Wadden Sea Board WSB 28



14 March 2019 Berlin, Germany

Agenda Item: 5.10/2

Subject: IWSS Workshop Report 2018

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Submitted by: IWSS

The IWSS Workshop Report 2018 covers the results of the workshop held in Lauwersoog and Pieterburen, Netherlands, on 5-7 November 2018.

Proposal: The meeting is invited to note the document.



IWSS WORKSHOP REPORT 2018

Towards a Wadden Sea World Heritage Awareness

Lauwersoog & Pieterburen, Netherlands, 5.-7.11.2018







1 Introduction

Communication of and raising awareness for the Wadden Sea World Heritage are essential factors for a broad acceptance and support of the long-term protection of the Wadden Sea as well as for the sustainable development of the adjacent region. The Leeuwarden Declaration 2018 recognizes this in paragraph 6.7 and 8:

- **6. Aim** to enhance the awareness of the young generation of the Wadden Sea Region as a shared heritage through the development of appropriate educational activities and material as an integral part of World Heritage communication and education and **endorse** the Wadden Sea Strategy on Education for Sustainable Development and World Heritage Interpretation developed by the International Wadden Sea School network (Summary at Annex 2);
- **7. Continue** to support the work of the International Wadden Sea School and the related network of people and visitor centers active in environmental education as essential for the shared World Heritage Site, taking into account the results of the recent evaluation process;
- **8. Encourage** partners of the World Heritage Education Network to extend its network by establishing further partnerships between information centers and educational institutions to develop and produce high-quality educational material;

The 16th IWSS workshop – hosted by the Dutch Waddenvereniging in co-operation with the Seal Centre Pieterburen and other Dutch network partners – was joined by 33 participants from 19 institutions in the Dutch, German and Danish Wadden Sea Region. As in the previous years, the meeting provided insight into the recent developments of Wadden Sea education. A boat trip to Kuipersplaat, located off Lauwersoog, offered outdoor experience and the chance to see seals being released back into the wild. The report summarizes the various centres' activities and outcomes of the joint sessions.

Anja Szczesinski, WWF Germany



15 years of networking: a great experience for the young and the young at heart

2 What's new in the Wadden Sea World Heritage world?

Participants were asked to give 3-minute presentations and focus on one highlight.

2.1 Denmark

Mit Vadehav

Helle Hovmand-Rasmussen, the new coordinator of the Danish education program "Mit Vadehav" (My Wadden Sea), highlighted the program's revised training course offer for different groups of multipliers. The courses comprise an introduction to the comprehensive website, to the various tasks/assignments and also a sample mudflat tour.

In the first 10 years of the program, 550 local teachers joined the training courses. Nowadays also teachers from outside the Wadden Sea Region participate and Mit Vadehav is relevant for the whole of Denmark as educational offer.

As a result of the program, the local communities have integrated mudflat excursions in the school curricular. The teachers are encouraged to go with a nature guide and most classed follow the recommendation. However, if the budget does not allow this, the teachers may also guide their group themselves, as going without a nature guide is better than not going at all.

More information (in Danish): https://mitvadehav.dk/ta-paa-kursus/

Wadden Sea Interpreters' Forum/Danish Wadden Sea National Park

The Danish Wadden Sea National Park has published a new National Park plan for the period 2019-2014. Ditte introduced the objectives for education, research, and nature as well as culture interpretation:

Nature guidance, interpretation of the national park's landscape, natural and cultural values as well as possibilities for outdoor activities shall be strengthened and developed in cooperation with local actors through the development and coordination of activities, establishment of service functions and facilities.

Research shall be supported and education enhanced through the establishment of facilities and teaching offers, including offers that promote the natural, cultural and environmental awareness of children and young people.

The chapter on trilateral cooperation and the Wadden Sea World Heritage Site explicitly mentions the IWSS as the focal point for cooperation, where teachers, nature and culture guides and multipliers from the three countries meet and share knowledge, experience as well as develop learning and dissemination materials.

The (Danish) plan is available for download:

https://issuu.com/nationalpark_vadehavet/docs/npv-plan_2019-

2024 screen 883d1dbf95487e

More information: http://nationalparkvadehavet.dk, http://vadehav.dk/en/intro/

Vester Vedsted - Vadehavscentret

The Wadden Sea Centre's educational offer comprises various practical experiments to encourage hands-on learning and discoveries. The team presented a programme for students about food chains, filtration and photosynthesis which includes two experiments:

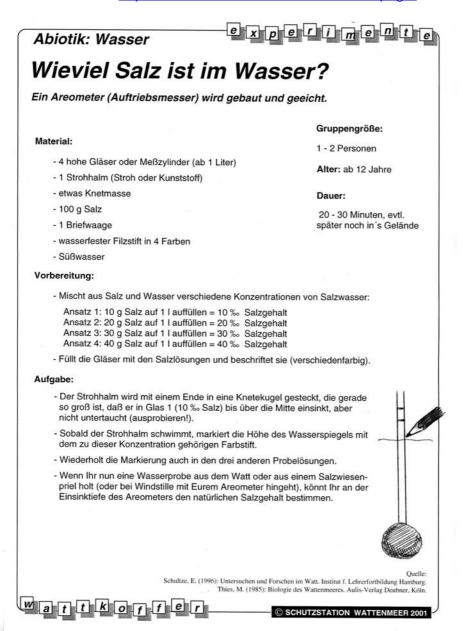
A filtration experiment where two glasses are filled with water and algae. Blue mussels are filled into one of the glasses, and after one hour the students will compare the colour of the

water in the two glasses to see how the mussels have filtrated the water. In the other experiment the students measure the change in oxygen concentration in a glass with sea water and a macroalga to observe the photosynthesis of the algae.

More experiments were shown at the material bazar:

- Measure your pulse (with a fingertip pulse monitor) first over water and then with your face in a bucket of cold water. Your pulse will slow down in the water as a diving reflex. Just as the seals pulse drops when they dive to save oxygen.
- Mix water and salt in bottles with different salinities, eg high salinity as in the North Sea and low salinity in the Baltic Sea. Then try if you can taste the difference.
- An osmosis experiment where you mix yeast and salt to see how the salt extracts the water from the yeast cells.
- We also presented an exercise where you have to find male and female ducks of the same species among several different plastic ducks

More information: https://www.vadehavscentret.dk/en/frontpage/



2.2 Germany

Schleswig-Holstein

Multimar Wattforum

Programs for school classes are an important part of the centre's offer. More than 30.000 school children per year take part in the various activities that range from explorer tours to research tasks. A new and popular offer is a lab program on marine litter where children learn about different kinds and sources of plastic and how plastic can be reduced.

