

COMMON WADDEN SEA SECRETARIAT

TRILATERAL WADDEN SEA COOPERATION ANNUAL REPORT 2020



United Nations
Educational, Scientific and
Cultural Organization



The Wadden Sea
World Heritage Site
since 2009



Common
Wadden Sea
Secretariat

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TABLE OF CONTENT

04 *Fastening our Wadden Sea seat belts*
Protecting natural values in times of rapid climate change

12 *Climate Vulnerability Index*
World Heritage in changing climate



16 *The Wadden Sea and Helgoland*
Thriving seals

17 *Wadden Sea Research Trilateral Programming Committee installed*
Wadden Sea Explorer
Hiking tours along the World Heritage site

18 *Wadden Sea World Heritage*
Greetings from lockdown to UNESCO
New video clip
Wonders of the Wadden Sea World Heritage

19 *Anniversary*
Nationalpark Vadehavet celebrates 10 years
Anniversary
Hamburg's National Park turned 30

20 *Step by step*
Developing the single integrated management plan

24 *How to adapt a project on Sustainable growth in times of economic uncertainty*

28 *Talking to Adi Kellermann*
Swimway "Learning from Flyway"

31 *Growing closer together*
The Wadden Sea World Heritage Partnership Hub

34 *One year in office*
Bernard Baerends

36 *A local story*
Birgit Bertz



38 *Wadden Sea Faces*
Marco Brodde



40 *Upcoming Outlook*

42 *The Trilateral Wadden Sea Cooperation Board and Organisational Structure*



Cracked mudflats in front of Amrum (D) © Adam Schnabler/ LKN.SH



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EDITORIAL

DEAR
READER

Karin Lochte © G. Born

The year 2020 has been special to all of you and also for the Trilateral Wadden Sea Cooperation (TWSC). The Covid-19 pandemic has caused our normal procedures to change. Since the TWSC thrives through in-person meetings and events, we needed to adapt and have explored online communication tools intensively since March. As a result, we improved our video conferencing techniques and had several meetings online – even the Wadden Sea Board. We also introduced a hybrid meeting, where participants, who were unable to travel, could join physical meetings virtually.

We will use this new situation as an opportunity to expand our channels of communication. In the meanwhile, we deeply appreciate your patience and openness to try new ways.

Just like the Wadden Sea Newsletter, reintroduced in May, this new version of the Annual Re-

port was already planned before the pandemic. But it seems rather fitting to start this new publication in 2020 to keep you all well informed despite social distancing. The Annual Report gives an overview of the main activities of the Common Wadden Sea Secretariat (CWSS) and the TWSC of the past year. It offers different formats from topical articles over background articles to interviews and profiles.

A focal topic of this newsletter is climate change. While mitigation of climate change is a huge task for the global community, TWSC needs to pay attention at the regional level. Therefore, in this issue you will find a lead article on the current and projected climate change impacts in the Wadden Sea. Furthermore, the Expert Group Climate Change Adaptation, which leads the discussion on adaptation at a trilateral level, presents its latest activities on the pages following the lead

article. Information on the climate vulnerability index is also included.

You will also find other noteworthy developments mentioned in the report. The Partnership Hub took a new step of development with the appointment of Cristina Nazzari as the new officer in the CWSS responsible for the Partnership Hub. We also welcomed the start of the TPC-WSR (Trilateral Programming Committee on Wadden Sea Research). As I was Chair of the Roadmap Group that prepared the start of this committee, I personally want to thank everyone who was involved in the supporting work to get this new group installed. I look very much forward to strengthening the links to the scientific community and hope for tangible results in this presidency. We hope you will enjoy the reading! ~~~~

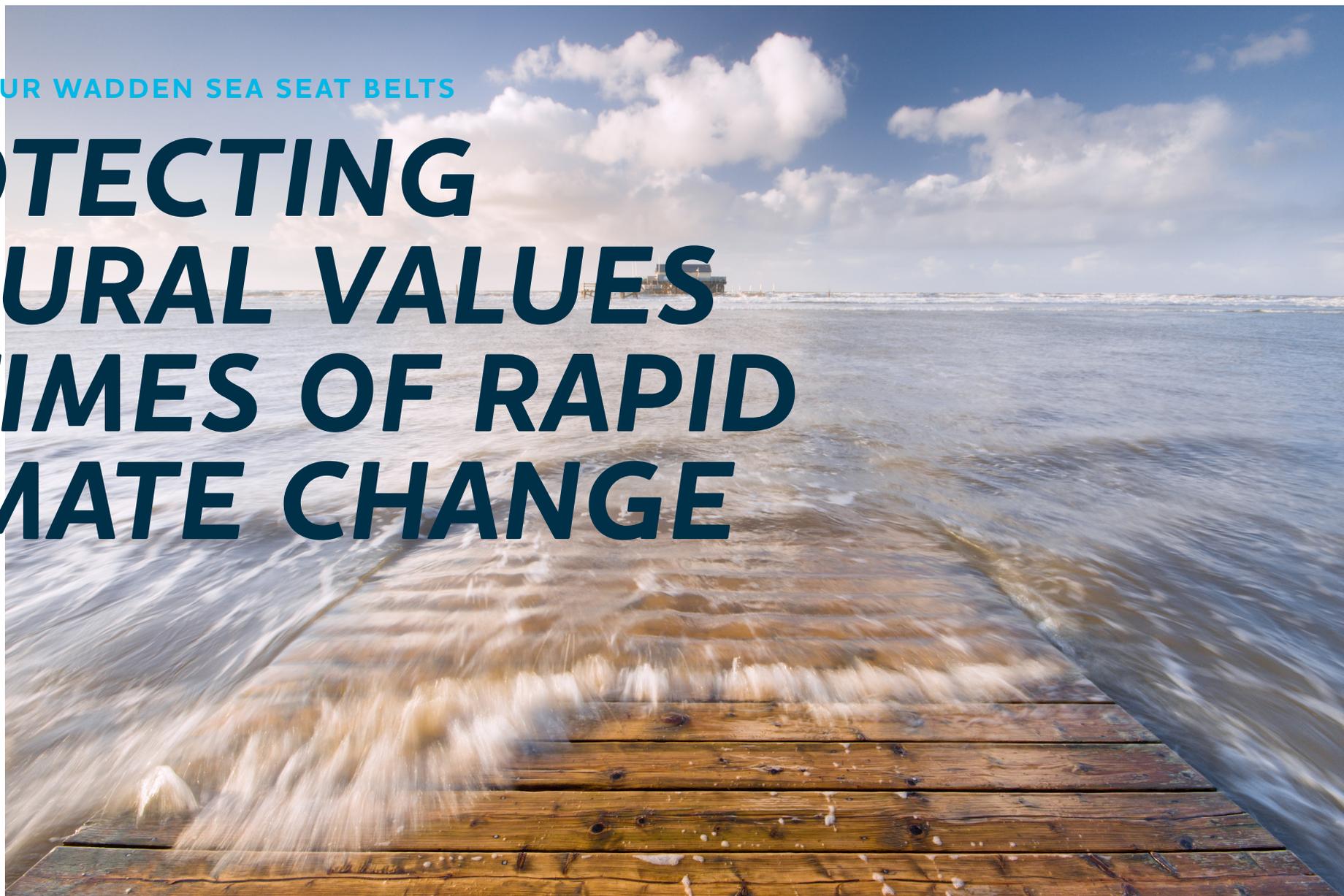
Karin Lochte
 Chairperson of the
 Wadden Sea Board

FASTENING OUR WADDEN SEA SEAT BELTS

PROTECTING NATURAL VALUES IN TIMES OF RAPID CLIMATE CHANGE

AN ESSAY ON
CLIMATE CHANGE

*Catharina J.M. Philippart,
Kees Bastmeijer
and Piet Hoekstra*



Flooded beach at St. Peter-Ording (D) © Adam Schnabler/ LKN.SH

Climate change, in particular warming, is already impacting the Wadden Sea ecosystem and, even if we manage to seriously limit the emissions of CO₂ at short notice, these impacts are not expected to slow down during the next decades. These developments challenge the Outstanding Universal Value of the World Heritage and other natural values protected under international conventions and EU directives. These legal regimes vary in objectives and requirements for restoration measures. In this essay, we explore some of the consequences of climate change for the natural values of the Wadden Sea in relation to such legal objectives and obligations, and identify issues that require further research.

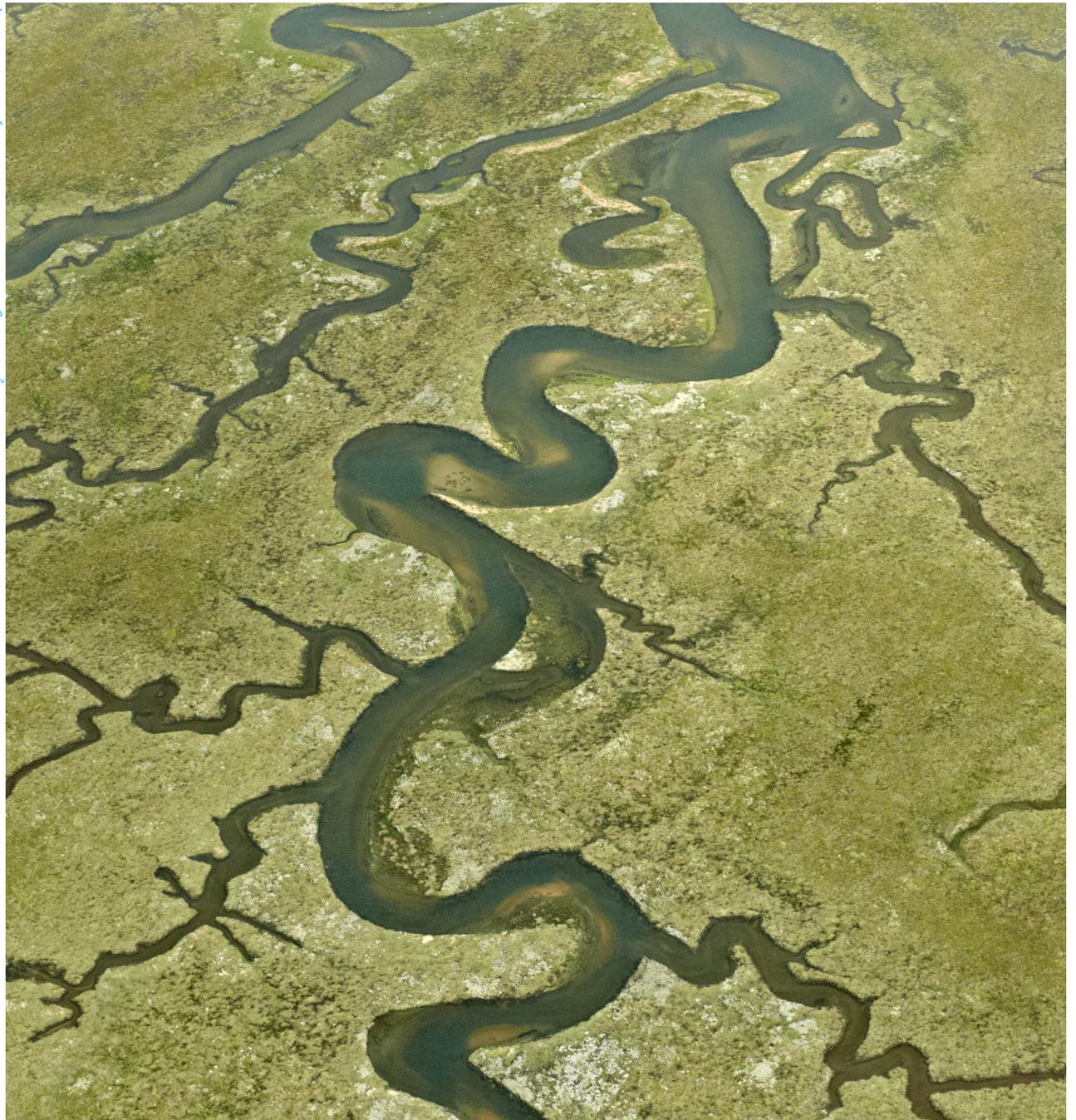
Nature protection regimes

The inscription of the Wadden Sea as a World Heritage was based on meeting three out of four natural heritage selection criteria, referring to its dynamic landscape (criterion xiii), the undisturbed ecological processes (criterion ix) and the important habitats for species' conservation (criterion x). These criteria and the Wadden Sea's Outstanding Universal Value (OUV) connect well with the Guiding Principle as set by the Trilateral Wadden Sea Cooperation in 1978, which is "to achieve, as far as possible, a natural and sustainable ecosystem in which

natural processes proceed in an undisturbed way". Basically, the Guiding Principle and the grounds for the World Heritage nomination acknowledge the natural dynamics and their interactions inherent to coastal systems, which enables valuation and protection of new environmental conditions, species and habitats in times of rapid (climate) change.

Current protection of the Wadden Sea ecosystems, however, is also subject to other legal instruments, such as EU directives (Natura 2000, Water Framework Directive) and various international nature protection conventions, and several of these regimes require governments to protect specific species and habitat types. For example, the EU Natura 2000 regime – established under the European Birds and Habitats Directives – focuses on achieving explicit and often quantitative goals for specific species of fish, birds and mammals and specific types of habitats (e.g. mudflats and saltmarshes). Compliance with the obligations of such legal regimes assumes that certain changes or their negative effects for species and habitats must be reversed by taking measures. Differences in objectives and obligations of nature protection regimes will be challenging for the future management of the Wadden Sea, particularly in view of likely effects of climate change.

Salt marshes store CO₂ at much greater rates than in land ecosystems © Lars Gejl



Impacts of climate change on the OUV criteria

Criterion viii (geological processes): "It is the largest tidal flat system in the world, where natural processes proceed largely undisturbed."

The projected acceleration of sea-level rise (SLR) depends on the Representative Concentration Pathways (RCP) scenarios. Scenario RCP2.6 implies a decrease in greenhouse gas emissions (GHG) after 2020. RCP4.5 is probably a more realistic scenario and is based on an increase until 2040 and a subsequent decrease afterwards. RCP8.5 assumes a continuous increase of GHG emissions.

The corresponding rates in SLR have served as input for a morphological model of the tidal basins in the Dutch Wadden Sea. Based on the scenarios, a first order estimate is made of the range in loss of tidal flats in 2050 and 2100, respectively. In 2050 the loss of tidal flats varies from 2% (RCP2.6) to 8% (RCP8.5); in 2100 these values may vary from 4% to almost 40%^{1,2}. The submergence and reduction of tidal flats is a direct response of the increase in accommodation space due to sea level rise (and locally subsidence) which is no longer compensated by the import of sufficient volumes of sediment.

On a shorter timescale, changes in wind strength and direction can also influence local sea level

SEA LEVEL RISE

High emission scenario (if the release of greenhouse gases is maintained at the current level): global mean sea level rise is projected to reach 15 mm/year (10-20 mm/year, likely range) by 2100.

Low emission scenario (if serious climate mitigation was launched immediately): global mean sea level rise will amount to 4 mm/year (2-6 mm/year likely range) by 2100.

