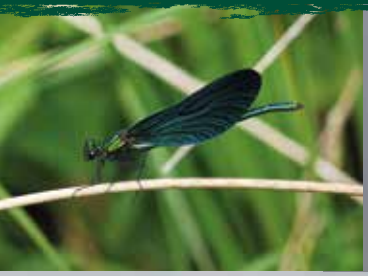
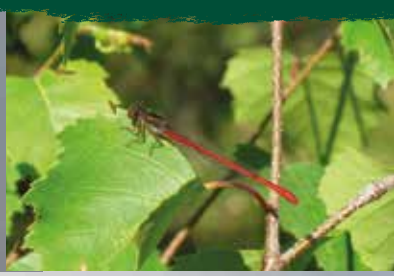
The Dragonflies of Bramshill

Site of Special Scientific Interest





Freshwater Habitats Trust

Author Ken Crick

Forward

Bramshill Site of Special Scientific Interest (SSSI) is a Flagship Pond Site. Part of a network of the very best of Britain's ponds; sites of exceptional importance for freshwater wildlife and some of our finest freshwater habitats. The Flagship sites can be a single special pond, or more commonly group of ponds, selected because they support rich, often irreplaceable, communities and species at risk of extinction. They represent some of the least impacted, most diverse pond habitats remaining in the country.

Many of our nation's most beautiful and biodiverse waterbodies have degraded irrevocably, and it's critically important that the remaining sites are well protected and well managed. In 2015, with funding from the Heritage Lottery Fund, Freshwater Habitats Trust launched the Flagship Ponds project, working with land managers and community groups to ensure that the most critical pond sites in Britain were protected for the long term.

This book has been published with the aim of enabling people visiting this, immensely important Flagship Pond Site in Northern Hampshire, to identify the dragonflies and damselflies they encounter - by reference to a simple text and photographs. It should also inform those visiting the site of the location of the majority of freshwater habitats.

Please help to protect Bramshill SSSI for dragonflies and damselflies and other wildlife by following these three simple rules:

1. Ensure your footwear is cleaned and disinfected before visiting this protected area;
2. Enjoy the network of ponds from a safe distance remaining on established tracks and paths and avoid entering the water;
3. Always keep your dog/s under control and out of the water (and on a lead between March 1st and August 31st during the bird nesting season).

Following these simple instructions will prevent disturbance to wildlife and reduce the spread of invasive plants and wildlife diseases.

More information on the Flagship Pond project and data on the damselflies and dragonflies of Bramshill SSSI can be found here:
freshwaterhabitats.org.uk/projects/flagship

Mats of Water Crowfoot flower on Bramshill Plantation's Longwater.

Introduction

"This nationally important Site of Special Scientific Interest (SSSI) is notified as such in part for its shallow mildly acidic ponds and associated mires. This complex of open water bodies, mires and interconnecting network of ditches support a rich assemblage of dragonflies and damselflies (collectively referred to as Odonata). The site was registered by the British Dragonfly Society (BDS) as a 'priority site' of national importance for Odonata at the beginning of 2009 and it forms a key part of the Thames Basin Heaths Biodiversity Opportunity Area (BOA). In addition Bramshill SSSI has been identified as one of 70 nationally important 'Flagship Pond Sites' by the Freshwater Habitats Trust (FHT).

Bramshill SSSI extends to some 650 hectares (ha) and forms part of the wider Bramshill Forest Estate. FCE seeks to balance timber production, recreation and biodiversity conservation to the benefit of society and works with a wide range of partners to achieve this goal.

From its origins as a desolate moonscape during the early 1990s in the wake of mineral extraction and in places subsequent backfilling with landfill, Bramshill SSSI has through a combination of careful management and a little luck developed into a rich tapestry of working forest, lowland heath, scrub, bare earth and wetland habitats supporting a diverse range of plants and animals.

Bramshill SSSI has developed into a rich tapestry of working forest, lowland heath, scrub, bare earth and wetland habitats supporting a diverse range of plants and animals.

It is not unusual in the summer months to happen upon Odonata enthusiasts who have travelled many miles to visit the site and that they return each year only serves to confirm the sites importance as a haven for dragonflies and damselflies and the habitats upon which they depend."

managed by Forestry Commission England (FCE), please see the site map on page 6 which depicts the extent of Bramshill SSSI covered by this booklet. Ownership of the Bramshill SSSI component of Bramshill Forest is split between FCE, Aggregate Industries (part of Lafarge Holcim) and The Elvetham

A brief aquatic history of the site.

One of 11 new pools at Warren Heath, Wellingtonia Valley.

Warren Heath Reservoir 3

Reference to the first Ordnance Survey map of 1817 would suggest that there was no standing water of any significant size anywhere on site. The 1897 map clearly shows the ornamental lake at Bramshill Park and a pond near Eversley Church. It is not until the map of 1920 that the first and largest reservoir on Warren Heath is shown along with the still extant small pond at the head of the valley. Bramshill Plantation & Eversley Upper Common (Heath Warren) remained devoid of any significant freshwater bodies.

The 1934 map indicates the existence of three purpose built reservoirs on Warren Heath. The first and lowest has a beautifully executed brick dam, the second a rough concrete dam and the third has an earth dam with a concrete spill way. A gravel based stream links all three.

The H L Edlin book "Forestry & Woodland Life" 1947 features a photograph of a rackway through the pines of "Bramshill Forest" showing a harvest of pit props.

Elderly locals have commented on the existence of ponds at Bracknells Bottom SU 7815 6006 and Sphagnum Pool after 1945.