More information: https://multimar-wattforum.de/bildung/angebote/forscherlabor.html

Claus von Hoerschelmann also shared useful publications on marine litter:

- "Strandgut aus Plastik" by Jennifer Timrott (ISBN-10: 9783529054563)
- "Zero Waste Weniger Müll ist das neue Grün" by Shia Su (ISBN-10: 3990252739)
- "Plastikpiraten": Teaching resource on plastic developed for the correspondent citizen science project; download: https://www.wissenschaftsjahr.de/2016-17/fileadmin/meere_ozeane/Bilder/Mitmachen/Jugendaktion_Plastikpiraten/Plastikpiraten_2017/WJ17_LAM_Buch_barrRZ_bf.pdf

A completely new exhibition and experience offer on Eurasian otters, including a new building and a comprehensive outdoor area, is currently in preparation with the view to be opened within the next two years. Whereas the core centre focuses on marine animals, the new part adds information on terrestrial animals such as deer, foxes and otters that enter the Wadden Sea from the land.

Naturschutzgemeinschaft Sylt (NSG)

The series of information sessions for life guards and staff of the local tourist information, that started in 2017 in co-operation with Schutzstation Wattenmeer, was successfully continued. Numerous talks were offered for free by local NGOs and helped the target audiences to be qualified multipliers when in contact with visitors.

A new initiative to support monitoring activities of ocean-going birds such as fulmars, common scoters, red-throated divers, etc., that may wash ashore in poor state of health has been started in cooperation with local NGOs, veterinarians and the bird sanctuary. The aims are to collect more bird data for monitoring, i.e. to support new scientific findings concerning marine litter topics, to raise awareness for those species among the vets, the animal sanctuary and the public, to promote sensitive handling with wild animals (vs pets) as well as consideration between rescue and release and altogether to support the establishment of a beached birds record (seals records networks exist).

More information: http://www.naturschutz-sylt.de

Schutzstation Wattenmeer

Linking up on Margit's report Rainer explained the existing structures for the collection of dead birds found along the coast. There is a network of freezers and a handling procedure to correctly handle, label and store the birds as well a cooperation between research, natural history museums and feather collectors to ensure the best possible "use" of the birds. Following the demands for increased hygiene standards, the management plan for the dead bird findings is currently being revised.

In St. Peter-Ording, a new "taster mudflat tour" has been developed as one-hour version of the more comprehensive excursions. On the longer, often crowded tours, frequently visitors left after about one hour. So the short version aims at the rather superficially interested "things you have to do"-visitor, conveys a basic experience and the most important facts and prevents the longer tours from overcrowding.

More information: https://www.schutzstation-wattenmeer.de/unsere-stationen/st-peter-ording/veranstaltungen-watt-erleben/

Lower Saxony National Park Administration

From 13. to 21. October the 10th Migratory Bird Days ("Zugvogeltage") took place in the Wadden Sea National Park of Lower Saxony with about 300 events all along the coast and on the islands, ranging from bird watching activities to a drawing contest, lectures, and much more. A special highlight was a concert with musicians from countries along the East Atlantic Flyway. The 500 available tickets were quickly sold out.

A photo competition on "calendar birds" resulted in the production of a wall-calendar that is available exclusively in National Park visitor centres. A preview can be seen here: https://www.nationalpark-

wattenmeer.de/sites/default/files/media/pdf/zugvogel_kalender_2019_vorschau.pdf

More information: https://www.zugvogeltage.de/10th-migratory-bird-days-wadden-sea-national-park-lower-saxony-866432

UNESCO-Weltnaturerbe Wattenmeer Besucherzentrum

A very special educational program is the cooperation with a local elementary school: Within the framework of a 4th grade project, the pupils spend a full morning per week for a period of 20 weeks in the visitor centre. In small groups the children work on "exhibitions" about specific topics for a joint presentation in the centre. The special aspect of this cooperation lies in the social structure of the classes: The school is located in a "social hot spot" of Wilhelmshaven with children from many different nations and often lacking language skills. So the children not only learn about the Wadden Sea, but also practice social and language skills.

National Park Visitor Centre Neuwerk

Various interactive elements enrich the classic mudflat excursion with a special focus on adaptation: The participants are split up in small groups and given the task to look for special finds. They are then encouraged to make up a story why this particular find is a "super hero", i.e. what makes it special and suitable for living in/on the mudflats. Later, the true facts about the specific adaptations are explained by the guide.

2.3 The Netherlands

Natuurcentrum Ameland

A playful and hands-on offer for children around the age of 8 (the younger, the better) is the "mini wad"-excursion. Equipped with plenty of nets and buckets, the groups with up to 25 children explore the mudflats close to the dike. The focus of the program is on self-exploration. Parking facilities close to the dike ensure easy access of the location for families. The program is offered two to three time per week in the summer season and very successful.

More information: https://www.amelandermusea.eu/musea-molens-en-vuurtoren trashed/natuurcentrum-ameland/

Ecomare

What do gulls eat? Who is the enemy of the mussel? Who murdered the porpoise? The new "Wadden City" exhibition answers these and many more questions. Arranged in different "shops", the exhibitions presents various research organisations and offers the chance to meet scientists and follow them in their search for answers, according to the motto "Shop in Wadden City and fill your basket with knowledge from the sea."

More information: https://www.ecomare.nl/en/discover-ecomare-on-texel/expositions/wadden-city/

The new website wereldwad.nl offers great film clips (by Ruben Smit) and teaching resources for school classes of different levels. The (all Dutch) website has been jointly set up by Waddenvereniging and visitor centres of the "Stichting Waddencentra" (Ecomare op Texel, De Noordwester op Vlieland, Centrum voor Natuur en Landschap op Terschelling, Natuurcentrum Ameland, and Bezoekerscentrum Nationaal Park Schiermonnikoog). Financial support has been provided by Het Waddenfonds and Scheltema-Breet Natuurfonds.

More info: https://www.wereldwad.nl

National Park Visitor Centre Schiermonnikoog

The online platform "Schitterend Schiermonnikoog" ("Gorgeous Schiermonnikoog"), that has been launched together with the National Park as public participation platform for development of the island, is a great success. About 400 participants have registered so far, 30% of which are islanders. Five surveys have been completed and the National Park management follows the decisions. The platform allows involvement of a broader audience of visitors and islanders and it turns out that there are not too many differences in opinions of these groups. The budget is 20.000€ per year for administration and running of the platform.