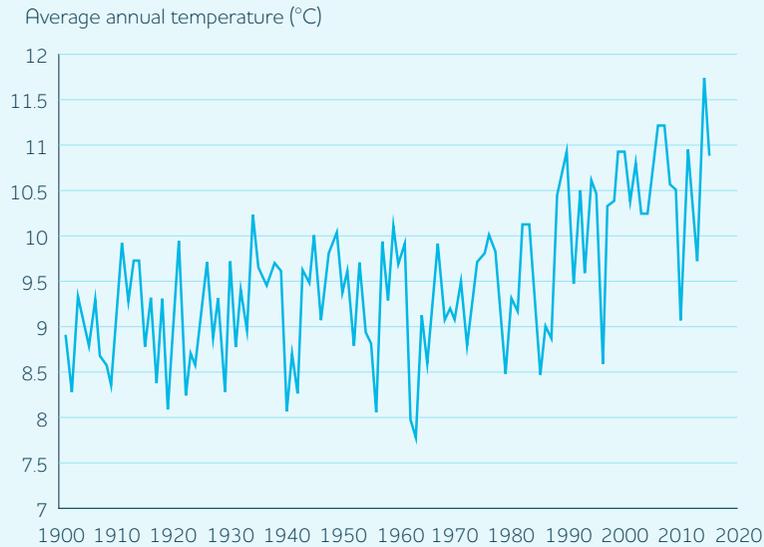
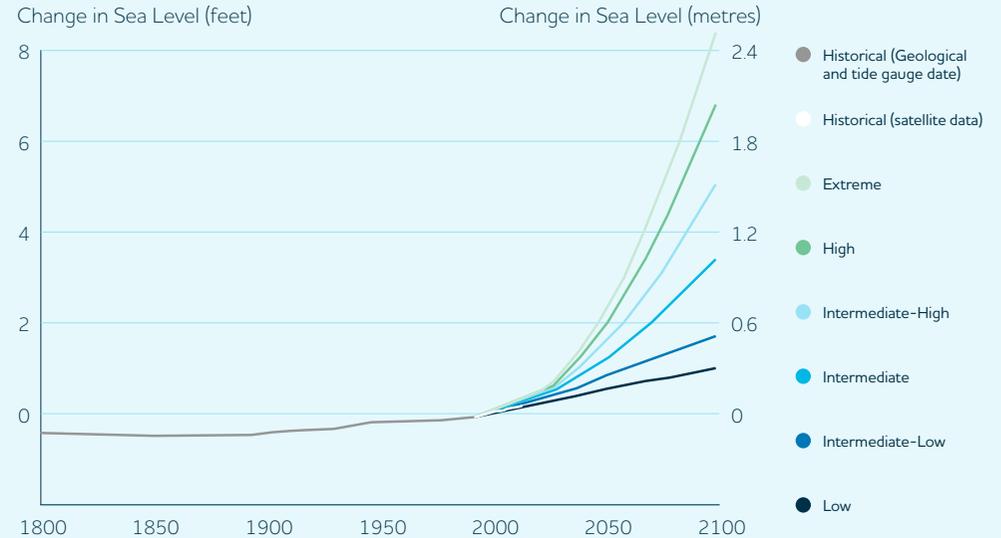
In comparison, in past 100 years, the sea level rose about 20 cm in the Wadden Sea.

Source: National Climate Assessment, Chapter 2, KM4: Sea Level Rise. <https://nca2018.globalchange.gov/chapter/2/>

TEMPERATURE RISE

Only the last 25 years showed a warming of about 1.5 °C. So far, 2014 was the warmest year, with an average water temperature of 12.5 °C (Nauw, 2016).

Average annual temperature at the Bilt (NL) since 1901 (Data: Royal Netherlands Meteorological Institute). Source: qsr.waddensea-worldheritage.org/reports/climate-ecosystems





Dollard Bay during extreme winter cold © Kaija Philippart

at a similar or even stronger pace³. The seasonal and inter-annual variation in mean sea level can be up to centimetres instead of millimetres. Other (cumulative) impacts on natural dynamics of geological processes include bottom subsidence, dredging and large infrastructures such as dams and artificial saltmarshes¹⁴.

Drowning of mudflats would decrease the surface and height of the tidal flats (N2000 habitat type H1140_A) and increase the surface and depth of the permanently submerged sand banks (H1110_A). Sedentary organisms (see criterion ix) such as mussel beds may enhance sedimentation, whilst sediment-reworking organisms such as lugworms destabilize the sediment^{5,6}. So far, such impacts have been measured at local scales; modelling results suggests that biota can influence sedimentation and erosion rates at larger (tidal basin) scales^{7,8}.

Criterion ix (ecological processes): "It encompasses a multitude of transitional zones between the land and the sea and freshwater environment and it is rich in species specially adapted to the demanding environmental conditions."

Although apparently devoid of life, the top layer of intertidal flats is inhabited by a suite of bivalves, worms and small crustaceans. These animals per-

form various function, including the provisioning of food to fish, birds and humans⁹. The collected composition of this macrozoobenthic community is strongly related to sediment composition, benthic microalgae and exposure time¹⁰. The drowning of mudflats will affect these environmental conditions and subsequently change the densities and biomass of the benthic community, including "typical species" such as lugworms, mussels and cockles¹¹.

Coinciding warming of the Wadden Sea will further shift the community composition¹², as will the ongoing introduction of invasive species¹³ and the increasing supply of fresh water in winter and a reduced input in summer¹⁴. Other (cumulative) impacts on benthic communities include those due to harvesting and bottom disturbance¹⁵. Such changes are expected to impact on the tidal flat dynamics, including (local) sedimentation and erosion rates (see criterion viii) and carbon flows within the food web^{16,17} (see criterion x) including the food availability for fish and birds.

Criterion x (biodiversity): "It is one of the most important areas for migratory birds and is connected to other key sites for these migratory birds in the Northern and Southern hemisphere."

Climate change impacts on biodiversity include expansions of species to the poles and/or

deeper waters following temperatures as climate warms, together with observations of phenological change¹⁸. More recently, a number of studies have reported shrinking of body size as an effect of climate warming^{19,20}. Earlier snow melt in the Arctic breeding grounds, for example, resulted in a smaller body size in red knot birds, resulting in higher mortality in their tropical wintering grounds²¹. Such shifts will result in local declines in numbers of various fish and bird species for which strict conservation objectives are set within the N2000 legal framework¹¹.

The impacts of climate change on the three criteria strongly interact. Changes in geomorphology (criterion viii), such as drowning of mudflats due to SLR or wind-induced increase of the sea level, will affect the food availability for fish and birds (criterion x) directly via a respective increase and reduction in feeding time and indirectly via an accompanying change in benthic communities of plants and animals (criterion ix).

Climate change effects: Force majeure or adaptation measures required?

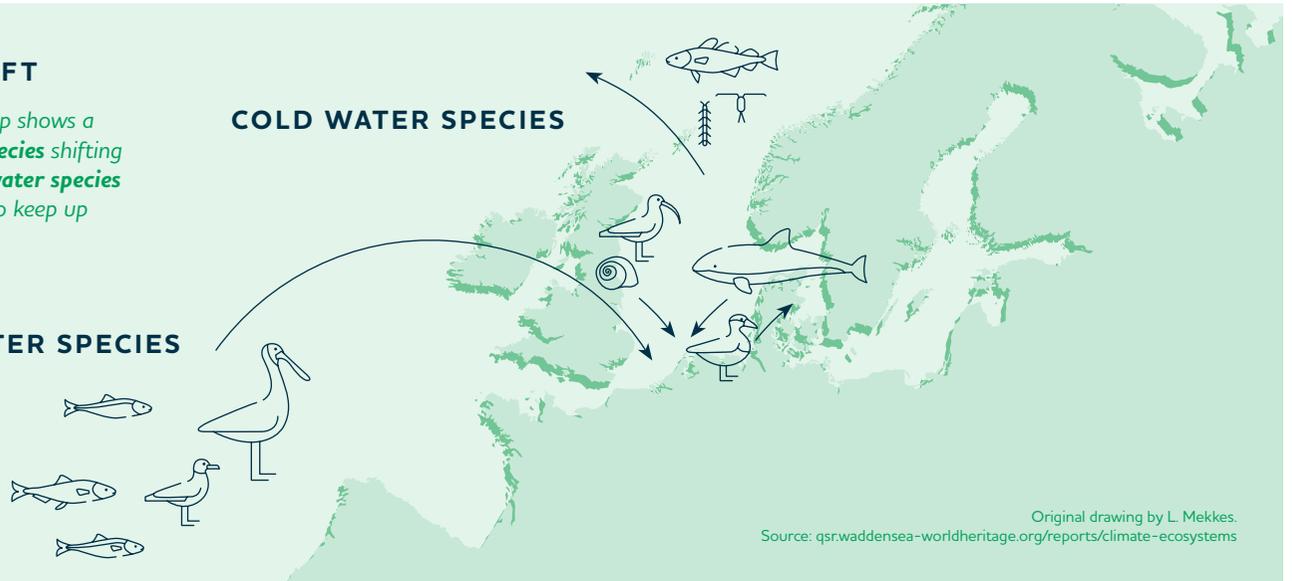
A central question is whether the above discussed climate change influences can be regarded as a given fact or whether measures must be taken to (partially) reverse these effects. Based on the Guiding Principle

DISTRIBUTION SHIFT

Sea surface temperature map shows a selection of **warm-water species** shifting northwards, whereas **cold-water species** retreat to the Wadden Sea to keep up with the colder waters.

WARM WATER SPECIES

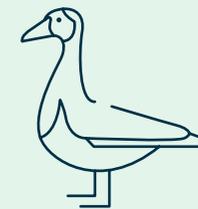
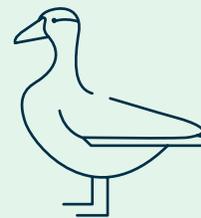
COLD WATER SPECIES



Original drawing by L. Mekkes. Source: qsr.waddensea-worldheritage.org/reports/climate-ecosystems

SHIFT IN MIGRATORY SCHEDULE

Over the last 30 years, the **greylag goose** (*Anser anser*) has departed three weeks earlier and **lapwing** (*Vanellus vanellus*) four weeks earlier than in the past; in contrast, **barnacle geese** (*Branta leucopsis*) have postponed their departure by four weeks.



GREYLAG GOOSE

LAPWING

BARNACLE GOOSE

- 3 weeks

- 4 weeks

+ 4 weeks

Source: qsr.waddensea-worldheritage.org/reports/climate-ecosystems

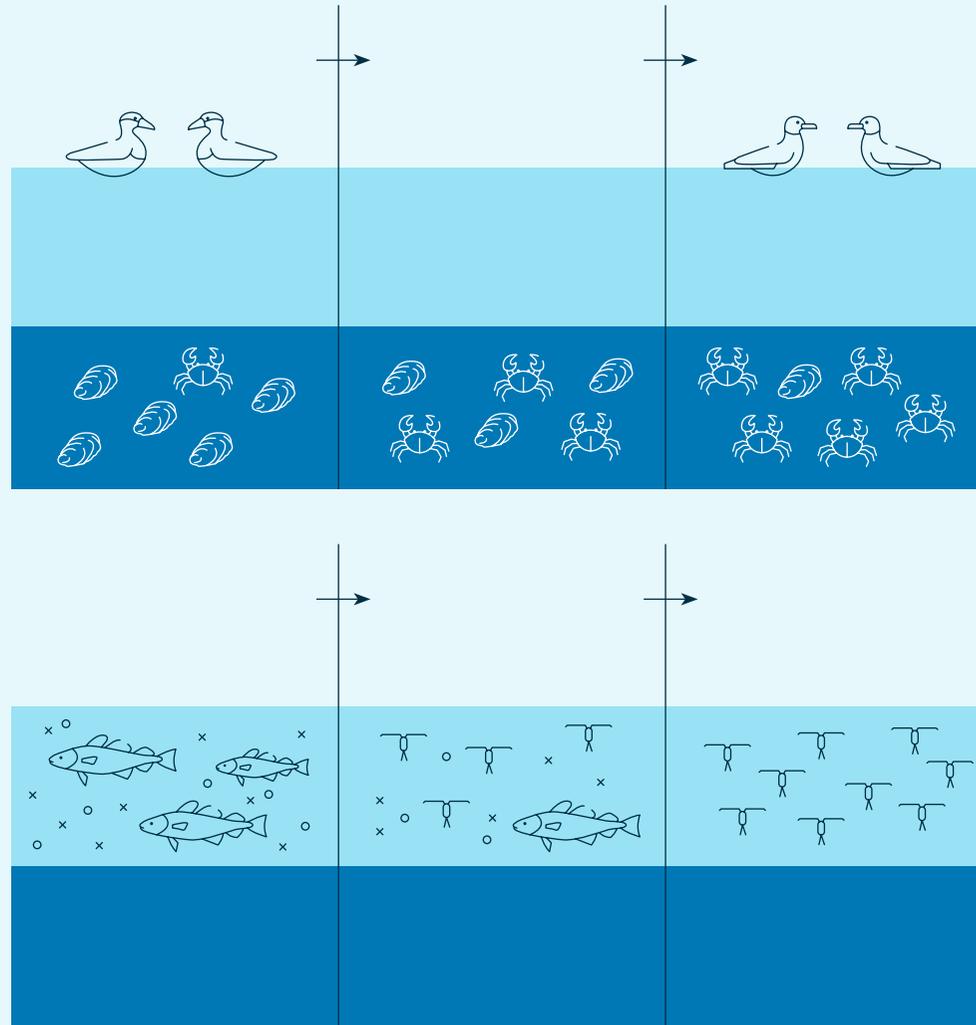
SHIFTS IN FOOD WEB

Possible **mismatches in species compositions** due to climate change.

Top panels: Warmer temperatures during winter causing epibenthic predators to survive, which increase predatory pressure upon bivalves (Beukema, 2009), which in turn result in a decrease in bivalve-eating birds (Camphuysen et al., 2002), while crab-specialists increase in number (Luczak et al., 2013).

Bottom panels: Increased water temperatures cause a shift in plankton composition. This causes an increase of grazing by zooplankton on phytoplankton (Wiltshire & Manly, 2004). As a result, cod recruitment reduces and cod stock declines.

Original drawing by L. Mekkes.
Source: qsr.waddensea-worldheritage.org/reports/climate-ecosystems



as well as the emphasis on natural dynamics in the criteria, it could be said that the ecosystem must have the freedom to adapt to a changing climate and that therefore active management measures are not required. However, various legal regimes, aiming to maintain and restore certain relatively specific natural values, often do require restoration or compensation measures²².

The EU Habitats Directive, which applies to Natura 2000 sites, including the Wadden Sea, states (Article 6 §2) that “Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive.” In 2005, the United Kingdom argued before the EU Court of Justice that under this provision “only non-natural deterioration is to be avoided”. The Court (Case C-6/04, 20-10-2005, §35), however, concluded that “[...] it may be necessary to adopt both measures intended to avoid external man-caused impairment and disturbance and measures to prevent natural developments that may cause the conservation status of species and habitats in Special Areas of Conservation to deteriorate”.



While this court ruling does not mention climate change effects, it makes clear that the three Wadden Sea nations are obliged to take action if climate change impacts in the Wadden Sea pose a problem for achieving the site's Natura 2000 conservation objectives. This is in line with the guidance on Article 6(2), provided in 2018 by the European Commission that “[...] in the case of natural succession or of climate change effects, measures would need to be taken to halt or counter this process if it is deemed to be negatively impacting on the species and habitat types for which the site has been designated²³.”

