

Wildlife Detectives Invasive Species Trail!

Ireland has more than 1,000 non-native species. Non-native species arrived in Ireland from other regions and countries. Some of these species can become invasive and cause harm to our wildlife.

Recruiting Wildlife Detectives!

Help! Our local wildlife is under threat from invaders! We need you to become a **Wildlife Detective** and find some invasive species in the museum.

Can you learn about invasive species, what they are, where they come from and what they are doing here? Great!

Follow the trail and help us find some invasive species!



The Chinese mitten crab

Humans transport invasive species to Ireland in lots of different ways. They can come attached to boats or fishing gear. They can even arrive on food that we buy from other countries. Some people might buy pets or plants without realising that they are invasive species. When invasive species arrive they can throw local wildlife and the environment out of balance.

Learn more about how they do this by following the trail...

1

All wildlife detectives should start at the deer case at the front of the museum.

We need your help to check the display case for the Muntjac deer. You can identify the males with their short, simple antlers. They also have a nice pattern on their face, two black lines that run down their forehead towards their snout.

The invasive **Muntjac deer** were brought all the way from China! They love to munch on tree saplings and tree bark, which can impact woodlands.

Did you know that the red deer are our largest and only native deer species living in Ireland today? They have been here for thousands of years!



INVASIVE SPECIES

Muntjac deer

Look at the photo here and check if any of the deer have these markings.

Hint: Don't forget to read the labels in the museum too! Circle your answer.

- A. Yes, I found a deer with the same markings.
- B. No, I didn't find a deer with the same markings – the museum is Muntjac free.

2

Move to the right of the deer case until you find the case with the family of **otters**!

Otters belong to the same family as stoats, badgers and pine martens, known as 'the mustelids'. In the wild it is easy to confuse the invasive American mink with our native otters and pine martens.

The American mink arrived in Ireland in the 1950's. They are carnivores and feed on lots of different small animals such as rodents, waterbirds, crabs, frogs, reptiles & fish.

Hint: Otters and pine martens are bigger than the mink. Another key difference can be seen in each species' tail. Otters have longer tails than mink, and pine martens have bushier tails.



NATIVE SPECIES

The otter



INVASIVE SPECIES

American mink

Can you guess which species is the American mink? Circle your answer.

A.



B.



C.



3

Go to the left of the otter case and move to the opposite side of the museum to find the **squirrels**.



Look behind you to see the pine marten display case!

INVASIVE SPECIES

Grey squirrel



NATIVE SPECIES

Pine marten



NATIVE SPECIES

Red squirrel

The American **grey squirrel** is more fierce than our native **red squirrel**. It can force the red squirrel out of their habitat and reduce the amount of food available.

The **pine marten** preys on lots of different species including the red and grey squirrels. Wildlife detectives found that in some habitats where all three species live together, the number of grey squirrels is decreasing and the number of native red squirrels is increasing. Red squirrels are better at avoiding capture by the pine marten!

Look at the squirrels on display. In what ways does the red squirrel look different? Circle your answers:

- A. Smaller size
- B. Bigger size
- C. Different fur colour
- D. Longer tail
- E. Tufted ears
- F. Longer claws

4

Can you find the **turtle** in the same display case as the squirrels?



Did you know that Ireland has no native tortoises or terrapins? These reptiles like warm climates, and we all know how cold it can get in Ireland! But reports of the **pond slider** (also known as *Trachemys scripta*) are being made all over the country!

We are a bit puzzled by how invasive species are arriving in Ireland...



INVASIVE SPECIES

The pond slider

Can you help us figure out how they are getting here by filling in the blanks:

1. F _ S _ _ _ G



3. GAR _ _ _ CENTRE



2. P _ T _ S H O P



4. B O _ T _



5

Move along until you find the **table cases** at the back of the Museum.

6

Look at the case in front of you by the wall. Find the **seashells**!



