

Biosphere Reserve **Kristianstads Vattenrike®**

A C T I V I T I E S 2 0 1 3



Kristianstads Vattenrike Biosphere Reserve



Gropahålet, where the River Helge å reaches the sea. On the sand dunes to the south of the river mouth the vegetation has been burned to create better conditions for rare plants and insects. Photo: Patrik Olofsson/N

A biosphere reserve is a model area that combines conservation with development. There are biosphere reserves throughout the world, designated as protected areas by the UN agency UNESCO. Kristianstads Vattenrike was established as a biosphere reserve in 2005.

Kristianstads Vattenrike Biosphere Reserve includes the greater part of the Municipality of Kristianstad, from the forests to Hanöbukten Bay with the rich wetlands of the River Helge å and the urban centre of Kristianstad at its heart.

Extent: Greater part of the Municipality of Kristianstad.

Area: 104,375 ha. Land and lakes, 90,515 ha; marine area, 13,860 ha. (Total land area of municipality: 134,620 ha.)

Population: approximately 75,000 including approximately 35,000 in the Kristianstad urban region. (Total population of municipality: 80,000.)

Species worthy of preservation: There are at least 700 nationally red-listed species in the biosphere reserve, a high figure compared to other areas of Sweden. Approximately 30% of red-listed species in the province of Skåne occur in the biosphere reserve. The wetlands are home to 120–130 regularly breeding species of bird. In

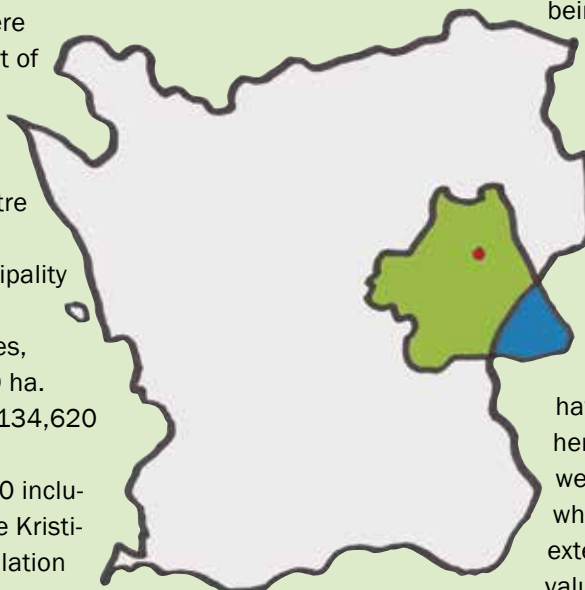
all, some 260 species have been recorded. At least 38 different species of fish have been caught in the inland waters: around 30 of these, including the European catfish and loach, spawn in fresh water.

Development projects: Various business activities are currently being conducted, including wetlands

eco-tourism and the development of products from the seasonally flooded grasslands. New wetlands are being created along the River Vinneån. Biological and recreational values are being developed hand in hand on a golf course in the sandy grasslands.

Thematic landscapes: Ten thematic landscapes with high natural values have been identified within the biosphere reserve. These include valuable wetland environments, the majority of which are protected as a Ramsar site, extensive sandy areas with high natural values, internationally recognised forest habitats and unique flowing water environments.

There are also many nature reserves and Natura 2000 sites within the biosphere reserve. In the future the scope of the work will gradually extend to cover all of these ten theme areas under the maxim: Benefiting people and nature!



2013 – the year in review

Great interest in Vattenriket and biosphere work. The popular naturum provided visitors with a gateway to the biosphere reserve.

The varied landscape with its wealth of species along the last 30 km of the River Helge å and our commitment to 'benefit both people and nature' attracted 70 volunteers, each passionate about Kristianstads Vattenrike, to become biosphere ambassadors in 2013! It is wonderful to witness such involvement and interest among the local population.

