthus pratensis	Meadow Pipit
Anthus trivialis	Tree Pipit
Apus apus	Swift
Aquila chrysaetas	Golden Eagle
Aquila pomarina	Lesser Spotted Eagle
Ardea cinerea	Grey Heron
Ardea purpurea	Purple Heron
Arenaria interpres	Turnstone
Asio flammeus	Short-eared Owl
Asio otus	Long-eared Owl
Aythya ferina	Pochard
Aythya fuligula	Tufted Duck
Aythya marila	Scaup
Bombucilla garrulus	Bohemian Waxwing
Bonasa bonasia	Hazel Grouse
Botaurus stellaris	Bittern
Branta bernicla	Brent Goose
Branta canadensis	Canada Goose
Branta leucopsis	Barnacle Goose
Branta ruficollis	Red-breasted Goose
Bubo bubo	Eagle Owl
Bucephala clangula	Goldeneye
Bucephala islandica	Barrow's Goldeneye
Burhinus oedicnemus	Stone-Curlew
Buteo buteo	Buzzard
Buteo lagopus	Rough-legged Buzzard
Calcarius lapponicus	Lapland Bunting
Calidris a. schinzii	Dunlin sub.
Calidris alba	Sanderling
Calidris alpina	Dunlin
Calidris canutus	Knot
Calidris ferruginea	Curlew Sandpiper
Calidris maritima	Purple Sandpiper
Calidris minuta	Little Stint
Calidris temminckii	Temminck's Stint
Caprimulgus europaeus	Nightjar
Carduelis cannabina	Linnet

Carduelis carduelis	Goldfinch
Carduelis chloris	Greenfinch
Carduelis flammea	Common Redpoll
Carduelis spinus	Siskin
Carpodacus erythrinus	Common Rosefinch
Cepphus grylle	Black Guillemot
Certhia familiaris	Common Treecreeper
Charadrius alexandrinus	Kentish Plover
Charadrius dubius	Little Ringed Plover
Charadrius h. tundrae	Ringed Plover sub.
Charadrius hiaticula	Ringed Plover
Charadrius morinellus	Dotterel
Chlidonias leucopterus	White-winged Bl. Tern
Chlidonias niger	Black Tern
Ciconia ciconia	White Stork
Ciconia nigra	Black Stork
Cinclus cinclus	Dipper
Circaetus gallicus	Short-toed Eagle
Circus aeruginosus	Marsh Harrier
Circus cyaneus	Hen Harrier
Circus pygargus	Montagu's Harrier
Clangula hyemalis	Long-tailed Duck
Coccothraustes coccothraustes	Hawfinch
Columba livia f. d.	Feral Pigeon
Columba oenas	Stock Pigeon
Columba palumbus	Wood Pigeon
Coracias garrulus	European Roller
Corvus corax	Common Raven
Corvus corone cornix	Hooded Crow
Corvus frugilegus	Rook
Corvus monedula	Eurasian Jackdaw
Coturnix coturnix	Common Quail
Crex crex	Corncrake
Cuculus canorus	Common Cuckoo
Cygnus atratus	Black Swan
Cygnus c. columbianus	Tundra Swan
Cygnus columbianus	Bewick's Swan
Cygnus cygnus	Whooper Swan
Cygnus olor	Mute Swan
Delichon urbica	House Martin
Dendrocopos leucotos	White-backed Woodp.
Dendrocopos major	Great Spotted Woodp.
Dendrocopos minor	Lesser Spotted Woodp.
Dryocopus martius	Black Woodpecker
Egretta alba	Great White Egret
Emberiza citrinella	Yellowhammer
Emberiza hortulana	Ortolan Bunting
Emberiza pusilla	Little Bunting
Emberiza schoeniclus	Reed Bunting
Eremophila alpestris	Horned Lark
Erithacus rubecula	Robin
Falco columbarius	Merlin
Falco peregrinus	Peregrine Falcon
Falco rusticolus	Gyr Falcon
Falco subbuteo	Hobby
Falco tinnunculus	Kestrel
Falco vespertinus	Red-footed Falcon
Ficedula hypoleuca	Pied Flycatcher
Ficedula parva	Red-breasted Flycatcher
Fringilla coelebs	Chaffinch
Fringilla montifringilla	Brambling
Fulica atra	Coot
Galerida cristata	Crested Lark
Gallinago gallinago	Snipe
Gallinago media	Great Snipe
Gallinula chloropus	Moorhen
Garrulus glandarius	Eurasian Jay
Gavia arctica	Black-throated Diver
Gavia stellata	Red-throated Diver
Glaucidium passerinum	Pygmy Owl
Grus grus	Crane
Haematopus ostralegus	Oystercatcher
Haliaeetus albicilla	White-tailed Eagle
Hippolais icterina	Icterine Warbler
Hirundo rustica	Barn Swallow
Ixobrychus minutus	Little Bittern
Jynx torquilla	Wryneck
Lagopus lagopus	Willow Grouse

