

# *Biosphere Reserve* **Kristianstads Vattenrike®**

A C T I V I T I E S   2 0 1 2



# Biosphere Reserve Kristianstads Vattenrike



Newly created wetlands at Adinal – one step closer to a good ecological status for the River Vinneån. Photo Sven-Erik Magnusson.

**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.)

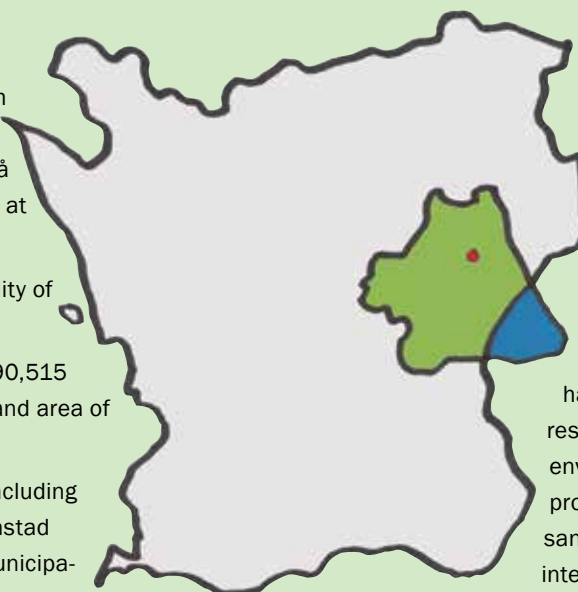
**Species worthy of preservation:** There are at least 700 nationally red-listed species in the biosphere reserve, a high figure compared to other areas of Sweden. Approximately 30% of red-listed species in the province of Skåne occur in the biosphere reserve. The wetlands are home to 120–130 regu-

larly 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!*



# The year in review – 2012

## The landscape forms the basis for work in Kristianstads Vattenrike Biosphere Reserve: benefiting nature and humans.

When Swedish songwriter Ulf Lundell sings, *"I feel most at home in open landscapes"*, he captures the concept of landscape emotionally, intuitively. For most of us, the landscape is an important aspect of the environment in which we live, a focal point for many values and claims – cultural, ecological, aesthetic, social and economic. The Council of Europe recognised this by initiating the European Landscape Convention, which Sweden signed in 2010.

In Kristianstad we have been working with a landscape perspective for more than 20 years, starting with the wetlands along the River Helge å and, on acquiring UNESCO biosphere reserve status in 2005, identifying 10 thematic landscapes to make our work more clearly structured.

One of the Landscape Convention's overall objectives is to replace object-oriented community planning with a more holistic approach. This is how we work with our thematic landscapes, identifying values, threats and opportunities, seeking out detailed knowledge, analysing it and transforming it into concrete plans at landscape level. A few examples of the past year's activities are described below.

One of the first steps towards achieving a good ecological status in the River Vinneån was to identify locations for new wetlands in the river's drainage basin. Soon we will have reached our target of establishing 50 hectares of wetlands that act as irrigation ponds, create habitats for richer flora and fauna, revitalise the eutrophic water, counteract high water flows, contribute to the aesthetic values of the land-

scape and – last, but not least – help reduce eutrophication in the Baltic Sea.

The sandy arable land, especially the fragrant sand pinks, had already attracted Carl Linnaeus's attention long ago. We have conducted many species inventories showing how the sandy grasslands are unique in Sweden and, for us, the sand pink is an excellent landscape indicator. By shunning artificial fertilisers and irrigation, it demonstrates the need to safeguard the groundwater and its quality.

The Landscape Convention places special emphasis on increased awareness and training. So in 2012 cycle rides were organised as well as a catfish safari, a biosphere camp and field trips. We gained a great deal of goodwill as naturum Visitor Centre 2012 and through the establishment of the Friends of Vattenriket association. There has been considerable interest at national level in the biosphere reserve's work with visits from the Ministry of the Environment and the Swedish All-Party Committee on Environmental Objectives, and a breakfast meeting about ecosystem services with the Governmental Commission on the Future. The next big challenge is to identify the coastal ecosystem services and use them sustainably as the pressure of exploitation increases.