The naturum visitor centre remains an attractive destination for visitors from Skåne and abroad. In 2013 there was a strong focus on encouraging people to explore the biosphere reserve and our visitor sites. Our follow-up activities indicate that this was a success. Half of the visitors cited naturum and Vattenriket as their main reasons for visiting Kristianstad. Kristianstads Vattenrike has become a key element in the city's brand.

Also, as coordinator, I am delighted to see researchers showing so much interest in Vattenriket; two major projects focusing on ecosystem services have even received state funding.

Last autumn Vattenriket sent a delegation to a major biosphere reserve conference in Canada. There, besides the satisfaction of learning that our work in several areas is at

the cutting edge of developments, we were inspired by examples of cooperation with volunteers and entrepreneurs from other biosphere reserves that I look forward to developing here at home.

The motto for what we do is 'build knowledge and take action'. Right now we're conducting various projects in the biosphere reserve, from educational collaboration with the university and new IT projects to the restoration of sandy grasslands and improvements to water quality.

The focus on water and Hanöbukten Bay will become clearer in 2014 when Vattenriket will host the Havsresan field week in collaboration with the Faculty of Engineering at Lund University and other partners. In 2013 measures were initiated to reduce brown discoloration of the water upstream. Good water quality is important for everyone and essential in enabling Vattenriket to benefit both people and nature.



Carina Wettemark
Manager, Biosphere Office
Coordinator, Kristianstads Vattenrike Biosphere Reserve



The weather year – 2013

What we perhaps remember most about the weather in 2013 was a spring that never really arrived and two troublesome autumn storms – but in between, we had an unusually good summer.

After a mild start, we had wintry weather for the rest of January and throughout February with low temperatures and very little precipitation. We have become used to this kind of weather in recent years, but when it continued throughout March and well into April, many of us grew weary. We didn't have our first fully frost-free 24 hours until 11 April. From then onwards, however, the days gradually became warmer.

It was a summer to please most people. July and August in particular were very sunny, but not too hot, with only a few days of heavy rain, such as 29–31 July and 8 August when it was wise to stay indoors.

The autumn was very mild and without snow. Christmas Eve, with an average temperature of 8.9°C, was by far the mildest since Weather Online was launched in 1998 – and not dissimilar to a poor summer's day, such as 6 June 2000, when the average temperature was a mere 8.6°C.

On 28 October 2013 the region was battered by a severe storm, Simone. The winds of up to 26.4 m/s were the second-strongest we have ever measured, surpassed only by Hurricane Gudrun on 8 January 2005. The winds recorded by the weather station in a second storm, Sven, on 5–6 December were not as strong as Simone's, but gusts vary from place to place. Not far away Sven wreaked more havoc than Simone and Gudrun and lasted a full 24 hours, whereas Simone passed after just six.

To summarise: the weather in 2013 gave us a cold, dry spring, a good summer and a mild, blustery autumn that refused to turn into winter.

SUMMER 2013 WAS FILLED WITH SUNNY DAYS.



25 years in Vattenriket's service

**Visitor sites, naturum, and projects galore on land and water.
After 25 years serving Kristianstads Vattenrike,
motivator and visionary Sven-Erik Magnusson
has left the 'world's best biosphere reserve'.**

Sven-Erik first presented his first wetlands concept with boat trips, outdoor museums and a wetlands information centre in 1988 – an idea formed while cataloguing Kristianstad's cultural landscapes at the local museum. His inventory helped unlock the mystery of why waders, black-tailed godwits and ducks were disappearing – seasonally inundated grasslands were becoming overgrown.

Sven-Erik contacted Hans Cronert at the County Administrative Board and – together with local farmers, the EPA, Forest Agency and WWF – started restoring and protecting wetlands and seasonally inundated grasslands along the River Helge å.

Soon Sven-Erik felt ready for a more practical challenge, and in Kristianstad Municipality he found just the right platform. He presented his vision of the wetlands as a unique local feature: 'tourism, ecology, business and environment united in their sustainable use of the landscape's values.'

