

South Queensferry

Our biodiversity journey

2024



Progress Rail

A Caterpillar Company

Contents

	Page number		Page number
Introduction	3		
Site overview	4		
Habitat	5		
Trees and shrubbery	8		
Flora	10	Species lists	32
Fungi	13	Species lists – trees and shrubbery	33
Lichen	15	Species lists – flora	34
Mammals	17	Species lists – mammals	36
Amphibians	18	Species lists – birds	37
Fish	21	Species lists – butterflies and moths	41
Birds	22	Species lists – odonata and insects	42
Bats	24		
Insects	25		
Community engagement	27		
Changing climates	28		
Next steps	29		
Acknowledgements	31		

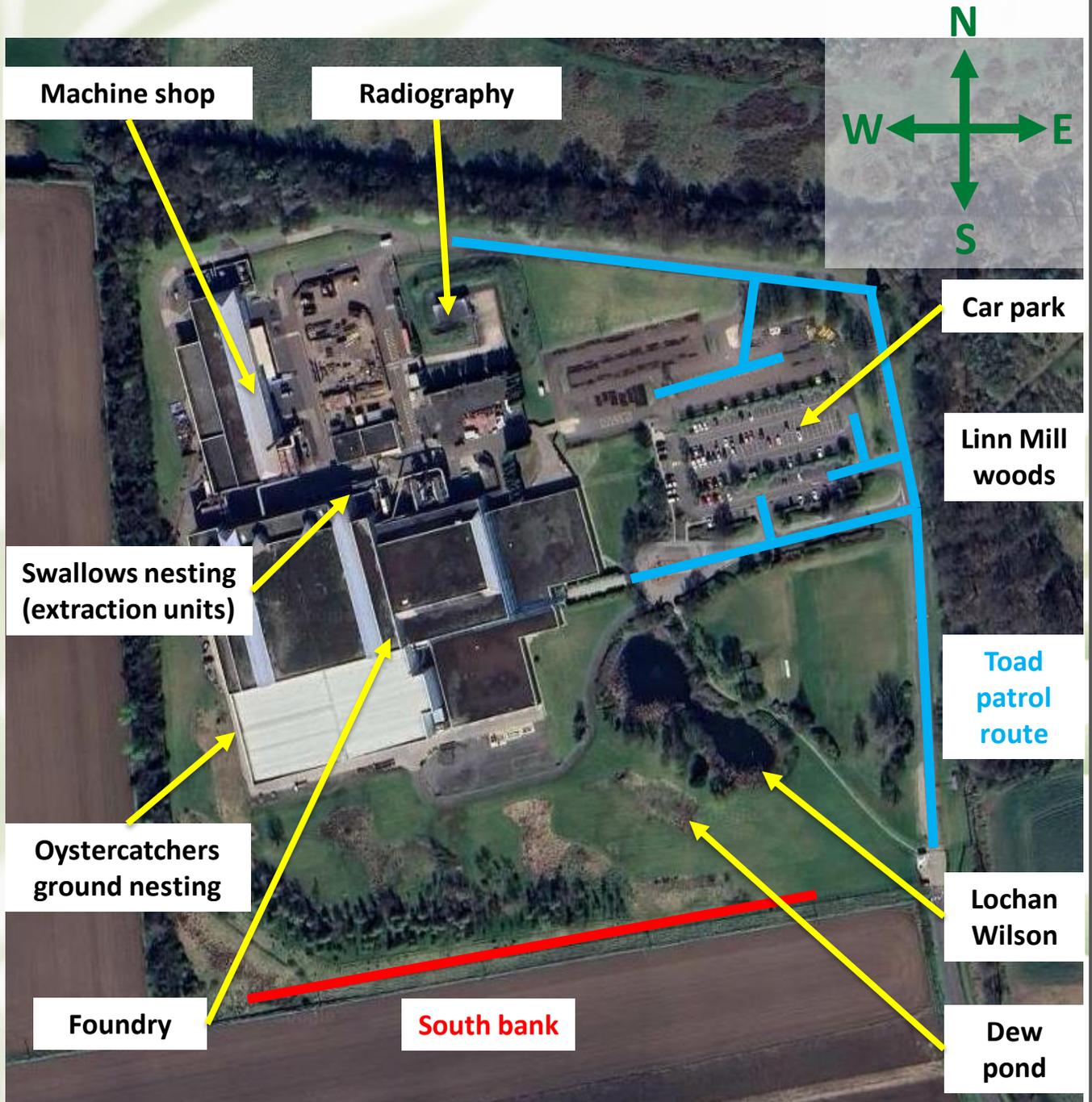
Introduction

- This site was built in 1986 onwards at the foot of Headrig Hill in the district of Butlaw, South Queensferry.
- Progress Rail inherited the present-day site in 2008 with it having been previously developed by Digital Equipment Corporation (latterly Compaq and then Hewlett-Packard) in the late 1980s and then maintained by Motorola from 1996 until the early 2000s.
- As a consequence much of the grounds upon Progress Rail's arrival were significantly overgrown but featured a number of non-native, municipal low-maintenance plants and over the initial years an effort was made to tidy and establish what was present.
- Initial tasks included cutting the grass and applying bales of barley to the pond, named Lochan Wilson in 2013 in memory of our colleague Ian Wilson, to reduce and control the blanketweed following high levels of phosphates within the water.
- 2014 saw the first year of our biodiversity project and since then it has developed alongside the increased species of trees, plants, wildflower, insects and mammals.



Site overview

- The map below highlights the key features of this 32-acre site which are discussed throughout the report.



