

Biosphere Reserve

Kristianstads Vattenrike®



Action Plan 2016-2020



Kristianstads Vattenrike Biosphere Reserve

Kristianstads Vattenrike has been accorded biosphere reserve status by Unesco and serves as a model area for sustainable social development. There are 700 biosphere areas worldwide. Five of them are in Sweden.

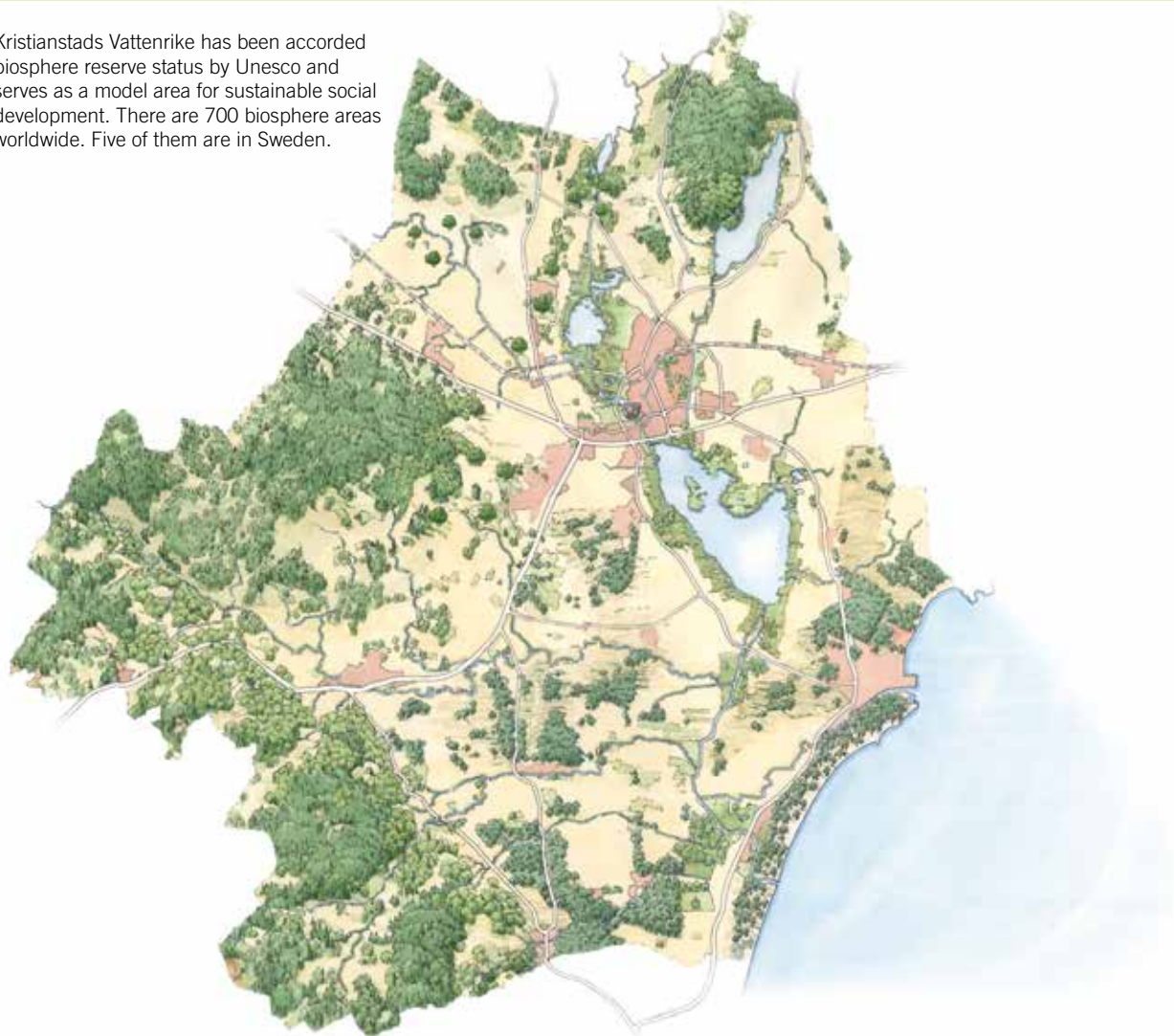


Illustration: Carina Lindkvist Naturcentrum AB

Kristianstads Vattenrike Biosphere Reserve ("Vattenriket") includes most of the Municipality of Kristianstad. This rich cultural landscape, formed by nature and people, is endowed with almost every type of natural habitat to be found in Sweden.

