



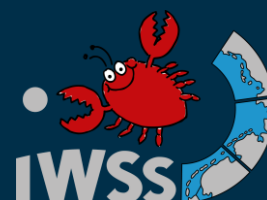
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Dark Sky in the Wadden Sea

Educational activities & experience offers

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Disclaimer

Please note that all offers are provided in the respective national language. For inquiries regarding other languages, we recommend reaching out directly to the respective provider. They are best equipped to give accurate information on other languages they are able to provide their offer in.

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Introduction

The natural shift between day and night is a fundamental factor for life on earth. It influences most biological processes in partly still unexplained ways and carries immense value not only for plants and animals but also for humankind. Protecting this natural rhythm pays into and enhances the conservation of the Wadden Sea World Heritage Site.

The Wadden Sea region is one of the darkest regions in Europe. However, it is experiencing an increase in light pollution. This type of pollution encompasses the excessive, misdirected, or inappropriate use of artificial light during the night and poses a growing challenge to the night sky sanctuary. Most animals are nocturnal and experience various irritations by artificial irradiation. Light pollution is increasingly recognized as a serious environmental stressor with profound implications. It causes biodiversity loss and habitat fragmentation, thereby disrupting vital life processes for countless plants and animals, including orientation, reproduction, foraging, and shelter. The effects of light pollution extend to humans, notably affecting our sleep patterns.

Artificial light has played a crucial role in the development of our society, particularly in domestic and urban settings where it has long been associated with the feeling of safety. The negative consequences of light pollution on both the environment and humankind have been largely overlooked for a long time. This is now changing. More research is now conducted on the topic and more general attention is paid. In the Wadden Sea, the Trilateral Dark Sky Initiative aims to highlight the importance of nocturnal darkness for both the ecosystem and humans and intends to unlock the opportunities linked to its preservation.

A main ingredient to reducing artificial light at night is awareness of the value of darkness – both to nature and to humankind. Here, environmental education plays an important role. Guided experience offers from stargazing to night walks on the traces of nightly active animals provide fantastic glimpses into the universe and the world hidden from our eyesight. Being out in nature at night can support our well-being, raise familiarity with darkness, offer new experiences, and stimulate senses other than the eyes while learning about nature's bustling nightlife and understanding the significance of natural rhythms.

Visitor centres, private tour guides, and scientific organisations and initiatives throughout the Wadden Sea provide an increasing choice of nighttime experiences for all ages. This brochure is a collection of offers to give a glimpse into the world of the nightly Wadden experience. It is by no means complete and meant only a snapshot. Yet, it shows the broad scope of already existing activities and offers inspiration to exchange ideas, cooperate, and co-create new offers for visitors and locals to respectfully experience nature's fascinating nightlife and take in the value of darkness. The overview was developed by the International Wadden Sea School and the Trilateral Dark Sky Initiative in the framework of the Partnership Hub.

Dark Sky experiences

The following list of dark sky experiences is in a Northeast-to-Southwest order along the Wadden Sea Coast.

Denmark

1. Guided Stargazing Tour on Mandø

Mandø offers a unique opportunity to take an evening walk in the pitch darkness and observe the stars. On such tours, you can delve into the intriguing tales and legends associated with the constellations while also discussing Mandø's exceptional darkness and the efforts involved in establishing Dark Sky Park Mandø. These experiences are made possible with the assistance of two of Mandø's esteemed guides, who are dedicated to providing tailored, informative tours upon request.