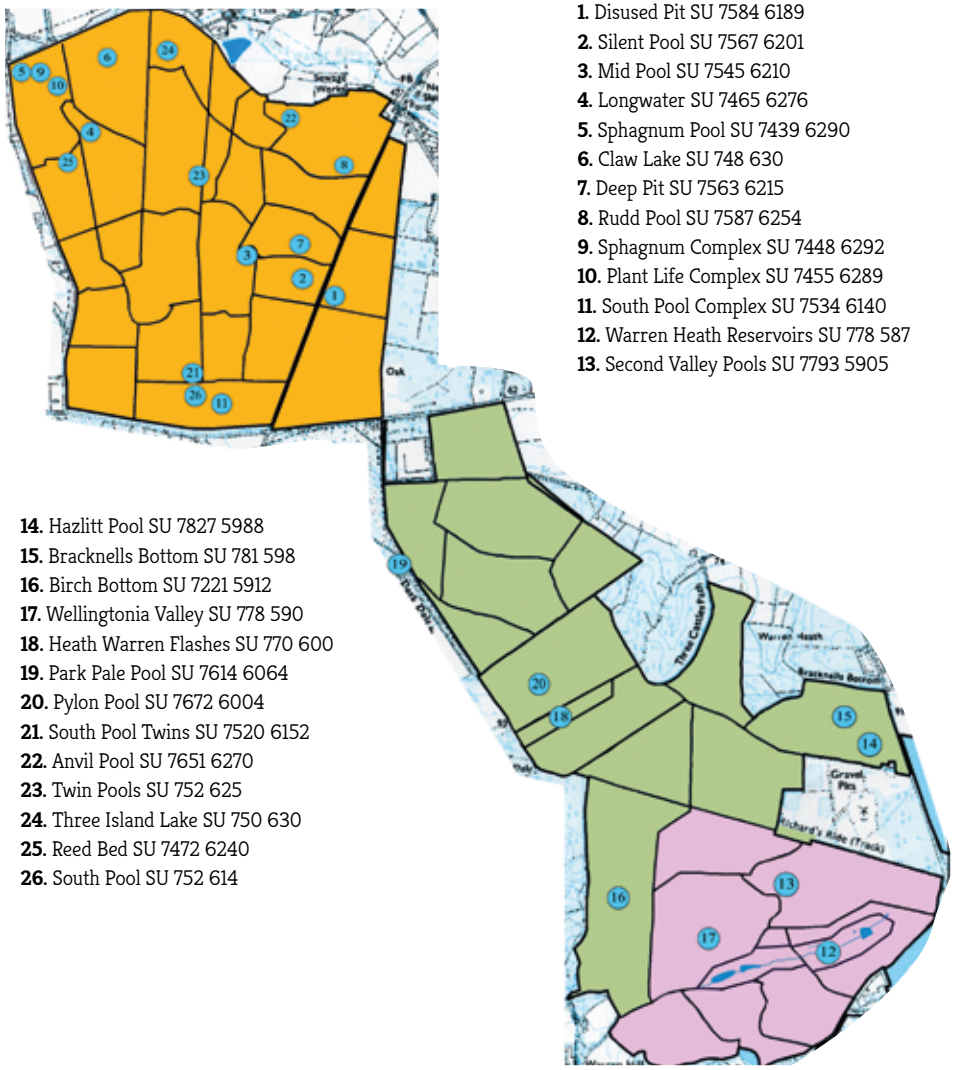
The 1959 O.S. map indicates that the site was still devoid of standing water. By the time the 1984 map was produced the Forestry Commission had again taken over management of the site from the mineral extraction company, who as part of the wash plant, had created what is now South Pool. A number of ponds, deemed necessary to filter run off before it reached the River Blackwater, appear on the 1995 map mainly along the northern boundary of Bramshill Plantation. The 1998 map features 16 freshwater bodies on the plantation.

Forestry Commission England has worked to restore, create and maintain open habitats across Bramshill Forest through a combination of ongoing internally sourced conservation spend and externally derived funding via partnership working; one key initiative being 'The Thames Basin Heaths Forest Wetland Restoration Project' comprising a collaboration between Forestry Commission England (FCE), Pond Conservation (now Freshwater Habitats Trust (FHT)), Plantlife and The British Dragonfly Society (BDS). This project added a further 32 new ponds to the SSSI during the winter of 2010/11. The total number of freshwater bodies across all three sites now stands at 62.

Site map

Bramshill SSSI ownership split

- The Elvetham Estate
- Forestry Commission England
- Aggregate Industries (Lafarge Holcim)

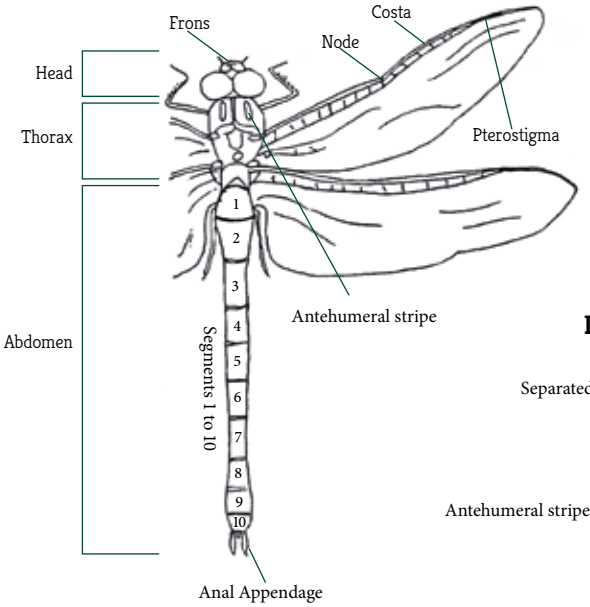


1. Disused Pit SU 7584 6189
2. Silent Pool SU 7567 6201
3. Mid Pool SU 7545 6210
4. Longwater SU 7465 6276
5. Sphagnum Pool SU 7439 6290
6. Claw Lake SU 748 630
7. Deep Pit SU 7563 6215
8. Rudd Pool SU 7587 6254
9. Sphagnum Complex SU 7448 6292
10. Plant Life Complex SU 7455 6289
11. South Pool Complex SU 7534 6140
12. Warren Heath Reservoirs SU 778 587
13. Second Valley Pools SU 7793 5905
14. Hazlitt Pool SU 7827 5988
15. Bracknells Bottom SU 781 598
16. Birch Bottom SU 7221 5912
17. Wellingtonia Valley SU 778 590
18. Heath Warren Flashes SU 770 600
19. Park Pale Pool SU 7614 6064
20. Pylon Pool SU 7672 6004
21. South Pool Twins SU 7520 6152
22. Anvil Pool SU 7651 6270
23. Twin Pools SU 752 625
24. Three Island Lake SU 750 630
25. Reed Bed SU 7472 6240
26. South Pool SU 752 614