The majestic River Helge å flows through the area. Fed by streams from the ridges and plains, it widens out into the lakes of Araslövssjön and Hammarsjön before reaching the sea in Hanöbukten Bay. The river is fringed by wetlands and seasonally flooded grasslands, but there are also leafy forests and dry, sandy arable land within the reserve.

Such variety creates numerous habitats for flora and fauna. The reserve is exceptionally rich in diversity and a refuge for many threatened species. Here, in less than two tenths of one percent of the area of Sweden, live no less than 20% of Sweden's red-listed species!

Kristianstad Municipality is committed to ensuring that Vattenriket remains a haven for nature and people. One way to do this is through research and sharing new insights. The Biosphere Office conducts inventories, publishes reports, works with researchers, hosts conferences and carries out projects that give nature a helping hand and people an op-

portunity to make use of natural values without compromising them.

Sustainable solutions for using and conserving local natural values are developed together with landowners, business and associations. We create wetlands and restore sandy grasslands. Species diversity and efficient ecosystems help us to cope better with climate change and other challenges.

Enabling people to experience nature inspires them to help conserve it. We have 21 visitor sites with birdwatching towers, marked trails and outdoor museums. The jewel in our crown is the naturum Vattenriket visitor centre with displays, meeting rooms and a restaurant. Here we explain how the biosphere reserve works and encourage visitors to explore the area for themselves.

We are delighted with the results of our efforts. At the Pulken visitor site migrating cranes, visitors and farmers co-exist in harmony. Elsewhere catfish have been successfully reintroduced into the river and otters fish close to the naturum. This has clearly changed public attitudes to the wetlands, which are now no longer seen as a problem, but as a valuable natural resource.

Our mission and our action plan

In 2005 Kristianstads Vattenrike was accorded biosphere reserve status by Unesco as an internationally recognised model area for sustainable development.

Kristianstad Municipality has accepted the challenge of demonstrating the practicalities of how development and conservation can go hand in hand. Kristianstads Vattenrike is not only a motor in the municipality's sustainability work, but also an important element of the Kristianstad brand and a resource for creating an attractive and sustainable environment to live and work in, and to visit.

Our Action Plan for 2016-2020 sets out the focus of Biosphere Office work over the next five years. Priorities will be reviewed as new opportunities arise.

Work is based on the goals of Unesco's Man and the Biosphere (MAB) Strategy for 2015-2025, Kristianstad Municipality's strategic road map to 2020 and the Swedish Environmental Protection Agency's national guidelines for naturum visitor centres.

Benefiting nature and people

Like all 700 or so biosphere reserves worldwide we work to conserve, develop and support local natural values. In Kristianstads Vattenrike we do that under the motto "Benefiting nature and people".

The aims of the Unesco MAB Strategy 2015-2025 are to:

- conserve biodiversity, restore and enhance ecosystem services and foster sustainable use of natural resources
- contribute to creating sustainable, healthy, equitable societies and economies in harmony with the biosphere
- promote research and education about biodiversity and sustainability
- support planning and adaptation to climate change and other aspects of global environmental change.

A tool in Kristianstad Municipality's strategic road map

Kristianstad Municipality's road map to 2020 emphasises the importance of biodiversity and healthy ecosystems, with sub-goals for retained and reinforced ecosystem services, greater protection for threatened species and improved water quality in Hanöbukten Bay. Other goals include a varied outdoor life built on sustainability and accessibility, healthy ageing, leisure and cultural activities for people of all ages, good health with a special focus on children, young people and foreign-born residents, nature close to urban areas and guaranteed access to nature for schools.

Vattenriket's action plan is not only an important tool for attaining the goals of the municipal road map, but also a step towards global sustainability targets and environmental goals.

Kristianstads Vattenrike Biosphere Reserve is a model to show how education, collaboration and participation strengthens the bonds between people and nature. Activities combine local and global perspectives and link the past to the future.

