



# Newsletter December 2019 - WWF Baltic Ecoregion Programme

## BREAK BAD HABITS IN THE BALTIC SEA

### Luxembourg, October 14–15:

The 2020 deadline for achieving sustainable fisheries under the Common Fisheries Policy (CFP) is fast approaching. The October EU Agriculture and Fisheries Council (AGRIFISH) negotiations is the last chance for EU Member States to fulfil this legal requirement to end overfishing.

WWF and NGO partners presented an [open letter](#) to Finland's Fisheries Minister, Jari Leppä, to be passed on to other Baltic ministers during the Council meeting. The letter emphasized the urgent need to set quotas that meet the rapidly approaching deadline.

The Council set fishing limits for fish caught in the Baltic sea. Five out of ten of these were above scientific advice (see table), including the two salmon and cod stocks as well as the western Baltic herring. For salmon and the western Baltic cod, the agreed quotas were slightly above scientific recommendations of the International Council for the Exploration of the Seas (ICES).



NGOs presented an open letter to Finland's Fisheries Minister, Jari Leppä.

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Quotas for the western spring-spawning herring were particularly egregious: **ministers agreed on a total allowable catch (TAC) of 3,150 tonnes, despite the ICES recommendation for a zero catch.** For the eastern Baltic cod, ministers agreed to a continued ban of the targeted fishery, although they did set a bycatch quota of 2,000 tonnes to allow small-scale fisheries with passive gears and pelagic fisheries to continue.

In a joint [press release](#) with Our Fish and Seas At Risk, WWF expressed frustration and dis-

appointment at the meeting outcomes, several reasons for the importance of following scientific advice on fisheries quotas. First, it creates a buffer against sudden and large variations in the environment that can be caused by human activity and climate change effects. Secondly, fishing at sustainable levels secures healthy fish populations in the long term - also beneficial to the fisheries. Moreover, denser fish stocks mean less time needs to be spent at sea searching for fish, which reduces both fuel consumption and impacts on the environment such as bycatch and seabed disturbance.

Today WWF recommends avoiding any consumption of Baltic cod. Western Baltic herring should be consumed with caution, [according to our seafood consumer guide](#). The AGRIFISH decision will be reflected in the next round of seafood guide updates.

Contact: [Karin Glaumann](#)

### QUOTAS FOR BALTIC STOCKS OVER SCIENCE & NGO ADVICE

| Stock name                  | Commission proposal for 2020 (tonnes) | NGO proposal for 2020 (tonnes)            | Council Decision for 2020 (tonnes) |
|-----------------------------|---------------------------------------|---|------------------------------------|
| Western Cod (22-24)         | 3 065                                 | 3 065                                     | 3 806                              |
| Eastern Cod (25-32)         | 2000 (by catch only)                  | 0 (Closure of all cod fisheries in SD 24) | 2000                               |
| Western Herring (22-24)     | 2 651                                 | 0   | 3 150                              |
| Main Basin Salmon (22-31)   | 86 575 (individuals)                  | 58 664                                    | 86 575                             |
| Gulf of Finland Salmon (32) | 9 703 (individuals)                   | 8 798                                     | 9 703                              |

# EDITORIAL: A SUSTAINABLE BLUE ECONOMY FOR OUR CHANGING OCEAN

The climate crisis is here, and will shape the world we live in for generations to come. Reports from around the world are offering some insights into how drastic and widespread those impacts will be. The September 2019 [Special Report on the Ocean and Cryosphere in a Changing Climate](#) from the Intergovernmental Panel on Climate Change vividly describes the threat posed to the world's ocean habitats by temperature rise and acidification.

These climate impacts are occurring in the context of challenges to ocean resilience from numerous other sources. The United Nations Food and Agriculture Organization estimates that [more than 30% of global fisheries are being exploited at unsustainable levels, and another 60% are being fished at maximum capacity](#). Marine plastic pollution has reached crisis levels, poisoning and ensnaring aquatic life and threatening human health and livelihoods. An estimated eight million tonnes of plastic waste enter the ocean every year – a figure that is projected to increase four-fold by 2050 (page 21). The news is daunting, but there is hope.

Movements like the [Extinction Rebellion](#), [Fridays for Future](#) and [Earth Strike](#) put increasing pressure on governments to seriously address the [escalating ecological emergency](#) and both set and implement policies that protect the environment. The world's largest climate strikes dubbed the '[Global Week for the Future](#)' took place in September. Led by students, some 6 million people took to the streets around the globe, including the nine Baltic Sea countries.

Sustainable, environmentally oriented policies in every sector have the potential to make a critical difference to our ability to withstand the impacts of climate change. As noted by Panmao Zhai, co-chair of



Anu Suono, Hannah Griffiths-Berggren, Otilia Thoreson, Valerie de Liedekerke

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IPCC working group I on assessing the physical science of climate change, “Good practices already exist and there are things we are already doing, that if scaled up and adopted in suitable places where they are not being used, can help address climate change”.

In effect this is a call for a sustainable Blue Economy, in the name of ocean health, resilience and productivity. The ocean economy is conservatively valued at over [US\\$2.5 trillion](#) each year and is predicted to double in size by 2030. In the current political climate, how do we ensure that our valuable but vulnerable ocean and seas are adequately protected?

[John Tanzer](#), WWF's Oceans Practice leader, urges caution, “We recognize the potential for the Blue Economy to provide jobs and growth, especially for developing countries in desperate need of both. But we must also acknowledge just how precarious the state of the ocean is, and we must ensure that plans to expand the Blue Economy are truly sustainable and based on a sober, rigorous assessment of its ecological capacity”.

WWF has worked to define a [sustainable and equitable Blue Economy](#), and, together with partners, has set out [principles to guide finance and investment in ocean-based industries](#) to ensure that future investments in the Blue Economy support, rather than

undermine, its long-term value.

In the Baltic, we can improve how we address current and future challenges at a regional level. To do so we need people and institutions across the public, private and civil sectors to come together and act now. We need leadership to change course towards a truly circular economy, with zero negative impact on the Baltic Sea, reflected in policies and economic incentives throughout value chains. Investment flows should be directed to encourage and support forerunners (P 17). The best practice leadership celebrated by the Baltic Sea Farmer of the Year Award remains a vital part of the solution. This year's regional winner is a champion in reducing nutrient leakage and innovation in protein production. Read more on page 4.

Next year will be a year of change. With the post-2020 biodiversity framework still to be negotiated there is a momentous opportunity at the international level to secure a [New Deal for Nature and People](#) that places us on the path to restoring nature by 2030 - and in so doing, also puts us on the right track to address the challenges of the climate crisis.