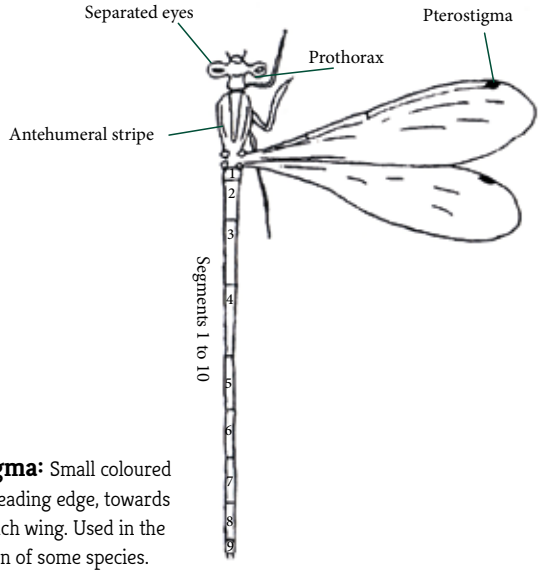
Dragonflies and Damselflies

General Features

Dragonflies - Anisoptera



Damselflies - Zygoptera



Glossary

Anal appendages: Appendages at the end of the abdomen, males use these for clasping the female during mating.

Antehumeral stripes: Coloured stripes on the top of the thorax often used to identify to species level similarly coloured specimens.

Thorax: The three segments behind the head that bear the legs and wings.

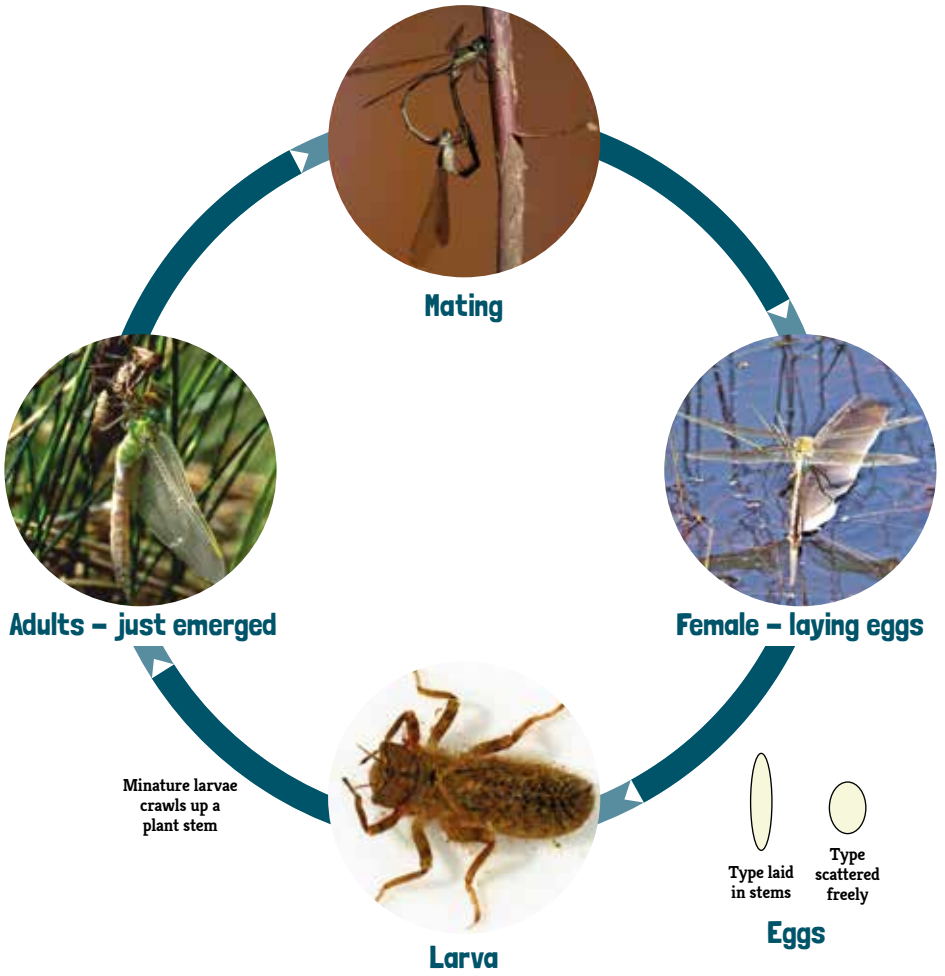
Pterostigma: Small coloured cell on the leading edge, towards the tip of each wing. Used in the identification of some species.

Instar: Moulting of the larval skin to allow for growth.

Exuvia: The shed larval skin.

Teneral: Newly emerged dragonfly lacking the full colours of the mature adult.

Life cycle



The aquatic larval stage lasts from a few months to up to five years, depending on species and environmental conditions. Growth during this period requires a number of moults (instars) but the final shedding of the rigid external covering takes place after the larvae has climbed clear of the water. The newly emerged adult lacks its full colouration until it reaches sexual maturity which can take up to a week.

Shortly after mating, females lay their eggs using a variety of methods depending on species; some are freely scattered over water, while others insert the eggs into stems of aquatic plants. The eggs of some species hatch within a few weeks but others laid late in the season can overwinter before hatching.

Calopteryx virgo Beautiful Demoiselle

Female

Beautiful Demoiselle

Size	Length = 45mm. Wing span = 58mm.
Male	Wing pigmentation covers almost the complete wing. Wing colour varies with the amount of sunlight available, iridescent blue to brown/black. Abdomen and thorax metallic blue-green.
Female	Wings golden brown with a clearly defined white false pterostigma. Metallic green head and first stage of the thorax, becoming bronze towards the tip.
Habitat	Normally found in fast flowing streams with a clean gravel or sandy bottom.
Distribution	Lives out a full life cycle on the stream feeding the reservoirs at Warren Heath. Migrants from the rivers Whitewater and Hart may be found elsewhere across the three sites.
Flight Period	Late May to Mid August.

