



PEREGRINI Lindisfarne
Landscape Partnership

THE
NATURAL HISTORY
OF THE
PEREGRINI AREA
ARTEFACT BOX





THE NATURAL HISTORY OF THE PEREGRINI AREA

ARTEFACT BOX: COMPLETE BOX



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Acknowledgements

Northumberland and AONB

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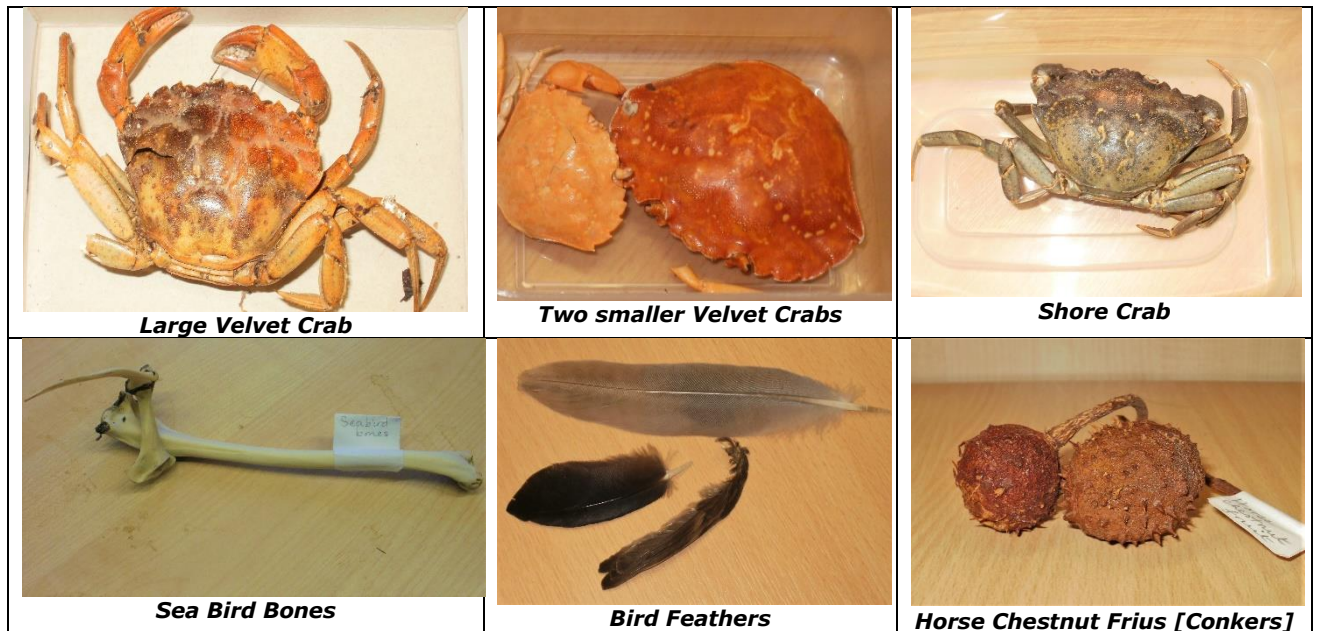
Peregrini Nature Table Box –compiled and kindly donated by Paulette Paige

ARTEFACT BOX: INDIVIDUAL PHOTOGRAPHS



ARTEFACT BOX: INDIVIDUAL PHOTOGRAPHS

ADDITIONAL ITEMS



The following pages explore some of the habitats, plants and animals found in the Peregrini area of north Northumberland.