The hallmarks of our activities are expertise, committed co-workers and good stewardship. Genuine enthusiasm and a strong team spirit make Kristianstads Vattenrike Biosphere Reserve a strong brand and an internationally inspiring example of development that *benefits both nature and people.*

Naturum – meeting place and showcase

Swedish EPA guidelines define naturum visitor centres as a gateway to nature. The naturum Vattenriket meets this criterion as a meeting place and showcase for work in the biosphere reserve, while encouraging visitors to explore Kristianstads Vattenrike.

Good examples that inspire

Every biosphere reserve has a biosphere office, led by a coordinator, to put the Unesco concept into practice. Work in Vattenriket's Biosphere Office focuses on 10 landscape themes with high natural values. A Consultation Group representing landowners, authorities, organisations, etc. supports the various projects, each designed to serve as an example to inspire others.

Dialogue and collaboration

Work is predicated on broad local support and cooperation with regional, national and international stakeholders: landowners, farmers, companies, the general public, associations, schools, universities, civil servants, politicians, government ministries, the County Administrative Board, Region Skåne, Tourism in Skåne, the Programme Committee for the Swedish MAB, the Swedish National Commission for UNESCO, the Swedish EPA, other naturum visitor centres, the Swedish Centre for Nature Interpretation, the Swedish Forest Agency, the Swedish Board of Agriculture, the Swedish Agency for Marine and Water Management, the Swedish Species Information Centre, the World Wildlife Fund, other biospheres and international researchers.

Towards a sustainable mindset

The long-term objective of Vattenriket's various activities is to create a shift in attitude towards economic, ecological and social sustainability. For this reason, activities are founded on six core values: richness in species and in knowledge, ideas, experiences, enjoyment – and water!



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and Sustainable Development
Coordinator, Kristianstads Vattenrike Biosphere Reserve

Conserve

The goals of the Unesco MAB Strategy 2015–2025 include conserving biological diversity, restoring and enhancing ecosystem services, and promoting the sustainable use of natural resources. Kristianstad Municipality's strategic road map reflects these goals through its focus on healthy ecosystems, biodiversity and strengthened ecosystem services.

In just two tenths of one percent of the area of Sweden, Kristianstads Vattenrike is home to no less than 20 percent of Sweden's red-listed species. Biodiversity requires healthy ecosystems, and conservation work extends to all the different natural environments of the biosphere reserve's theme areas.

Improving the water quality in Hanöbukten Bay, protecting threatened species and strengthening ecosystem services are at the core of the Biosphere Office's work. This takes place on a broad front in close cooperation with landowners, farmers, the general public, associations, organisations, authorities and educational establishments.

Work to conserve the wetlands of the River Helge å, the streams and sandy grasslands has progressed well. The focus will now shift to Hanöbukten Bay, the region's arable land and nature close to urban areas.

Acquiring and spreading knowledge, developing methods of management and protecting areas are the key to success. Collaboration and dialogue with various stakeholders is what drives our work forward.



Teeming wetlands

The wetlands along the final 35 km of the River Helge å are unique. Here, among large expanses of riparian willow scrub and alder forests, Sweden's most extensive inland seasonally flooded grasslands are grazed and farmed for hay. Home to rare mammals, fish, amphibians, insects and plants, such as otter, catfish and fen ragwort, it is also an important place for ducks, geese, cranes and waders to breed, rest or overwinter. Vattenriket has spearheaded work to conserve and restore the seasonally flooded grasslands. Large areas have been designated nature reserves. It is now important to manage these natural values in collaboration with the County Administrative Board, landowners and farmers so that measures can be taken to counter any negative trends. A reduction in wader populations, for example, has led to measures to retain the spring flood on the grasslands and reduce the number of predators. Breeding statistics are being followed up to assess the impact of these actions.



From source to the sea

The coast and Hanöbukten Bay are valuable in terms of tourism, good residential environments, fishing and biodiversity, but long-term conservation of these ecosystem services is dependent on reducing eutrophication and improving water quality. Nutrient salts that leach from the land have a huge impact on the health of the bay. Since water management measures in the River Helge å and its tributaries benefit the marine environment and Vattenriket's high natural and cultural values, the Biosphere Office collaborates with landowners, organisations, municipal environmental and planning departments, the County Administrative Board and the Swedish Agency for Marine and Water Management to improve the water quality. Creating wetlands reduces nutrient run-off and brownification and increases local diversity. Spawning beds and free migration routes improve habitats for aquatic species, and trees are planted on the banks of smaller watercourses. Another important challenge is to acquire more knowledge about Lake Hammarsjön, the animals and plants in the west of Hanöbukten Bay and related ecosystem services.



