

THE REWARDS
OF NATURE
RESTORATION

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FOREWORD

By Martin Harper and Sommer Ackermann

Martin Harper

It seems not a week goes by without a new report highlighting dire statistics about the state of nature: globally, one in eight bird species are at risk of extinction; and within the European Union, 42% of species continue to decline, 11% of all species are at risk of extinction, and just 15% of habitats are in favourable condition. It is hard not to feel overwhelmed and powerless, especially when it seems the threats are growing, as is the case with climate change.

Yet, nature conservation is about more than just documenting and slowing down the decline in wild species and their habitats. It is also about improving our natural environment. Across our continent, there are a growing number of examples of how brilliant people are working together to put back what we have lost, driving a nature restoration revolution. This should give us confidence and optimism that we can turn things around and not only halt the loss of biodiversity, but begin its recovery.

A sample of these projects are included in this beautiful photo book, visually demonstrating that we can make things better. Wetlands have been restored, grasslands are again buzzing with life, coastal lagoons are full of fish once more and nature has returned to cities meaning that people increasingly benefit from the services that nature provides such as pollination, flood protection, clean water, climate regulation, recreation and inspiration. These projects demonstrate that it pays to invest in nature.

None of these projects would have been possible without first the commitment and engagement from local

communities sharing a belief that nature restoration can benefit both wildlife and people; and support from both national and local authorities enabling the action to take place. And underpinning these successes are dedicated NGOs who have the vision and drive to deliver substantive change. This does not happen by chance. It requires effort to forge the right partnerships with the right people, to do exceptional planning, to mobilise the necessary funding, to implement the plan, to evaluate impact and to sustain success.

By showcasing the examples in this book, we want to inspire others to take action.

The UN has declared a Decade of Ecosystem Restoration. By 2030, we want and need Europe and Central Asia to be leading the world in restoring nature. We have the knowledge and experience to take action and a responsibility to do so. For this to happen, governments, businesses and, of course, civil society need to step up. Some have more agency than others, however: owing to its vastness and legislative power, the European Union is in a prime position to make robust laws to restore nature across land and sea. Given the scale and urgency of the crisis, it has a duty to act, and an opportunity to set an example to others and inspire millions in the process.

I hope that the stories in this book encourage you to play your part in the nature restoration revolution to the full.

Martin Harper is the Regional Director of BirdLife Europe and Central Asia.

Sommer Ackerman

Nature is the heart and soul of our planet, and it is suffering.

I live in Finland, a country that prides itself on being rich in forests. Sadly, in reality, trees are chopped down and land cleared every single day. We have lost so much, I worry that no natural forests will be left by the end of my time on Earth. As a forest mapper with the Metsärhyma group of Luonto-Liitto, I often go into unprotected forests, and everywhere I look, I see trees cut down, peatlands drained and the living world suffering.

This paints a dark picture. But there's great news: a different world is possible. In my mind, that world has two main ecological pillars: one pillar is to stop the destruction of nature. Another pillar is to restore nature – a beacon of hope for me and many others.

Restoring nature would not only save wildlife, improve our well-being and our health; it would also play a fundamental part in the battle against the climate crisis. Restoring our wetlands, peatlands, forests, oceans and soil is an incredibly meaningful investment as it is an essential and powerful way of absorbing and storing carbon.

Restoring nature isn't just some practical exercise with a bucket and a spade. First, we need to restore our minds. Restore our attitudes towards the living world, restore the idea that we should value our planet, our home, over some fleeting monetary gain. My generation is not responsible for this crisis, and yet, we are set to suffer from it the most. Our future is at stake. In fact, the future of our planet, and of all generations to come, is at stake. I believe we have a duty to repair our home.

For restoration to become reality, policy makers have a critical role to play. If there is a chance to save our planet, then why not take it? If there is one thing I have learned throughout my time as an activist, it is that change is always possible, it is just that in some cases there is not enough political will. It is the responsibility of policy makers to not only set the ambitions and conditions for the restoration of nature, but also to restore hope.

Sommer Ackerman is an environmental activist based in Finland.

BRINGING NATURE BACK TO THE BERLENGAS ARCHIPELAGO

By Joana Andrade, Head of Marine Conservation, SPEA/BirdLife Portugal

When I first visited the Berlengas, a group of islands off the coast of Portugal, the state of the local biodiversity was alarming, to say the least. Foreign species that had been unintentionally introduced by humans – invasive species – such as the Hottentot Fig (*Carpobrotus edulis*), Black Rats (*Rattus rattus*) and European Rabbits (*Oryctolagus cuniculus*) were threatening the native flora and fauna. As a result, breeding seabirds like Cory’s Shearwater (*Calonectris borealis*) were in decline. Endemic plants, such as the Berlengas Thrift (*Armeria berlenguensis*), were disappearing. Over-abundant Yellow-legged Gulls (*Larus michahellis*) were threatening local plants, lizards and seabird nestlings. Excessive and disorganised tourism was degrading nature as well.

