



**STIFTUNG
NATURSCHUTZ**
Schleswig-Holstein

Natürlich hier.



Black-tailed Godwit
Limosa limosa

Help for Greta!

Success report LIFE-Limosa.



In northern Germany, the black-tailed godwit is fondly called *Greta* – this comes from the distinctive mating call „Grütta Grütta“.

Meadow bird conservation in Schleswig-Holstein.

The black-tailed godwit (*Limosa limosa*) is threatened with extinction in Germany – like many other meadow birds. Reason enough for the Stiftung Naturschutz Schleswig-Holstein together with the Michael-Otto-Institute in NABU (MOIN) to take action. „Where is Greta?“ was the question to be answered. Since 2012, the LIFE-Limosa project has set out to increase breeding success in eight areas and bring more chicks into the air.

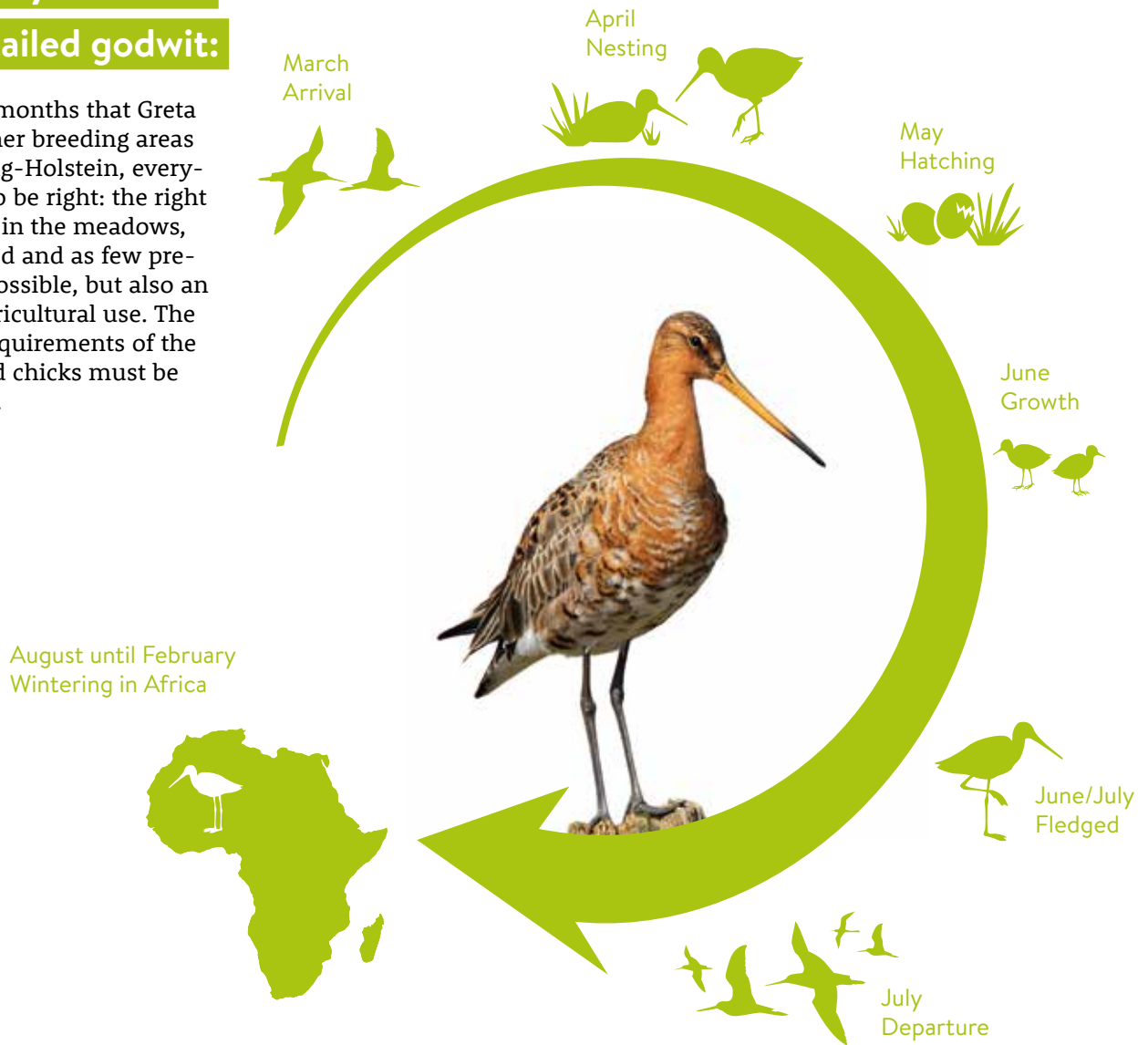
50 years ago, the black-tailed godwit still existed everywhere in the marshes of the west coast and in the *Eider-Treene-Sorge* lowlands. The intensification of agriculture led to an increasing decline in the populations of meadow birds and the black-tailed godwit had to retreat more and more to the bird reserves. With the help of the European Union-funded nature conservation project, habitats have been improved in eight bird reserves through a bundle of measures for the black-tailed godwit.