Habitats

- Initially several areas of grassland were left as no-mow to create a habitat suitable for invertebrates and small mammals (field and bank voles) which proved successful with increased numbers of ringlet butterflies and birds such as the grey partridge, kestrel and tawny owl.
- Several small tests areas were also cut to create small pools with only one drying out. The smalls pools created habitats for aquatic invertebrates and amphibians. Swallows and house martins were seen collecting mud for nest building from the edge of a pool.
- In 2018 a new dew pond was developed to encourage newts, keeping them away from the fish-stocked lochan. Within days a frog had taken up residence and by the following spring frog spawn was evident, but some tadpoles were still present in autumn. This was suspected to be attributable to the lack of food but was noted not to be unusual with some even being known to overwinter into the next again year.



Dew pond

Frog visiting the dew pond

Habitats

- Any trees requiring cutting down for general site management or safety are recycled and over the years we have created log piles which has attracted mammals such as wood mice and stoats, as well as insects or invertebrates.
- We have attempted wild flower seeding with mixed results, actually finding that a cheaper product produced a better display.
- Yellow rattle has partially worked in some areas in suppressing the grass.
- In wet areas, plants associated with that type of habitat are now appearing such as common orchids, ragged robin and cuckoo flower. The cuckoo flower is the host plant for orange-tip butterflies.



Log pile



Planting to the north-side of the lochan (2019)



Planting to the north-side of the lochan (2024)

Habitats

- In recent years we have planted more gorse and trees on the south bank to create a new habitat to encourage nesting siskins and blackcaps.
- The promotion of bramble bushes has provided quick and easy access habitat for mammals to hide in.



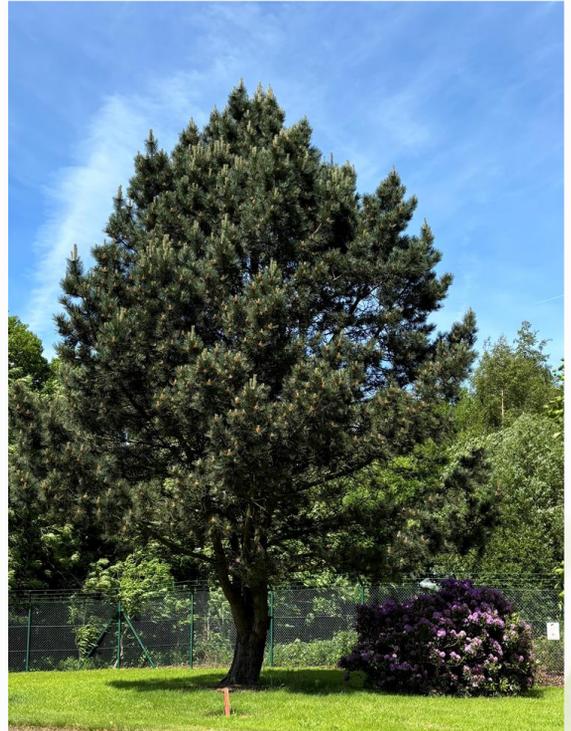
Bramble habitat



Gorse

Trees & shrubbery

- We inherited a number of established trees and shrubs which had been planted up to twenty years earlier.
- Fast growing and low maintenance were likely the key criteria for selecting the non-native species.
- Some had been planted to create hedgerows and break the view of an industrial building but over time others have grown naturally.
- We are actively changing our trees and shrubbery landscape.



New trees in the foreground



Trees & shrubbery

- In 2021 we planted 42 native trees and 6 pyracantha bushes. The latter are an excellent food source for pollinators and the red berries providing winter food for the birds.
- Significant tree removal, i.e. non-native sycamores, is required on the south bank which are smothering out the native, slower growing species such as oak and horse chestnut.



Tree thinning required in highlighted area



Pyracantha

Flora

- Over the various seasons a diversity of flora exists onsite, from forget-me-nots & daffodils to tufted loosestrife & pale willowherb.
- They provide a welcome food source for both pollinators & birds.
- The next few pages demonstrates the variety.