HABITAT 1 | **Brief Description: Whin Grassland**




Further Information:

- A **habitat** is the natural home or environment for a particular plant or animal eg meadow, wood, desert, sea shore. So, frogs like to live in damp, wet areas.
- The Whin Sill grassland habitat covers a specialised group of plants that thrive on Northumberland's Whin Sill.
- This habitat is only found at a small number of places, where there is thin soil [soil with very little plant food in it] on top of rocky outcrops of whinstone.
- These grasslands are often found near the coast where conditions can be very harsh.
- Being able to survive in these conditions is what makes these plants so special.
- The photographs above show a good example of Whin grassland on the Heugh at Holy Island, near to Lindisfarne Priory and Kippy Heugh.
- The Whin Sill is flat layer of the volcanic rock that was formed between existing layers of sandstone and limestone in Northumberland.
- It can be seen as cliffs and outcrops on the coast between Howick and Holy Island. Eg Cullernose Point.

 **Explore:**

-  Why are conditions so harsh at the coast?
-  Why might plants not be able to survive in thin soil?
-  Why are the plants that live here suited to this habitat?
-  Does this habitat change over the course of a year? Or over a longer period of time?
-  For more information on Whin grasslands see:

http://www.northumberland.gov.uk/WAMDocuments/D098BF4A-EE54-41D7-ABDA-CF603C8408E9_1_0.pdf?nccredirect=1

 Use the Peregrini Coast-Plant Spotter Sheet in the separate booklet that accompanies this Loan Box to see how many coastal plants you can spot.

HABITAT 2 Brief Description: Sand Dunes








Further Information:

- The sand that forms sand dunes is mostly made from very finely crushed shells.
- Dunes are often held together by strong plants like marram grass.
- The two photographs above show dunes at Cocklawburn and Holy Island.
- Sand dunes can often change shape particularly with strong gales and storms.
- Sand dunes are a specialised habitat. Plants and animals living here need to be able to adapt to the conditions here.
- The Peregrini area has some excellent examples of this habitat at Cocklawburn, Cheswick, Goswick and Holy Island.
- Elsewhere in Northumberland dunes can also be found at Embleton, Buston Links and Warkworth.
- The best time to visit is in Spring/early Summer to see great displays of flowers.



 Explore

-  What sort of conditions do you think plants and animals would have to cope with in sand dunes? Would conditions change with the seasons?
-  Take a look at <http://www.nwt.org.uk/wildlife/habitats/coastal-sand-dunes>
-  How does marram grass hold the sand dunes together?
-  Use the Peregrini Coast-Coastal Spotter Sheet in the separate booklet that accompanies this Loan Box to see how many coastal plants and animals you can spot.
-  See if you can spot what sort of changes plants have made to themselves to help them cope with conditions there. Think about the shape of plants themselves and their leaves.



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HABITAT 3 Brief Description: Saltmarshes



Further Information:

- Saltmarshes form where rivers and streams meet the sea.
- The streams and rivers deposit sand and silt here that builds up over time to form a marshy area.
- Saltmarshes usually form where there are already mudflats.
- Saltmarshes are exposed at low tide and at least partially flooded at high tide, so only salt resistant forms of vegetation can grow there.
- They are typically very flat, with numerous muddy channels and creeks cutting through them, making them very dangerous places to be as the tide comes in.
- They form a specialised ecosystem of many different species of insects, birds and plants, as well as shell fish, and invertebrates such as lug worms
- In summer, saltmarshes can be a carpet of pink where the thrift plant flowers, despite being regularly covered by the sea.
- Saltmarshes are rare habitat that needs to be protected carefully.
- Good examples are found at around Holy Island and Budle Bay.
- There are also examples at Warkworth and Alnmouth.

 Explore:

-  Why are saltmarshes a rare habitat?
-  Identify two plants that live in the saltmarsh habitat.
-  Why are they suited to live in this habitat?
-  What sort of things can we do to protect them?
-  What are the concrete objects in the picture?
-  How do they help to protect the area?
-  Take a look at: <http://www.wildlifetrusts.org/reserves-wildlife/great-places-see/saltmarshes-and-estuaries>
-  Use the Peregrini Coast-Wading Birds Spotter Sheet in the separate booklet that accompanies this Loan Box to see how many waders you can spot.