For now, we hope you enjoy the reflections in this final edition of the WWF Baltic Ecoregion Newsletter for 2019!

**Contact:** [Otilia Thoreson](#) and [Hannah Griffiths](#)

# EUTROPHICATION AND AGRICULTURE



## AN AWARD FOR FARMERS MAKING A DIFFERENCE

To date, some 70 farmers around the Baltic Sea have received the Baltic Farmer of the Year Award for innovative sustainability measures. This year's winning farms are diverse in size and type, ranging from a small biodynamic enterprise to an 800 ha conventional crop and livestock farm (see page 5). Each farmer has a unique story to tell about the methods tested and implemented to reduce nutrient runoff to the Baltic Sea. Learn more about the competition and this year's winners in our [brochure](#).

We are happy to announce that the Baltic Sea Farmer of the Year Award will be held again in 2020! Check for updates on the [competition website](#).

**Contact:** Anu Suono

## VISIT TO THE KOWALSKI FARM

Participants in the [Greener Agriculture for a Sustainable Sea \(GRASS\) conference](#) where this year's regional winner of the Baltic Sea Farmer of the Year Award was announced were fortunate to visit the Kowalski farm.

In 2018, Krzysztof Kowalski received the Regional Baltic Farmer of the Year Award for the impressive range of measures implemented on his farm to protect nearby waters, preserve biodiversity, and yield better products. One year later, Mr Kowalski continues to share knowledge on his way of farming in his mission to protect the Baltic Sea. As part of his ongoing efforts to reduce nutrient runoff, Mr Kowalski intends to plant an extra 200 trees along the river and in the mid-fields on his property. Additionally, he has begun working with the Mazovian Agriculture Advisory Center in a honey bee protection programme. He has 30 hives so far.



GRASS conference participants are given a tour of the Kowalski Farm.

# EUTROPHICATION AND AGRICULTURE



The 2019 winners from eleven countries around the Baltic Sea watershed with their certificates.

© Jens Bach

## 2019 REGIONAL WINNERS OF THE BALTIC FARMER OF THE YEAR AWARD

**Warsaw, 25–26 September:** The Baltic Sea Farmer of the Year Award recognizes farmers who are taking exemplary steps to reduce nutrient runoff to the Baltic Sea. Each year national winners are selected from countries in the Baltic Sea catchment. One among them is then awarded the grand prize. This year, the regional prize was awarded to Kristian and Maria Lundgaard-

Karlshøj, conventional livestock and organic crop farmers from Denmark.

The history of Ausumgaard farm traces back to 1473. Kristian and Maria Lundgaard-Karlshøj's ties to the farm began in 1942 when it was purchased by Kristian's great-grandfather. The couple took over in 2007 and have been guided ever since by the vision of creating something that future generations

would be proud to inherit.

The jury was impressed by the wide range of measures employed on the farm to reduce nutrient leakage, and the engagement with consumers to bridge the gap between agricultural business and nature conservation.

“We need to show that farmers are part of the solution and that we are willing to step up to the big >>



Kristian and Maria Lundgaard-Karlshøj - regional winners of the 2019 Baltic Sea Farmer of the Year Award.



Meal worm production as an alternative protein source.



Kristian and Maria Lundgaard-Karlshøj farm - Ausumgaard.

© Jens Bach

# EUTROPHICATION AND AGRICULTURE

## Continued - 2019 Regional Winners of the Baltic Farmer of the Year Award

>> task of confronting the problems. At the same time, we must convince consumers that we have to do this together and that they have to buy products made in a sustainable way,” explains Mr. Lundgaard-Karlshøj.

The couple’s approach shows that large-scale farming can be sustainable through diversification, modernization and technology. The jury applauded the momentum and continuous development of the farm, including future plans to switch to free range chicken production, participation in research projects, and the construction of a freshwater wetland.

“Implementing these solutions has greatly motivated us to do more,” say the Lundgaard-Karlshøjs. “This work aids our dialogue within our community because we’re able to explain to others what we are doing and how we are helping. Winning the Baltic Sea Farmer of the Year Award will definitely help us do more of what we are doing and reach our goals. It will also empower us with greater

leadership as we steer our farm, our employees, and our community towards a more sustainable way of farming, doing business, and living”.

The 2019 award was presented at the [Greener Agriculture for a Sustainable Sea \(GRASS\) conference](#) on 25–26 September in Warsaw, Poland.

**Contact: Anu Suono**

### ABOUT THE GREENER AGRICULTURE FOR A SUSTAINABLE SEA (GRASS) CONFERENCE

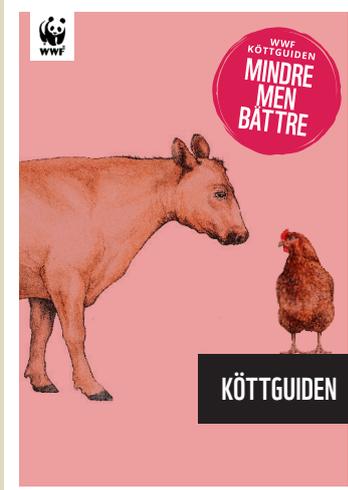
The 2019 GRASS Conference gathered more than 140 participants – key representatives from agriculture and environment around the Baltic Sea region – providing an important opportunity to share ideas, concrete solutions and collaborative approaches.

WWF Poland handed their statement on the EU Common Agriculture Policy 2020 to the Polish Minister of Agriculture and Rural Development, Jan Krzysztof Ardanowski. This was a strategic stunt as WWF Poland awaits a draft of the National Strategic Plan, which will be crucial for Polish agricultural policy in the coming years.



*The Baltic Sea catchment area is four times the size of the Baltic Sea itself. It encompasses around 90 million people, and 14 countries including the inland countries of Belarus and Ukraine. Considering the great diversity of the terrain, natural resources, and socioeconomic conditions within the catchment, it's critical that we join together to take united action to protect the Baltic Sea from eutrophication.*

# EUTROPHICATION AND AGRICULTURE



## HOW SUSTAINABLE IS YOUR STEAK?

On 5 November, WWF Sweden launched its updated meat guide (*köttguiden*). The guide gives a green, yellow or red light to different types of meat, cheese and eggs on the Swedish market. The guide is intended to make it easier for consumers to choose the right meat, and perhaps even to shift toward more plant-based diets.

This year's updates are based on assessments of several types of meat that are found in products and cheeses which are often used as meat replacements in vegetarian cooking.

