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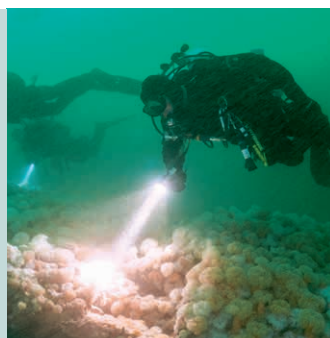
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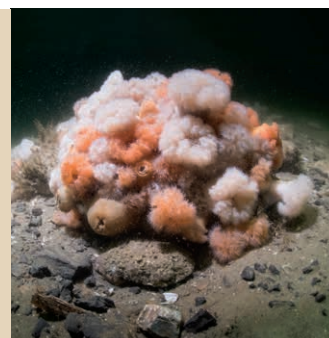
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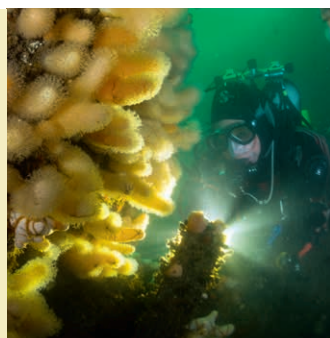
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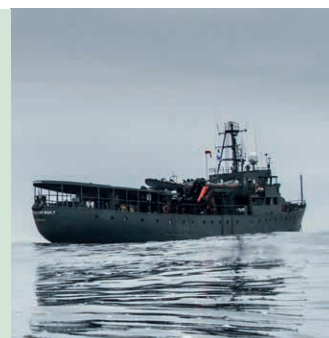
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The North Sea cannot tell its own story. That is down to us.  
If we tell its story, the North Sea will live, we will add colour  
to its nature.

Vincent van der Meij (Policy maker)



## FOREWORD

More than 10,000 years ago, the area we now call the North Sea was primarily land. Mammoths, woolly rhinos and giant deer populated the cold and wet plains far before that.

The current North Sea only came into being 6,000 years ago, when the ice melted and the tip of the Dogger Bank hill area was the last to disappear under water.

In recent years, the jewels of this young sea were visited during 14 diving expeditions. Boulders and stones from the ice age were found on the Cleaver Bank and the Borkum Stones, but are now abundantly overgrown. Numerous shipping incidents have created new hard substrate in the North Sea. The beautiful photographs in this book show that they are also covered with rich fauna.

However, all those beautiful places are actually just postage stamps in the vast North Sea. Those wrecks and stones are surrounded by a large bare sandy plain, where flatfish still feel at home, but where an untouched seabed now hardly exists. The extensive oyster banks, colonies of sand mason worms and peat bogs have almost completely disappeared as a result of bottom trawling, and possibly also as a result of climate change and disease.

Divers also see the impact of fishing in the form of ghost nets lost on the wrecks. It is a great initiative that they cut such large quantities loose and bring them ashore.

At a depth of 30 metres, and with strong currents, this is no easy task. The photos in this book bear witness to this.

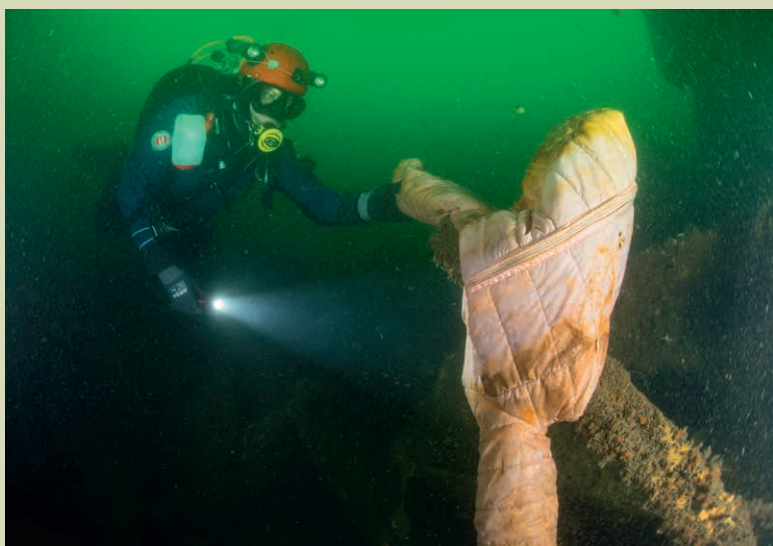
For the future of the North Sea and its flora and fauna, it is essential to establish larger marine reserves where the ecosystem is left alone. The importance of this book is therefore much greater than the photographs and texts. It brings the hidden seabed into focus, so that people understand the need to protect it. The wrecks must be given monument status and the few remaining undisturbed ecosystems must be extended from postage stamps to a network of protected areas.