Experience type	Guided tour
Organiser	Private star guides
Location	Mandø, Denmark
Target audience	Adults and children
Duration	1h
Season	All year round; on demand
Details	https://darkskymandø.dk/aktiviteter

2. Dark Sky Tour on Amrum

This tour offers a unique and immersive experience under the night sky, allowing participants to explore the mysteries of the cosmos. To fully engage in this adventure, participants are kindly requested to bring their own bicycles, as the star observation site is situated approximately 1.5 kilometers outside the village, away from the interference of streetlights. During the tour, the guide will share captivating stories from Greek mythology and Japanese legends, adding cultural richness to the celestial exploration. Toward the end of the tour, participants are invited to lie on a comfortable sleeping mat, accompanied by classical piano melodies, and surrounded by the natural sounds of the sea and the delicate scent of sand thyme. The tour guide also offers a [“Dark Dunes” tour](#) on lighthouses, sea signs, and stories.

Experience type	Guided tour
Organiser	Dark Blome
Location	Amrum, Germany
Target audience	Adults and children from 12 years

Duration	1,5-2h
Season	Individual dates in July & August
Details	https://dark-sky-amrum.de/dark-sky/

Schleswig-Holstein

3. Evening Hike: Exploring Hallig Langeneß at Dusk

Participants can explore the Hallig of Langeneß without flashlights, relying entirely on their senses. This experience offers a fresh perspective on Langeneß where participants can enjoy the night sky and night bird songs. Relying on senses other than sight, participants also hear legendary stories, myths, and fairy tales, making it an intriguing and captivating evening.

Experience type	Guided tour
Organiser	Schutzstation Wattenmeer
Location	Hallig Langeneß, Germany
Target audience	Adults and children
Duration	1,5h
Season	April to October
Details	www.schutzstation-wattenmeer.de/unsere-stationen/langeness/veranstaltungen-watt-erleben/nachtwanderung-die-hallig-langeness-im-dunkeln-erkunden/

4. Night Hike in the National Park Schleswig-Holsteinisches Wattenmeer

This nighttime trek across the pier to the beach offers a unique experience in the National Park. Hikers can spot distant lighthouses, stargaze and identify stars, and listen to the calls of birds on the mudflats at night. This beach hike is a great way to explore the fascinating side of St. Peter-Ordings. Similar tours can be found in [Nordstrand](#), [Pell worm](#), [Husum](#), [Hörnum \(Sylt\)](#), [Föhr](#), and [Büsum](#)

Experience type	Guided tour
Organiser	Schutzstation Wattenmeer
Location	St. Peter-Ording, Germany
Target audience	Adults and children
Duration	1,5h
Season	April to October

Details www.schutzstation-wattenmeer.de/unsere-stationen/st-peter-ording/veranstaltungen-watt-erleben/nachtwanderung-in-den-nationalpark/

Hamburg

5. Sun, stars, and planets above Neuwerk

In partnership with the Cuxhaven Observatory, participants are offered a special nighttime experience on specific days to enjoy the night sky in a memorable way. The evening begins with a lecture after which participants are invited to use a telescope to look at the stars from the dike.

Experience type	Presentation & guided tour
Organiser	Nationalpark-Haus Neuwerk
Location	Neuwerk, Germany
Target audience	Adults and children
Duration	1h lecture, 2h stargazing
Season	Individual dates between April and October
Details	www.nationalpark-wattenmeer.de/wp-content/uploads/2020/12/BUKEA_BR_Veranstaltungen-Neuwerk_web_ua-1.pdf

Lower Saxony

6. Junior Ranger Full Moon Camp in Butjadingen

An overnight stay for the local Junior Ranger group immersed in nature. The junior rangers get to go on night walk exploring nocturnal nature. They also have the opportunity to gaze at the stars or observe the moon and planets through a telescope in the dark.

Experience type	Overnight stay
Organiser	Nationalpark-Haus Fedderwardsiel
Location	Butjadingen, Germany
Target audience	Junior Rangers
Duration	2 days, one night
Season	Single event in June 2023
Details	https://fedderwardsiel-blog.de/2023/06/26/vollmondcamp-2023-der-junior-ranger-wesermarsch/

7. Full moon tour in the harbour of Harlesiel

This tour explores the dark and peaceful natural surroundings along the East Frisian coast, with a focus on Harlesiel. Wildlife thrives in this environment, undisturbed by urban lights and noise. Animals come out at night, and some plants depend on nighttime moths and insects for survival. The tour includes a brief talk about dark skies and light pollution, followed by a 100-minute expedition into the Groden and along the Wadden Sea, where artificial light is minimized for a full nocturnal experience.

