Lockerbie Wildlife Trust

(www.lockerbie-wildlife-trust.co.uk)

Eskrigg Reserve

June 2017 News Bulletin

Scottish Charity No: SC 005538

1. **Eskrigg Pond on the 27th June, during a heavy rain shower (JR).**

2. **Confirmed wildlife sightings at the Reserve in June.**

   a. **Birds**

   Blackbird, Blackcap, Blue Tit, Bullfinch, Buzzard, Carrion Crow, Chaffinch, Chiffchaff, Coal Tit, Collared Dove, Crossbill, Dunnock, Goldfinch, Great Spotted Woodpecker, Great Tit, Grey Heron, Grey Wagtail, House Martin, House Sparrow, Jackdaw, Jay, Little Grebe, Long-tailed Tit, Mallard, Mandarin, Mistle Thrush, Moorhen, Mute Swan, Nuthatch, Oystercatcher, Pheasant, Pied Wagtail, Raven, Robin, Siskin, Song Thrush, Sparrowhawk, Starling, Swallow, Swift, Tawny Owl, Treecreeper, Tree Pipit, Tree Sparrow, Willow Warbler, Wood Pigeon, Wood Warbler, Wren, Yellowhammer.

Tawny Owlets (JH)

   b. **Mammals**

   Bank Vole, Mole, Rabbit, Red Squirrel, Roe Deer, Wood Mouse.