Horseshoe vetch



Tufted loosestrife



Daffodil ice follies



Buttercup

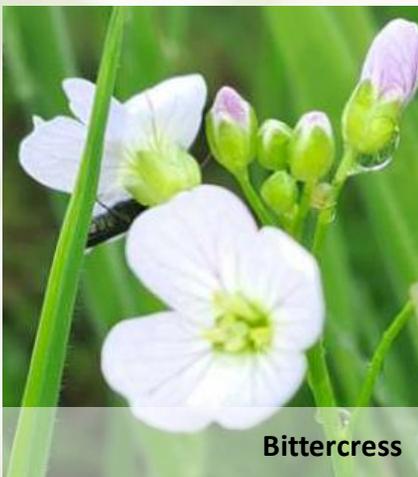


Primrose and violets



Germander speedwell

Flora



Flora



Yellow suckling clover



Catmint



Common honeysuckle



Western dogwood



Grass-leaved stitchwort



Ox-eye daisy



Pale willowherb



Meadowsweet



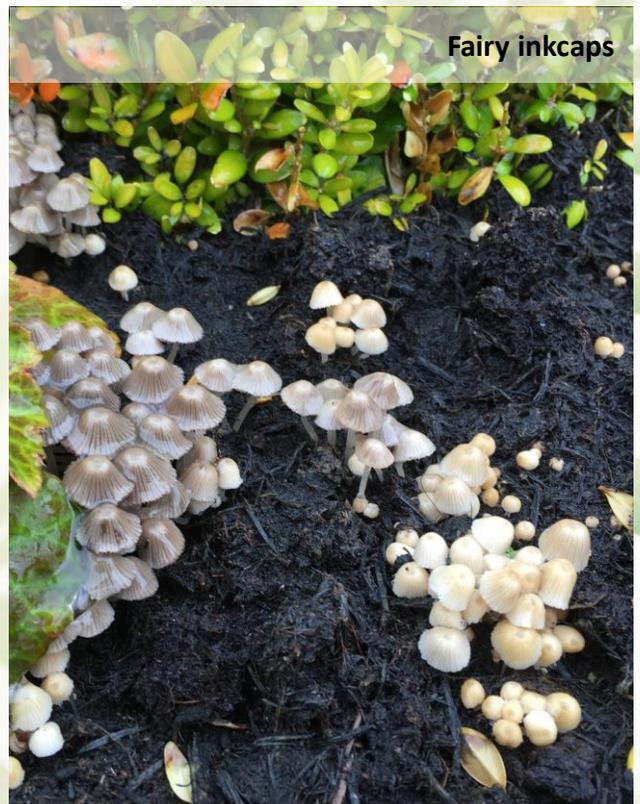
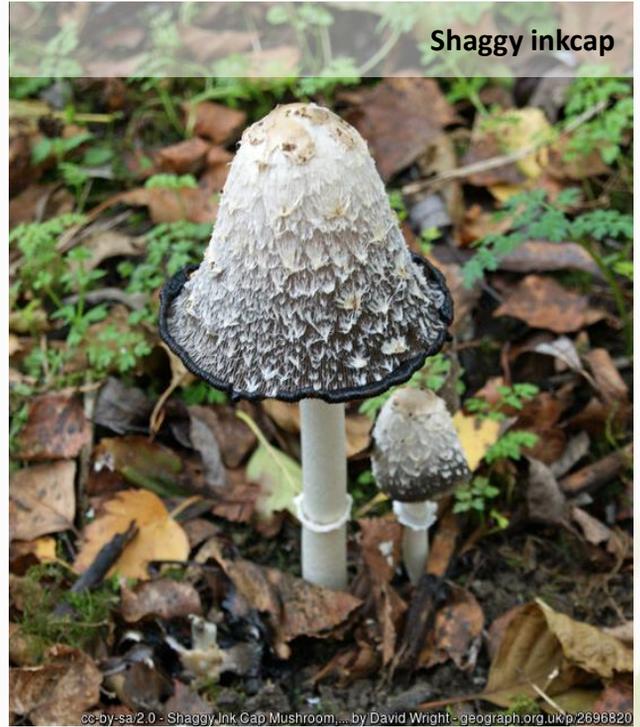
Forget-me-not



Marsh thistle

Fungi

- We have seen waxcap, fly agaric, shaggy inkcaps and birch bolete fungi onsite, alongside a number of unknown species.



Fungi

- We also have the turkey tail mushroom growing, a multicoloured fungi adopting a disc-like shape, which is found on dead or decaying hardwoods.
- It has been found on felled logs adjacent to Lochan Wilson.



Species unknown



Turkey tail mushroom

Lichen

- Lichen, according to the Woodland Trust, *“are made up of two or more organisms...existing in a mutually beneficial relationship called symbiosis...between a fungus [and] an algae and/or cyanobacteria.”*
- The presence of lichen is a good air quality marker as they *“are sensitive to pollution”*, showing that despite being a heavy metal industry we are having no effect on the local environment.
- As can be seen in the photographs, lichen can be found in unusual locations.



Tree



Bench

Lichen

- Lichen is very slow growing, only achieving 1-2mm per year!
- According to the Royal Botanic Garden Edinburgh, Scotland is home to 1500 lichens.



Ground



Tree

Fire hydrant



Mammals

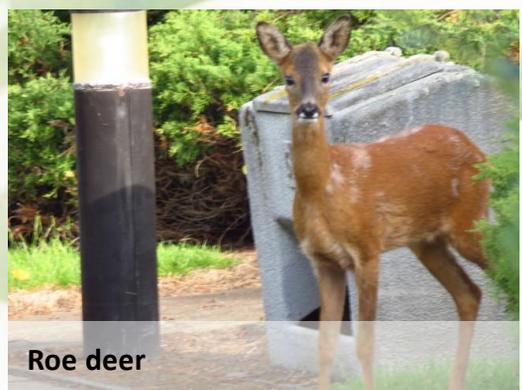
- Our site is home to a number of mammals including badgers, foxes, hares, voles, stoats and even an otter.
- Rabbits are the most popular mammal but since we have been onsite, there have been isolated spells (typically three-yearly) where several rabbits were infected by myxomatosis. When identified, the rabbits were humanely despatched to minimise their suffering and the spread of infection.
- Badgers have been seen (through remote cameras) scent marking and foraging for food. Similarly foxes have been found to be carrying rabbits and pheasants at night.
- Roe deer are frequently seen in the south field and in 2017 an injured one spent several weeks onsite. A female and fawn were also seen on the south field. More recently they have taken to dining on our young oak trees!
- Finally, American grey squirrels are trapped and culled as they are an invasive, non-native species.



Young oak tree with nibbled stems



Animal tracks in the grass adjacent to our new gorse habitat



Roe deer

Amphibians

- Every year the toads migrate from the woods at Linn Mill to Lochan Wilson. They must negotiate the main works entrance road, avoid falling into drains and predators preying upon them, alongside a new threat of too much ground salt during colder conditions.
- To combat these risks we monitor the weather from early February, looking for mild nights that may trigger the migration. Following a mild night or report of a toad, we embark upon regular patrols covering the main works road up to three times a day. Once collected the toads are immediately taken to Lochan Wilson for release.
- Small wooden rafts in the drains were trialled early on, in the hope that if a toad fell in it would make its way onto the raft and prevent drowning. However, the success of this initiative was found to be limited.
- The most effective solution for the drains (aside from the patrols) is the use of gridded drain covers. Some toads still find their way into the drain but this goes a significant way in reducing the numbers. We also check the drains to ensure we can rescue as many toads as possible.
- A more recent threat has come through the gritting of the roads and Scotland experiencing drier than normal winters in the changing climate. Some areas, such as road corners, accumulate salt granules on multiple cold nights where there is no rain to disperse it. The toads still have to migrate and it rubs along their trunks causing salt burns.