As a biologist, but also as a human being, it was difficult to see wildlife suffer such degradation. It pained me to think that all these species, from plants to birds and reptiles, had evolved for millions of years without the need to defend themselves against the human-made problems which were now causing their decline. I wanted to do something about it.

One morning in 2014, I received a phone call that would quench my thirst for action, and determine the

next five years of my life. I was going to coordinate the restoration of the Berlengas islands’ natural habitat! In partnership with other organisations, my employer, the Portuguese Society for the Study of Birds, had applied for EU funding to help restore the Berlengas - and our project proposal had just been approved. I was overjoyed. For me, being able to restore these islands’ ecosystems was a fantastic opportunity to give nature a chance to bounce back.

Restoring the diverse habitat of the Berlengas was a highly collaborative endeavour. My organisation, the Portuguese Society for the Study of Birds (SPEA, BirdLife’s partner in Portugal), joined forces with the Institute for Nature Conservation and Forests, the municipality of Peniche, the Faculty of Social Sciences and Humanities, the School of Tourism and Maritime Technology, the Civil Protection Services, the National Maritime Authority, and over 300 volunteers.

Together, we worked to bring nature back. Among other things, we mapped out and removed invasive species, set up measures to prevent the arrival of new rodents, built artificial nests for seabirds, and led an awareness-raising campaign for tourists, teaching them about island species and biodiversity.



JOANA ANDRADE, BY SPEA



RESTORATION WORK ON CLIFF, BY ISABEL FAGUNDES

The operation was a resounding success for biodiversity. The native flora recovered incredibly quickly. It was a pleasure to witness the Berlengas Fleabane (*Pulicaria microcephala*), a small sunflower, adorn the Berlengas plains once again. The breeding population of Cory’s Shearwater is now growing, which is important because the Berlengas archipelago is one of only two places in all of continental Europe where this bird breeds. Band-rumped Storm-petrels (*Oceanodroma castro*) now have a wider breeding range, European Shags (*Gulosus aristotelis*) are bouncing back, and the population of the endemic Berlenga Wall Lizard (*Podarcis bocagei berlengensis*) is in better shape too!

Beyond biodiversity, this project has also helped develop higher quality and more responsible tourism – trails have been restored and tourists are given important

information on the status of the local wildlife and the threats that it faces.

I am proud of the great results we were able to achieve. We have proven that ecological degradation is not inescapable or irreversible. Projects like this one can and should be replicated elsewhere. There is so much potential to restore nature on a large scale – something we desperately need given the severity of the climate and biodiversity crises. We’ve mastered the science. Bringing nature back is a question of resources and political will.

I want to thank all the project partners, as well as the European Commission and the Portuguese Environmental Fund for their crucial support. It wouldn’t have been possible without them.



EUROPEAN SHAG (GULOSUS ARISTOTELIS) WITH TRACKING DEVICE, BY ANA MARCOS MORAIS

Beyond the Berlengas

Joana’s success story is one of many. Nature restoration has produced terrific results for biodiversity elsewhere, in a diversity of habitats and in various places across Europe.

The two-year restoration of Akrotiri Marsh, a Cypriot wetland and botanical hotspot, helped protect fish, birds and plants; such as the Mediterranean Killifish (*Aphanius fasciatus*), the Ferruginous Duck (*Aythya nyroca*), and Water Mint (*Mentha aquatica*). A restoration project in Poland’s Lublin Voivodeship is strengthening Aquatic Warbler populations (*Acrocephalus paludicola*) – the rarest and only globally threatened passerine bird in mainland Europe – by creating and maintaining chains of stepping-stone habitats between the areas the bird occupies.

Even as we write these lines, in the Danube Delta – the second largest river delta in Europe – restoration of

wetland connectivity is helping biodiversity to bounce back. Spanning Romania, Ukraine and Moldova, the Danube Delta project, led by Rewilding Europe as part of the Endangered Landscapes Programme, is targeting 40,000 hectares of the delta’s wetland and steppe habitats for restoration.

In November 2019, the project removed three obsolete dams from Ukraine’s Danube Biosphere Reserve on the Koglinik, Sarata and Kagach Rivers. The removal of these physical barriers has resulted in almost immediate benefits for local biodiversity. Improved river flow has revitalised vegetation growth and re-wetted floodplains, benefitting a plethora of wildlife that depend on these ecosystems, including wild carp, frogs and otters.