Info: www.schitterendschiermonnikoog.nl

Natuurschool

The focus of Natuurschool's offers is on outdoor experience. Ib shared impressions of how he uses the big satellite image banners when preparing groups for a walk on the mudflats. He starts a "map based" discovery behind the dike where it is quiet and the children can concentrate without being distracted by the mudflats. So when the children enter the actual mudflats they already have an understanding of the place being part of a much bigger and worldwide important area.

In the last 30 years, more than 500.000 children have participated in the various offers.

More information: https://www.natuurschool.nl

Waddenvereniging

A new series of training courses has been set up for entrepreneurs from the Wadden Sea region who see the added value of the landscape for their company and would like to share this with visitors and area residents.

Entrepreneurs who participate in such a course become 'Host of Wadden Sea World Heritage'. After the course the entrepreneurs know why the area is World Heritage and how they can convey this to visitors. They know what is interesting, visible and experienced in their environment in the field of nature, landscape and culture. After the course, they know what is happening on a larger scale in the Wadden Sea area and they know the stories behind the area and objects in the neighbourhood and know how to pass them on to guests.

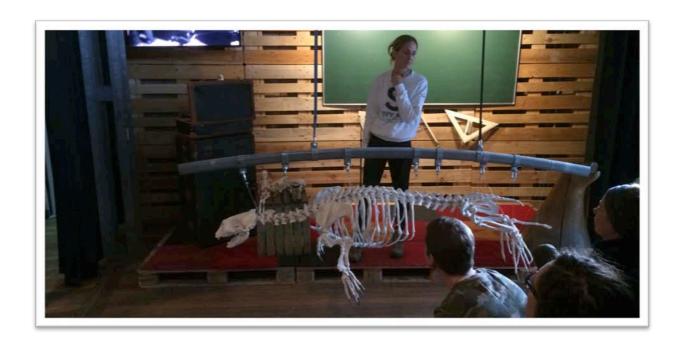
More information: https://www.waddenvereniging.nl/aanmelden/pagina.html?id=274

This year's host: Seal Centre Pieterburen

Founded in 1971, the Seal Rehabilitation and Research Centre (Dutch: Zeehondencentrum Pieterburen), has evolved from a simple "day care" for young seals to a scientific research-based seal hospital, with accompanying facilities such as quarantine, a laboratory, a chemist and modern research facilities. The centre rescues seals that have been injured by boats or fishing nets and those that have been sickened due to pollution. The centre also rescues orphaned pups. All rehabilitated seals are released into the wild after their rehabilitation period.

A comprehensive educational program including workshops and lessons in the centre, teaching resources, school visits of experts and a mobile "Wadntruck" completes the centre's offer.

Sources and more information: www.zeehondencentrum.nl, https://en.wikipedia.org/wiki/Seal_Rehabilitation_and_Research_Centre





MISSION STATEMENT

WHO WE ARE

We are Sealcentre Pieterburen, one of the oldest and best seal rehabilitation centres in the world. On our campus and field station live and work volunteers and researchers from all over the world. By our collective passion and multidisciplinary approach we form a learning community. We transfer our passion to the public and make them aware of our mission.



OUR MISSION

We believe in a healthy seal, the indicator for a healthy sea.

OUR WORK

For years we have a passion and take care for the seal, including its environment. A clean and healthy Wadden Sea is very dear to us. This unique piece of nature has the title 'World heritage' and we should treat it accordingly; for now, for later and for our children. This puts a great responsibility on as human beings and as a social enterprise. The role of the seal is crucial; it is the indicator of a clean sea. We measure, monitor, rehabilitate and share our knowledge. To keep both the seal and its habitat healthy and to offer our knowledge and expertise internationally. So that can be used worldwide and contribute to a better (marine) world.

HOW WE WORK

We are a knowledge and research institute; we do research on the seal and its habitat. And of course, in order to provide the best possible care for them.

We are an emergency/rescue station; we care and monitor to ensure the welfare of the seals in the Netherlands as much as we can.

We are a sealcentre; we share our knowledge, expertise and experience to stress the importance of healthy seals in a healthy sea.





2.4 Trilateral Wadden Sea

Brief news and selected activities of the Trilateral Wadden Sea Cooperation.

13th Trilateral Wadden Sea Conference

Every three to four years the so-called Trilateral Governmental Council meets in the framework of a Trilateral Governmental Conference, forming the main decision-making body of the TWSC. At the Conference, the ministers responsible for the protection of the Wadden Sea and their delegations discussed Wadden Sea matters, and provided political guidance for the coming years.

On 18 May 2018 the 13th Trilateral Wadden Sea Conference was held in Leeuwarden, Netherlands. The three ministers of the Wadden Sea states Jakob Elleman-Jensen (Danish Minister for Environment and Food), Carola Schouten (Dutch Minister of Agriculture, Nature and Food Quality) and Svenja Schulze (German Federal Minister for the Environment, Nature Conservation and Nuclear Safety) adopted the 'Leeuwarden Declaration', which formulates key points for the next four years of the Trilateral Cooperation on the Protection of the Wadden Sea (TWSC) and includes the as Wadden Sea Strategy on Education for Sustainable Development and World Heritage Interpretation as annex.

The Conference marks the end of the Dutch and the beginning of the German presidency of the Cooperation. Germany will hold the Presidency until 2022.

More information: http://www.waddensea-secretariat.org/news-and-service/news/18-18-05wadden-sea-ministers-discuss-trilateral-future-in-leeuwarden

Download Leeuwarden Declaration: http://www.waddensea-secretariat.org/sites/default/files/downloads/2018_leeuwarden_declaration_online_version_0.
pdf

Wadden Sea Day 2018: Sediment Dynamics in the Wadden Sea

The only thing about the Wadden Sea that is constant is its continuous transformation: ebb and flood, wind and waves reform the mudflats, beaches, dunes and salt marshes on a daily basis. These strong natural dynamics were one of the reasons why the Wadden Sea was inscribed on UNESCO's World Heritage List and provided the theme for this year's Wadden Sea Day. Stakeholders from the trilateral Wadden Sea community – representatives from nature conservation, research, politics and NGOs – met on 30 August 2018 at the Wadden Sea World Heritage Visitor Center in Wilhelmshaven.

More information: http://www.waddensea-secretariat.org/news-and-service/news/18-30-08natural-forces-and-human-impact-international-experts-discuss-sediment

40 Years of Trilateral Wadden Sea Cooperation

Following the symposium a reception was held to honour the 40th anniversary of the Trilateral Wadden Sea Cooperation. "Since 1978 Denmark, Germany and the Netherlands have been working together to protect and conserve the Wadden Sea," says Professor Karin Lochte, Chair of the Wadden Sea Board from May 2018. "This is a remarkable accomplishment, which documents the strong will of the three Wadden Sea states to conserve this unique landscape, driven by the personal commitment of numerous actors from politics, civil society and research. The Wadden Sea community has poured its heart and soul into this." Next year the Wadden Sea World Heritage will celebrate its 10thanniversary. The designation of this site by UNESCO is an outstanding success of the Trilateral Wadden Sea Cooperation.