The five criteria for assessment in the WWF Sweden meat guides are antibiotics, biodiversity, chemical pesticides, animal welfare and climate.

WWF Germany and WWF Finland have also developed meat guides for their respective national markets.

**Contact:** Sofia Nordlund

## SCIENTIFIC SECRETS OF THE VUOKSI RIVER

Last summer, a group of experts working for the Baltic Fund for Nature - in St. Petersburg - was involved in fieldwork to reveal the most valuable places in the Vuoksi River region.

Vuoksi is the major river system connecting south-east Finland and north-west Russia, and is one of the most popular regional recreational destinations in both countries. The river provides habitat for many fish species, including salmon and grayling. Vuoksi is also famous for enormous coastal wetlands, and both its deciduous and mixed forests.

The complex study included field surveys implemented by large team of botanists, zoologists and ecologists. It was designed to reveal the places representing untouched wilderness across the river plain that either provide habitats for threatened species or represent the most typical environments. An additional task was to map areas that are significantly threatened or that could potentially benefit from the designation of new protected areas.

The findings show that Vuoksi is an important migratory corridor and a stopover site for migratory water birds. The river valley features locally unique climate conditions which provide habitats for the northernmost populations of several Palearctic species in the region.

This study is part of the "River flows – Life goes" (also known as RiverGo) project. It is funded by South-East Finland-Russia CBC Programme and collaboratively implemented by the Natural Resources Institute Finland (LUKE), the Centre for Economic Development, Transport and the Environment of South-East Finland (ELY Keskus), and the Baltic Fund for Nature.

**Contact:**  
Evgeny Genelt-Yanovsky



Researcher installing a sherman trap to catch small mammals without harm.

© Yulia Danilova

# EUTROPHICATION AND AGRICULTURE



Agricultural land that is restored to wetlands, like those in western Uusimaa, Finland, can greatly improve water management.

© Jenny Jyrkänkallio-Mikkola



© Jenny Jyrkänkallio-Mikkola



© Sanderi Sarkka

## THE WONDERS OF WATER RESTORATION

**Sinutio, September:** As part of the ongoing [Vesiensuojelu 4K run](#) project, WWF Finland completed another combined stream restoration and wetland site, this time in Sinutio, western Uusimaa. The project aims to enhance water protection in three Finnish river catchment areas, all of which eventually drain into the Gulf of Finland.

The site is relatively small but proportionate to the catchment area of 70 ha where a significant amount of the nutrient load into the Baltic Sea is transported via sediment

particles. A section of the stream was restored from a straight ditch into a meandering stream to enable deeper sections to act as sediment basins.

Functioning wetlands are incredibly important. They increase the water retention in the catchment area, creating a buffer for heavy rains and acting as water reserves in times of drought. They also act as filters for run-off: when water flows through a wetland, nutrients and soil matter sink to the bottom. And they offer biodiversity benefits, for example by creating habitat for

birds, mammals, and amphibians.

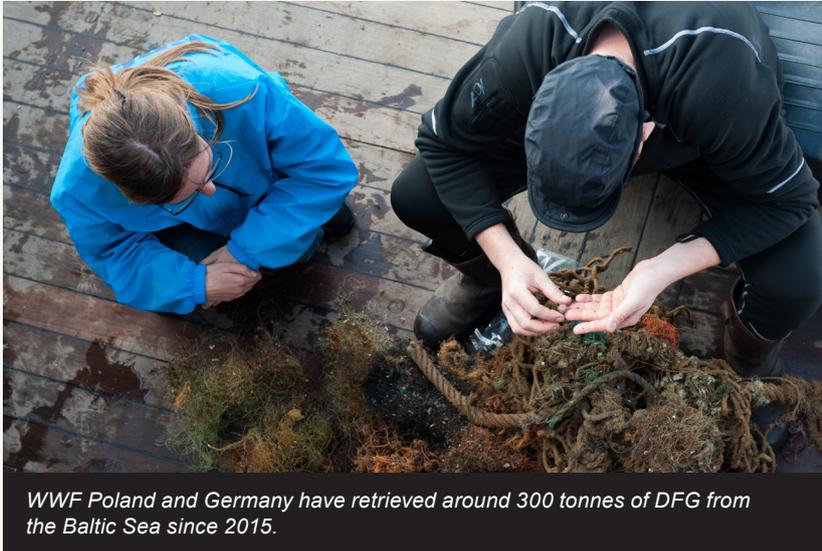
The project addresses the need to slow water flow in extreme flow events - such as the spring thaw - when substantial erosion can add sediment and nutrient load into streams, adding to the total sediment from the fields.

In extreme flow events, streams easily overflow into the fields, causing even larger sediment load. Building sites such as this one in Sinutio will improve water management and enhance water protection.

**Contact:**

[Jenny Jyrkänkallio-Mikkola](#)

# FISHERIES AND BIODIVERSITY



WWF Poland and Germany have retrieved around 300 tonnes of DFG from the Baltic Sea since 2015.

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- have ongoing work on derelict fishing gear, and are exploring how to continue this work and apply modern retrieval technologies. A next step for WWF Poland is to translate the project's outputs and outcomes to the policy level.

At the workshop, the European Commission indicated that a guiding document on the establishment of extended producer responsibility schemes, including fishing gear, should be available by March 2020. A similar document on extended producer responsibility specifically addressing the EU's Single Use Plastics Directive is also set to become available in the near future.

**Contact:**  
[Hannah Griffiths-Berggren](#)

## GOODBYE GHOST NETS

**Brussels, 22 October:** The call for action on marine litter is gaining traction both globally and in the Baltic region. At a HELCOM workshop on the implementation of the regional action plan for marine litter, WWF Poland presented the [Baltic Sea Blueprint](#) – a step-by-step roadmap on how to approach the derelict fishing gear problem in this and other regions- to an audience comprising representatives of the HELCOM contracting parties and the European Commission.

For almost a decade, WWF Poland

and WWF Germany have carried out numerous activities to remove derelict fishing gear from the Baltic Sea. The work accelerated with the launch of the [EU MARELITT Baltic project](#) in March 2016, focused on reducing the impact of marine litter (and specifically derelict fishing gear) in the Baltic Sea. Since then, WWF has retrieved around 300 tonnes of derelict gear from the Baltic Sea, with the project results feeding into the Baltic Sea Blueprint.

Several WWF offices – including Denmark, Estonia and Finland

## GHOST NETS

Derelict (or 'ghost') nets are a global problem that negatively impacts the environment through continual catch of marine life long after the nets have been lost. Fish, mammals and seabirds are found entangled and trapped in nets and left to die.