*Sven-Erik Magnusson*

Sven-Erik Magnusson  
Manager, Biosphere Office  
Coordinator, Kristianstads  
Vattenrike Biosphere Reserve



## The weather year – 2011

**A mild winter in early 2012, an early spring that lost its momentum, a cool summer, and December snows that melted before Christmas.**

The 2011–12 winter was much milder than the previous two, a typical wet and windy winter for the far south of Sweden. The only really cold spell came in the first week of February.

Spring got off to a flying start in March, with the temperature soaring to 19.6°C on the 27th, a March record for Väder online, the biosphere reserve's online weather watch. This was not topped until 2 May, so the March maximum temperature exceeded that for April!

April was unusually cool and the arrival of spring proper was delayed, with the leaves and blossom on the trees reluctant to unfurl for several weeks. Summer warmth arrived suddenly on 20 May, but was short-lived. There were only three more short periods when temperatures were comparable to those in May: around 27 July and in early and mid-August. Otherwise, the

summer was cool and drizzly, as it has so often been in recent years.

The cool summer then imperceptibly gave way to a mild autumn. A cold snap in late November and early December with snow that fell and settled, pointed to the prospect of a long, cold winter. But milder weather returned in mid-December and by Christmas the snow had melted. On New Year's Eve, the temperature reached 8.2°C, the highest so far recorded for that date since our measurements started 15 years ago.



THE SUMMER WAS  
COOL AND WET.  
PHOTO: ÅSA PEARCE



# Cleaning up contaminat

In 2011 Vattenriket and the Municipalities of Kristianstad and Hässleholm received SEK 6.4 million for local water conservation measures. The goal is to reduce eutrophication in the Baltic Sea and to create a good ecological status in the River Vinneån. In 2012 the LOVA project for local water conservation measures made further progress.

The River Vinneån that flows into the River Helge å downstream of Lake Araslövssjön is one of the most contaminated water environments in the municipality and accounts for 10% of the River Helge å's total transportation of phosphorous and nitrogen.

The River Vinneån Project aims to create better conditions for biological diversity by reducing the transportation of nutrients to Hanöbukten Bay.

The project includes spreading information about the possibilities of establishing wetlands and protection zones, introducing facilities to enable drainage to be regulated, and implementing various measures to benefit the river environment. In addition to creating 42 hectares of new wetlands in 2012, the funding has also made it possible to set up a reference group for the River Vinneån Project and to draw up a load study for the river's drainage basin.



## Wetlands for irrigation help clean up the River Vinneån

One of the first wetlands in the River Vinneån Project was created by Göran Nilsson, a farmer who dug three hectares of wetland by Norregård, just north of Vinslöv.

By establishing wetlands, Göran and other farmers capture many of the nutrients that would otherwise end up in the river. The wetlands also help regulate the flow of water, especially in the winter when water levels are high.

“It makes sense to collect irrigation water from the streams and fields – water that would otherwise run straight into the sea,” Göran says. “And the wetland waters are also an attractive

new feature in the landscape.”

Göran's wetland was one of the first in the River Vinneån Project. The County Administrative Board has now granted permission for a total of 42 hectares of new wetlands in seven locations.

Göran had long been interested in establishing a wetland, but it was the opportunity to apply for a grant of SEK 100,000 per hectare that decided the matter for him.

“The true cost is about double that, but it's still a worthwhile investment to secure access to good irrigation water.”

# ed waters

## New spawning grounds for fish

Students of fishing tourism and limnology at Osby Agricultural College helped Vattenriket's limnologist Jonas Dahl to create spawning grounds for fish in the River Vinneån.

