



SEAWILDING PRACTITIONER TRACK

Oh the sea, the sea, grey one day, blue the other. Stormy or calm. It gives and takes. Always busy. A place of sport and pleasure, trading, fishing, off-shore industries... Under water is another world, a world of mysterious marine wildlife. Seldom seen, little known and in very serious decline. That must stop. It is time to rewild the sea.

The Seawilding practitioner track is an activation program for those who aim to contribute to a healthy and resilient North Sea ecosystem in conjunction with their own business activities or by developing supportive policies/funding. The focus is on initiating ecological and social-economical change by blending the knowledge and efforts of entrepreneurs, engineers, policy makers and NGO's with the expertise of ARK Rewilding Nederland.

Who can participate?

Whether you're an entrepreneur, policy maker or a company engineer, are working for a knowledge institution, NGO, a financial institution or a public authority, or an ecologist with a special interest for rewilding, as long as your work relates to the North Sea you're very welcome to join.

To ensure the practitioner track meets the needs of all participants we work on invitation only. Please let us know whether you like an invite. We will then schedule a call to explore your personal rewilding challenges and learning objectives.

Practical information

The Seawilding practitioner track will be scheduled several times a year and can be booked as an in company training as well. For further information please see

www.ark.eu/seawilding

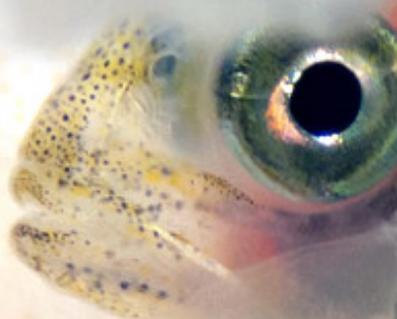


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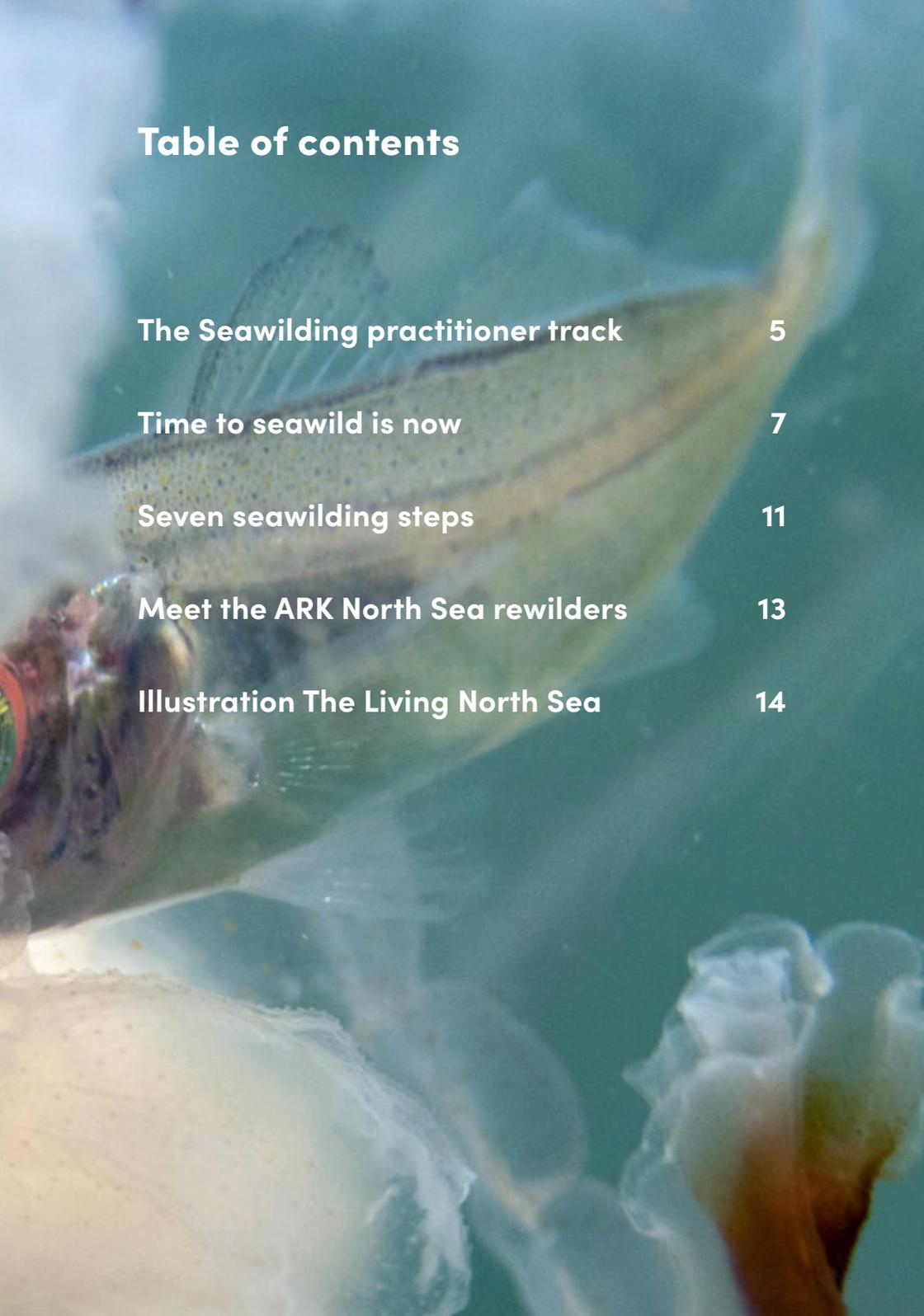
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LEARN HOW TO APPLY
THE PRINCIPLES OF
REWILDING IN THE
CONTEXT OF ECOLOGY,
ORGANIZATIONS
AND SUSTAINABLE
SEASCAPES