Unique sandy grasslands

Vattenriket's uniquely diverse sandy grasslands are internationally important. They supply key ecosystem services and give the landscape character. Resolute action on several fronts is essential to conserve and develop these natural values; they have played a major role in our cultural history and today are present not only in protected areas but also in fields and green spaces, in wildlife gardens and pine forests, by the roadside and on golf courses. We are continuing to acquire and share knowledge about them while managing valuable areas in ways that promote diversity. By collaborating with stakeholders we can inspire respect for the sandy grasslands, encourage appropriate management methods, point out alternative planning solutions and work to extend protected areas. "In the sand close to you" is an example of a project that seeks to inspire residents on the sandy coast to care for the natural values to be found on their own property.



Nature close to home

There are many good reasons for being close to nature, not least the natural and cultural experiences that ecosystem services deliver. But there is also a wealth of species that are dependent on protection and proper environmental management. The naturum visitor centre and several of our other visitor sites demonstrate that experiencing nature close to urban life is another way of sharing knowledge and arousing interest. One of our goals is to contribute to the creation and development of nature reserves close to built-up areas. Ekenabben is a good example of this, but attention is also focused on developing Åsums fure and Åsumfältet as the heart of a new area for outdoor experiences. Together with other stakeholders we can contribute to the cost-effective management and development of natural values close to urban areas.



Farmland and ecosystem services

Over the next few years the Biosphere Office will develop activities linked to ecosystem services in farmland. New insights will open up opportunities to improve biodiversity and resistance to environmental change by devising techniques for creating small biotopes and launching similar initiatives in productive farmland. We also hope to assist in developing interest-based networks among the many different stakeholders. This links to the development theme "Taste Kristianstads Vattenrike", with opportunities to highlight and encourage entrepreneurship linked to local food production and culinary experiences.



Develop

The Vattenriket brand and international networks aid collaboration and sustainable entrepreneurship in the biosphere reserve. Our activities can be a motor for ecological progress and tourism on nature's terms.

The goals for Unesco's MAB Strategy 2015–2025 include helping to create healthy, equitable and sustainable societies and economies that develop in harmony with the biosphere while also supporting good planning and adaptation to climate change.

Kristianstads Vattenrike's work to develop natural values is an important tool for achieving the goals of the municipal road map. Using this road map as its starting point, the Biosphere Office will assist in the development of long-term, sustainable and climate-adapted residential environments close to biodiverse surroundings.

It is important not only to increase knowledge and raise awareness of our human dependence on effective ecosystem services, but also to call attention to ecosystem services through projects that showcase how the judicious use of natural resources points the way to a more sustainable future.

We will also create opportunities for sustainable outdoor leisure activities through a range of easily accessible natural experiences that encourage physical activity and promote good health and well-being.



Ecosystems services contribute to well-being

Demonstrating benefits derived from nature in the form of ecosystem services is a key aspect of biosphere reserve work. The varied landscape of Kristianstads Vattenrike provides many ecosystem services. Wetlands balance flows in the River Hege å, reduce run-off and create conditions for a diverse local fauna and a rich outdoor life. Seasonally flooded grasslands provide pasture and fodder. Forests yield timber, mushrooms and berries. The coast provides recreation, and the sea absorbs carbon dioxide and gives us fish. It is essential that these natural services are retained and enhanced. Over the next few years we will work to raise awareness of our local ecosystem services by identifying, mapping and incorporating them into land-use planning activities. We will also work on projects to improve nature's ability to deliver ecosystem services.

Fostering a feel-good factor

As society struggles with stress and high levels of sick leave, nature is becoming increasingly important as a source of recovery. Part of our work is to make it easier to explore Kristianstads Vattenrike. We do that by improving accessibility and by using the naturum visitor centre and our 21 visitor sites to showcase the area's high natural and cultural-historical values. The naturum's programme includes activities that offer a wide range of natural experiences. Over the next five years we plan to develop the biosphere reserve's potential as a haven of peace and relaxation with the aim of improving public health and quality of life. To do this we will participate in projects linked to "green rehabilitation" and "green care", the use of nature in preventive medicine.