Experience type	Guided tour
Organiser	Wattwanderzentrum Ostfriesland
Location	Carolinensiel-Harlesiel, Germany
Target audience	Adults & children from 8-12 years
Duration	2h
Season	All year round
Details	www.wattwanderzentrum-ostfriesland.de/dark-sky-entdecke-die-nacht/

8. Dark Sky – Experience the dark side of the Wadden Sea in Harlesiel

The tour along the East Frisian coast, notably in Harlesiel, offers a unique nocturnal experience where profound darkness and silence dominate, unlike urbanized areas. As night falls, a peaceful and unlit environment in the Carolinensiel-Harlesiel coastal region invites various animals to emerge from their hiding places, either seeking refuge or driven by hunger. Additionally, certain plants rely on nocturnal moths and insects for survival. This immersive adventure begins with a 25-minute keynote lecture on dark skies and light pollution, followed by a 100-minute discovery tour through the typical landscape to the mudflats, where artificial light is entirely absent, allowing participants to witness the captivating nighttime world of this coastal haven.

Experience type	Presentation & guided tour
Organiser	Wattwanderzentrum Ostfriesland
Location	Carolinensiel-Harlesiel, Germany
Target audience	Adults & children from 12 years
Duration	2h
Season	All year round
Details	www.wattwanderzentrum-ostfriesland.de/dark-sky-entdecke-die-nacht/

9. Travelling to the stars in Harlesiel

In the past, our Earth could only be explored with the help of the stars and the compass; sextant and nautical charts were the GPS of those times. Dr Andreas Hänel, head of the Dark Sky specialist group, demonstrates in his lecture how the sun, planets and bright stars were "shot". But only after elaborate calculations did we know their position on our globe. Migratory birds have always used the stars and the earthly magnetic field for orientation - without any aids or calculations. Nowadays, however, their orientation is often disturbed by "light pollution". What this means exactly and how to minimise this disturbance through clever lighting will of course also be discussed. Under clear skies, we will seek orientation among the constellations and planets and explore the celestial objects with binoculars and telescopes.

Experience type	Presentation & guided Tour
Organiser	Wattwanderzentrum Ostfriesland
Location	Carolinensiel-Harlesiel, Germany
Target audience	Adults & children from 10 years
Duration	2h
Season	October; single event within the "Migratory Birds Days"
Details	www.zugvogeltage.de/veranstaltungen/nach-den-sternen-reisen-wie-menschen-und-zugvoegel-ihren-weg-finden-868183
Note	<i>This offer was provided within the framework of the Migratory Bird Days ("Zugvogeltage") in 2020, 2021 & 2022 and is currently not available.</i>

10. Star Walk on Spiekeroog

This tour, in high demand on the island, provides a chance to delve into the starry skies above Spiekeroog Island and unravel its nighttime secrets. Led by certified "Dark Sky Guides," participants are required to come prepared with weatherproof clothing and sturdy footwear, ensuring a comfortable and enjoyable experience.

Experience type	Guided tour
Organiser	Nationalpark-Haus Wittbülten
Location	Spiekeroog, Germany
Target audience	Adults & children from 12 years
Duration	1h
Season	Set dates
Details	www.nationalparkhaus-wittbuelten.de/de/ausstellung/oeffentliche_veranstaltungen.html

11. A Walk in the Sky on Spiekeroog

Spiekeroog, known as the "star island" or "Sterneninsel," offers a magnificent view of the night sky due to minimal light pollution. People have always been fascinated by the stars, naming them and creating constellations to find their way and connect with the heavens. This lecture provides answers to various questions, such as where to find good stargazing locations, what you can observe in the night sky, the broader value of darkness beyond star lovers, and how to protect it.