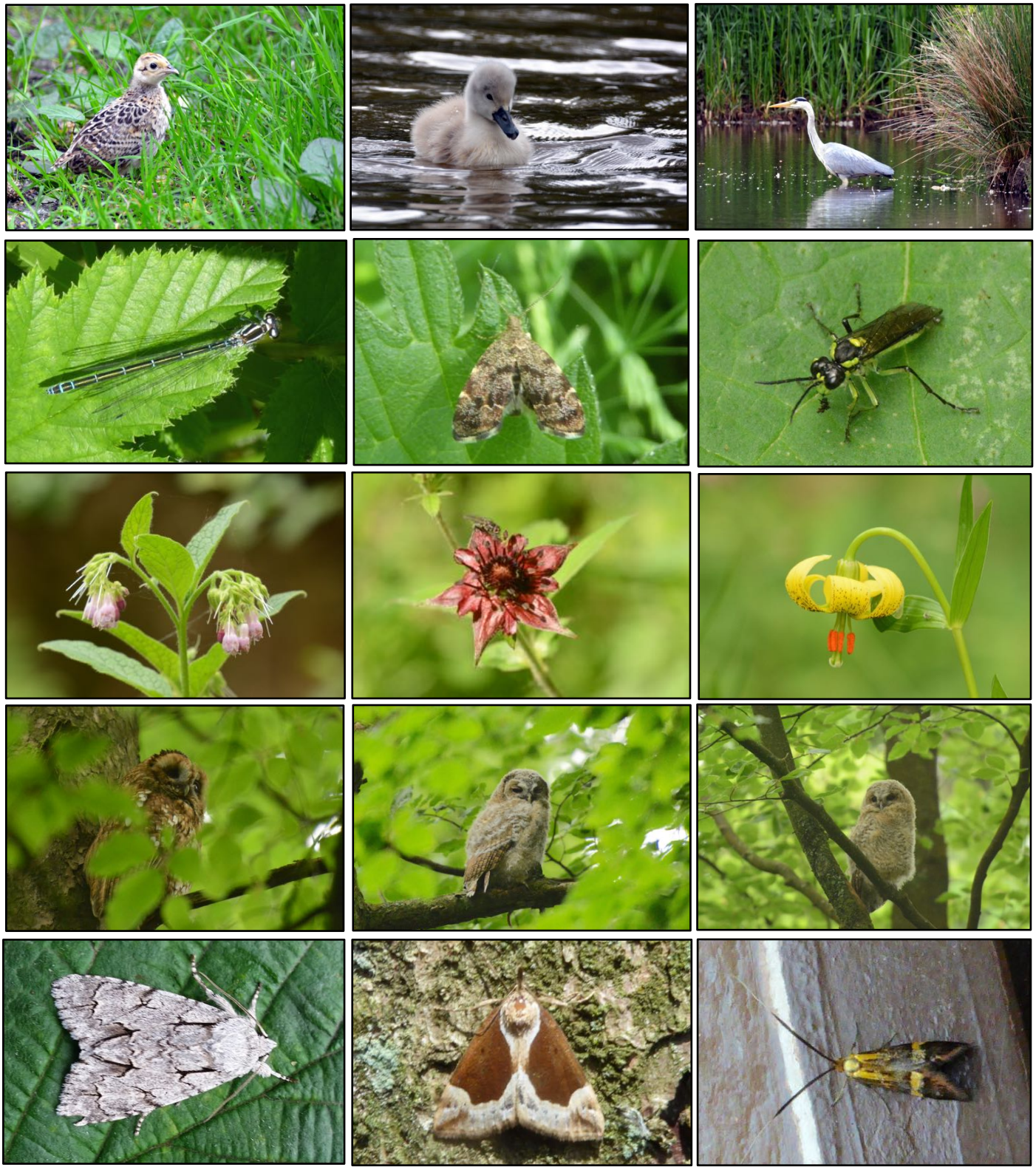
   c. **Fish, Amphibians and Reptiles**

   Minnow, Stickleback, Common Frog, Common Toad, Common Lizard.

Red Squirrel (PW)

Photographs by Jim Halliday (JH), Jim Rae (JR), Paul Wharton (PW)

3. June Photo Gallery



Row 1: Pheasant poult (PW), Mute Swan cygnet (PW), Grey Heron (PW).
Row 2: Female Azure Damselfy (JR), Nettle-tap (JR), Green-legged Sawfly (JR).
Row 3: Russian Comfrey (JR), Marsh Cinquefoil (JR), Pyrenean Lilly (JR).
Row 4: Tawny Owl - Mother, (JR), Tawny Owlet - elder offspring (JR), Tawny Owlet - younger offspring (JR)
Row 5: Grey Dagger (JR), Beautiful Snout (JR), A Yellow-barred Longhorn (JR).

Photographs by Paul Wharton (PW) & Jim Rae (JR).

4. Planned Activities in June

Wed. 7th **Jim** gave a talk to the **Lockerbie Stroke Club** about Eskrigg Reserve.

Tue. 13th and Wed. 14th Children and staff from **Lochmaben Nursery** visited the Reserve. Following a Gruffalo Hunt, the children investigated the mini-beasts in the Scots Pine woodland and finished up with a snack in the picnic area.


Group 1


Group 2

Unfortunately, the 1st group was picked up by a coach rather than a minibus and the driver brought the coach down to the Reserve car park instead of dropping the group at Isle Court. The driver managed to get the bus into the car park and turned. However, he could not get it out again without cutting down the corner of the fence. The fence was repaired the following weekend.

Thu. 15th **Retired members of Unison** visited the Reserve as a follow-up to the talk given by Jim earlier in the year.

Sat. 17th / Sun. 18th **June Moths** with **Jim Rae** and **Alison Robertson**
The following moths were caught and identified:

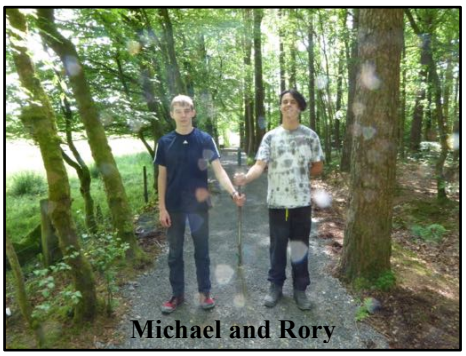
Common Name	**Scientific Name**	**Sitka Spruce NY125804**	**Scots Pine NY124804**	**Pond Fringe NY126804**
Macro-moths				
Barred Red	*Hylaea fasciaria*	-	2	-
Beautiful Snout (m&f)*	***Hypena crassalis***	-	-	2
Bordered White	*Bupalus piniaria*	-	2	-
Buff Ermine	*Spilosoma luteum*	1	2	7
Campion	*Hadena rivularis*	-	-	4
Clouded Border	*Lomaspilis marginata*	-	-	7
Common Wave	*Cabera exanthemata*	-	-	3
Coxcomb Prominent	*Ptilodon capucina*	-	1	1
Flame (The)	*Axylia putris*	-	1	-
Flame Carpet	*Xanthorhoe designata*	-	1	-
Gold Swift (m)	*Hepialus hecta*	-	1	-
Green Carpet	*Colostygia pectinataria*	1	2	2
Ingrailed Clay	*Diarsia mendica mendica*	-	1	-
L. Yellow Underwing	*Noctua pronuba*	-	1	3
Map-winged Swift	*Hepialus fusconebulosa*	3	7	4
Map-winged Swift	*H. f. gallicus*	-	3	2
Marbled Minor	*Oligia strigilis*	-	-	1
May Highflyer	*Hydriomena impluviata*	-	1	-
Mottled Beauty	*Alcis repandata rependata*	-	3	2
Northern Spinach	*Eulithis populata*	-	-	1
Peppered Moth	*Biston betularia*	-	-	1
Poplar Hawkmoth	*Laothoe populi*	1	1	-
Purple Clay	*Diarsia brunnea*	-	-	1
Silver-ground Carpet	*Xanthorhoe montanata montanata*	-	1	1
Slender Pug	*Eupithecia tenuiata*	-	1	-
Small Clouded Brindle	*Apamea unanimis*	-	-	2
Spectacle	*Abrostola tripartita*	1	-	-
Straw Dot	*Rivula sericealis*	-	-	1
White Ermine	*Spilosoma lubricipeda*	1	-	3
Micro-moths	*Bactra sp.*	-	1	1
	Celypha lacunana	4	1	6