Length = 45mm.

Wing span = 58mm.

Male

Calopteryx splendens Banded Demoiselle

Banded Demoiselle

Size	Length = 45mm. Wing span = 61-65mm.
Male	Body metallic blue/green, iridescent with a dark blue-black "thumb print" of variable size on each wing.
Female	Metallic green tinged with bronze; wings pale green with white marks towards the tip of the wing's leading edge.
Habitat	Occasionally lives out a full life cycle in still water but more usually on slow flowing rivers and streams with muddy bottoms.
Distribution	Lives out a full life cycle on the stream feeding the reservoirs at Warren Heath. Migrants from the River Blackwater may be found mainly on Bramshill Plantation.
Flight Period	Mid May to September.

Female

Length = 45mm.

Wing span = 61-65mm

Male

Lestes sponsa Emerald Damselfly

Male

Length = 38mm.

Wing span = 40-46mm.

Female

Emerald Damselfly

Size	Length = 38mm. Wing span = 40-46mm.
Male	Mainly metallic bronze green but with eyes, sides of the thorax, segment 1, 2, 8 and 9 all pastel blue. Most commonly found at rest with the wings half open.
Female	Metallic green, no blue markings, sides of the thorax and abdomen buff to straw coloured. Wings clear, distinguishing it from the female Demoiselle.
Habitat	On most of the sites water bodies, both ephemeral and permanent.
Distribution	Throughout Bramshill Plantation, Heath Warren and Warren Heath.
Flight Period	Late June to Early September.

Ceriagrion tenellum Small Red Damselfly

Small Red Damselfly

Size	Length = 31mm. Wing span = 36mm.
Male	Bright red abdomen with no black markings. The eyes are red as are the legs, with a black thorax with no or very fine antehumeral stripes. Both sexes have red legs.
Female	There are three colour forms. (1) all black, (2) two thirds of the thorax black, the remainder red, & (3) all red.
Habitat	Shallow unshaded acidic bog pools.
Distribution	This species can be seen across all three sites but it occurs in numbers on Bramshill Plantations Disused Pit and South Pool Complex, and Warren Heaths Haziltt Pool and reservoir number 3.
Flight Period	June to September.

Male

Length = 31mm.

Wing span = 36mm.

Female

Pyrrhosoma nymphula Large Red Damselfly

Large Red Damselfly

Size	Length = 33mm. Wing span = Male: 40mm. Female: 48mm.
Male	Deep red abdomen with fine black banding at the segment boundaries. Segments 7 – 9 have bronze/black banding on the upper surface. The legs are black, as is the thorax which is clearly marked with two red stripes.
Female	Obviously larger than the male. The abdomen may be up to three times as thick. There are three distinct colour patterns to the abdomen, the first is all black; both other female forms though red on the upper surface of the abdomen carry more black than the male with fine yellow cross banding at the segment boundaries.
Habitat	Ditches, streams and still water bodies.
Distribution	Occur across all three sites. The damselfly is one of 5 key indicator species for the site.
Flight Period	June to September.

Male

Length = 36mm.

Male wing span = 40mm.

Female wing span = 48mm.

Female

Coenagrion puella Azure Damselfly

Azure Damselfly

Size	Length = 33mm. Wing span = 41mm.
Male	Bearing a "U" shaped mark on the second abdominal segment. Blue with black markings, segment 8 blue, segment 9 has another truncated "U" at its base (see inset). The thorax is marked with fine antehumeral stripes.
Female	Can be found in two colour forms, the abdominal background colour will be either blue or pale green. The upper abdominal markings are mainly black, segment 2 bearing a clipped thistle emblem and segment 8 a black square, (see inset).
Habitat	On and around floating and marginal vegetation, rarely strays far from water.
Distribution	Found on all the permanent still water bodies across all three sites. This damselfly is one of 5 key indicator species for the site.
Flight Period	Mid May to August.

Female

Length = 33mm.

Wing span = 41mm.

Male

Enallagma cyathigerum Common Blue Damselfly

Common Blue Damselfly

Size	Length = 32mm. Wing span = 36mm.
Male	The antehumeral strips are very broad. Abdominal segment 2 is marked with a mushroom shaped symbol. The tip of the abdomen is all blue often appearing brighter than the rest of the insect (see inset).
Female	Can be found in three colour forms, the abdominal background colour will be blue, straw or drab green. The upper abdominal markings are mainly black, each shaped like a V2 rocket. Segment 8 bears a black triangle (see inset).
Habitat	Tends to have a preference for large bodies of water but not exclusively so.
Distribution	Found on all the permanent still water bodies across all three sites. Males often seek out females well away from the waters edge. This damselfly is one of 5 key indicator species for the site.
Flight Period	Mid June to mid October.

Male

Length = 32mm.

Wing span = 36-42mm.

Female

Blue-tailed Damselfly

Size	Length = 31mm. Wing span = 35mm.
Male	Dark body with blue near the tip of the abdomen (8th segment only). Top of the thorax is dark with fine blue stripes. Noticeable fine pale rings define each segment.
Female	Mature females are very similar to the male, only longer overall and with a thicker abdomen. Immature females' thorax may be coloured violet, rose pink or various shades of green.
Habitat	Tolerant of some low levels of pollution, will use running and standing water.
Distribution	Throughout Bramshill Plantation, Heath Warren and Warren Heath. This damselfly is one of 5 key indicator species for the site.
Flight Period	Early May to Early September

Male and Female

Length = 31mm.

Wing span = 35mm.

Female with violet thorax

Male

Male

Length = 35mm.

Wing span = 38-48mm.