HABITAT 4 | Brief Description: Seashore



Further Information:

- These can be long sandy beaches or rocky shores.
- The Peregrini coast has good examples of both types of coastline.
- At Goswick, Cheswick and the north side of Holy Island there are long sandy beaches.
- The Peregrini area also has many rocky beaches to explore eg at Cocklawburn, and Holy Island.
- Beaches provide a habitat for a variety of plants and wildlife.
- But, they can be a harsh environment to survive in.
- The edge of the shore is home to a variety of flowers and grasses eg thrift, sea campion and viper's bugloss.
- Lug worms make their home under sandy beaches or mudflats.
- At low tide, you can explore the rock pools and find small fish, shrimps and crabs and colourful seaweeds.
- BE CAREFUL! Make sure an adult is with you. The tide can come in very quickly and you can become trapped.

Explore:

- Visit a rocky shore and explore the rock pools there. Use the [Peregrini Coast-Shoreline Spotter Sheet](#) in the separate booklet that accompanies this Loan Box to see how many coastal plants and animals you can spot.
- Or, use the [Peregrini Coast-Rock Pool Spotter Sheet](#) to see how many rock pool plants and animals you can find.
- Write a poem or story about your visit to a sandy shore or rocky beach. You could write your piece from the point of view of an animal or plant that lives there. Or even, one of the rocks.



HABITAT 5






Brief Description: Tidal Mudflats



Further Information:

- Mudflats, are coastal wetlands that form when mud is deposited by tides or rivers.
- They are found in sheltered areas such as bays eg Budle Bay.
- Mud flats are typically found in areas where the tidal waters flow slowly, such as sheltered bays.
- A mixture of fine sand and clay from the sea and nearby streams and rivers is deposited in these sheltered areas.
- Gradually, it builds up, forming layers of mud, called mudflats.
- Mudflats are covered at high tide and exposed as the tide drops.
- All mud flats are usually crisscrossed by winding channels that are kept open by the movement of the tide.
- Where the muds are sufficiently stable to support vegetation, salt marshes may form.

 **Explore**

-  What sort of conditions do you think plants and animals would have to cope with in mud flats? Compare and contrast this with plants and animals who live inland.
-  Why are mud flats an important habitat?
-  What can we do to protect them?
-  Take a look at <http://www.nwt.org.uk/wildlife/habitats/mud>
-  Use the Peregrini Coast-Wading Birds Spotter Sheet OR the Peregrini Coast-Bird Spotter Sheet in the separate booklet that accompanies this Loan Box to see how many you can find.

HABITAT 6

Brief Description: Hedgerows



Further Information:

- Hedgerows are one of our most valuable habitats.
- They are important wildlife havens.
- Hedgerows were first planted to divide the land into fields and pens, and also, to mark out the boundaries between farms.
- Modern farming has caused the loss of this habitat because of increased field sizes.
- Trees, brambles and woody shrubs such as hawthorn, blackthorn and field maple make up a mature hedgerow.
- The more species that are found in a hedge, the older the hedge is likely to be.
- Hedgerows are much needed safe spaces for songbirds, voles, mice and shrews.
- Many hedgerow animals take advantage of all the fruits and berries produced by hedgerow bushes every Autumn eg blackberries, sloes.

Explore:

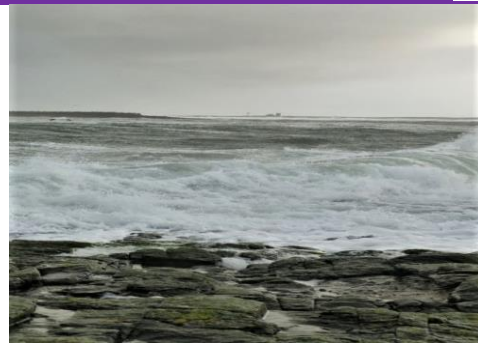
- Are there any hedgerows near your home or school?
- Carry out a survey of a local hedgerow to see how many different species of plant grow there.
- Use the [Peregrini Coast- Hedgerow Spotter Sheet](#) in the separate booklet that accompanies this Loan Box to see how many hedgerow plants and animals you can spot.
- What other areas are there near you for wildlife and plants?
- What other birds and mammals live in hedgerows?
- How are the plants and animals that live in hedgerow suited to their life there?
- Compare and contrast your local hedgerow with a one near the Peregrini coastal area?
- The links below give further information:
<http://www.bbc.co.uk/nature/habitats/hedge>
http://www.bbc.co.uk/bitesize/ks2/science/living_things/plant_animal_habitats/read/1/
<http://www.derbyshirewildlifetrust.org.uk/sites/derbyshire.live.wt.precedenthost.co.uk/files/hedgerowwild.pdf>