Photo credit: Roy Anderson

INVASIVE SPECIES

The zebra mussel

Zebra mussels get their name from the striped pattern on their shell. They are small, growing to only 3-4 cm. **Swan mussels** are a large type of native freshwater mussel. They live in lakes or quiet rivers and don't move around much. By attaching to the swan mussel shells, zebra mussels compete with them for food.

Can you find the table case with the zebra mussels attached to the larger **swan mussel**? (*Hint: it is beside the Wonder Cabinet*). How many **zebra mussels** can you count on the swan mussel?

Answer:

Did you know that the female zebra mussel can produce more than 1 million eggs per year!

The Asian clam is small and olive-brown in colour. It has very noticeable ridge lines all the way down its shell. This species can cover the riverbed in its shells and clog pipes that run from rivers.



Photo credit: C. O'Flynn

INVASIVE SPECIES

The Asian clam

The Asian clam is found in freshwater rivers, but there are many different types of marine clams and seashells that live in our salty seawaters. You can see some seashells on display in the case. Perhaps you have seen some before at the beach?

Find your favourite seashell and draw it in the box.

Blank area for drawing a seashell.

Today's date

Name of seashell:



Don't forget to label and date it, like a real wildlife detective would do!

7

Find the **wasps** on display in the table cases at the back of the room.

The **Asian hornet** is a wasp from China. In 2021, an unusual wasp was discovered in Dublin and the Museum identified it as an Asian hornet. This was the first and only case in Ireland. Can you think of any native species it might be confused with?

Answer:

Search the display cabinet for some of the native insects that the **Asian hornet** likes to eat! Tick each species off once you have found them.

1. The honey bee
(*Apis mellifera*)

2. The common wasp
(*Vespula vulgaris*)



The Asian hornet



INVASIVE SPECIES

Photo credit: A. O'Hanlon

While it doesn't do us much more harm than our native common wasp, if it settled in Ireland it could have a big impact on our native insects, including our beautiful bees!

8

Go to the back of the museum and find the display with **crabs**.

The **Chinese mitten crab** is a very unusual species because they are **catadromous**. This means that they live in freshwater as adults, but migrate to saltwater to lay their eggs. They burrow into river banks which can cause them to erode and collapse.

Look at all of the different species of crabs. Can you spot the big spider crab? Which crab do you like the most?

Name:

We have lots of native crab species in Ireland but all of them are marine species that are found in the sea!

The Chinese mitten crab



INVASIVE SPECIES



Why do you think this crab is called a 'mitten crab'? Circle your answer!

- A. Because it likes to knit mittens!
- B. Because it has a bundle of furry hairs on its claws that look like mittens.
- C. Because it likes to put mittens on when it gets cold in the winter.





Congratulations, you have completed the invasive species trail through the museum! Now that you are an experienced wildlife detective, we have one last task for you. We would like you to continue your search for invasive species outside the museum!

Lots of organisations and citizen scientists are keeping an eye out for invasive species too. You can join them and report any invasive species you find to the National Biodiversity Data Centre.

www.invasives.ie



REPORT SIGHTINGS 

Wildlife Detective Award

This is to certify that



*has learnt about invasive species with the National Museum of Ireland
- Natural History and The National Biodiversity Data Centre.
You have achieved the rank of:*