Female

Red-eyed Damselfly

Size	Length = 35mm. Wing span = 38-48mm.
Male	A dark species with bright red eyes and a blue tip at the end of its abdomen, segments 9 and 10. The sides of the thorax are also blue.
Female	Dark, almost black from head to tail and with dull red eyes. The sides of the thorax and underside are pale green. There are partial antehumeral stripes on the thorax.
Habitat	Water bodies with slow or no flow; with floating vegetation such as water lilies and pondweed.
Distribution	Found predominately on Warren Heath reservoirs and the larger ponds on Bramshill Plantation.
Flight Period	Mid May to mid August.

Erythromma viridulum Small Red-eyed Damselfly

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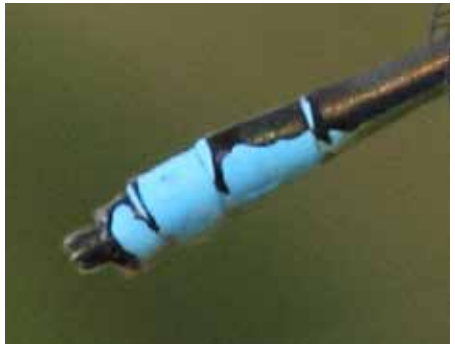
Male

Small Red-eyed Damselfly

Size	Length = 30mm. Wing span = 32-40mm.
Male	A dark species with bright red eyes and a blue tip at the end of its abdomen, segments 7 to 10 are marked with blue. The sides of the thorax are also blue, the colour, less obviously extending onto abdominal segments 2 & 3.
Female	Dark, almost black, from head to tail and with dull eyes. The thorax upper surface usually carries complete, buff coloured, antehumeral stripes.
Habitat	Favours water bodies with floating vegetation such as water lilies, pondweed and algal mats.
Distribution	Found in recent years on Warren Heath reservoir number 1 and Bramshill Plantation's Longwater.
Flight Period	May to August.

Length = 30mm.

Wing span =32-40mm.



Aeshna cyanea Southern Hawker

Length = 70mm.

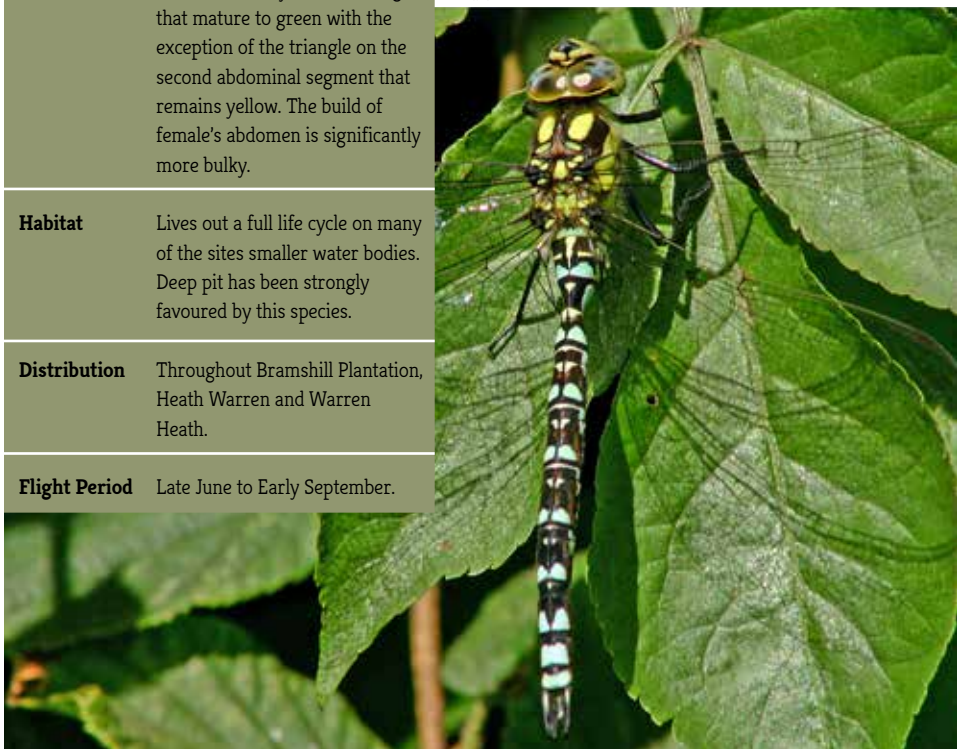
Wing span = 100mm.

Southern Hawker

Size	Length = 70mm. Wing span = 100mm.
Male	Brown, green and blue but the large yellow/green antehumeral stripes are the most obvious diagnostic feature. The pale dots along the abdomen merge into solid blue banding on segments 9 & 10.
Female	All brown with yellow markings that mature to green with the exception of the triangle on the second abdominal segment that remains yellow. The build of female's abdomen is significantly more bulky.
Habitat	Lives out a full life cycle on many of the sites smaller water bodies. Deep pit has been strongly favoured by this species.
Distribution	Throughout Bramshill Plantation, Heath Warren and Warren Heath.
Flight Period	Late June to Early September.