Another focus of conservation effort was on two other species that are only very rarely found as breeding birds in Schleswig-Holstein (SH): ruff and Baltic dunlin.

If these three species are protected, the entire community of meadow birds and all the other species that urgently depend on wet, extensively used grassland – from the orchid to the water beetle to the moor frog – will benefit along with them.

Annual cycle of the black-tailed godwit:

In the few months that Greta spends in her breeding areas in Schleswig-Holstein, everything has to be right: the right water level in the meadows, enough food and as few predators as possible, but also an suitable agricultural use. The different requirements of the parents and chicks must be considered.



LIFE-Limosa project.

AIM

Increase breeding success of black-tailed godwit in Schleswig-Holstein in the long term

PRECONDITION

Open, extensive and species-rich grassland; water and farming management; measures against predators; territory and breeding success monitoring

DURATION

2012–2022
(Prolonged until 2023)

STAGE 1

Problem analysis and optimisation of breeding areas

STAGE 2

lessons learned from intensive monitoring leads to adaptation of measures

FUNDING

50 % LIFE+ Nature Programm of the EU*
50 % Stiftung Naturschutz (by support of the districts of Dithmarschen, Schleswig-Flensburg and Nordfriesland)

THE CHALLENGE

Black-tailed godwit populations continue to decline. Reasons: high losses of eggs and chicks due in part to predators, including newly introduced predators and climate change



Oliver Granke and his team gave the godwits a helping "wing".



Dr Volker Salewski from the project partner MOIN was responsible for the monitoring.

*LIFE is the abbreviation for L'Instrument Financier pour l'Environnement and an EU funding programme that exclusively supports environmental concerns.

Strategy and project areas.

Mid-March – the black-tailed godwit returns to Schleswig-Holstein from its wintering grounds. It is on the lookout for suitable breeding areas: spacious, open grasslands with predominantly short vegetation – shallowly and partially flooded or with many small shallow pools. It avoids trees, shrubs and dense reeds, as predators can hide there. Wherever it likes, it looks for its territory. The places from the previous year are particularly popular.

Until mid-April, Greta likes to stand in shallow water with her long legs and poke around for food. The soil must be soft, preferably muddy. She loves insect larvae and earthworms.

For their clutches, they need a dry area. Areas that are either slightly higher or already dried again after winter flooding. The nest is a shallow, grass lined cup, partially concealed in the grass. The eggs lie relatively open in the grass. During the day, godwit parents defend their clutches in association with other meadow birds. But if foxes or other predators come at night, they are helpless. They can only save their own lives. The clutch and the chicks are unprotected. This kind of predation can only be limited with a good strategy.

Once the chicks have hatched after four weeks, they have to brave predators, the weather and many other dangers for the same period of time. And: they eat for all they're worth. They pick insects and arachnids from the ground and plants with their still short beaks. Four weeks, in which a chick of only a few centimetres in size grows into a young bird capable of flight.

A Herculean task, where there must be no disturbance by agricultural use during the short period. Hence, no harrowing, rolling, mowing, fertilising and as little trampling by grazing animals as possible.



