

# Norfolk's Secret Sea

A photo guide to the marine wildlife of North Norfolk coast's wrecks and reefs



Photographed by  
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# Marine Life of the Norfolk Coast

Despite decades of disturbance by dredging, shipping, fossil fuel extraction and unsustainable fisheries the North Sea remains astonishingly diverse. Beneath the surface of the North Sea there is a rarely explored world which goes almost totally unseen. Only a few divers and snorkellers visit, for everyone else it remains out of sight.

This guide introduces some of the fascinating animals which live less than a stone's throw from shore on the two wrecks which break the surface at Cley and Weybourne. These are artificial reefs but North Norfolk fortunately has rock reefs too, very rare in East Anglia. Chalk reefs appear near Weybourne and run past Sheringham – making landfall at West Runton as wonderful rock pools. Divers exploring the area always find that both the wrecks and the reef are packed with wildlife.



*Divers make their way back from the Vera at Cley at Sunset*

# Tompot Blenny – *Parablennius gattorugine* - 150mm/6"



This fish is the star of many marine conservation campaigns as his friendly face is very loveable. It was believed there were none in the North Sea until they were reported by Seasearch off Weybourne in 2007.

## Edible Crab – *Cancer pagarus* - 300mm/12"



Famous as the 'Cromer crab' this powerful animal can grow to the size of a dinner plate and crack bone with its claws. They prefer to avoid confrontation and lock themselves into safe crevices with their elbows.

## Crystal Sea Slug – *Janolus cristatus* – 75mm/3"



This is one of most beautiful nudibranchs to occur off the Norfolk coast. Nudibranchs are molluscs, related not only to land snails and garden slugs but also cuttlefish and octopus.

They appear in summer and grow from tiny juveniles with just a few transparent tentacles – called cerata – into adults with many tens of them all the way around their bodies.

The Crystal Sea Slug is unique in having a bump – called a caruncle - between its antennae. Its transparency allows you to see the way its digestive tract circles the body and carries defensive chemicals to the brightly marked ends of the cerata for protection.

Most nudibranchs protect themselves using toxins or stinging cells from their food. They are able to transfer this material without harm to the tips of their bodies which are often brightly marked. Few animals bother trying to eat nudibranchs because this is a clear warning of a bad taste.

# Wreck Diving on the Norfolk Coast

The North Norfolk coast offers the best diving conditions in the whole of East Anglia, and compares well with other parts of Britain too! Because there is no protection from the weather we have to wait patiently here for the right conditions for diving. In summer the water can be very clear and lots of local divers enjoy exploring the many ship wrecks. These wrecks aren't just of historic interest they are also very important artificial reefs which foster a wide range of species.