## RETRIEVING, RECYCLING AND ULTIMATELY REDUCING GHOST NETS IN THE RUSSIAN BALTIC

Ghost nets in the Russian part of the Gulf of Finland have been a focus for the Baltic Fund for Nature in 2019. The project goal is to reduce the impact of derelict fishing gear - also known as 'ghost nets' - in the Russian part of the Baltic Sea, using mapping, retrieval, recycling and prevention.

This year a preliminary survey,

based on expert interviews, identified areas where ghost nets are most likely to be found. The next phase in 2020 will focus on the search for ghost nets on the seabed. Sonar will be used to spot the masses of sunken nets, and underwater video recordings will inform the development of an action plan to retrieve various types of derelict fishing gear.

In the meantime, a key challenge

is the scarcity of recycling companies that could take care of disposing any of the ghost nets retrieved. Exploring the options along these lines will be a focus in the coming year.

**Contact:** [Marina Vilner](#)

# FISHERIES AND BIODIVERSITY

## SEAFOOD CHOICES IGNORE THE ENVIRONMENT

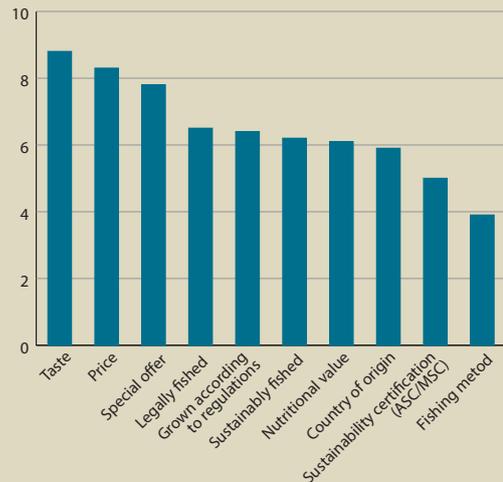
Pasaules Dabas Fonds, in partnership with research institute Kantar, conducted a survey on the seafood consumer habits across 1,000 people between the ages of 16–74. The vast majority (98%) consume fish products in their diets, with the older segment of society (55–74 years) more partial to fish than the youngest age class (16–24 years).

The top priorities for consumers when buying seafood are taste, price, and special offers. Less important are whether it was fished legally, sustainability, or origin of the product. Last on the priority list is what gear has been used to catch the fish.

The survey results show that only 1% of those asked recognize the Aquaculture Stewardship Council (ASC) global sustainable certification label, and 3% recognize the Marine Stewardship Council (MSC) certification for wild caught fish. The levels of understanding on the meaning of the respective certification labels are correspondingly low.

This survey is an important tool to help Pasaules Dabas Fonds in its efforts to achieve increased awareness and consumption of sustainable seafood consumption in Latvia.

Contact: [Magda Jentgena](#)



Modified fish traps could prevent nets from being damaged by seals.

© S. Agreiv / Baltic Fund for Nature

## TESTING ALTERNATIVE FISHING GEAR IN THE GULF OF FINLAND

Two species of seal inhabit the Russian waters of the Gulf of Finland – Baltic ringed seal and grey seal. Grey seal numbers have been on the rise over the last decade, but the Baltic ringed seal is still classified as Endangered and scientific data on the population status of both species in Russian waters are far from sufficient.

Authorities, conservation organizations and scientists are searching for approaches that will help to mitigate growing tension between seals and fishermen due to fishing gear damage caused by seals. One possible solution is the use of modified gear that both prevents seal bycatch and protects against seal-induced damage.

This autumn, the Baltic Fund for Nature conducted a survey among commercial fishers in the Gulf of Finland (including Kurgalsky nature reserve) on their views on seals, and collected data on the types of gear damaged by seals. Based on the survey and in close collaboration with fishers and seal biologists, the project will test existing modified fishing trap-nets at sea alongside traditional trap-nets used in commercial fishing.

The nets will be modified using extra strong netting to reduce external damage of both the gear and the catch. The entrances to the trap-nets will also be equipped with gates to prevent seals from entering.

If this trap-net modification experiment is successful, the approach and modified netting will be promoted among fishers across Lake Ladoga, in the eastern Gulf of Finland and further across the Baltic Sea region.

Contact person: [Marina Vilner](#)

# FISHERIES AND BIODIVERSITY

## PONTOON NETS MEAN NO “FREE LUNCH” FOR BALTIC GREY SEALS

Seals are extremely good swimmers and hunters, but why expend the effort if delicious cod and herring is abundantly served in fishing nets? In Lithuania, seals can eat up to two fifths of fishers’ catch and cause approximately €100,000 damage every year. Vaida Survilienė of the Lithuanian Fund for Nature describes the nets as a “shopping mall” for seals – except that no payment and minimal effort is required. They enter, eat whatever they find and leave.

This conflict between the seals and the fishers has grown in recent years. The Lithuanian Fund for Nature has offered pontoon nets as a solution. Scandinavian countries have been using pontoon nets for a couple of decades to spare fish catch from seals. So when the Lithuanian Fund for Nature bought two sets with support from the Lithuanian Ministry of Agriculture, Swedish researcher Swen-Gunnar Lunneryd came to teach local fishers how to use it.

### Experienced seals in the lead

Lunneryd shared research results showing that seals remember the location of the nets and return there. Often, a single experienced



Seals are curious about fish nets.

© Programme Seal and Fishery, Sweden



Lithuanian fishermen bringing pontoon nets to the coast to fish

© Inga Labutytė-Akocallienė

seal leads the net tearing endeavor, while others learn and then mimic the leader’s actions.

Even gill nets, which are made of particularly strong material, fail to stop a hungry seal from devouring an entire catch within 15 minutes. A better approach would be two layers of fishing gear to create a truly effective barrier between the fish and the seals.

### The gear that confounds the seals

It turns out that even the shrewdest, smartest seals give up when confronted by a pontoon net. A strong metal structure holds the shape of a roll and is covered by an extra layer of a very strong net, all raised on two metal “skis” with inflatable pontoons attached. Fully inflated, the pontoons help to raise this huge structure (up to 4 meters in diameter) above the water surface, even when the net is full of fish.

The entrance to the net has diamond shaped holes. Their size varies depending on the fish targeted, but none permit a seal to go further than up to its neck. The entrance is made of a steel frame with a metal rope dividing it, helping to prevent the bycatch of

both seals and certain bird species.