Experience type	Presentation
Organiser	Nationalpark-Haus Wittbülten
Location	Spiekeroog, Germany
Target audience	Families with children from 12 years
Duration	1h
Season	Set dates
Details	www.nationalparkhaus-wittbuelten.de/de/ausstellung/oeffentliche_veranstaltungen.html

12. Twinkle in the Dark on Baltrum

The tour embarks on a journey through the night along the western coast towards the beach. Notable points of interest include the Norderney lighthouse and the array of colored sea lights, raising questions about their significance and the balance between natural and artificial illumination. The tour delves into the captivating "sea lights" legend and explores the moon's role within the Wadden Sea.

Experience type	Guided tour
Organiser	Nationalpark-Haus Baltrum
Location	Baltrum, Germany
Target audience	Adults & children from 8 years
Duration	1,5h
Season	Mid-March to mid-April & mid-August to end of October
Details	www.nationalpark-wattenmeer-erleben.de/veranstaltungen/2015/funkeln-im-dunkeln_2365

13. Night walk on bird migration on Juist

The guided tour takes place in the Juist grove, not in a museum. Participants listen to birds and other animals both nearby and in the distance at night. The tour focuses on learning

about the annual bird migration in autumn where questions about how migratory birds orient themselves and their "navigation system" are explored. The activity aims to provide answers to these questions and offers a chance to experience Juist's nocturnal nature.

Experience type	Guided tour
Organiser	Nationalpark-Haus Juist
Location	Juist, Germany
Target audience	Adults & children from 8 years
Duration	2,5h
Season	March to April and September to October
Details	www.nationalpark-wattenmeer-erleben.de/veranstaltungen/nachts-im-nationalpark_9182 www.nationalpark-wattenmeer-erleben.de/veranstaltungen/nachts-im-nationalpark_9169

14. Night Walk for Families on Juist

Have you ever visited the beach in the night? This tour aims to explore the beach and the dunes in the dark. We listen to fascinating stories about the night sky and use all our senses in fun activities.

Experience type	Guided tour
Organiser	Nationalpark-Haus Juist
Location	Juist, Germany
Target audience	Families with children from 5 years
Duration	1,5h
Season	in autumn school holiday
Details	www.nationalpark-wattenmeer-erleben.de/veranstaltungen/2015/familiennachtwanderung_2349

15. The magic of the night at the sea & starry sky over Borkum

Dark Sky guide André Thorenmeier offers those interested a virtual foray into the Wadden Sea world natural heritage site at night on the island of Borkum. The guide offers an opportunity to explore natural darkness and the starry skies in the Wadden Sea National Park and on Borkum. He shares his own beautiful photos of the coastal landscapes and gives practical tips for stargazing, helping visitors experience the magic of these places. Thorenmeier also offers a lecture called "Magic of the Night by the Sea," where he gives an

overview of the history of artificial lighting, highlighting the need for a modern perspective on using artificial light in a way that avoids causing excessive light pollution. Join him for a journey into the night by the sea.

Experience type	Presentation & optional guided tour
Organiser	Dark Sky Guide André Thorenmeier
Location	Borkum, Germany
Target audience	Adults & children from 12 years
Duration	1,5h
Season	all year round
Details	https://niedersachsen.nabu.de/wir-ueber-uns/organisation/nationalparkhaeuser/borkum/33913.html

16. Stargazing Experience – Self-guided Offer

The self-guided stargazing experience with Guided Stargazing by VISIT DARK SKIES offers a unique and personal journey into the night sky. It's a simple yet enriching activity, where all that is needed is the audio guide, an unobstructed view of the entire sky, and the right posture. This experience allows stargazers to explore the constellations above at their own pace.