The message from these success stories is clear: nature restoration works, and we need it now.



ARMERIA BERLENGUESIS, BY JOANA ANDRADE



BERLENGA GRANDE BAY, BY JOANA ANDRADE

HOW RESTORING PEATLANDS CAN HELP US BEAT CLIMATE CHANGE

By Katrien Wijns, Project Coordinator, Natuurpunt

It's no secret – we're in a climate crisis, and nature is suffering. I am very much aware of this fact; I am a biologist, and I have been working for Natuurpunt, a nature protection NGO, for the past eleven years. And yet, every time I stop and think about it, I am taken aback by the sheer scale of the crisis. Destructive industrial practices have been pumping so much greenhouse gas into the atmosphere that CO₂ levels are the highest they have been in four million years. The ice caps are melting, sea levels are rising, and extreme weather is becoming ever more frequent. You probably know this already. What you might not know, however, is the crucial role played by peatlands.

What are peatlands? They're a type of wet habitat made up of peat, which is partially decomposed vegetation that looks a bit like soil. Peatlands are an incredible tool against the climate crisis: they naturally absorb carbon from the atmosphere and keep it stored.

Although peatlands only cover 3% of the world's land area, they contain a third of the world's soil carbon.

The problem is, peatlands are disappearing. They are being drained and replaced by intensive agriculture and ill-conceived tree plantations. Globally, the degradation of peatlands accounts for about 5% of carbon emitted into the atmosphere – twice as much as aviation.

It's awful. I find it appalling that these precious habitats are not treated with the respect they deserve. It's bad for biodiversity, and it's bad for us. We all stand to lose from the degradation of peatlands.

As you can probably tell by now, I care very much about peatlands. I am determined to protect the ones that we have, and restore those that have been lost. That's why when I was given the opportunity to coordinate the Care-Peat project for Natuurpunt, I



OPENING PEAT PITS BY REMOVING MARSH TREES IN DE WIEDEN (NETHERLANDS), BY NATUURMONUMENTEN



DIGGING PEAT PITS IN DE WIEDEN (NETHERLANDS), BY NATUURMONUMENTEN

didn't hesitate for one second. Care-Peat is a peatland restoration project that spans five countries: Belgium, France, Ireland, the Netherlands and the United Kingdom. It started in 2019 and will run until 2022. Nine organisations are working together to restore the carbon storage capacity of different types of peatlands in North-West Europe, and reduce carbon emissions.

Restoring peatlands has enormous potential: as a way to fight the climate crisis, it's twice as efficient as planting trees! In the Care-Peat project, each site has a unique story to tell – and they're all showing promising results. Here are just a few of them.

Our pilot site in the UK, for instance, Winmarleigh Moss Carbon Farm, had been drained back in the 1970's for intensive agriculture. We needed to rewet the place, so we built irrigation ditches. And within just a few weeks, we noticed at least five species of dragonflies visiting the site. Nature was coming back! We also planted 150,000 plugs of sphagnum moss, which, in time, will transform the site from a carbon emitter into a carbon sink. Today, the sphagnum moss is growing really well, and initial data shows there has already been a reduction in the site's carbon emissions!

At Cloncrow Bog, in Ireland, a country where peatland degradation is a significant problem; we called upon engineers to create peat dams in a drained peatland area adjacent to an intact raised bog. It's an effective technique: we're already observing sphagnum growth.

In De Wieden, in the Netherlands, we are creating 'peat pits': we are digging ditches to grow peat. This allows us to capture carbon in the ground, and also creates space for aquatic plants to grow.

Throughout Europe, peatlands desperately need to be restored. What we are doing in the Care-Peat project really can and should be reproduced elsewhere – we're in a climate crisis, restoring peatlands should be a no-brainer! Moreover, restoring peatlands isn't just good for the climate – it's also great for biodiversity, flood protection and even helps lower the risk of wildfires.

I am very grateful to the EU for funding the Care-Peat project through the Interreg NWE programme, and I also have a message for the European Commission: EU policies need to be consistent. European climate policies and agricultural policies should not contradict



SPHAGNUM MOSS PLANTATIONS IN WINMARLEIGH CARBON FARM (UK), BY LANCASHIRE WILDLIFE TRUST

each other. In fact, the EU's Common Agricultural Policy should be used to ensure the protection and restoration of peatlands used for agriculture.

