

LAND ("Reservoir Field") FORMING PART OF THE FIELD PLACE ESTATE

LYING WEST OF BYFLEETS LANE, AND SOUTH OF STROOD LANE, WARNHAM AND TRACK RUNNING FROM NORTH OF THE LAWSON-HUNT INDUSTRIAL PARK , OLD GUILDFORD ROAD WEST ("OGRW") RH12 3JR (or RH12 3PB)

APPLICATION TO HORSHAM DISTRICT COUNCIL ("Council")

APPLICATION REFERENCE DC/24/0220

APPLICANT: FIELD PLACE FARMS (Schulenberg Farms Limited/Kenneth Prichard Jones)

SEVENTH PHOTOGRAPHIC REPORT

DR ROSALYN CASE

Visits to the Field Place Estate on several dates during September 2024

Photographs have captions



1st September 2024. A view across Top Park towards Lake Field. Oaks on Oak Island in Lake 4 are in the centre. The dry appearance of the unimproved Top Park is in contrast to the lush green of the improved Lake Field. It has been calculated by Water Design Engineers that Lake Field is now retaining 30% of the surface water which had run off before the field was improved by marling and soil deposits. This water is held in the soil and released to plants during dry periods (such as late July and August 2024 despite occasional rain). It also reduces the risk of any flooding downstream in the River Arun. The whole of Lake Field is a giant raised bed (in gardening terms). The same process has already achieved similar results in the improved section of Reservoir Field and will do so in the rest.



1st September 2024. Early leaf fall in the Lime Avenue drive. There are 73 limes (*Tilia cordata*) in the avenue. In the great storm of October 1987, 27 were toppled. These were pollarded and raised up with a thick mulch of well-rotted farm manure and topsoil. All 27 survived and thrived. The third, fourth, fifth and seventh trees on the right side of the avenue in this photograph were pollarded and this shows in their thinner upper branches. The fallen trees are now nearly as tall as their undamaged fellows in the avenue. There are photographs of the avenue in 1914 showing the trees as saplings. In the avenue were two pet rabbits belonging to the then tenants of the Shelley family and sadly called “Mons” and “Marne” after those desperate first major battles of WW1. The Field Place Estate was purchased in 1983 by the current owners from the nephew of the Charrington brother and sister who bought it in 1929 from the Shelleys. His father had been killed at Mons before he was born. This avenue will no longer be used for soil deliveries once the proposed new track is approved. It will then be grassed.



3rd September 2024. Turnip sawfly (*Athalia rosae*) on ivy on the edge of the tree screen on the northern boundary of Reservoir Field.



9th September 2024. Ancient Oak (*Quercus robur*) growing out of the bank of Lake 2. This oak may be as much as 800 years old and may indicate that Lake 2 existed at about the same time as written records of the house began in 1251. The oak was pollarded about 200 years ago. Oaks are known as the "Sussex weed" because of their ability to grow on the heavy clay soils of the Weald. Where possible, all self-sown oaks are allowed to continue growing in place so that, in 200 years, Field Place should have even more oaks than today. Many oaks have, also, been deliberately planted on the Estate.



9th September 2024. White poplar (*Populus alba*) sapling grown from root cuttings from Top Park and planted on the rising north bank of Lake 4. These trees are attractive to both branch and cavity nesting birds when large. They appear to thrive on the heavy clay soil on the Estate. More will be transferred from elsewhere to the tree screens around Reservoir Field and on the banks of the proposed new ponds where their roots should provide stability and the canopies shelter for many birds and homes for insects.



9th September 2024. Self-sown Guelder-rose (*Viburnum opulus*) on the banks of the Broomswick stream leading to Lake 4. These shrubs have berries particularly attractive to some birds such as starlings and mistle thrush. The shrub produces white flowers in the Spring which attract bees and other pollinators. On both counts, it may be worth planting on the edge of the tree screen below the northern proposed pond in Reservoir Field.



10th September 2024. Transverse flower fly (*Eristalis transversa*) on ivy in the tree screen on the northern boundary of Reservoir Field. These insects have aristate antennae and transparent membranous wings. It also has large compound eyes. It is an active pollinator.



