Lockerbie Wildlife Trust

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

Eskrigg Reserve

May 2017 News Bulletin

Scottish Charity No: SC 005538

1. Eskrigg Pond on the 10th and 28th of May, by Jim Rae.

2. Confirmed wildlife sightings at the Reserve in May.

a. Birds

Blackbird, Black-headed Gull, Blue Tit, Bullfinch, Buzzard, Carrion Crow, Chaffinch, Chiffchaff, Coal Tit, Collared Dove, Crossbill, Goldfinch, Goshawk, Grasshopper Warbler, Great Spotted Woodpecker, Great Tit, Greenfinch, Grey Heron, Greylag Goose, House Martin, House Sparrow, Jackdaw, Jay, Long-tailed Tit, Mallard, Moorhen, Mute Swan, Nuthatch, Oystercatcher, Pheasant, Pied Flycatcher, Pied Wagtail, Raven, Robin, Siskin, Song Thrush, Starling, Stock Dove, Swallow, Tawny Owl, Treecreeper, Whitethroat, Willow Warbler, Wood Pigeon, Wood Warbler, Wren, Yellowhammer.

b. Mammals

Bandit Pipistrelle Bat, Bank Vole, Brown Hare, Common Shrew, Mole, Rabbit, Red Squirrel, Wood Mouse.

c. Fish, Amphibians and Reptiles

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

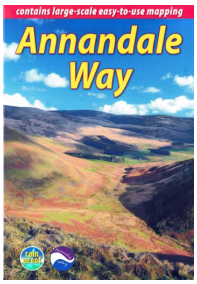
Photographs by Rebecca Gibson (RG), Alistair Moulstone (AM), George Trudt (GT), Jim Rae (JR)

3. May Photo Gallery

Can you identify these plants that flowered in May? - Answers at the bottom of page 5.

Photographs by Jim Rae

4. Planned Activities in May



Sat. 6th - **Annual Spring Coffee Morning**
Many thanks to all who contributed in any way and helped to raise £705.30 for the work of the Trust at Eskrigg Reserve.

Mon. 8th - **Jim Rae** attended the launching of the Annandale Way Guide Book, held at the Queens Hotel, Lockerbie. The rain-proof edition is available on line from Rucksack Readers, priced £12.99.

Lockerbie Academy 'Month of May' pupils

Wed. 10th - Some of the group treated the Shelter and some of the picnic tables with wood preservative while others constructed a new section of Woodland Walk.

Thu. 11th - Some of the group completed treating the picnic tables with wood preservative and then went on to treat the Red Squirrel Hide while others continued the work on the Woodland Walks.

Tue. 16th - Work began on a new section of path while we waited for delivery of 10mm sub-base.

Wed. 17th - The final topping was laid on the new paths and rolled in. **Many thanks to all pupils.**

Sat. 13th - **Lockerbie Wildlife Trust** ran an excursion to the Scottish Seabird Centre at North Berwick and took a boat trip round the Bass Rock. The Bass was formed 320 million years ago and is now the breeding site of a large colony of gannets.

Sun. 14th - **Jim Rae** took part in the Lockerbie and District Rotary Club's Walk the Walk, walking three times round the Castle Loch to raise £280 for the work of the Trust at Eskrigg Reserve.

The Bass Rock

Sat. 20th - **Children 1st Gruffalo Trail and Treasure Hunt**
In spite of the inclement weather, forty-three children and fifty adults came along and had a great afternoon. The event did much to increase awareness of the work done by both Children 1st and the Lockerbie Wildlife Trust.

Photographs by Jim Rae

Sun. 21st - May Moths - Jim identified the following moths caught on the 20th of May

Common Name	Scientific Name	Scots Pine Plantation	Spruce Plantation	Pond Fringe
Macro-moths				
Brimstone	*Opisthograptis luteolata*	0	0	1
Common Pug	*Eupithecia vulgata*	1	0	0
Engrailed	*Ectropis bistortata*	0	0	1
Grey Pine Carpet	*Thera obeliscata*	1	1	0
Hebrew Character	*Orthosia gothica*	1	1	1
Map-winged Swift	*Hepialus fusconebulosa*	1	0	0
Mottled Pug	*Eupithecia exiguata*	0	1	0
Pale-shouldered Brocade	*Lacanobia thalassina*	0	0	1
Poplar Hawkmoth	*Laothoe populi*	1	0	1
Small Phoenix	*Ecliptopera silaceata*	2	1	0
Small Square-spot	*Diarsia rubi*	0	0	5
Spruce Carpet	*Thera britannica*	2	0	5
Water Carpet	*Lampropteryx suffumata*	2	0	0
White Ermine	*Spilosoma lubricipeda*	1	0	0
Micro-moth				
White-shouldered House-moth	*Endrosis sarcitrella*	0	0	1

Mottled Pug

Common Pug

Mon. 22nd - Loreburn Camera Club

Several members of the club visited the Reserve, during the evening, to photograph the wildlife.
This was a follow-up to a talk to the club by Jim Rae earlier in the year.

