July 2011

1. **View of the pond at Eskrigg Reserve showing the extensive growth of the Canadian Pondweed.**

2. **Confirmed wildlife sightings:**
   a. **Birds:**
   Blackbird, Blue Tit, Bullfinch, Buzzard, Carrion Crow, Chaffinch, Chiffchaff, Coal Tit, Dunnock, Goldfinch, Grasshopper Warbler, Great Spotted Woodpecker, Great Tit, Greenfinch, House Martin, Jay, Little Grebe, Mallard, Mistle Thrush, Moorhen, Nuthatch, Pheasant, Raven, Robin, Siskin, Song Thrush, Sparrowhawk, Swallow, Swift, Willow Tit, Willow Warbler, Wood Pigeon, Wren, Yellowhammer.

   I am pleased to report that the Little Grebes have at last been successful in hatching four chicks on the 16th of July. These photographs were taken on the 22nd.

   On the 26th of July one of the Moorhens was seen to bring a single, well-developed chick onto the pond. These offspring have a reasonable chance of survival since the crows appear to have vacated the pond and are seeking food elsewhere.

   b. **Mammals:**
   Bank voles, moles, rabbits, red squirrels, roe deer and wood mice have been spotted in the Reserve and a young, orphaned hedgehog was released near the Centre.

   c. **Amphibians and Reptiles:**
   Most of the tiny frogs and toads had left the pond by mid-July. However, others are still heading into the woods to feed and grow. On sunny days common lizards are often seen in the heathland..

d. Insects:

These black bean aphids, often called blackfly, would provide a tasty feast for other animals. They suck the sap from the young host plants but also excrete a sugary honeydew which is 'milked' by ants.

July was quite a good month for damselflies. The Azure, Blue-tailed, Common Blue, Large Red and Variable Damselflies were all seen on sunny days around the pond.

In the heathland area they were accompanied by a wide selection of day-flying moths, at least three species of grasshopper and a wide selection of **hoverflies**.

Sun-fly (male) on marsh thistle.

Sun-fly (female) on wild raspberry.

Marmalade fly on honeysuckle.

The **Sun-fly** (*Helophilus pendulus*) earns its common name because it is reputed not to appear until the sun is shining brightly. There are several *Helophilus* species all exhibiting the distinctive longitudinal stripes on the thorax and all favour ponds and muddy water. The leg markings are a significant species identification feature. The aquatic larvae, like those of the *Eristalis* hoverflies, are 'rat-tailed' maggots and are to be found in stagnant water from May to November.

The **Marmalade fly** (*Episyrphus balteatus*) is very common throughout Europe. In a larva's 14 day development period it is credited with consuming several hundred aphids. A newly hatched maggot-like larva, blind, white and almost transparent, is quite capable of tackling an aphid much larger than itself. The adult fly satisfies itself with nectar as it busies itself with pollination. Favoured wild plants appear to be Cow Parsley and Hogweed.

Many hoverfly species mimic wasp colouration to avoid attack by birds and other predators. This is an example of Batesian mimicry, where harmless species mimic dangerous species, gaining protection from visually searching natural enemies. Over 250 species have been recorded in the UK. While the adult hoverfly mainly feeds on nectar and pollen, the larvae of many species are voracious predators of aphids and other garden pests. As a result, hoverflies should be welcome in any garden, acting both as efficient pollinators and pest controllers. The female hoverfly requires pollen and nectar to mature her eggs, and then uses aphid honeydew as a cue to locate aphid colonies.

Hoverflies can fly in bursts of up to 40km per hour. The sexes can be separated by looking at their eyes - the male's eyes meet at the top of the head, whereas the female's eyes are separated by a gap.

Butterflies and Moths:
The Small Pearl-bordered Fritillary, Large Skipper and occasional Meadow Brown butterflies were gone by the middle of the month and replaced by large numbers of Ringlets and Green-veined Whites and an occasional Red Admiral.