Download brochure: http://www.waddensea-

secretariat.org/sites/default/files/downloads/2018 twsc milestones leaflet.pdf

Wadden Sea Strategy on Education for Sustainable Development and World Heritage Interpretation



A strong focus of IWSS activities in 2018 was the compilation and co-ordination of the new framework strategy for Wadden Sea World Heritage Site education. The strategy has been developed by the Trilateral Network Group Education, with members representing Wadden Sea education and interpretation at national and regional levels, the Trilateral Wadden Sea Cooperation, and the IWSS.

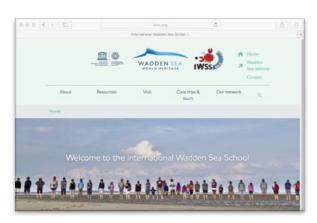
It has been signed on the occasion on the 13th Trilateral Governmental Conference on the Protection of the Wadden Sea in Leeuwarden in 2018.

Download education strategy: http://www.iwss.org/sites/default/files/WHS_Educat ion Strategy.pdf



Wadden Sea Education at a glance: New IWSS website

The website <u>www.iwss.org</u> has been re-launched and now runs as microsite of the Wadden Sea World Heritage website, which has also been completely renewed.





Most important innovation: The section "Resources" replaces the IWSS Teachers' Lounge of the old website and offers all current IWSS materials for download or to order.

A new newsletter will inform at irregular intervals about new products and interesting facts about Wadden Sea education.

As a common platform for world heritage site education in the Danish, German and Dutch Wadden Sea region, the website is written in English. Resources and information offered in

Danish, German and Dutch are easily accessible via corresponding language filters in the sections "Resources" and "News".

Links to national educational programs complement the IWSS offers and a map provides an overview of the visitor centres in the entire Wadden Sea region. The IWSS website is being continuously expanded and complements the Wadden Sea World Heritage website.



New World Heritage Website

The World Heritage website has been re-launched in a completely new "look & feel" combining the current Common Wadden Sea Secretariat website and the World Heritage website in a single new Wadden Sea website site which is available in Danish, German, Dutch, and English:

https://www.waddensea-worldheritage.org

Wadden Sea World Heritage Guide

The official Wadden Sea World Heritage Guide has been published in German in March 2018. It comprises an introduction to the World Heritage Site, sample itineraries for holidays in the Wadden Sea Region and also promotes trans-boundary day-trips.

The guide is available for 12€ in on- and offline book shops (ISBN-10: 3529054909)

The English version will be published online only, Dutch and Danish versions are in preparation.





World Heritage Site merchandising

To facilitate World Heritage Site merchandising, an agreement on the use of the WHS brand for commercial products has been prepared by the Task Group Sustainable Tourism Strategy and the Task Group World Heritage and was adopted by the Wadden Sea Board.

The first products, developed by a company called "Wild at Art" according to high quality and sustainability standards (incl. being degradable), are available now. They can be customized e.g. for specific islands or landmarks. A share of the revenue supports our trilateral activities on World Heritage Site education.

More information: http://www.wild-at-art-design.com

World Heritage Partnership Centre



The planning process of the new World Heritage Partnership Centre in Wilhelmshaven is literally taking shape: As announced by the Lower Saxon Ministry for the Environment, Energy and Climate Protection and the City of Wilhelmshaven, on 7 February a decision was made on the design of the new center in Wilhelmshaven.

The center is intended to become the new international address of the Trilateral Wadden Sea Cooperation and an internationally renowned symbol for the protection of the Wadden Sea World Heritage.

The jury selected Danish architect Dorte Mandrup from Copenhagen as winner of the international competition.

This design set itself apart with the presentation of a "world between worlds", as the featureless space regularly changes its appearance mirroring the tides. The building is a creative abstraction of the Wadden Sea.

More information: http://www.waddensea-secretariat.org/news-and-service/news/18-09-02trilateral-wadden-sea-world-heritage-partnership-center-danish

Wadden Sea World Heritage Bike Tour & Trilateral event programme 2019

In 2019, under the motto "One Wadden Sea: Our Heritage. Our Future." the Wadden Sea World Heritage (WSWH) will celebrate the 10-year anniversary of its inscription on the World Heritage List (26 June 2019). The year will also mark the 5th anniversary of the designation of the Danish part of the Wadden Sea as World Heritage.

The Wadden Sea World Heritage Bike Tour is the key event of the 10th anniversary celebrations in 2019. Under the umbrella of the anniversary motto the tour will carry the slogan "One Wadden Sea. Two Wheels. Three Countries." This slogan can be translated to the native languages of the states if needed. The bike tour will take place from the middle to the end of June 2019 with two core cyclist groups starting in Texel/Den Helder, Netherlands, and Fanø/Esbjerg, Denmark. En route, the cyclists will stop at designated spots of participating partners, where highly-engaging activities for locals and tourists are organised. The core teams can be joined on a daily basis or by interested groups and individuals, while high-level personalities (e.g. ministers) and celebrities are asked to join for daily stages for at least part of the way leading to the local events. On 30 June the two cyclist groups will meet at the Wadden Sea World Heritage Visitor Center in Wilhelmshaven, where a trilateral festival will mark the end of the tour.

The tour is the highlight of an anniversary programme with various (mostly regional/local) events throughout the year 2019. All anniversary events will be communicated as part of the anniversary celebrations and will be published in the trilateral anniversary programme online in Danish, Dutch, English and German.

3 Excursion: Dark Sky Park Lauwersmeer



The Lauwersmeer National Park is one of the last places in the Netherlands where it gets really dark at night. As a result, you can still see a clear starry sky here.

The Lauwersmeer National Park was officially declared a Dark Sky Park by the International Dark Sky Association (IDA) in 2016.

A Dark Sky Park is an area where it is dark, where the darkness is preserved and where visitors are welcome at night to experience that darkness and see the starry sky. The appointment for the Lauwersmeer is special, because the Netherlands is one of the countries with the most light pollution in the world.

Real darkness is becoming increasingly rare, because night-time lighting is increasing everywhere in the Western world. Man and nature suffer damage from this. Outdoor lighting reduces the evening and night. People seem to need darkness for a good night's sleep. Nightly artificial light can influence the life cycle and behaviour of animals in many ways. For example, bats are looking for less food due to too little darkness.