Scandinavian countries have been using this gear since 2001; today some 600 are in use in Finland and Sweden. Swedish fisher Glen Frid confirms that he now only uses this gear type since it saved his business and livelihood from dangerously declining catches. Lithuanian fishers are starting to experiment with the two new sets of gear, but there is still much to do. For example, the Lithuanian coastline is a stormy one, so fishers need to develop additional anchoring elements to adapt to the local coastal, wave and weather conditions.

And what is left for the seals? Cut off from their free lunch, they have no choice but to return to the hunt. So the Baltic grey seals visiting the Lithuanian coast are having to adapt to the new circumstances and make more effort to catch fish by themselves. More like a free gym rather than an all-inclusive buffet.

**Contact:** [Edmundas Greimas](#)

# INTEGRATED OCEAN MANAGEMENT

## RAYS OF LIGHT: SPREADING AWARENESS OF ENDANGERED SHARKS AND RAYS

Perhaps you are familiar with the great white shark and the manta ray, but how about the species closer to home? A total of 27 different sharks and rays live in Northern European Oceans, including the Baltic. How many do you know?

Together, sharks and rays are the **most endangered group of fish worldwide**, due to overfishing and bycatch. Public awareness of the state of ray species in the Baltic Sea is low. So, in collaboration with H&M, WWF Denmark launched a unique project aimed at restoring overfished sharks and rays in Danish waters. The main aim is to raise awareness about sharks and rays through disseminating information on their central role in the marine ecosystem. The project will also inform Danish fisheries stakeholders why it is important for species recovery to release rays back into the sea as soon as possible when caught unintentionally.

The thornback ray occurs naturally in the North Sea, Skager-

*Juvenile thornback rays.*



© Peter Verhoog / WWF Denmark

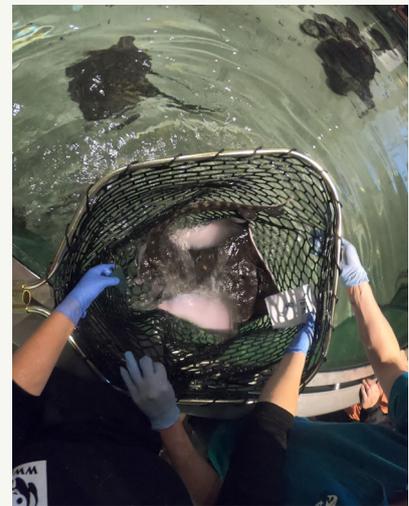


*WWF's marine biologist and shark expert Matilde Sort measuring the Thornback rays and sampling DNA in the Kattegatcenter.*

© Liv Backhaus

rak and Kattegat. There they make up to 75% of total shark and ray landings reported and are still fished occasionally by European fishers. Scientific data shows that the state of the thornback ray in European waters is improving, yet it is still listed as Near Threatened on the IUCN Red List of Endangered Species.

In this project, WWF is working together with European Association of Zoos and Aquaria (EAZA) public aquaria and the University of Copenhagen. The team will conduct a DNA analysis of captive bred rays in the aquaria to see if they are genetically fit to be released into the wild and mix with the wild population. If suitable, they will be tagged in order to track their distribution after release. Their genetic distribution in Danish waters is still unknown so this information is fundamental to informing adequate conservation of the species.



© Liv Backhaus

In addition to being a fusion of a unique awareness raising campaign and critical scientific research, the project will pioneer collaboration between businesses and stakeholders, and will demonstrate how IUCN's reintroduction guidelines developed for terrestrial application can be adapted to endangered marine species.

**Contact:** [Henrike Semmler](#)

# INTEGRATED OCEAN MANAGEMENT



Danish people's meeting with Thomas K. Sorensen, Jacob Fjalland, and Henrike Semmler Le from WWF Denmark.

©Henrike Semmler



Marie Storr-Paulsen, Head of Section for Monitoring and Data, DTU Aqua



KLAUS B. NIELSEN,

OLE LUNDBERG LARSEN, The Danish Fisheries Producers' Organisation DFPO



## DANISH PEOPLE'S MEETING TAKES ON THE OCEAN FOR THE FIRST TIME

**Bornholm, 13–16 June:** Every summer Danish politicians from all political parties gather as equals with interest groups and individuals with an interest in democracy to debate politically relevant questions at the people's meeting on Bornholm island in the Baltic Sea. This year the meeting was framed by the United Nations Sustainable Development Goals (SDGs). Participants were challenged to actively engage and take responsibility for developing solutions to address the world's most pressing social problems by 2030 - solutions that, if implemented, would ensure that we pass on a more sustainable planet to future generations.

Traditionally the sea and its unique issues have been under-represented or absent in this forum. This year, however, together with other NGOs working on marine protection, WWF set a new precedent with an exciting 3 day

programme on SDG 14 (Life Below Water), hosted on the century-old schooner *Freia*.

NGO biologists held discussions with marine scientists from the Danish Marine Research Institute and Århus University, the fish processing company Espersen, the Danish Fisheries Producer Organization, the Marine Stewardship Council, LetzSushi (the first fully certified sushi chain of Europe), and several others. Discussion focused on how to protect marine biodiversity and move towards a truly sustainable exploitation of marine resources, as well as requirements and consumer demands for seafood today and into the future.

Looking forward to next year's summer gathering! [Watch the film here.](#)

**Contact:** [Henrike Semmler](#)

# INTEGRATED OCEAN MANAGEMENT



Common guillemots, or murre, (*Uria aalge*) taking off from Stora Karlsö, Sweden.

© Metta Wiese / WWF-Sweden

## SPYING ON GUILLEMOTS

**Stora Karlsö** - an island off the coast of Gotland in south Sweden – hosts the Baltic Sea’s largest colony of guillemots with just over 20,000 breeding pairs. Together with their offspring, they make up about three-quarters of the entire Baltic Sea guillemot population.

This summer, researchers asked citizens to help collect data on the guillemots by setting up a [live-stream of the birds and their nesting areas](#). They asked viewers to watch the footage and report when they saw an egg, chick, or anything else of interest. An automatic time stamp is created when the viewer registers their observation, enabling more efficient data collection.

The live-stream hosted by WWF produced some 1,300+ comments and insights after two months of the citizen science initiative. The next step in the research was to analyze the almost 2,100 hours of film material using artificial intelligence (AI). A [hackathon](#) took place on 21-22 November in Sweden, involving multiple international teams. With the use of AI, the teams focused on finding automated solutions for recognizing individuals and frequent events, leaving the extraordinary and rarer observations to researchers and citizen science.

