

The Dragonflies in Bracknell Forest Borough: Overview for the Period 1993 to 2012

John Ward-Smith

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Summary

This report discusses dragonfly records obtained in Bracknell Forest Borough over the 20-year period from 1993 to 2012 during which a total of 30 species have been recorded. Particular emphasis is placed on records for the 5-year period 2008 to 2012. In these five years 28 species have been recorded. Amongst the 28 species are three nationally-important and five locally-important species, demonstrating that the Borough has a rich and diverse dragonfly community. The current status of all 30 species is discussed, and reference is made to the main dragonfly sites in the Borough. Two recent arrivals are particularly significant. During the last five years **Hairy Dragonfly** (*Brachytron pratense*) has moved into several sites in the area, and in 2012, the first and only **Scarce Chaser** (*Libellula fulva*) recorded in the Borough was seen on the River Blackwater at Sandhurst.



Beautiful Demoiselle, River Blackwater, Sandhurst

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Abbreviations

BBOWT Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust
BFC = Bracknell Forest Council
DS = Des Sussex
FCT = Friday Conservation Team
JWS = John Ward-Smith
OS = Ordnance Survey
WGP = Windsor Great Park

Symbols

The following symbols, based on adaptations to the BDS scheme, are used to express levels of species abundance:

a, A = 1; b, B = 2 - 5; c, C = 6 - 20; d, D = 21 - 100; e, E = 101 - 500; f, F > 500

Lower case symbols a, b, c, d, e, f refer to records of flying adults. Where evidence of breeding was obtained, capitals are used. Thus: A, B, C, D, E, F.

Where detailed information is given on breeding records, the type of breeding record is shown, in order of priority, as follows: (ex) exuvia; (ov) oviposition; (co) copulation; (te) teneral adult.

1. INTRODUCTION

This report represents the outcome of surveys of Odonata (dragonflies and damselflies) from the early 1990s through to 2012. The report relates to the area of South-East Berkshire administered by Bracknell Forest Council (BFC), which became a Unitary Authority with Borough status in April 1998. The survey area, which covers the towns of Bracknell and Sandhurst, and the adjacent parishes of Binfield, Warfield, Winkfield and Crowthorne, lies principally within the 10x10 km square SU86. Smaller parts also fall within SU87, SU96 and SU97. To the south, the survey area has a common boundary with Hampshire along the River Blackwater; to the east there is a joint boundary with Surrey; to the north and west the boundaries are in Berkshire, with the Royal Borough of Windsor and Maidenhead and Wokingham Borough, respectively. Bracknell Forest Borough occupies an area of 10,937 hectares (42.23 square miles).

Prior to 1990, several collections of dragonfly data existed [1, 2, 3, 4], but they provided a fragmented picture of the local dragonfly community. In the early 1990s the author (JWS) together with Des Sussex (DS) started to make the first systematic collection of dragonfly records in the Borough. The data collected up to 1995 were written up [5] and discussed in relation to the earlier records [1, 2, 3, 4]. Further data were collected in the final years of the 20th century, leading to a comprehensive report [6] on the status of dragonflies in the Borough at the turn of the millennium. The purpose of the present report is to bring the dragonfly records up-to-date, and to provide an overview of the period from 1993 to 2012.

In April 2008, The Dragonflies in Focus Project, coordinated by the British Dragonfly Society (BDS), was launched by Chris Packham. The aim of the project is to update information on the national distribution of British dragonfly and damselfly species over the five year period 2008 to 2012. Based on data collected during this period, a new National Dragonfly Atlas is scheduled for publication later in 2013, to coincide with the thirtieth anniversary of the formation of the BDS. In 2008 the first County Dragonfly Recorder for Berkshire was appointed, Mike Turton taking on the role. Through him all local records, for 2008 onwards, have been fed into the Dragonfly Recording Network (DRN), the part of the British Dragonfly Society responsible for collecting and collating dragonfly and damselfly records nationwide. Records in DRN for the period 1807-2011 (but not 2012) are currently accessible to registered users on the internet via the NBN Gateway [7].