With the Lauwersmeer National Park, the IDA has now designated 41 nature parks and reserves worldwide as a Dark-Sky location. Of these, about half are located in the United States. After the Boschplaat on Terschelling received the predicate in 2015, the Lauwersmeer area is the second Dark Sky Park in the Netherlands.

The organisation Staatsbosbeheer arranges guided tours in the darkness. Jaap Klosterhuis, ranger in the Lauwersmeer National Park, gave us an informative and entertaining introduction to the landscape history of the region and the dark sky initiative and took us out on a guided tour in the dark.

Sources and more information:

https://www.np-lauwersmeer.nl/het-lauwersmeer/dark-sky-park/

https://lauwersmeer.groningen.nl/dark-sky-park/duisternis-en-de-natuur

https://www.staatsbosbeheer.nl/natuurgebieden/lauwersmeer

4 Challenges and Opportunities for Wadden Sea Education

4.1 Marine Litter – Existing Programs and Ideas

General remarks:

- Raise awareness for numbers of products with plastic materials including plastic in cosmetics and microplastics
- Connect on a personal level and involve kids in plastic identification
- Answer questions on what does plastic do and where does it go
- · Show doable alternatives for everyday life
- Don't be too dramatic and stay honest about the real problems

Concrete initiatives and ideas:

- Wadden truck (Seal Centre Pieterburen)
 - o for big audiences only
 - o learn aobut litter
 - o animated quiz
 - microplastics
 - o awareness with stuffed seals and pictures
- Table topic what brings the sea
- Find litter after a storm and display
- Calculate microplastic in mussels
- How do you get the kids to pick up litter? Make artwork with plastic from the sea!?
 Could be distracting from the problematic issues!
- Integrate tourists in the research and look for the birds to learn about litter and damaged birds ("pollution detectives")
- Research clean and unclean beaches with sign "Don't clean up" (seen in Sweden)
- One week class trip program on marine litter (Schutzstation Wattenmeer, https://www.schutzstation-wattenmeer.de/mit-uns-aktiv/klassen-im-einsatz/) with
 - Plush bird with can of litter in the stomach
 - Collect litter on the beach and count it
 - o Etc.
- Containers in harbours to collect fishing nets from fishermen for free
- Beach clean ups
- Upcycling projects

4.2 Sustainable Excursions

Visitors:

- · Give them sustainable bags to collect trash
- Letter about good behaviour reducing plastic waste
- · Connect to curriculum of the schools to make it continuous
- Make the kids owner of their own learning process about the Wadden Sea heritage
- "Powerball" to show everything is connected to each other
- Set up shocking scenes like real dead bird with open stomach lies on the beach and you "accidentally" walk into it.

Ourselves:

- Ask companies for sustainable attire
- Set a good example ourselves (energy, cloths, used materials)
- Sustainable mudflat shoes
- · Beachies "wadden socks"

4.3 World Heritage Anniversary

A central event takes place in Wilhelmshaven on 30 June; more information will be sent out. The following is a collection of ideas of how to resp. whom to engage on a local/regional level:

- Local celebrations
- Local press
- Social media
- Anniversaries / new exhibitions?
- Life stream on 30 June
- Engage with vloggers & local bike groups
- · Give stage to local sport teams as patrons

4.4 Youth Engagement (13-20)

Status quo of the implementation of last year's ideas and further ideas for future activities.

Existing

- Education
- Some youth clubs in DK
- Engaging in research is effective in NL (3 day immersion in biology)
- Enrichment programme Wadden Sea after school club
- Freetime regional Junior Ranger programmes (Lower Saxony), also involving schools
- Sylt: Youth groups 5-17 (older kids take over responsibility); also rubbish collection in cooperation with surfers and other associations
- Junior Ranger school programs (Schleswig-Holstein)
- Art programs
- Beach explorer

Ceased

- Holiday camps (Schleswig-Holstein; too cumbersome)
- Junior Ranger groups (Schleswig-Holstein; too difficult to follow up)
- Roots&Shoots (although super effective, but lack of funds)

Ideas

- Measure long-term effects of early introduction
- Trigger teachers
- Youth advisory boards
- Use Junior Ranger as carrot for partnership with the National Park
- Youth ambassadors
- Sustainable Wadden Sea festival
- Youtube "tutorials" produced by youths
- Engage through other clubs nature- and non-nature clubs e.g. surfing
- Writing & creative writing clubs, not just biology!
- Let kids do something in your centre
- Visits with locals, learn about the locals' views, living, etc.
- Art & nature, creative rather than just experience
- Social media challenges: this is where we reach them
- Other tech apps to engage
- It has to be visual! VR?

Barriers

- Too much competition
- Difficult to "engage hormones"

- Do we have to accept the limitations?
- · Lack of funds
- · Lack of pre-existing understanding/knowledge of the Wadden Sea
- · Competing interests: more sports, less nature
- Lack of awareness of the younger generation's interests
- Too much focus on schools
- Too focussed on outside, we won't catch them there

5. Creative didactics for better information & education

5.1 Workshop: Jane Goodall's Roots & Shoots

In 1991, a group of 12 local teenagers met with Dr. Jane Goodall on her back porch in Dar es Salaam, Tanzania, eager to discuss a range of problems they had witnessed in their community. Dr. Goodall was impressed by their compassion, their energy and their desire to develop a solution to problems, and it was with these young people that JGI's Roots & Shoots was born (The Jane Goodall Institute, 2018).

Dr. Jane Goodalls' approach in the Roots & Shoots programme consist of four 'steps': Get involved, Mapping, Action! and Celebrate! The approach, based on a method called 'Service Learning' has been proven to be very successful in improving knowledge of the community, critical thinking and problem solving, social skills and compassion towards people, animals and the environment for young people.

Roots & Shoots experience in Zeehondencentrum Pieterburen

To create more awareness about the Wadden Sea area amongst young people in the region, Zeehondencentrum Pieterburen started a Roots & Shoots project in cooperation with a local high school during the spring of 2016. Following the steps of the project, the group became passionate about the Ems-Dollard estuary. The project ended with a very professional presentation held by the students for 80 invited guests where the students also offered their professionally printed information signs to the education centre of the Groninger Landschap and the Ems-Borkum Ferry company (for placement in the terminal).

That the students all signed up for seal behavior observation excursions in their free time, months after the project had ended, showed that this project had a big impact on them. This year May they were even invited to present their project to Dr. Jane Goodall herself when she visited Amsterdam to promote Roots & Shoots, which was a huge honor!