But this initial proposal for a wetlands centre was deemed too costly, so Sven-Erik instead began creating visitor sites. The first, the Kanalhuset open-air museum, opened in 1991.

The idea was to motivate cooperation around certain sites and restoration projects, combining information, teaching and tourism with environmental work and practical nature conservation un-

der the Vattenriket umbrella. He found the name Vattenriket ('The Kingdom of Water') in an article on Svenska södern ('The Swedish South') by author Carl Fries.

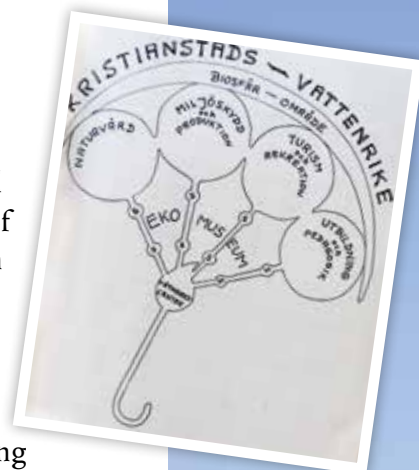
Later, work also extended to the dry sandy areas near Åhus, using networking and dialogue to find win-win solutions. 'It's all about getting land owners, researchers and local associations to cooperate on joint projects,' Sven-Erik says.

The approach has drawn praise from researchers far and wide. Lisen Schultz of the Stockholm Resilience Centre ranks Vattenriket as the world leader in resilience, and the area is showcased as a good example in the textbook *Resilience Thinking*.

Meanwhile Sven-Erik and his colleagues were making the area more easily accessible with marked trails and information. Boat trips along the River Helge were added to the mix: 'The best way to experience the wetlands is by river.'

Eventually the idea of a visitor centre was resurrected. With the EPA now willing to part-fund the venture, the municipality gave the go-ahead. Since the naturum visitor centre opened in 2010 it has attracted swathes of visitors.

'It's fantastic to see an idea transformed into reality. But this is no one-man show. It's teamwork. Motivation and job satisfaction are crucial. You need to have fun at work!' says Sven-Erik.





Carina Wettemark

new biosphere coordinator

Last autumn Carina Wettemark was appointed manager of the Biosphere Office and coordinator of Kristianstads Vattenrike Biosphere Reserve.

‘This is a fascinating area to work in, with all sorts of exciting activities and lots of potential to develop further with so many skilled and committed colleagues,’ she says.

Carina is by no means new to Kristianstads Vattenrike. After working as an ecologist at the biosphere office for nearly ten years she says, ‘The focus is on cooperation, dialogue and highlighting good examples. It’s a stimulating way to work, appealing and highly successful. And we enjoy broad support from local people and local politicians, as well as nationally and internationally.’



New Opteryx film: sea, sand – and smiles

December saw the première of Opteryx 2.0 – a new trip taking visitors south to the coast at Åhus, plunging below the waves among bladderwrack and opossum shrimps before resurfacing to return via the golf links with their rare plants and insects.

A trip in Opteryx above and below the water is a truly magical experience. The film, animations, sound effects and movements of the craft create a convincing illusion of exploring less accessible regions of Kristianstads Vattenrike.

Fun plays a big part in the naturum's exhibitions. 'A little humour is a big help towards learning. We want people to emerge from Opteryx with a smile on their lips, inspired to visit the places they have seen in the film,' says naturum director, Karin Magntorn.

The doors shut and the craft shudders gently as it takes off, following the River Helge å through Lake Hammarsjön towards the sea at Åhus. At Snickarhaken it dives beneath the waves among seaweed and tiny crustaceans before flying north again over the flowers and bees of the golf links.