Thus, although climate change itself may be difficult to address at the site level, the effects of climate change fall under the scope of legal obligations and have, therefore, to be prevented, mitigated, restored or compensated. It is generally assumed that this obligation has its limits. For instance, the

European Commission states on its website that this article “does not apply when the process cannot be influenced by active management” and then explicitly refers to climate change²⁴. It is unclear, however, where the boundary should be drawn between required management measures and acceptance of climate change effects that cannot be influenced.

What's next?

The criteria and the Guiding Principle appear to allow for adaptation to climate change, including shifts in habitats and species that will result from on-going geomorphological, ecological and biological processes. Care should be taken, however, that releasing strict protocols on fixed values for species and habitats does not provide ample opportunities for human activities that (further) enhance the impacts of climate change. Based on recent court rulings on protection of species and habitats, however, it appears that the Wadden Sea nations might still be obliged to take measures to prevent, mitigate, restore or compensate the local effects of climate change.

As a Wadden Sea community, we urgently need to explore how to get a grip on the tension between the “laissez faire” principle as it appears being incorporated into first two criteria (viii and ix) and the Guiding Principle, and the “need to act” principle

following from the third criterion (x) and certain international and EU legal systems.

If measures are taken, then reduction of CO₂ emissions should always be the main approach to reduce climate change impacts²⁵, although this is not expected to reverse effects in the short run²⁶. Suggestions that are made to reduce human impacts on marine systems such as the Wadden Sea mainly focus on limiting human-induced stressors²⁷. Suggestions for restoration efforts include sand nourishments near tidal inlets²⁸, building elevated breeding plots for birds in salt-marshes²⁹, and dyke removal to include lower lying coastal areas³⁰. If such actions are taken, these should (i) be based on scientific evidence on the likelihood of their effects, (ii) not be conflicting with each other, and (iii) be part of a single integrated management plan (see article on pages 20-23). The likelihood of the effects should be based upon existing and new knowledge on process-response relationships, derived from (updated) model studies, lab experiments and field measurements as being put forward within the Trilateral Research Programme.

Exploring the options and quantifying the consequences (dose-effect relationships, costs, cumulative effects, impacts on the coastal human population) on how to respond to climate change is one of our main chal-

lenges we should jointly address at short notice.

In order to evaluate the impacts of measures on ecosystem functioning (in addition to species and habitats), it should be known how these actions change the nature and magnitude of on-going geomorphological, ecological and biological processes, including sediment dynamics, nutrient recycling and food provisioning for fish and birds. This requires a more process-orientated ap-

proach of monitoring. For macrozoobenthos, for example, this would imply additional monitoring of filtering capacity, secondary productivity, and rates of bioturbation and stabilisation. These data should be of high quality (enabling detection of a signal within the noise), and be easily accessible for different users. The monitoring programme should be part of marine spatial planning procedures, including clear and formal agreements how the outcomes are evaluated and

which consequences various outcomes of this evaluation might have³¹.

Setting up a scientifically sound and more process-orientated monitoring programme, including strict protocols for regular evaluation of the results, is required to follow the rates of change, to quantify the impact of human (restoration) efforts and to enable fast response to unexpected changes in environmental conditions and the effects of restoration efforts.

Extreme heat and drought © Adam Schnabler/ LKN.SH



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CLIMATE VULNERABILITY INDEX

WORLD HERITAGE IN CHANGING CLIMATE

Climate change may seriously impact the structure, functions and characteristic biodiversity of the Wadden Sea ecosystem, as well as threaten the safety of the region's residents. Katja Philippart outlines the real-time and possible future effects in her lead article on pages 4-11. The Trilateral Wadden Sea Cooperation addresses the diverse impacts of climate change on the Wadden Sea, especially on its Outstanding Universal Value (OUV), expressed in the Leeuwarden Declaration of May 2020. The Cooperation's forerunner dedicated to this topic is the Expert Group Climate Change Adaptation (EG-C). In February 2020 CWSS and EG-C, in close cooperation with the Task Group World Heritage, organised rapid assessment on the OUV's vulnerability to climate change.

Adaptation as key in regional climate change combat

Over the past 100 years, the sea level has risen in total by about 20 cm with about 2 mm each year in the North Sea (including the Wadden Sea). According to the Special Report "Ocean and Cryosphere in a Changing Climate", published in 2019 by the Intergovernmental Panel on Climate Change (IPCC), between 2006 and 2015 the observed global rate of sea level rise was larger, at 3.1-4.1 mm/year.

IPCC expects the sea level to rise even more quickly, with values of up to 15 mm per year in 2100. The report further states that this all depends strongly on greenhouse gas emissions. If emissions start declining immediately and eventually reduce to zero in 2100 (climate future scenario RCP2.5), the total rise

Storm flooding © Martin Stock/LKN.SH



For full strategy visit
waddensea-worldheritage.org/CCAS



TRILATERAL CLIMATE CHANGE ADAPTATION STRATEGY (CCAS) STRATEGIC OBJECTIVES AND GUIDING PRINCIPLES

1. Natural dynamics

The Wadden Sea ecosystem has adapted to environmental changes for millennia. Allowing and restoring natural dynamics increases the resilience of the Wadden Sea to climate change.

2. Interconnectivity

Interconnectivity of habitats allows species and communities to follow shifts of climatic conditions, thereby preventing extinction and securing adaptation of characteristic biodiversity.

3. Integration

Climate change is a cross-cutting theme and requires an integrated approach across borders and disciplines.

4. Flexibility

To cope with uncertainties of predictions, a flexible approach is required. Adaptive management facilitates timely responses to new information on actual and projected changes.

5. Long-term approach

Climate change and accelerated sea level rise are gradual processes that need a long-term management approach.

6. Site specific approach

Challenges and optimal adaptation may differ throughout the Wadden Sea region, hence cooperation and knowledge exchange on best site-specific solutions are required.

7. Participation

Active involvement of a wide range of stakeholders should lead to awareness for the challenges of climate change and acceptance of adaptation measures.



in 2100 is estimated at 0.43 m compared to 1986-2005. But if emissions remain high (RCP 8.5) the rise is estimated at 0.84 m. The regional rise of sea level depends on many factors, but is expected to follow.

While mitigation efforts can only be successful on a global scale, at the trilateral level of the Wadden Sea adaptation is the key. In 2014, the Trilateral Governmental Council adopted the Climate Change

Adaptation Strategy (CCAS) prepared by the Expert Group Climate Change Adaptation (formerly: Task Group Climate), which includes seven principles of effective adaptation measures (see box above). The

principles aim at enhancing the resilience of the Wadden Sea ecosystem to the impacts of climate change, taking into account the impacts and adaptive capacities known for the Wadden Sea.

Looking at the Wadden Sea's Outstanding Universal Value, it is not yet clear to what extent climate change will cause an impact. The OUV is the central concept of why the Wadden Sea was named a World Heritage site by UNESCO. In short, the Wadden Sea is the largest unbroken tidal flat system in the world, whose processes are largely undisturbed (for long version, see whc.unesco.org/en/list/1314). The OUV is backed with the three criteria, geological processes, ecological processes and biodiversity, as well as the Wadden Sea's integrity and protection. If components of the "formula" are threatened, the entire World Heritage title may be at risk. In order to look at the impact climate change may have on the OUV, the Common Wadden Sea Secretariat (CWSS), EG-C and the Task Group World Heritage (TG-WH) set out to become a pilot case for a global assessment tool: the Climate Change Vulnerability Index (CVI). The first workshop was held in February 2020.

A coherent tool for World Heritage sites

The Climate Change Vulnerability Index (CVI) is being developed at James Cook University (Townsville, Australia) as a rapid assessment tool to systematically assess climate change vulnerability of World Heritage properties. The Australian team recognised that climate change is the fastest

growing global threat to World Heritage sites and that many properties are already experiencing significant negative impacts, damage and degradation. In response, the team created the index to provide an approachable, easily applicable tool to identify the main points of risk. The CVI comprises two outcomes: OUV Vulnerability and Community Vulnerability – the latter being based on the economic, social and cultural dependencies upon the World Heritage site and the adaptive capacity of these to cope with climate change (see figure on the next page).

Assessing the OUV vulnerability of the Wadden Sea

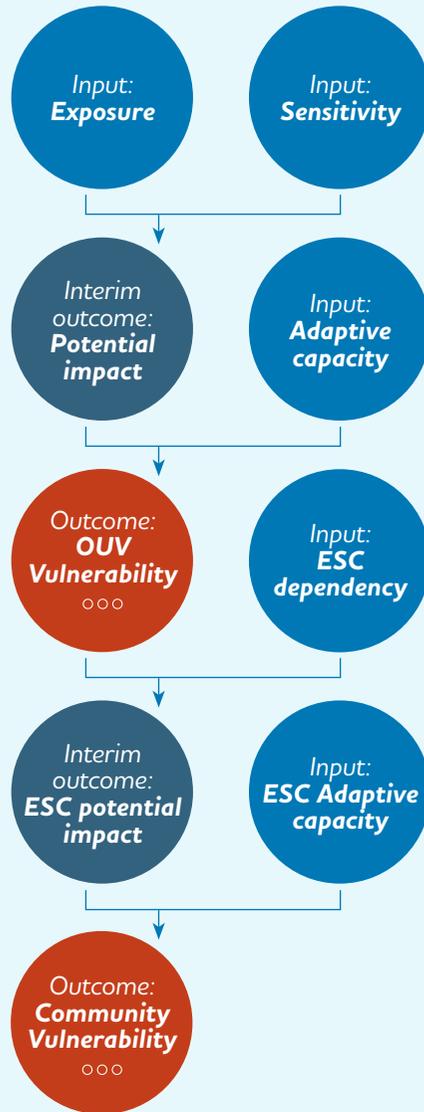
The process of applying the CVI method to the Wadden Sea started in mid-2019. As a first step, CWSS and TG-WH categorised the official statement of the Outstanding Universal Value into ten key values (see figure on page 21). With the key values at hand, on 10-11 February 2020, experts of the relevant scientific and academic sectors as well as policy makers and conservationists met for a workshop in Hamburg to complete the first phase of the CVI. The participants identified three key climate stressors with the most severe impact on the Wadden Sea's OUV:

- Temperature trend (air and/or water)
- Extreme temperature events
- Sea level rise.

CVI

The Climate Vulnerability Index framework to undertake rapid assessment of climate change vulnerability of World Heritage properties and associated communities (Day et al., 2020). Outcomes are vulnerability of **the Outstanding Universal Value (OUV) - central concept of World Heritage - and Community Vulnerability**.

Source: www.waddensea-worldheritage.org/resources/2020-cvi-report



The three stressors were held against the key values and possible impacts of climate change were discussed for two time frames: 2050 and 2100. The workshop assessed the OUV vulnerability as overall high for both timeframes. The impact of the first two key climate stressors was considered as high for both time periods. The stressor “sea level rise” was seen as low with regard to 2050, with a less rapid rise in this period, and as high for 2100, with the sea level expected to rise more rapidly between 2050 and 2100. The scenario high vulnerability holds that a major loss or substantial alteration of

the majority of the OUV attributes is foreseen.

Looking at climate change adaptation, understanding and response measures, the known possibilities to adapt to increasing air and water temperatures or extreme temperature events are limited. Climate change adaptation strategies so far focus on measures associated with sea level rise in terms of local and regional management responses and established scientific and technical support. The workshop participants concluded that more knowledge is needed in regards to possible measure for adapting to tem-

perature trends and extreme temperature events. More, they deemed it important to minimise other (localised) stressors on the ecosystem as a sound ecosystem is expected to be more resilient to climate change than a system under many other pressures.

What’s next?

The CVI workshop directly relates to the Leeuwarden Declaration, signed by Denmark, Germany and the Netherlands in May 2018, in which the Wadden Sea states expressed their commitment to climate adaptation measures. The Declaration requested the Wadden Sea Board “to deter-

CVI workshop participants © CWSS/ Fransiska Neigenfind



mine together with its scientific partners which investigations are needed to better understand the impacts of climate change on the Wadden Sea ecosystem, for example on primary production and non-indigenous species, and to be prepared to enhance the level of adequate management to safeguard the Outstanding Universal Value of the Wadden Sea” (§28).

The CVI process is a first step. A workshop to undergo the second phase of the Climate Vulnerability Index tool, the assessment of the Wadden Sea’s community vulnerability, is planned for the year 2021.

Moreover, the key values of the Wadden Sea’s Outstanding Universal Value, which were developed for this process, will be integrated and further confined in the development of a single integrated management plan (SIMP) for the Wadden Sea World Heritage (see article on pages 20-23).

The Expert Group Climate Change Adaptation will update the priorities of the Climate Change Adaptation Strategy using the new findings and continue the strategy’s implementation. And the EG-C will investigate if pilot sites or projects can be found to showcase the application of the CCAS and stimulate a knowledge exchange of the principles of adaptation in the Wadden Sea.

TIMEFRAME 1: 2050

Rapid assessment of OUV Vulnerability to identified three key climate stressors for the 2050s. Assessed values of exposure, sensitivity and adaptive capacity contribute to derived outcomes of potential impact and OUV Vulnerability. The Combined OUV Vulnerability describes the overall assessment of the three key climate stressors combined.

Source: www.waddensea-worldheritage.org/resources/2020-cvi-report

KEY CLIMATE STRESSORS	TEMPERATURE TREND (AIR AND/OR WATER)	EXTREME TEMPERATURE EVENTS	SEA LEVEL RISE (TREND)
Exposure	Very likely	Likely	Very likely
Temporal scale	On-going	Frequent	On-going
Trend	Rapid increase	Moderate/Rapid increase	Slow/Moderate increase
Exposure	Very likely ○○○●	Very likely ○○○●	Very likely ○○○●
Sensitivity	Moderate	Moderate	Low
Spatial scale	Widespread	Extensive	Extensive
Compounding factors	Medium/High probability	Medium probability	Medium probability
Sensitivity	High ○○○○	Moderate ○○○○	Moderate ○○●○○
Potential impact	Extreme ○○○●	High ○○●○	High ○○●○
Local management response	Low	Low	High
Scientific/technical support	Moderate	Moderate	Moderate/High
Effectiveness	Low	Very low/Low	Moderate/High
Adaptive capacity	Low ○○○○	Very low ●○○○	High ○○○●
OUV Vulnerability	High ○○●	High ○○●	Low ●○○
Combined OUV Vulnerability		High ○○●	

TIMEFRAME 2: 2100

Rapid assessment of OUV Vulnerability for ca. 2100 (see caption above for additional detail).