In a practical exercise in nature conservation a total of 35 tonnes of stone and gravel were deposited into the river and then raked to create a habitat suitable for spawning brown trout, minnow and loach.

An increase in the fish population will benefit large freshwater mussels such as the red-listed thick-shelled river mussel, which uses fish as an intermediate host for the development of its larvae.



PHOTO: JONAS DAHL

The work to improve the riverbed is part of Vattenriket's project to create a better ecological status in the River Vinneån, which flows through the Municipalities of Hässleholm and Kristianstad.

### LOVA

#### - LOCAL WATER CONSERVATION MEASURES

- Government grants since 2009. Municipalities and non-profit organisations apply to the County Administrative Board for LOVA grants.
- The Vinneån Project received more than SEK 6 million, the largest single grant in Skåne, for work from 2011 to 2014.
- The project, run by the Municipalities of Kristianstad and Hässleholm, aims to create 50 hectares of wetlands in the river's drainage basin.



PHOTO: KATRINE SVENSSON

## Wastewater inventory

The River Vinneån Project's inventory of private wastewater systems revealed inadequate cleaning in some 70% of the more than 420 sewage systems in Kristianstad Municipality's segment of the river's drainage basin. As a result, 127 homeowners have now submitted applications for or already made changes. The municipal environmental health department will require a further 150 properties to rebuild their sewage systems.





PHOTO: PATRIK OLOFSSON/N

# Årummet – a new nature reserve

By cutting a ribbon on the bridge to the naturum visitor centre, County Governor Göran Tunhammar inaugurated Vattenriket's latest nature reserve: Årummet – a stone's throw from the centre of Kristianstad.

Many of Kristianstad's residents pass through the new nature reserve's wetlands along the banks of the River Helge å on their way to and from work. Others come here in their leisure time. Shortly before the inauguration, a group of preschool children passed by on their way from the naturum to the town centre.

"A picture of the future," said Göran Tunhammar before explaining Årummet's function as a green and blue lung for Kristianstad.

## Valuable nature and recreation

Årummet's uniqueness is its proximity to the urban centre, making it so easily accessible.

The Linnérundan and Tivolirundan walking trails



PHOTO: ÅSA PEARCE



PHOTO: ÅSA PEARCE

enable visitors to see several rare plants and animals in the seasonally flooded areas of Årummet. Willow thickets north of the naturum were uprooted to create the open spaces that the rare fen ragwort which thrives here needs to extend its range.

## Attractive housing where water meets land

Conserving and developing natural values has been a key concept for a new residential area in Vilan, immediately south of Årummet. Here the objective is to create an attractive, sustainable neighbourhood. There are plans to open up the area to form a cluster of islands with boardwalks marking the transition from





PHOTO: PATRIK OLOFSSON/N



PHOTO: PATRIK OLOFSSON/N



PHOTO: SVELO



PHOTO: PATRIK OLOFSSON/N



PHOTO: HANS CRONERT

*In the summer of 2012, new open spaces were created where the fen ragwort can thrive and extend its range.*



PHOTO: ÅSA PEARCE

*The reed beds, willow thickets and tall grass of the Årummet Nature Reserve are home to penduline tits, kingfishers and marsh harriers. In winter otters scamper by on the ice and white-tailed eagles wheel in the sky overhead.*

### Helge å online

A measuring station in the River Helge å provides data and monitors any changes in the current status and quality of the water in the river as it flows through Årummet. The data is shown online on Vattenriket's website.

## in the heart of Kristianstad \*

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*“Kristianstad is a role model for how natural environments close to urban areas can and should be conserved and protected. It is hard to envisage a better example of this,” says Göran Tunhammar.*

Quote from the Kristianstadsbladet newspaper, 20 April 2012

homes to wetlands.