Rescued toads enroute to Lochan Wilson



Toad raft



Toad raft insitu

Amphibians

- The salt dries out the skin of the toad by absorbing the moisture resulting in desiccation and likely death. Toads were found dead close to the first kerb suggesting a rapid death and there were instances when pairs crossed that the male survived whilst the female died due to the male travelling on the females back.
- In some instances it was possible to rescue toads succumbing to this fate by washing them to remove the salt and then placing them in a shallow bucket of water to revitalise them prior to entering the lochan.
- We have worked with the gritters to minimise the salt build-up in certain locations and are trialling a spray brine in place of the salt granules.
- Through the toad rescuing season we can personally vouch that the males are very vocal when picked up! The females do not make any noise.



Amphibians

- We suspected there were frogs onsite and even found one during the drain checks for toads.
- However, once the dew pond was created the frogs soon made it their home and have spawned in it each year since.



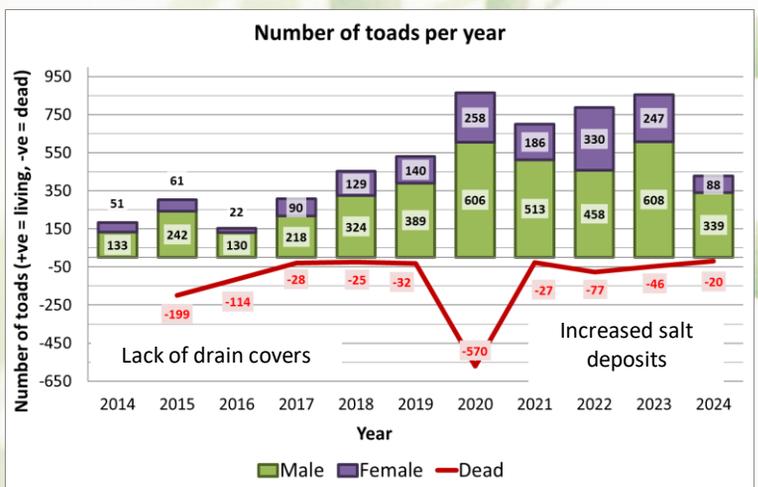
Frog

- Like newts, frogs prefer fish-free ponds as frog tadpoles are tasty, toad tadpoles are not!
- The toads spawn in Lochan Wilson and the frogs in the dew pond.
- The graph below shows the toad migration numbers over the years.



Frog spawn

- The impact of a lack of drain covers and the increase in salt deposits can be seen.
- We have witnessed a downturn in numbers this year (possibly attributable to climate change) despite patrols ongoing. However, on a positive note there was no increase in fatalities.



Fish

- Lochan Wilson is home to a variety of fish species including roach, perch, silver bream, rainbow trout and an ornamental koi carp.
- In August 2017 the Lochan was stocked with rainbow trout (at one stage enabling sport fishing with the entry fee going to charity) but in recent years numbers have declined, particularly when the cormorant and otter has visited.
- Around 2014 an orange and white ornamental koi carp was seen, likely introduced by the previous owners. Whilst it is shy, it can sometimes be felt (through waders) bumping into a leg during lochan management activities!

Rainbow trout stocking. Going...



Going...gone!



Common roach



European perch



<https://commons.wikimedia.org/wiki/File:PercaFluviatilisMediumSize.JPG>

Birds

- Over the years we have welcomed a variety of birds from tree sparrows, pied wagtails, oystercatchers to stock doves, moorhens and great spotted woodpeckers.
- Unfortunately we have experienced a number of window strikes resulting in the known deaths of the following bird species: redstart, robin, woodpigeon, starling and blackbird. Bird silhouettes placed on windows had little effect but remain.
- A number of birds have opted to brood onsite use one of the 31 bird boxes available, with some boxes getting multiple uses throughout the brooding season. However, we have some ground-nesting birds such as the oystercatchers, favouring to use the same spot for several years adjacent to the pattern shop door.



Blue tit chicks



Jackdaw chicks



Oystercatcher nest circled



Oystercatcher & chicks

Birds

- The oystercatchers can also have a head for heights, occasionally favouring the roof, but so too do the swallows who have previously built a nest on one of the extraction towers and the young went on to successfully fledge.
- Recognising that birds utilise different nesting habitats, 2017 saw the creation of mallard nesting tubes. However, the mallards have preferred to stay within the confines of the bulrushes with other birds using the nesting tube material for nesting elsewhere.
- In 2020 bird specific boxes i.e. barn owl, nuthatch, kestrel and great spotted woodpecker, were made and installed.



Swallow nest



Heron with a short-tailed vole

60°F 16C 09/08/19 19:47:57



Tawny owl chicks



Mallard duck nesting tube

Bats

- Onsite we have some bat boxes installed near the old water pumpstation.
- In 2014 we had confirmation from the Bat Conservation Trust that we have two types of bats onsite:
 - Common pipistrelle:
 - demonstrating the pipistrelle rhythm and richness in tone;
 - Soprano pipistrelle:
 - again the pipistrelle rhythm but thin and tinny in tone.
- According to the Bat Conservation Trust the two species are very similar in aesthetics and were only identified as two different species in the 1990s.
- Soprano pipistrelles favour habitats near water and around woodland edges or tree lines.
- Whereas the common pipistrelle will extend further into farmland and suburban areas.
- Both enjoy a diet of small flies including midges and mosquitos.
- On our site we are surrounded by grass and farmland with the tree surroundings providing a natural habitat. The management of the lochan is providing a food source for the bats.