KEY CLIMATE STRESSORS	TEMPERATURE TREND (AIR AND/OR WATER)	EXTREME TEMPERATURE EVENTS	SEA LEVEL RISE (TREND)
Exposure	Very likely	Likely	Very likely
Temporal scale	On-going	Frequent	On-going
Trend	Rapid increase	Moderate/Rapid increase	Slow/Moderate increase
Exposure	Very likely ○○○●	Very likely ○○○●	Very likely ○○○●
Sensitivity	High	High	High
Spatial scale	Widespread	Extensive/Widespread	Extensive/Widespread
Compounding factors	Medium/High probability	Medium probability	High probability
Sensitivity	High/Very high ○○○●○	High ○○○●○	High/Very high ○○○●○
Potential impact	Extreme ○○○●	Extreme ○○○●	Extreme ○○○●
Local management response	Low	Low	Low/Moderate
Scientific/technical support	Low/Moderate	Low/Moderate	Moderate/High
Effectiveness	Very low-negligible	Very low-negligible	Low
Adaptive capacity	Very low ●○○○	Very low ●○○○	Low ○●○○
OUV Vulnerability	High ○○●	High ○○●	High ○○●
Combined OUV Vulnerability		High ○○●	

THE WADDEN SEA AND HELGOLAND

THRIVING SEALS



Good news for two of the iconic species of the Wadden Sea: observed numbers of both the grey seal and the harbour seal have risen as reported by the Expert Group Seals (EG-Seals).

Grey seals

During the 2020 spring count of moulting grey seals 7,649 seals were counted in total – 17% more than in spring 2019, while the numbers had grown by an average of 9% in previous years. The experts estimate that this spring the seals could have benefited from a reduction of disturbances, especially at beaches, due to the COVID-19 restrictions, resulting in more seals resting on land and therefore being visible for counting. The restrictions also led to an

estimated 10-15% usually observed animals not being counted in Lower Saxony, as not all flights were allowed to be conducted. Newborns are monitored in the pupping season during the winter months. In the 2019-2020 season 1,726 pups were counted in the Wadden Sea and on Helgoland (counted separately) with a slight increase of 2%, after an increase of 22% in the previous year. Since the start of trilateral counts in 2008, the number of counted grey seals has more than tripled, while unevenly distributed with the largest numbers in the Netherlands (2020: 5,687), followed by Lower Saxony/Hamburg (587) and Helgoland (890), and relatively lower numbers in Schleswig-Holstein (218) and Denmark (267).

Harbour seals

With 2% compared to 2019, the increase in numbers of harbour seals was not as steep as their larger cousin. Yet, in August 2020, 28,352 individuals were counted on sandbanks, islands and the mainland coast. The EG-Seals estimate the total population size of harbour seals to be about 41,700. Looking at the regions, in the Danish Wadden Sea 2,256 were observed, 10,746 in the Schleswig-Holstein Wadden Sea, 7,553 in Lower Saxony and Hamburg and 7,661 harbour seals in the Netherlands. On Helgoland 136 harbour seals were counted. During the 2019 pupping season in June 9,954 pups were counted in the Wadden Sea, which is the highest number registered yet (+3% to 2019). The trilateral manage-

ment tool, the Seal Management Plan (SMP), is periodically issued and currently valid for 2018-22 (www.waddensea-worldheritage.org/resources/seal-management-plan-2018-2022).

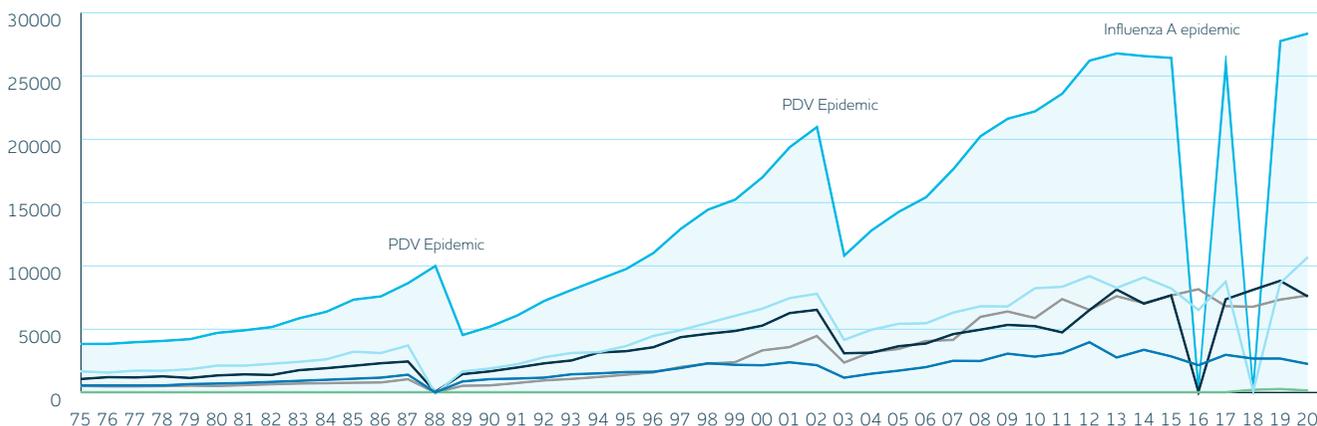
The Agreement on the Conservation of Seals in the Wadden Sea (WSSA) on harbour seals, concluded under the auspices of the UN Convention on the Conservation of Migratory Species of Wild Animals (CMS) with CWSS as the acting secretariat, will commemorate its 30th anniversary in autumn 2021.

The full reports of this and past years can be found at www.waddensea-worldheritage.org/seals.

MOULT COUNTS – HARBOUR SEALS

Observed individuals per year; no complete counts in 2016 and 2018

● Denmark ● Schleswig-Holstein ● Helgoland ● Lower Saxony and Hamburg ● Netherlands ● Total



MOULT COUNTS – GREY SEALS

Observed individuals per year

● DK ● SH ● Helg. ● LS/HH ● NL ● Total



WADDEN SEA RESEARCH

TRILATERAL PROGRAMMING COMMITTEE INSTALLED

On 15 September 2020, the “Trilateral Programming Committee – Wadden Sea Research”, or TPC-WSR, met for the first time in a hybrid meeting in Hamburg (physical & online). The TPC was formed by the Wadden Sea Board, who approved the group’s Terms of Reference and agreed to the nominated members in June, following the 2018 Leeuwarden Declaration. The Declaration states that the new committee’s aim is to strengthen the Trilateral Wadden Sea Cooperation’s ties with the scientific community. The committee’s functions are to establish a joint programme on research issues relevant to the Wadden Sea World Heritage, taking into account the Trilateral Research Agenda, and to encourage the scientific community to develop a trilateral research platform

and to promote pilot studies on nature restoration.

Each Wadden Sea state has delegated four members to the committee, two from the scientific community and two from the policy/management level. The new group’s Chairperson is Dr Bernd Scherer, former Director of the National Park Authority “Schleswig-Holsteinisches Wattenmeer” in Tönning (D) and, until his retirement in 2014, Deputy Head of Department “Water Management, Marine Conservation and Coastal Protection” and Head of Unit “Marine Conservation and National Park” in the Ministry for Energy Transition, Agriculture, Environment and Rural Areas of Schleswig-Holstein (D).

The TPC-WSR aims to foster cross-border science cooper-

ation, to support the implementation of a prioritised joint research programme on issues relevant to the Wadden Sea World Heritage and to look for funding opportunities. The TPC-WSR is embedded in the trilateral work but operates independently. 

WADDEN SEA EXPLORER

HIKING TOURS ALONG THE WORLD HERITAGE SITE



Hiking in the Wadden Sea area © Wasabi Film

A hike along the “tidal path”, resting with migratory birds or walking along a dune lake – there is a lot to discover in the UNESCO Wadden Sea World Heritage at the North Sea coast. World Wide Fund For Nature (WWF) and the Common Wadden Sea Secretariat developed the “Wadden Sea Explorer” as a free digital tour guide – online and as app. The explorer initially offers 25 tours in the North Frisian and Danish Wadden Sea region in German and Danish. The routes lead through scenic areas on the islands and on the mainland. Along numerous waypoints there are interesting facts to be learned about nature and culture. Depending on your preference, there are routes for walking or hiking that are suitable for families with children, but also for individual or group trav-

ellers who are motivated to exercise. Especially in times of Corona, visitors can find their way to exciting corners of the World Heritage even without booked and organized tours.

Gradually, the current offer will be expanded to the other Wadden Sea regions and corresponding languages. For this, the Common Wadden Sea Secretariat serves as facilitator, and invites all interested partners in the entire Wadden Sea to come forward with additional hiking routes in their regions for inclusion in the Explorer.

The hiking tour portal was developed as part of the German-Danish Interreg 5a project “NAKUWA – Sustainable Nature and Cultural Tourism at the UNESCO Wadden Sea World Heritage Site” and fun-

ded by the European Regional Development Fund as well as BINGO! Project Funding Schleswig-Holstein.

www.waddensea-worldheritage.org/explorer. 

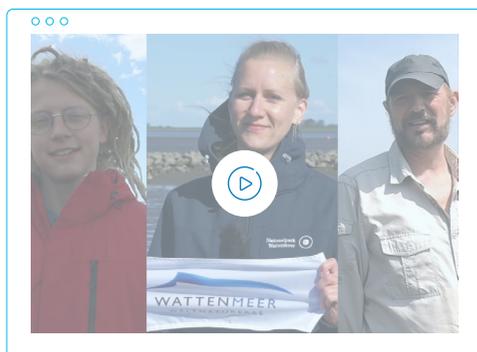
WADDEN SEA WORLD HERITAGE

GREETINGS FROM LOCKDOWN TO UNESCO



In spring 2020, during the global lockdown due to the Covid-19 pandemic, the UNESCO World Heritage Centre in Paris asked site managers around the world to send video greetings and share how they manage during the pandemic. Next to sites from Mali, Russia, Cambodia, Syria and many more, the Common Wadden Sea Secretariat and its partners also answered the call. The result is a 2-minute, truly transnational video with three Wadden Sea lovers: Asbjørn Soberra, who lives in Ballum, Denmark, Alina Claußen of the National Park Authority Wadden Sea Schleswig-Holstein, Germany, and Richard Kiewiet the retired manager of “het Oerd en de Hon” on Ameland, ‘t Fryske Gea, Netherlands. The three – representing the Wadden Sea states as well as their generations – wish every-

one “Stay healthy and we will see each other again soon!” The video can be viewed on the Wadden Sea World Heritage YouTube channel: youtu.be/NNlwtWEXiXc. All videos sent to the World Heritage Centre can be viewed on the Centre’s page: whc.unesco.org/en/news/2101.



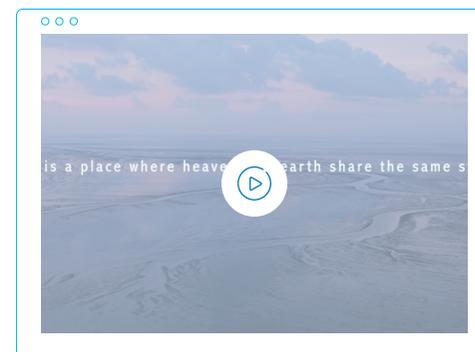
NEW VIDEO CLIP

WONDERS OF THE WADDEN SEA WORLD HERITAGE

The Common Wadden Sea Secretariat sat down this year to refresh a Wadden Sea World Heritage classic long overdue: the introductory video on the Wadden Sea World Heritage (youtu.be/JuJH6SL9f3w). With support of the World Heritage Focal Points, the Task Group World Heritage and other partners, CWSS premiered the video on the Wadden Sea World Heritage’s Facebook page on 4 October. The 2-minute clip was produced together with the well-known documentary filmmaker Ruben Smit and presents the Wadden Sea’s Outstanding Universal Value as World Heritage site. The video may be used by third parties on their websites for non-commercial use in an editorial context. This means the accompanying text should at least include that the Wadden

Sea World Heritage is the largest tidal flat system in the world, where natural processes proceed largely undisturbed, extends along the coasts of Denmark, Germany and the Netherlands. The video file can be requested by institutions with a professional or scientific connection to the Wadden

Sea or which pursue didactic goals in terms of environmental education. For this, please contact CWSS Communication Officer Annika Bostelmann (bostelmann@waddensea-secretariat.org). In early 2021, a new version of the Wadden Sea World Heritage leaflet will also be made available.



ANNIVERSARY

NATIONALPARK VADEHAVET CELEBRATES 10 YEARS

On the 16 October 2010, His Royal Highness Prince Joachim inaugurated the Danish National Park Wadden Sea, in Danish “Nationalpark Vadehavet”, giving life to one of the Common Wadden Sea Secretariat’s close partners. Nationalpark Vadehavet is the largest national park in Denmark and the only national park of a transboundary site sharing the Wadden Sea with Germany and Netherlands, recognised by UNESCO as World Heritage site. The National Park Secretariat’s team, now counting 9 staff members, has become a strong partner within the Trilateral Wadden Sea Cooperation, including within Interreg projects such as Prowad Link, and close colleagues to the CWSS staff.

The Common Wadden Sea Secretariat wishes a happy anniversary! ~~~



Mudflat walk to the Island of Langli © Red Star

ANNIVERSARY

HAMBURG’S NATIONAL PARK TURNED 30

9 April 1990 was the founding day of the smallest of the three German Wadden Sea National Parks, the “Nationalpark Hamburgisches Wattenmeer”. The initial purpose was to save the habitat of seals, as the seal population almost halved in 1988. 30 years later both harbour and grey seals are thriving in the Wadden Sea, also

thanks to the establishment of the national park. In 2011, the area was added to the Wadden Sea World Heritage site, which was inscribed in 2009. Located about 105 km off Hamburg’s city hall, the national park includes about 90% wilderness area and is hence one of the wildest protected areas in Germany. Within its boundaries is also the only inhabited island

within the Wadden Sea World Heritage: Neuwerk. With the creation of the park the Trilateral Wadden Sea Cooperation gained a new partner: the National Park Authority “Hamburgisches Wattenmeer”.

The Common Wadden Sea Secretariat wishes a happy anniversary! ~~~



Neuwerk and the National Park from above © Martin Eisen

STEP BY STEP

DEVELOPING THE SINGLE INTEGRATED MANAGEMENT PLAN

Single integrated management plan or just “SIMP” – every member of the Trilateral Wadden Sea Cooperation (TWSC) has by now come across this term. But what is behind the SIMP? Why is the plan important? And when will it be concluded? This article will give a comprehensive overview.

The backstory

When accepting the extension of the Wadden Sea World Heritage property in 2014, the World Heritage Committee assigned the TWSC with the task to develop a single integrated management plan. Politically, the Cooperation committed to this task and set the frame for the SIMP development in the Leeuwarden Declaration in 2018. The Common Wadden Sea Secretariat (CWSS) and the Federal Ministry of Environment, Nature Conservation and Nuclear Safety employed a project manager, called the SIMP Officer, to keep track of the necessary steps and draft the plan. That is me, Soledad Luna.

The purpose

The SIMP’s main purpose is to support the continuous improvement of coordinated management for the conservation of the transboundary Wadden Sea World Heritage site. Thus, the focus of the SIMP is the protection and maintenance of the Outstanding Universal Value (OUV, see box on next page).

The SIMP status

The SIMP will be a political agreement of the Trilateral Wadden Sea Cooperation, meaning it is a legally non-binding document of common political interest. Existing policy documents and legally binding instruments at the trilateral, regional, national, or local level will not be altered or affected by this plan.