This book is a gem from the North Sea. I would like to compliment all the contributors on the wonderful material they have collected during many, often arduous, diving expeditions. The private initiative and the volunteers who are cleaning up the North Sea and raising its visibility with this book are making an invaluable contribution to its sustainable future.

I hope that you, like me, will take this book and the beautiful North Sea to heart.

Prof. Dr. Han Lindeboom, Wageningen University  
Texel, September 2016.





▲ On 2 January 2019, 342 containers fell overboard north of the Wadden Islands. This caused massive pollution on the beaches and in the sea



## MSC ZOE

Type Container ship max 20,000 TEU

Nationality Swiss

Coordinates North of the Wadden Islands up to and including Borkum

Built / Sank 2015 / 2019 (cargo)

Cause of loss 342 containers lost in heavy NW storm

Length 395 m

Depth (min-max) 16-24 m (near the wrecks)



## MV VICTORIA CITY

Type Cargo ship

Nationality British

Coordinates 53°33.757'N 05°37.341'E

Built / Sank 1955 / 1955

Cause of loss Collision

Length 141 m

Depth (min-max) 18-24 m





# 5 THE DOGGER BANK



# JEANETTE KRISTINA

WE ARE ON BOARD THE EXPEDITION SHIP *CDT. FOURCAULT* EN ROUTE TO A DOT ON THE NAUTICAL CHART WHERE THE WRECK OF *JEANETTE KRISTINA* SHOULD BE. THE TENSION ON THE BRIDGE IS MOUNTING NOTICEABLY. ALL EYES ARE ON THE ECHO SOUNDER'S SONAR SCREEN. WILL WE FIND THE WRECK?



IT IS OUR FIRST EXPEDITION TO THE DOGGER BANK and everything takes some getting used to. In addition to my role as a support diver, my second task on board is expedition planning. This involves determining a list of possible wreck locations that we want to investigate and calculating the time of the dive together with expedition leader Ben. This has already gone wrong a couple of times during this trip. The exact position of a wreck is not always known. This means that the surroundings have to be searched until the sonar screen shows a clear bump on the sea floor. We searched in vain for a wreck a few times on this trip, which caused the turning of the tide to be missed. I feel that my reputation is at stake...

SUDDENLY WE SEE THE SEABED FALLING ON THE SONAR SCREEN. This is a good sign, because wrecks are often surrounded by an erosion channel, which is where the current has washed away the sand around the wreck. It means we are getting close and indeed we suddenly see a large lump on the screen. The wreckage has

## COD

We all know delicious cod. For many lovers of the North Sea, this beautiful fish is an icon. The icon for tough fishermen and fried fish. Ever since Viking times (around the year 800) it has been one of the most important commercial fish species and ecologically one of the most important top predators in the ecosystem. The older wreck divers tell stories "from the past": back then they couldn't see wrecks very well because there were such large schools of cod around.

Unfortunately, those days are long gone. Cod has been overfished and human activity has drastically changed its habitat. Whereas in the 1970s and 1980s up to 350,000 tonnes of cod were caught from the North Sea per year, in recent years this has been around 60,000 tonnes. On a positive note, the lowest point of 2006 has passed; the population in the North Sea is once again showing an upward trend. As a wreck diver I had hoped to see a large school of cod, but never thought I ever would. This dream came true after all, far away on the Dogger Bank, on the wreck of the *Jeanette Kristina*, far out to sea, with clear water, colourful cold water corals, and many dozens of cod. A dive back in time to never forget.