ARTEFACT BOX: NATURAL HISTORY

HABITAT 7

Brief Description: Marine [Sea]



Further Information:

- The marine habitat varies greatly from shallow seas to deep oceans and the range of plants and animals living there varies too.
- Shallow seas have sunlit waters.
- This allows a wide range of plants and animals to live in them.
- The shallow seas include temperate seas like those round the UK, warm tropical waters, and the cold Arctic and Southern Oceans.
- In contrast deep oceans are so deep, sunlight cannot reach all the way down to the sea bed.
- This is a very specialised habitat, where some very strange, highly adapted creatures live.
- With no plants or algae here to photosynthesize [make food] and form the base of the food chain, life here is largely dependent on the dead material and droppings that sink down from above.

Explore:

Find out more about the range and importance of marine habitats. Take a look at:
<http://www.nwt.org.uk/wildlife/habitats/marine>
 and <http://www.bbc.co.uk/nature/habitats>

How are the plants and animals of marine habitats suited to live there?

How do marine habitats change over time?

Find out more about photosynthesis at:

http://www.bbc.co.uk/bitesize/ks2/science/living_things/plants/read/1/



HABITAT 8 Brief Description: Meadows and Fields





Further Information:

- Meadows and field boundaries are an important habitat for a range of plants, insects and animals
- Traditional meadows are less common than they used to be. Grass is now cut for silage rather than hay.
- Some grasslands are managed specifically for wildflowers. The National Trust looks after a large area of meadow at Newton Point.
- In June and July meadows are full of bright yellow and purple flowers. Try to visit Cocklawburn Nature Reserve and see for yourself the range of flowers there.
- Meadows and field boundaries are an important habitat for animals such as rabbits, hares, foxes and voles.
- Meadows flowers such as cranesbill, yellow rattle and cornflower also thrive in meadows and field edges.
- Butterflies and moths like the Red Admiral, Common Blue and Burnet moth can also be found.

Explore:

 What is the difference between silage and hay?

 Use the Peregrini Coast- Fields and Meadows Spotter Sheet in the separate booklet that accompanies this Loan Box to see how many meadow and field plants and animals you can spot. You might also like to try the Peregrini Coast- Insect Spotter Sheet

 Choose your favourite habitat from the eight Peregrini Coast habitats in this booklet. Use the outline on the next page to write a newspaper report on one of the habitats above.

 **Explain:**

1. what the habitat is like;
2. why it is your favourite habitat;
3. the kinds of plants and animal found there;
4. why it is important to protect it;
5. how people can help.

 Take a look at: http://news.bbc.co.uk/cbbcnews/hi/uk/newsid_3959000/3959577.stm and http://www.wdcs.org/wdcskids/en/story_details.php?select=879



26th October 2017

THE DAILY PEREGRINE

Amazing Habitat!

Special Plants And Animals

How Can We Keep It Safe?



Explore: **Brief Description: Flowers**

The next two pages explore some of the flowers found in the Peregrini area.



Bloody Cranesbill

This is Northumberland's 'county' flower. It gets its name from the fact that when the flowers die, the flower head looks like the head and beak of a crane. 'Bloody' comes from the way the leaves gradually change to a blood red colour. If you look at the flower closely you will see the delicate lines on the petals.

Top Tip: Look for this all along the Northumberland coast in July, especially at Cocklawburn.