The Seawilding practitioner track

North Sea nature is in a deplorable state currently. It has a huge potential though to regrow a rich and robust, self-healing ecosystem given the right conditions to restart and rewild. ARK wants to team up with North Sea stakeholders, to share knowledge, kick-start and maintain seawilding measures that'll help nature to bounce back.

The Seawilding practitioner track consists of a two-day workshop, three online co-creation sessions and personal guidance on state-of-the-art rewilding principles and practices. In the practitioner track we're combining your personal and practical experience with concepts, best practices, case descriptions and co-creation.

The practitioner track will:

- enhance your knowledge of marine ecology;
- connect your inspiration to the global sea rewilding community;
- provide a deep dive into rewilding practices and philosophy;
- explore how rewilding can be part of your organization's sustainability strategy;
- show what can and can't be achieved by rewilding (like a fixed outcome);
- explain what sets rewilding apart from nature conservation/restoration;
- work towards a joint effort in seawilding.

**NORTH SEA NATURE
NEEDS A RESTART TO
REWILD. THAT IMPLIES
A REDESIGN OF ITS
HUMAN USE**



Time to seawild is now

Human use is increasingly industrializing an already degraded system. We need to urgently bend the curve of marine biodiversity loss by creating the right conditions for sea life to take her course to a more resilient and regenerative state.

Apart from a paramount increase in biodiversity, North Sea rewilding initiatives – seawilding for short – could create benefits in many fields and accelerate existing work in the protein transition, climate impact mitigation and in the development of sustainable seascapes. The choices we make in the next few years will echo for decades.

SEASCAPE PERSPECTIVE

Seawilding focuses on the whole ecosystem functioning at the level of humans, systems, and nature within the planetary boundaries. It is an active approach that includes initiatives to re-initiate natural processes and to enrich and stabilize ecosystems in conjunction with the human interaction.

