#### Introduction

There are many habitats around the world. Grasslands Deserts Tundra Mountains Forests Rainforests Mangroves Wetlands Oceans

Within these main habitats there is an abundance of other habitats. Wherever birds, animals and plants live they have to adapt to their environment. This means that they change over time to make themselves fit in with the conditions in the place where they live. Many birds have adapted to live beside humans. Robins, Blackbirds, Dunnocks and Pigeons were, and still are, birds that thrive in hedges, broad-leaved woodland and coniferous forests. However, over time they have adapted to live in gardens and near humans for one main reason, food. Extra food either provided by humans at a feeding station, or provided through our gardens has allowed these and many other birds to survive and thrive in close proximity to humans. Birds must adapt to their environment. For example, those who live in the desert, where it is very hot and dry have evolved to be a similar colour to their dry back grounds. This colouration is in response to predation. Many desert birds use rodent burrows and other shelters to avoid the heat during the day. The other extreme is the Antarctic and the Arctic. Those who live in these places, where it is very cold and bleak, have adapted to suit their harsh environments. Emperor Penguins have 4 layers of feathers; these birds and others who live in these extremes have thick fat layers to keep them warm. If birds do not adapt to their habitat they will not survive.



Questions: Think about where you live, the Isle of Man.

What are the main habitats directly around your home?

What are the main habitats directly around your town or village?

What are the main habitats on the Isle of Man?

Where would the moorland areas be on the Isle of Man?

What are the main threats to birds that live in the moorland areas on the Isle of Man?

What are the 4 official towns on the Isle of Man?

What are the main threats to birds in urban (towns/cities) areas on the Isle of Man?

There is lots of freshwater on the Isle of Man. Can you list 5 reservoirs?

Can you list 5 rivers?

What are the main threats to birds that use the freshwater on the Isle of Man?

Can you list some birds that would use freshwater habitats?

There are lots of grassland areas on the Isle of Man. What are the different types of grassland on the Isle of Man?

What are the main threats to birds that use grassland areas?

Can you list some birds that would use grassland habitats?

#### Task 1



Look at the six habitats in the table below and the bird images on the next page. Write the name of each bird in the correct column.

#### Hints:

Look at the shape and length of the beaks. This might give you a clue what they eat. Look at the feet. This might give you a clue to where they live. Use <u>www.rspb.org.uk</u> to find out more about each bird.

Some birds might be written in more than one box.

Sea	Woodland	Garden	Coast	Moorland	Lake/Ponds

Illustrations: Credit Mike Langman (rspb-images.com)

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Manx Shearwater

**House Sparrow** 

Mute Swan



**Blue Tit** 





Barn Owl



Puffin

Peregrine



Hen Harrier

Curlew



Great Tit



Buzzard

Little Tern



Oystercatcher

Woodpigeon



Wren

Great Spotted Woodpecker



**Eider Duck** 



**Grey Heron** 

**Black Guillemot** 

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## Education Programme

Habitats

Task 2:

Choose a bird from each habitat and write how it is adapted to its environment.

Sea:

Woodland:

Garden:

Coast:

Moorland:

Ponds/Lakes:

Illustrations: Credit Mike Langman (rspb-images.com)

#### Task 3

Match the bird to their habitat

Draw a line matching the bird to their preferred habitat



Great Spotted Woodpecker



Mallard



Dunlin



Meadow Pipit



Fulmar

Illustrations: Credit Mike Langman (rspb-images.com)





Sea/Ocean (Image: gov.im)



Woodland (Image: Isleofman.com)



Freshwater (Image: rightmove)



Estuaries and Mudflat (Image: RSPB)



Uplands (Image: Manx Wildlife Trust)

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#### **Education Programme**

### **Habitats**

#### **Answers and hints**



Moorland areas would be at the top of the mountains – Snaefell, South Barrule, North Barrule, Threats to these areas include: Climate change, warmer temperatures help invasive species grow changing the landscape for nesting birds. Warmer tundra areas are also at increased risk to wildfires and drought. Air pollution and Human activity, such as driving vehicles and riding motorcycles can damage the moorland habitat. They damage soil and vegetation and air pollution can harm and kill lichen. Invasive species, mammals, birds and plants have an impact by competing with native species for food,

nesting space and territories.