10th September 2024. A Yellow jacket wasp (*Vespula germanica*) on the ivy in the tree screen on the northern boundary of Reservoir Field. This wasp has three pairs of yellow legs and symmetrical black spots on the yellow stripes on its abdomen. This distinguishes this variety of the wasp family from the common wasp (*Vespa vulgaris*) which feed from the ivy around Reservoir Field in large numbers.



10th September 2024. A Face fly (*Musca autumnalis*) on the ivy in the tree screen on the northern boundary of Reservoir Field. The face fly is a nuisance amongst cattle because it can transmit “New Forest Eye” which can cause blindness if untreated. It feeds on manure, plant sugar and the secretions around the noses and eyes of cattle and horses. It can pass pathogens to humans.



11th September 2024. Apple of Peru (*Nicandra physalodes*) on the edge of a marled layer in Reservoir Field. This plant is a member of the nightshade family and a native of South America. It is mildly toxic and its juice was used to poison flies. This is likely to be a garden escape. It was still flowering in late September.



11th September 2024. A cream-coloured Cabbage white butterfly (*Pieris rapae*) feeding on the flowers of a Sow thistle on the top of the earthen wall on the western boundary of Reservoir Field. The flowers on Sow thistles are eaten by Muntjac deer which are present on Field Place and by the White Park cattle.



11th September 2024. Dewick's plusia (*Macdunnoughia confusa*) in Reservoir Field. This is a member of the Owlet (*Noctuidae*) family of moths and is nocturnal. It resembles a dead leaf during daylight. It feeds on sap and nectar.



11th September 2024. A Buff-tailed bumble bee (*Bombus terrestris*) feeding on the flowers of a Creeping thistle. This is on unfinished ground close to the location of the proposed pond near the north-western boundary of Reservoir Field. There were many bumble bees feeding on the thistles. This bee nests underground in old burrows where the queen inhabits a hive. The queen will only mate with one male bee. This is a widespread species of bumble bee and an able pollinator. The presence of a dense block of thistles demonstrates the dangers of leaving a soil improvement programme unfinished so that the area is colonised by undesirable plants. These thistles were dodgered before they seeded.



12th September 2024. Hornet mimic hoverfly (*Volucella zonaria*) on the ivy on the north-western boundary of Reservoir Field. This hoverfly not only mimics a hornet in appearance but sometimes lays its eggs in a Hornets' nest where the resulting grubs appear to have a mutually beneficial relationship with their hosts. Sometimes it does this in wasps' nests. Mimicry helps protect it from predators while it searches for nectar. It is the largest hoverfly in the UK, was rare until the 1940s but is increasingly common in Southern England. It seems to be gradually spreading north with climate change. Adults are migratory.



12th September 2024. Sun fly (*Helophilus pendulus*) on the ivy on the north-western corner of Reservoir Field. This hoverfly feeds on pollen and nectar and can travel long distances in search of food.



13th September 2024. A tapered drone fly (*Eristalis pertinax*) on the ivy in the tree screen in the north-west corner of Reservoir Field. Drone flies eat pollen and nectar. Some hoverfly larvae live in organically rich polluted rivers and drains and the runoff from dung and silage heaps. They survive underwater by having a breathing tube at the rear end that acts like a snorkel that allows the larva to breathe air while submerged. The tube can be several times the length of their body giving them the common name of “rat-Tailed maggots”. About forty per cent of UK hoverfly larvae feed on aphids piercing them with mouth hooks and sucking the body contents out.



13th September 2024. European hornet (*Vespa crabro*) on the ivy, This was feeding from the ivy blooms and did not appear interested in catching any of the insects around it although it was notable that there were no Honeybees foraging the pollen or nectar from the ivy while the Hornet was present. Hornets like both nectar and anything with protein and bees may form a significant proportion of its diet when it has the opportunity. Hornets have been observed hovering above the roof of Field Place waiting for a laden and slow Honeybee to approach its hive in the roof whereupon it is caught and carried away. Presumably, the bee provides both a satisfactory meal for the carnivorous Hornet and a full load of pollen for the Hornet nest.



13th September 2024. Common drone fly (*Eristalis tenax*) on the ivy. This is one of the most numerous and widespread hoverflies. It has spread all over the world except to Antarctica. It is a pollinator and a very common medium-sized hoverfly. It is an excellent Honeybee mimic with brown and orange markings but lacks a stinger and a 'waist' and only has one pair of wings. It even moves about following the same flight patterns as a Honeybee.