Annan Cubs

Tue. 23rd - Visit by Annan Cubs

Twenty-seven Cubs and accompanying adults, visited the Reserve. The Cubs carried out three activities, Wildlife Clock Orienteering, Treasure Hunt and Woodland Mini-beasts.

5. Volunteer Activities in May

Connor

Tue. 2nd, 9th, 23rd & 30th - Connor Jardine helped with path work and grass-cutting.

Sat. 27th - Michael Kerr and **Patrick Malone** helped **Jim** lay terram membrane and gravel on new sections of the Woodland Walks.

Michael and Patrick

Sun. 28th - Maintenance Day

Sybille Spägele and **Jim Rae** raked and weeded the path through the Reserve.

Photographs by Jim Rae

6. Sun. 28th - Survey of Invertebrates by Bob Merritt

Bob identified the following invertebrates in the heathland (h), marsh (m), pond (p) and stream (s):

Molluscs		
an amber snail		*Oxyloma pfeifferi* (p)
Crustaceans		
a freshwater shrimp		*Gammarus pulex* (p/s)
Insects		
Damselfly	- Common Blue	*Enallagma cyathigerum* (p)
Dragonfly	- Four-spotted Chaser	*Libellula quadrimaculata* (p)
Water Bugs	- Backswimmers	*Notonecta glauca* (p), *Notonecta obliqua* (p)
	- Common Pondskater	*Gerris lacustris* (p)
	- Waterboatmen	*Callicorixa praeusta* (p), *Sigara dorsalis* (p)
	- Water Cricket	*Velia caprai* (s)
Beetles	- Flower (thick-legged)	*Oedemera virescens* (m)
	- Ground	*Agonum fuliginosum* (m), *Agonum gracile* (m), *Bembidion bruxellense* (m), *Elaphrus cupreus* (m), *Pterostichus diligens* (m)
	- Ladybird	*Anisosticta novemdecimpunctata* (19-spot) (m), *Coccidula rufa* (m)
	- Leaf	*Galerucella sagittariae* (m), *Plateumaris discolor* (p)
	- Marsh	*Cyphon coarctatus* (m), *Cyphon hilaris* (m), *Cyphon padi* (m), *Microcara testacea* (m)
	- Rove	*Lesteva longoelytrata* (p), *Quedius fuliginosus* (m), *Quedius maurorufus* (p), *Stenus bifoveolatus* (p/m), *Stenus boops* (p), *Stenus cicindeloides* (m), *Stenus juno* (p/m), *Stenus latifrons* (p), *Stenus lustrator* (m), *Stenus nitens* (m), *Stenus nitidiusculus* (p/m), Stenus picipennis (p), *Stenus pubescens* (p)
	- Water (crawling)	*Haliplus ruficollis* (p)
	- Water (diving)	*Hydroporus angustatus* (p), *Hydroporus planus* (s), *Hydroporus pubescens* (p), *Agabus bipustulatus* (p)
	- Water (scavenging)	*Helophorus aequalis* (p), *Helophorus brevipalpis* (p), *Helophorus grandis* (p), *Helophorus obscurus* (p), *Coelostoma orbiculare* (p), *Hydrobius fuscipes* (p), *Anacaena lutescens* (p), *Laccobius bipunctatus* (p)
	- Water (small)	*Limnebius truncatellus* (p)
	- Weevil	*Limnobaris dolorosa* (m)
	- Whirligig	*Gyrinus substriatus* (s)
Arachnids		
Harvestmen		*Nemastoma bimaculatum* (m), *Platybunus pinetorum* (h)
Spiders	- comb-footed	*Phylloneta sisyphia* (h), *Paidiscura pallens* (h), *Neottiura bimaculata* (h)
	- crab	*Xysticus ulmi* (h/m), *Ozyptila trux* (m), *Philodromus cespitum* (h)
	- foliage	*Clubiona stagnatilis* (m)
	- lesser cobweb	*Antistea elegans* (m)
	- long-jawed	*Metellina mengei* (h/m), *Tetragnatha extensa* (p/m). *Tetragnatha montana* (m)
	- mesh-webbed	*Dictyna arundinacea* (h)
	- money	*Gnathonarium dentatum* (p/m), *Hypomma bituberculatum* (m), *Baryphyma trifrons* (m), *Bathyphantes gracilis* (m), *Diplocephalus permixtus* (p/m), *Erigone atra* (h), *Kaestneria pullata* (m), *Microlinyphia pusilla* (h), *Neriene peltata* (h/m), *Oedothorax fuscus* (h), *Porrhomma pygmaeum* (p/m), *Tallusia experta* (m), *Tenuiphantes tenuis* (m)
	- orb-weaver	*Araniella cucurbitina* (h), *Larinioides cornutus* (m)
	- wolf	*Pirata piraticus* (p/m)