Renee on introducing Roots & Shoots during the IWSS workshop:

Because Roots & Shoots is an excellent method for Wadden Sea education and is usable for different age groups I was really motivated to introduce it during the IWSS workshop. Since there was a limited amount of time I chose to highlight one step of the programme: 'Mapping'.

All the participants were invited to select a printed map that represented their area best. They started with a strategy called 'Community mapping'. During this activity the community is explored to learn the geography and layout of the local area, are areas of need for people, animals and the environment determined and are potential resources which may support efforts to meet community needs identified (*Roots & Shoots*, 2018)

The participants marked so called community assets on their maps: Human assets (places for school/work, highlight major streets etc.), animal assets (animal sightings, domestic animal use, zoos etc.) and environmental assets (wild and/or protected spaces, power sources, environmental services etc.).

After a set amount of time they were asked to step back and reflect asking themselves the following questions:

- Name three qualities that make your area a great habitat for people/animals/environment.
- Name three things that could be improved in your area to make it a better habitat for people/animals/environment.

After this short version of mapping and reflecting some suggestions were made on identifying a campaign topic.

I hope that this short glimpse of Roots & Shoots has inspired educators to find out more. Great (free) online resources are available for people that want to learn more: https://www.rootsandshoots.org/educators

Roots and Shoots has their own national contact in Germany and the Netherlands, you can get in contact with them though the websites below:

https://www.janegoodall.nl/roots-and-shoots/ http://www.janegoodall.de/roots-shoots/

Sources:

The Jane Goodall Institute, 2018. *Roots & Shoots*. [online] Available at: http://www.janegoodall.org/our-work/our-approach/roots-shoots/

Roots & Shoots, 2018. *Roots & Shoots toolkit*. [pdf]. Available at: https://www.rootsandshoots.org/sites/default/files/Roots%20%26%20Shoots%20Toolkit%202 017%20fm.pdf

(Contribution by Renee Hoogland)

5.2 Workshop: Storytelling

Storytelling has been vital in the creation of the species Homo sapiens. It has formed and stimulated our brain, right down from the beginning where we huddled together at the campfire and shared stories told by our ancestors. Nowadays, companies, entrepreneurs, educators, they all tell stories. Stories to profile themselves, stories for marketing and stories to convey information and to stimulate or inspire to take a certain action.

Storytelling is in our DNA, but there are many different techniques you can use to tell a story. You can use the 'dramatic-storytelling-voice', question-and-answer games, stories connecting to emotion, stories based on curiosity and adventure, stories involving fairytales and legends. There are many more techniques, too many to write down here.

The challenge is not the lack of techniques. One challenge is that most of us choose only a few techniques which we are comfortable with. Another challenge is how people perceive these techniques and the stories we tell with these techniques. We are all different, have different preferences in learning, have different experiences, different things we like and don't like. This means that variety in storytelling is essential. If you limit the techniques you use, that means you limit the change of people thoroughly enjoying your stories. If you offer enough variety in the techniques you use, the chance you deeply involve people in your stories will increase. Because there is bound to be one technique in your arsenal that people thoroughly enjoy. Because variety keeps it fresh, interesting and grabs attention.

You can have great stories and use a great variety of techniques all involving a great variety of people, but what do you focus on in your story or stories? What is your goal? Do you want to motivate people to do certain action? Do you want people to fall in love with the Wadden Sea? I often see great storytellers and great storytelling events totally missing the goal they set out to reach.

Here is one example. I was at a Climate Change event in Utrecht, where the storytelling was topnotch. A great variety of technique, wonderful video's, games, animations and even some live storytellers. It really was a great event. However, when I talked to some people, they confided that they felt overwhelmed by the sheer content, overwhelmed by all the dramatic consequences of climate change. This made them feel powerless. They would say things like 'I don't think there's anything I can do to change this'. This is especially sad, because guess what the goal of the event was. It was to inspire people to take action, limit their CO2 emissions and inspire others to do so. This event, while great in the storytelling-technique-department, did not reach its goal because it focused not enough on the goal. But not only that, it also did not focus enough on how people would perceive the messages the event would spread.

Therefore, in this workshop I have three key messages:

- 1. Build a variety in storytelling-techniques
- 2. Have a clear focus on the goal you want to reach (less is more; simplify to amplify)
- 3. Take into account people's perception of the stories you tell and the techniques you use. Will their perception and their experience lead to you reaching your goal?

Storytelling is something I feel very passionate about. I've decided to better myself in this art and I'm very happy to be able to share my thoughts and experiences with you.

(Contribution by Jerry Lust)

Jerry Lust works as course leader at the ProSea Foundation, as World Heritage Guide for mudflat tours at the Waddenvereniging and as trainer at his own company JerryLust.

Contact: Jerry.lust@outlook.com



6 Excursion: Boat Trip to Kuipersplaat



Boarding the "Happy Seal" – with two special passengers waiting to be released back into the wild



Wadden experience on Kuipersplaat: A rare sighting of live razor shells

Excursus: Releasing Seals

by Renee Hoogland, Seal Centre Pieterburen

After taking care of sick, injured or orphaned seals for on average a period of three months, the biggest reward is the moment we are able to return the animals back in to their natural habitat again. It is an amazing experience and the beautiful surroundings (a remote sandbank in the middle of the Wadden Sea) make being present at a release even more special.

This is something that we want our visitors to experience as well. The cooperation with skipper Anton Lerchner made it possible for us to offer the release as an activity for our visitors. His boat is small and intimate, only allowing a maximum of 40 people to join, the skipper is very experienced and able to tell his passengers interesting information about the Wadden Sea. A Zeehondencentrum employee comes along as a guide to tell people all about seals and why it is so important for us as humans to take good care of their habitat.

The trip officially starts in the harbor of Lauwersoog, but if the time allows it visitors start their experience in Zeehondencentrum Pieterburen where they can witness the capturing of the seals that are about to be released and see how the vets give them their last medical check-up. After a 20 minute drive the seals are loaded on to the boat, the passengers take their place and the group is ready to go. The trip to the sandbank takes an hour more or less and is done at low tide. All kinds of birds and also wild seals use the sandbanks for foraging and resting, which makes that they are well visible for the passengers. Even harbor porpoises and in rare occasions dolphins are seen during the trips.

When arriving to the sandbank the seals are taken off the boat and the passengers are helped to step on to the sandbank. It is quiet, with only the sound of the wind and the birds. The small group of passengers gathers behind the release boxes of the seals, that are aligned facing the sea. This is the perfect situation for a release, with a minimum amount of stress for the seals being returned to sea. After the guide has given instructions on how to act once the seals are release and has done the count down, the hatches of the release boxes are opened and the seals curiously make their way towards the sea. Usually they stick around for a while, resting for a bit on the sandbank and going in and out of the water.