In early July the eggs of the Cinnabar moth hatch out and the black and gold caterpillars start to grow rapidly as they feed on their host plant – Ragwort. Common Ragwort (*Senecio jacobaea*) grows along the verges of the forest road and in the more open areas of the woodland. Marsh Ragwort (*Senecio aquaticus*) grows near the pond.

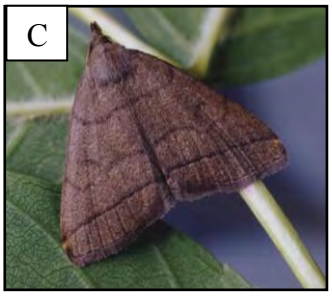
Ragwort is highly poisonous to all animals, including horses, cattle, pigs and poultry, although ruminants such as sheep, goats and deer are more tolerant. It is therefore very important to keep livestock out of the Reserve and adjacent wooded areas by maintaining the fences and closing any gates around the Reserve. Castle Milk Estate allows riders and their horses to use the main forest roads and so, each year, the estate employs someone to uproot the ragwort along the roadsides before the plants go to seed. The dead plants are then removed and burnt because the dead and dying plants are attractive to stock but still highly toxic.

Ragwort contains pyrrolizidine alkaloids which survive drying and are therefore active in hay and straw. The mature plants are not palatable and are usually avoided by horses unless there is no other source of roughage or food available. The dried plant is much more palatable. The alkaloids are metabolised in the liver to toxic pyrrole derivatives which inhibit the division of liver cells so that the liver shrinks in size and is irreversibly damaged with little prospect of repair. There is no effective treatment. The amount of plant required to cause serious damage is very small. Often euthanasia is the most humane course of action.

The Cinnabar moth caterpillars were removed from the plants along the roadsides, before the plants were destroyed, and transferred to a potted ragwort at the Centre in order that the Cinnabar moths survived and visitors to the Reserve could see the caterpillars.

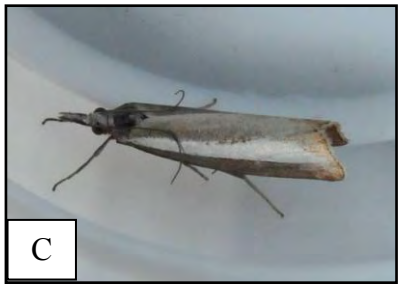
On the morning of the 16th of July, **Peter Norman** led the **Moth Identification Workshop** at the start of the **LWT Wildlife Weekend**. There were 299 macro-moths caught – 46 different species. 4 of the species were new to the Reserve:

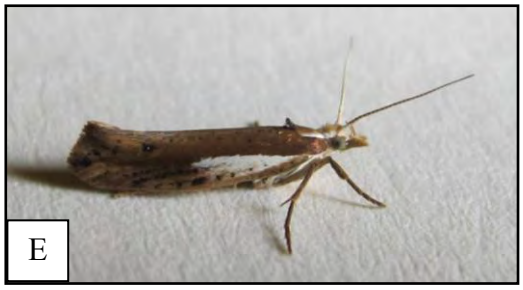
A. **The Dark-barred Twin-spot Carpet** (*Xanthorhoe ferrugata*)
B. **The Double Lobed** (*Apamea ophiogramma*)
C. **The Fan-foot** (*Zanclognatha tarsipennalis*)
D. **The Peppered Moth** (*Biston betularia*)



Rather more difficult to identify were the micro-moths.

A. ***Argyreshia goedartella*** (Golden Argent)
B. ***Catoptria falsella***
C. ***Catoptria margaritella***
D. ***Celypha lacunana***
E. ***Ypsolopha parenthesella*** (White-shouldered Smudge)





e. A few of the flowering plants worth noting this month:

1. Meadowsweet 2. Common Valerian 3. Honeysuckle 4. Nettle 5. Bilberry 6. Wild Rasp

3. Maintenance work – Volunteer Assistance

On the 3rd of July Chris Trott helped to cut the grass and tidy the entrance at the Dumfries Road.

Ian Dunn helped each Tuesday. Tasks included brashing, path maintenance, feeder cleaning and barrowing logs.