Sometimes, the gravity of the climate crisis can generate feelings of despair. The task ahead of us is monumental, which is why I am so happy to be a part of a community that is dedicated to protecting our planet. I want to thank all the Care-Peat project partners for the essential work that they are doing: the Scientific Re-

search National Centre, the French Geological Survey, Lancashire Wildlife Trust, Manchester Metropolitan University, the National University of Ireland Galway, Eurosite, Natuurmonumenten, the University of Orleans as well as all other sub-partners and associated partners.

To you, the person reading this story, I want to say: be the change you want to see in the world, and also, use peat-free potting soil!

Beyond Care-Peat

Katrien's Care-Peat story is unique, yet at the same time it's one of many projects where people are restoring nature to overcome the climate crisis.

The Cairngorms Connect project, for instance, led by the RSPB (the Royal Society for the Protection of Birds) as part of the Endangered Landscapes Programme, is the largest habitat restoration partnership in Britain, covering over 60,000 ha of contiguous land in the Scottish Highlands. By restoring and managing 400 ha of blanket bog and 900 ha of bog woodland, the project will reduce CO₂ emissions from the damaged peatland and generate the conditions for further peat formation – capturing atmospheric carbon in the process. The project is also increasing woodland coverage, capturing carbon and protecting the carbon contained in previously exposed soil, all while significantly contributing to the livelihoods and wellbeing of local people, through direct employment (e.g. contracting local services, creating apprenticeships) and enhancing ecosystem services.

In the Flow Country of northern Scotland, the RSPB is engaging in 'forest-to-bog' restoration. The inappropriate planting of conifer trees had greatly damaged peatlands, which the RSPB is now restoring. This project is expected to benefit biodiversity and mitigate climate change, too. Furthermore, a project to restore the Polesia mires, led by the Frankfurt Zoological Society as part of the Endangered Landscapes Programme, will restore at least 6,000 ha of wetlands affected by drainage – great news for biodiversity and the climate.

The fact is, we're in a climate crisis, and we need to act fast. The large-scale restoration of degraded landscapes is a powerful tool we could start using right now. Nature restoration is a necessity. Our industries and economies have long developed in a way that was harmful to nature, but we can create a new future. Whether or not we do it is a question of political will and collective action.



KATRIEN WIJNS, BY WIM DIRCKX



TRANSPORTING PEAT TO THE FORESHORE IN DE WIEDEN (NETHERLANDS), BY NATUURMONUMENTEN

HOW RESTORING NATURE KEEPS THE FLOODS AT BAY

By Adrian Thomas, Project Development Manager, RSPB

Fires. Storms. Floods. The climate crisis is here, and it's making extreme weather events ever more frequent. As we fight the root causes of the crisis, it is just as important to protect ourselves against its devastating consequences. We must adapt. To do so, restoring our natural landscapes is essential.

My name is Adrian Thomas. Nature conservation is a bit of a life mission for me – I want to help leave this planet in a better condition than I found it. I am a conservationist, and I have been working at the RSPB, the Royal Society for the Protection of Birds, for over twenty years. I would like to tell you about a nature restoration project that I worked on which was instrumental to protect people against rising sea levels: the restoration of Medmerry.

Medmerry is on the English south coast, opposite the Isle of Wight. A long time ago, the area was rich in intertidal habitats: areas that are above water level at low tide and underwater at high tide, such as beaches or salt marshes. However, at one point, people reclaimed the land from the sea, mostly to use it for intensive agriculture, for crops such as Oilseed Rape. This situation, combined with rising sea levels, meant that as recently as ten years ago, Medmerry was one of the stretches in southeast England most at risk of being inundated by the sea. 364 homes were under threat, as well as the only road in and out of the town of Selsey, and the sewage works.

The Environment Agency was having to pay six figure sums each winter to try to repair the pebble beach that



AERIAL VIEW OF MEDMERRY, BY THE UK ENVIRONMENT AGENCY



ARTIFICIAL BREACH IN THE SHINGLE BEACH, BY ADRIAN THOMAS

was the only protection from flooding. However, the Agency realised that, with rising sea levels and increasingly severe winter storms, this was a losing battle.

It was time to adapt. The solution was to realign the coast: creating a mammoth 7km-long new seawall well inland on higher ground. They would then breach the existing pebble beach, allowing the tides to reclaim a huge swathe of farmland in between. This is called “managed realignment”, where the wildlife-rich saltmarsh and mudflats that would form would give a natural buffer to the power of the sea, providing protection for probably hundreds of years. It was a great source of hope, it was exciting; but it was also a venture into the unknown, as this was the largest realignment of the open coast ever attempted in Europe.

To create the new seawall, they used clay excavated from onsite. This was very useful, as the ‘borrow pits’

from which the earth was extracted created new pools and ditches for birds, but especially for European Water Voles (*Arvicola amphibius*), for which Medmerry was already important. Once the new seawall was ready, a gap was swiftly cut in the old seawall at low tide to enable the sea to pour in.