Wouter Lengkeek (Marine biologist)

## SEA WOLF

Before the start of the dive, I said to one of the other divers "Just bring the camera with you, before you know it a sea wolf will emerge from the wreck." Obviously it was a joke, because sightings of sea wolves are extremely rare in the Netherlands. The end of a fantastic dive is approaching, we just went into deco mode. It's time to wrap up. But what is that?! There's one right in front of two other divers! Sure enough it is a huge sea wolf. Wow! That's a good reason to prolong the dive a little; we have enough breathing gas and suddenly we are no longer cold. The sea wolf cracks a hermit crab out of its shell with its strong jaws right before our eyes. Our sea wolf is a beautiful animal of about one metre in length. According to information, it dates back around 1520 years! It has a head full of scars; probably the result of fights with prey animals.

This encounter shows us that wrecks are valuable to the North Sea. Fishing pressure is high and the majority of tasty fish don't grow old here. Ship wrecks provide fish a safe haven. Sea wolves are very attached to their homes; they live in holes in rocks or in wrecks. This sea wolf in the *Jaenette Kristina* can grow old because the wreck provides it good protection from fishing. [WL]

been found! The captain gives the signal to throw the descent line (a line with an anchor and buoys) overboard. On board it is suddenly buzzing with activity. All divers ensure that their equipment is in order, the Zodiac is launched and the film and photo equipment are prepared.

TODAY I'M DIVING WITH LEON to explore the wreck and remove nets. When I jump overboard I can already see that the water is very clear. The Zodiac takes us to the descent line. The wreck is at a depth of about 30 metres, but we soon see it looming up. Rarely have I had such a clear view. It is as if we are diving in the Mediterranean rather than the North Sea. The water has a blue tint this far off the coast, in contrast to the usual green closer to land. It is very beautiful. What used to be an abstract wreck symbol on the nautical chart is now a time capsule left behind on the seabed. It is still clearly recognisable as a Danish fishing vessel standing on its keel in the sand.

THE FIRST THING I SEE is a large school of cod, swimming slowly over the deck of the wreck. This is quite exceptional, because cod is not often seen on wrecks, especially in schools of this size! It is

a beautiful sight and it makes us feel happy that this group has so far escaped the fishing nets and lines. This location in the middle of the North Sea is too far away for a day trip for anglers. This can also be clearly seen from the lack of fishing line and lead left behind, which is massively present on other wrecks closer to the coast. The only nets we come across belong to the fishing vessel itself. The vessel probably perished with its nets cast and the wreck is now wrapped up in its own nets. In the nets, I see various fish at different stages of decomposition. The *Jeanette Kristina* is still fishing! There are large North Sea crabs on the fish carcasses, but several of these crabs have their claws stuck in the net. We free several crabs and a huge lobster.

IN ORDER TO BREAK THIS PERPETUAL CYCLE, we remove as many nets as possible and bring them aboard the *Cdt. Fourcault* in large bags. In any event, the salvaged nets can no longer cause suffering. In this way we are contributing to a cleaner North Sea...

Harold Batteram (Support diver)

## 5 DOGGERSBANK



◀ Sea wolf  
(*Anarhichas lupus*).

The fact that a sea wolf has been able to grow this old without being caught in the North Sea gives hope.

Wouter Lengkeek (Marine biologist)

➤ Angler  
(*Lophius piscatorius*).