Lanius collurio	Red-backed Shrike
Lanius excubitor	Great Grey Shrike
Lanius minor	Lesser Grey Shrike
Larus argentatus	Herring Gull
Larus canus	Common Gull
Larus fuscus	Le. Black-backed Gull
Larus marinus	Gr. Black-backed Gull
Larus melanocephalus	Mediterranean Gull
Larus minutus	Little Gull
Larus ridibundus	Black-headed Gull
Larus sabini	Sabine's Gull
Limicola falcinellus	Broad-billed Sandpiper
Limosa lapponica	Bar-tailed Godwit
Limosa limosa	Black-tailed Godwit
Locustella fluviatilis	River Warbler
Locustella luscinioides	Savi's Warbler
Locustella naevia	Grasshopper Warbler
Loxia curvirostra	Common Crossbill
Loxia pytyopsittacus	Parrot Crossbill
Lullula arborea	Wood Lark
Luscinia luscinia	Thrush Nightingale
Luscinia svecica	Bluethroat
Lymnocryptes minimus	Jack Snipe
Melanitta fusca	Velvet Scoter
Melanitta nigra	Common Scoter
Melanitta perspicillata	Surf Scoter
Mergus albellus	Smew
Mergus merganser	Goosander
Mergus serrator	Red-breasted. Merganser
Milaria calandra	Corn Bunting
Milvus migrans	Black Kite
Motacilla alba	White Wagtail
Motacilla cinerea	Grey Wagtail
Motacilla f. feldegg	Black-headed Wagtail
Motacilla f. thunbergi	Grey-headed Wagtail
Motacilla flava	Blue-headed Wagtail
Muscicapa striata	Spotted Flycatcher
Netta rufina	Red-crested Pochard
Nucifraga caryocatactes	Spotted Nutcracker
Numenius arquata	Curlew
Numenius phaeopus	Whimbrel
Nyctea scandiaca	Snowy Owl
Nycticorax nycticorax	Night Heron
Oenanthe oenanthe	Northern Wheatear
Oriolus oriolus	Golden Oriole
Pandion haliaetus	Osprey
Panurus biarmicus	Bearded Tit
Parus ater	Coal Tit
Parus caeruleus	Blue Tit
Parus cristatus	Crested Tit
Parus major	Great Tit
Parus montanus	Willow Tit
Parus palustris	Marsh Tit
Passer domesticus	House Sparrow
Passer montanus	Tree Sparrow
Perdix perdix	Partridge
Perisoreus infaustus	Siberian Jay
Pernis apivorus	Honey Buzzard
Phalacrocarax carbo	Cormorant
Phalaropus lobatus	Red-necked Phalarope
Philomachus pugnax	Ruff
Phoenicopterus ruber	Greater Flamingo
Phoenicurus ochruros	Black Redstart
Phoenicurus phoenicurus	Common Redstart
Phylloscopus collybita	Chiffchaff
Phylloscopus sibilatrix	Wood Warbler
Phylloscopus trochiloides	Greenish Warbler
Phylloscopus trochilus	Willow Warbler
Pica pica	Black-billed Magpie
Picoides tridactylus	Three-toed Woodpecker
Picus canus	Grey-headed Woodp.
Picus viridis	Green Woodpecker
Pinicola enucleator	Pine Grosbeak
Plectrophenax nivalis	Snow Bunting
Pluvialis apricaria	Golden Plover
Pluvialis squatarola	Grey Plover
Podiceps auritus	Slavonian Grebe
Podiceps cristatus	Great Crested Grebe