### For the benefit of residents and visitors alike

The naturum Vattenriket visitor centre at the heart of Årummet is a natural meeting place in central Kristianstad. Several projects undertaken in 2012 have made it easier for visitors to experience the area. Along the 1.8 km Tivolirundan Trail through the wetlands of the River Helge å and the leafy Tivoli Park there are now QR codes for audio guides. On the naturum bridge new texts and pictures inform visitors about the River Helge å, the visitor centre, the wetlands of Härlövs ängar and local walking trails.



*Attractive riverside housing in Vilan. The plan for the nature reserve envisages new areas of water to be opened up and a boardwalk trail through the wetland from one willow-covered island to another. The illustration shows the islands at low water in summer; in winter, only the willows and boardwalks are above the water.*

## Thoughts from naturum's director

### Two years with naturum

I look out of my office window over the naturum lake, the willow thickets and the yellowing reeds. Long-tailed tits flit between the bushes. It's autumn and naturum's second anniversary is approaching. It seems a long time since the first visitors filled the building. I leaf through programmes and six full guest books. One young visitor's comment catches my eye: "Naturum rules."

It has been two very intensive years. Two years with fantastic visitor numbers. At the time of writing, we have welcomed 270,000 visitors, offered more than 800 events attracting no less than 20,000 participants, and organised lectures about and tours of Vattenriket for almost 12,000 people in 400 different groups. Meanwhile, our nature educators have met some 4,000 schoolchildren in more than 180 classes.

Alongside all the Swedish comments in our guestbooks are many in German, Danish and English: "Truly great. A surprising experience", "A wonderful biosphere reserve. Tremendous diversity". Almost every page has comments in languages I don't speak: "Super bonito!", "Entretenido y educativo, muy bonito!"

On my desk is the prize for Naturum Visitor Centre of the Year. Each year the Swedish Environmental Protection Agency selects one of Sweden's 30 naturum visitor centres as an example of best practice. In 2012 it was us: "With a keen sense of what Vattenriket needs and what visitors want, the naturum Vattenriket visitor centre communicates through new channels to welcome visitors with open arms."

Naturum has become exactly what we wanted! A place for everyone. Where Handel's Water Music flows out into the surrounding reeds. Where huge European catfish and tiny mosquito larvae attract and enthrall visitors young and old. Where companies hold meetings "in the heart of the town, in the heart of Vattenriket". The hub of Kristianstads Vattenrike Biosphere Reserve, where we can convey the important message from UNESCO that, here in Kristianstad, we are committed to being a role model for sustainable development.

I continue leafing through the guest books and smile. Children are spot-on critics. After an event called "Catfish for Kids" led by Sam, one of our nature educators, one child wrote: "Catfish are scary. But Sam is cute."

Inspiring, enthusiastic and knowledgeable employees. If you ask me, that's what makes naturum such a success – especially since they're cute, as well!

*Karin Magnum*

Director, naturum Vattenriket visitor centre



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Malen är läskiga.

Men Sam är söt!



Catfish are scary.  
But Sam is cute.



# Teaching skills in Vattenriket

## Trainee teachers in naturum

### – benefits for both parties

Last year, naturum launched a joint project with Kristianstad University's Teacher Training Centre. Nature educator Sam Peterson booked in classes of 10–12 year-olds to the visitor centre and the trainee teachers diligently planned and led some of the lessons.

*"It has been useful to see Sam work with the schoolchildren and learn from his insights, commitment and awareness of what they know, want to do and are interested in."*

The project gave budding teachers an insight into naturum's educational activities. Discussions with students and teachers from schools and the university gave the nature educator incentives and inspiration for further development.

*"We have established contact with naturum and the local area, which we can benefit from in the future."*

## Biosphere Camp 2012

### – Vattenriket as a larder and pharmacy

The 2012 Biosphere Camp gave participants the chance to taste their way through Vattenriket – cooking wild plants in the Viking village at Ekestad, taking a closer look at Kristianstad bee-keeping club's bees, fishing and baking bread by the picturesque River Vramsån, and much, much more.