Thanks to Stuart Black for helping to clear the burn-side and cutting up the extracted timber into logs. Other jobs done this month included strimming the sides of the boardwalk and paths through the Reserve, raking and partially weeding the Reserve path, cutting the grass round several of the woodland walks, clearing the path from the lay-by on the Dumfries Road to the Muirhead Farm road, clearing patches of reed grass from the pond edges and clearing some of the Canadian Pondweed from the pond.

4. LWT Wildlife Weekend 16/17th July:

An Elephant Hawk-moth caught during the **Moth Trapping** and Identification on the Saturday morning with **Peter Norman**.

On the Saturday afternoon, during some very heavy showers, **Ross Gemmell** led a **Wild Food Foray**.

On returning to Eskrigg Centre he prepared some deep-fried Pakoras. The Curried Chanterelle Pakoras were delicious. The bilberry and wild raspberry flavoured pakoras were good too.

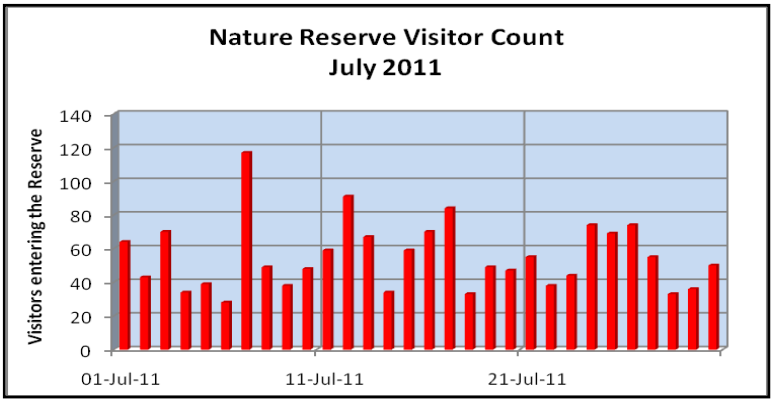
Stuart Spray led the **Mammal Trapping** workshop on Sunday morning.
There was a good catch of wood mice and bank voles.

On Sunday afternoon **Jim Rae** helped children and adults identify the large variety of animals caught during a **Pond Dipping** exercise.

Thanks to all who braved the elements and joined in the fun over the weekend.

5. Visitor Records:

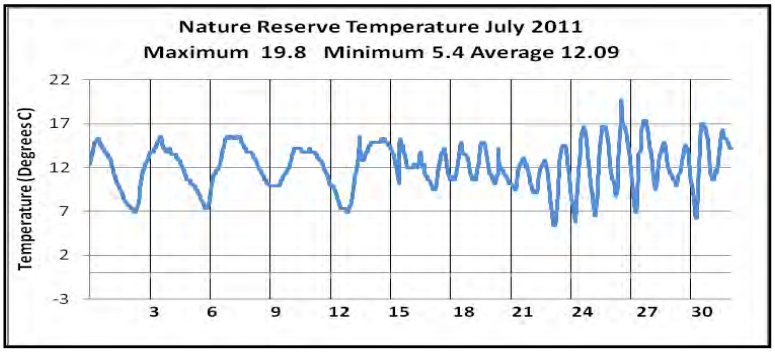
Month	Total number of Visitors	Daily Average Visitors
February	1603	57
March	1866	60
April	2234	74
May	1846	60
June	1504	50
July	1689	54



6. Weather Records:

a. Air temperature

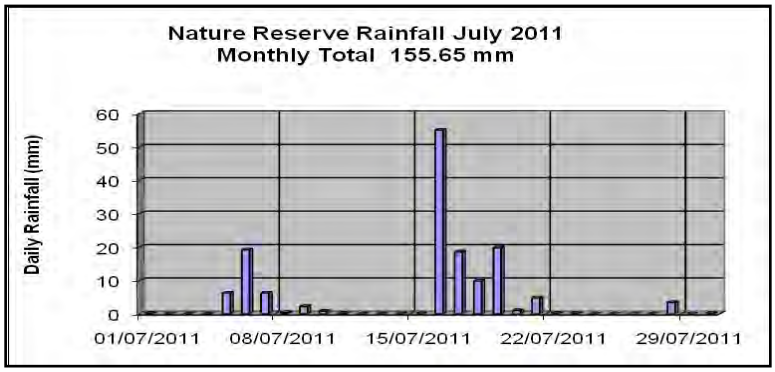
Month	Maximum	Minimum	Average
January	5.4	-9.2	-1.5
February	7.7	-4.4	1.7
March	11.0	-6.3	2.6
April	18.1	-2.7	7.9
May	14.5	-2.7	7.9
June	19.8	2.7	10.3
July	19.8	5.4	12.09