This type of data collection is typically time consuming, but essential. Every year, researchers at Stora Karlsö spend hundreds of hours just looking for eggs and chicks. The live-streaming offers the dual benefit of mobilizing the public to help collect the necessary data around the clock, and at the same time learn more about this beautiful Baltic bird.

**Contact:** [Metta Wiese](#)



© Metta Wiese / WWF-Sweden

## ABOUT THE GUILLEMOT

**Scientific name:** Guillemot (*Uria aalge*)

**Size:** 40–45 cm high with a wingspan of 60–70 cm

**Lifetime:** about 30 years, but the record is 46 years

**Sexual maturity:** At age 4–5 years

**Incubation:** The female lays a single egg between May and June. The incubation period is 30 days, during which time the male and female help and relieve one another.

**Feeding:** Small fish, in the Baltic Sea mainly sprat and herring.

**Baltic population:** Around 80,000. Of these there are approximately 50,000 breeding adults, some 20,000 chicks and 10,000 young birds.

**Distribution:** The guillemot lives mostly out at sea but breeds and hatches on land on Sweden’s east coast, as well as around Gotland (Karlsöarna), the coast of Västerbotten, Uppland and Södermanland. The island of Boden off the coast of Västerbotten is the northernmost colony.

# INTEGRATED OCEAN MANAGEMENT



European seas are in a poor state and need comprehensive biodiversity protection to improve their environmental status.

© Metasynthesis NMS

## A MARINE PROTECTED AREA WITHOUT MANAGEMENT IS JUST A PAPER PARK

**Vaasa, 9–12 September:** The report from WWF and Sky Ocean Rescue, ‘Protecting our oceans: Europe’s challenges to meet the 2020 deadlines’, shows that the EU is not set to meet its commitments for fully protecting 10% of its marine area by 2020. To date, only 1.8% of EU seas have marine protected area (MPA) management plans although 12.4% has been designated for protection.

Anna Soirinsuo from WWF Finland presented the report at the second [HELCOM marine protected area management workshop](#).

Among other things, the meeting discussed the need for action to ensure that [Europe’s marine sanctuaries are not paper parks](#), and for better surveillance of and clearer legislation on the use of these protected areas.

Due to the unique salinity gradient and high variability in habitat types in the Baltic Sea, it is



important to continue the efforts to improve the environmental status of biodiversity in the region. MPAs with comprehensive management plans are crucial as a spatial tool to address the stressors which impact biodiversity. Failures in MPA establishment and effective man-

agement are an epidemic around the world, including in the Baltic region.

The report shows that European seas are in a persistently poor state. They significantly lack appropriate biodiversity protection, with **19 of 23 coastal EU Member States falling behind on developing management plans for their MPAs**. In the Baltic Sea, only 7% of the total 16% marine area designated as MPAs has a management plan in place. This includes Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden (see figure on next page). The finding comes just a year before the 2020 deadline of two international agreements to effectively protect 10% of the ocean: the Convention on Biological Diversity Aichi Target 11 and United Nations Sustainable Development Goal 14 (Life Under Water). >>

# INTEGRATED OCEAN MANAGEMENT

## Continued - A marine protected area without management is just a paper park

>> At the latest count, there are a total of 16,916 MPAs worldwide: approximately 7.5% of the ocean is covered by protected areas spanning 27,185,099 km<sup>2</sup>. Much more is needed to track improvements, effectively monitor existing MPAs and deliver on the goal of 30% effectively managed by 2030.

Location and connectivity are two critical elements for consideration in designating MPAs. It turns out that those in the Baltic Sea are too far apart to successfully connect habitats and species. The low representation of different habitats and poor connectivity mean that these ‘protected’ areas are failing to function together as a network, and thus failing to fulfill their purpose of comprehensive biodiversity protection. [WWF has created a set of recommendations](#) to ensure that marine protected areas will effectively protect biodiversity.

**Contact:**  
Hannah Griffiths-Berggren

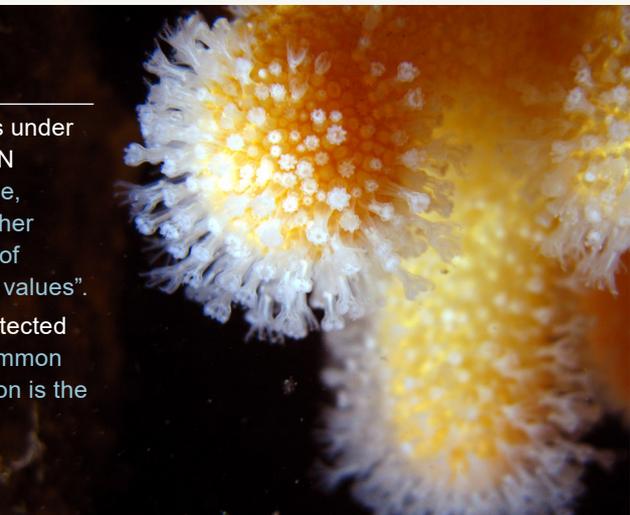
**PERCENT PER BALTIC COUNTRY OF MPAS WITH AND WITHOUT MANAGEMENT PLANS**



### MARINE PROTECTED AREAS

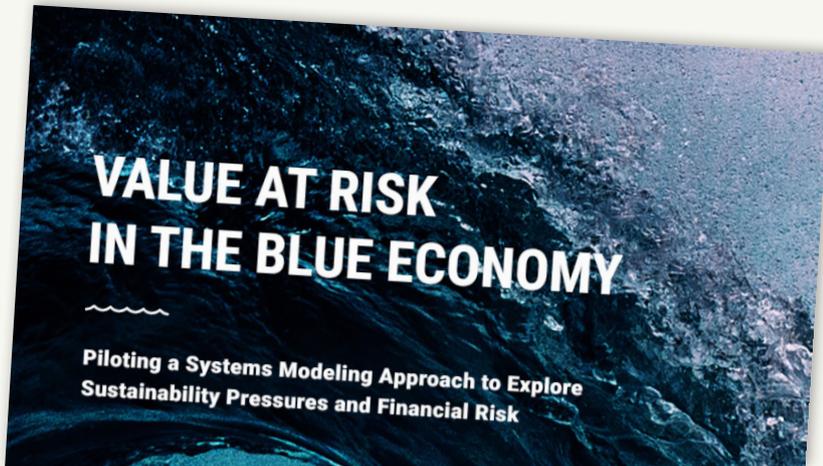
According to the World Commission on Protected Areas under the International Union for Conservation of Nature (IUCN WCPA), an MPA is “a clearly defined geographical space, recognized, dedicated and managed through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values”.