Common pipistrelle bat



https://upload.wikimedia.org/wikipedia/commons/thumb/f/f1/Pipistrellus_female-2.jpg/800px-Pipistrellus_female-2.jpg?20091221192459

Soprano pipistrelle bat



https://commons.wikimedia.org/wiki/File:Pipistrellus_pygmaeus01.jpg

Insects

- Through consciously changing our habitats we have enhanced the environment for our insects and invertebrates.
- We have had some success with small bug houses. The usage, taken up by the solitary red mason and leafcutter bees, improved once they were relocated to the south bank where the no-mow areas are typically located.
- The introduction of the dew pond has seen the arrival of pond skaters.



Insects

- Within the south bank we have introduced wooden boxes to provide an alternative habitat. In one we have the beginnings of a black ants nest.
- We have experienced robin's pin cushion, also known as the 'Bedeguar gall' onsite. It is an abnormal growth on dog-rose stems that is caused by the gall wasp.
- The adult wasp lays eggs in the bud or developing leaves during the mid-summer period. The eggs then hatch into small white larvae that secrete chemicals causing the abnormal growth.



Robin's pin cushion



Hoverfly on red campion



Worker honeybee



White tailed bumblebee on greater knapweed

Community engagement

- In 2014 and 2019 Progress Rail South Queensferry held open days enabling friends and family to visit the site and experience the production process and experience the grounds and biodiversity we are fortunate to work in.
- Biodiversity tours were provided on the days alongside displays both indoors by Progress Rail and the RSPB and outdoors by the Lochan.



- We have supplied information on our biodiversity to the following organisations since we began recording:

- Scottish Badgers
- Lothian Amphibian and Reptile Group
- Lothian Bird Recorder
- Scottish Bats
- The Wildlife Information Centre
- The Scottish Wildlife Trust
- The Scottish Ornithological Club
- The British Trust for Ornithology



- We have previously been corporate members of the Scottish Wildlife Trust.

Changing climates

- Whilst our site is evolving through our interventions to introduce native plant species, so too is Mother Nature playing a part.
- In recent years as a nation we have started to experience a change in climatic events and some trees onsite have not escaped damage.
- In 2024 we experienced a downturn in toad migration numbers (discussed earlier in the report). Whilst it is positive we have not observed an increased number in road deaths, we are left to wonder did migration occur in the night or during the weekend when there was a lack of people to observe or are number down due to changing weather patterns?
- At the time of the toad spawning and tadpole/toadlet development in 2023 we experienced drier than average weather, only for the weather to turn unusually wet from July onwards throughout the winter and into spring.
- Finally, over the ten years of toad rescuing, the start date has typically moved forward by two weeks to the end of February.



Next steps

On-going/short-term

- Toad rescue and monitor numbers;
- Replenish bird feeding stations;
- Remove great reed mace (bulrush) and plant in native reeds:
 - Encourage reed buntings and bearded tits;
- Habitat management;
- Plant native trees and wildflowers;
- Investigate potential uses/projects related to artificial intelligence; and
- Introduce pieces of corrugated metal sheeting within the south bank area:
 - Provide a habitat for reptiles.

Bulrush area requiring management



Next steps

Medium-term

- Small mammals survey:
 - Local college/university outreach;
- Moth survey;
- Introduction of a wildflower meadow;
- Sandbank for sand martins:
 - Inspired by BBC Springwatch; and
- Reintroduce cameras for remote monitoring.

Sandbank example (BBC Springwatch)

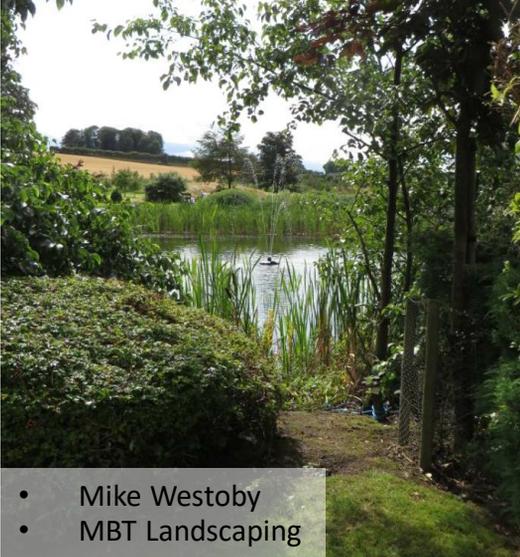


Long-term

- Create new larger dew pond;
- Introduce more UK native marginal plants/shelving; and
- Introduce water voles:
 - An endangered species in the UK due to loss of habitat;
 - Expert advice required on feasibility.

