Session Plan – Ranworth Succession Trail (KS1 & KS2)

This session lasts one hour and is suitable for a maximum of fifteen children.

Learning Objectives

- Children understand that natural landscapes change over time
- Children understand that human uses of landscapes have shaped them through history
- Children understand that each organism has specific habitat requirements and that some have become rare through habitat loss
- Children understand that in the case of rare habitats they often need to be managed to prevent them changing

Personal Development Objectives

- Children feel empowered to contribute to the conservation of natural landscapes

Curriculum Links

KS1 – Geography

Pupils should be taught:

- 2b. to use fieldwork skills
- 3a. to identify and describe what places are like
- 3c. to recognise how places have become the way they are and how they are changing

KS1 – Science

Pupils should be taught:

- 5a. to find out about the different kinds of plants and animals in the local environment
- 5b. to identify similarities between local environments and ways in which these affect animals and plants found there
- 5c. to care for the environment

KS2 – Geography

Pupils should be taught:

- 2b. to use appropriate fieldwork techniques
- 3a. to identify and describe what places are like
- 3e. to identify how and why places change

KS2 – Science

Pupils should be taught:

- 4b. how locally occurring animals and plants can be identified and assigned to groups
- 5a. about ways in which living things and the environment need protection
- 5b. about the different plants and animals found in different habitats

Safety Considerations

Refer to relevant risk assessments for the site and session.

Introduction

Explain to the group that they will be walking through the reserve, studying the changes in vegetation and the importance of each habitat for wildlife. They will learn how the reserve is managed by NWT for wildlife. To introduce the concept of succession, ask the children to imagine leaving a garden pond unmanaged. Over time it would become very overgrown and eventually it would dry out altogether. Remind the children that they must stay on the boardwalk at all times and that they should remain quiet, for the benefit of the wildlife and other visitors.

Open Water

At the platform overlooking the Broad, briefly introduce the history of the Broads, their traditional uses by people and the threats they face today. Ask what happens to plants that die in the Broad. Explain that Ranworth Broad is gradually silting up. Point out that plants grow where silt accumulates at the edge of the water. Allow children to spot birds and describe other wildlife they may find here.

Open Fen

Move to the boardwalk in the fen. Discuss how this habitat looks completely different. Tell the children that you are standing over a floating mat of reed and explain how it developed from open water. Look at all the other plants growing in the reed mat. Point out milk parsley and explain the life cycle of the swallowtail. The reed provides the platform and collects mud underneath it until even trees can grow.

Explain how thatching was a sustainable industry and how the process of cutting reed maintained the habitat. Explain how species such as bitterns, swallowtails, marsh

harriers and bearded tits can only live in reed. Now that reed is no longer cut for thatching, NWT has to cut it to prevent reed-beds turning into woodland.

Swamp Carr

Stop just where the reeds change to woodland. Ask what difference children see between the habitats. Explain that this is the next stage in the succession. Point out interesting plants – hop, redcurrant, blackcurrant, honeysuckle, water mint.

Move on to stick in mud. Discuss why the trees are spindly and crooked. Ask children how deep the mud is and pull out the stick. The smell is hydrogen sulphide produced by rotting in anaerobic conditions. Methane which has no smell is also produced and being highly flammable is the origin of will-o-the-wisps.

Alder Carr

Stop just before the dipping platform. Look at the alder trees here which are straighter as they grow on more solid ground. The brambles and grasses also indicate drier ground. Point out the bat boxes – three on each tree (facing north, east and west) so bats can move around to stay at a comfortable temperature.

Oak Woodland

Stop at the oak tree by the entrance. The children can now step off the boardwalk; ask them why. This is the final stage of succession or climax community. The ground is much drier and different plants can establish themselves. The oak itself will absorb huge quantities of water. Tell them facts about oak tree. If time allows, give the children a few minutes to measure the tree with their arms, and to study the oak tree.

Conclusion

What is the most important habitat the children have seen? Equate the reserve to their lunch boxes – a bit of everything is best. Explain again how it is necessary for NWT to manage the reserve to protect certain habitats. When appropriate, prompt the children to discuss how they think we should manage landscapes.

<u>Updated 25/2/10</u>