Yellow Rattle

This plant helps to create flower-rich hay meadows. Its roots fix to grass roots and take nutrients from the grass. This weakens the grass and allows other flowers to become established in the meadow. In late summer, its dry seed pods rattle loudly. In the past this was used as a sign that it was time to harvest the hay. So, its other name is 'hay rattle'.

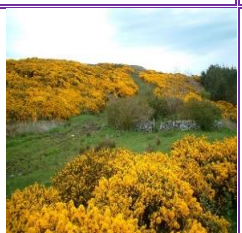
Top Tip: Look for this in June, especially at Cocklawburn, Holy Island and further south at Druridge Pools.



Bladder Campion

This grows in many coastal areas, meadows, fields, hedgerows throughout Northumberland and is easy to spot. It gets its common name from the bulge just behind the flowers.

Top Tip: Look for this between May and September on Holy Island, Budle, Cocklawburn and Goswick.



Gorse

This is an easy to find plant all over Northumberland. Its bright yellow flowers have a lovely perfume of coconut and pineapple. There are two types of gorse growing in Northumberland. Each type has a different flowering time. This means that whatever the time of year, you can usually find gorse flowering.

Top Tip: Look for this at Budle Bay, and further south at Craster



Red Valerian

The dense clusters of deep pink, almost crimson flowers are easy to find growing out on tall stems from old stone walls, hedgerows, cliffs and rocks. Introduced into gardens before the 1600s, this plant from the Mediterranean soon escaped and became naturalised in the wild. Despite its non-native status, it is a good source of nectar for bees, butterflies and moths.

Top Tip: Look for this in June, especially at both Holy Island and Bamburgh Castles.



Ivy Leaved Toadflax

The small, green leaves are ivy-like in shape. The tiny flowers resemble a 'snapdragon' and are mauve with white and yellow bulges. It can grow to form large, low patches, spreading over walls and rocky areas.

Top Tip: Look for this in August on Holy Island.



Thrift

This plant forms cushion-like bunches of the rounded, pink flowers. They are a common sight on coastal cliffs, shingle beaches and sand dunes around Northumberland, as well as on inland marshes. It gets its name from the fact that the plant remains green throughout the year instead of dying off in the winter month

Top Tip: Look for this in May, at Holy Island [especially St Cuthbert's Island], Goswick, Budle Bay, Cocklawburn and further south at Cullernose Point.



Ragwort

This plant is disliked by farmers and it is poisonous to animals. But it plays an important role as it is the food plant of the caterpillars of the Cinnabar moth. The caterpillars have bright yellow and black stripes which warn off birds that they unpleasant to eat.

Top Tip: Look for this in July, especially at Holy Island and Cocklawburn.



Pyramidal Orchid

This is usually only found in coastal areas. The flowers vary greatly in colour from pale pink to deep cerise pink. It is a very specialised plant that is only pollinated by the six spot burnet moth

Top Tip: Look for this in July, on Holy Island and Cocklawburn



Grass of Parnassus

Despite its name this is not a grass. It gets its name from the translucent green stripes that adorn the white petals of this cup-shaped flower. It is found in damp pastures, moors and marshes. It flowers between June and September.

Top Tip: Look for this in August, on Holy Island



Lindisfarne Helleborine

This is a very rare member of the orchid family only found in the damp areas of the Snook on Holy Island.

Top Tip: Look for this in July, on Holy Island.



Pirri Piri Burr

This plant was brought over accidentally from New Zealand in the early 20th century. This plant is very invasive especially when it establishes on cool, damp cliffs and upland habitats and in dunes. It grows so strongly that it threatens rare native plants. Its hooked burrs mean it is easily spread in the wild by sheep and other animals. It has also proved a particular problem in dune habitat on Holy Island.