13th September 2024. Migrant hoverfly (*Eupeodes corollae*) on the ivy. This is another hoverfly species and a nectar and pollen feeder. The number and variety of insects on the ivy may indicate its importance as an autumnal flowerer. The ivy is full of foraging common wasps (*Vespa vulgaris*). It is known, from painful experience, that there are a number of wasp nests in the earthen walls of Reservoir Field and ground beneath Scotch thistle plants is particularly favoured presumably because that is more secure against potential predators. Swallows were present over Reservoir Field, Three Oak Field and Lake 1 on 13th September which seems late for their migration to sub-Saharan Africa but confirmation that there are still many insect prey in the skies over Field Place. There were, also, as many as 30 swallows hunting over Reservoir Field on 20th September.



14th September 2024. Pigweed (*Oxybasis rubra*) on the earthen wall on the western boundary of Reservoir Field. The plant may have been named because it provided fodder for pigs. It is edible and an annual. It has flowers and fruits. The latter are red hence the word *rubra* in its name. It is a native of Eurasia and the Americas. This may, also, be a garden escape.



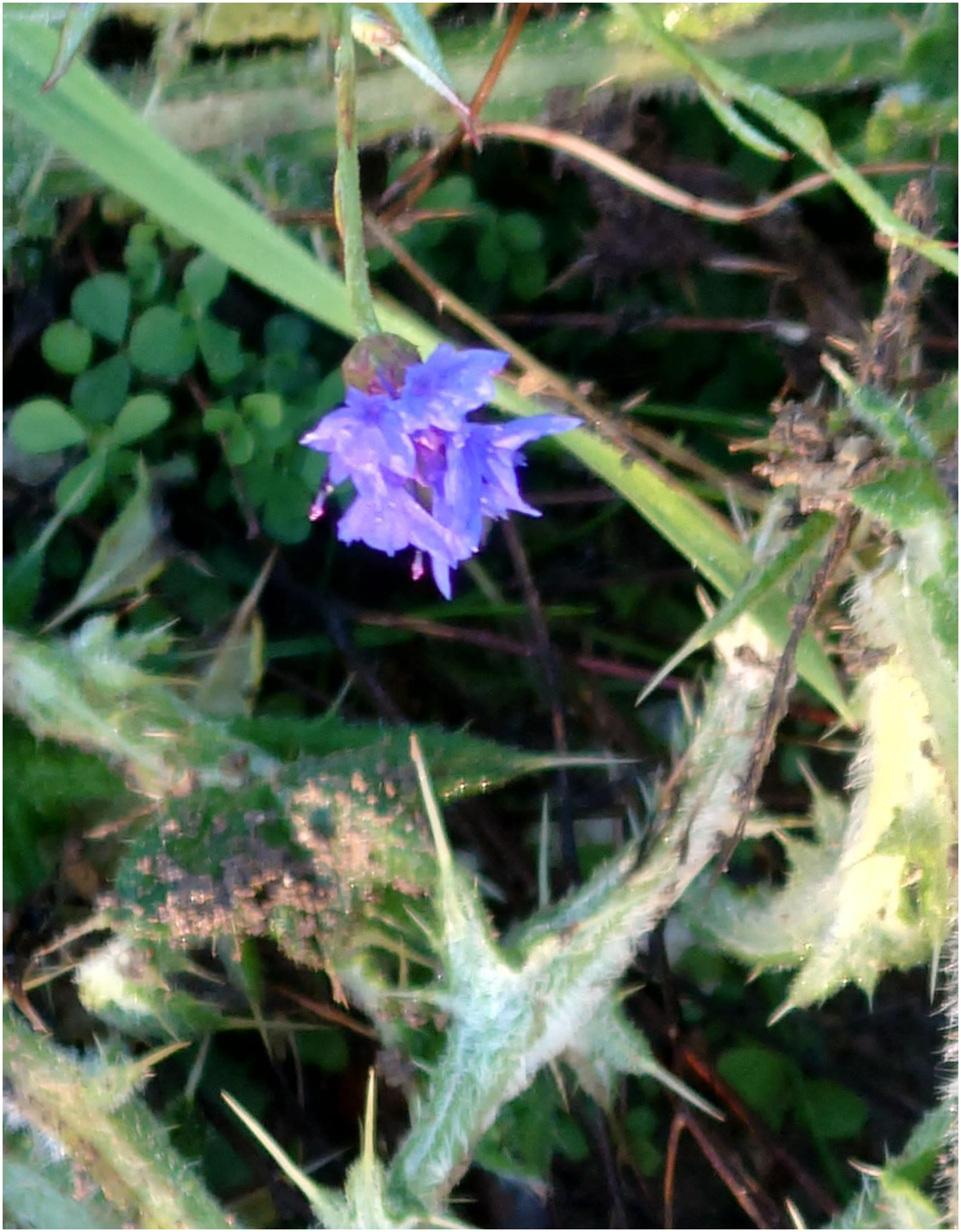
14th September 2024. The last flowering of Corn marigolds (*Glebionis sebetum*) on the unfinished soil in Reservoir Field. This plant is an annual and is attractive to bees, butterflies and moths. The Corn marigold is not native to the British Isles although native throughout Europe but climate change may make it more numerous in England. It thrives best in full sun.