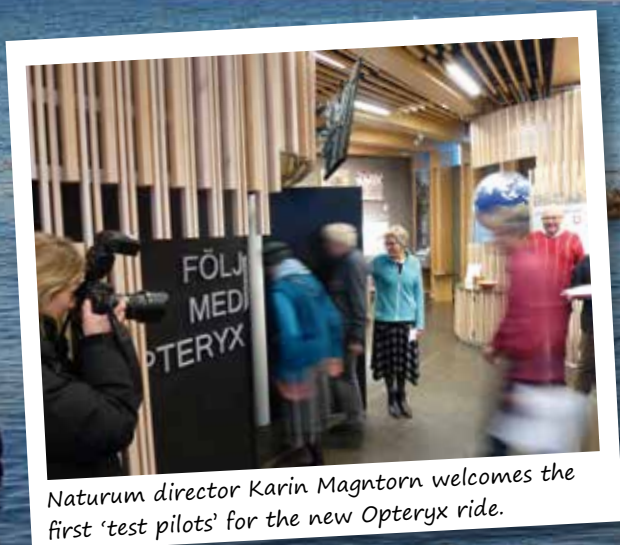


PHOTO: KARIN MAGNTORN

'What a success! A real attraction for Vattenriket,' exclaims Evert Valfridsson of the Friends of Vattenriket association as the passengers disembark, chattering excitedly after their experience. For Torsten Jeppsson, chairman of the Friends, the film illustrates the interdependence of society and nature. 'And what a thrill to witness the meeting of river and sea in Åhus!' he adds.

The Friends of Vattenriket and Åhus Lions' Club are two of the organisations that have raised funds for Opteryx 2.0.

'It's not every day we help finance a funfair ride,' says Leif Dahlquist of the Åhus Lions, 'but if we can help to kindle an interest in nature conservation, it's money well invested!'



Naturum director Karin Magntorn welcomes the first 'test pilots' for the new Opteryx ride.

Patrik Olofsson has filmed above and below the surface of the waters to make sure visitors can enjoy the new Opteryx experience.

Naturum shows the way



Explore Vattenriket!

The naturum visitor centre is intended to be a gateway to the great outdoors. All naturum visitors are counted and each day five of them answer a questionnaire. In 2013 nearly two in three said they had also been to a local visitor site.

The responses to the questionnaire show that Kristianstads Vattenrike and naturum continue to attract guests from near and far; 30% of respondents live in Kristianstad, while roughly half of our other visitors are from Skåne and half from further afield.

Vattenriket and naturum were the main attractions for

more than half of all visitors. This kind of tourism also generates a financial spin-off for Kristianstad, as Vattenriket visitors injected some SEK 27 million kronor into the local economy in 2013.

‘We are delighted that as many as 60% of naturum guests state that they have also visited other sites in Vattenriket,’ says naturum director Karin Magntorn. ‘This is really positive. The very purpose of naturum is to show people the way to the great outdoors.’

Visitors listed a wide variety of sites, the most popular being the Linnérundan Trail, Balsberget, Ekenabben, Forsakar, Näsbyfält and the lowest point in Sweden.

Makeover for visitor sites – Pulken completed in spring 2013



Just in time for the arrival of the cranes, the Pulken visitor site was given a complete makeover. New technology is being added to improve the visitor sites.

The renovated birdwatching tower and new exhibition opened on Crane Day, 25 March. The tower now gives disabled visitors access to picnic tables and front-row benches for crane watching.

The exhibition focuses on cranes, which have increased in number in recent years. Audio and film clips complement signs and wooden models.

The exhibition's largest sign features Pulken artist Carl Christian Tofte's dancing cranes alongside details of the cranes' migration, dances and other fascinating facts. There are also film clips and audio files of the cranes that visitors can use QR codes to listen to on their mobile phones.

There is information too about how the Graften Canal was dug and used as a waterway over the years and how Pulken derived its name from an old dialect word



ÅSA PEARCE PROUDLY SHOWS THE NEW EXHIBITION.
PHOTO: KARIN MAGNTORN.

for a small pool. Illustrations are by Tina Lundgren, a local artist.

