All in the Family - Osprey Family Trees

Introduction

This worksheet begins with an extract of the Rutland Water osprey family tree to show how a family tree is represented. This can be an individual, or small group activity with one person to present their answers.

A series of questions will show their understanding of symbols and osprey relationships. Teachers could use the osprey family tree on a whiteboard or projected as a focal point for a discussion of these answers.

What is a family tree?

1. Name the male parent and the female parent in this family tree.
   Female; Maya Male ; 5R(04)
2. When, was the male parent "born". **(04) is 2004**
3. How many osprey chicks did they have? **3**
4. In what year were the chicks born? **(10) 2010**
5. How many males and how many female chicks were "born". **Two males and one female**

The bigger picture…

A much bigger family tree is shown for 03(97), who is one of Rutland water's most famous ospreys.

This is a more family tree complex and needs care to distinguish offspring and mates. Generations are shown by the horizontal groups in the family tree

6. Name the male and female parents at the top of the family tree.
   Male; 03(97) Female; 05(00)
7. Name the chicks they produced in

   (a) 2004 **Male 5R(04) Female 5N(04)**

   (b) 2006 **Female AW(06)**
8. In the second generation of the family tree

   (a) How many male chicks and how many females were "born"? **4 males 4 females (Monty does not count)**

   (b) In what year were they "born"? **2010 as (10) on ring**

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9. How many generations are shown in this family tree?
3 generations from original parents

10. Name the second generation Rutland bred ospreys which have moved to Wales.
24(10) and 12(10)

11. 03(97) is called Mr Rutland. How many ospreys are his descendants in this family tree?
16

Osprey behaviour

This is an ideal opportunity to consider RELIABILITY and ACCURACY of data. All research needs data but the amount of data and how it is measured affects what conclusions we can draw. This is the difference between a **theory** (an idea) and a **fact** (it has been proved beyond reasonable doubt).

There is a theory that male ospreys return to find a mate breed in the place they were "born", but females move to another place to find a mate and breed.

12. (a) Explain which evidence from the family tree supports this theory

In the family tree two females 12(10) and 24(10) moved to Wales but of none of the 5 males moved to Wales. Maya and the "metal ringed female" are not Rutland birds but breed in Rutland.

12. (b) To prove this theory, what other information would you need about the ospreys shown in this family tree.

There is not enough data and the sample size is very small. This makes the data unreliable.

The data is also not very accurate; We also need to know more precisely where each the ospreys breed and where the females are from. It is possible that some of the males or females may breed at other locations which are not known.

Most data comes from the known osprey breeding locations in Wales, Scotland, or around

Rutland. Many of the birds in the family tree may find mates and breed at other sites.