Acknowledgements

Lochan/habitat creation and/or management:



- Mike Westoby
- MBT Landscaping

Toad rescue:

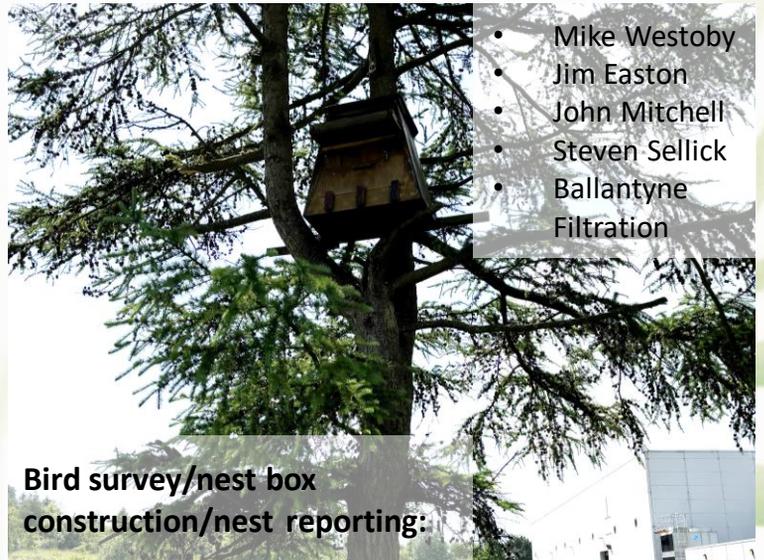


- Mike Westoby
- Jim Easton
- Hannah Persson

Biodiversity tours:



- Mike Westoby
- Jim Easton



- Mike Westoby
- Jim Easton
- John Mitchell
- Steven Sellick
- Ballantyne Filtration

Bird survey/nest box construction/nest reporting:

Bird feeding stations:



- Mike Westoby
- Jim Easton
- John Mitchell
- Daniel McKeown

Fisheries manager:

- Mike Westoby

Grids for drains (toads):

- John Boyle Engineering

Biodiversity reporting:

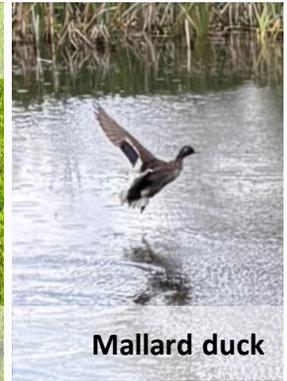
- Jim Easton
- Michael Westoby
- Hannah Persson



Species lists

- The following pages itemise the various species we have witnessed over the years on our site including:

- Trees and shrubbery,
- Flora,
- Mammals,
- Birds,
- Butterflies and moths, and
- Odonata and insects.



Swallow on Lochan Wilson

Trees & shrubbery

Common name	Scientific name	Native (Y/N)
Beech green/(copper)	<i>Fagus sylvatica (purpurea)</i>	Y
Fountain butterfly bush	<i>Buddleja alternifolia</i>	N
Silver birch	<i>Betula pendula</i>	Y
Bramble	<i>Rubus fruticosus</i>	Y
Bird cherry	<i>Prunus padus</i>	Y
Dog rose	<i>Rosa canina</i>	Y
Western dogwood	<i>Cornus nuttallii</i>	N
Scarlet firethorn	<i>Pyracantha coccinea</i>	N
Gorse	<i>Ulex europaeus</i>	Y
Hazel	<i>Corylus avellana</i>	Y
Common honeysuckle	<i>Lonicera periclymenum</i>	Y
(European) horse chestnut	<i>Aesculus hippocastanum</i>	Y
Dunkeld larch	<i>Larix x eurolepsis</i>	N
Snowy mespilus	<i>Amelanchier lamarckii</i>	N
Oregon grape	<i>Mahonia aquifolium</i>	N
Northern red oak	<i>Quercus rubra</i>	N
Oak (English)	<i>Quercus robur</i>	Y
Black poplar	<i>Populus nigra</i>	Y
Rowan	<i>Sorbus acuparia</i>	Y
Bastard service tree	<i>Sorbus thuringiaca</i>	Y
Sorbus "Wilfred Fox"	Hybrid: Whitebeam & Himalayan Whitebeam	N
Weigela hortensis	<i>Weigela hortensis</i>	N
Old fashioned weigela	<i>Weigela florida</i>	N
Willow	<i>Salix</i>	Y

Flora

Common name	Scientific name	Native (Y/N)	Good for wildlife (Y/N)
Black eyed Susan	<i>Rudbeckia hirta</i>	N	Y
Black medick	<i>Medicago lupulina</i>	Y	Y
Borage	<i>Borago officinalis</i>	Y	Y
Brooklime	<i>Veronica beccabunga</i>	Y	Y
Early buttercup	<i>Ranunculus fascicularis</i>	Y	Y
California poppy	<i>Eschscholzia californica</i>	N	Y
Common dog violet	<i>Viola riviniana</i>	Y	Y
Common fleabane	<i>Pulicaria dysenterica</i>	Y	Y
Common fumitory	<i>Fumaria officinalis</i>	Y	Y
Common mouse-ear	<i>Cerastium fontanum</i>	Y	Y
Common vetch	<i>Vicia sativa</i>	Y	Y
Cornflower	<i>Centaurea cyanus</i>	N	Y
Creeping thistle	<i>Cirsium arvense</i>	Y	Y
Delphinium	<i>Delphinium sp.</i>	Y	Y
Devil's-bit scabious	<i>Succisa pratensis</i>	Y	Y
Forget-me-not	<i>Myosotis</i>	Y	Y
Foxglove	<i>Digitalis purpurea</i>	Y	Y
Germander speedwell	<i>Veronica chamaedrys</i>	Y	Y
Grass-leaved stitchwort	<i>Stellaria graminea</i>	Y	Y
Greater knapweed	<i>Centaurea scabiosa</i>	Y	Y
Hairy bittercress	<i>Cardamine hirsuta</i>	Y	Y
Hollyhock	<i>Alcea rosea</i>	N	Y
Horseshoe vetch	<i>Hippocrepis comosa</i>	Y	Y
Plantain lily	<i>Hosta albo-marginata</i>	N	Y
Jimsonweed	<i>Datura stramonium</i>	N	Y