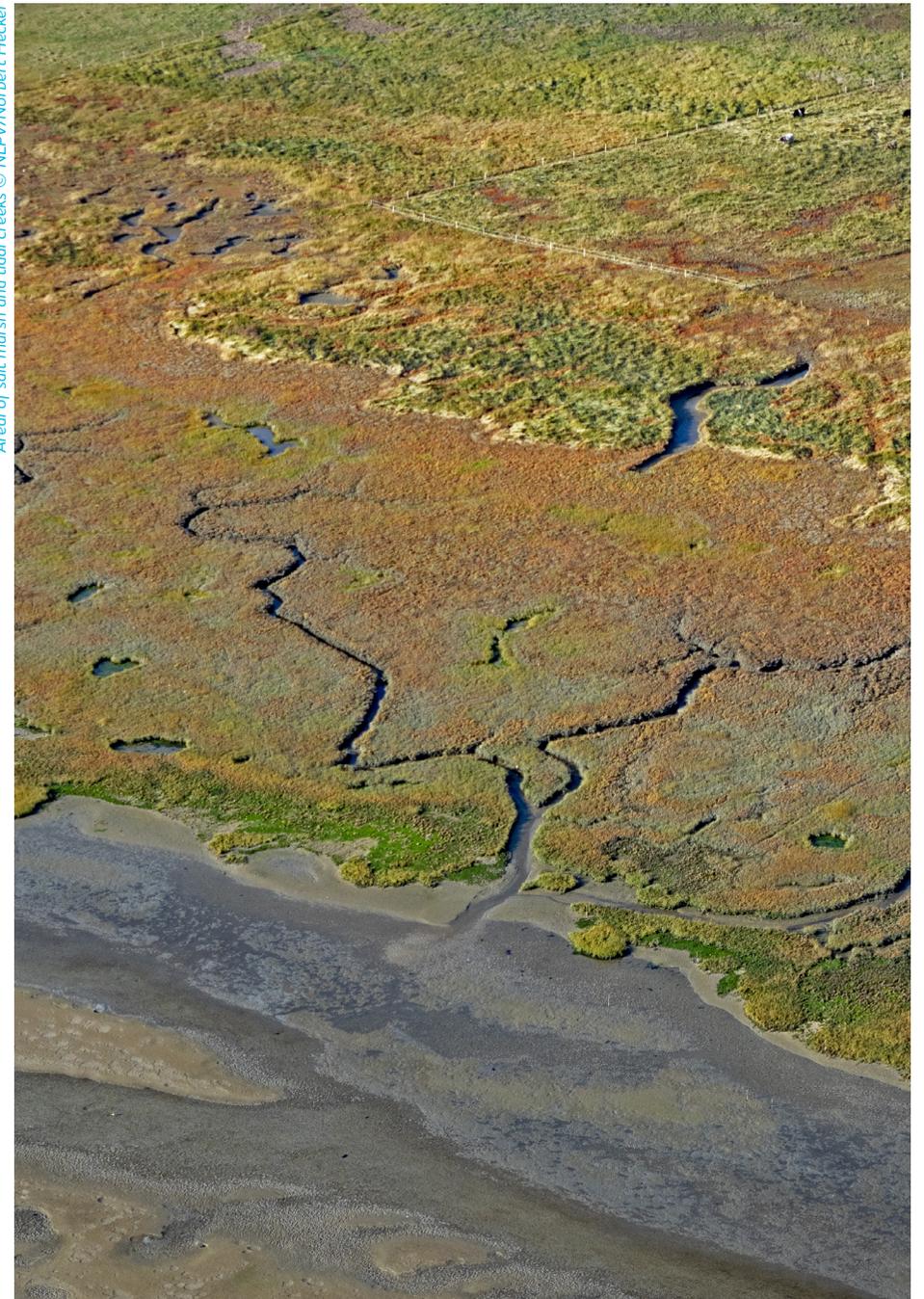
The relation to the Wadden Sea Plan

The single integrated management plan does not alter existing national or trilateral

plans or policies, thus will be complementary to the Wadden Sea Plan. The SIMP will act as an umbrella for existing plans and policies and will provide information on how these are implemented trilaterally for the main nature conservation management issues.

The Wadden Sea Plan, updated in 2010, establishes the common framework for the protection and sustainable management of the Wadden Sea. The Wadden Sea Plan is declared the coordinated management for the Wadden Sea World Heritage property and presents the trilaterally agreed targets for the Wadden Sea Area as an ecological entity, as well as its landscape and cultural heritage, within the cultural entities. These trilaterally agreed targets represent the common ground in the single integrated management plan as well as trilateral agreements in the Ministerial Declarations and other trilateral tools.

Areal of salt marsh and tidal creeks © NLPV/Norbert Hecker



THE OUTSTANDING UNIVERSAL VALUE (OUV) OF THE WADDEN SEA

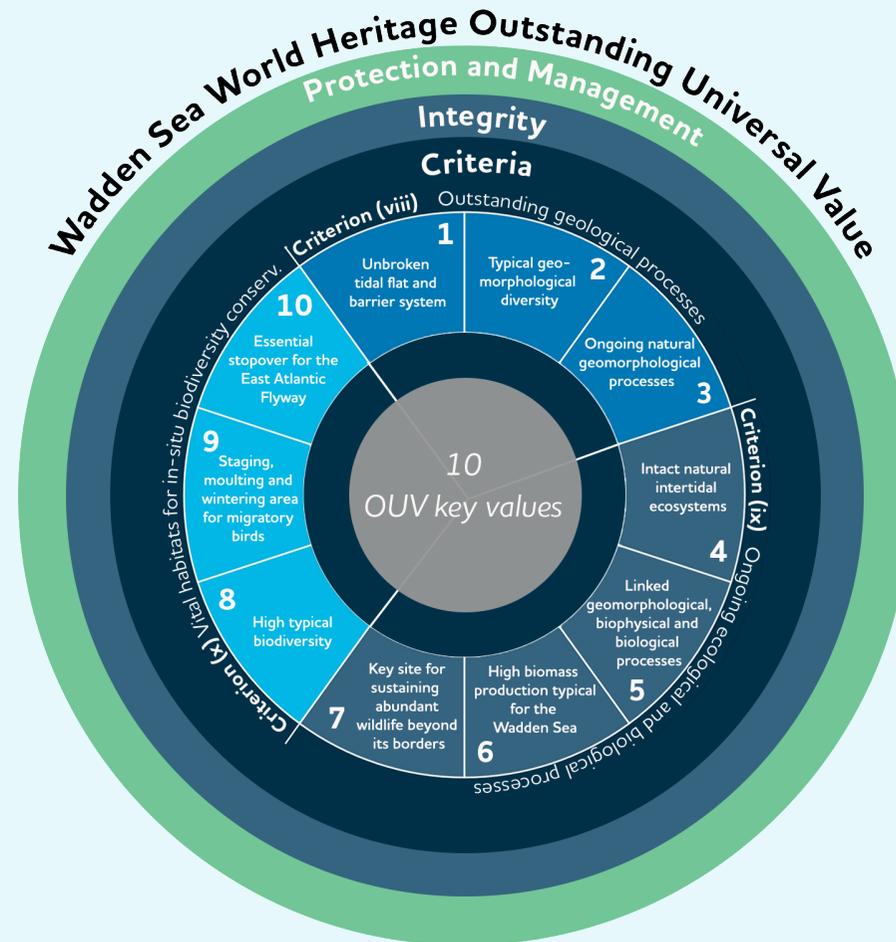
The OUV describes why a property is among the most remarkable places on Earth. Its conservation is of importance for the present and future generations of all humanity. The World Heritage Committee considers a property as having Outstanding Universal Value if it satisfies the conditions of the selection criteria, integrity, protection and management.

The Wadden Sea World Heritage meets three out of four criteria for natural sites:

- (viii) Outstanding geological processes
- (ix) Ongoing ecological and biological processes
- (x) Vital habitats for in-situ biodiversity conservation
- (vii) Exceptional natural phenomena and beauty has not yet been applied for.

The Wadden Sea World Heritage also meets the conditions of integrity since it contains the elements that make it of outstanding value and has sufficient size. The Wadden Sea has an adequate protection and management system to ensure safeguarding the OUV, meeting in this way the condition of protection and management.

In the centre of the figure, the 10 OUV key values for the Wadden Sea are directly derived from Criteria vii, ix and x. The OUV key values break down the long text of the criteria in the official Statement of OUV, produced by the World Heritage Committee, into key phrases. In this way, it is easier to relate to the OUV.



The scope

Independently, as well as during over 40 years of trilateral cooperation, Denmark, Germany and the Netherlands have built a comprehensive management system addressing some of the most urgent and important key aspects. This plan will provide a clear and comprehensive overarching description of the nature conservation management system at the national and trilateral level describing how we work together, as well as the link of the existing management tools to the management cycle.

Since the Wadden Sea holds a significant population and human uses, there are aspects that require ongoing attention to maintain the area's OUV. The SIMP will address the ones identified in the Statement of Outstanding Universal Value, by the Wadden Sea's site managers, prioritized by the Task Group World Heritage and endorsed by the Wadden Sea Board: fisheries, tourism, shipping and ports, renewable energy and energy from oil and gas and coastal flood defence and protection measures. These are challenging to handle for their political and socio-economic importance; therefore, it is foreseen that managers and stakeholders from the three countries will be involved in the discussions to improve exchange and coordination.

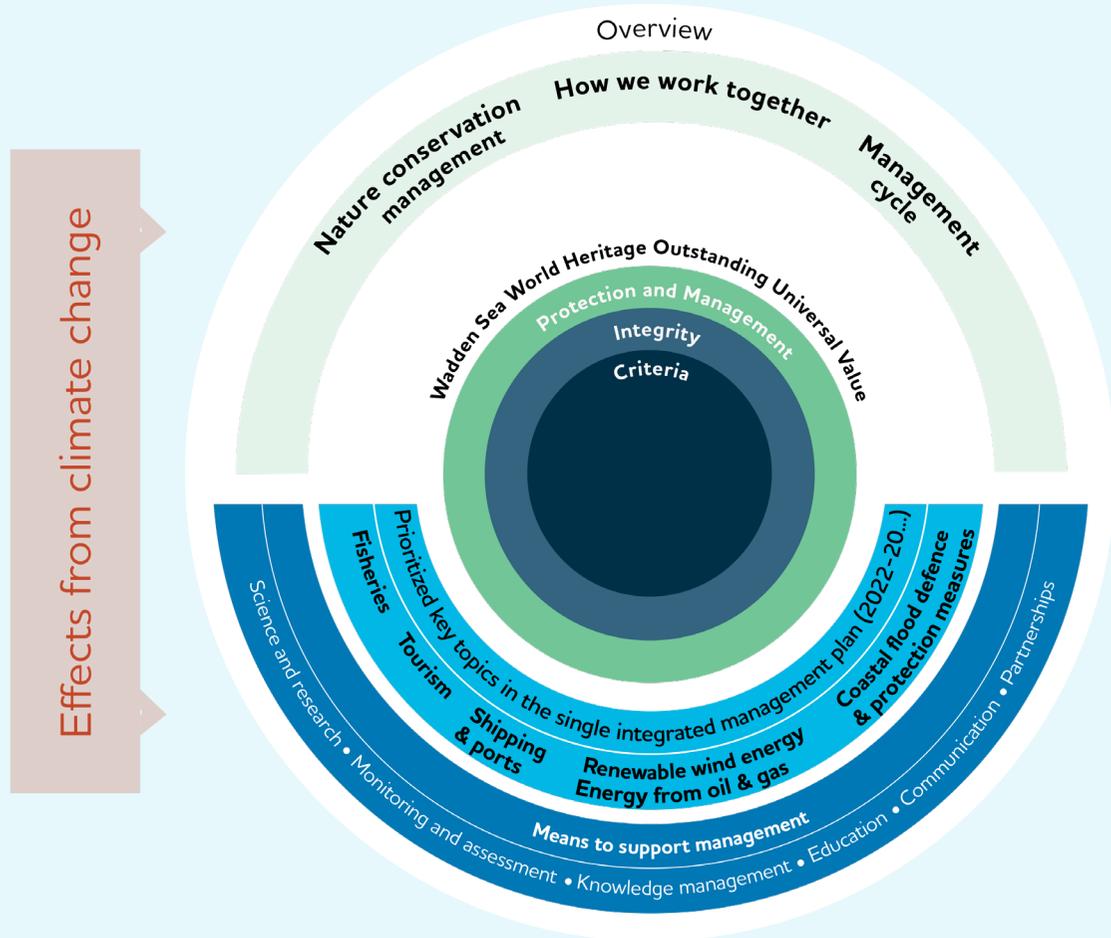


SOLEDAD LUNA

Soledad Luna is the **SIMP Officer** at the Common Wadden Sea Secretariat. Her tasks are to **maintain** close cooperation with the concerned TWSC groups, **exchange** with the various stakeholders and to **involve** the relevant partners from the three countries to develop a concise **SIMP** useful for Wadden Sea site managers and for submission to the **UNESCO World Heritage Committee**. The focus of Soledad's working life has been management for conservation and sustainable use of marine areas with different **social, economic and political** conditions. She has been involved in the establishment of marine reserves, the development of their management plans and in the socioeconomic-political negotiations for achieving common management agreements.

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THE SCOPE OF THE MANAGEMENT PLAN



Science and research, monitoring and assessment, knowledge management, education, communication and partnerships are addressed in the SIMP as the fundamental mechanisms that support management in the Wadden Sea. Finally, during the development of the SIMP, the crosscutting influence of climate change effects must be considered (see figure on page 23 for the scope of the SIMP in a graphic manner).

The involved

The Task Group World Heritage holds oversight over the con-

tent development process for the SIMP, while the Common Wadden Sea Secretariat coordinates and supports the process through the SIMP Officer and the respective CWSS staff in each of the Cooperation's groups involved.

During 2019, site managers from the three countries enriched the preliminary structure of the SIMP and made recommendations regarding topics in which management can be improved. In 2020, various TWSC groups were involved during the content development pro-

cess: Task Groups Management and Monitoring & Assessment, Networking Groups Education and Sustainable Tourism and Expert Group Climate Change Adaptation. A working phase with the site managers is planned for 2021, followed by a broad review in which all the necessary organisations and stakeholders will be involved.

The schedule

The development of the SIMP is summarized in five phases from 2019 to 2022. During 2020 we focused on content development. The next phase

in 2021 intends to further strengthen exchange between the Cooperation's Task, Expert and Network Groups as well as between managers and different stakeholders in the Wadden Sea. The plan is scheduled to be adopted at the next Ministerial Conference in 2022.