The old sea defence was breached in September 2013. Within just one tide, the site was transformed beyond recognition, and by the end of the first winter, the tides had done what they had been threatening to do for decades and battered and flattened the old sea defences. The fields turned into a tidal bay – 184 hectares of new intertidal habitats. In the first year, Black-winged Stilts (*Himantopus himantopus*) bred on one of the freshwater pools we had created, only the third ever successful breeding in the UK. Although the remodelling of the coastline after breach was almost exactly as had been predicted, it happened much, much quicker than was

anticipated; the sea shunting pebble and mud into new positions in astonishing volumes. Despite the sheer force and volume of the tide, the new defences remain untouched, untroubled.

I visited Medmerry this summer, and you would think the habitats had been there forever. Little Egrets (*Egretta garzetta*), Common Shelducks (*Tadorna tadorna*) and Common Redshanks (*Tringa tetanus*) picked over the glistening muds, and Pied Avocets (*Recurvirostra avosetta*) piped on the freshwater pools; one of only a handful of breeding sites in the whole of Sussex. I saw over 50 species of bird in a two-hour saunter without even trying. It was magical.

The brilliant thing for local people now is that those who live just inland of the new defences can sleep easy in their beds. You only have to look at Medmerry on a stormy day to see that there is no way the new defences are going to be breached. While the sea is raging, the sheltered bays and inlets of Medmerry are just a gentle ripple.

One great thing about restoring nature is the many rewards that it brings. Because of Medmerry, many people are safe from floods. Wildlife is bouncing back. There are extensive new footpaths, cycle paths and horse-riding routes to explore, which is great for tourism. It has also created value for the local fisherfolk, as Medmerry is now a spawning ground for many sea-

fish. Another rather exciting benefit was the archaeological discoveries – I was wowed by the unearthing of Bronze Age settlements, rewriting the history books for how early settlers lived on this stretch of coast 3000 years ago.

Medmerry felt ambitious, it felt huge, but it showed what can be achieved when ambition is allowed to fly and when everyone pulls together. It did require up-front investment, but it was an investment in the future, and the rewards and savings will be recouped for decades to come and more. And now it is a site managed by the RSPB, safeguarding it for future generations.

The whole endeavour was a wonderfully collaborative process, and something I was so privileged to be a close part of throughout its creation. It is always amazing how many groups and individuals have a stake in a project like this. I want to thank the Environmental Agency, as well as all the layers of local government, residents’ groups, access fora, tourism providers, wildlife societies, farmers, landowners, the business community and archaeologists.

Working with nature rather than against it has got to be something we seek to do wherever we can. Achieving win-wins for people and for nature is vital if we are to overcome the nature and climate crises we face.



ADRIAN THOMAS



MEDMERRY, BY ADRIAN THOMAS

Beyond Medmerry

The Medmerry experience is a beautiful example of how restoring nature can help us adapt to the climate. Here are a few other large-scale restoration projects which yield similar rewards.

283 miles to the north of Medmerry, near Blackpool, there’s a place called Hesketh Out Marsh. The RSPB, BirdLife’s Partner in the UK, was instrumental in making it one of Europe’s largest restored saltmarshes. By allowing seawater back in to flood some of the land, they created space for nature that acts like a massive sponge, slowing the flow of the tide and protecting 143 homes and nearby farms from floods.

In Northern Portugal, the Endangered Landscapes Programme is funding the restoration of the Greater

Côa Valley, as monoculture pine plantations have made this area particularly vulnerable to forest fires. On top of being a lifesaver for vultures, lynx and wolves; the restoration of over 120,000 hectares will help develop landscape mosaics that naturally prevent fire from spreading.

In south-east Georgia, BirdLife Partner SABUKO is working on the restoration of the Iori River Valley. This area was mainly threatened by unsustainable agriculture and an abandoned dam project. By restoring the natural dynamics of the Iori River, and the riverine forest, they created periodic wetlands and improved the conditions of the surrounding forests, putting people and wildlife in a better position to face the climate crisis.



SEAWATER IS LET ONTO LAND FOR THE FIRST TIME IN SEVERAL HUNDRED YEARS, BY ADRIAN THOMAS

RESTORING NATURE PUTS FOOD ON THE TABLE

By Zafer Kizilkaya, President of the Mediterranean Conservation Society

Give someone a fish, they'll eat for a day. Restore someone's bay, they'll eat for the rest of their life.

My name is Zafer Kizilkaya. I am a marine conservationist and underwater photographer. I would like to tell you about a project I worked on that is particularly close to my heart: the restoration of Gökova bay.