Several different categories of MPA range from fully protected areas (e.g. marine reserves) to multi-use areas. The common denominator is that only areas where nature conservation is the primary objective can be considered MPAs.



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# INTEGRATED OCEAN MANAGEMENT



## AN INVESTMENT RISK TOOL FOR MARITIME ACTIVITIES

Faced with the planet's climate crisis, how will financial investments fare in relation to risk? This is on the mind of every investor and asset holder whether investing privately or publicly. Risk is a measure of the level of uncertainty of achieving the expected returns. Risk is an important component in assessing the future prospects of an investment, yet it is complex to accurately calculate and estimate.

WWF and partners have taken on the challenge of creating a tool to ascertain nature related risks by looking at dynamic and nonlinear relationships between environmental drivers and the sustainable Blue Economy, using a systems modeling approach. The goal was to explore the feasibility and usefulness of this approach, versus incorporating environmental modules into traditional financial risk models.

The findings have been published in a report entitled *Value at Risk in the Blue Economy: Piloting a Systems Modeling Approach to Explore Sustainability Pressures and Financial Risk*. The study modeled two sectors in the Baltic Sea: ports (shipping) and fisheries.

For ports, the main driver of risk is damage incurred from increasingly frequent and intense storms

on a long time scale. The results indicate that the total value at risk to the ports sector in the Baltic Sea region over 85 years is up to 2.21%.

For fisheries, the main drivers of risk are habitat change, climate change, overfishing and other pressures on a short – even imminent - time scale. The model outcomes show extensive loss of revenues as high as 64% compared to the baseline year (2015), and a stranded assets value of 12% in a 15-year model run. The outcomes are highly sensitive to the amount of fishing effort in terms of potential fishing quotas and harmful subsidies that could have a large effect on fisheries value. The results indicate that the total value at risk to the Baltic region fisheries over 15 years is 73%.

A systems approach to risk assessment shows promise for further development as it adds the ability to look at cumulative impacts, trade-offs and interactions, as well as nonlinear risks. The aim is to continue to test the modeling approach using other sectors, including those indirectly related to the Blue Economy such as infrastructure development and manufacturing.

Additionally, there is an ambi-

tion to build more detail into the model, for example incorporating key root causes or drivers such as population and consumption trends.

Data availability is and will remain a key barrier to detailed modeling, especially given the lack of understanding of ecosystem feedback loops as the Earth's temperatures continue to rise. However, a key benefit of the approach is the potential for scenario modeling and understanding the impact of mitigation strategies.

The long-term vision is to establish a global model that could be used to evaluate the potential systemic impacts and trade-offs of public and private policy scenarios in significant detail.

Although still in the pilot stage, these kinds of investment risk tools will be increasingly important to investors both globally and regionally, and will also guide decision makers in terms of allocation of public funds for climate adaptation and mitigation. Asset owners and managers interested in testing their holdings should get in touch.

**Contact:** [Valerie de Liedekerke](#)

### WHAT ARE STRANDED ASSETS?

Stranded assets are **assets** that have suffered from unanticipated or premature **write-downs**, devaluations or conversion to **liabilities**. Stranded assets can be caused by a variety of factors and are a phenomenon inherent in the 'creative destruction' of economic growth, transformation and innovation. As such they pose risks to individuals and firms and may have systemic implications.

# PEARLS FROM THE BALTIC SEA REGION



*Teacher and students taking interest in the jellyfish that was found on the Latvian coast.*

*Students fill out questionnaires about biodiversity and human impacts*

## INTERACTIVE EDUCATION FOR LATVIAN YOUTH

In August, Pasaules Dabas Fonds launched a new project, focused on raising awareness among youth on biodiversity in Latvian waterways.

The lesson plan opens with an informative presentation on the state of biodiversity in the Baltic Sea and freshwater ecosystems. The students then visit a body of water - the sea, a river or a lake - and complete a questionnaire that encourages them to look at things from a new perspective and start to understand what affects biodiversity and the impacts that humans are having.

To make the process more interactive and interesting for the children, the questionnaire is made to fold into a 'fortune teller' origami shape, revealing new questions as it is folded. So far, the team has visited seven schools, reaching more than 300 young people across Latvia.

In addition to the school visits and expeditions, there was a conference for the children in early December in which they learned more about the state of biodiversity, and had the opportunity to participate in activities such as diving (in a swimming pool), board games and trivia championships. For the teachers, a webinar was held to inform them of the project in the hope that they will incorporate it into their curriculum in the coming years.

**Contact:** [Magda Jentgena](#)

## RESCUE PLAN FOR DANISH WATERS

**Denmark, August** – Together with Denmark's Sport Fishing Association, Living Seas and Danish Society for Nature Conservation, with support from the Velux Foundation – launched the national campaign [RedHavet.nu](#) (Save the Sea now), aiming to raise awareness on the critical status of the Danish marine realm.

Nature in the sea has not been prioritized in Danish politics for many years. On the contrary, the sea has instead been managed for short term industry interests. Most of Denmark's seabed is disrupted by bottom trawlers on an annual basis. The sea is in unimaginably poor condition with many fish stocks in critical state. The abundance of long-lived species (an important indicator of ecosystem health) has greatly declined.

There is currently not a single monitoring point in Danish waters that delivers on the EU goal of good ecological status, which Denmark (along with all other EU countries) is obligated to reach by 2020 under the Marine Strategy Framework Directive. The NGO alliance has thus far collected more than 23,000 signatures urging politicians to:

- Limit emissions of nitrogen to the sea from 60,000 to 40,000 tonnes by 2027;
- Stop polluting the sea with environmentally hazardous substances by 2022;
- Establish closed areas on at least one third of the seabed, where bottom trawling is prohibited.

The NGOs are further advocating for better protection in Danish waters through research, legislation and economic policy. Support this campaign, raise your voice, and sign the petition at [RedHavet.Nu](#).

**Contact:** [Henrike Semmler](#)

# PEARLS FROM THE BALTIC SEA REGION



## FISH FORWARD FOR THE FUTURE

Summer was a busy time for the Marine Team at WWF Poland. Under the Fish Forward project, the team organized educational events almost every weekend between June and September. Hundreds of people visited their stands, to learn about the importance of the ocean and the challenges faced.

The team travelled across Poland to spread knowledge and teach Poles about the global issue of overfishing, how it affects both the environment and people - especially those in developing countries - and what should we do to stop it.

“Our goal was to educate as many people as possible on the cod crisis and the importance of choosing and buying the right kind of fish,” explained Magdalena Melaniuk, Communications Officer at WWF Poland, “We showed people how to shop for products from sustainable fisheries. Everyone who visited our stand received a copy of the WWF Seafood Guide.”