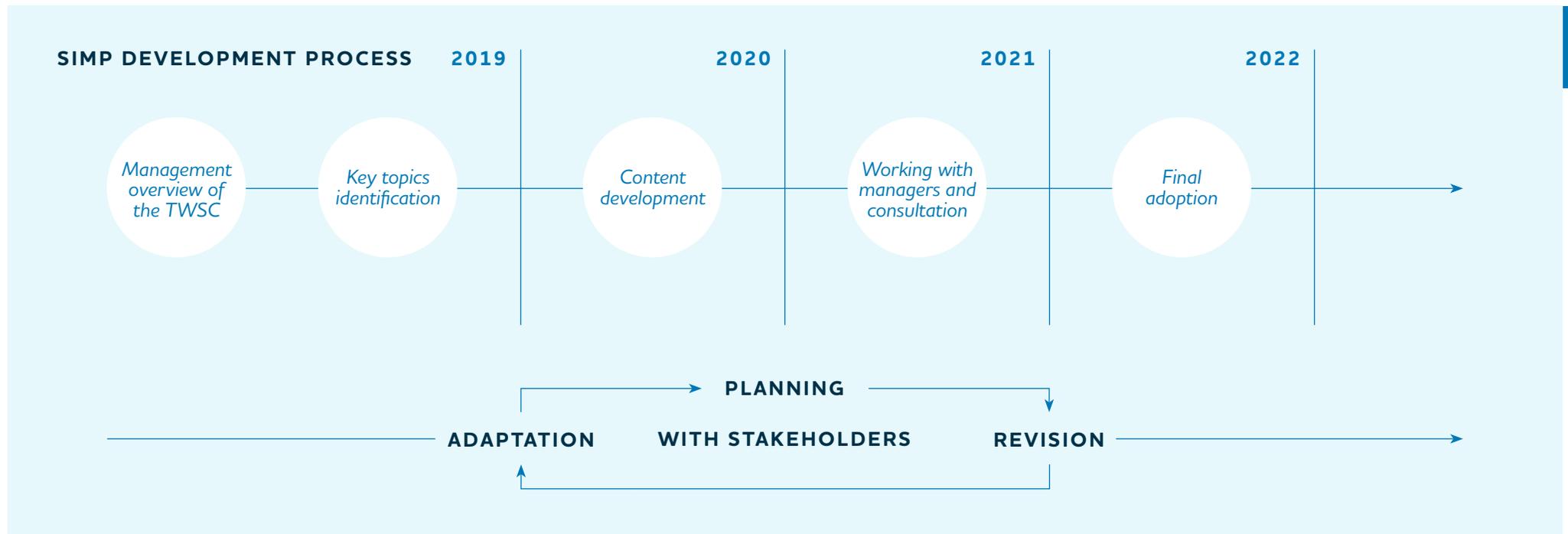
The process and the end product

The single integrated management plan is an opportunity to enhance exchange of best practices, experiences and knowledge between site managers. Exchange at different levels

supports the development or update of trilateral agreements and initiatives and allows connecting existing and future trilateral strategies and plans with regional and local strategies and plans, showing how we work together and on which of the aspects the cooperation could be further strengthened.

The single integrated management plan will be published as a concise stand-alone document, available in print and online. Relevant background information gathered in the process of developing the SIMP will

be made available in an online microsite as part of the Cooperation's website www.wadden-sea-worldheritage.org. 



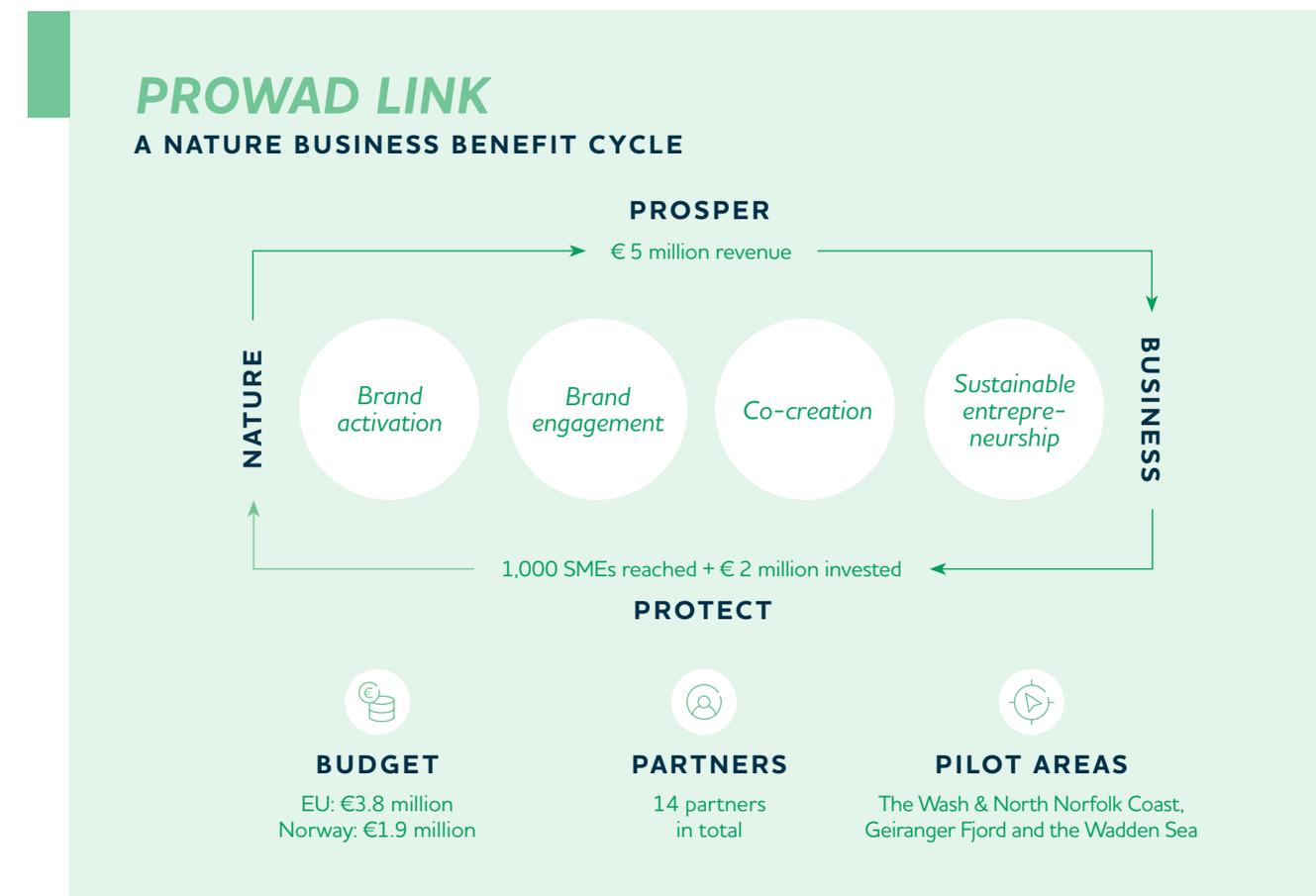
HOW TO ADAPT A PROJECT ON

SUSTAINABLE GROWTH IN TIMES OF ECONOMIC UNCERTAINTY

How can we activate a nature-business-benefit-cycle so that nature conservation and sustainable growth nurture each other? With this question at its core, the Interreg VB project “Prowad Link – Protect & Prosper” was kicked off in September 2018, with the Common Wadden Sea Secretariat as lead partner. Now, two years and an ongoing pandemic later, it is time to have a look at what the project partners achieved so far.

In September 2018, the Prowad Link project started with the first official meeting of the 14 project partners in Hamburg (D). The project aims to create a nature business benefit

cycle (NBBC) by linking nature conservation and sustainable growth. To unlock the potential of nature heritage brands as a driver for jobs and sustainable regional development, the partners set out to engage small and medium-sized enterprises (SMEs) in nature conservation. This is done in four project work packages: **Brand activation** to improve access to nature brands with economic value, **Brand engagement** to build on, extend and sustain existing collaborations and networks in a transnational partnership scheme, **co-creation** to develop new and improved products, services and a market platform in co-creation, and **sustainable entrepreneurship** to identify impact of and op-



portunities for SMEs on sustainable growth opportunities. (see figure above).

Prowad Link is co-funded by and carried out in the framework of the Interreg North Sea Region Programme (see box on page 27) and has a total budget of 3.8 million euros over the

period 2018–2021. The 14 project partners are ministries, provinces, counties, municipalities, national parks, research organisations and universities from Denmark, Germany, the Netherlands, Norway and the United Kingdom. The project is carried out transnationally and implemented in selected

pilot areas of the Wadden Sea World Heritage Site, Geiranger Fjord World Heritage Site, and The Wash & North Norfolk Coast European Marine Site. The partners aim to thereby ensure transferability of all outputs and results to designated natural areas and World Heritage properties on a national,

European and potentially global scale.

The project builds on the 2011–2015 sustainable tourism project “Prowad” (www.prowad.org) on sustainable tourism in the Wadden Sea World Heritage Destination and extends its network range beyond the tourism

sector. Feeding into the implementation of the 2018 Leeuwarden Declaration, Prowad Link plays an essential part in the development of a Partnership Hub for Wadden Sea stakeholders (see pages 31-33). It also enhances the Wadden Sea World Heritage brand by activating further engagement and giving room for new product development in co-creation processes.

Research

To analyse the preconditions and set to work in the most effective places, the Prowad Link partners used the first phase of the project period to conduct studies and take inventory. The Danish Wadden Sea National Park led in a desk-study to identify key market trends and important implications for SMEs working in tourism in nature areas. The national park further looked at the feasibility of creating a nature tourism route around the North Sea Region, connecting Prowad Link's three pilot regions of Wadden Sea, Geiranger Fjord and The Wash & North Norfolk Coast.

The Norwegian University of Science and Technology headed a study about ecolabelling for tourism enterprises and revealed what labels are out there, what requirements and qualities lay with them and how they can become an integral part of an enterprise. The University of Groningen/Campus



The Wash & North Norfolk Coast © David Kirkham



Geiranger Fjord World Heritage © Matt Lamers/unsplash

Wadden Sea World Heritage © Martin Stock



PILOT AREAS



Fryslân looked at the barriers that may hinder sustainable entrepreneurship in the Wadden Sea World Heritage destination in an exploratory study. Together with the Province of Friesland, the university further took inventory of all existing partnership programmes in the pilot regions of the project, what they bring to the table and what may still be lacking. All studies can be found in the

project's online outlook library: www.northsearegion.eu/prowad-link/output-library/

Reach out

Parallel to researching the status quo, the Prowad Link partners set out to engage with SMEs in different formats. A first Prowad Link Forum was held in February 2019 in Leeuwarden and on the island of Ameland (NL). The public event was at-

tended by over 50 stakeholders from Denmark, Germany, the Netherlands, Norway and the United Kingdom and gave the floor to local entrepreneurs.

Smaller, local co-creation workshops were held in the Netherlands and the UK, which served as rooms of inspiration and collaboration of local entrepreneurs to come up together with new products and services

within our nature brand. Similar workshops in other parts of the project regions are planned, but for now postponed due to Covid-19.

To promote sustainable growth, the Common Wadden Sea Secretariat and partners have been exhibiting at the International Tourism Fair ITB in Berlin since 2014. In 2019, the stand was extended significantly to



Mudflat excursion with boat © NLPV/Imke Zwösch



Birdwatching © Chris Taylor

include entrepreneurs with sustainable solutions from the Wadden Sea region, who took the opportunity to present their companies. A new innovative concept of representation was in preparation for the ITB 2020, which was cancelled due to the pandemic. The ITB team now looks towards 2021.

During the 10th anniversary campaign for the Wadden Sea World Heritage, partners from all levels were included in the planning and realisation of a trilateral bike tour with local events. It was the largest campaign of this magnitude so far, which was only a success thanks to the collaboration

of well over 100 stakeholders. At the final event of the tour, representatives of the environmental NGOs, the Wadden Sea research sector, the Wadden Sea Forum and the sustainable tourism sector signed a Memorandum of Understanding with the Trilateral Wadden Sea Cooperation to form the Partnership Hub.

Re-group

After 1.5 years, Prowad Link has finished its ground work and moved on to more extensive engagement with and involve-

ment of small and medium-sized enterprises – efforts that were put on immediate hold, when a Europe-wide lockdown in response to the Covid-19 pandemic became reality in March 2020. Just days before its start, the ITB in Berlin was cancelled. International meetings – vital to the transboundary character of Prowad Link – could no longer take place. The next Prowad Link Forum – out of the question. The partners had to regroup and reconsider the next steps. Big support was given by the North Sea Pro-

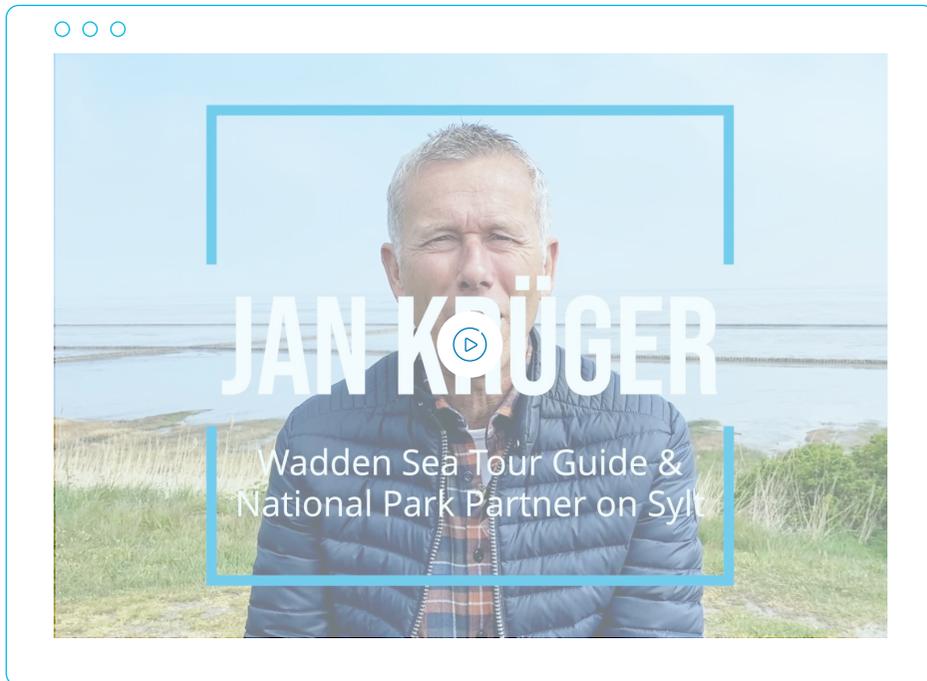
gramme. The Prowad Link project was given a prolongation of six months.

The project partners also looked at new possibilities of reaching out to stakeholders, specifically online. To give SMEs a voice in this difficult time, the project set up a video campaign “How the North Sea deals with corona: Prowad Link asks. SMEs answer.” Entrepreneurs got the opportunity to present their work and share how they are dealing with the pandemic and the ever-changing restrictions.

The 7 videos can be viewed on the Wadden Sea World Heritage YouTube channel (www.youtube.com/channel/UCYRzxEiSHoolO34pDaiObsw). New ways of virtual interaction are being explored in order to get the most out of online meetings and create a room for brainstorming, lively discussions and creativity.