Flora

Common name	Scientific name	Native (Y/N)	Good for wildlife (Y/N)
Lady's mantle	<i>Alchemilla vulgaris</i>	Y	Y
Lady smock (cuckoo)	<i>Cardamine pratensis</i>	Y	Y
Love-in-a-mist	<i>Nigella damascena</i>	N	Y
Marigold	<i>Tagetes</i>	N	Y
Marsh marigold	<i>Caltha palustris</i>	Y	Y
Marsh thistle	<i>Cirsium palustre</i>	Y	Y
Meadow crane's-bill	<i>Geranium pratense</i>	Y	Y
Meadowsweet	<i>Filipendula ulmaria</i>	Y	Y
Pale willowherb	<i>Epilobium roseum consimile</i>	Y	Y
Perforate St. John's wort	<i>Hypericum perforatum</i>	Y	Y
Poppy	<i>Papaver sp.</i>	Y	Y
Primrose	<i>Primula vulgaris</i>	Y	Y
Purple orchid	<i>Orchis mascula</i>	Y	Y
Ragwort	<i>Senecio jacobaea</i>	Y	Y
Red campion	<i>Silene dioica</i>	Y	Y
Red dead-nettle	<i>Lamium purpureum</i>	Y	Y
Self heal	<i>Prunella vulgaris</i>	Y	Y
Spanish bluebell	<i>Hyacinthoides hispanica</i>	N	Y
Spear thistle	<i>Cirsium vulgare</i>	Y	Y
Teasel	<i>Dipsacus fullonum</i>	Y	Y
Tufted loosestrife	<i>Lysimachia thyrsiflora</i>	N	Y
Viper's bugloss	<i>Echium vulgare</i>	Y	Y
Water lily	<i>Nymphaea</i>	N	Y
Yellow rattle	<i>Rhinanthus minor</i>	Y	Y
Yellow suckling clover	<i>Trifolium dubium</i>	Y	Y

Mammals

Common name	Scientific name
American mink	<i>Neovison vison</i>
Badger	<i>Meles meles</i>
Bank vole	<i>Clethrionomys glareolus</i>
Brown hare	<i>Lepus europaeus</i>
Fallow deer	<i>Dama dama</i>
Field vole	<i>Microtus agrestis</i>
Fox	<i>Vulpes vulpes</i>
Grey squirrel	<i>Sciurus carolinensis</i>
Hedgehog	<i>Erinaceus europaeus</i>
Mole	<i>Talpa europaea</i>
Eurasian otter	<i>Lutra lutra</i>
Rabbit	<i>Oryctolagus cuniculus</i>
Common rat	<i>Rattus norvegicus</i>
Roe deer	<i>Capreolus capreolus</i>
Stoat	<i>Mustela erminea</i>

Birds

Common name	Scientific name	Bred onsite (Y)	Birds of Conservation Concern 5 level
(Common) blackbird	<i>Turdus merula</i>	Y	Green
(Eurasian) blackcap	<i>Sylvia atricapilla</i>		Green
(Common) bullfinch	<i>Pyrrhula pyrrhula</i>		Amber
(Common) reed bunting	<i>Emberiza schoeniclus</i>	Y	Amber
(Common) buzzard	<i>Buteo buteo</i>		Green
(Eurasian) chaffinch	<i>Fringilla coelebs</i>	Y	Green
(Common) chiffchaff	<i>Phylloscopus collybita</i>		Green
(Common) coot	<i>Fulica atra</i>	Y	Green
Great cormorant	<i>Phalacrocorax carbo</i>		Green
Carrion crow	<i>Corvus corone</i>		Green
Hooded crow	<i>Corvus cornix</i>		Green
(Eurasian) curlew	<i>Numenius arquata</i>		Red
(Eurasian) collared dove	<i>Streptopelia decaocto</i>		Green
Stock dove	<i>Columba oenas</i>	Y	Amber
(Common) shelduck	<i>Tadorna tadorna</i>		Amber
Mallard duck	<i>Anas platyrhynchos</i>	Y	Amber
Dunnock	<i>Prunella modularis</i>	Y	Amber
Fieldfare	<i>Turdus pilaris</i>		Red
Spotted flycatcher	<i>Muscicapa striata</i>		Red
(European) greenfinch	<i>Chloris chloris</i>	Y	Red
(European) goldfinch	<i>Carduelis carduelis</i>		Green
Goldcrest	<i>Regulus regulus</i>		Green
Canada goose	<i>Branta canadensis</i>		Green
Greylag goose	<i>Anser anser</i>		Amber
Pink-footed goose	<i>Anser brachyrhynchus</i>		Amber

Birds

Common name	Scientific name	Bred onsite (Y)	Birds of Conservation Concern 5 level
Black-headed gull	<i>Chroicocephalus ridibundus</i>		Amber
Common gull	<i>Larus canus</i>		Green
Lesser black-backed gull	<i>Larus fuscus</i>	Y	Amber
Grey heron	<i>Ardea cinerea</i>		Green
(Western) jackdaw	<i>Corvus monedula</i>	Y	Green
(Eurasian) jay	<i>Garrulus glandarius</i>		Green
(Common) kestrel	<i>Falco tinnunculus</i>		Amber
(Northern) lapwing	<i>Vanellus vanellus</i>		Red
(Common) linnet	<i>Linaria cannabina</i>		Red
(Common) magpie	<i>Pica pica</i>		Green
(Common) house martin	<i>Delichon urbicum</i>	Y	Red
Sand martin	<i>Riparia riparia</i>		Green
(Common) moorhen	<i>Gallinula chloropus</i>	Y	Amber
(Eurasian) nuthatch	<i>Sitta europaea</i>		Green
Barn owl	<i>Tyto alba</i>		Green
Tawny owl	<i>Strix aluco</i>	Y	Amber
(Eurasian) oystercatcher	<i>Haematopus ostralegus</i>	Y	Amber
Grey partridge	<i>Perdix perdix</i>		Red
Red-legged partridge	<i>Alectoris rufa</i>		Green
(Common) pheasant	<i>Phasianus colchicus</i>	Y	Green
Woodpigeon	<i>Columba palumbus</i>	Y	Amber
Meadow pipit	<i>Anthus pratensis</i>		Amber
(Lesser) redpoll	<i>Acanthis cabaret</i>		Red