Two male ruffs (*Calidris pugnax*) with an impressive mating display.



A specimen of the even rarer breeding bird Baltic dunlin (*Calidris alpina*).

Greta's friends:

Ruff and Baltic dunlin.

Two of the rarest breeding birds in Schleswig-Holstein were also the focus of the project. The aim was first of all to make a well-founded inventory and second to stabilise the last populations.

The Baltic dunlin is only breeding regularly in the *Rickelsbüller Koog* at the railway embankment to the island of Sylt with up to five breeding pairs. The project team were able to preserve and stabilise this last presence.

The ruff need very wet grassland in June – a habitat that has almost disappeared in the landscape. Therefore, at the beginning of the project it was not clear whether it still breeds in Schleswig-Holstein at all. Thanks to the ruff specialist Ole Thorup from Denmark, breeding ruffs could be found in many project sites and, it seems, exclusively there. Even better, the more the project has rewetted the sites, the more ruffs returned and the population increased. However, the drought years from 2018 onwards brought a small dip. The project area *Speicherkoog Nord* in the *Meldorfer Bucht* is particularly significant. Ole Thorup considers this to be one of the most important breeding areas in the entire international Wadden Sea region.

The Köge (= polders). ① ② ⑦ ⑧

Wrested from the Wadden Sea in the 1970s and 1980s for reasons of coastal protection, *Rickelsbüller Koog*, *Beltringharder Koog* and the *Speicherköge Nord* and *Süd* in *Meldorfer Bucht* are now the most important breeding sites for Greta. At the beginning of the project, about three quarters of all counted godwits were breeding in these four areas alone. With the exception of *Speicherkoog Süd*, the *Köge* are owned by the state of Schleswig-Holstein and the water body authorities. They are managed by the West Coast Integrated Station of the State Agency for Environment of Schleswig-Holstein. The *Speicherkoog Süd* is used by the Bundeswehr (German armed forces) and kept open for these purposes. The *Köge* are mainly grazed by cattle and sheep or some areas are mown late.

The Stiftungsland. ③ ④ ⑤

The Eiderstedt peninsula is meadow bird country par excellence. Over 6,700 ha of marshland are designated as special protected area. Most of the land is privately owned and used for agriculture. The Stiftung Naturschutz Schleswig-Holstein owns about 180 ha - the so-called Stiftungsland. On these areas, special measures have been implemented for the black-tailed godwit.

The areas *Alte-Sorge-Schleife* and *Ostermoor* near *Seeth* are typical landscapes in the *Eider-Treene-Sorge* lowlands. Boggy sites alternate on a small scale with river marshes, which were created by floods of the rivers *Sorge* and *Treene*. These were constricted to their riverbeds by dikes and flood barriers. Both areas have been used extensively by local farms for decades.

The Eider estuary. ⑥

Until the Eider Barrage was commissioned in 1973, the estuary of the Eider was characterised by salt and brackish wetlands. These were strongly influenced by the tides of the North Sea. In the course of further flood protection measures, large areas such as the *Katinger Watt* have been drained. Since then, the areas near the shore have hardly been flooded and are drying out. In addition to the former *Katinger Watt*, the project areas also include the nature reserves *Oldensworter Vorland*, *Grüne Insel* and the *Dithmarscher Vorland*. They have developed into important areas for meadow birds, but also for roosting birds. The more than 3,600 ha are mainly owned by the federal state of Schleswig-Holstein and are kept open through agricultural use in the interest of bird protection.

THE PROJECT AREAS IN SCHLESWIG-HOLSTEIN

1. Rickelsbüller Koog
2. Beltringharder Koog
3. Untere Treene/Ostermoor
4. Alte Sorge Schleife
5. Eiderstedt
6. Eider estuary
7. Speicherkoog Nord
8. Speicherkoog Süd



Project stage 1

Optimising

breeding areas.

What should grassland look like for the black-tailed godwit to breed there? What leads to breeding success? At the beginning of the project it was already clear that open, short sward grassland, water in the breeding season, sufficient food and little predation rates were needed. In the first stage of the project, as many areas as possible were optimised on a large scale and the results were evaluated.