As the cranes fly north, ducks and waders take over the seasonally inundated grasslands around Pulken. These birds are described in a separate part of the exhibition. Using a hand-cranked mp3 player you can listen to audio files as local journalist Per Erik Tell talks about the area's natural and cultural historical values. There are also recordings of Pulken's most common birds.

Biosphere ambassadors – volunteers with a passion for Vattenriket!



March 2013 saw the start of work to train ambassadors for Kristianstads Vattenrike – volunteers eager to spread interest in and knowledge of the biosphere reserve to colleagues, friends, families and associations.

The 35 participants met four times at naturum and outdoors in spring to learn more about the biosphere reserve and the visitor sites. There was also a bus trip to the Vattenriket's many wetland projects before Sten Hermansson, Chair of the City Council, presented diplomas.

A second course in the autumn included a trip to the Pulken visitor site, where Göran Frisk showed how to reduce damage to autumn-sown crops by keeping geese at bay. The course was concluded with a presentation of diplomas and a screening of naturum's new *Opteryx* film.

Seventy people received diplomas as ambassadors in 2013. There was also a reunion at Kaptenens väg, Nyehusen, when Carina Wettemark spoke on the value of the sandy grasslands and the ambassadors tested their nature conservation skills with Bengt-Göran Jönsson from the Department of Public Works.



Ronnie Glimhall has a keen interest in nature.

'Being outdoors in Vattenriket is balm for the soul! This is a fantastic area that I'm eager to share with others.'

RONNIE GLIMHALL, BIOSPHERE AMBASSADOR.



Lena Winberg, teacher and chair of Nävlingeåsen's Stakeholders' Association, runs a B&B in Bockeboda.

'I often visit Vattenriket with my school. I also represent Nävlingeåsen's interests in tourism so I'm keen to build a thriving rural community and recommend Vattenriket to my guests.'

LENA WINBERG, BIOSPHERE AMBASSADOR.

Vattenriket in Focus

Vattenriket i fokus (Vattenriket in Focus) is the Biosphere Office's series of booklets (ISSN 1653-9338), in which we publish reports and inventories commissioned by or conducted in cooperation with the Biosphere Office. All 48 reports are available in Swedish at www.vattenriket.kristianstad.se/fokus/.

Publications in 2013

Kristianstads Vattenrike Biosphere Reserve: Activities 2012

Author: Biosphere Office

Reference number 2013:01

Provfiske efter mal i Nedre Helgeån 2013

Author: Biosphere Office.

Reference number 2013:02

Ålens fortlevnad och rent vatten - Rapport från seminariet ÅL 2013 23-24 januari.

Author: Per Erik Tell.

Reference number 2013:03

Stortapetserarbetet - inventering 2010-2012

Authors: Ulf Lundwall and Göran Holmström.

Reference number 2013:04

Bristande födotillgång och torrare vårar på strandängarna i Kristianstads Vattenrike: - möjliga orsaker till vadarnas tillbakagång?

Authors: Gunnar Gunnarsson, Rebecca Hessel and Richard Ottvall.

Reference number 2013:05

Åsumfältet - Nyehusen Inventering av solitära bin och andra insekter 2012 - med skötselförslag.

Author: Krister Larsson, ALLMA Natur & Kultur.

Reference number 2013:06

Inventering av vildbin vid Horna och Trafikplats Vä 2012 med fokus på miljövård - med skötselförslag.

Author: L. Anders Nilsson, EkoBi Natur.

Reference number 2013:07

Sammanställning av elfisken i Vattenriket.

Author: Nils Möllerström (trainee).