Odonata are found at a wide range of water bodies. To the north and south of the Borough are river systems. Some sites, such as Rapley Lake and Englemere Pond, have been features of the local landscape for centuries. Of more recent origin are the areas of open water that are relicts of gravel-extraction (especially in the River Blackwater Valley) and the brick-making industries; an example of the latter is Swinley Brick Pits, which finished operating in the middle of the twentieth century. In the latter part of the twentieth century, new housing developments incorporated balancing ponds, designed to protect houses from flooding. Over the past twenty years the habitat available to dragonflies has been increased and enhanced in other ways. On large sites where coniferous plantations are the main feature, the Crown

Estate and Forestry Commission have employed contractors using mechanical diggers to construct ponds. Furthermore, since 1995, the Friday Conservation Team (FCT), a small volunteer workforce, has carried out over 10,000 hours of habitat management on wet heathland in the Borough, targeted specifically to benefit dragonflies and damselflies [9]. As a result of this work, several new sites have been opened up on bogs and valley mires, and new ponds and bog pools have been created.

In the 21st century, there have been three main sources of dragonfly records in the Borough. First, DS has continued to obtain records, both during his leisure time and during employment on the staff of English Nature. Second, JWS, having retired from employment, has had the opportunity to collect records systematically at some 26 local sites. Finally, in recent years, a team of recorders has carried out regular observations at Wildmoor Heath Nature Reserve, on behalf of the local Wildlife Trust, BBOWT. In the period 2008 to 2012, a total of just over 3,800 records have been collected in the Borough and fed into the DRN. Of these some 3,000 were obtained by JWS. In round figures some 79% of records were provided by JWS, 12% and 8% by DS and BBOWT, respectively, with about 1% from other observers. Partly for internal consistency and partly on the grounds of convenience and practicality, this report is based primarily, but not exclusively, on the records obtained over the years by JWS.

The report is divided into a number of sections. In §1 an introduction and overview is provided. Information on the sites from which dragonfly data have been collected is contained in §2. There are, currently, about 26 important dragonfly sites in the Borough, referred to here for convenience as Principal Sites. At these sites are found a) nationally-important species and/or b) locally-important species, as defined by the BDS. These sites are listed in Table 1 and their location is shown on Map 1. In §3 all 30 species observed during the recording period 1993 to 2012 are considered. The species are listed in Table 2. Additional analysis of the species and site records is presented in §4, which is followed by a discussion of further aspects of the dragonfly records in §5. Long-term trends and changes are considered by reference to data collected from the early 1990s through to 2012. An overview of the main points to emerge from earlier sections is contained in §6. Appendixes A and B contain detailed site and species records, respectively, whilst Appendix C provides background information on the analysis of species rarity and Appendix D summarises the weather from 2008 to 2012.

2. DRAGONFLY SITES

Experience has shown that the best dragonfly sites in the Borough are on the areas of heathland to the south of Bracknell. On these sites are found a wide range of species, including nationally and locally important species. The river systems to the north and south of the Borough provide habitat that supports additional species. For convenience these important sites are referred to in this report as Principal Sites. Three such sites (Swinley Brick Pits, and Rapley Lake and Mill Pond in Swinley Forest) are notified as SSSI's due to their 'Outstanding Dragonfly Assemblage'. A few other sites yield records which are noteworthy. Table 1 gives details on the location and ownership of all these sites, and further information about them is provided below. Sites where ongoing maintenance work is carried out by the FCT are indicated by **. The location of the 26 Principal dragonfly sites, as well as some other sites, is shown on the map at the end of the report.

2.1 Principal Dragonfly Sites

Bagshot Road Pond** Shown on 1880s OS map. An old brick pit. Rhododendron was removed and the pond deepened by contractors during 1996/7. For a period the pond provided high quality habitat, but in recent years the pond has deteriorated rapidly, due to the rapid growth of *Typha* and *Potamogetum*. It is now in poor condition.