Outlook 2021-2022

Even though the pandemic has put some face-to-face activities on hold for now, there are many others in preparation. For example, an online brand activation tool for the Wadden Sea World Heritage brand was just finished. The online platform presents different opportunities for engagement and gives concrete assistance to becoming involved in the brand. Webinars, now more significant than ever, will give a platform for interactive online communication. The project partners are moreover looking into new concepts for the co-creation workshops, many of which had to be called off this year. News, events and other upcoming opportunities of engagement can be found on the project’s website: northsearegion.eu/prowad-link



THE NORTH SEA REGION PROGRAMME

*The North Sea Region Programme 2016-2020 supports **transnational projects** that address core challenges in the region and build on regional strengths. With a portfolio of **€167 million**, the programme provides crucial funding to foster a vibrant, resilient future for the North Sea Region’s **60+ million citizens** and realises European agendas such as the EU Green Deal. The programme is divided into four thematic priorities: **Thinking growth, eco innovation, sustainable North Sea Region and green transport.** With sustainable growth out of nature protection at its core, Prowad Link belongs to the priority “Thinking growth” and the Specific Objective 1.1. “Develop **new or improved partnerships** between businesses, knowledge institutions, public administrations and end users with a view to long-term cooperation (post project) on developing products and services.” **The programme is funded by the European Regional Development Fund (ERDF)** of the European Union.*

www.northsearegion.eu

TALKING TO ADI KELLERMANN

SWIMWAY “LEARNING FROM FLYWAY”

“The main nursing areas are tidal waters and the mudflats.”



Adi Kellermann is the Chairperson of the Working Group Swimway © G. Born

A new group has joined our Trilateral Wadden Sea Cooperation: the ad-hoc Working Group Swimway (WG-Swimway). To learn more about it, we talked to its Chair Adolf “Adi” Kellermann. Adi, now retired and consulting as freelancer, is not new to the Cooperation. In fact, 1992-2004 he worked at the National Park Authority “Schleswig-Holsteinisches Wattenmeer” and considerably contributed to the creation of the Trilateral Monitoring and Assessment Programme (TMAP) – a flagship of the Cooperation. During the first eleven years of his career as marine biologist he went on several scientific missions to Antarctica. After the Wadden Sea, his next professional stop until retirement was the secretariat of the International Council for the Exploration of the Sea (ICES) in Copenhagen.

The Wadden Sea’s major role for birds is quite visible to us. But what about its significance for fish?

The Wadden Sea has two major functions for fish: It serves as nursery for the offspring of both resident and migratory fish. The main nursing areas are tidal waters and the mudflats. Here, the young fish are relatively safe from their natural predators and profit from rich food resources. Secondly, the Wadden Sea carries great value as passage between freshwater estuaries and inland habi-

tats, and the ocean. Using the tidal current as navigational support, adult fish swim to fresh water to spawn and juveniles towards the open North Sea waters. For the European eel it works the other way round. Both journeys are significant for the completion of their life cycles.

How are Wadden Sea fish doing?

This question is not easy to answer. Some researchers say that there is a downward trend in fish populations, others say they are stable. Then there are regional variations. For the assessment of the overall status we have to consider the long-term variability of population sizes and recruitment. Although difficult, it is always important to distinguish between natural variability and human-made causes of observed fluctuations when we look at the causes of decline and increase of fish. Climate change also comes into play and there may be winners and losers. The discrepancies in data and analysed trends are actually an important point that we in the Working Group Swimway want to address in the future.

Where is the main bottleneck/biggest threat for fish in the Wadden Sea? What are the ecological consequences?

There are three main bottlenecks: the lack of connectivity of pathways e.g. due to coastal defence structures, by-catch in

coastal fisheries and mortality by sea birds. This I can state very clearly thanks to the first International Swimway Conference we held last year in Hamburg – a best case of why we need more international exchange of research. At the conference we not only identify those three as main threats, but also discuss next steps into developing a project addressing these bottlenecks more in-depth. And while sea birds preying on fish is not a factor we can and should do much about, the lack of connectivity and by-catch issues are human-made aspects we are able to address and develop measures for. And there are already a few in practice: Some regions have started to implement technology for restoring connectivity and fishermen work on solutions to reduce the unwanted by-catch. Our Swimway group is going to pick up on both by developing project ideas.

How are fish monitored (trilaterally) in the Wadden Sea? Are there gaps?

The first programme to come under the newly established TMAP back in 1995 was the Demersal Young Fish Survey as it was supposed to be a harmonized programme. However expectations were not met, so additional fish monitoring programmes were established in the individual Wadden Sea countries. Hence, there are quite a few programmes running in the different countries

with a wealth of data available. And I only see a lack of records for the winter months. However, as of now, the data is not very harmonised to get the full Wadden Sea picture with comparable numbers. It is therefore crucial to gather these programmes under the umbrella of TMAP and start the process of harmonization of methods and data. The Working Group Swimway has worked out a qualified proposal leading the way towards a new fish monitoring programme under TMAP. In a next step this approach will be handed over to the Task Groups Management and Monitoring and Assessment. SWIMWAY has made an effort to propose a new fish monitoring programme under TMAP.

What is the trilateral Cooperation doing for fish? Why is it so important to work with the Common Wadden Sea Secretariat (CWSS) on this?

Honestly speaking, and this is my personal opinion, the Cooperation has not achieved much for the fish. Sure, there are declarations, plans and policies, strategies and action programmes. But I am missing their implementation into concrete projects at a national and regional level. Denmark has carried out a huge effort to restore the estuaries and in the Netherlands by-passes have been constructed when rebuilding sluices and other barriers, however both with limited success

The participants of the 2019 Swimway Conference © G. Born



and limited knowledge as to why expectations were not met. I do see a little more awareness and engagement now though. And this is where we as a Working Group as well as CWSS need to step in to set the course for the trilateral work on fish migration. The trilateral Swimway Vision and Action Programme are a promising start. Now we need to work on projects at the heart of the bottleneck problem in order to take concrete actions that will really help the fish.

How are the Swimway Vision and Action Programme being implemented?

We have now successfully set up the Working Group Swimway, with its terms of references and constituency in place. We have achieved a common understanding of how we will give recommendations to policy makers. As mentioned before, we have formulated an approach for the introduction of fish monitoring for the entire Wadden Sea. And, also part of the Action Programme, we are setting up concrete projects.

In 2019 there was an international Swimway conference. What was the major outcome?

We had about 120 participants at the conference. They and two other specific elements pushed for a great outcome. One, right after each session we wrote down the key points and then discussed and approved them in the plenary. This was a very hands-on approach that helped

us to get a consensus that everyone attending could find themselves in. Two, we used breakout sessions to go beyond the scientific discussions and review approaches to policy-makers and monitoring programmes. The conference produced a plethora of results, the most impor-

tant perhaps being a bottleneck concept for understanding Wadden Sea fish ecology. We are on the right track here. And I hope that in future the international Swimway conference will be held again, maybe even regularly, to become an established event in the scientific community.

Are there analogies of the Swimway Initiative to the Wadden Sea Flyway Initiative (WSFI)?

One of the participants of the Swimway conference neatly stated that we need to “learn from Flyway to win”. And I think he has a point, because both

the WSFI and SWIMWAY are looking at animals migrating well beyond the borders of the Wadden Sea. They differ in geographical scope, as the East Atlantic Flyway reaches from the high Arctic to South Africa and our migratory fish migrate between the Wadden Sea, the North Sea and the North Atlantic. But nevertheless, an important ingredient to making our work successful is forming connections beyond the Wadden Sea borders. And there is interest for it, too, because at the conference last year among the participants were quite a lot of international scientists. Another thing in common with the WSFI will be the task of raising awareness of the public on SWIMWAY. This will be quite a challenge, because in nature fish are harder to spot than birds. However, it is a vital element to achieving a better protection of migratory fish, which is why it is also an integral part of our group’s terms of reference.

As Chair of the WG-Swimway, in what direction to you want to steer the group? What are your goals for the next year and five years from now?

By the end of next year, I hope for the Working Group Swimway to have become well-established as highly valued, integral part of the Trilateral Wadden Sea Cooperation. Looking further ahead, my wish for the trilateral Swimway group is to become the main

forum when it comes to issues around fish in the Wadden Sea, be it protection and restoration of populations, rebuilding connectivity and reduction of by-catch. Having us as partners has to be attractive to all stakeholders impacting fish migration. I see SWIMWAY with its science-based foundation as a unique opportunity to integrate the challenges of future coastal protection and nature conservation, especially fish, into a modern and sustainable conceptual framework of coastal management.

Trying out a fish migration game at the Swimway Conference © G. Born



GROWING CLOSER TOGETHER

THE WADDEN SEA WORLD HERITAGE PARTNERSHIP HUB

In 2019, during the final event of the 10th anniversary World Heritage campaign in Wilhelmshaven, several representatives of stakeholder networks from all parts of the Wadden Sea signed a historic Memorandum of Understanding to further enhance their collaboration in support of the Wadden Sea World Heritage. The Memorandum is the founding document of the Trilateral Partnership and the Partnership Hub as its management unit. The following article answers the main questions on the development, functions and goals of the Partnership and the Hub.

In order to fully unlock the potential of the designation of the Wadden Sea as World Heritage site, the Trilateral Wadden Sea Cooperation (TWSC) formulated the aim to pool already existing networks and gained experiences about this complex transboundary site under one umbrella. The Partnership

Hub's stated aim is to "support the strategic partners to collaborate, encourage and facilitate effective and trustful relationships and networks among each other, while sharing information, knowledge and experience" (Memorandum of Understanding). The idea is to enhance local ownership of the Wadden Sea World Heritage Site and link nature protection and sustainable development through a strategic, multi-sector and transnational participative approach. Within this framework, the activation and utilisation of the Wadden Sea World Heritage brand plays a vital role, as the initiatives developed within the Hub will contribute to the enhancement of the Wadden Sea World Heritage site.

The Hub is a networking unit envisioned to support the trilateral work in a collaborative network approach, complementing and going beyond responsibilities and efforts of the gov-

The envisioned Partnership Centre © Dorte Mandrup



HUB OR CENTRE?

*The Hub is often named in connection to the so-called **Partnership Centre**. While the Hub refers to the network, the Centre is a **new building in Wilhelmshaven** to become the new physical address of **the Common Wadden Sea Secretariat, the National Park Authority "Niedersächsisches Wattenmeer", the Wadden Sea Forum and the Partnership Hub**. The Centre is being constructed by the City of Wilhelmshaven upon initiative of the Lower Saxon Ministry for **Environment, Energy, Construction and Climate Protection**. The construction is co-funded by the Lower Saxon ministry and the Federal Ministry for the **Environment, Nature Conservation, Building and Nuclear Safety** in the framework of the "Nationale Projekte des Städtebaus" (national urban design projects) Programme.*



Olaf Lies, Minister of the Environment, Energy, Building and Climate Protection of Lower Saxony, signing the Memorandum © CWSS/ Rolf Müller

ernmental Trilateral Wadden Sea Cooperation, by:

- Contributing to the protection and stimulating exchange on nature management of the World Heritage site
- Enhancing international cooperation
- Activating and credibly using the Wadden Sea World Heritage brand, educating and informing about the Wadden Sea World Heritage
- Developing and enhancing sustainable tourism
- Contributing to regional sustainable development of the Wadden Sea Region, in accordance with the protection goals for the Wadden Sea World Heritage
- Stimulating research and monitoring to provide the required knowledge for management in the Wadden Sea Region
- Integrating cultural and historical values in the management of the Wadden Sea Region

It strives to act as catalyst for innovative modes of collaboration, focussing on creation of collaborative advantages by also considering interests and individual value gained by the partners.

More concretely, some of the Partnership Hub's activities will be the facilitation of meetings, workshops, and creation of mutual learning opportunities to open up a constant and fruitful



The initial signatories of the Memorandum on 30 June 2019 © CWSS/ Rolf Müller

dialogue between stakeholders within different sectors and across borders. The Partnership Hub will also offer a direct advisory support in initiating projects and assist partners to apply for national or international funding.

The back story

To explore the TWSC's different collaboration options with

the various sectors and levels, in 2017 the Wadden Sea Board established a working group: The Operational Team Partnership Hub (OPteamPH), chaired by Hubertus Hebbelmann, Lower Saxon Ministry for the Environment, Energy, Construction and Climate Protection. The group includes representatives of the TWSC and the main sectors: green NGOs, edu-

cation, research, tourism, and the Wadden Sea Forum. Its main aim has been to facilitate the start of the Partnership Hub by a pragmatic operational network approach, based upon the Leeuwarden Declaration (2018).

The OPteamPH paved the way to the trilateral Partnership initiative, negotiated the Memorandum of Understanding

(MoU) with the partner's networks and developed a concept for the Partnership Hub.

In 2018 the Interreg project "Prowad Link" (see page 24-27) started, which supports the development of the Partnership Hub as a pilot by background research, a brand activation process, engagement with stakeholders, specifically small and medium-sized enterprises, and the development of a transnational partnership scheme.

Bringing the Hub to life

On 30 June 2019, on the occasion of the 10th anniversary celebrations of the Wadden Sea as World Heritage site, the Memorandum of Understanding on "Trilateral Partnership in support of the UNESCO Wadden Sea World Heritage" was signed. The MoU represents an essential milestone on the road towards establishing the Partnership Hub. It operationalised the decisions contained in the Leeuwarden Declaration on the Hub and reiterated the signatories' commitment to work towards the shared goal of protecting the Wadden Sea. The document also sets the basics the Partnership Hub as an ad hoc networking unit that can substantially contribute to catalyse and scale up efficient, effective and sustainable partnerships among different stakeholders. A concept for the Partnership Hub, which was agreed upon in November

2019, gives a framework for the concrete steps and has a "guiding light" function for further development by setting the purpose and basic principles of collaboration and ways of working.

Organisation

The Operational Team Partnership Hub, with CWSS Executive Secretary Bernard Baerends taking over for Hubertus Hebelmann as nominated Chairperson in December 2019, has now been working on setting concrete steps. One of them is the establishment of a management unit that ensures organisational support to the Partnership and contributes to the overall success of the initiative. In the start-up-phase (2020-2022), when associated to the Common Wadden Sea Secretariat, the unit will take on a coordinating role and nurture a constant dialogue with partnership members and potential future partners in a bottom-up and stepwise approach. The management unit is formed by Margrita Sobottka, who is part-time seconded to the Hub by the National Park Authority "Niedersächsisches Wattenmeer", and new CWSS staff member Cristina Nazzari, who became the Secretariat's Project Officer for the Partnership Hub for one year in September 2020.

The phase will be concluded with an evaluation, including a review of the governance and management structures. Based

upon the outcome of the evaluation, the Partnership Hub will be developed into a more or less independent organisation for the long-term perspective.

Become active!

Any trilaterally organised stakeholders and actors' networks in the Wadden Sea Region can become active in the trilateral Partnership initiative and the Partnership Hub. The trilateral Partnership is meant to build upon and complement these networks and create synergies, to bring the interconnectivity of these networks to a new stable, multi-level, cross-sectoral and transboundary level. The aim is thereby to prevent duplications and to complement existing activities and bridging existing gaps.

By joining the trilateral Partnership through signing the Memorandum, partners benefit from support from the Hub, are involved in a larger transboundary and cross-sectoral network, gain visibility and political attention. To make this mutually beneficial, naturally, requires active participation. The common principles of safeguarding the Wadden Sea's Outstanding Universal Value and contributing to a sustainable Wadden Sea region with socio-economic developments and vibrant communities should be shared by the partners.

Interested in becoming part of the transboundary commu-

nity, gain from the exchange of know-how across sectors, communicate and get feedback on shared issues or realise your next project ideas?

Get in touch: Cristina Nazzari,
+49 4421 9108 11,
nazzari@waddensea-secretariat.org.

www.waddensea-worldheritage.org/partnership-hub.