Podiceps grisegena	Red-necked Grebe
Podiceps nigricolis	Black-necked Grebe
Polysticta stelleri	Steller's Eider
Porzana parva	Little Crake
Porzana porzana	Spotted Crake
Prunella modularis	Hedge Accentor
Pyrrhula pyrrhula	Bullfinch
Rallus aquaticus	Water Rail
Recurvirostra avosetta	Avocet
Regulus regulus	Goldcrest
Remiz pendulinus	Penduline Tit
Riparia riparia	Sand Martin
Saxicola rubetra	Whinchat
Scolopax rusticola	Woodcock
Serinus serinus	European Serin
Sitta europaea	Wood Nuthatch
Somateria mollissima	Eider
Somateria spectabilis	King Eider
Stercorarius longicaudus	Long-tailed Skua
Stercorarius parasiticus	Arctic Skua
Stercorarius pomarinus	Pomarine Skua
Sterna albifrons	Little Tern
Sterna caspia	Caspian Tern
Sterna hirundo	Common Tern
Sterna paradisaea	Arctic Tern
Sterna sandvicensis	Sandwich Tern
Streptopelia decaocto	Eurasian Collared Dove
Streptopelia turtur	Turtle Dove
Strix aluco	Tawny Owl
Strix nebulosa	Great Grey Owl
Strix uralensis	Ural Owl
Sturnus vulgaris	Common Starling
Surnia ulula	Hawk Owl
Sylvia atricapilla	Blackcap
Sylvia borin	Garden Warbler
Sylvia communis	Common Whitethroat
Sylvia curruca	Lesser Whitethroat
Sylvia nisoria	Barred Warbler
Tachybaptus ruficollis	Little Grebe
Tadorna ferruginea	Ruddy Shelduck
Tadorna tadorna	Shelduck
Tetrao tetrix	Black Grouse
Tetrao urogallus	Capercaillie
Tringa erythropus	Spotted Redshank
Tringa glareola	Wood Sandpiper
Tringa nebularia	Greenshank
Tringa ochropus	Green Sandpiper
Tringa stagnatilis	Marsh Sandpiper
Tringa totanus	Redshank
Troglodytes troglodytes	Wren
Turdus iliacus	Redwing
Turdus merula	Blackbird
Turdus philomelos	Song Thrush
Turdus pilaris	Fieldfare
Turdus torquatus	Ring Ouzel
Turdus viscivorus	Mistle Thrush
Tyto alba	Barn Owl
Upupa epops	Hoopoe
Uria aalge	Common Guillemot
Vanellus vanellus	Lapwing
Xenus cinereus	Terek Sandpiper

Annex 2

Mammals of the Väinameri project area and their status

(compiled by Madis Põdra and Aleksei Lotman)