It is a unique experience, which makes the passengers that are joining aware of the beauty of the Wadden Sea and its inhabitants.



Wadden Sea - here we come!

7 Train-the-Trainer Programs & Resources

There were are lot of interesting and some unusual suggestions presented during the workshop, all of which will be discussed at future Network Group Education meetings, in order to determine relevance and priorities, in relation to the strategy. Key conclusions from the workshops seem to be a general agreement that it would be good to have access to the other experts working with the Wadden Sea – perhaps with lectures during the IWSS. There was also a general consensus for more historical/cultural information about the Wadden Sea, in line with the new strategy. Additionally was access to copyright free images or films to be used for locally developed materials (to be shared with the IWSS network) an often stated request. There is certainly a great interest in a better understanding of the World Heritage Site as a whole – across all three nations.

The participants were enthusiastic and brought up many new and interesting suggestions, some which may be possible to implement in the short term, others which will require further understanding, planning and separate funding.

Workshop details

The large group was divided into four equally sized groups – with representatives from each of the three countries. Each of these groups worked with both subjects: materials and courses/training. Participants were ask to list the materials they would like IWSS to develop and the training they would like to receive to help them carry out their guiding to schools more effectively.

7.1 Workshop results as listed by the groups: Materials

Group 1

- Laminated picture of eating birds and digital version
- 3D globe of flyway
- Identification guide like Beach Explorer, but as a booklet, more detailed than "KOSMOS Strandführer"
- Identification guides with good drawings of saltmarsh plants customized output of beach explorer to print out
- "Arten-Karten" (species files) by Schutzstation Wattenmeer: salt marsh, birds, rippels
- · Bird footprint "fan"
- Link of Beach Explorer, names of books and other materials on IWSS.org
- Satellite image for outside & DIN A4 template of the satellite image
- Digital versions of the materials to use for ourselves
- Booklet for outside
- List of training courses

Group 2

- New trailer from CWSS for World Heritage
- Historic geographic material about the Wadden Sea movement
- Material about flyways dynamics to make it visual, bird orientation
- Website for tracking birds and seals (easy)
- Models about animals in the wadden sea like little birds
- App: games
 - migratory bird game
 - plant net (compare picture)
 - interactive smart guide (AR)
- Globe/map of the marine world heritage
- Posters of the plants with better pictures

Group 3

- Copyright free illustrations of various species
- · Eel migration game in DK, EN and NL
- A map we could take on excursions that represents the whole of the wadden sea with all kinds of facts on it
- Bags that represent the whole Wadden Sea, not just one organisation
- Facts about the 8 other flyways
- Facts about the other marine world heritage sites
- More games to explain things more easily to young people
- Information they can take home after the tour
- Cards on the extremities for the animals (wet-dry, hot-cold)
- Small books with clips to hang on the bags, instead of big plastic cards that are somewhere in the big bag
- CVP map to explain the coastline development

Group 4

- Database of films of special phenomenon from different organisms something you might not see on a tour
- Database of royalty free drawings, pictures and maps
- Lian's posters produced sustainably
- Bags for all countries to collect marine litter with guests
- Folder with different maps on durable materials. of local areas and something to give a more general picture of the area:
 - o where are they?
 - easy visible to display for example wind direction, currents, but ALSO historical data e.g.: Vikings, wars, storm surges
 - o durable, i.e. waterproof material (in a sustainable way)
- Flexibility in the material so depending on your needs, you can pick different parts of the material and use it in different projects
- Picture identification software not only name, but also give you the characteristics of the specific species
- How to save the world list
- Trilateral trailer that travels the whole trilateral world heritage

7.2 Workshop results as listed by the groups: Training

Group 1

- Newest research from scientist at IWSS workshops
- Training on being inspiring at locations (centers etc.)
- Training of temporary workforce or volunteers
- · Didactic frame
- Local experts
- 21st century skills and the development of school systems
- Guided walks on birds

Group 2

- External people (can be from another country) who train the guide more didactics, new ideas, etc, culture
- Exchange resources like short movies, beach explorer, text, share on the website, and in real life
- Getting a better understanding of cross country differences e.g. animal management
- How can we use universal goal? Transfer information, what is the vision for the future?
- Sabbatical for trainers to participate in other centres around the Wadden Sea

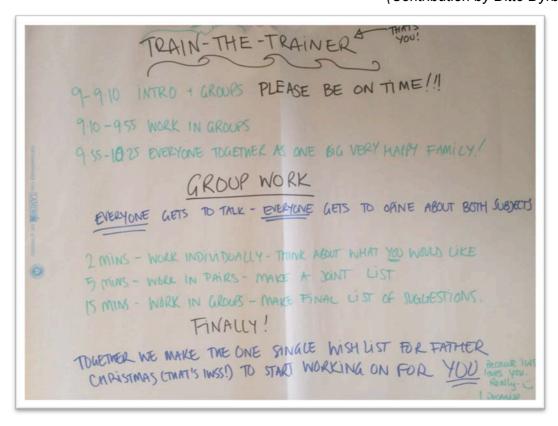
Group 3

- More about the Danish and German parts like history and difference of species
- Training in a number of stories which make the World Heritage classification strong, and understanding
- · Pedagogic training
- Science training
- More historical events floods, World Heritage activities
- · More about the ecosystem of the Wadden Sea
- Experts lectures by experts during the IWSS workshops topics ranging from climate change to marshland
- Even though all areas are different especially in the countries: what are the strong point of each country with their excursion? Try to combine this to make a sample guide
- How to give "action" in a "climate" future
- · Science on disturbing
- How to be a ranger in a sustainable way

Group 4

- The stories that we tell but never see a collection of films of special phenomenon from different organisms something you might not see on a tour.
- Standard list of topics/rules that tour guides should know check list to make sure that there is uniformity guides new and old "golden standard"
- · Trilateral exchange of guides
- Experience more of "roots and shoots" and storytelling more time (1-2 days) so you really learn new didactic tricks
- Trilateral internships: see how a tour actually works "the real thing", IWSS funding for travel costs, accommodation etc, will strengthen the Wadden Sea as a whole.

(Contribution by Ditte Dyrbo Hviid)



8 Feedback

To ensure a satisfying and effective workshop, the participants were asked at the end of the meeting what was especially positive and what should be improved for future workshops.