This is what it looked like here in Speicherkoog Nord in many areas before we brought the water back.

1. Measure

Water, water, water!

Today's cultivated landscape is very heavily drained. Rainwater is immediately drained from the arable land in order to achieve the highest possible yield. But waders like water. The ground has to be soft to probe for food. Therefore, good black-tailed godwit sites must be wet or at least damp, especially at the beginning of the breeding season. These conditions are created by various measures that collect the winter precipitation in the wet meadows. The creation of shallow seasonal pools also helps.

Milestones

Optimisation breeding areas.

2. Measure

Openess.

Black-tailed godwits belong to the meadow birds. The name says it all. When they return from their wintering grounds, they need grassland that has been well grazed or mown in the previous year. It doesn't necessarily have to be a golf lawn, but without use, it quickly becomes unattractive. And if the area is covered with reeds as tall as a human being or even shrubs and trees, Greta will look in vain. This means that the areas have to be used, either by late mowing or adapted grazing – preferably with hardy cattle. And so that cattle and tractors can also access the areas, they need ditch crossings, solid driving embankments and, on new pastures, good fences are needed.

3. Measure

The right mixture.

Wherever there are flowers, there are also insects and thus food for meadow birds. High performance pastures leaves hardly any light and space for flowering plants. In the dense, tall grass, it is dark and damp, especially in the morning. No favourable conditions for chicks to forage. A remedy for this has been to sow greater yellow rattle from neighbouring sites into the wet meadows. It parasitises on grass roots, thus reducing their growth and creating light for flowers that attract many pollinators. This benefits the black-tailed godwit.

4. Measure

Beware of predators!

Greta's clutches and chicks are constantly exposed to danger. The ground-nesting parents must always be vigilant. However, they are powerless against some predators, especially when they come on four paws at night – like foxes or the invasive species raccoon dog. But you can also make it hard for the predators: take away their cover, force them to swim by building islands or wide ditches, put up electric fences and, as a last resort, also hunt them specifically.