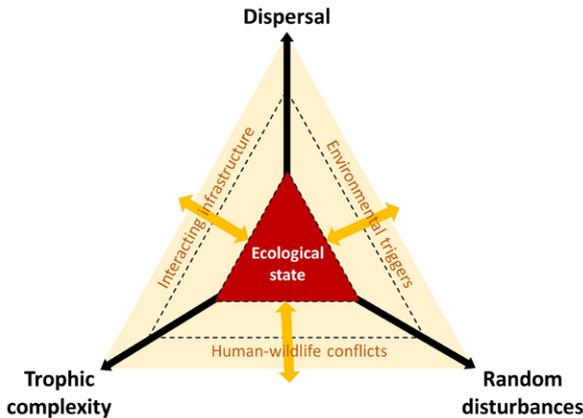


Figure modified based on Perino et al. "Rewilding complex ecosystems." *Science* 364.6438 (2019)

Seawilding is applied at various scales (hot-spots, area's and seascapes) and at increasing levels of complexity (species, habitats, user communities).

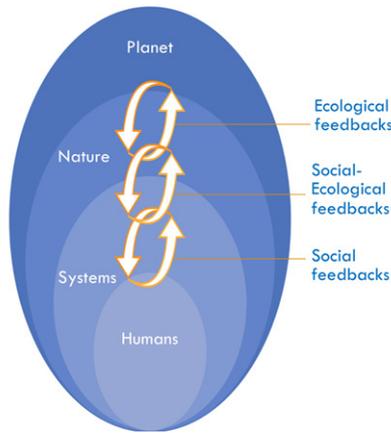


Interventions include for instance kick-starting biogenic reefs, reintroducing large predators, experimenting with sea farming and shared use, and setting up strategic collaborations between actors around seascapes.

A NEW ATTITUDE

We recognize that seawilding redefines the way we, as a person, organization and community, interact with the sea. Starting to seawild implicates system and social change: leaving the control position and learning to trust that nature knows best.

Seeing humans as part of nature – equally important as a whale, a seabird, a coral or an algae, all being equally depended on a sound ecosystem – is a prerequisite for rewilding. 'Nature' in this view is an ongoing, self-shaping, wild process.



ARK is a leader in this approach in the Netherlands, working on land for almost 35 years and in the Dutch North Sea since 2015.

An underwater photograph showing a large, dark, textured structure covered in mussels and other marine life. A crab is visible on the left side of the structure. The background is a clear, greenish-blue water. The text is overlaid in the upper center of the image.

IT'S TIME TO
REDEFINE OUR
RELATIONSHIP WITH THE
NORTH SEA NATURE

Seven seawilding steps

The Seawilding practitioner track will inspire you by examples from our projects, give new perspectives on marine nature, and we'll work on how to apply the principles of rewilding in the context of ecology, organizations and sustainable seascapes.

1 Sensing the sea

- seeing, sensing and relating to the sea and it's submerged marine life.

2 Deep dive into natural processes

- introduction to the North Sea Marine Ecosystem; a possible future state of the North Sea Ecosystem (five years from now); the current state: diminished natural space and a shifting baseline;
- how can we bridge the gap?

3 Rewilding perspective, principles, and practices

- what is rewilding?
- what needs to be developed in our attitude, mindset, and behavior to become rewilders?
- what practical interventions by persons, organizations, and society?

4 Connecting the dots

- reflection on our/your position in the bigger system;
- bending the curve towards net zero (no biodiversity loss) and net positive (increase in biodiversity);
- overview of current transitions.

5 A call to concerted action: lessons learned and insights gained

- what is the rewilding challenge and your personal call to action?
- what is the journey of your organization and our joint call to action?
- how to build successful joint rewilding initiatives?

6 Scaling up to mainstream application

- how to scale up a proof of concept to new business models?
- how to transform current value chains and markets?
- barriers and leverage points in the social-ecological North Sea system.