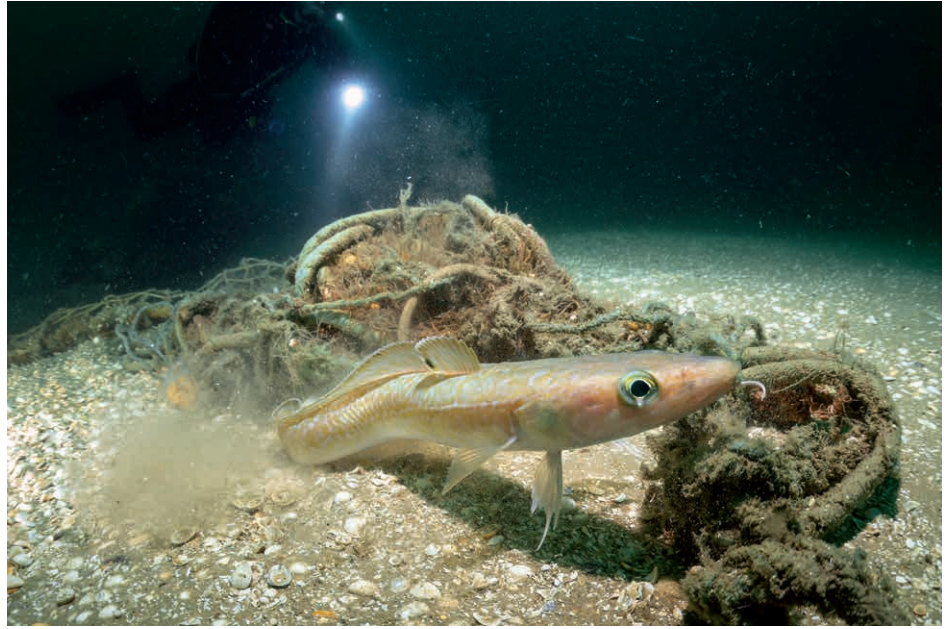


### ANGLER

Wrecks are a good thing for young cod: they provide shelter for large fish and they are full of tasty worms and shrimps. If you're lucky a worm just frolics across the sand, YUM! The seabed suddenly starts to move and the cod is gone. So some worms are best avoided...

The angler lies very still at the bottom of the sea, preferably under a wreck. It is a strange fish; its head is bigger than the rest of its body and its mouth almost as big as its head. It doesn't swim much, but it can use its fins to walk across the seabed. It has a spine on its head, made from the first spines of its dorsal fin, which looks like a fishing rod. It uses this rod to lure other fish to just above its huge mouth while lying camouflaged on the seabed. Due to numerous algae protrusions on its body it is invisible to its prey and strikes out of nowhere. It is a glutton that swallows fish as big as itself. Anglers are not often seen by North Sea divers, so it was a memorable dive on the unknown wreck numbered 117976 on the Dogger Bank, where not one but two beautiful anglers were waiting for the next young cod that fancied a worm. [WL]





▲ A ling (*Molva molva*) on the shell grit bottom next to a wreck on the Dogger Bank.

▲ A dead seal in a net. These beautiful playful animals hunt in places where there is an abundance of fish. Unfortunately, this cost him his life. The wreck is now clear of nets so it can't happen again.



## THE SEARCH FOR O13

The Dutch mainland and the North Sea, two seemingly completely different areas, but inextricably linked to each other. As a nation of tidy people we clear up what we see, or hoe it under the clay. If we want to discover our history, we have to dig for it. It is no different at sea. The North Sea bottom is like an archive, a library where the history of centuries of shipping is preserved.

This is where people found their seaman's grave. Here they would find their eternal rest: "On eternal patrol." Apparently unreachable in the deep water. Even submarines, although made for underwater duty, were not safe. Some 200 submarines found their final resting place at the bottom of the North Sea in two world wars. Likewise, in June 1940, *HNLMS O13* and its crew of 34 young men, was lost somewhere between Dundee in Scotland and the mouth of the Skagerrak to the south of Norway. Some wrecks were found over the years, they were assessed in terms of danger and cleared up if necessary, with-

out further ado, the crew had already disappeared anyway. Others remained, and became part of life there on the seabed, but always invisible, elusive and misunderstood. During the Dogger Bank Expedition in 2019, I was able to scan more than 70 possible locations where *O13* could have sunk, together with *Duik de Noordzee Schoon*. Sonar and video were used to examine the bottom. Although *O13* was not found, a large part of the search list could be crossed off!

My dream is to make the marine world visible, so that every landlubber can see what the seabed really looks like with his own eyes, what the wreck of *O13* is like, how much new life has now been created there and where those sailors have gone. Answers to all these questions can be found in the "archive" at the bottom of the North Sea.

Jouke Spoelstra (Commander)

➤ An angler (*Lophius piscatorius*) is only clearly recognisable when it moves.



◀◀ Male rock gunnel (*Pho-  
lis gunnellus*) spawning.

▶ Great excitement on  
board: for 40 minutes three  
minke whales swim around  
the expedition ship, looking  
at us curiously.






▲ After the dive, the dinghy rushes the divers back to the mother ship *Cdt Fourcault*.

There is still a good deal of wilderness in our regions,  
which no man has ever seen. For that you have to go to  
the North Sea.