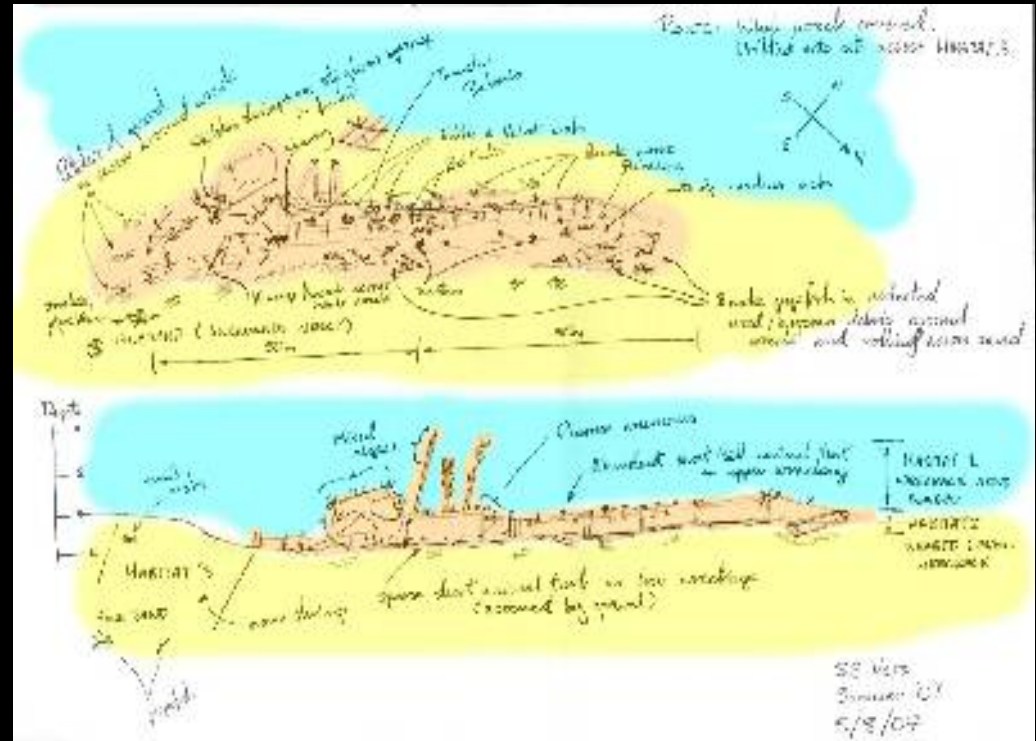


*A diver on the Vera at Cley*

As well as the many thousands of wrecks out at sea there are also two very close to land. Both the Vera, at Cley, and the Rosalie, at Weybourne were sunk during the First World War, beached to allow their crews to escape.

They support truly diverse wildlife and ever since

they sank have provided a home for countless animals; shoals of fish, beautiful sea slugs, colourful sea anemones and especially the crustaceans for which Norfolk is so well known. Literally a stone's throw from shore both wrecks break the surface at low tide and as the water around them is less than 8m/26feet deep they make for a safe dive in good conditions.



*A sketch of the Vera at Cley*

## Common Prawn – *Palaemon serratus* – 60mm/2.5"



Like crabs the Common Prawn has 10 legs – including those with claws on. They also have other appendages which are used for feeding, breathing and – as in many other crustaceans - swimming.

## Bib or Pouting – *Trisopterus luscus* - 450mm/18"



Bib are constant companions to divers around wrecks, their bold stripes tend to fade as they grow older. Although they are related to Cod they aren't often eaten as they don't taste very pleasant.

# Peacock Fanworm – *Sabella pavonina* – upto 30cm/12"



Even worms can be beautiful! Like many worms this one hides its body. It likes to live fixed to a hard surface and to protect itself it builds a tube since it doesn't burrow.



The worm lives in the tube and feeds by extending a feathery fan of filaments to catch particles carried in the passing current. It retracts the fan to eat what it has caught and if it is startled.

While they are usually very small (less than 2.5cm/1") in exposed positions they can grow to be much larger in sheltered places.

## Velvet Swimming Crab – *Necora puber* – 100mm/4"



Velvet Swimming Crabs are feisty scavengers who fearlessly threaten divers and rarely use their paddle shaped back legs to swim away. It is the covering of short bristles that gives rise to the common name.

# Lightbulb Sea Squirt – *Clavelina lepadiformis* – 25mm/1"



These simple animals are remotely related to us, and other advanced animals, because when they are young they have a simple spinal cord. They grow in clusters and filter food from the passing seawater.

## *Facelina auriculata* – a sea slug – 40mm/1.6"



This dramatic animal is another of Norfolk's many types of sea slug. The photo shows an adult hunting on the wreck of the Rosalie at Weybourne for its favourite food – animals called hydroids which are rather like tiny jellyfish on stalks.



Oaten Pipe Hydroids – *Tubularia larynx*

These hydroids grow in Spring on wrecks and reefs. This attracts nudibranchs who feed on them and breed during the Summer, leaving just the stalks when they have finished grazing.

## Hermit Crab – *Pagarus bernhardus* - 75mm/3"



Hermit crabs are very common on the Norfolk seabed, there are more than 20 species living around the UK. This is the only type to grow to more than 50mm – it also has one claw much larger than the other.