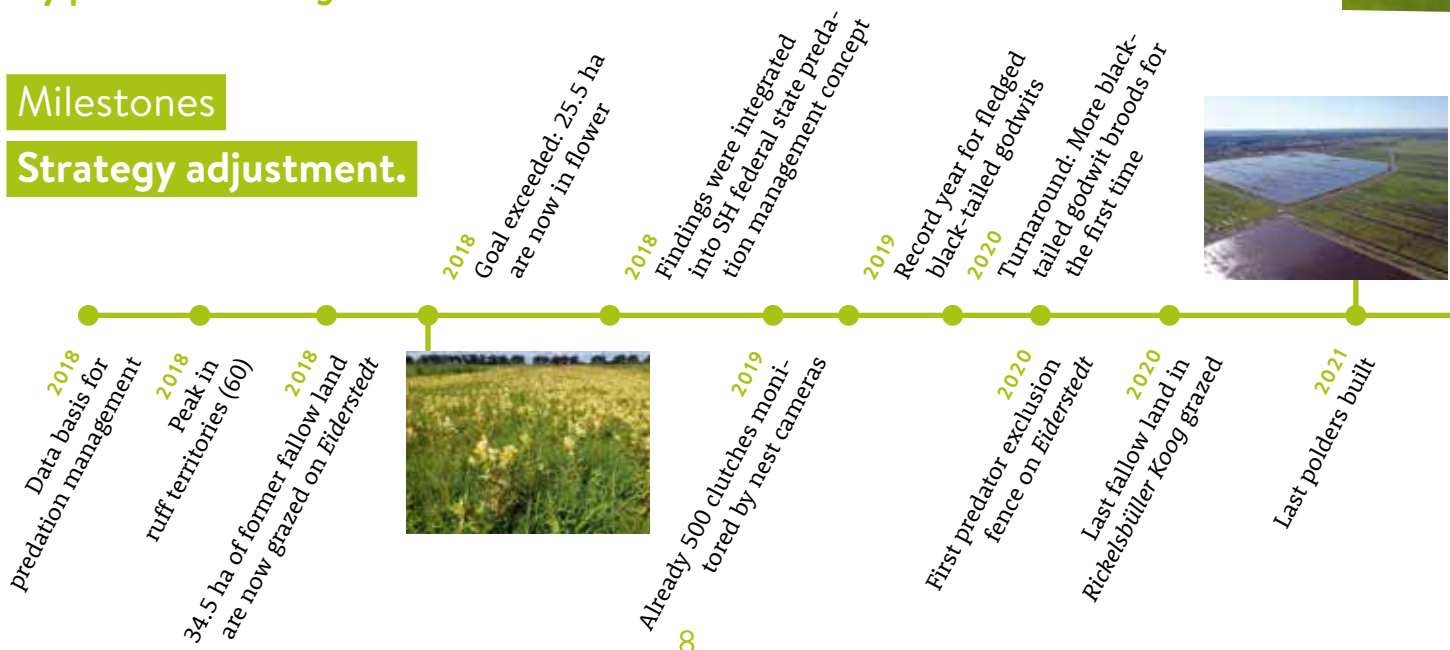




Project stage 2 Strategy adjustment.

The monitoring of hatching and breeding success showed an unexpectedly large influence of predators. In particular, foxes and the raccoon dogs, which have migrated from East Asia, prevent the breeding success of the black-tailed godwit. Even if habitats are optimised, it will only be possible to stop the decline of the species if the chicks fledge. The increasingly frequent extreme spring droughts are also causing serious problems. Only with plenty of water in the landscape can dry periods be bridged.

Milestones Strategy adjustment.



1. Measure

Reduce predation.

The black-tailed godwit is disappearing from the cultivated landscape and is heavily concentrated in nature reserves. Together with many other bird species, it is a ready meal for predators. Thanks to intensive monitoring, we know that about 90 percent of all clutch losses are caused by nocturnal animals. In the case of chick losses, avian predators are becoming more important. Tall perches and hiding opportunities must be reduced. Water and islands make it difficult for foxes and co. to reach clutches; safety fences greatly increase hatching success.

2. Measure

Much more water.

Spring 2018 was a shock: extreme rainfall in winter was followed by extreme drought in spring. The clay soils of the marsh became as hard as concrete and probing was out of the question. Some of the following years were even worse. The areas that were extensively rewetted by the project measures, such as the polders, turned out to be true „wet spots“ in the landscape. They hold the water in the landscape like bathtubs and are often the last refuge in dry times for all species that like it wet – not least Greta.

3. Measure

Godwit wants a farmer.

Grazing cattle, farmers making hay or landscaping by snowcats. The grassland must be managed. But with a sense of proportion. As few animals as possible and no use of machinery during the breeding season; maintenance cuts that keep reed or soft rush in check, do not allow trees and bushes to grow up in the first place and, of course, no use of pesticides, because invertebrates such as insects or worms are the food basis for meadow birds. A mix of pastures and mowed meadows is welcome. If everything is right, the godwits will find the open and (s)low-growing grassland they love when they return to their breeding sites.

4. Measure

Caretakers needed.

Protecting godwits means work and commitment. Are the water levels right? When can the cattle be herded? Is there still electricity on the fence? Where are the birds breeding? It is the local people who know the areas and the birds' needs inside out that make meadow bird conservation successful. The Hermanns, the Brigittes, the Jans, the Annalenas, the Franks, the Juttas, the Walthers, the Jules, the Dagmars, the Holgers, the Charlies and so many more who have worked tirelessly for Greta. It couldn't and doesn't work without them.



A project with many successes.

Our meadow birds have been helped.

Climate crisis, insect extinction, the recent arrival of raccoon dog to the west coast and Greta's general decline. The latter is also confirmed by figures from the Netherlands, the main distribution area of the western black-tailed godwit population: during the project period, the number of breeding pairs there almost halved! Difficult conditions to help a challenging species. Instead of the hoped for 0.4 chicks per pair and year as a starting point, it soon became apparent, that the values were more like 0.1. Nevertheless, many large and small successes were achieved for nature conservation issues.