On World Ocean Day (8 June) WWF Poland organized a two day event in Warsaw at the bank of the Vistula River to draw attention to the ocean. In July, the team visited two huge music festivals where they were able to reach a younger demographic to build interest in Baltic Sea issues. July also included with the Fish Day in Hel on the Baltic coast. This is an annual event to educate tourists about the sea and its wildlife. WWF had two stands – one on the Fish Forward project and the other showing Blue Patrol volunteer activities.

The eventful summer concluded in September with the unveiling of two marine murals in a Gdańsk underground passage to draw the attention of pedestrians to the challenges faced in the Baltic Sea, as well as to the global problem of overfishing and unsustainable fishing. One mural is a disturbing vision of the Baltic that WWF wants to prevent, while the second shows

overfishing and the problems it creates.

**Contact:** [Magdalena Melaniuk](#)



# PEARLS FROM THE BALTIC SEA REGION



Anna Sosnowska, WWF Poland.

© Anna Sosnowska

Sometimes I participate in as many as eight meetings per day, or work on a document for a few hours. But I also meet with politicians to present Baltic Sea problems and our recommendations; put on a panda costume and make a movie; co-organize international conferences on agriculture and eutrophication; make up games, animations and other things to teach people about marine problems; look for ghost nets with fishermen; make fake fish tattoos on World Ocean Day; give lectures to agricultural advisors; cook sustainable fish with bloggers; lobby for Common Agricultural Policy reform; carry boxes to the basement; develop strategy; dance with a farmer to terrible music; and lots more. On the side I coordinate a project, support six people from the Marine Team in their work and reply to hundreds of emails!

## MEET THE TEAM - ANNA SOSNOWSKA

### What is your job title?

Marine Conservation Specialist / Acting Head of Marine Team. I am also the Project Manager for Fish Forward 2 project in Poland. Previously I coordinated our Eutrophication and Baltic Sea Farmer of the Year Award project and am still somewhat engaged in this topic.

### What was your previous job and how did you get to WWF?

I used to work in the Chief Inspectorate for Environmental Protection (CIEP) as the Baltic Sea Focal Point – the team responsible for cooperation with HELCOM and the EU Strategy for the Baltic Sea Region, among other things. My path crossed with WWF a few times. In 2011, I participated in the Baltic Sea Farmer of the Year final conference; in 2012 I participated in the WWF Blue Patrol and Marine Station event; and in 2013 I helped organize the WWF–CIEP Baltic Sea Round Table. As the EU Strategy for the Baltic Sea Region Policy Area ‘Nutri’ coordinator I assessed WWF’s project application.

When my colleague invited me to apply to join WWF Poland’s Marine Team, I did not really take it seriously but went for the interview for fun. The people were so nice and the topics we discussed seemed so right to me that I decided to stay. It is over five years since that day.

### What is a typical day’s work for you?

My days at work can be very different, which makes them great.

### What most inspires you about your work?

It is great to be part of the Panda family. I learn a lot from my colleagues and from new challenges. I love nature. Every contact with it is an inspiration for further work. I want to save it.

**Contact:** [Anna Sosnowska](#)

## WWF POLAND

- Country: Poland
- Active in the Baltic since: 2000
- BEP-focused staff members: 7 full time staff, including Communications, are working on the Baltic Sea as part of a wider thematic programme.
- Main thematic focus: Marine, eutrophication and agriculture, sustainable fisheries, responsible seafood consumption, marine mammals and seabirds, Blue Patrol, ghost nets.

### Learn more:

[WWF PL - Seas and Oceans](#)  
[WWF PL - Environment](#)  
[WWF PL - Fish and Seafood](#)

# ON THE HORIZON

## WWF BALTIC ECOREGION PROGRAMME

### CALENDAR OF EVENTS

**10-11 December 20**

Fifty seventh Meeting of  
HELCOM Heads of Delegation

Helsinki, Finland

**3 March 2020**

HELCOM Stakeholder  
Conference

Helsinki, Finland

**4-5 March 2020**

41st HELCOM Commission  
Meeting including High  
Level Segment

Helsinki, Finland

**19-20 March 2020**

International Environment  
Forum "Baltic Sea Days"  
St Petersburg, Russia

**14-15 May 2020**

European Maritime Day  
Cork, Ireland

**22 May 2020**

International Day for  
Biological Diversity



*Plastic pollution is an increasing issue on the global environmental agenda.*

© Shutterstock / Mohamed Abulrahman / WWF

**Oslo, 23–24 October:** Plastics were high on the agenda at this year's Our Ocean conference. WWF's plastic policy team attended with the aim of advancing WWF's [No Plastic in Nature Initiative](#). In particular, their focus was on making progress towards securing a global policy solution to the plastics crisis.

At the conference, Grenada, Norway and Sweden committed to supporting the global binding agreement to stop marine plastic pollution. For more on this, read the WWF statement, [Momentum building behind global treaty to combat marine plastic pollution](#).

WWF joined as the only NGO to speak at the [Ellen MacArthur Foundation side event](#) on progress made towards the Foundation's New Plastics Economy Global Commitment.

WWF's No Plastics in Nature team also convened meetings with the World Economic Forum (WEF), Ellen MacArthur Foundation, UN Environment and IUCN, focused on developing a global database on the fate of plastics. This would fill a critical gap to inform 'plastic footprinting' tools used by many organizations. It could lay the

foundation for the global reporting framework needed for an effective global treaty on plastic pollution. It was exciting to see the organizational alignment in this space.

The WEF and WWF held further bilateral discussions to scope out areas of collaboration with the Global Plastic Action Partnership, with a focus on building the business case for companies to support the global treaty. WWF has been asked to participate on the Partnership's advisory board.

Early on the closing day, WWF organized a plastic-picking stunt outside the conference venue, involving Afroz Shah (a young lawyer from Mumbai who has led the world's largest beach clean-up project), Nikolai Astrup (Norway's Minister of Digitalization), Jens Frølich Holte (State Secretary at Norway's Ministry of Foreign Affairs), WWF Norway's CEO, Bård Vegar Solhjell, and his Ocean Practice colleague, Fredrik Myhre. The group found numerous cigarette butts and other small pieces of plastic pollution that could eventually end up in the ocean.

**Contact:**

[Hannah Griffiths-Berggren](#)



WWF works to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

[panda.org/baltic](http://panda.org/baltic)

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[Ottilia](#), [Hannah](#) and [Valerie](#)