Thirteen years ago, this large bay, a traditional fishing spot in southwestern Turkey, was in horrific condition. The bay had been so overfished, it had the lowest amount of fish per square meter in the entire Mediterranean basin. When I went diving there, I saw an underwater desert. On top of that, the place was littered with discarded fishing gear, and schools of invasive Rabbitfish (*Siganus*) were destroying the endemic aquatic vegetation. Nature was so degraded, it was affecting the fishing community's income, thereby hurting the local economy.

I couldn't take it. I needed to act. In 2009, I launched a project to establish 'No Take Zones' in the area – places where you're not allowed to fish or engage in any other extractive activity. After long negotiations with the fishing community and other stakeholders, in 2010, the government officially designated No Take Zones in the bay!

Alas, that was just the beginning. Claiming a temporary fishing ban is one thing, enforcing the ban is quite another. I invested a lot of effort into this by establishing a marine ranger system with speed boats and local rangers. In the meantime, there was a massive underwater clean-up to remove hundreds of kilometres of abandoned nets and fishing lines.

Our work soon paid off: today, the amount of fish per square meter is ten times what it was before. The clean-up (which still has to take place every year), also enables sponge species to flourish, creating another micro ecosystem, supporting many species as shelter.

As the local apex predator species, such as Dusky Groupers (*Epinepheus marginatus*) and Common Dentex (*Dentex dentex*), increased in number and occupied the bay, the numbers of invasive species decreased under the preying pressure. This, in turn, helped certain macroalgae species reappear.

One animal that particularly benefitted from Gökova Bay's restoration is the critically endangered Mediterranean Monk Seal (*Monachus monachus*). There were only a couple left as recently as 2013. Now, there are eleven, a great achievement considering there are only around 100 in the whole country!



ZAFER KIZILKAYA, BY THE MEDITERRANEAN CONSERVATION SOCIETY



FISHERWOMAN, BY ZAFER KIZILKAYA

Butterfly Ray (*Gymnura*), Amberjack (*Seriola*) and endangered Sandbar Shark (*Carcharhinus plumbeus*) populations have significantly increased, too. Gökova Bay is the only Marine Protected Area in the Mediterranean with sharks.

At the very beginning of this initiative, as you might imagine, the fishing community was strongly opposed to No Take Zones, as they thought they would lose their source of income. But the truth is, overfishing, and the subsequent destruction of marine life, was driving down their income. Today, commercial species at Gökova Bay are plentiful, and fishing there is both sustainable and profitable: the fishing community's income has increased by 400%! We created employment for fishers, rangers and divers, as well as conservation biologists. The restoration of the bay has been good news for the local economy as a whole.

One great thing about this project is that it could easily be replicated elsewhere. In fact, other Mediterranean countries come for exchange visits and training programs. Even within Turkey, we are now trying to replicate our success in other parts of the country. For many, changing our ways of managing resources are doubted and losses are feared, but we hope to work with everyone to convince people of the great benefits restoration can bring.

If I had one message for policymakers, it would be this: we don't just need new targets, we need action. Real No Take Zones with proper enforcement. Protection on paper is not enough. In an extremely overfished and warming world, we must invest in restoration. Otherwise, the natural and economic bill will be too high.

I would like to thank everyone involved in the restoration of Gökova Bay. All the staff from the Mediterranean Conservation Society including, but not limited

to, the rangers, the monk seal conservation group, the sandbar shark conservation group, the clean-up group, the marine ecosystem restoration groups, and the fisheries management group. Thank you to the coast guard, the Ministry for the Environment, the Ministry of Agriculture and Forestry and the visitors who made anonymous donations after snorkelling in the bay and witnessing the restored marine ecosystems.

According to the latest research, for every dollar spent in marine conservation, you get eight dollars back. Nature is the foundation on which all else stands, so profitability really shouldn't be the decisive factor when thinking about restoration. Nonetheless, the fact remains that there are economic benefits to protecting the planet – so what are we waiting for?



UNDERWATER RESEARCH, BY ZAFER KIZILKAYA



UNDERWATER RESEARCH, BY ZAFER KIZILKAYA

Beyond Gökova Bay

The story of the restoration of Gökova Bay is magnificent, and it's not unique. Large-scale nature restoration has been proven to also provide economic benefits in other places, too. Here are just a few examples.

The LIFE Herbages project in Belgium, run by BirdLife Partner Natagora, was a seven-year endeavour to improve the biodiversity and connectivity of over 400 hectares of meadows, grasslands, marshes and humid forests. This project provided a great stimulus to the local economy: it mobilised 125 local companies to work on construction, agriculture, forestry and more. The ecosystem services generated by the restoration are estimated to be worth over one million euros per year: €40,000 in pollination, €50,000 in water purification, €100,000 in flood protection, €180,000 in carbon storage, €260,000 in better quality food for livestock, and €400,000 in educational and recreational value.