Those not fortunate enough to be part of the camp could follow the fun on the Vattenriket Facebook page.

On the final day, 29 cheerful children and five enterprising leaders created a fantastic exhibition at the naturum visitor centre.

### Menu

*Freshly baked bread with herb butter*

*Grilled perch*

*Pearl barley stew with nettles  
and ground elder*

*Healthy tea brewed from fresh yarrow*

*Freshly spun honey*

*Sweet, tasty elderflower cordial*



*With the help of a recyclable bottle, student teachers get pupils thinking about photosynthesis.*



*Outdoor lessons were a new experience for several students.*



*"Fishing in the River Vramsån was best. It's where I caught my first fish!"*



*"The bees were the most fun. We could see them really close up."*

**THE BIOSPHERE CAMP** is a day camp for 10–14-year old schoolchildren in Kristianstad. During the first two weeks of the summer holidays we explore Vattenriket, with the aim of encountering exciting flora, wildlife and people.



# From flames to flowers



**In March flames licked the ground as last year's grass went up in smoke. But just a few weeks later, new grass germinated. In the long term the burnt land will flower more abundantly.**

Burning is one way to manage grasslands that are not grazed or mowed.

"It benefits flowers and insects," says Krister Larsson, a biologist from ALLMA natur with many years' experience of burning for nature conservation. Last spring he shared his knowledge during a one-day course in Vattenriket for farmers, nature conservationists and municipal officials.

In the past dry grass was burnt each spring to encourage regrowth. After years of neglect, burning for nature conservation is now making a comeback. It keeps the grass in check and gives flowering plants that struggle to compete with high grass a chance to spread their seeds.

"It makes good growing conditions for pasqueflower, plants from the teasel family, hawk's beard and harebell," Krister says.

More abundant flowers benefit nectar-feeding insects, like wild bees and butterflies. The tawny pipit, the symbol bird for the area, also profits as insects increase in number and are easier to find in the shorter grass.

Following Krister's instructions, the 20+ participants poured water to form a natural barrier against the flames before setting fire to a small patch of dry grass which was raked and spread over a larger area.

Bo Svensson, a farmer at Ripa Sandar, had been sceptical and worried that burning the grass would kill off insects. "Now I know it does exactly the opposite: the more you burn, the more flowers and nectar you get – and that means more insects and more birds. Now I'd like to burn more to protect the red-listed species on my land."

Carina Wettemark, Vattenriket's ecologist, who invited participants to the course, says, "We are keen to test burning for nature conservation and evaluate the results as part of our work to conserve our valuable sandy grasslands."



## Helping a sweet-smelling rarity to survive

To many inhabitants of Åhus, the fragrant white sand pink is a familiar flower. But it is being crowded out. Local amateur gardeners helped Vattenriket staff in a project aimed at benefiting this threatened species.

The sand pink, a characteristic species for Åhus, is protected and on the EU list of species for which Sweden has particular responsibility.

A 2010–2011 inventory of sand pink in Skåne revealed a dramatic fall in numbers in Åhus over the past 50 years. The flower faces severe threats from the pressure to build on or farm attractive land. To benefit this rare species, the Biosphere Office launched a project to spread interest in and knowledge of the sand pink and other sandy grassland plants.

The project focused on homeowners with sand pink in their gardens. These lucky people can now have a clear conscience about mowing their lawns less frequently and using less fertiliser in order to create optimal conditions for the sun-loving sand pink. The plant should not be surrounded by dense vegetation because its seeds germinate best in loose sand.



## Popular cycle rides in the sandy grasslands



In the summer three cycling excursions were organised in the sandy grasslands around Åhus with historians and biologists as guides. The first was to Flintabacken, where archaeologist Bertil Helgesson explained how beads and combs were made at this former trading post. The second took in cows, asparagus and tobacco farms. And the third followed the Sännastigen Trail onto the golf course with stops to marvel at horned dung-beetles and leaf-cutter bees.