Main habitats on the Isle of Man	4 main Urban areas	Reservoirs on the Isle of Man	Rivers on the Isle of Man	Grassland areas on the Isle of Man are
Arable and livestock farming	Castletown (Balley Chashtal)	Ballure Reservoir	Colby River	Coastal grassland
Sandstone cliffs	Douglas – capital and largest settlement (Doolish)	Clypse Reservoir	Cornaa River	Marshy grassland
Yellow and grey sand dune	Peel (Purt ny h-Inshey)	Cringle Reservoir	Dhoo River	Ferns/brackens
Lichen heath	Ramsey (Rhumsaa)	Eairy Dam Reservoir	Glass River	Mires (bogs)
Bog habitat		Kerrowdhoo Reservoir	Glen Auldyn River	Salt marsh
Secondary woodland		Kion Slieu Reservoir	Glen Maye	Agricultural fields
Hay meadows		Sulby Reservoir	Groudle River	Road verges
Upland heather moorland		West Baldwin Reservoir	Laxey River	Gardens and parks
Conifer plantations			River Neb	
Broadleaf woodland			Santon River	
Saltmarsh			Silverburn River	
Heather, bracken and gorse moorland			Sulby River	

As well as all the above habitats, the Sea surrounding the Island is a major habitat for many birds.

Take a look at <u>https://www.manxwt.org.uk/manx-wildlife/manx-habitat</u> to find out more about Manx habitats.



Main threats to birds in urban areas	Main threats to birds using fresh water areas	Main threats to birds using grassland area	Main threats to birds using the sea
No nesting spaces (loss of their habitat)	Human activity	Agriculture	Overfishing
Loss of food sources	Runoff from agriculture	Herbicides	Hunting
Vehicles – getting squashed or flying into them	Draining to use areas for development	Fertilisers	Trapping
Man-made objects such as blocks of flats and windows	Invasion of non-native species	Removal of natural vegetation	Disturbance (at nesting sites)
Litter	Overfishing	Hunting	Invasive species (at nesting sites)
Higher potential of flash flooding and flooding nests, eggs and chicks away	Litter	Trapping	Pollution
	Creation of dams which will block routes for fish and disrupts habitats	Poisoning	Egg collection (at nest sites)

Some birds that would	Some birds that would	Some birds that would	Some birds that would
use urban areas	use fresh water habitats	use grassland habitats	use the oceans
Starling	Mute Swan	Chough	Fulmar
House Sparrow	Mallard	Lapwing	Eider Duck
Collared Dove	Coot	Hen Harrier	Puffin
Feral Pigeon	Moorhen	Merlin	Razorbill
Robin	Little Egret	Curlew	Guillemot
Blackbird	Water Rail	Skylark	Black Guillemot
Blue Tit	Kingfisher	Golden Plover	Gannet
Great Tit	Black-throated Diver	Wheatear	Cormorant
Coal Tit	White-tailed Eagle	Meadow Pipits	Kittiwake
Chaffinch	Bar-tailed Godwit	Ring Ouzel	Arctic Tern
Greenfinch	Black-tailed Godwit	Twite	Common Tern
Goldfinch	Reed Bunting		Sandwich Tern
Jackdawn	Grey Heron		Manx Shearwater
Rook	Great Crested Grebe		Skuas
Sparrowhawk	Tufted Duck		
Song Thrush	Golden Eye		
House Martin	Wigeon		
	Grey Wagtail		

If you want to see at what these birds look like, visit <u>www.rspb.or.uk</u> look at the Birds & Wildlife section and the Birds A-Z section.

#### **Task 1 Answers**



Sea	Woodland	Garden	Coast	Moorland	Lake/Ponds
Manx Shearwater	Blue tit	Blue tit	Black Guillemot	Hen Harrier	Mute Swan
Black Guillemot	Great tit	Great tit	Chough	Chough	Eider Duck
Little Tern	House Sparrow	House Sparrow	Curlew	Buzzard	Grey Heron
Puffin	Wood Pigeon	Wood Pigeon	Little Tern	Barn Owl	Curlew
Eider Duck	Wren	Wren	Mute Swan	Peregrine	Oystercatcher
	Great Spotted Woodpecker		Oystercatcher		
			Peregrine		
			Puffin		
			Eider Duck		
			Grey Heron		

#### Task 3 Answers

Great Spotted Woodpecker	Woodland
Mallard	Freshwater
Dunlin	Estuaries
Meadow Pipit	Uplands
Fulmar	Sea