8.1 Positive aspects

- III Opportunities for networking
- III Excursion (opportunities to go out & see things)
- Number of participants (record participation!) with many new faces
- Good order of program, good balance
- · Good spirit among old and new people
- Engagement & involvement
- · Great walk in the dark
- New ideas & practical examples like skeleton show

8.2 Room for improvement

- More time to discuss the different educational approaches
- · More visual and active activities
- More examples of guided tours on the mudflats
- Better preparation of (participants') inputs on current developments
- · Better visualisation of where people are from
- Smaller size of the group could be more effective

Next workshop

The next IWSS partner workshop will take place in Denmark in week 46 (three days between 11. & 15. November 2019). Details on the date and location will be settled in early spring.



A highlight at the end of the workshop: exclusive screening of the new film "WAD – Overleven op de grens van water en land"

More information on the film: https://wadfilm.nl

9 Participants

Denmark

Bente (FöJ) Vadehavscentret

Vadehavscentret Thomas Brændgaard tb@vadehavscentret.dk

Danish Wadden Sea National

Ditte Dyrbo Hviid Park / VFF ditdh@nst.dk

Klaus Melbye Vadehavscentret km@vadehavscentret.dk Karen V. Henriksen Vadehavscentret kvh@vadehavscentret.dk Christine R. Ditlefsen Vadehavscentret crd@vadehavscentret.dk **Emil Vestager** Vadehavscentret ev@vadehavscentret.dk

Helle Hovmand-

Mit Vadehav Rasmussen heh76@esbjergkommune.dk

Søren Rask Jessen **Danish Nature Agency** srj@nst.dk

Germany

r.borcherding@schutzstation-Schutzstation Wattenmeer Rainer Borcherding wattenmeer.de

Schutzstation Wattenmeer Hallig

Carla Borchers (FöJ) carla@familie-borchers.de Hooge bostelmann@waddensea-

Annika Bostelmann **CWSS** secretariat.org

Imme Flegel Verein Jordsand, Insel Neuwek Imme.flegel@jordsand.de

Nationalparkverwaltung

Schleswig-Holsteinisches

Claus.vonHoerschelmann@lkn.landsh.

Wattenmeer/Multimar Wattforum Claus von Hoerschelmann

Jana Joest (FöJ) **WWF Germany** FoeJ.Husum@wwf.de

NLPV Niedersächsisches

Stefanie.Lenz@nlpv-Stefanie Lenz Wattenmeer wattenmeer.niedersachsen.de

Naturschutzgemeinschaft Sylt naturschutz-sylt@t-online.de Margit Ludwig

NLPV Niedersächsisches

Andrea Lücking Wattenmeer Andrea.luecking@posteo.de

Wattenmeer Besucherzentrum Roger.staves@wattenmeer-

Roger Staves Wilhelmshaven besucherzentrum.de

Ania Szczesinski **WWF Germany** anja.szczesinski@wwf.de

The Netherlands

Sebastiaan.dekker@zeehondencentru

Sebastiaan Dekker Zeehondencentrum Pieterburen

Sander van Dijk Zeehondencentrum Pieterburen Sander.vandijk@zeehondencentrum.nl

Marieke Holthuijsen **Ecomare** mariekeholthuijsen@ecomare.nl

Zeehondencentrum Pieterburen renee.hoogland@zeehondencentrum.nl Renee Hoogland

Ib Huysman Natuurschool ib@natuurschool.nl

Carla van Hunen Zeehondencentrum Pieterburen carla.vanhunen@zeehondencentrum.nl Max van der Meer Stichting Texels Musea (intern)

Johan Krol Natuurcentrum Ameland

Jerry Lust Waddenvereniging (volunteer)

Mia Michels Bezoekerscentrum

Schiermonnikoog

Raunieck Hendriks Waddenvereniging

Lonneke Bitter Waddenvereniging

Renate Prins Zeehondencentrum Pieterburen

3022926@aeres.nl

johankrol@amelandermusea.nl

Jerry.lust@outlook.com

m.michels@ivn.nl

Hendriks@waddenvereniging.nl

Bitter@waddenvereniging.nl

Renate.prins@zeehondencentrum.nl



Annex 1

IWSS Workshop



Program

Monday, 5.11.2018

Location: Accommodation "Robersum" in Vierhuizen

13:30 Welcome, Tee & Coffee

14:00 Introduction

14:15 Session 1: What's new in the Wadden Sea World Heritage world?

· Information exchange on WH education

Participants are invited to share ONE best practice example (new activity or resource) per centre/organisation. Creative presentations beyond PowerPoint with a maximum "pitch length" of 3min are welcome and regional networks are invited to combine their examples in a shared presentation.

15:45 Break

16:15 Continuation Session 1

Information on the Trilateral Wadden Sea Cooperation

Short overview of recent activities of the Trilateral Wadden Sea Cooperation and World Heritage management

16:45 Session 2: Challenges and opportunities for WH education

- Discussion of current challenges affecting the Wadden Sea and society in general such as marine litter, climate change, sustainability goals, etc. and how to tackle these issues in WH education
- Collection of ideas for practical positive solutions and respective activities in current and future WS education

1	8.00)	Dinr	er

19:10 Transfer to "De Bosschuur", Staatsbosbeheer activity centre (car-pooling with private cars)

19:30 Dark sky excursion with Staatsbosbeheer (rain alternative: lecture on dark sky initiative)

Afterwards return to accommodation for network opportunities

Tuesday, 6.11.2018

All-day field trip to Seal Centre Pieterburen

11:00	Session 3: Creative didactics for better information & education
9:00	Guided tour and look behind the scenes of the Seal Centre
8:30	Transfer to Seal Centre Pieterburen (car-pooling with private cars)
7:30	Breakfast (& preparation of packed lunches)

Introduction to the concepts of "storytelling" and "Roots & Shoots" as creative methods to improve the quality of WH education

12:30	Lunch at the centre
13:30	Transfer to Lauersoog harbour (car-pooling with private cars)
14:00	Boat trip and sandbank excursion
17:00	Transfer to accommodation "Robersum"
18:00	Dinner at accommodation
evening	Material Bazaar
	Network opportunities

Wednesday, 7.11.2018

8:00	Breakfast (& preparation of packed lunches)		
9:00	Session 4: Train-the-trainer programs & resources		
	Overview on existing programs and resources for Wadden Sea World Heritage multipliers and discussion of the demand for additional train-the-trainer qualification measures and tools.		
	Participants are invited to share information on their regional schemes and resources and identify demand for improvement.		
10:30	Check-out & transfer to Pathé Cinema Groningen		
11:30	Closing session with coffee & tea at Pathé Cinema		
12:00	Screening of the new documentary WAD, produced by Ruben Smit		
13:30	End of the program & farewell		