Sustainable urban development

Kristianstad is surrounded by internationally acclaimed wetlands and nature reserves. Urban residents have nature on their doorstep and in many cases there are high natural values in the urban areas themselves. One example is the rich flora on the approach roads to Åhus.

The mandate Unesco has given us to serve as a model area for sustainable social development includes urban development. Biosphere Office projects with other local government departments include meeting the challenge of economically, ecologically and socially sustainable development on the seasonally flooded grasslands at Vilan, and making Hårlövs ängar, formerly a municipal rubbish tip, environmentally safe. The area can then be developed for recreation and natural values, creating an attractive outdoor environment adjacent to the naturum visitor centre.

Preventive action and adaptation to climate change

Kristianstad Municipality is working to mitigate the effects of climate change and make adaptations in line with the fourth goal in Unesco's MAB Strategy. Initiatives to reduce CO₂ emissions include increased use of biogas, cycles, electric vehicles and locally produced solar power, as well as targeted advice to reduce energy consumption. The city is vulnerable; some areas are below sea level, there are recurring high flows in the river, and sea levels are expected to rise. High water flows are dispersed when the river floods the low-lying grasslands around the city, so the Biosphere Office is working to preserve these grasslands and their ecosystem service as a water level regulator. The municipality is actively engaged in making Kristianstad resilient by building pumping stations and by having strategies and measures in place to facilitate a speedy recovery in the event of flooding.

Tourism on nature's terms

With 250,000 visitors a year Kristianstads Vattenrike Biosphere Reserve plays a key role in Kristianstad's emergence as a tourist destination and is effective in encouraging nature tourism.

In a destination development process initiated in north-eastern Skåne in 2015, nature tourism is one of three pillars to promote growth and profitability in the hospitality sector. Kristianstads Vattenrike provides a strong reason to visit the area and creates the conditions for sustainable entrepreneurship. Visitors from Sweden and prioritised markets abroad drive demand in hiking, cycling, fishing, canoeing, guided tours and other outdoor activities. The Pulken visitor site is a popular destination with potential for development. In spring migrating cranes are fed here to prevent damage to newly planted crops. From the bird-watching tower visitors from near and far can enjoy the cranes' courtship dance. Pulken is a good example of biosphere work, and an ideal place to tell visitors about it.



Illustration: Carl Christian Tofte



Support

One of the aims of Unesco's MAB programme is to promote research and education about biodiversity and sustainability. Work is continually taking place in Kristianstads Vattenrike to acquire and spread new knowledge and encourage people to explore the natural surroundings. Schoolchildren learn about biodiversity and sustainable social development at the naturum visitor centre and in biosphere camps.

Research projects at Kristianstad University and student dissertations are an important source of new knowledge in Kristianstads Vattenrike. The Biosphere Office spreads the results of research, inventories, samples and tests in articles on its website, press releases, the Vattenriket in Focus series and at conferences.

Training Biosphere Ambassadors and liaising with the Friends of Vattenriket generates local support for our work. The Friends also raise funds and assist with various projects in the biosphere reserve.

The goals of the municipality's strategic road map include a rich outdoor life built on sustainability and accessibility, healthy old age, leisure and cultural activities for all ages and good health with a special focus on children and foreign-born residents.

We contribute to achieving these goals by facilitating access to Vattenriket's natural values for the public, schools and researchers. An effective information flow, from website and folders to road signs and marked paths is an important aspect of this work. The naturum visitor centre is a focal point in the biosphere reserve. It is also the gateway for exploring Kristianstad Vattenrike and the 21 visitor sites with their outdoor museums, information boards, boardwalks and birdwatching towers. Several sites are also accessible for wheelchair users and children's buggies.