Bush Fields** A valley mire in Swinley Forest which had become overgrown. During 1997/8 the mire habitat was enhanced by the FCT. Pine, birch and rhododendron were removed, and several pools were created. In the spring of 2008, the pond by the side of the Ride was seriously disturbed when a major new water pipe line was laid through the forest. It was fully repaired in 2009 and is once again an excellent site for dragonflies.

Butter Bottom Ponds Shown on 1880s OS map. These ponds are actually reservoirs built to serve Broadmoor Hospital. The ponds are fished by Broadmoor Staff Angling Club. Access to this important dragonfly site is restricted.

By-Pass Pond** This pond was created during 1992 by contractors using mechanical diggers, working for the Crown Estate. The pond lies some distance from the Devils Highway, and scrub growth makes access to the pond difficult. A new access route was created by FCT during 2003/4. Due to the recent rapid growth of *Typha* the pond is now in poor condition.

Caesars Camp Pond** The main pond was created during 1994 by contractors using mechanical diggers and working for the Crown Estate. Plantation forestry surrounding the pond was clear-felled by contractors during 2002. Several satellite ponds, some 150 metres downstream on the same ditch line, were constructed by FCT during 2004/5. A further pond was added to the south in 2006/7.

Carnation Balancing Pond A balancing pond created during a 1980s housing development to take excess surface water.

Chaucer Woods Ponds: see Wellington College Ponds

Cobblers Hole Bog** A valley mire within Swinley Forest which had become overgrown. The site is in two parts with a ride running through the middle. The habitat has been enhanced by the removal of pine, birch and rhododendron, plus pool creation, by FCT. Work on the eastern side was done in 1996/7. Ponds were created and birch cleared from the western side in 2001/02.

Crowthorne Wood** Crowthorne Wood is a large site owned by the Forestry Commission. Up to the end of the twentieth century, the only open water was a boggy area, known as Crowthorne Wood Bog. It was largely surrounded by plantation forestry. Pine, birch and rhododendron had been cleared from the bog in 1989/90, and pine trees surrounding the mire were clear felled by contractors in 2002. A dam was built by the FCT to control the water level at exit from the bog during 2002/3. A new satellite pond was constructed by the FCT

during 2003/4 by damming a second drainage ditch some 250 metres to the west of the bog. In the months of January/February 2010, 2011, and 2012 numerous new ponds were constructed by contractors using mechanical diggers and acting for the Forestry Commission, further enhancing this high-quality site.

Embankment** The first element of this complex within Swinley Forest was the pond at **Lower Bush Fields**, which had been constructed by FCT in 2000. This was formed by damming the ditch line running from the Bush Fields site. Lower Bush Fields Pond was rather isolated within the forest and subsequent work on the Embankment complex was designed to provide a flight corridor linking Lower Bush Fields Pond to the outside world. A linear embankment, which runs alongside a second drainage ditch, was cleared in 2004/5, and at the same time a large area of bog, between the two ditch lines, was opened up. Three new ponds have been constructed along the embankment ditch line, and a further area of open water has been established on the bog.

Englemere Pond** This pond, completely surrounded by plantation forestry, is shown on the 1880s OS map. It has an extensive reed bed. Routine maintenance involves willow and birch scrub being periodically cut back to prevent encroachment. On adjacent land, forestry work to open up the pine forest has taken place at intervals since the mid-1980s. Since the early 1990s, the removal of birch scrub to create open areas of dry heathland plus flight corridors has been undertaken by volunteers. In hot, dry summers the water level drops significantly; in wet summers the water level stays high, making dragonfly surveys difficult.

Felix Farm Trout Fishery A large gravel pit was created in the north of the Borough during the 1970s when material was extracted for construction of the M4 Motorway. The lake has matured to provide an attractive landscape feature. Access to the site is restricted.