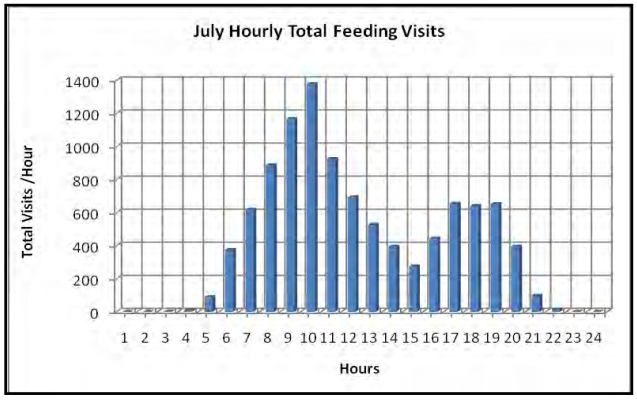
There was a problem with the temperature probe between the 1st & 14th but which did not affect the maximum, minimum or average.

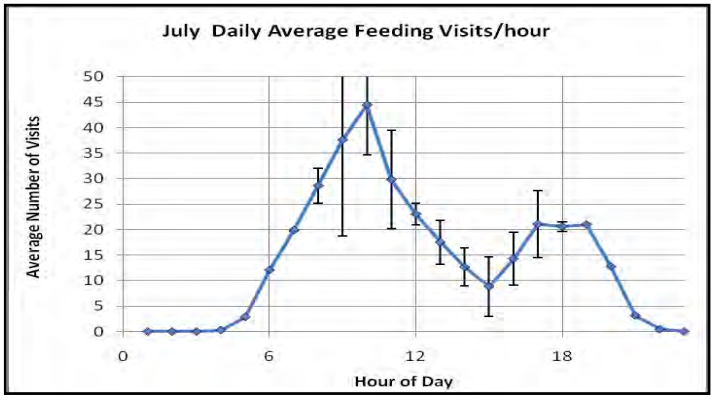
b. Precipitation

Month	Rainfall (mm)
January	108.8
February	189.6
March	71.9
April	55.8
May	158.9
June	85.4
July	155.65



7. Monitoring Red Squirrel Feeding Behaviour





This month there appears to be a significant change in the feeding pattern with morning now favoured to evening. From 21st July data was obtained from two squirrel feeders where before that there was only a monitor on one. This accounts for the apparent increase of around 60 visits per day.

8. Visiting Groups:

1st July – Hutton Primary School:

Break time between activities.

P1-3 after pond dipping

The pupils and staff from Hutton Primary divided into two groups. Ross Gemmell took one group to study the plants and animals inhabiting the woods and heathland area of the Reserve while Jim Rae took the others pond dipping. After a break the two groups swapped activities.

7th July – St Mungo Primary School:

This time the school divided into three groups. Ross Gemmell took group 1 to study trees and other woodland plants, Tom Henry took group 2 to study the minibeasts that inhabit the heathland area, while Jim Rae took Group 3 Pond Dipping. After the interval and after lunchtime the groups moved from one activity to another.

There was no Maintenance Day at the end of July. Instead David Hughes, Kathryn Hughes and Jim Rae set up a stand at Threave Garden Festival organised by the Bugs in Gardens Project. It was rather a murky day, nevertheless, there was a reasonable turnout and in addition to promoting the Lockerbie Wildlife Trust a game and several sets of notelets were sold to raise some funds.