Rineke Voogt (Journalist)

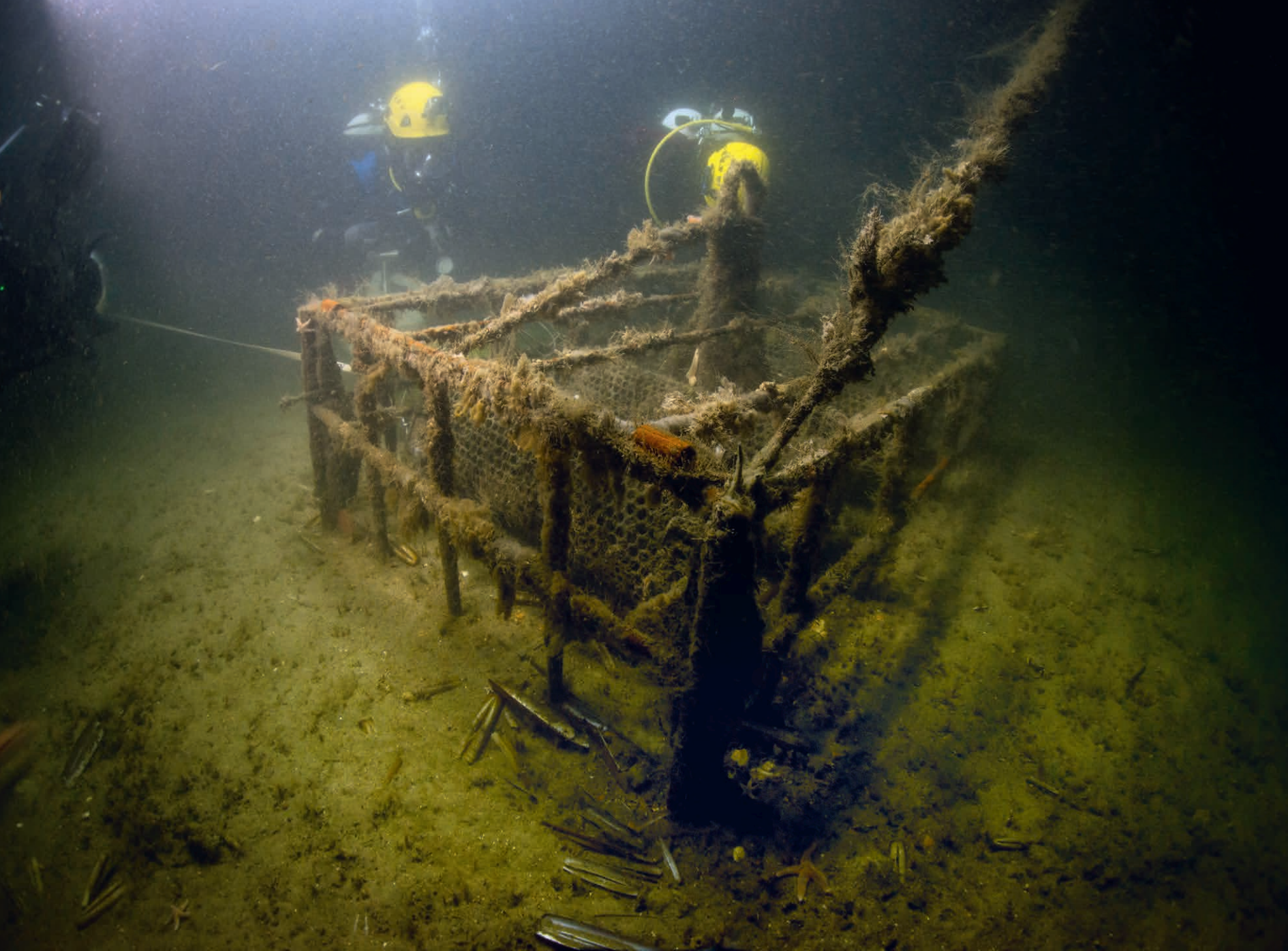




 The reel that the first buddy pair put in place as a guide line leads the other divers to the most interesting place on the wreck, in this case a school of cod.



▲ We work hard on board  
between dives.



▲ Research cages with live oysters at the Borkum Stones enable us to monitor survival, growth and reproduction.

◀ The flat oyster provides a hard substrate for young oysters as well as other plant and animal species. From the white edge you can see that this oyster has grown nicely.