Forest Pond** A small pond within Swinley Forest, surrounded by plantation forestry. It does not appear to be marked on the 1880s OS map and was probably formed later as a result of the creation of a ride through the forest. There is no obvious surface drainage from the pond, and the water level is probably determined by seepage into the adjacent Gormoor Valley. At some stage in the past twenty years, the water level rose by between 1 and 2 metres, probably as a result of subtle changes to the way water seeps from the site.

Gormoor** Gormoor is a complex of several sites. There are two important areas within Swinley Forest which are accessible to the public. First, there is a valley mire, **Gormoor Valley**. Pine, birch and rhododendron were removed from this area, and pools were created by the FCT during 1995/6. To the west lies a second valley mire, referred to as **Gormoor Heath**. This area was cleared of pine, birch and rhododendron, and pools were created by the FCT during 1996/7. (Note. Gormoor Pond is shown on the 1880s OS map. It lies on land now owned by Gormoor Farm. Up to the 1970s the pond was accessible to the general public. Now, the owners of Gormoor Farm no longer allow access to the pond.)

Leiper Pond This pond, within Windsor Great Park, is shown on the 1880s OS map. It is half in Bracknell Forest Borough and half in the Royal Borough of Windsor and Maidenhead. The

pond was cleared by contractors, c1996. In 2011 it was enclosed within a larger area used for grazing cattle by an electric fence, so is no longer readily accessible. The quality of the pond habitat has deteriorated in recent years.

Mill Pond, Swinley Forest** This large pond is shown on the 1880s OS map. The Pond and nearby drainage ditches are important for Odonata. Some mature trees on the north-eastern bank of the pond were felled by contractors, c2000, probably to ensure the stability of the large earth dam along this edge of the pond. Stepped log dams were introduced into the drainage ditches along Mill Ride by volunteers in the 1980s. In recent years, the growth of Bog Myrtle has caused a deterioration of the habitat along the ditches and maintenance work is in hand (2012/13) to improve things.

Rapley Lake** This large area of open water within Swinley Forest is shown as a Fish Pond on the 1880s OS map. The northern margins of the Lake are bounded by Rapley Farm and public access is not permitted here. A large proportion of the Lake's margins were, for many years, covered by a thick growth of Rhododendron. However, during the winter 2007/8, there was a major clearance operation by contractors working for the Crown Estate to remove the Rhododendron, both along the northern margin and elsewhere. This has at last made possible public access to a larger proportion of the margins. Scrub is periodically cleared from the margins of the small pond by the FCT (1997/98, 2005/06 and 2011). Further clearance of Rhododendron at the western end of the main pond to create an area of open heathland is highly desirable.

River Cut This river system, with small tributaries such as the Bull Brook, has only short lengths of path along its banks, and survey work is largely restricted to points where it is crossed by bridges.

Shepherd Meadows The **River Blackwater** runs through this nature reserve and there is good access to the riverside.

Royal Military Academy (RMA) Sandhurst. This site has a number of high quality habitats. The Wish Stream flows through the site and defines the county boundary between Berkshire and Surrey. In Berkshire are the western parts of Lower Lake and the Bathing Pool, whilst in Surrey are Upper Lake and the eastern part of Lower Lake. Security at the site is tight, and permission to enter is strictly controlled.

Swinley Brick Pits** As its name suggests, this site occupies a former brickworks. The former diggings, which cover a large area, have left an array of troughs where water collects. A few areas of open water have always existed, but the site was largely covered by plantation and regenerated pine until 1995, when extensive removal of rhododendron and mature pine trees by contractors took place. On the eastern side of the site, a new bund and weir were installed by contractors in 1999, allowing the water level at exit from site to be controlled. In the Spring of 2007, the birch scrub that had grown extensively since 1995 was removed by contractors. Parts of the site are open to the public, but access to the enclosed area, in which goats currently run free, is restricted.