## Long Spined Sea Scorpion – *Taurulus bubalis* - 30cm/12"



Sea Scorpions are ambush predators and change colour to hide themselves. When a meal moves close they extend their large mouths in a split second to swallow it. Their spines protect them from bigger fish.

# Reefs of the Norfolk Coast

The seabed around North Norfolk is naturally quite flat, largely composed of sand and shell gravel. Amongst this shifting seascape many animals search out some cover and any raised, fixed habitat is very popular. This can be as little as a rock, or as large as a ship wreck, there are even colonies of worms whose homes of closely packed tubes can build up into new reefs. In some places lost buildings and ballast form homes for reef communities too.



*A squat lobster on the reef*

Although this can mean that the flat seabed looks relatively empty even these plains are active breeding and feeding grounds, as well home to many buried populations.



*A lobster leaving its chalk cave*

North Norfolk also has chalk reefs which run close to shore from Weybourne to West Runton. This chalk forms gullies, more than 2m/6 feet high in places, which host a wide variety of species for divers to observe. On land the rock pools at West Runton are a great place to see the wildlife of the shallow North Sea and this chalk is also fossil rich, containing evidence of an ancient marine past.

## Elegant Anemone – *Sargatia elegans* – 5cm/2"



There are many types of anemone in the North Sea, all feed by trapping food with sticky, stinging tentacles. The Elegant Anemone can occur in many colours but we only usually see the more subtle shades in Norfolk.



They expand their bodies with water to stretch out into the water column but shrink into almost nothing when they retract their arms to collect their food or are uncovered by the retreating tide.

Violet Sea Slug – *Flabellina pedata* – 20mm/0.75"



This sea slug or nudibranch is common off Norfolk in the Summer. Nudibranchs often eat tiny stinging animals, related to corals, then they reuse those stinging cells for their own protection to deter predators.

# Sea Gooseberry – *Pleurobranchus pileus* – 20mm/0.75"



These beautiful animals are related to anemones, corals and jellyfish which feed by stinging their prey. They use sticky threads to fish for particles of food and swim by rippling lines of plates along their sides.

# Common Lobster – *Homarus gammarus* - 90cm/36"



Lobsters are the kings of the Norfolk coast, their only real threat is from man.

They are intelligent and like to investigate divers. Unlike crabs, which move sideways and often run away, lobsters will advance to meet you. They sometimes enjoy having their antennae stroked but can retreat rapidly backwards by flipping their broad tails if they are startled and want to leave in a hurry.



Although popular as seafood they can live as long as humans when left to their own devices. They are also gourmet diners themselves as their huge claws are different, one for cutting and one for crushing – built in cutlery!

## Horse Mackerel – *Trachurus trachurus* - 50cm/20"



Horse Mackerel are summer visitors to the East coast and spawn in the North Sea. They feed on smaller fish. Fish use their reflective bodies to confuse predators. They flash as they all change direction together.

## Snake Pipefish – *Entelurus aequoreus* - 60cm/24"



These strange yellow fish appeared in huge numbers in 2007, causing difficulties for Puffins in the North whose young could not digest them. They are related to seahorses which have similar hard, bony bodies.

# Where to find out more

If you have been surprised and excited by the marine wildlife in this guide there are many ways to take your interest further. These websites will help start your search:



Norfolk Wildlife Trust hold regular coastal events and whether you are a diver or beachcomber the Trust is always keen to hear of interesting finds and sightings around our coast. The Trust's website is a great place to find out more.

[www.norfolkwildlifetrust.org.uk](http://www.norfolkwildlifetrust.org.uk)



Twelve Wildlife Trusts have embarked on a new project to help North Sea marine wildlife. Their aim is to ensure that an ecologically coherent network of Marine Protected Areas is established in UK waters. A new website describes the project and contains lots of information on the wildlife of the North Sea.

[www.northseawildlife.org.uk](http://www.northseawildlife.org.uk)



Qualified divers can visit these environments and Seasearch, a project run by Marine Conservation Society volunteers, helps them to survey and record the marine habitat and its residents. Find out more here:

[www.seasearcheast.org.uk](http://www.seasearcheast.org.uk)