The Eco Astillero XXI project in Spain, run by SEO/ BirdLife Spain and the city of El Astillero, transformed

a heavily degraded and inaccessible landscape into a lush green and blue space for all the city to enjoy. Every year, unemployed people are hired to work on the site: removing invasive plants, digging ponds, planting trees, setting up nest boxes, and more. The project has employed 560 people so far! Moreover, thanks in part to the new trails and bike lanes, El Astillero is now an eco-tourist destination.

Oroklini Lake, a Cypriot wetland home to the Spur-winged Lapwing (*Vanellus spinosus*) and the Black-winged Stilt (*Himantopus Himantopus*), was severely degraded. Now, thanks to nature restoration, wildlife is coming back! And wildlife isn't the only beneficiary, thanks to the construction of nature-watching hides, footpaths, information points and more: Oroklini lake is now a key eco-tourist destination of Cyprus's Larnaca district. The LIFE Oroklini project was launched in 2012 and coordinated by BirdLife Cyprus.



DISCARDED FISHING NETS, BY ZAFER KIZILKAYA

RESTORING NATURE, RESTORING JOY

By Felipe Gonzalez Sanchez, Cantabria Regional Officer, SEO/BirdLife

Restoring nature is a marvellous thing. It's great for wildlife, of course, but it's also highly beneficial to human beings.

My name is Felipe Gonzalez Sanchez, and I would like to tell you about a restoration project I worked on as a conservationist that brought great social benefits to the local population. It's called Eco Astillero XXI.

El Astillero is a town in Santander Bay in Cantabria, northern Spain, known for its shipyard ("astillero" is the Spanish word for shipyard). It is also surrounded by marshes, which are ancient nesting grounds for migratory birds. Throughout the 20th century, these marshes suffered immense damage. Mining for iron, and the deposit of excess sediments, completely wrecked the landscape. On top of that, auxiliary industries were occupying land along the estuary, and after the mines closed down; the ancient marshes were taken over by invasive, non-native plants such as Eucalyptus and Pampas Grass.

The place was in an appalling state. And it was completely inaccessible to the local population.

At the turn of the century, El Astillero's young mayor wanted to do things differently. He wanted to restore the degraded landscapes, and create a large public space for all to enjoy. That idea would become the Eco Astillero XXI project: a new, sustainable future for a new century. The project is run in partnership by El Astillero and SEO/BirdLife, the nature protection NGO for which I work.

We restored 60 hectares of heavily degraded land. We removed invasive species such as Pampas Grass (*Cortaderia selloana*), restored the intertidal area by opening seawalls, created new lagoons, removed landfills, built a network of twenty-five ponds, and re-planted native vegetation. In total, we planted 40,000 trees! We also created a 21km-long network of trails and bike lanes. The project started in 1999, and we're still maintaining the site today.

As you can see, it was a lot of work! But it was well worth it: what used to be an inaccessible and degraded landscape in a crowded city is now a lush green space for everyone to enjoy. It's hard to overstate how important it is for people to have nature in their lives –



FELIPE GONZALEZ SANCHEZ, BY SEO/BIRDLIFE



PEOPLE ENJOYING NATURE, BY SEO/BIRDLIFE

for both their mental and physical health. Today, people are walking, cycling, picnicking, and just enjoying nature! I think that everyone who experienced the lockdowns during the COVID-19 pandemic knows how precious it is to have access to nature near your home.

The Eco Astillero XXI project benefits the community in various ways. Thanks to the regional government's funding, every year, unemployed people are hired to work on the site: removing invasive plants, digging ponds, planting trees, setting up nest boxes, and more. The project has employed 560 people so far!

Another great benefit is that people's interest in biodiversity is growing. I am noticing more people with cameras and binoculars every day. In fact, we host an annual photography contest focusing on biodiversity which attracts over 100 participants each year.

Regarding biodiversity, one of our greatest successes has been creating a new colony of Common Terns (*Sterna hirundo*). They started breeding in 2011 in rafts that we created for them. During the breeding season, you can watch them from all over the world thanks to the webcams that we've set up. We keep seeing new species coming to El Astillero, such as otters or even the Glossy Ibis (*Plegadis falcinellus*). What's more, the ponds we dug now house seven different amphibian species: three newt and four frog.