Species	Protection Category in Estonia	International Protection Status		Number in 2003 or estimation – common, rare, occasional		
		Bern Convention	Habitats Directive 92/43/EEC	Hiiumaa	Matsalu National Park	Vormsi
Insectivores (*Insectivora*)						
Western Hedgehog (*Erinaceus europaeus*)		Annex III		rare	rare (recently declined)	rare
Common Shrew (*Sorex araneus*)		Annex III		common	common	common
Pygmy Shrew (*Sorex minutus*)		Annex III		-	common	common
Water Shrew (*Neomys fodiens*)		Annex III		common	common	common
Bats (*Chiroptera*)						
Northern Bat (Eptesicus nilssonii)	II	Annex II	Annex IV	rare	common	rare
Brown Long-Eared Bat (*Plecotus auritus*)	II	Annex II	Annex IV	rare	occasional	rare
Daubenton`s Bat (*Myotis daubentonii*)	II	Annex II	Annex IV	rare	common	-
Whiskered Bat (*Myotis mystacinus*)	II	Annex II	Annex IV	occasional	uncertain	-
Brandt`s Bat (*Myotis brandtii*)	II	Annex II	Annex IV	rare	uncertain	-
Pond Bat (*Myotis dasycneme*)	II	Annex II	Annex II, IV	-	occasional	-
Noctule (*Nyctalus noctula*)	II	Annex II	Annex IV	rare	?	?
Nathusius`Pipistrelle (*Pipistrellus natushii*)	II	Annex II	Annex IV	rare	?	?
Rodents (*Rodentia*)						
Red squirrel (*Sciurus vulgaris*)		Annex III		common	occasional	common
European beaver (*Castor fiber*)		Annex III	Annex II, IV[1]	4	> 50	-
Bank vole (*Clethrionomys glareolus*)				common	common	common
Northern Water vole (*Arvicola terrestris*)				common	common, recently declined	common
Field vole (*Microtus agrestis*)				common	common	common
Common vole (*Microtus arvalis*)				common	common	common
Harvest mouse (*Micromys minutus*)				-	common	common
Yellow-necked Mouse (*Apodemus flavicollis*)				common	common	common
Striped field Mouse (*Apodemus agrarius*)				-	common	common

Species	Protection Category in Estonia	International Protection Status		Number in 2003 or estimation – common, rare, occasional		
		Bern Convention	Habitats Directive 92/43/EEC	Hiiumaa	Matsalu National Park	Vormsi
House Mouse (*Mus musculus*)				common	common	common
Norway Rat (*Rattus norvegicus*)				common	common	common
Hares (*Lagomorpha*)						
Brown Hare (*Lepus europaeus*)		Annex III	Annex V	common	common	common
Mountain Hare (*Lepus timidus*)		Annex III	Annex V	common	rare	common
Carnivores (*Carnivora*)						
Red Fox (*Vulpes vulpes*)				common	common	common
Raccoon Dog (*Nyctereutes procyonoides*)				common	common	common
Wolf (*Canis lupus*)		Annex II	Annex II, IV[2]	1	occasional vagrant	-
Stoat (*Mustela erminea*)		Annex III		common	uncertain	common
Weasel (*Mustela nivalis*)		Annex III		common	uncertain	common
European mink (*Mustela lutreola*)	I	Annex II	Annex II*, IV	rare[3]	extinct	-
American mink (*Mustela vison*)				-[4]	common	occasional
Western Polecat (*Mustela putorius*)		Annex III	Annex V	-	occasional	occasional
Pine Marten (*Martes martes*)		Annex III	Annex V	common	common	common
Eurasian Badger (*Meles meles*)		Annex III		-	rare or absent	-
Otter (*Lutra lutra*)	III	Annex II	Annex II, IV	5-7[5]	common	occasional
Lynx (*Felis lynx*)		Annex II	Annex II, IV[6]	38	occasionl vagrant	2
Seals (*Pinnipedia*)						
Ringed Seal (*Phoca hispida*)	II	Annex III	Annex II	579±101[7]		
Grey Seal (*Haliochoerus grypus*)	II	Annex III	Annex II, V	2675-2785[8]		
Hoofed animals (*Artiodactyla*)						
Wild boar (*Sus scrofa*)		Annex III		600	> 50	70
Red deer (*Cervus elaphus*)		Annex III		400	-	-
Elk (*Alces alces*)		Annex III		360	>20	38
Roe deer (*Capreolus capreolus*)		Annex III		1 100	>120	180

