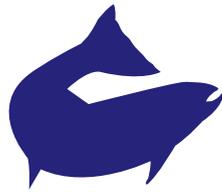


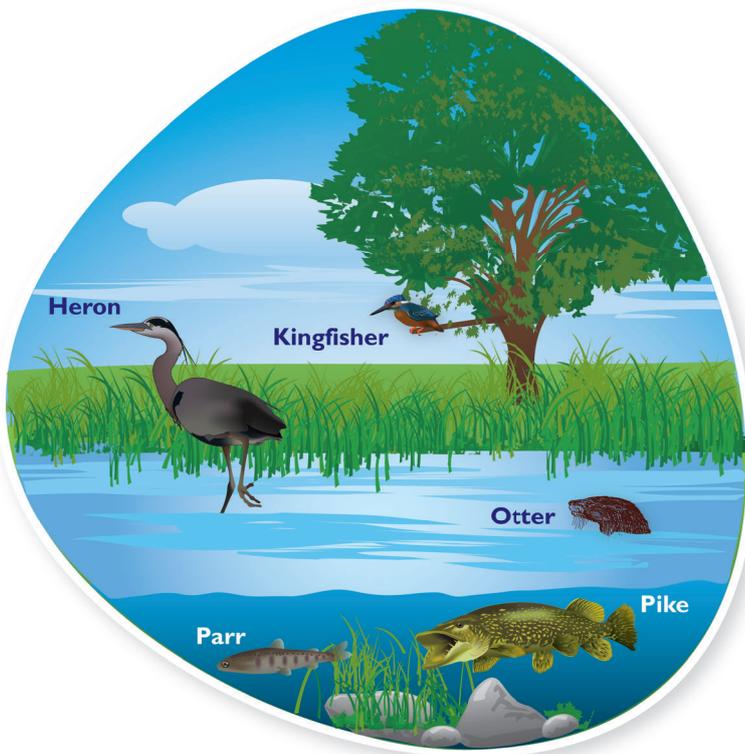
**Bradán's**



# Journey continues

## THE SALMON AS A PARR IN A RIVER

As the stream which Bradán inhabits travels down the mountain, it gets wider and deeper. As you learned in the last lesson, Bradán is now called **parr** and she has grown to about ten centimetres. Boulders shade and protect her. Life is getting tough so she has to develop skills to stay alive. She cannot trust some of her own fish friends.



**From the last lesson, can you remember a fish that likes to eat Bradán?**

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As she gets bigger she needs more living space to survive. She likes her own territory and is not always happy about sharing with others.

When Bradán was a little, dark fry, she had to hide from fry friends and trout. She has other predators now, both in and outside the river. They include the heron, kingfisher, pike, eel and otter. She is always on their dinner menu! Find out more about those species.

**From the last lesson, can you remember what helps to hide and protect Bradán in the river?**

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A very serious problem for fish is pollution. Fortunately, Bradán doesn't have that problem here in this river but in many rivers, cattle graze close to the riverbank and trample mud and silt into the water. Fencing along the riverbank prevents this happening.

# Activity Card



Look what can happen if cattle and sheep are not kept away from the riverbank.



**What have the cattle done to this riverbank?**

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**How could this affect Bradán?**

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**What can be done to improve this?**

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**Does this river look healthy?**

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**Can the cattle get in?**

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**Why would Bradán like to live here?**

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## Activity Card



This little bird lives along the riverbank. She loves fast-flowing rivers. She can walk under water and doesn't even need a snorkel and wet suit!

Can you name her? d \_ \_ p \_ \_ r.

She tells Bradán that parts of the river have a green ugly scum growing on it. She thinks it is called **algae**. She advises Bradán to keep well away from it. She also tells her of a dangerous poison called **silage juice** which is affecting some rivers.



### Did you know?

Cattle eat hay and silage in Winter.  
Hay is dried grass.  
Silage is pickled grass.  
One litre of silage juice can pollute 25,000 litres of water!

How many litres of water would be poisoned by the following amounts of silage juice?

1/2 Litre \_\_\_\_\_

1/4 Litre \_\_\_\_\_

5 Litres \_\_\_\_\_

10 Litres \_\_\_\_\_

Bradán is now beginning to look more like a grown-up salmon. She is turning a more silvery colour. The spots on her back are disappearing and she is growing a forked black tail. She is changing in preparation for her entry into the sea and salt water. She is now called a **smolt**.



What length is she now approx? \_\_\_\_\_ (check the life Cycle diagram of a Salmon)

## Activity Card



The smolt eats lots of insects and larvae. They are nourishing and delicious. When the habitat along the riverbank has plenty of vegetation, many insects are attracted. Too much vegetation shades the river and changes the water temperature. Fish like shade in the river to hide from predators and to swim in the cooler water. Too much shade blocks out light totally and prevents other vegetation from growing. It's all a question of getting the balance right.



Take a look at this. It looks like Paradise to me. Use your artistic skills to sketch an ideal habitat for a smolt.