Numerous

lectures, guided tours, press, radio and television reports continuously reported on the project to a broad public. The project reached several thousand experts with scientific publications and lectures.



Round about **20 kilometres** of barbed wire fences removed. In addition, more than 15 kilometres of bird-friendly fences have been built, using a thick and good visible top wire to prevent bird strikes.



Other **bird species** benefit. Where the black-tailed godwit feels well, numerous other endangered species will find good conditions. Not only waders and meadow birds such as redshank, oystercatcher, avocet, lapwing, skylark and snipe, even the Bewick's swan or the highly endangered black tern appreciate the areas.



Colourful flowering meadows were created on **55 ha** by sowing the native greater yellow rattle! The project goal was only 22 hectares.



Intensive **monitoring** provided reliable figures on the situation of black-tailed godwit, ruff and Baltic dunlin for the first time. Greta's breeding success was carefully studied in four areas. Nest cameras, ringed birds and radio-tagged chicks were used.



Several thousand posters and a variety of other advertising media attracted the attention of the people. Information about meadow bird conservation was disseminated on the website **www.life-limosade.de**



In the **record year 2019, 110 chicks** fledged only in *Speicherkoog Süd, Adenbüller Koog/Eiderstedt* and *Ostermoor* near *Seeth*. In many other reserves too, there were numerous observations of many warning godwit parents – an indicator of **plenty of offspring.**



368 hectares of fallow land covered by tall vegetation, were turned into managed wet grassland. That leads to two effects at one site: 1. new meadow bird land was created. 2. Foxes and other predators are left out in the cold: safe hiding places right next to existing black-tailed godwit breeding grounds? Not a chance!



1,400 hectares of rewetted sites. During the project period, almost twice as much areas could be rewetted for bird protection than was planned at the beginning of the project – the technical term for this is „hydrologically optimised“.



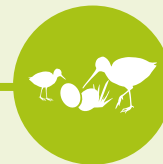
230 hectares protected against predators by special fences. Godwits breeding in these areas have a significantly higher hatching success. In total, 75 ha have temporary and 154 ha have permanent anti-predator fences, protecting ground-nesting birds.



Improved grassland management, like extensive grazing with hardy cattle or late mowing of the grassland to needs of meadow birds were realized on more than **2,000 hectares.**



Fact! If there are ruffs in Schleswig-Holstein, it is in Limosa project sites. According to our Danish expert, the *Speicherkoog Nord* is considered a **premium area** for the ruff.



Over 3,700 black-tailed godwit territories have been found between 2013 and 2022. More than ten percent of all black-tailed godwits living in Germany breed in our project sites. We therefore have a great responsibility to protect the black-tailed godwit, which is threatened by extinction.

We are

Stiftung Naturschutz.



With its nature conservation areas, Stiftung Naturschutz Schleswig-Holstein is one of the largest nature conservation organisations in Germany. It has been protecting and developing valuable retreats for native animals and plants since 1978.

Its foundation land – a 38,500 hectare network of the foundation's own nature conservation areas – makes it possible to implement numerous nature and species conservation projects and, wherever possible, to make them accessible to visitors.

Naturally helping.

Would you like to protect diversity and do something good, right on your own door step? We will gladly use your donation to protect nature in Schleswig-Holstein.

Donations account

Payment purpose „Blütenbunte Zukunft“

GLS Gemeinschaftsbank

IBAN: DE16 4306 0967 1007 0070 00

Imprint

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Thank you!

A project is only as successful as the cooperation between everyone involved. Therefore, we would like to thank all our partners from public authorities, NGOs, the numerous experts and many dedicated people locally.

Photocredits:

Adobe Stock, blickwinkel über Hecker, Jan Sohler, Winfried Wisniewski, Kaarel Kaisal, Christof Wermter, NABU MOIN/Yves Bötsch and Dr Volker Salewski, Stiftung Naturschutz Schleswig-Holstein/Oliver Granke



Further information on the project: www.life-limosa.de

Project executing organisation:



Project partner:



Funded by the EU:



11/LIFE/NAT/D/353 – Co-funded by the European Union. However, the views and opinions expressed are solely those of the authors and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.