Names of the flowers in the May Photo Gallery

Row 1: Bilberry, Herb-Robert, Pink Purslane, Red Campion
Row 2: Bluebell, Germander Speedwell, Heath Speedwell, Dog Violet
Row 3: Rowan, Pignut, Hawthorn, Bramble
Row 4: Welsh Poppy, Dandelion, Creeping Buttercup, Tormentil
Row 5: Yellow Pimpernel, Broom, Primrose, Wood Avens
Row 6: Dog Rose, Marsh Thistle, Crab Apple, Water Avens
Row 7: Bugle, Wood Forget-me-not, Russian Comfrey, Bush Vetch

7. Oak Marble Galls

The marble galls on oak trees are caused by a species of pathenogenic wasp called ***Andricus kollari***.

The marble gall-wasp has alternating sexual and asexual generations, often taking two years to complete, especially in the north of Britain. The familiar summer gall develops from eggs laid by a sexual female in the developing buds of the two native oaks (pedunculate and sessile) in May or June. The host trees are often immature or retarded, scrub-oak, specimens rather than older healthy trees.

The sexual female wasp pierces a leaf bud with its ovipositor and lays an egg. The egg and growing larva cause a chemical induced distortion of the bud. The herbivorous insect therefore creates its own microhabitat. The interior of a marble gall is composed of edible and structural tissues providing both habitat and food source for the developing wasp.

The galls are green at first. By the time they are mature in August they have turned brown. Each gall contains a central chamber, with a single female wasp larva of the asexual generation. This emerges as an adult, winged gall-wasp, through a 'woodworm-like' hole in September.

The Turkey oak (*Quercus cerris*), introduced into Britain in 1735, is required for the second stage in the life cycle of the gall-wasp. The asexual (agamic) females lay unfertilized eggs in the embryonic bud leaves of the Turkey oak and galls slowly develop over the winter. They are visible in March and April as small oval structures between the bud scales and look like ant's eggs or pupae. The adult gall-wasps that emerge in spring are the sexual generation, males and females, which fly to the common oaks to initiate the formation of the summer marble gall. The abnormal buds develop during summer and the bud is wholly replaced by the gall growth. Marble galls may remain attached to the tree for several years. The level of attack by the insect varies greatly from year to year.

Galls can act as "physiologic sinks", concentrating resources from the surrounding plant parts. Galls may also provide the insect, its parasites and inquilines, with a degree of physical protection from predators.

Predators, inquilines, parasitoids and fungi

Mature galls are sometimes broken open by vertebrate predators to recover the larva or pupa. Woodpeckers, such as the Lesser Spotted Woodpecker (*Dendrocopus minor*), as well as other birds or squirrels have been suggested. A number of insect inquilines live harmlessly (commensally) within the oak marble gall and some of these, as well as *Andricus* itself, are parasitised by insects referred to as parasitoids. The chalcid wasp *Torymus nitens* is an example of a parasitoid in oak marble galls. The presence of these inquilines and parasites is often visible on older galls by the presence of fine exit-holes, smaller than that of the gall wasp itself. Many old galls bear numerous dark brown excrescences caused by the fungus *Phoma gallorum*.

Uses of oak marble galls

The galls contain large amounts of tannic acid, which was used for making iron gall ink and for dyeing cloth. Iron-gall ink may have been used for 1,800 years, but it does not withstand the test of time well. Over the course of centuries, the ink fades, and discolours and damages the paper. Other waterproof formulae, better suited for writing on paper, became available in the 20th century. Iron gall ink is manufactured chiefly by artists enthusiastic about reviving old methods or possibly forgers of old documents.

Oak Marble Gall extract is used in deodorants because of tannic acid's anti-bacterial properties.

For more information call Jim Rae or visit our website.

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