Female

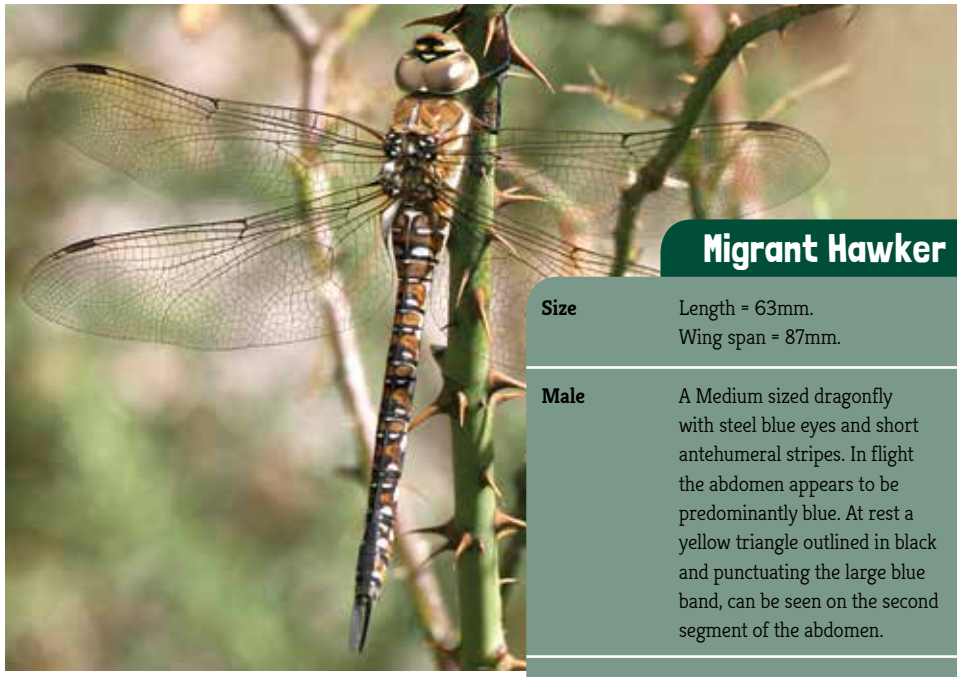
Male



Aeshna mixta — Migrant Hawker

Length = 63mm.

Wing span = 87mm.



Female

Male

Migrant Hawker

Size	Length = 63mm. Wing span = 87mm.
Male	A Medium sized dragonfly with steel blue eyes and short antehumeral stripes. In flight the abdomen appears to be predominantly blue. At rest a yellow triangle outlined in black and punctuating the large blue band, can be seen on the second segment of the abdomen.
Female	Brown with yellow markings throughout. Has the same short antehumeral stripes and the triangle on segment two is more nail like. The two anal appendages are notably long.
Habitat	The sites demonstrating the highest level of full life cycle achievement are Disused Pit, Silent Pool, Longwater and Sphagnum Pool.
Distribution	Can be found hawking on the wing almost anywhere on site.
Flight Period	Late July to the end of October.

Aeshna grandis — Brown Hawker

Length = 73mm.

Wing span = 102mm.

Male

Female

Brown Hawker

Size	Length = 73mm. Wing span = 102mm.
Male	Glowing ochre wings & blue highlights in the eyes, stand out against a dark brown body. Males set up temporary territories patrolled at about head height, usually over water.
Female	A more robust version of the male, with abdominal yellow flank markings, in contrast to the blue of the male and often a yellow cast to the eye.
Habitat	Records of full life cycle achievement for this species are most prevalent at Warren Heath reservoirs, Park Pale Pool, Claw Lake, Longwater & Silent Pool.
Distribution	Can be found on the wing almost anywhere on site.
Flight Period	Mid June to the mid October.

Anax imperator Emperor Dragonfly

Length = 78mm.

Wing span = 107mm.

Emperor Dragonfly

Size	Length = 78mm. Wing span = 107mm.
Male	Solid apple green thorax with two blue eye-like markings on the top. The blue abdomen has a black stripe running the full length. The leading edge of the wing is yellow. It flies with a distinct downward curve of the abdomen. Outer anal appendages are wide.
Female	Apple green thorax and abdomen with a wide black stripe running its full length. Anal appendages are long and fine. Older females may develop a blue abdomen.
Habitat	Full life cycle achievement has been recorded on almost all of the sites permanent water bodies.
Distribution	Can be found on the wing almost anywhere on site.
Flight Period	Early June to end of August.

Female

Male

Cordulegaster boltonii Golden–ringed Dragonfly

Length = 74-85mm.

Wing span = 80-100mm.

Golden–ringed Dragonfly

Size	Length = 74 to 85mm. Wing span = 80 to 100mm.
Male	Pale yellow face, tear shaped green eyes that meet to make a point contact. The abdomen and thorax is black with yellow banding and a club like swelling to the rear of the abdomen.
Female	As for the male only longer and more robust, with a very prominent egg laying tube clearly visible in the photo.
Habitat	Found on small gravel bottomed streams that have slow to moderate flow rates and which are over hung with grasses and ferns.
Distribution	Can be found hawking on the wing almost anywhere on site.
Flight Period	Early June to the end of August.

Male

Female

Cordulia aenea — Downy Emerald

Downy Emerald

Size	Length = 48mm. Wing span = 69mm.
Male	Bottle green thorax largely covered in fine ginger hairs. Bright apple green eyes, the lower part of the mask below the eyes is yellow. The abdomen is metallic green with a hint of bronze and is slightly club shaped. There are small ochraceous patches on the wings at the junction with the thorax.
Female	Much thicker in the abdomen but otherwise similar to the male. The egg laying tube is not obvious.
Habitat	Full life cycle success has been recorded on almost every still water body across all three sites.
Distribution	Can be found on the wing almost anywhere on site but for the largest numbers try Longwater, Warren Heath reservoirs or Park Pale Pool.
Flight Period	May to early July.

Male

Length = 48mm.

Wing span = 69mm.

Female

Somatochlora metallica — Brilliant Emerald

Length = 53mm.

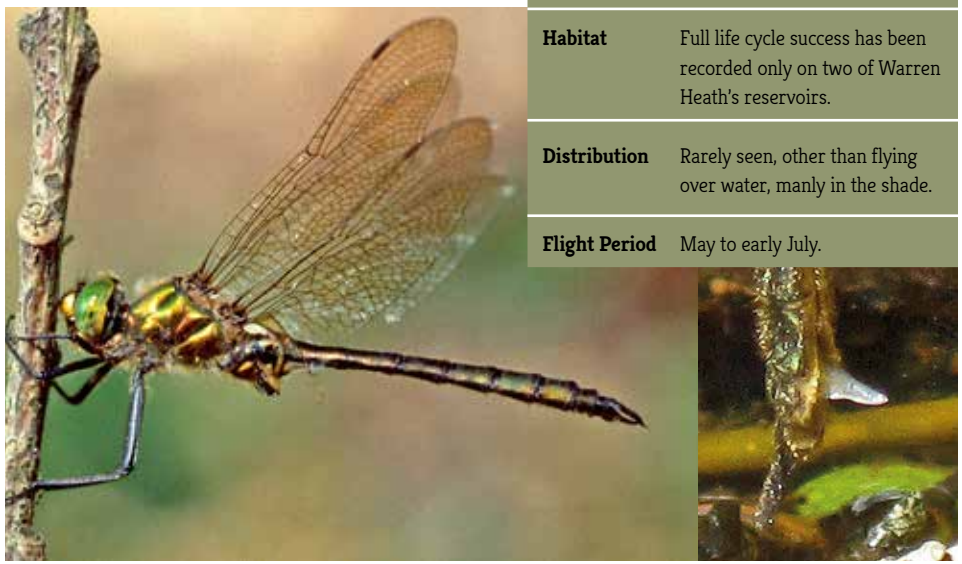
Wing span = 78mm.