Experience type	Self-guided audio experience
Organiser	Visit Dark Skies
Location	Germany
Target audience	Adults & children from 8 years
Duration	30min
Season	all year round
Details	www.visitdarkskies.com/audio-datei

17. Tiny Observatory – Mobile Offer

The Tiny Observatory offers an inclusive and engaging experience for people of all ages. Its accompanying programme is thoughtfully designed to ignite curiosity about the universe, regardless of any prior knowledge or experience in astronomy. This unique observatory not only serves as a window to the stars but also as a community event space. Visitors are encouraged to actively participate in the project and share their fascination with astronomy. Whether they're beginners or an enthusiasts, the Tiny Observatory promises an enriching experience.

Experience type	Mobile observatory
Organiser	LEB Weser-Ems/Nord in cooperation with Carl von Ossietzky University Oldenburg
Location	Selected sites in Lower Saxony, Germany
Target audience	Adults & children
Duration	Variable
Season	All year round
Details	https://weser-ems.leb-niedersachsen.de/tiny-obs.html

Netherlands

18. Falling Stars Boat Tour in Lauwersoog

This tour offers an unforgettable experience where guests are welcomed by a dedicated crew and guide ready to illuminate their journey in the Wadden Sea, and the mysteries of the night sky. As the sun sets with some luck for a moonless night, clear skies provide the perfect canvas for stargazing. What sets this adventure apart is the commitment to preserving the sanctity of darkness. The lights are kept to a minimum as they venture out to sea, ensuring an authentic encounter with the night. Guests learn about the vital role darkness plays in supporting the local flora and fauna, making this excursion a truly enlightening experience in the embrace of the dark.

Experience type	Guided boat tour
Organiser	Crew of the historical sailboat “Willem Jacob” in cooperation with Waddenvereniging
Location	Lauwersoog, Netherlands
Target audience	Adults & children
Duration	4h
Season	August
Details	https://willemjacob.nl/tochten/meezeilen/

19. Dark Sky Park Lauwersmeer

In this National Park, the beauty of nature's darkness is cherished, allowing visitors to immerse themselves in tranquil surroundings and enjoy the captivating starry skies. This park boasts notably low levels of artificial light, making it exceptionally. On clear nights, the Milky Way shines brilliantly. The experience is enriched by various excursions, including moth hunts and stargazing expeditions, where guests can explore the mysteries of the night and learn to identify constellations in the darkened sky.

Experience type	Various observation locations & excursion offers
Organiser	Nationaal Park Lauwersmeer, Staatsbosbeheer
Location	Lauwersoog, Netherlands
Target audience	Adults & children
Duration	Variable
Season	All year round
Details	www.np-lauwersmeer.nl/english-information/ The “night map” of the National Park www.np-lauwersmeer.nl/wp-content/uploads/2023/07/MG-Lauwersmeer-Nachtkaart-web-EN-2023-DEF.pdf Event calendar for the excursions: www.np-lauwersmeer.nl/doen-zien/activiteitenkalender/

20. Twilight mudwalking excursions in Moddergat/Wierum

A mudflat walk in the twilight is a very special experience! Before sunset we start walking, experience the silence, the sounds. Witnessing the sunset in this landscape is unique. We'll see the Milky Way and if we're lucky we'll see the bioluminescence around our feet.

Experience type	Mudwalking excursion
Organiser	Waddenvereniging
Location	Moddergat/Wierum
Target audience	Members, general public
Duration	3-4 h
Season	Early to late summer
Details	www.waddenvereniging.nl/agenda

21. Evening Walk on Schiermonnikoog

This engaging activity guides participants to explore the significance of darkness for health and the specialized adaptations of nocturnal plants and animals. It also touches upon human vision in the dark. During this activity, guests are encouraged to take nighttime walks through the dunes and woods, supported by a knowledgeable guide who ensures their safety and provides insights into the nocturnal world of nature.