[1] Annex V since 1th of May 2004
[2] Annex V since 1th of May 2004
[3] On-going recovery project since 2000
[4] Population removed between 1998 and 1999
[5] Maran, 2000
[6] Annex V since 1th of May 2004
[7] Total number of Estonian population (Liivi Bay only) in 2003
[8] Total number of Estonian population (Gulf of Finland included) in 2003

Annex 3

Occurrence of protected vascular plant species in the Väinameri area

compiled by K. Vahtra

Species	Listed in EU directives and conventions	Saaremaa	Hiiumaa	Vormsi	Matsalu
I protection category in Estonia					
1. *Asplenium viride* – Green Spleenwort		+	-	-	-
2. *Coeloglossum viride* – Frog Orchid	+	+	+	-	+
3. *Dactylorhiza praetermissa* – Southern Marsh Orchid	+	-	+	-	-
4. *Epipogium aphyllum* – Ghost Orchid	+	+	+	-	-
5. *Equisetum x trachyodon* – Mackay's Horsetail		+	-	-	-
6. *Littorella uniflora* – Shoreweed		+	-	-	-
7. *Polystichum lonchitis* – Holly Fern		-	+	-	-
8. *Radiola linoides* – Roth		-	+	-	-
II protection category in Estonia					
9. *Ajuga reptans* – Bugle		+	-	-	-
10. *Ajuga pyramidalis* – Pyramidal Bugle		+	-	-	-
11. *Allium vineale* – Wild Onion		+	+	-	-
12. *Alyssum montanum* – Estonian Goldhead		+	-	-	-
13. *Anacamptis pyramidalis* – Pyramidal Orchid	+	+	-	-	-
14. *Artemisia maritima* – Sea Wormwood		+	-	-	-
15. *Asplenium ruta-muraria* – Wall Rue		+	+	+	+
16. *A. trichomanes* – Maidenhair Spleenwort		+	+	+	+
17. *Berula erecta* – Lesser Water Parsnip		+	+	-	-
18. *Bromus benekenii* – Lesser Hairy Brome		+	-	-	-
19. *Bupleurum tenuissimum* – Slender Hare's Ear		+	+	-	-
20. *Carex extensa* – Long-bracted Sedge		+	+	+	+
21. *C. glareosa* – Lesser Saltmarsh Sedge		+	+	+	+
22. *C. ligerica* – Sand Sedge		+	-	-	-

	Species	Listed in EU directives and conventions	Saaremaa	Hiiumaa	Vormsi	Matsalu
23.	*C. mackenziei* – Mackenzie's Sedge		-	-	-	+
24.	*Cephalanthera longifolia* – Long-leaved Helleborine	+	+	+	+	-
25.	*C. rubra* – Red Helleborine	+	+	+	+	-
26.	*Cerastium pumilum* – Dwarf Mouse-ear		+	+	+	-
27.	*Chaerophyllum temulum* – Rough Chervil		+	-	-	-
28.	*Circaea lutetiana* – Enchanter's Nightshade		+	-	-	-
29.	*Cochlearia danica* – Danish Scurvygrass		+	-	-	-
30.	*Corallorhiza trifida* – Early Coral-root	+	+	+	-	-
31.	*Corydalis intermedia* – Fumewort		+	-	-	-
32.	*Cypripedium calceolus* – Lady's Slipper Orchid	+	+	+	-	+
33.	*D. cruenta* – Flecked Marsh Orchid	+	+	+	+	+
34.	*D. russowii* – Narrow-leaved Marsh Orchid	+	+	+	-	-
35.	*Dianthus superbus* – Fringed Pink		-	+	+	+
36.	*Elytrigia junceiformis* – Sand Couch		+	+	+	-
37.	*Equisetum* x *moorei* – Moore's Horsetail		+	+	+	-
38.	*Eryngium maritimum* – Sea Holly		+	+	-	-
39.	*Festuca altissima* – Wood Fescue		+	-	-	+
40.	*Geranium lucidum* – Shining Crane's-bill		+	+	-	+
41.	*Gladiolus imbricatus* – Common Gladiolus		+	-	-	+
42.	*Gymnadenia odoratissima* – Short-spurred Fragrant Orchid	+	+	-	-	-
43.	*Halimione pedunculata* – Stalked Orache		+	+	-	-
44.	*Hedera helix* – Common Ivy		+	+	-	-
45.	*Helichrysum arenarium* – Everlasting		+	-	-	-
46.	*Herminium monorchis* – Musk Orchid	+	+	+	+	+
47.	*Hydrocotyle vulgaris* – Marsh Pennywort		+	+	-	-
48.	*Hypericum montanum* – Pale St. John's-wort		+	-	-	-
49.	*Jovibarba sobolifera* – Hen and Chickens Houseleek		+	-	-	-
50.	*Juncus subnodulosus* – Blunt-flowered Rush		+	-	-	-
51.	*Lathyrus niger* – Black Pea		+	-	-	-