Top Tip: Look for this in June, on Holy Island

Explore:

To find out more, take a look at:

<http://www.nwt.org.uk/wildlife/species-explorer/wildflowers>

<https://www.nationaltrust.org.uk/lists/where-to-find-wildflowers-in-the-north-east->

<http://www.cheviotschallenge.org.uk/Gallery3.htm>

Use the [Peregrini Coast- Plant Spotter Sheet](#) in the separate booklet that accompanies this Loan Box to see how many of these plants you can spot.

Explore:

Brief Description: Seals




Further Information:


- Seals are found in marine and coastal habitats.
- In the Peregrini area, there are two species of seals: Grey seals and Common seals.
- Grey Seals—[Northern Atlantic Seals] are very large animals. They spend most of their time out at sea where they feed on fish.
- They are often found on rocky shores eg Farne Island, Holy Island, Cocklawburn.
- Grey seals have fluffy, white pups born between October and December. They stay on land until they have moulted their white coats and trebled their birth weight.
- After that they are able to go into the sea to hunt for themselves.
- Common Seals—[Harbour Seals] are smaller animals who live around sheltered beaches and harbours.
- They like to haul out onto sandbanks or beaches. If you visit Holy Island, you can see them to the south, on the sandbanks between the island and the mainland.
- They also sometimes swim around Holy Island harbour.
- As well as eating fish, Common seals eat squid, crabs and mussels.
- Their young are born during the summer.

Spot the difference

- Common seals are smaller and have shorter blunter heads that look more like a dog. They vary a lot in colour from very light coloured to black, but they are generally grey with dark spots.
- Grey Seals are much bigger and have a longer head with a sloping 'Roman nose' profile. They are mostly grey with darker blotches and spots.

 Explore:

 Complete a chart comparing and contrasting grey seals and common seals. Cover areas like habitat, food sources, shape and size, breeding.

 Find out more. Take a look at:

<http://www.northumberlandcoastaonb.org/seals-and-cetaceans/>

<http://www.northumberlandgazette.co.uk/news/environment/top-10-fascinating-facts-about-northumberland-s-grey-seals-1-7490856>

Explore:

Brief Description: Dolphins and Porpoises



Further Information:

- Harbour porpoises are present in our waters all year.
- You can often spot them from the shore at Cocklawburn or Emmanuel Head on Holy Island. You can also see them at places like Berwick, Dunstanburgh Castle, Cullernose Point
- Two species of dolphin are regular visitors to our waters – bottlenose dolphin and white-beaked dolphins.
- But they can be more difficult to spot. At lot depends on weather conditions, food availability and the time of year.
- Your best chance of spotting a white-beaked dolphin is late summer. Choosing a day with calm sea conditions will increase your chances of seeing them.
- Harbour Porpoises and other marine mammals are under threat from pollution in our seas. You can help to keep our seas and beaches clean by taking litter home

• Explore:

- Find out more about these animals at
<http://www.nwt.org.uk/species/bottle-nosed-dolphin>
<http://www.nwt.org.uk/species/harbour-porpoise>
<http://www.nwt.org.uk/species/white-beaked-dolphin>
- What effect does sea pollution have on marine mammals? Take a look at:
http://news.bbc.co.uk/cbbcnews/hi/uk/newsid_3959000/3959577.stm
and http://www.wdcs.org/wdcskids/en/story_details.php?select=879

Explore:

Brief Description: Birds



Curlew



Cormorant




Arctic Tern





**Pale Bellied
Brent Geese**


Further Information:


- The Peregrini area supports a wide range of different birds.
- You can find hedgerow birds like sparrows and blackbirds, as well as, many different types of sea birds, like kittiwakes, cormorants and curlews that live here all year round.
- This area also supports many summer visitors eg Swallows and Arctic Tern.
- We also get winter visitors like the Pale Bellied Brent Geese, Whooper Swans and many different types of wading birds eg Knot, Godwit, Sandpiper.
- Other birds like Teal and Wigeon overwinter here too.


 Explore: Find out more about the birds of the Peregrini coast:-

 How are these birds adapted for their habitat.

 Why do you think so many different types of bird chose to live here during the winter?