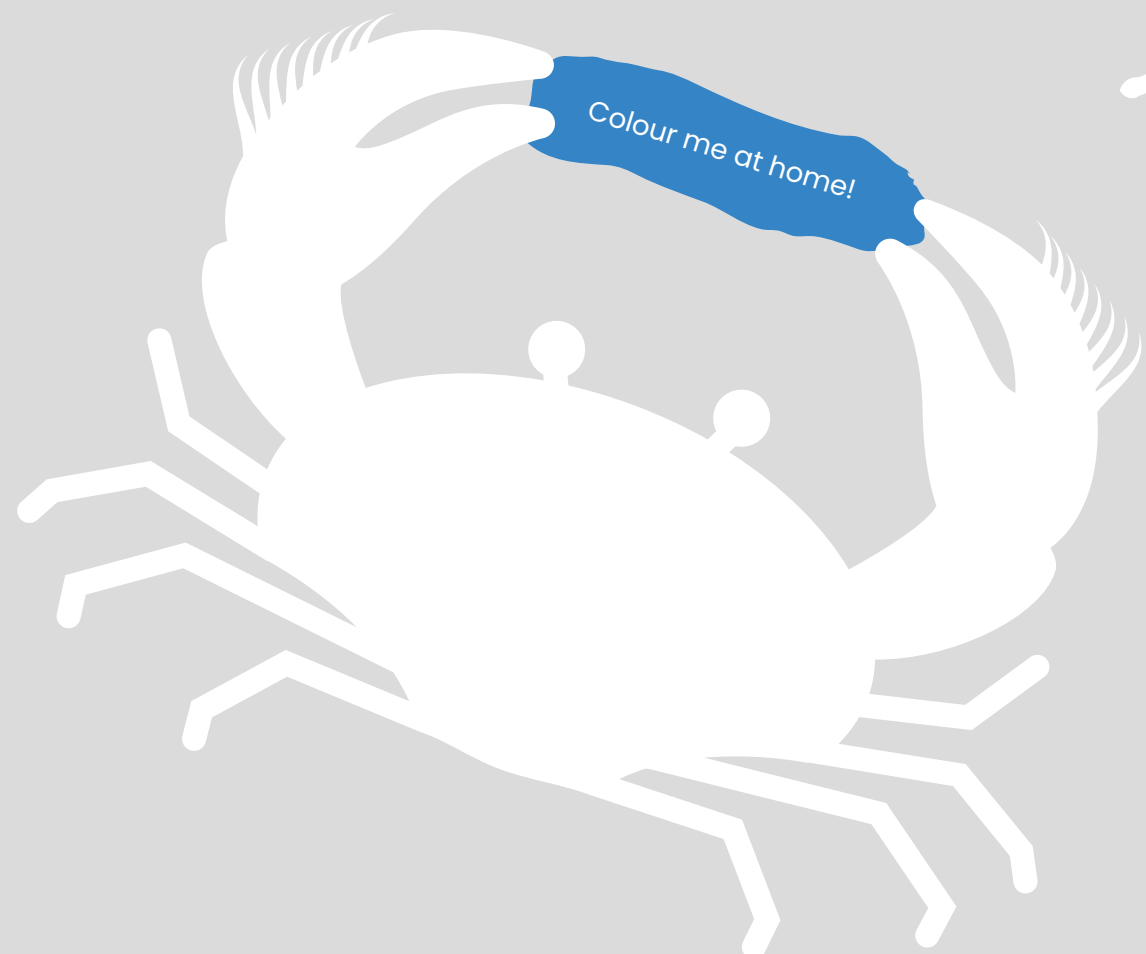
WILDLIFE DETECTIVE

Invasive Species Engagement Officer

Signed



Answers:
 1. B 2. A 3. A, C, & E 4. Fishing,
 Pet Shop, Garden Centre, Boats
 5. There are 17 zebra mussels.
 7. The common wasp 8. B



National Biodiversity Data Centre
Documenting Ireland's Wildlife

For more information on Ireland's biodiversity visit:
www.biodiversityireland.ie
 Tel: 051 306 240
 Email: info@biodiversityireland.ie

Invasives.ie
 Invasive Alien Species in Ireland

For more information on invasive species in Ireland, their distribution and what you can do to help stop their spread visit:
www.invasives.ie
 Email: invasives@biodiversityireland.ie

museum Natural History
 National Museum of Ireland
 Ard-Mhúsaem na hÉireann

For more information on exhibitions and education programmes, contact the Education & Outreach Department of the National Museum of Ireland:
 Tel: 01 6486 316
 Email: educationnh@museum.ie