I hope that our success with Eco Astillero XXI inspires other post-industrial cities to make space for nature; and inspires the European Commission to fund such projects. There's enormous potential to increase people's quality of life, create jobs, and heal nature in the process. Moreover, our experience has shown that nature restoration could be achieved with



GLOSSY IBIS (PLEGADIS FALCINELLUS) AND CATTLE EGRET (BUBULCUS IBIS), BY SEO/BIRDLIFE

a relatively modest budget, compared to the benefits it generates.

I would like to thank everyone involved in making Eco Astillero XXI come to life, and keeping it up and running today: the people of El Astillero municipality and of SEO/BirdLife. I also want to thank our funders: the Cantabrian regional government, the national author-

ities, the European Union's LIFE programme as well as local private funders.

As a conservationist, I feel truly privileged to have had the opportunity to take part in this project, and to be able to see its brilliant results for both wildlife and people.

Beyond Astillero

The story of Astillero is unique, yet at the same time it's one of many projects where nature restoration is providing great social benefits to local populations.

The restoration of the marshlands in Le Bine natural reserve in northern Italy consisted, in part, of recovering an area that was previously used for intensive agriculture. Today, Le Bine runs an educational programme with local schools to teach children the benefits of nature-friendly farming.

Fen Drayton Lakes, in the UK, used to be a sand and gravel extraction site. In 1992, the mining ceased and the quarries were flooded. Today, the place is full of life: it's a complex of lakes, lagoons and ponds, where wildlife can be found all year round – otters, dragonflies, and many different birds. It's a wonderful place to forget about your worries and just bond with nature. There's so much to see, the place has become an eco-tourist destination! Bring your binoculars: Great Crested Grebes (*Podiceps cristatus*), Eurasian

Bullfinches (*Pyrrhula pyrrhula*) and Eurasian Hobbies (*Falco Subbuteo*) are waiting for you.

The Carpathia project, funded by the Endangered Landscapes Programme, set in the dramatic landscape of Romania's Făgăraș Mountains, aims to create a world-class wilderness reserve to both protect local wildlife and some of Europe's last remaining virgin old-growth forest, while restoring habitat and wildlife populations that have been lost due to unsustainable logging, hunting and over-grazing. The project is working closely with local communities to monitor human-wildlife coexistence, with teams on-the-ground working to prevent and respond to conflicts for example by installing electric fences to deter bears, translocating problem animals away from villages and providing shepherds with traditional guard dogs. They are also creating tangible economic benefits by supporting the development of nature-based enterprises, including ecotourism, sustainable forestry and food production - benefiting the local economy and the landscape.



EUROPEAN ROBIN (ERITHACUS RUBECULA), BY SEO/BIRDLIFE



WORKERS IN EL ASTILLERO (SPAIN), BY SEO/BIRDLIFE

BirdLife Europe and Central Asia is a partnership of 45 national conservation organisations and a leader in bird conservation. Our unique local to global approach enables us to deliver high impact and long-term conservation for the benefit of nature and people. BirdLife Europe and Central Asia is one of the six regional secretariats that compose BirdLife International. Based in Brussels, it supports the European and Central Asian Partnership and is present in over 40 countries including all EU Member States. With more than 4100 staff in Europe, two million members and tens of thousands of skilled volunteers, BirdLife Europe and Central Asia, together with its national partners, owns or manages more than 6000 nature sites totalling 320,000 hectares.

www.birdlife.org



The Endangered Landscapes Programme (ELP) is restoring landscapes and seascapes across Europe, regenerating ecosystem processes and increasing the biodiversity of Europe's degraded lands. Using evidence-based interventions and community participation, the ELP provides models of best practice for the landscape restoration community and inspires policy change at local and national levels. It is a partnership between the Cambridge Conservation Initiative and Arcadia, a charitable fund of Lisbet Rausing and Peter Baldwin.

www.endangeredlandscapes.org



The UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) is a global Centre of excellence on biodiversity. We operate as a collaboration between the UN Environment Programme and the UK-registered charity WCMC. Together, we are confronting the global crisis facing nature. We do this through our unique position ensuring science, knowledge and insights shape global and national policy, and by collaborating with partners around the world to build capacity and create innovative solutions to environmental challenges. We use our position as respected custodians of powerful and trusted environmental data to create positive impact for people and nature.

www.unep-wcmc.org



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THE REWARDS OF NATURE RESTORATION

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Photography: Joana Andrade, Wim Dirckx, The UK Environment Agency, Isabel Fagundes, Lancashire Wildlife Trust, Zafer Kizilkaya, Mediterranean Conservation Society, Ana Marcos Morais, Natuurmonumenten, SEO/BirdLife, SPEA (Portuguese Society for the Study of Birds), Adrian Thomas

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