***New species for Eskrigg - 3rd record in Scotland and 2nd record in Dumfries and Galloway - see Photo Gallery**

Photographs by Jim Rae

5. Volunteer Activities in June

Sat. 3rd **Michael Kerr** and **Rory Holden** helped to level the new section of woodland path while **Patrick Malone** helped **Jim Rae** to adjust the edges of the bridge to facilitate wheelchair access.


Michael and Rory


Patriek

Sat. 17th **Patrick Malone** helped **Jim Rae** to repair the fence at the entrance to the Reserve Car Park.

The corner of the fence had been cut off. Two new posts were put in and four rails attached across the corner.

Wed. 21st **Connor Jardine** helped **Jim Rae** cut and rake up the grass at the path and entrance opposite the Dryfesdale Lodge.

Sat. 24th **Patrick Malone, Rory Holden, Michael Kerr** and **Jim Rae** put a new top (donated by Castle Milk Estate) on to the worktable beside the Eskrigg Centre and then pruned the trees beside the Roberthill field and along the path from the field to the forest road.

Sun. 25th - Maintenance Day
David Hughes, Sybille Spägele and **Jim Rae** took advantage of the dry day to treat many of the timber structures around the Reserve and at the Dryfesdale Lodge entrance with wood preservative.

Photographs by Jim Rae

For more information call Jim Rae or visit our website.

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RED SQUIRRELS DO NOT HIBERNATE, BUT .....

Definitions

Dormancy: This is a resting condition where whole organisms (as in higher plants and animals) or reproductive bodies (resting spores of fungi and bacteria or animal eggs) are alive but with a relatively inactive metabolism.

Hibernation: Dormancy during winter. It occurs in many mammals, most amphibians and reptiles and many vertebrates of Temperate and Arctic regions. Metabolism is greatly slowed and, in mammals, the body temperature drops to that of the surroundings. Some mammals, e.g. bats, wake to feed from time to time.

Aestivation: A form of dormancy during the summer or a dry season that provides a way for reptiles to handle temperature extremes.

Brumation: This term is used for the hibernation-like state that cold-blooded animals utilize during very cold weather.

Diapause: This refers to some species of insects, where there is a period of suspended development or growth accompanied by greatly decreased metabolism. It is often correlated with the seasons and may include hibernation.

Amphibians - Common Toad, Common Frog, Smooth Newt and Palmate Newt.
Frogs, toads and newts **hibernate** in the winter. Some male frogs may lie dormant in the mud at the bottom of the pond during the colder months. Most amphibians bed down for the winter in suitable **hibernacula**, in burrows or under logs and leaves, where it is damp and the temperature remains relatively constant.

In mid-March they head to the pond to breed. It is not unusual to find pairs of toads, in **amplexus**, making their way to the breeding pond, with the male getting a free lift on the female's back. After spawning it takes three months for the tadpoles to develop into miniature adults and then leave the pond to grow and mature. During the rest of the year, the amphibians forage for their invertebrate prey throughout the hours of darkness and retreat to their damp hideaways by day.