## Planting willow – and new signs – on the golf course



Kristianstad's golf course in Åhus gained a new willow tree and signs highlighting the area's natural values. The tree is a veritable larder for bees and other pollen- and nectar-feeders – and for birds that eat these insects. The leaves and bark are good for overwintering insects such as moths and stinging wasps.



# Nests with webcams

Several of Vattenriket's threatened species of bird need help to find better breeding habitats, so we applied for funding for the "Birds Online" project. This aims to facilitate breeding for the reserve's peregrine falcons, ospreys and kingfishers, while also letting the public follow the entire process via webcams. The project was run by Vattenriket, with the support from several other parties and funding from the Swedish Rural Development Programme.



The project involved three nesting constructions: a new nesting box for peregrine falcons on the water tower, a stable platform for ospreys in Lake Hammarsjön and an artificial nesting bank for kingfishers in the naturum lake. The nesting box and osprey platform have already been taken into use. The nesting bank is ready to attract kingfishers next season.



## Many people followed the breeding online

As part of the project, webcams were installed in the peregrine falcon box and on the osprey platform to enable the public to follow developments. The camera monitoring the falcons was particularly popular, attracting more than 20,000 visits the week after the first eggs were laid. The antics of the four young hatchlings delighted many viewers from all of Sweden during the spring. The story had an unhappy ending, however, when it was discovered around Midsummer that the falcons had been poisoned.

The webcam monitoring the breeding ospreys also attracted many visitors and live footage will be broadcast again next summer.



KINGFISHER ILLUSTRATION: PETER ELFMAN



# 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 40 reports are available in Swedish at [www.vattenriket.kristianstad.se/fokus/](http://www.vattenriket.kristianstad.se/fokus/).

## Publications in 2012

### Kristianstads Vattenrike Biosphere Reserve: Activities 2011

Author: Biosphere Office

Reference number 2012:01

#### Mer än en golfbana

(More than just a golf course – Safeguarding natural and cultural values)

Author: Patrik Olofsson, commissioned by the Biosphere Office. Reference number 2012:02

#### Upplev naturen i Skåne

(Experience natural environments in Skåne – naturum and nature centres)

Author: Biosphere Office. Reference number 2012:03

#### Underlag för utveckling och styrning av det båtburna friluftslivet på Helge å

(Data for developing and controlling boat-based recreation on the River Helge å)

Author: Biosphere Office. Reference number 2012:04

#### Provfiske efter mal i Nedre Helgeån 2011

(Test-fishing for European catfish in the lower River Helge å, 2011)

Author: Biosphere Office. Reference number 2012:05

#### Ålens framtid – att bruka eller förbruka ekosystemtjänster. 20 röster om ålen

(The future of eels – Use or use up ecosystem services? Twenty opinions on the situation for eels)

Author: Per-Erik Tell, commissioned by the Biosphere Office  
Reference number 2012:06

#### Flyginventering av grågås i Hammarsjön och Araslövssjön samt delar av Oppmannasjön och Ivösjön

(Aerial survey of greylag geese in Lakes Hammarsjön and Araslövssjön and parts of Lake Oppmannasjön and Ivösjön)

Author: Patrik Olofsson, commissioned by the Biosphere Office. Reference number 2012:07

## The year in review

..... January–June .....



PHOTO: SVEN-ERIK MAGNUSSON

### Promoting green tourism

A new booklet about naturum visitor centres and other nature centres in Skåne is one of two major initiatives designed to encourage more people to experience nature in and around Kristianstads Vattenrike Biosphere Reserve. Photos, a map, practical details and interesting texts aim to attract attention to the region's many exciting ecotourism activities. The booklet, funded by Region Skåne, is available at all naturum visitor centres in Skåne and at Fulltofta nature centre. Kristianstad Municipality and Vattenriket also received an EU grant of SEK 80,000 for a pilot study on creating an ecotourism destination. The plan is to establish north-east Skåne as a destination offering accommodation, food, sights and attractions that are all environmentally sound.