14th September 2024. Lady's thumb (*Persicaria maculosa*) spreads rapidly especially over broken ground such as in the unfinished part of Reservoir Field. It is an important food source for many animals and is eaten by White Parks despite oxalates in the plant which can cause irritation of the skin. It has been used for medicinal purposes and as a fly deterrent. Lady's thumb is present in almost every part of Reservoir Field having first appeared in the unfinished areas.



14th September 2024. Scented chamomile (*Matricaria chamomomilla*) growing near the track leading to Reservoir Field. This plant has spread to a number of areas in and around Reservoir Field. It is used for its medicinal qualities for stomach complaints and skin irritations.



14th September 2024. Cornflower (*Centaurea cyanus*) in the process of opening to greet the sun. The early morning was frosty in parts of Reservoir Field. It is attractive to seed-eating birds. It has grown up on areas where chalk was spread in the past. It is not usually found on clay soils.



14th September 2024. Possibly Large bindweed (*Calystegia sylvatica*) almost at the end of its flowering. It thrives on chalky or sandy loam and is a beneficiary of the imported soil into Reservoir Field.



14th September 2024. Lesser knapweed (*Centaurea nigra*) growing on the top of the earthen wall on the western boundary of Reservoir Field. Knapweed has spread all over the field on both the improved and unimproved sectors. It is very attractive to nectar feeders. Most knapweed has ceased to flower and has set seed.



14th September 2024. Wild carrot (*Daucus carota*) flowering in the unimproved part of Reservoir Field. Most of the numerous wild carrot plants have ceased to flower and have set seed.



14th September 2024. Wild mustard *(Sinapsis arvensis*) on top of the earthen wall on the eastern boundary of Reservoir Field. This is edible and is the foundation stock for vegetables (such as kale, cabbage and brussel sprouts) developed over thousands of years for human consumption. It became a staple food during the Irish famine in the 1840s although substantial consumption could cause stomach problems.



14th September 2024. Wild rose (*Rosa villosa*) on the edge of the tree screen on the northern boundary of Reservoir Field. This has been invaded by the larvae of a tiny gall wasp (*Dipoloepis rosae*) which has caused it to produce these hairy bunches or galls on the stem. There will be many larvae in each gall and they feed on the galls but appear to do the plant little harm. They emerge as adults in the Spring and reproduce asexually. The galls change colour to reddish during the autumn.



16th September 2024. Ivy bee (*Colletes hederae*) on the ivy on the north west boundary of Reservoir Field. The Ivy bee is solitary and do not overwinter. They emerge in August/September and can continue foraging until into November depending on the weather. They nest in sandy/clay/loamy soils so the soil imports to Reservoir Field may have helped this bee. European hornets frequently patrol the ivy and it is noticeable that there are no Honeybees feeding on the blooms although they do forage on ivy elsewhere on the Field Place Estate. The ivy seems to provide abundant supplies of pollen and nectar just as the wildflowers are dying back.



16th September 2024. Common scorpion fly (*Panorpa communis*) on the ivy in the north west corner of Reservoir Field. Common scorpion flies mainly eat nectar and pollen but the males will predate soft-bodied insects such as aphids.



16th September 2024. Blue blowfly (*Calliphora vicina*) on the ivy in the northwest corner of Reservoir Field. This is a carrion-feeder although there were many on the ivy. These flies carry pathogens harmful to humans.