 Where do these summer and winter migrant birds come from?

 Take a look at: http://www.bbc.co.uk/nature/adaptations/Animal_migration
http://www.bbc.co.uk/nature/adaptations/Animal_migration
<https://www.rspb.org.uk/birds-and-wildlife/read-and-learn/fun-facts-and-articles/migration/stories/swifts.aspx>
<https://www.rspb.org.uk/birds-and-wildlife/read-and-learn/fun-facts-and-articles/migration/stories/swifts.aspx>
<https://www.rspb.org.uk/birds-and-wildlife/read-and-learn/fun-facts-and-articles/migration/stories/swallows.aspx>
<https://www.rspb.org.uk/birds-and-wildlife/read-and-learn/fun-facts-and-articles/migration/stories/arcticterns.aspx>

 Visit and Use the Peregrini Coast- Bird Spotter Sheet OR the Peregrini Coast- Wading Birds Spotter Sheet in the separate booklet that accompanies this Loan Box to see how many of the Peregrini area's birds you can find.

Explore: **Brief Description: Bees and Insects**



SIX SPOT BURNET MOTH



CINNABAR MOTH AND CATERPILLARS



WHITE TAILED BUMBLEBEE

Further Information:



- The Peregrini area has some very examples of important partnerships between plants and insects.
- The **Cinnabar Moth** lays its eggs on **ragwort** plants.
- Ragwort is poisonous to many animals. But, it plays an important role as ragwort is the food plant of the caterpillars of the Cinnabar moth.
- These caterpillars have bright yellow and black stripes which warn off birds that they unpleasant to eat.
- The **Six Spot Burnet Moth** plays a very special part in the life of the pyramidal orchids that grow in the marshy area of dunes on eg Holy Island. This moth is the only known pollinator of these orchids.
- The Peregrini area also relies on other animals and insects to pollinate plants. In particular bumble bees are very important. Take a look at: <https://bumblebeeconservation.org/about-bees/why-bees-need-help/>
- Some like the white-tail, garden, tree and buff-tail bumble bees can be found in gardens.
- But we also have some special bees here too. One rare species that we find here is the moss-carder bee. It is bright ginger and likes clovers and wet meadows.
- Bees need early sources of pollen and nectar when the queens emerge in spring, which they find on willows around the moorland edge. Conservation groups like Northumberland Wildlife Trust and Natural England have been planting goat willow to provide this early food source and working with farmers to increase the numbers of flowers in hay meadows.

 Explore:




-  Why are bees so important? What would happen if we didn't have bees to pollinate our plants?
-  Why are bees under threat? How can we help bees? Take a look at: <https://www.nwt.org.uk/news/2017/07/28/become-bee-friendly-summer> and <http://www.wildaboutgardensweek.org.uk/>
-  Use the Peregrini Coast Insect Spotter Sheet in the separate booklet that accompanies this Loan Box to see how many insects and mini-beasts you can spot.
-  For a bumble bee spotting sheet go to: <http://www.wildlifewatch.org.uk/images/Downloads/spotters/bees.pdf>

EXPLORE THE PEREGRINI COAST FURTHER



1. PASSPORT TO THE PEREGRINI COAST

-  Print of your own copy of the Passport to the Peregrini Coast which you can find in this Box.
-  See how many of the activities, you can do. Remember to tick them off on the checklist at the back of the Passport.

2. MATCHING CARDS

-  Check your understanding of some of the key words used to describe the natural world.
-  Use the matching cards in this Box to see how many of the key words you can match up with their correct description.
-  Top tip- remember to give the cards a good shuffle first!

3. PEREGRINI WALK - Willow Sculpture Guide for the Lindisfarne Nature Trail

-  Visit Holy Island with your family or school and follow the Peregrini Guided Walk and see how many of the willow sculpture you can spot.
-  A guided walk leaflet is included in this Box. More copies can be downloaded from:

<http://www.peregrinilindisfarne.org.uk/access-interpretation/>