Male

Brilliant Emerald

Size	Length = 53mm. Wing span = 78mm.
Male	Metallic bronze green thorax largely covered in fine hairs. Bright apple green eyes, the lower part of the mask below the eyes is yellow, as is the sides of the face in front of the eyes. The abdomen is metallic green with a hint of bronze and the detail shows the distinctive markings just behind the thorax.
Female	Much thicker and longer in the abdomen but otherwise similar to the male. The egg laying tube as seen in the detail below is prominent.
Habitat	Full life cycle success has been recorded only on two of Warren Heath's reservoirs.
Distribution	Rarely seen, other than flying over water, manly in the shade.
Flight Period	May to early July.

Male



Libellula quadrimaculata Four-spotted Chaser

Length = 43mm.

Wing span = 76mm.

Male

Female

Four-spotted Chaser

Size	Length = 43mm. Wing span = 76mm.
Male	Easily identified by the dark brown appearance and distinctive wing spots. The abdomen is tapered to the rear with yellow marks on the flanks of each segment. The anal appendages turn outwards.
Female	Only close inspection of the anal appendages will separate the sexes. The anal appendages are separate tending towards one another the further they get from the abdomen.
Habitat	Full life cycle achievement has been recorded on almost all of the sites permanent water bodies.
Distribution	Can be found on the wing almost anywhere on site where there is a body of still water.
Flight Period	Mid May to mid August

Libellula depressa Broad-bodied Chaser

Length = 44mm.

Wing span = 76mm.

Female

Male

Broad-bodied Chaser

Size	Length = 44mm. Wing span = 76mm.
Male	There are rich dark brown wing patches adjacent to the thorax. The brown thorax bears two white antehumeral stripes, these white marks are repeated at each wing junction. The abdomen is flat, broad and pale blue with yellow marks on the flanks of each segment.
Female	Of similar proportions and colour to the male with the exception of the abdomen which is a mix of browns with more prominent yellow markings than the male.
Habitat	Records of full life cycle achievement exist for most of the large water bodies on Bramshill Plantation, Warren Heath reservoirs up to 2010 and at Bracknells Bottom.
Distribution	Occurs only in small numbers. Females can be seen amongst the gorse and heather, whereas the males will be found aggressively pursuing other dragonflies around the waters edge.
Flight Period	May to early August.

Orthetrum coerulescens Keeled Skimmer

Keeled Skimmer

Size	Length = 42mm. Wing span = 60mm.
Male	Separated from other species by the distinctive pale blue abdomen. This slim insect has a dark thorax with rectangular antehumeral stripes, clear wings, with cream to pale ochraceous pterostigma at the tips.
Female	The antehumeral stripes are pronounced. Straw coloured throughout with a black stripe down the centre of the abdomen, with cross bars at each segment joint. The straw colour darkens considerably over time.
Habitat	Records of full life cycle achievement exist for only a small number of water bodies; Disused Pit, Warren Heath reservoirs and Bracknells Bottom.
Distribution	Despite the low number of water bodies with evidence of full life cycle achievement, numbers on the wing are relatively high and well distributed across all three sites.
Flight Period	Mid June to mid August.

Female

Length = 42mm.

Wing span = 60mm.

Male

Orthetrum cancellatum Black-tailed Skimmer

Black-tailed Skimmer

Size	Length = 42mm. Wing span = 60mm.
Male	An all brown thorax, pastel blue abdomen tipped with black. Freshly matured males have yellow scallop marks on both sides of each abdominal segment; these disappear over time. The wings are clear with a black pterostigma.
Female	Females & immature males have a yellow abdomen with longitudinal black bands. The ageing female darkens to a steel grey with a hint of blue.
Habitat	Records suggest that the favoured full life cycle achievement sites are Longwater, Disused Pit and Claw Lake. This species has a preference for bare ground, an attribute these three sites have had in abundance.
Distribution	When the Heath Warren Flashes are flooded it is a popular water body but this species generally favours Bramshill Plantation.
Flight Period	Mid May to mid August.

Male

Length = 42mm.

Wing span = 60mm.

Female

Sympetrum striolatum — Common Darter

Common Darter

Size	Length = 37mm. Wing span = 57mm.
Male	The abdominal colour is variable from orange to red. The legs are black with a yellow stripe on the outer sides. The thorax is brown with yellow patches on the flanks. The wings are clear with barely a hint of yellow at the point of contact with the thorax.
Female	Has the same brown thorax with yellow patches on the flanks. The abdomen is straw coloured with black darts on the flank of each segment. Antehumeral stripes may or may not be present.
Habitat	There is no water body, within the recording protocol, that has not supported full life cycle achievement of this species.
Distribution	This is one of the sites key indicator species and can be seen anywhere on site throughout the flight season.
Flight Period	Mid June to end of October.

Male

Length = 37mm.

Wing span = 57mm.

Female

Sympetrum sanguineum — Ruddy Darter

Ruddy Darter

Size	Length = 34mm. Wing span = 55mm.
Male	All brown hairy thorax, with a waisted and club shaped, blood red abdomen. The wings are clear with some yellowing at the roots, the legs are black and the area in front of the eyes is red. There are no yellow patches on the flanks of the thorax.
Female	A yellow dragonfly with black legs. The flanks of the thorax are all yellow interrupted only by a fine black line.
Habitat	There are few water bodies, within the recording protocol, that have demonstrated full life cycle achievement other than on the large new pool at Bracknells Bottom, South Pool Complex and Hazlitt Pool.
Distribution	Recent data suggests that the largest of Pylon Pools, offer's the best chance of observing this species on the wing as long as it retains water throughout the flight season.
Flight Period	Late June to end of October.