18th September 2024. Black bryony berries (*Dioscorea communis*) in the south-western corner of Reservoir Field. Every part of this plant is poisonous to mammals. The sap can irritate the skin. It is a climber which prefers a dense forest understory which is provided by the tree screen on that boundary.



18th September 2024. Common mallow (*Malva sylvestris*) in a vibrant purple on the earth wall on the eastern boundary of Reservoir Field.



18th September 2024. Purple viper's bugloss (*Echeum plantagineum*) flowering late in the year on the earthen wall on the eastern boundary of Reservoir Field. It is usually an early source of nectar for bees and other pollinators. It is sensitive to cold and is poisonous for grazing livestock so will be eliminated from pasture.



18th September 2024. Redroot amaranth (*Amaranthus retroflexus*) is a native of Europe and Asia. It is an annual and the older leaves and stalks can be toxic to grazing animals. However, the young plant is used as a fodder crop as long as it is not fed continuously to livestock over several days. This plant was on the earthen wall on the eastern boundary of Reservoir Field.



19th September 2024. Late flowering buttercups in the sward in the improved section of Reservoir Field. The insect on one of the blooms is a Locust blowfly (*Stomorhina lunata*). It is usually attracted to decaying flesh. It carries pathogens which are dangerous to humans.



19th September 2024. Grass-like starwort (*Stellaria graminea*) in the sward in the improved section of Reservoir Field. This plant is a perennial herb which spreads by both seed distribution and roots. It flowers in Spring and Summer. It is grazed by the White Parks.



19th September 2024. Fringed willowherb (*Epilobium ciliatum*) in the sward in the improved section of Reservoir Field close to the area where spring water enters the field. This plant is a herbaceous perennial which thrives in damp conditions. It is of North American origin but was introduced to Britain in the early 1900s and has spread rapidly into suitably damp areas although it will colonise roadside verges. It is likely that it will spread to the banks of the proposed ponds in Reservoir Field.



20th September 2024. Common bird's foot trefoil (*Lotus corniculatus*) in the sward in the improved part of Reservoir Field. This plant has a long flowering period. It is nitrogen fixing and a perennial so works well in permanent pasture. It attracts bumblebees and deer at Field Place have been observed grazing on it in preference to surrounding grass possibly because of the sweetness in its high nectar content.



20th September 2024. Common mallow (*Malva sylvestris*) on the earthen wall on the eastern boundary of Reservoir Field. This is a white variety. Reservoir Field contains pink, purple and white coloured mallow.



20th September 2024. Butternut squash (*Cucurbita moschata*) beside the track leading to Reservoir Field. It is late flowering and is likely to be the result of seed being imported in soil from a vegetable garden. Reservoir Field has grown pumpkins in previous years which were, also, probably introduced with vegetable garden soil. It may be too late for this plant to produce fruit this year. It is usually grown from seed when deliberately planted.



20th September 2024. A late-flowering Oxeye daisy (*Leucanthemum vulgare*) on the eastern boundary of Reservoir Field. These plants provide nectar and pollen for pollinating insects which are then prey for swallows, swifts and other insect eaters. They appear to have had a long flowering period in 2024 and may have contributed to the presence of at least 30 swallows hunting over the field in late September as they prepared for their 6,000-mile journey to South Africa.