PHOTO: KARIN MAGNTORN

### Naturum attracts visitors to Kristianstad

A questionnaire among visitors to the naturum Vattenriket visitor centre revealed that, in addition to acting as a gateway to the biosphere reserve, naturum attracts out-of-town tourists to explore Kristianstad: 73 percent of visitors – 107,850 people – came from outside the municipality, generating revenue throughout Kristianstad.

The tourism survey shows that, based on respondents' information about how much they spend on accommodation, food, shopping, etc. during their visit, naturum visitors spent a total of SEK 85 million in Kristianstad in 2011. This translates into some 75 tourism-based jobs in the region and SEK 6 million in additional tax revenues for Kristianstad Municipality.



PHOTO: ÅSA PEARCE

### Friends association for Vattenriket

The Friends of the Vattenriket Association, Vattenrikets Vänner, formed in April 2012 has two aims: to spread knowledge about and generate interest in Vattenriket, and to raise money for various projects. The association's wish-list includes everything from a new Opteryx film (the current one has been seen more than 17,000 times) to supporting projects that benefit biological diversity, increasing the range of experiences and improving access at visitor sites. The initiative for the association came from Torsten Jeppsson, Eva Lundius and Ulf Oscarsson.

"We want to maintain interest in what Vattenriket has to offer and involve Kristianstad's residents in supporting development in the biosphere reserve," says Torsten Jeppsson.



PHOTO: ÅSA PEARCE

### New book to help save eels

Why are eels faring so badly? How can we save them? A new book *Ålens framtid* ("The Future of Eels") serves as the starting point for a combined effort to help the eels survive. Vattenriket commissioned freelance journalist Per-Erik Tell to interview 20 people, asking why eels are in their current predicament and what can be done to save them. The answers show there is not just one solution; work must take place on several fronts – locally, regionally and internationally.

"Responsibility for the eels' survival does not rest on just one pair of shoulders. Decision makers at various levels must work together with local residents," says Sven-Erik Magnusson of the Biosphere Office.



## The year in review

July–August

### New Vattenriket cycling map

In summer 2012 Kristianstad Municipality and Vattenriket published a cycling map with tips on excursions, visitor sites, attractions, swimming and accommodation in the biosphere reserve. The map details four cycle rides, mostly on gravel roads and old railway embankments, around the lakes in the north, along the coast of Hanöbukten Bay and on the wooded slopes of Linderödsåsen Ridge. The routes take in several Vattenriket visitor sites where you can stop for a coffee, watch birds and dragonflies, or take a dip in the sea, lakes or the River Vramsån. The new map is designed for tourists and people who cycle for fun and fitness. Visitors of all ages can explore the area at their own pace and experience nature up close. Cycling is a simple, cheap, eco-friendly mode of transport that keeps you fit at the same time.



PHOTO: SUSSIE SÖDERLUNDH

### SandLIFE restores sandy grasslands

A new project was launched in the summer to restore the sandy grasslands in southern Sweden. The county administrative boards of Skåne, Halland and Kalmar, together with Kristianstads Vattenrike Biosphere Reserve and Lund University, will work on the SandLIFE project at Natura 2000 sites over six years. The project, led by the County Administrative Board in Skåne, has a budget of SEK 70 million and is 50% financed by EU grants. Intensive work has been undertaken in the biosphere reserve for many years to conserve and develop sandy grasslands. The areas in the biosphere reserve to be addressed in the SandLIFE project are Rinkabyfältet, Gropahålet, Lyngby and Friseboda.