Reference number 2013:08



The year in review



PHOTO: SAM PETERSON

Cooperation with Kristianstad University

During the autumn naturum nature educator Sam Peterson worked with the teacher training department at Kristianstad University. Vattenriket has long been a resource for the university's teacher training courses. Students have learned how to explain sustainable development through outdoor education techniques and teaching at naturum. Students first attended lessons that Sam held with a group of pupils. Then they each planned and taught their own lesson and were given feedback. The method has not only provided the students with invaluable practice, but Sam also feels that he has learnt a lot.

'Analysing what works well and why helps me to develop in my role as an educator,' Sam says.



PHOTO: ASA PEARCE

Successful biodiversity work in Yngsjö

In December 2011 work was undertaken on municipal land in the Kaptenens väg area of Nyehusen, Yngsjö, to promote biological diversity. Mountain pines were uprooted, pine needles and moss were scraped up and taken away. By spring 2013 tiny pasque flowers carpeted the open patches of sandy soil – a sure sign of a successful restoration.

'It's so encouraging to see pasque flowers, which thrive in lime-rich soil, taking root in areas previously covered by mountain pine, pine needles and moss,' says Carina Wettemark, biosphere coordinator in Vattenriket. Last spring controlled burning of land for conservation purposes took place by the river mouth at Gropahålet. This restoration was also successful, leading to an explosion of tiny pasque flowers there too.



PHOTO: MEDINS BIOLOGI

Kiviksbredan survey

The Kiviksbredan shallows, 10 km off the Åhus coast, are a relatively unknown area of the biosphere reserve that attracts many overwintering birds and may be an important nursery ground for young fish.

In May marine biologists from Medins Biologi were commissioned by the Biosphere Office to survey the shallows' benthic fauna. A film was also made to enable researchers to more accurately assess the status of the seabed.

Jenny Palmkvist, a member of the marine biology team, reported that the results were encouraging with good conditions for benthic fauna.

'The area is quite far from the coast, so it has remained relatively unaffected. We saw mussel beds on the lithified seafloor,' says Jenny.



PHOTO: ASA PEARCE

Art and handicrafts at Biosphere Camp

Mallards, damselflies and flowering river water crowfoot. It's easy to find subjects to paint by the River Vramsån in Gärds Köpinge. The theme of this year's biosphere camp was Vattenriket as a source of inspiration. Each day participants made an excursion to meet local artists and craftspeople and tested their skills at felting, producing drawing charcoal, carving bark and much more besides.

'Based on what we saw, heard and felt, we used art and crafts to reinforce and intensify our experiences,' says camp leader Sam Peterson, naturum's nature educator. This was the third annual camp aimed at letting participants experience, discover and learn more about Kristianstads Vattenrike Biosphere Reserve. Some 30 children aged 10–14 attended the two-week camp in June.

The year in review

Boardwalk renovation work begins

The Kanalhuset boardwalk dates back to 1993. It is an important stretch of the Linnérundan Trail, one of the walking trails near the city centre attracting up to 30,000 visitors per year. After 20 years' use, the planks had become rickety and needed renovating.

The new boardwalk will be safer, wider and more easily accessible for wheelchairs and baby buggies. Renovation work on the first 135-metre long stretch was completed in October 2013. The remaining 350 metres will be rebuilt in autumn 2014. The rebuild is part of a long-term ambition to make the entire Linnérundan Trail accessible for wheelchairs and baby buggies.



PHOTO: ASA PEARCE

Investments in better water quality

Kristianstads Vattenrike has received 650,000 kronor from the EU's rural development fund (LEADER) for a water-quality improvement project in the River Bivarödsån. This has the brownest water of all River Helge å tributaries, probably due to intensive forestry. The project will also benefit water quality in the River Helge å and in Hanöbukten Bay. The money will be used to implement an action plan and to increase knowledge about how to make use of forest resources in a way that improves water quality in the River Bivarödsån.

Work also started in 2013 on a survey of five of the River Vramsån's tributaries. It aims to provide data about the natural values of small rivers and streams and identify suitable sites where wetlands can be established.