Acquiring new knowledge

Kristianstad and Stockholm are just two of the universities involved in research projects in the biosphere reserve. Researchers investigate working methods and topics such as adaptive co-management, pedagogics and changing attitudes, ecosystem services, and species studies such as the decline in wader populations on the seasonally flooded grasslands. The Biosphere Office supports this research by taking part in the studies and meetings, and by sharing contacts. In addition to providing numerous reference areas and sampling points for environmental monitoring and research, the Biosphere Office and other stakeholders initiate species monitoring of birds, plants, insects, catfish and mussels. Work to extend knowledge of the natural and cultural values of the biosphere reserve is ongoing and will continue over the next five years.



Spreading new insights

Spreading new insights – via the website, through reports, meetings, guided tours, lectures and conferences at the naturum visitor centre – is an important aspect of the work of the Biosphere Office.

Reports, surveys and inventories are published in the Vattenriket in Focus series and in press releases and articles on the Kristianstads Vattenrike website. Publications are distributed to government bodies, libraries, schools, civil servants and politicians and can be downloaded from the website.

Every November the naturum visitor centre hosts a research conference in collaboration with Kristianstad University to spread the results of current research projects in the biosphere reserve. Participants include scientists, entrepreneurs, journalists, local and regional government officers and staff from other biosphere reserves. The work of spreading new knowledge via various channels is set to continue.



Rings on the water

Local backing is key to success. One approach is to train “Biosphere Ambassadors” who can help to generate interest in and spread knowledge about Kristianstads Vattenrike as a model area for sustainable social development and a biodiverse recreation area with many easily accessible visitor sites. Since spring 2013 some 200 people have been trained as biosphere ambassadors and the work of engaging local residents in this way will continue.

Kristianstads Vattenrike also has a friends’ association that raises funds to support a variety of projects. Close cooperation with the Friends of Vattenriket and the biosphere ambassadors is important to secure local commitment and continue to develop the biosphere reserve.

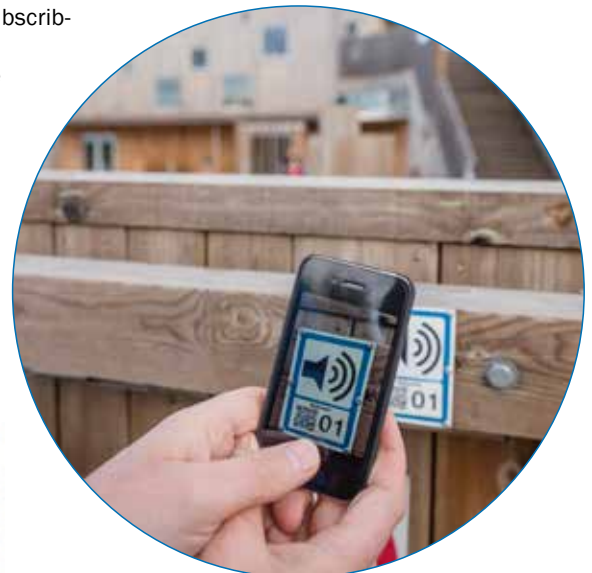


Digital communication and PR

The Biosphere Office uses various digital communication channels – homepage, Facebook, Instagram and email newsletters – to provide updates on its work, what is happening in Kristianstads Vattenrike, and how visitors and residents can enjoy the natural values in different ways.

News is published on the homepage and a newsletter compilation is emailed to subscribers four times a year. Emails with information about activities are sent throughout the year. Over the next few years, the homepage, which is an important knowledge bank and a platform for details of current events, will be given a makeover. Other crucial information channels include the media, so we issue press releases and host press meetings to inform the media about our activities. Naturum activities are also advertised in the daily press.

In addition to audio guides and film clips we use QR codes in our displays and on our information boards to provide a shortcut to more detailed information. We will develop our communication methods to ensure that visitors receive information in different ways to appeal to different senses.



Support, cont'd



Exciting encounters



Naturally calm with qigong



Music in the open air



Nature education and family activities



Interpreting nature



Naturum – meeting place and showcase

Since it opened in 2010 as the hub of Kristianstads Vattenrike and a showcase for work in the biosphere reserve, the naturum visitor centre has become a key component of the Kristianstad brand. To meet Swedish EPA criteria for a visitor centre that is accessible, appealing and inspiring, the naturum is designed to attract a broad target group and admission is free. Every year more than 120,000 visitors of all ages come from near and far to discover more about the unique nature of Kristianstads Vattenrike and work in the biosphere reserve.