Species	Listed in EU directives and conventions	Saaremaa	Hiiumaa	Vormsi	Matsalu
52. *Liparis loeselii* – Fen Orchid	+	+	+	+	-
53. *Listera cordata* – Heart-leaved Twayblade	+	+	+	+	-
54. *Lycopodiella inundata* – Marsh Clubmoss	+	+	+	-	-
55. *Malaxis monophyllos* – White Adder's Mouth	+	+	+	-	-
56. *Malaxis paludosa* – Bog Adder's Mouth	+	+	+	-	-
57. *Najas marina intermedia* – Holly-leaved Naiad		-	-	-	+
58. *Onobrychis arenaria* – Sainfoin		+	-	-	-
59. *Ophrys insectifera* – Fly Orchid	+	+	+	+	+
60. *Orchis mascula* – Early Purple Orchid	+	+	+	+	+
61. *O. morio* – Green-winged Orchid	+	+	-	-	-
62. *O. ustulata* – Burnt Orchid	+	+	+	-	+
63. *Oxytropis pilosa* – Woolly Milkvetch		+	-	-	+
64. *Pinguicula alpina* – Alpine Butterwort		+	-	-	-
65. *Polygonum oxyspermum* – Ray's Knotgrass		+	+	-?	+
66. *Prunus spinosa* – Blackthorn		+	-	-	+
67. *Ranunculus nemorosus* – Wood Buttercup		+	-	-	-
68. *Rhinanthus osiliensis* – endemic "Saaremaa Yellow Rattle"		+	-	-	-
69. *Rhynchospora fusca* – Brown Beak Sedge		+	+	-	-
70. *Sagina maritima* – Sea Pearlwort		+	+	-	+
71. *Salix repens* – Creeping Willow		+	+	-	-
72. *Samolus valerandi* – Brookweed		+	+	-	-
73. *Schoenus nigricans* – Black Bog Rush		+	+	-	-
74. *Selaginella selaginoides* – Lesser Clubmoss		+	-	+	-
75. *Sorbus rupicola* – Rock Whitebeam		+	+	-	-
76. *Suaeda maritima* – Annual Seablite		+	+	+	+
77. *Taxus baccata* – Yew		+	+	-	+
78. *T. campestre* – Low Hop Clover		+	-	-	-
79. *V. lathyroides* – Spring Vetch		+	-	-	-
80. *V. tenuifolia* – Bramble Vetch		+	-	-	-