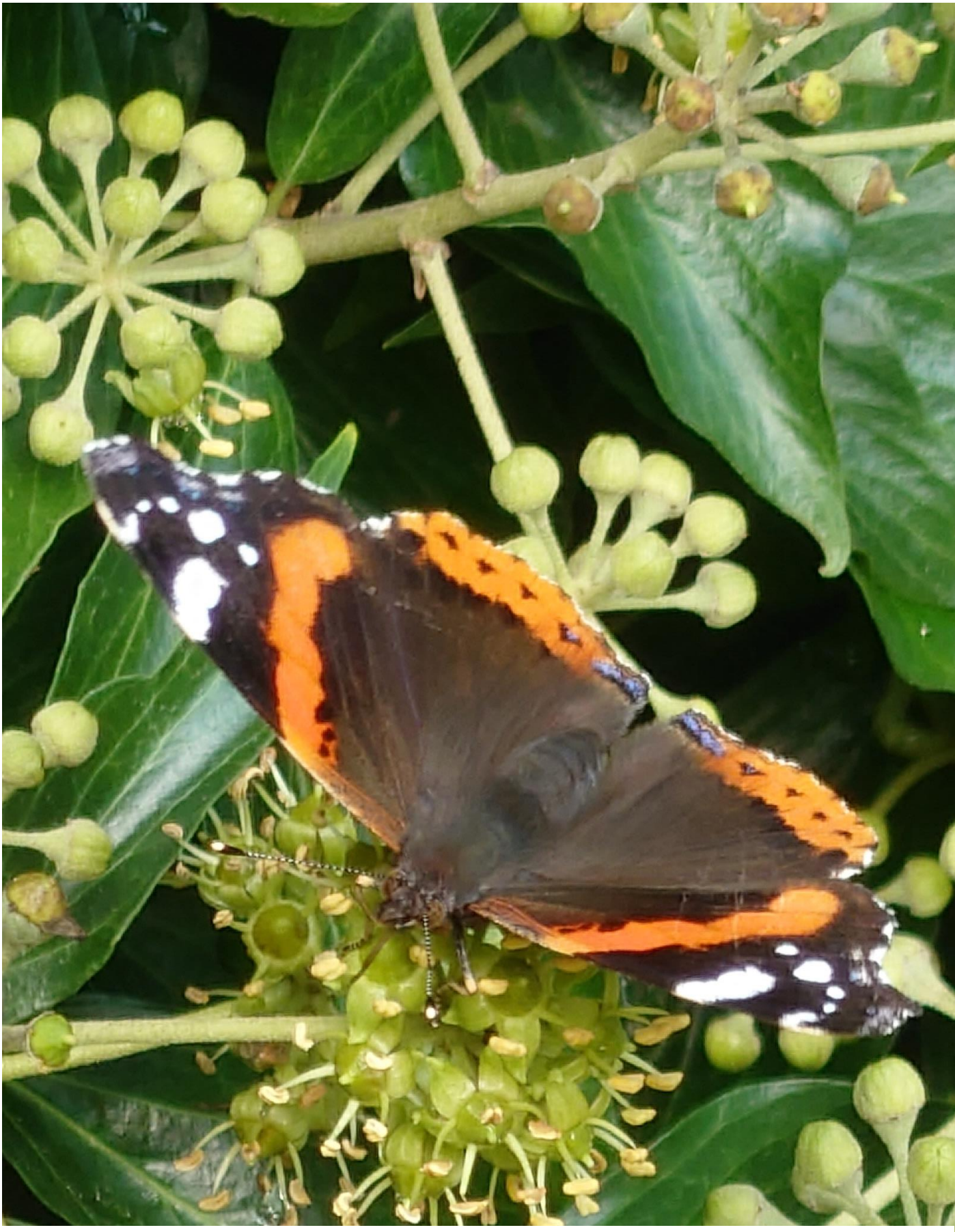


20th September 2024. Rough hawkbit (*Leontodon saxatilis*) on the earthen wall on the eastern boundary of Reservoir Field. This plant is an annual herb which spreads by seed distribution similar to Dandelions. It colonises rough ground but can, also, be found in meadows and pasture.



21st September 2024. Honeybee (*Apis mellifera*) on the ivy in the north-west corner of Reservoir Field. This is a rare visitor to the early flowers on the ivy which may be because of the frequent patrols by Hornets of the ivy. The Hornets do not appear to attempt to catch Bumblebees or any of the hoverflies so may be visiting just for the nectar and pollen. It was noticeable that when the Honeybees visit the ivy they all leave immediately a Hornet appears.

23rd September 2024 at 1.45pm to 2.15pm. The rain on 22nd September, overnight and during most of the morning of 23rd September may have caused hunger amongst the bees whose foraging must have been non-existent. Possibly, as a result, dozens of Honeybees were foraging on the ivy despite the presence of Hornets which appeared to be hunting them. However, the bees appeared to adopt a swarm strategy which confused the Hornets which could not home in on just one bee. No captures were witnessed despite multiple attempts by the Hornets over half an hour.



21st September 2024. Red admiral butterfly (*Vanessa atalanta*) on the ivy in the northwest corner of Reservoir Field. These butterflies can overwinter and live on into the next year. Their behaviour on the ivy suggests that they take active steps to avoid proximity to any visiting Hornets. Red admiral butterfly males are very territorial and will compete for abundant food sources. Females will only mate with males which have a satisfactory territory.