CRISTINA NAZZARI

Alongside Margrita Sobottka, Cristina Nazzari will serve as **Project Officer** to the Partnership Hub within CWSS. Holding a **Master's degree in European and Transnational Law**, Cristina gained professional experience working within **international projects** focusing on sustainable development, natural and cultural heritage at European coastal sites. **"Transnational and environmental issues have been the focus of my academic and working experience"**, says Cristina. "I therefore look forward to bringing in my background and to further enhancing the transboundary cooperation in the Wadden Sea region with the Partnership Hub."

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ONE YEAR IN OFFICE

BERNARD BAERENDS

“When I started sailing I learned to truly appreciate this area”



Bernard Baerends is the “new” CWSS Executive Secretary © Bart van Vliet

On 15 September 2019 Bernard Baerends took up his post as the new Executive Secretary to the Common Wadden Sea Secretariat (CWSS) in Wilhelmshaven. Together we look back at his first year in office.

Bernard, you switched from supporting staff of the Dutch delegation to the Wadden Sea Board to CWSS Executive Secretary. Was it a challenge to “switch sides”?

I wouldn't call it “switching sides” as if there were opposing ends. Whether working within the Dutch delegation or now for all delegations, I see us all standing on the same side following the same objective: protecting the Wadden Sea. But I do see a difference in the challenges we face. In a ministry you are more affected by political dynamics, parliamentary questions, national issues and also reorganisations. All of these are almost always treated more prominently and higher on the agenda than the trilateral business. At CWSS, I find myself in a privileged position being able to dedicate my time entirely to trilateral matters. I see a major challenge in better bridging these different perspectives, to better highlight and bring forward trilateral items in such a way that their political relevance is well understood at national levels, and vice-versa. I believe national issues may benefit from a supporting trilateral perspective.

You have been working in and for the Wadden Sea for the past 15 years. What does this nature area mean to you?

I was born at the fringe of the Wadden Sea, near the Lauwersmeer before its embankment. With my parents we used to visit one of the Wadden Sea islands frequently. When I started sailing I learned to truly appreciate this area. Then you really experience the silence and, to my surprise, the overwhelming intricating sound of the tidal waters coming in and going out. As a geohydrologist I am more drawn to the depositional processes of the area, but as I learn more and more about the fascinating bird connections our site has with so many places from the Arctic to Africa, my admiration is still growing and expanding.

You started your new position in September 2019. What is your resume for the past year?

Looking at all the items we are dealing with – just look at this report, I would start by expressing my gratitude to the dedicated staff of CWSS! They embody the right mixture of experience, network connections and eagerness to explore new ways, all absolutely needed in a secretariat for such a complex and demanding area. Even during Covid-19, which keeps us from our usual way of acting, we still managed to proceed in quite an adequate way and even organised the



Bernard Baerends at the 2019 Swimway Conference © G. Born

first online Wadden Sea Board meeting ever. As for specific issues, this report shows a magnitude of them, such as Swimway, the Partnership Hub and enhancing our science connection. A particular moment of the last year that stood with me is a visit to the Republic of Korea. Because the trip gave me a true understanding of the outstanding reputation we have as Cooperation. Whenever a trilateral cooperation will be realised around the Yellow Sea, we are ready for support and advice.

What new sides of the Cooperation have you discovered since taking office?

Aside from the immense international reputation I just mentioned, I discovered or maybe now just truly comprehended

the essence of having good networks. This Cooperation really relies on the efforts people from ministries, national parks, institutes etc. are willing to give, many times on a voluntary basis and always with enormous dedication. It also became very clear to me that as CWSS is based in Germany, our German partners take this responsibility very seriously and offer a lot of additional support at several levels. Finally, although not surprisingly, I understood that with three states and so many partners the financial budgeting requires perseverance.

What will be your priorities in the next years?

Just to name a few: I would like to enhance the internationalisation of CWSS. Being Dutch

“Whenever a trilateral cooperation will be realised around the Yellow Sea, we are ready for support and advice”



myself already helps to establish connections to our Dutch partners. Having that personal link also to our Danish colleagues is high on my wish list. We should also continue and enlarge our role at the international level, as, for example, with the Wadden Sea Flyway Initiative. Further, it is of utmost importance that we have secured an update of the Trilateral Monitoring and Assessment Programme, strongly supported by all, which will serve the joint research programme we are working on. More, I want to encourage the realisation of a World Heritage Foundation. Lastly, supporting the development of the Partnership Hub concept will be a priority. ~~~~

A LOCAL STORY

BIRGIT BERTZ

*“Being an official
Wadden Sea
World Heritage
licensee opens
doors for me”*



Birgit Bertz collecting new motives © Reinhard Witt



Co-branded post card with a local Wadden Sea landmark © Reinhard Witt

Birgit Bertz, owner of WILD at Art Design, illustrates and creates sustainably produced souvenirs carrying the Wadden Sea World Heritage brand. In 2017 she reached out to the Common Wadden Sea Secretariat and a co-creation process started to convey the Wadden Sea message at the products' core. In summer 2018, postcards and magnets entered the market, followed by magnetic bookmarks and coasters in 2020.

How did the Wadden Sea become your inspiration?

It was first my love to nature that was ignited, while I was living in Scotland, where I fell in love with the gannets. I started creating illustrations of Scottish wildlife, seabirds in particular. Back in Germany my focus shifted to the Wadden Sea thanks to a visit of the Multimär Wattforum visitor centre in Tönning. I rediscovered the Wadden Sea's beauty and wild nature. And I also received

my first contact right there at the Multimär. I started creating illustrations for the Wadden Sea – the first being the grey seal, my best-selling subject.

What's your favourite part about becoming a Wadden Sea World Heritage brand licensee?

Being able to officially present a World Heritage site such as the Wadden Sea is a great honour. I feel very grateful that I can make my share to conveying

the Wadden Sea message to the minds and hearts of others. This contribution is of great value to me.

What added value do you see for yourself in creating a product within the Wadden Sea World Heritage brand?

Being an official Wadden Sea World Heritage licensee opens doors for me. When talking to potential clients, being able to say that my products have the official support of the Common Wadden Sea Secretariat works like a certificate – that I can be trusted and that my products are of high quality in terms of content and sustainability. I also have access to an international network of partners across the Wadden Sea World Heritage destination. And looking beyond the Wadden Sea, there is no greater reference than this brand collaboration.

Describe some challenges you have faced. What is the nicest thing about creating Wadden Sea World Heritage branded merchandise?

The biggest challenge I faced was finding suppliers committed to sustainability and matching both: sustainability and economical aspects. I gained a lot from working together with the visitor centres. The brand license provided me with a first foot in the door. But now I have been gaining more and more trust, so that I can open up co-creation processes with them. For example, with Multi-

mar I created a wooden tray that is not only sold in their shop, but also in use in their restaurant. Another nice and very important thing I get is the positive feedback from the visitor centres and other selling points that my products are well-received. I am happy to know that my products make others happy.

What do you want to achieve in 2021?

I am a one-woman-show with a growing number of clients – a

good thing, but ordering is still done by mail. To make things easier for my clients and myself, I am working hard on setting up a professional online shop. Also, I am currently in business with about 30-40% of Wadden Sea visitor centres. My goal for next year is to reach up to 80%. And, of course, I am eager to widen my product range, maybe in co-creation with some new clients. 

Co-branded bookmark with oystercatchers © Reinhard Witt



WADDEN SEA FACES

MARCO BRODDE

*"It is being
outside that
makes me feel
connected"*



Marco Brodde in his element © Private

Born in Esbjerg and living on Fanø, Marco Brodde develops educational programmes for the Fanø children and implements the decisions of the Danish National Park Wadden Sea Board for the Municipality of Fanø. He is an artist as well as member of the Danish Ornithological Society and the Danish National Park Wadden Sea Board. In 2019 he joined the Wadden Sea Board as Advisor for the Wadden Sea Team and the Danish green NGOs.

Why are you engaged in the Trilateral Wadden Sea Cooperation?

While I was working as a nature guide, I often pointed to

aspects of the Wadden Sea which are the success of the Trilateral Cooperation, for example the healthy seal population. It is fascinating to me how the three countries push each other to make a difference together. Although, I am at least equally fascinated by the level of complexity this organisation of stakeholders has [laughs]. Being involved in the Cooperation is a big personal step: I started my NGO engagement in my teens in the Esbjerg branch of the Danish Ornithological Society. Later I moved on to the national division and was deeply involved in national political schematics. As Advisor to the Wadden Sea Board in a way I am thematically returning

my focus to the Wadden Sea, while politically moving on from national to a trilateral level.

What does the Wadden Sea mean to you?

It sounds clichéd, but for me it is all about the outdoor experience. I still remember the times I saw my first redshank and my first oystercatcher. The smell of the meadows and the mudflats carries so many memories. The flocks of birds, the tides... the Wadden Sea is a source of beauty and bigger than you and I. Typical Danish nature areas are beautiful, but they are no comparison to the Wadden Sea. At the end of the day, it is being outside that makes me feel connected – to nature, my



Bearded tits, Rudbøl Sø (Indian ink) © Marco Brodde



Shorebirds, Remø (charcoal and watercolour) © Marco Brodde

childhood and mind and heart. I have learnt to dedicate more time to this – and spend moments sketching what I see.

What is the image in your mind when you think of the Wadden Sea?

The Wadden Sea may appear flat, grey, mundane, monotone – but it has a secret. This space between water and land holds so much biodiversity, is formed

by such strong natural forces and home to these wonderful specialised species. The Wadden Sea may seem empty, but in fact is so full of life.

What is the most special place for you in the Wadden Sea?

My favourite place is the Ho Bay, the most-northern part of the Wadden Sea, specifically the walk to the island of Langli. On the left you see this very

old landscape with the cliffs by the Varde estuary, formed over 350,000 years ago. Looking right you find the infant landscape of Skallingen, formed only a couple of centuries ago. Up front, the island of Langli, inhabited until only 100 years ago and now reclaimed by nature. Old and new, nature and cultural landscape all meet in the middle, the Wadden Sea.

In your eyes, what will the Wadden Sea look like in 2050? What message do you want to give to the next generation?

With the changing climate it is very difficult to say what the Wadden Sea will look like in the future. We are now already experiencing some islands losing sand, while others like Fanø are growing. But it is my hope that we will give nature more space back – as safe areas for wildlife and plants. And maybe even give back land we took from the sea. This is a loaded suggestion, I know, but I believe giving space to nature is a key factor to climate change mitigation/adaptation.

UPCOMING

OUTLOOK

26 August
2021

With a Wadden Sea Board, three task groups and numerous expert, networking, working and ad-hoc groups, each meeting about twice a year, the calendar of the Trilateral Wadden Sea Cooperation is quite full. On top of these “working” meetings, this section highlights some upcoming events to mark in your agendas. Public events can also be found at www.waddensea-worldheritage.org/events.

Wadden Sea Day

Due to the pandemic, the 2020 Wadden Sea Day, originally planned for 27 August 2020, was first postponed and then had to be cancelled. The 2021 Wadden Sea Day will be held on its traditional date, the last Thursday of August. Picking up the topic of 2020, the Day will focus on the achievements of the Wadden Sea Flyway Initiative since its launch in 2012, its role in international conservation, and the state of bird populations on the East-Atlantic Flyway. Most importantly, views from scientific and conservation projects along the flyway will be discussed, together with future perspectives for the Wadden Sea Flyway Initiative. Held in Wilhelmshaven (D), the annual networking event is organized by the Lower Saxon Wadden Sea National Park Authority & Common Wadden Sea Secretariat.

www.waddensea-worldheritage.org/node/971

February + August
+ November 2021**Wadden Sea Board 32-34**

In 2021, the Wadden Sea Board is scheduled to meet three times: at the end of February, in August and on 18 November. At its meetings the Board discusses, among other issues, the implementation status of the Leeuwarden Declaration. The WSB will also start preparing the next Trilateral Governmental Conference, to be held in 2022. The Wadden Sea Board is the Cooperation's governing body. It runs and oversees the work of the TWSC between sessions of the Trilateral Governmental Conferences, preparing, adopting and implementing the Wadden Sea Plan as well as policies and strategies.

October
2021**30th anniversary of the Wadden Sea Seals Agreement**

On 1 October 1991, the Agreement on the Conservation of Seals in the Wadden Sea, or Wadden Sea Seals Agreement (WSSA), became effective. It was signed on 16 October 1990 in Bonn (D) by the Wadden Sea states Denmark, Germany and the Netherlands. The agreement was the very first daughter agreement concluded under the auspices of the Bonn Convention (UN Convention on the Conservation of Migratory Species of Wild Animals, CMS). The aim of this trilateral environmental agreement is to cooperate closely in achieving and maintaining a favourable conservation status for the harbour seal population of the Wadden Sea. The WSSA contains provisions, amongst others, on research and monitoring, taking, protection of habitats and awareness. We will commemorate this anniversary with a special event in autumn 2021.





Flock of red knots © Martin Stock/ LKN.SH

End of November 2021

15th International Scientific Wadden Sea Symposium

Inspire and become inspired, discuss, network and be innovative – at 15th International Scientific Wadden Sea Symposium, lovingly abbreviated as ISWSS (not to be confused with IWSS – the International Wadden Sea School). The Symposium will be hosted at the end of November 2021 in Büsum (D). The title “Importance of science for the management of the Wadden Sea World Heritage in the context of climate change” addresses one of the current core challenges for the Trilateral Wadden Sea Cooperation: climate change and its impact on the Wadden Sea. “How will the Wadden Sea ecosystem react to climate change?” and “What effects will we see in biodiversity, the species mix and food web?” are some of the questions to be discussed at the Symposium.

The ISWSS is a core element of the Trilateral Wadden Sea Cooperation. It traditionally provides a forum for scientists, who are active in and around the Wadden Sea, to contribute their

research results and to become involved trilaterally. The purpose of the symposium is to report on the state of the Wadden Sea from a scientific point of view and to give prospects for the future. The outcomes of the ISWSS will be transferred to the Trilateral Governmental Conference 2022 as an important input for the discussion on the future work of the Cooperation. Organisers of the 15th ISWSS are the National Park Authority “Schleswig-Holsteinisches Wattenmeer”, the Schleswig-Holstein Ministry for Energy Transition, Agriculture, Environment, Nature and Digitalisation, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the Common Wadden Sea Secretariat.

Programme and registration: www.waddensea-worldheritage.org/ISWSS15.



Autumn 2022

14th Trilateral Governmental Conference + Wadden Sea Conference

Every three to four years, the Danish, Dutch and German ministers responsible for Wadden Sea affairs form the Trilateral Wadden Sea Governmental Council. At the so-called Trilateral Governmental Conference they discuss the general course of the Trilateral Wadden Sea for the upcoming years, documented in a joint declaration. The meeting is accompanied by the Wadden Sea Conference – an exchange platform for all stakeholders of the Wadden Sea Region. The next Trilateral Governmental Conference and Wadden Sea Conference are scheduled for autumn 2022 in Wilhelmshaven (D). The events are planned to be held at the future Wadden Sea World Heritage Partnership Centre by Danish star-architect Dorte Mandrup (currently under construction).

THE TRILATERAL WADDEN SEA COOPERATION

BOARD AND ORGANISATIONAL STRUCTURE

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The Wadden Sea
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