Experience type	Guided tour
Organiser	National Park Schiermonnikoog
Location	Schiermonnikoog, Netherlands

Target audience	Adults and children at least 10 years old
Duration	Variable
Season	Selected dates
Details	www.natuurmonumenten.nl/natuurgebieden/nationaal-park-schiermonnikoog/agenda/avondwandeling-schiermonnikoog#

22. Night watcher for children

During these adventurous evening walks, the children meet the “Schemerschim of Schiermonnikoog”. This mysterious but friendly figure takes the children into the night in search of nocturnal animals and nocturnal blooms. Parents who do not dare to stay at home alone may also come along.

Experience type	Guided tour
Organiser	National Park Schiermonnikoog
Location	Schiermonnikoog, Netherlands
Target audience	Children between 6 and 11
Duration	2h
Season	Selected dates in the summer months, see https://www.natuurmonumenten.nl/agenda?page=1&locatie=N_289
Details	https://www.np-schiermonnikoog.nl/doen/excursies/excursies-voor-gezinnen/ & https://www.natuurmonumenten.nl/natuurgebieden/nationaal-park-schiermonnikoog/tips/beleef-de-nacht-op-schiermonnikoog

23. Night Walk Route on Schiermonnikoog

This 2-kilometer walking route is designed for evening or nighttime strolls. People of all ages can easily follow the instructions and enjoy their own night walk. The path goes through the forest and dunes, mostly on unpaved trails. Be sure to wear comfortable shoes or boots that can get dirty and dress warmly.

Experience type	Night walk
Organiser	Schiermonnikoog National Park
Location	Schiermonnikoog, Netherlands
Target audience	Adults and families
Duration	> 1 hour
Season	All year round

Details www.natuurmonumenten.nl/natuurgebieden/nationaal-park-schiermonnikoog/route/nachtwandeling-op-schiermonnikoog

24. Stargazing on Schiermonnikoog

Guests are invited to stretch out under the open sky and explore the world of constellations, stars, and the universe. Accompanied by a knowledgeable guide, this summer activity promises a relaxing and enlightening experience, allowing participants to discover the celestial wonders above.

Experience type	Guided tour
Organiser	National Park Schiermonnikoog
Location	Schiermonnikoog, Netherlands
Target audience	Adults and children at least 10 years old
Duration	Variable
Season	Summer

Details www.natuurmonumenten.nl/natuurgebieden/nationaal-park-schiermonnikoog/agenda/sterren-kijken-op-schiermonnikoog#

25. Star Walk on Schiermonnikoog

In this non-summer version of the excursion, guests are invited to take a walk with several stops along the way. At each stop, the guide offers explanations while everyone watches the night sky. This engaging experience provides a deeper understanding of constellations, stars, and the vast universe, all under the guidance of an expert.

Experience type	Guided tour
Organiser	National Park Schiermonnikoog
Location	Schiermonnikoog, Netherlands
Target audience	Adults and children at least 10 years old
Duration	Variable
Season	Winter

Details www.natuurmonumenten.nl/natuurgebieden/nationaal-park-schiermonnikoog/agenda/sterrenwandeling-op-schiermonnikoog#2023-10-10T20:00

26. Dark Sky Park Terschelling

Terschelling offers various Dark Sky activities all year round. These experiences include organized nighttime walks and 4x4 tours designed to provide the opportunity to observe the mesmerizing night sky. Accompanied by knowledgeable guides and astronomers, participants can immerse themselves in the unique and enriching journey under the Terschelling's Dark Sky. Additionally, visitors can learn more about the island's night sky and life at night with the book "[Nightlife of Terschelling](#)" and identify the stars using the [star chart](#).

Experience type	Various excursion offers
Organiser	VVV Terschelling, Staatsbosbeheer & others
Location	Various locations in the Netherlands
Target audience	Adults & children
Duration	Variable
Season	All year round
Details	www.vvvterschelling.nl/zoekresultaten/?q=dark+sky https://darkskyterschelling.nl

27. Darkness school lessons-kit

A fully stocked kit for providing lessons on primary school level on astronomy and biology topics relating to Dark Sky. The kit is packed with experiments with which children can learn about the starry sky, moths, and how your eyes adapt to the darkness.