PHOTO: KARIN MAGNTORN

Flodbåten's final boat trip

In September Lennart Björk skippered Flodbåten on its last trip on the River Helge å. Since 1994 Lennart has taken thousands of tourists on sightseeing excursions in Vattenriket. The boat has now been sold to a company in Stockholm.

Dagny Carlsson, aged 101, secured a place on the last trip. She was born and raised in Kristianstad and remembers learning to swim in the River Helge å in the early 1900s.

'Back then I spent many an afternoon at the open-air swimming baths at Långebro, bathing and splashing around to my heart's content.' In her youth Dagny used to walk along the shore of Lake Hammarsjön to go dancing at the popular dance pavilion at Ekenabben.



PHOTO: ASA PEARCE

Fen ragwort thrives in Vattenriket

The status of fen ragwort at various local sites has been monitored for the past 14 years. Fen ragwort is the archetypal wetland plant, easily recognisable by its yellow flowers on tall stems more than 1 metre high. Dense clusters along the river banks in Tivoliparken and around the naturum visitors' centre are in full bloom in July and August.

Fen ragwort is red-listed as an endangered species, and as most fen ragwort in the Nordic countries grows in Vattenriket, we have a special responsibility for the species. Fen ragwort needs the River Helge å to flood frequently, but not too much or for too long. The species is also vulnerable to grazing cattle, but if the land is not grazed at all, it slowly becomes overgrown, putting the survival of the fen ragwort at risk. A tricky conservation challenge!



PHOTO: KARIN MAGNTORN

The year in review



PHOTO: ÅSA PEARCE

Bo Svensson's work is recognised

It all started with a sanctuary for European rhinoceros beetle larvae. Since then Bo Svensson has created nurseries for numerous animals and birds over the years. Born and raised in Ripa, Bo is a farmer on Vattenriket's sandy grasslands. His uncompromising commitment to nature conservation is demonstrated in the way he cares for his cows and land. In June he was awarded the Swedish Entomological Society's Environmental Diploma for 2013 for his 'careful management of the land and consideration for insects living in the sandy soil'. There's no mistaking Bo's genuine interest in all living things. In a project to promote collaboration between birdwatchers and farmers, he helps to monitor larks, yellow wagtails, wheatears, lapwings and Eurasian curlews. He manages his farmland carefully and considerably. In one field he has planted sunflowers, red clover and lacy phacelia to create an oasis for insects in the arable landscape.



PHOTO: ÅSA PEARCE

Clearing Åsumsfältet for rare species

The military training ground at Åsumsfältet is a paradise for insects. A 2007 inventory showed that the sandy soils, old pine forests and open grazed areas are home to an unusually large variety of red-listed species. However, a decline in military activities means the area risks becoming overgrown. Measures to open up and disturb the sand are needed for many species to thrive. With funding from the County Administrative Board's action programme for endangered flora and fauna, the Swedish Fortifications Agency has recently uprooted small trees, created open sandy patches and harrowed the land. Controlled burning for nature conservation will be undertaken in the spring. Also, a land maintenance plan will be drawn up to meet military needs and environmental requirements to ensure the area remains a viable habitat for rare species in the future.



New contacts and ideas at EuroMAB

EuroMAB 2013 was held in the Frontenac Arch Biosphere, Canada. 200 delegates from 52 countries in Europe and North America, including representatives of Kristianstads Vattenrike Biosphere Reserve, met to establish new contacts and discuss working methods. The trip gave many new ideas and plans, as well as confirmation that our own highly successful work is at the cutting edge of developments. In 2015 Vattenriket will have been a biosphere reserve for ten years. The work will then be evaluated in a periodic review that includes a 40-page questionnaire. Kristianstads Vattenrike will be the first Swedish biosphere reserve to undergo such a review. EuroMAB provided contacts with other biosphere reserves that have recently submitted review reports, which may well prove useful when working on our own upcoming review.

Contact us at Vattenriket

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