The ground floor has various displays, including the unique Opteryx experience, which is updated with a new film every three years, and skilled nature interpreters who share their knowledge and encourage visitors to explore the biosphere reserve. On the floor above is a cafeteria. Both activities reflect Vattenriket's core values. The naturum offers a varied programme of events free of charge for visitors, as well as public lectures and presentations of high quality. The auditorium, which is used for lectures, meetings and educational activities arranged by the Biosphere Office, looks out over a pond where otters and kingfishers can be seen in winter. The premises may also be hired for private meetings and lectures.



Exploring Kristianstads Vattenrike

Enabling residents and visitors to experience Vattenriket is an important aspect of the Biosphere Office's work. Visitor sites are gateways to nature and spread knowledge about the area's nature and cultural history. The naturum visitor centre is the hub for the entire biosphere reserve with displays, nature interpreters and a varied programme of activities. Visitor sites have audio guides, information boards and boardwalks to bring visitors closer to nature. Five sites offer more extensive information in the form of an outdoor museum.

Over the next five years the Biosphere Office will be reviewing its visitor sites. A new outdoor museum with the focus on the sea opens in 2017, and Torsebro and Åbjär are potential candidates for new visitor sites. As part of the overhaul the Biosphere Office will produce a new guide to excursions in the area.

Visitor sites are developed in close cooperation with Kristianstad's Department of Public Works. Cycling, hiking, horse-riding and fishing are all areas ripe for further development.



Accessible and welcoming for everyone

The Biosphere Office does its utmost to enable as many people as possible to visit Vattenriket. The focus over the next five years will be on attracting the elderly and immigrants.

Today information about the area's natural values is available in Swedish, English and German. To reach new target groups the "New in Kristianstads Vattenrike" project aims to make information on the website and in the naturum visitor centre available in more languages.

Work to make visitor sites accessible for the elderly and people with reduced mobility is ongoing. One aim is to make the Linnérundan Trail close to the city centre wheelchair- and pushchair-friendly.



Focus on nature education

One particularly important focus area for the naturum visitor centre is to offer nature education activities for children and teachers. Over the next few years we will develop new methods for nature education, for example by creating biosphere classrooms and collaborating more closely with the biosphere reserve's ecologists. We will also continue to maintain our important links with teacher training at Kristianstad University.

Every year we will organise a biosphere camp – a day camp for 10–14-year-olds – to enable 30 or so participants to spend a couple of weeks outdoors learning about the relationship between nature and people by experiencing, discovering and exploring Kristianstads Vattenrike.



Action Plan 2016–2020

This action plan describes the focus for work in Kristianstads Vattenrike Biosphere Reserve over the next five years. We will continue to work on projects to conserve, develop and support our local natural values. Work will take place in dialogue and collaboration with many different stakeholders.

The biosphere reserve includes most of the Municipality of Kristianstad. It is a varied and species-rich landscape, formed by generations of human toil and endowed with almost every type of natural habitat to be found in Sweden.

Our work includes projects linked to the River Helge å, its tributaries and the wetlands, Hanöbukten Bay, the unique sandy grasslands, nature close to built-up areas and sustainable urban development. Acquiring and spreading new knowledge is important, as is encouraging people to explore the area for themselves.

There are approximately 700 biosphere areas worldwide. Five of them are in Sweden. Kristianstads Vattenrike became the first of these in 2005, when it was accorded biosphere reserve status by Unesco to serve as a model area for sustainable social development. The work of the biosphere reserve is based on the goals of Unesco's Man and the Biosphere (MAB) Strategy, Kristianstad Municipality's strategic road map and the Swedish Environmental Protection Agency's national guidelines.

The naturum visitor centre opened in 2010 as a meeting place and showcase for work in the biosphere reserve. Here visitors can find out more about how the biosphere reserve works, learn about this species-rich area and get hints and advice about activities and excursions.

The varied landscape, biodiversity and wealth of ecosystem services are a fantastic resource for Kristianstad. The Biosphere Reserve works both to derive the benefits of these natural values and to strengthen them – under the proud motto "Benefiting nature and people".



Kristianstads
kommun

Kristianstads Vattenrike Biosphere Reserve

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