	Species	Listed in EU directives and conventions	Saaremaa	Hiiumaa	Vormsi	Matsalu
81.	*Viola elatior* – Taller Violet		+	+	-	+
	III protection category in Estonia					-
82.	*Allium ursinum* – Wild Garlic		+	-	-	-
83.	*Armeria maritima* subsp. *elongata* – Sea Pink		+	-	-	+
84.	*Angelica palustris* – Marsh Angelica	+	+	+	+	-
85.	*Anthyllis coccinea* – Red Kidney Vetch		+	+	+	-
86.	*Cardamine hirsuta* – Hairy Bittercress		+	+	+	+
87.	*Cladium mariscus* – Great Fen Sedge		+	+	+	-
88.	*Colchicum autumnale* – Autumn Crocus		+	+	-	-
89.	*Cotoneaster niger* – Darkseed Cotoneaster		+	-	-	-
90.	*Dactylorhiza baltica* – Baltic Orchid	+	+	+	-	-
91.	*Dactylorhiza fuchsii* – Common Spotted Orchid	+	+	+	+	+
92.	*D. incarnata* – Early Marsh Orchid	+	+	+	+	+
93.	*D. maculata* – Heath Spotted Orchid	+	+	+	+	+
94.	*Dianthus arenarius* – Sand Pink	+	+	-	-	-
95.	*Diphasium complanatum* – Ground Cedar	+	+	+	-	-
96.	*Draba muralis* – Wall Whitlow Grass		+	+	+	-
97.	*Epipactis atrorubens* – Dark Red Helleborine	+	+	+	+	+
98.	*E. helleborine* – Broad-leaved Helleborine	+	+	+	+	+
99.	*E. palustris* – Marsh Helleborine	+	+	+	+	+
100.	*Euonymus europaeus* – Common Spindle Tree		+	-	-	-
101.	*Goodyera repens* – Creeping Lady's Tresses	+	+	+	+	-
102.	*Gymnadenia conopsea* – Fragrant Orchid	+	+	+	+	+
103.	*Gymnocarpium robertianum* – Limestone Oak Fern		+	+	-	-
104.	*Hornungia petraea* – Hutchinsia		+	+	+	-
105.	*Huperzia selago* – Fir Clubmoss	+	+	+	+	+
106.	*Iris sibirica* – Siberian Iris		+	+	-	-
107.	*Lathyrus japonicus* – Beach Pea		+	+	-	-
108.	*Lemna gibba* – Swollen Duckweed		+	-	-	-
109.	*Listera ovata* – Common Twayblade	+	+	+	+	+

Species	Listed in EU directives and conventions	Saaremaa	Hiiumaa	Vormsi	Matsalu
110. *Lunaria rediviva* – Perennial Honesty		-	-	-	+
111. *Lycopodium clavatum* – Stagshorn Clubmoss	+	+	+	+	-
112. *Malus sylvestris* – Crab Apple		+	+	+	+
113. *Myrica gale* – Bog Myrtle		+	+	+	+
114. *Neottia nidus-avis* – Birdsnest Orchid	+	+	+	+	+
115. *Nuphar pumila* – Least Waterlily		+	-	-	-
116. *Nymphaea alba* – White Waterlily		+	+	-	+
117. *N. candida* – Dwarf White Waterlily		+	+	-	+
118. *Orchis militaris* – Military Orchid	+	+	+	+	+
119. *Petasites spurius* – Woolly Butterbur		+	+	-	+
120. *Platanthera bifolia* – Lesser Butterfly Orchid	+	+	+	+	+
121. *P. chlorantha* – Greater Butterfly Orchid	+	+	+	+	+
122. *Pulsatilla pratensis* – Small Pasque Flower		+	+	+	+
123. *Pyrus pyraster* – Wild Pear		+	+	+	-
124. *Scabiosa columbaria* – Small Scabious		+	+	-	-
125. *Serratula tinctoria* – Saw-wort		+	+	-	-
126. *Sisymbrium supinum* – Prostrate Hedge Mustard	+	+	+	-	-
127. *Tetragonolobus maritimus* – Winged Pea		+	+	+	+
128. *Thalictrum lucidum* – Shining Meadow Rue		+	-	-	-
129. *Trifolium alpestre* – Purple Globe Clover		+	-	-	-
130. *Ulmus laevis* – European White Elm		+	+	-	+
131. *Vicia cassubica* – Danzig Vetch		+	-	-	-
132. *Vincetoxicum hirundinaria* – White Swallow-wort		+	-	-	-
133. Viola uliginosa		+	+	+	+