7 Interventions for entrepreneurs, policy makers and engineers

- challenges of executives, policy makers and designers;
- shifting criteria in setting strategic priorities;
- interdisciplinary work and implementing new design criteria.

REWILDING IS WHAT
HAPPENS WHEN NATURE
IS GIVEN THE CHANCE
TO TAKE ITS COURSE



Meet the ARK North Sea rewilders



Gijs van Zonneveld

Initiator and now advisor of the ARK North Sea program, off shore butterfly hunter



Karel van den Wijngaard

Involved with flat oyster experiments since 2015, current program leader, Dogger Bank veteran.



Gwenaël Hanon

marine ecologist, rising stella di mare, dedicated to sharks and rays, busy with sea farming experiments.



Ernst Schrijver

marine animal biologist, field work coordinator & seafarer, ichthyophile, expert on oyster spat on shell and monitoring.



Marijke van de Staak

shell fish reef builder and advocate, passionate wave surfer.



Iris Roggema

storyteller, seafood lover, seen a fin whale poop.



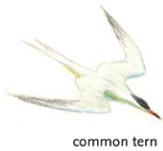
Rembrandt Zegers

deal maker on behalf of nature, seeking to transform human-nature relations, sea sailor.



Rien van Leeuwen

innovation- and transition facilitator, walks the beach with his dog & representatives of future generations.



common tern

gannet



common guillemot

common seal



porpoise



Large predators such as sharks, porpoises, and seals mainly catch the weaker fish. This keeps groups of fish healthy.

spiny dogfish



blue skate



Rays eat starfish, starfish eat shellfish. With enough rays, shellfish reefs can grow well and persist.

fivebeard rockling



sea bass, 30 years



atlantic cod



sea bass, 8 years

tompot blenny



sea bass, 3 months



edible c

thornback ray and egg



whiteweed



small spotted catshark egg



serpent star



striped seasnail



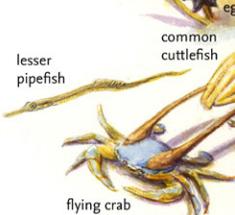
starfish eat oysters



beadlet anemone



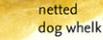
lesser pipefish



common cuttlefish



netted dog whelk



sand mason



common welk



mussel



yellow sea squirt



flying crab



common wentletrap



Mussels and oysters filter water to extract food. They spit out silt and sand, which settles to the sea floor. This is how shellfish reefs develop that can strengthen coastal defenses. Their filter work makes the water clear and weeds can grow better.

common limpet



acorn barnacle



brown shrimp





sandwich tern



lesser black-backed gull

Cultivation of mussels and oysters, crabs, lobsters, and seaweeds can produce seeds and larvae for wild populations.



fulmar

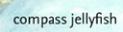


herring

Zooplankton eat algae and bacteria, fish eat zooplankton.



common jellyfish



compass jellyfish

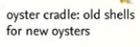


barrel jellyfish

Young shellfish and algae can attach and grow on empty oyster shells that have been returned to the sea. The beginning of a new reef.



oyster and mussel seeds



oyster cradle: old shells for new oysters

artificial reef

Fish can shelter and spawn in the lee of reefs. Young fish grow on it safely. Fish stocks are improving.



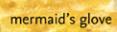
Ross worm



short snouted seahorse



sea urchin



mermaid's glove



sea lettuce



pouting



rockweed



atlantic mackerel



sea arrow with eggs



mud sagartia



plumose anemone



irish moss



flat oyster



sap sucking slug



lugworm



common cockle



common sole



banded wedge shell



king ragworm



common hermit crab



necklace shell

A teal-colored map of Europe and surrounding regions, including parts of North Africa, the Middle East, and Iceland, is overlaid on a light blue background. The map shows the outlines of continents and islands.

ARK
REWILDING
NEDERLAND

www.ark.eu/seawilding

PHOTO'S

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TEXT

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