Experience type	Educational Kit – Manual and craft materials chest
Organiser	Darkness of the Wadden programme - Bookable through “Vakland Het Hogeland” in Warffum
Location	Northern Netherlands
Target audience	Various levels of primary school kids
Duration	Flexible, but at least 2 hours
Season	All year round
Details	www.visitwadden.nl/nl/programma-donkerte-van-de-wadden/beleef-de-donkerte/leskisten

28. Mobile Planetarium shows

The Kapteyn Mobile Planetarium is an inflatable dome of 3.5 meters high and 6 meters in diameter. On the inside of dome interactive films are projected of the starry sky and all the

beauty in the universe. The dome is intended for educational purposes and will therefore mainly be used for school visits. A whole school class fits inside the dome.

Experience type	Shows in inflatable dome
Organiser	University of Groningen
Location	Northern Netherlands
Target audience	Schools & astronomy events
Duration	>= 30 minutes per show
Season	All year round
Details	www.rug.nl/research/kapteyn/planetarium/

29. Night Map of the Dutch Wadden Sea Region

The Night Map offers a detailed guide to all the special places where you can truly embrace the unique darkness of the Wadden Sea. Whether you plan to stargaze from the Stargazing Bench, take a stroll through the dark dunes, or explore one of the Night Gardens, this map serves as your guide to experiencing the beauty of Wadden's unique nocturnal world.

Experience type	Night map of the Dutch Wadden Sea Region
Organiser	“Donkerte van de Wadden” Initiative
Location	Various places in the Dutch Wadden Sea Region
Target audience	General public
Duration	-
Season	All year round
Details	Info & Download: www.visitwadden.nl/nl/programma-donkerte-van-de-wadden/beleef-de-donkerte/donkerteexcursies Printed copies: Helderse Vallei, Den Helder Experience Store, Information Center Het Baken Schiermonnikoog, Leeuwarden Visitor Center, Waddenherberg The Friezinn, Lauwernest activity center
Note	The local visitor center on Schiermonnikoog offers a dedicated night map for those seeking to explore the island after dark

30. Science Discovery Truck - Darkness education programme

The "Your Energy of Tomorrow" truck offers a lesson and hands-on programme that covers a variety of subjects about the importance of dark skies. Incorporating physics, astronomy and

biology. Participants engage in practical activities such as creating their own solar cells and competing for the highest energy yield, as well as constructing efficient windmills.

Experience type	Lessons in the science truck on the Dark Sky theme
Organiser	RUG Faculty of Science and Engineering - Bookable via Theo Jurriëns
Location	Northern Netherlands
Target audience	Schools
Duration	> 1 hour
Season	All year round
Details	www.jouwenergievanmorgen.nl/

31. Telescope borrowing network

The University of Groningen offers those with a curiosity about the night sky an invaluable opportunity. Through their telescope borrowing network, individuals can access telescopes for free in the northern part of the Netherlands, enabling everyone to explore and learn about the celestial wonders above without the need for personal equipment.

Experience type	Telescope borrowing throughout the Dutch Wadden Sea region.
Organiser	Libraries and entrepreneurs
Location	Northern Netherlands
Target audience	Adults & children from 8 years
Duration	> 1 hour
Season	all year round
Details	https://leentelescoop.nl/

Workshops & Qualification

1. Stargazing Course for Multipliers

The course aims to prepare participants to guide guests under the starry sky and communicate the special experiences one can have during dark nights on Mandø. Mandø is one of the few nature areas in Denmark where it gets very dark when night falls and the darkness has developed a special value. The course ends with a small examination and a diploma.