Birds

Common name	Scientific name	Bred onsite (Y)	Birds of Conservation Concern 5 level
(Common) redshank	<i>Tringa totanus</i>		Amber
(Common) redstart	<i>Phoenicurus phoenicurus</i>		Amber
Redwing	<i>Turdus iliacus</i>		Amber
(European) robin	<i>Erithacus rubecula</i>	Y	Green
Rook	<i>Corvus frugilegus</i>		Amber
(Eurasian) siskin	<i>Spinus spinus</i>		Green
Skylark	<i>Alauda arvensis</i>		Red
House sparrow	<i>Passer domesticus</i>		Red
(Eurasian) tree sparrow	<i>Passer montanus</i>	Y	Red
(Eurasian) sparrowhawk	<i>Accipiter nisus</i>		Amber
(Common) starling	<i>Sturnus vulgaris</i>		Red
(Barn) swallow	<i>Hirundo rustica</i>	Y	Green
Mute swan	<i>Cygnus olor</i>		Green
(Common) swift	<i>Apus apus</i>		Red
Mistle thrush	<i>Turdus viscivorus</i>	Y	Red
Song thrush	<i>Turdus philomelos</i>	Y	Amber
(Eurasian) blue tit	<i>Cyanistes caeruleus</i>	Y	Green
Coal tit	<i>Parus ater</i>		Green
Great tit	<i>Parus major</i>	Y	Green
Long-tailed tit	<i>Aegithalos caudatus</i>		Green
Pied wagtail	<i>Motacilla alba</i>	Y	Green
Sedge warbler	<i>Acrocephalus schoenobaenus</i>		Amber
Willow warbler	<i>Phylloscopus trochilus</i>		Amber

Birds

Common name	Scientific name	Bred onsite (Y)	Birds of Conservation Concern 5 level
(Northern) wheatear	<i>Oenanthe oenanthe</i>		Amber
(Eurasian) woodcock	<i>Scolopax rusticola</i>		Red
Great spotted woodpecker	<i>Dendrocopos major</i>	Y	Green
(Eurasian) wren	<i>Troglodytes troglodytes</i>		Amber
Yellowhammer	<i>Emberiza citrinella</i>		Red



Butterflies & Moths

Common name	Scientific name
Cinnabar moth (larvae)	<i>Tyria jacobaeae</i>
Common blue	<i>Polyommatus icarus</i>
Green-veined white	<i>Pieris napi</i>
Large white	<i>Pieris brassicae</i>
Meadow brown	<i>Maniola jurtina</i>
Orange-tip	<i>Anthocharis cardamines</i>
Painted lady	<i>Vanessa cardui</i>
Peacock	<i>Aglais io</i>
Red admiral	<i>Vanessa atalanta</i>
Ringlet	<i>Aphantopus hyperantus</i>
Six-spot Burnet moth	<i>Zygaena filipendulae</i>
Small blue	<i>Cupido minimus</i>
Small cabbage white	<i>Pieris rapae</i>
Small copper	<i>Lycaena phlaeas</i>
Small tortoiseshell	<i>Aglais urticae</i>

Odonata & insects

Common name	Scientific name
Common carder bumblebee	<i>Bombus pascuorum</i>
Buff-tailed bumblebee	<i>Bombus terrestris</i>
White tailed bumblebee	<i>Bombus lucorum</i>
Honeybee	<i>Apis mellifera linnaeus</i>
Red mason bee	<i>Osmia rufa</i>
Leafcutter bee	<i>Megachile centuncularis</i>
Blue tailed damselfly	<i>Ischnura elegans</i>
Common blue damselfly	<i>Enallagma cyathigerum</i>
Azure damselfly	<i>Coenagrion puella</i>
Large red damselfly	<i>Pyrhosoma nymphula</i>
Common darter dragonfly	<i>Sympetrum striolatum</i>
Common hawker dragonfly	<i>Aeshna juncea</i>
Field grasshopper	<i>Chorthippus brunneus</i>
Common green grasshopper	<i>Omocestus viridulus</i>
Wasp	<i>Vespidae family</i>
Gall wasp	<i>Diplolepis rosae</i>
Seven-spot ladybird	<i>Coccinella septumpunctata</i>
Common sexton beetle	<i>Nicrophorus vespilloides</i>
Blue bottle fly	<i>Calliphora vomitoria</i>
Green bottle fly	<i>Lucilia sericata</i>
Midges	<i>Non-mosquito nematocerandiptera family</i>
Hoverflies	<i>Syrphidae family</i>
Crane fly	<i>Nephrotoma diptera</i>
Lob worm (common Earthworm)	<i>Lumbricus terrestris</i>
Great pond snail	<i>Lymnaea stagnalis</i>

Odonata & insects

Common name	<i>Scientific name</i>
Harvestmen spiders	<i>Opiliones family</i>
Black ant	<i>Lasius niger</i>
Pond skaters (water striders)	<i>Gerridae family</i>



