



Discover the Duver!



Welcome to St Helens Duver!

The word 'Duver' (pronounced to rhyme with 'cover') is a local, Isle of Wight term for an area of sand dunes. A few places on the Island bear the name; most notably Seaview Duver and St Helens Duver.

St Helens Duver is the largest surviving area of sand dunes on the Isle of Wight, and has developed on the mixed sand/shingle spit at the mouth of the River Yar. Other small areas of sand dunes exist on the opposite side of Bembridge Harbour, at Norton Spit near Yarmouth and an unusual 'perched' dune at the top of Ladder Chine on the south-west coast of the island.

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Sand, glorious Curriculum relevant materials supporting school trips to the Isle of Wight essential Book today with Education Destination and get full access to this and hundreds more quality resources

Sand is made from a variety of different things and can vary in colour and texture from place to place. Sometimes it's fine and golden, sometimes it's almost muddy, and it can even be black!

Essentially, it's made of quartz crystals that have eroded from rocks, as well as from tiny pieces of shell and bones, so how it looks and feels depends on which rocks and creatures have contributed to the sand!

Making a baby dune...

Technically, in geography, the term for a 'baby dune' is *embryo dune*, just like a human baby is called an embryo in its early development. So, how does an embryo dune form?

Basically, it happens like this...

1. Sand is transported by the sea, and waves carry it ashore
2. The wind blows the sand inland
3. A small object forms an obstruction, e.g. a piece of driftwood, seaweed, or even a dead sea bird (yuck!)
4. This obstruction interrupts the force of the wind
5. Sand begins to accumulate around the obstruction
6. Hey, presto... A young dune is born!



Embryo dunes at St Helens Duver

Survival of the fittest!

Life as a baby dune is tough. It's salty, dry has a high PH (8 or over, making it alkaline), no nutrients, and is highly exposed to the wind and sea.

Many embryo dunes don't make it, and disappear almost as soon as they appear. It's a battle to survive and in order to make it these babies need one thing: vegetation!

Bring on the marram...

The hero of the day, marram grass is one tough little plant! They can cope with the harsh conditions and have long roots which bind the sand, and trap even more sand so the embryo dunes can grow bigger.

New shoots grow from the long roots and a 'mat' of marram grass develops. Here is a picture of marram grass on embryo dunes... See if you can find some!

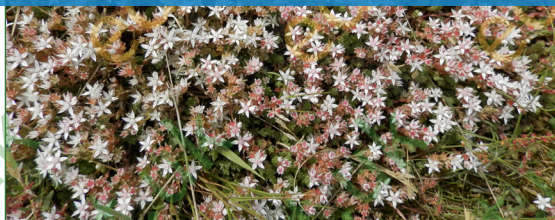


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more stable and established. These are called the **yellow dunes** (closer to the shore, behind the embryo dunes) and, eventually, the **grey dunes**.

Walk back through the dunes slowly, and watch for how the vegetation becomes more diverse.

See how many different species of plants you can find.

Perhaps take a few pictures and, later, you can look them up and find out what they are and more about what they are like!

Setting up home...

Once vegetation is established, along come the insects and the birds and the other animals. Some strange creatures lurk on St Helens Duver...

The beewolf is a burrowing wasp that digs tunnels in the sandy soil to lay her eggs. She hunts bees, paralyzes them with her sting and drags them into her tunnel to feed her larvae!

You may also see a wasp spider with distinctive black and yellow stripes of a wasp, which have given it its name. There are grasshoppers and crickets and other critters galore...

What might you find?



Other species...

The Duver and surrounding habitats also provide a home for birds, and is an important stopover for migrating birds. Listen and look – you may see a whitethroat. These nest in the bushes and the male flies up singing, before sailing back down into the bushes with its wings spread and tail erect!

There is a large population of rabbits. See if you can find some evidence of their presence here...

And where there are rabbits, Mr Fox isn't too far away!



Activity: Feature Finder

The images on page 4 show some of the main human and physical characteristics of the Duver.

Can you match each picture up with the descriptions below?

Afterwards, take a walk around the Duver and see if you can find each feature (and others besides!).

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I am a sea wall. I protect the coastline from the relentless battering of the sea! There are different types, but I have a curvy top – the idea is that the waves hit me and are curved back over, rather than going straight back and scouring the beach.

A

I am a groyne; not the human body part, but a tactic to trap the sediment as it moves along the beach (in the process of long-shore drift if you want to get technical!). Look carefully and you will be able to tell which direction the sediment moves along the beach – the level is much higher one side than the other!

B

I am a dune slack. I am to be found towards the back of the dune system, in the grey dune area. I lie in a trough between the ridges and, because I am close to the water table, I am often flooded in the winter months and in especially wet weather at other times of the year. Rushes and sedges love my damp conditions!

C

I am a blow-out and I am the result of too many people trampling the dunes... their trampling removes the thin vegetation cover, and exposes the loose sand to the wind and rain, allowing it to be washed or blown away... That leaves me – a big depression in the dune!

D

I am a sea wall. I protect the coastline from the relentless battering of the sea! There are different types, but I have a curvy top – the idea is that the waves hit me and are curved back over, rather than going straight back and scouring the beach.

E

I am a groyne; not the human body part, but a tactic to trap the sediment as it moves along the beach (in the process of long-shore drift if you want to get technical!). Look carefully and you will be able to tell which direction the sediment moves along the beach – the level is much higher one side than the other!

F



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