Experience type	Training course
Organiser	National Park Vadehavet
Location	Mandø, Denmark
Target audience	Multipliers
Duration	Three evening course
Season	Selected dates
Details	https://nationalparkvadehavet.dk/media/327316/2022-11-15_ds-partnerkursus-invitation.pdf

2. Astrophotography Workshop

This activity accommodates individuals at all levels of astrophotography expertise, from beginners to seasoned practitioners. Participants will have the chance to capture breathtaking astronomical images beneath a clear, unobstructed night sky, framed by the Wadden Sea landscape. Renowned astrophotographer Eugen Kamenev imparts valuable techniques and insights for photography. This activity provides a unique opportunity to merge the art of astrophotography with an appreciation for the natural world's nighttime beauty.

Experience type	Astrophotography workshop
Organiser	Eugen Kamenev, Nationalpark-Haus Fedderwardsiel
Location	Butjadingen, Germany
Target audience	Adults
Duration	Variable
Season	Selected dates
Details	www.wattwanderzentrum-ostfriesland.de/astrofotografie-an-der-nordseekueste/

3. Experience the starry sky

This course is designed to equip participants with the skills to independently identify celestial bodies and create captivating narratives around them. Through pre-determined sky scenarios followed live during observations, attendees gain the expertise to inspire others to explore the wonders of the night sky during its darkest hours.

Experience type	Stargazing and storytelling
Organiser	Eugen Kamenev for LEB Weser-Ems/Nord; Wattwanderzentrum Ostfriesland
Location	Wittmund, Germany
Target audience	Multipliers, Dark Sky guides
Duration	4h
Season	Selected dates
Details	https://weser-ems.leb-niedersachsen.de/kurse-ansicht.html?nr=SB-BZ101718&th=20&sp=2

4. Dark Sky Guides Training Course

This training programme, known as "Dark Sky Guides," comprises 50 lessons covering topics such as "Light and Nature," "Stars and Constellations," light pollution, and "Atmosphere and Space." It equips participants with the knowledge and skills to create and deliver their guided tours effectively. The first seven qualified night guides have completed the programme and are now sharing their expertise in the coastal region. The course was offered in the framework of the Dutch-German EU Interreg project Watten-Agenda 2.0

Experience type	Training
Organiser	LEB Weser-Ems/Nord in cooperation with National Park Administration of Lower Saxony
Location	Germany
Target audience	Multipliers
Duration	50 hours
Season	Selected dates
Details	https://tourismus.leb-niedersachsen.de/dark-sky-guides.html

5. Darkness Ambassadors recurring course

A training course for adults to become Darkness Ambassadors. The course is filled with the most recent scientific insights on the importance of darkness for astronomy, biology and

human health and includes many practical tips and training in a variety of topics. Each evening a different topic is discussed: Light pollution, Astronomy & stargazing, effects of light pollution on nature and human health, and our cultural link with the night's sky. Practical training includes setting up telescopes, stargazing, working with bat detectors and moth traps, and using a planisphere.

Experience type	Physical course of 5 evenings of lectures & practical training
Organiser	Darkness of the Wadden programme
Location	Netherlands
Target audience	Adults; entrepreneurs or volunteers in the Dark Sky sector
Duration	5 evenings of ±3/4 hours
Season	Variable
Details	www.visitwadden.nl/nl/programma-donkerte-van-de-wadden/beleef-de-donkerte/donkerte-ambassadeurs

6. Darkness Ambassadors E-learning

E-learning for people who would like to educate themselves in a variety of topics relating to Dark Sky and the Wadden region: Light pollution, the Wadden Sea, Astronomy, Biology and the cultural historic link with darkness and the night's sky, and solutions for light pollution. The e-learning provides tools and links to practical information for anyone interested in starting activities about Dark Sky topics.

Experience type	E-learning: Darkness Ambassador Training
Organiser	Darkness of the Wadden programme
Location	Online
Target audience	Adults; entrepreneurs or volunteers in the Dark Sky sector
Duration	± 2-3 hours
Season	all year round
Details	https://donkerte-s-school.thinkific.com/courses/ambassadeurstraining