Reptiles - Common Lizard (*Lacerta vivipara*)
Common lizards hibernate from October to March. When the weather turns cold at other times of the year, these sun-loving reptiles enter a dormant state called **brumation**, hunkering down in log crevices or among tree and shrub roots. On the few occasions when summer conditions are too hot and dry the lizards may **aestivate**.

Common Lizards are **ovoviviparous** - the females produce eggs internally, but the young are born as tiny lizards, mainly during the summer months. They feed on invertebrates, especially insects. They are sensitive to heavy vibrations and fast movements, so need to be approached slowly and carefully.

Hedgehog (*Erinaceus europaeus*)
Hedgehogs are one of the few mammals that are true hibernators. During hibernation hedgehogs are not really asleep, instead they drop their body temperature to match their surroundings and enter a state of **torpor**. This allows them to save a lot of energy but slows down all other bodily functions making normal activity impossible. Hedgehogs usually hibernate from October/November through to March/April. Research has shown that each individual is likely to move nesting sites at least once during this period and so can sometimes be seen out and about. During mild winters hedgehogs can remain active well into November and December. While in hibernation, the hedgehog's fuel supply comes from the fat stores it has built up over the summer.

Bats - Common Pipistrelle (*Pipistrellus pipistrellus*)

Bats become torpid and/or hibernate over the winter months (usually between October and March or April). The purpose of this is to increase the animal's chance of survival over winter or during periods of cold and bad weather at other times of the year, *i.e.* when food tends to be in short supply.

In preparation for winter, bats build up their fat reserves, which act as insulation against cold and heat loss and also as the main energy store through the hibernation period. **Torpor** is when a bat reduces its core temperature and metabolic rate and enters a state of relatively deep 'sleep'. Bats can wake up from torpor daily or every few days in the winter. Hibernation is a more advanced state of torpor where the bat can remain in a very 'deep sleep' for a number of days or weeks at a time. Bats often arouse from torpor or hibernation to perform a variety of functions, including regulating metabolic activity, sleep, defecating, urinating, drinking, mating, moving roost and foraging when the weather and temperature is suitable.

Dragonflies (and Damselflies) - Southern Hawker (*Aeshna cyanea*)

Dragonflies are primitive insects that undergo **incomplete metamorphosis** with a three-stage life cycle: egg, larva (or nymph) and adult. The larva is similar in appearance to the adult, with fully segmented legs, compound eyes and mouthparts that function in a similar way to that of the adult. Dragonfly larvae are however aquatic, with adaptations for the aquatic environment and so they avoid direct competition with the adults.

Adult dragonflies are relatively short lived; most do not survive for more than a few weeks. It is important therefore that adults have the best possible chance of meeting the opposite sex. Dragonflies that emerge early in the season adopt synchronised emergence. To achieve this, these species undergo a resting stage, or **diapause**. Diapause is triggered by changes in daylength during the summer of the year preceding emergence. Development is halted in larvae entering the final or penultimate stage of development after a critical date. This ensures that most of the population overwinter at approximately the same stage of development and are ready to emerge together the following spring. The flying adults emerge from their aquatic larval stages between late May and mid-September.

Moths (and Butterflies)

With many moths, the adult female lays her eggs on its food plant, sometimes in batches, sometimes singly. A few scatter their eggs in flight over a suitable habitat. Eggs can hatch in a few days or overwinter to hatch the following spring. The eggs hatch into larvae, called caterpillars. These feed and grow, changing their skin, and often their appearance as they do so. These stages, usually four, are known as instars. Some will be fully developed in a few weeks, while others may overwinter to finish development in the spring and some may take two or three years. When a larva reaches its full size it sheds its skin again, but this time it reveals a pupa or chrysalis. Within the pupal case, the body of the larva is completely broken down and that of the adult insect is formed. This form of life cycle, where the young look nothing like the adults, is known as **complete metamorphosis**. Different species enter **diapause** and overwinter at different stages - as adults, eggs, larvae or pupae.

Six-spot Burnet Moth (*Zygaena filipendulae*) - photographed at Birkshaw.

These lively insects go into **diapaus**e, a kind of **dormancy**, as caterpillars during one or two winters (with a feeding and growing period in between). These then spin a cocoon high on tall grass in which to pupate. This type of moth has not yet been spotted at the Reserve, but its food plants, thistle, knapweed and scabious, are present in the heathland area, so look out for the moth this summer.

Photographs: Andrina Laidler (AL), Milos Andera (MA), George Trudt (GT) and Jim Rae (JR)