Male

Length = 34mm.

Wing span = 55mm.

Male and Female

Sympetrum danae Black Darter

Female

Length = 32mm.

Wing span = 47mm.

Male

Black Darter

Size	Length = 32mm. Wing span = 47mm.
Male	A small, predominantly black dragonfly with a waisted abdomen. It has yellow markings on the side of the thorax and golden yellow spots on the abdomen. The pterostigma is black for both sexes.
Female	A small straw yellow dragonfly with black legs and a black triangle on the top of the thorax. There are small ochraceous patches on the wing's at the junction with the thorax.
Habitat	There is no water body, within the recording protocol, that has demonstrated full lifecycle achievement other than on the large new pool at Bracknells Bottom, South Pool Complex and Hazlitt Pool.
Distribution	Recent data suggests that Warren Heath Reservoirs offer the best chance of observing this species on the wing.
Flight Period	Late June to end of October.

Platycnemis pennipes White-legged Damselfly

Male

Length = 36mm.

Wing span = 45mm.

Female

White-legged Damselfly

Size	Length = 36mm. Wing span = 45mm.
Male	Very pale pastel blue with black abdominal markings running along the insect rather than across it. Males have an apparently thick tibia, white in colour.
Female	Immature males & females are creamy white. The female matures to the palest of greens with longitudinal black markings.
Habitat	Slow flowing water in full sun, with floating and emergent vegetation.
Distribution	Occasional migrants from the River Whitewater may be encountered on the western site boundary of both Bramshill Plantation & Heath Warren.
Flight Period	Late May to mid August.

Brachytron pratense Hairy Dragonfly

Length = 55mm.

Wing span = 72mm.

Male

Hairy Dragonfly

Size	Length = 55mm. Wing span = 72mm.
Male	The early appearance of this small hawker makes confusion with other species unlikely. It has a dark brown downy thorax with pale green antehumeral stripes. Both the pterostigma and anal appendages are long relative to the size of the insect. Each segment of the dark abdomen carries two pear shaped blue spots.
Female	Light brown thorax with yellow antehumeral dots just behind the eyes. Hairy thorax, pear shaped yellow spots on a dark brown abdomen and long anal appendages.
Habitat	The Basingstoke Canal is a favoured habitat and larva have been caught at Ash Lock.
Distribution	These migrants have been observed on ponds across all three sites. Egg laying females have been observed on both Bracknells Bottom & South Pool Complex.
Flight Period	Early May to late June.

Aeshna juncea Common Hawker

Length = 74mm.

Wing span = 95mm.

Male

Common Hawker

Size	Length = 74mm. Wing span = 95mm.
Male	A mainly, dark brown dragonfly with blue and yellow markings, with an excessively waisted abdomen, narrow full length antehumeral stripes and bright yellow leading edges to the wings.
Female	A lighter shade of brown but without the excessively waisted abdomen of the male. The abdominal spots may be yellow, green or blue. The antehumeral stripes may be considerably shorter than those of the male.
Habitat	During the flight seasons of 2011, 13 and 15 a single male was recorded for Disused Pit, Warren Heath Reservoirs and Bracknells Bottom respectively.
Distribution	This species is not common south of the M4 and is often confused with the Migrant Hawker which is encountered every year across all three sites.
Flight Period	Early July to the end of September.

Gomphus vulgatissimus Club-tailed Dragonfly

Length = 50mm.

Wing span = 64mm.

Female

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Club-tailed Dragonfly

Size	Length = 50mm. Wing span = 64mm.
Male	A very robust looking insect, yellow maturing to a yellowish green colour with thick black markings throughout. Both sexes have a thick club like abdomen. The wings are clear; the hind wing has a cut out towards the trailing edge adjacent to the abdomen. This is the only UK true dragonfly with widely spaced eyes.
Female	Even more robust than the male, yellow and black with no cut out in the trailing wing.
Habitat	Locally it has been seen on the Broadwater just down stream of the junction of the R. Whitewater and R. Blackwater. It is known to regularly live out a full life cycle on the R. Thames near Pangbourne.
Distribution	This species was photographed on Warren Heath on the 19 June 2009 and is the only known site record (photo & record courtesy of Chris Brooks).
Flight Period	Mid May to late June.

Anax parthenope Lesser Emperor

Length = 73mm.

Wing span = 98mm.

Male

Lesser Emperor

Size	Length = 73mm. Wing span = 98mm
Male	The blue saddle on the abdomen, behind the thorax is particularly striking. It has bright green eyes and a greenish brown abdomen and thorax.
Female	Most easily identified when mating or laying eggs in tandem with the male. The abdomen is more heavily built than the male and may be suffused with lilac.
Habitat	This species appears in the UK as a migrant from Europe.
Distribution	A single male was recorded over Longwater on Bramshill Plantation on the 29 June 2006.
Flight Period	June to August.

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Authors note

Ken Crick

A retired Chartered Mechanical Engineer, he first developed an interest in dragonflies as a boy whilst playing and fishing near his home in Cove. Upon retiring some 20 years ago he became involved in wildlife conservation and has carried out dragonfly surveys at the behest of Natural England, Blackwater Valley Countryside Partnership & the UK Forestry Commission.
He has also lectured on Dragonflies to the UK Environment Agency, conservation and natural history societies plus other local UK groups and clubs to promote an awareness of dragonflies and stimulate interest in the conservation and protection of the habitats needed for their continuing survival. Ken has carried out surveys across Bramshill SSSI annually since 1998.

Freshwater Habitats Trust is one of the UK's principle research and conservation charities for the protection and recovery of our most endangered freshwater habitats and species. We work in partnership to develop and deliver practical advice to help people manage and create new clean water habitats for wildlife.

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