PHOTO: PATRIK OLOFSSON/N

### New catfish – and a safari to see them

In 2012 European catfish were released into the River Helge å for the second consecutive year. The parents of the 70 fish, bred at Nordens Ark in Bohuslän, are the first to spawn naturally in captivity in Sweden. Catfish were once common in the River Helge å around Kristianstad, but disappeared in the 1960s. Today the water quality has improved and prospects for catfish in the river are good. In 1999 a total of 12 European catfish were released here, followed by a further 22 in 2011. In 2012 many people saw these fish up close when Landskapet JO organised a catfish safari in conjunction with test-fishing carried out by the Biosphere Office. Visitors met the test-fishing team, who showed them European catfish and other fish in tanks on the “Big Safari Boat”.



PHOTO: ÅSA PEARCE



PHOTO: ÅSA PEARCE

### Visit from Schaalsee Biosphere Reserve

Schaalsee Biosphere Reserve in northern Germany is based around the lake from which it takes its name in a landscape that resembles certain areas in Vattenriket. For two days in August, Rainer Mönke and Heidrun Schutze visited Vattenriket to exchange experiences of biosphere work and tell us about their working methods. During the visit they found out about Vattenriket's many projects to develop and conserve the seasonally flooded grasslands, the sandy grasslands, the River Vinneån and the European catfish. International exchanges on landscape conservation and development work are a key aspect of the worldwide biosphere reserve network.



PHOTO: ÅSA PEARCE

## The year in review

..... September– December .....



PHOTO: ÅSA PEARCE

### Many meetings in Vattenriket

The naturum Vattenriket visitor centre has become precisely the forum it was designed to be. During 2012 some 60 groups, 1,900 people in all, held meetings at naturum. Here is an example of just one week's schedule. First, the auditorium was booked by administrators from the Ministry of the Environment, the Land and Environment Court and the EU project LIFE-scape. The Land and Environment Court in Växjö heard about Kristianstad's successful resilience work. Representatives of the LIFE-scape project met Vattenriket limnologist Jonas Dahl to learn how the LOVA project aims to reduce eutrophication in the Baltic Sea. A tour of the biosphere reserve started in the auditorium at naturum. A mosquito project began next door. Research and play aim to change attitudes and increase people's knowledge of nature. Practical biosphere work from start to finish.



PHOTO: LIA OLSSON

### Naturum Vattenriket visitor centre – naturum of 2012

In 2012, when representatives for Sweden's naturum centres gathered in Kristianstad for their annual meeting, the naturum Vattenriket visitor centre was named naturum of the year. The jury said: *"The naturum Vattenriket visitor centre informs visitors about catfish and peregrine falcons and places 'the town by the water' firmly in the spotlight. It succeeds in integrating the entire biosphere reserve into naturum activities, and aware of the need for accessibility and focusing on visitor needs, it offers a wealth of educational experiences well worth a visit. With a keen sense of what Vattenriket needs and what visitors want, it communicates through new channels to welcome visitors with open arms. It encourages visitors to come into closer contact with nature and the experiences that await them in Vattenriket, and acts as a source of inspiration for naturum staff elsewhere. It is accessible, welcoming and maintains the high quality expected of one of Sweden's 30 naturum. Naturum is the gateway to Vattenriket!"*



PHOTO: KRISTER LARSSON

### Unique fungus found in dry terrain

*Poronia erici* is a very rare fungus. The first find reported on the Swedish species portal, Artportalen, was made south of Gropahålet in Vattenriket. This tiny fungus has a rather special survival strategy: it lives on rabbit droppings, from which it extracts highly concentrated nutrients. It thrives near Gropahålet thanks to the many rabbits in the area. *Poronia erici* is not only rare in Sweden but also worldwide. Other finds have only been reported in England and Australia.

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Read more about Kristianstads Vattenrike – naturum visitor centre, local flora and fauna, visitor sites and the biosphere reserve at [www.vattenriket.kristianstad.se](http://www.vattenriket.kristianstad.se).  
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