Upper Star Post** Here there is a covered reservoir, used by South East Water, and two small open ponds. The smaller of the two used to be accessible but is now within a boundary fence surrounding the reservoir which was constructed in the mid 1990s. The second pond is accessible to the public and has the appearance of a small gravel pit. Its water level used to be augmented by a leak from the reservoir, but since the leak was repaired in the mid 1990s the level drops significantly in the summer months. Mature pines were removed from the margins in 2004/5 by the FCT, to admit more light to the pond.

Wellington College Ponds A series of ponds is shown on the 1880s OS map. The two easterly ponds, shown on the OS map as Mirk Bottom and Fish Lake are now leased from Wellington College and managed by BFC. They are accessible to the public from Chaucer Woods, which is an area managed by the Parks and Countryside department of BFC. The three westerly ponds are in the grounds of Wellington College. The most easterly (upper) pond was dredged by contractors in 2004. Further high quality habitat is present in the grounds of Wellington College. On the golf course are two ponds and a drainage ditch. Access to the College grounds is restricted.

Whitmoor Bog** The FCT has been involved in scrub removal and pond creation at this heathland site since 2004/5.

Wildmoor Heath** Wildmoor Heath is a Nature Reserve, jointly owned by BBOWT and BFC, which was formed in 1998 by combining together land at Edgbarrow Woods, **Owlsmoor Bog**, and **Wildmoor Bottom**. Cattle are now introduced onto Owlsmoor and Wildmoor each summer. The building of dams and sluices on the bogs at Wildmoor and Owlsmoor, plus the construction of several new ponds, work started by the FCT in 1998/9, has improved the wet habitat in recent years.

Wishmoor Bottom Here the Wish Stream defines the county boundary separating Berkshire and Surrey. In 2003 a small amount of work was done by the FCT to improve the areas of open water beside the Wish Stream. On the Berkshire side a small area of open water exists.

Wood Pond. Located in South Forest, within Windsor Great Park, access to this site is restricted. On the 1880s OS map, this pond is shown as two ponds and covered a greater area than is now occupied. Work to create the single current pond was undertaken by contractors in 1995/6. Some dragonfly records refer to this site as South Forest Pond.

2.2 Other Dragonfly Sites

Allsmoor Pond A balancing pond built as part of a housing development some 25 years ago. It became overgrown with surface vegetation, which in recent years has been cleared to allow fishing to take place. The water quality appears to be poor, perhaps as a result of the application of chemicals to control the surface vegetation. Despite its appearance, the pond is one of the few local sites where **Small Red-eyed Damselfly** is regularly recorded.

Mill Pond, Easthampstead Also known as Bracknell Mill Pond, as its name indicates, this was a pond which formerly served a water mill, which disappeared long ago. It now serves as a large balancing pond and collects substantial amounts of surface water from two large neighbouring housing estates. Between 2001 and 2005, in an effort to improve the water quality and the effectiveness of the pond, a major project was undertaken. Silt was dredged from the base of the pond, and large amounts of *Phragmites* were planted round the margins. **Downy Emerald** and **Small Red-eyed Damselfly** have been recorded at this pond.

Gravel Pits in the Blackwater Valley.

There are a number of gravel pits in the Borough in and downstream of Sandhurst, some of which are not easily accessed for surveys. The sites include lakes on Swan Lane, Tri-Lakes, Church Farm Lakes, Horseshoe Lake and (part of) Moor Green Lakes. These provide a significant habitat resource for dragonflies, but tend to be colonised mainly by the common and widespread species. What is notable is the huge populations of some species that can occur at some sites, perhaps most obviously the **Common Blue Damselfly**. The **Downy Emerald** is recorded at some of these sites, and its status at them merits further investigation. It is also possible that the **Hairy Dragonfly** may colonise some of them with its range expansion into the Borough.

Miscellaneous sites.

It should be noted that there are numerous other park, estate, and garden ponds in the area which have not been targeted for survey. Many of these will support a community of the common and widespread dragonflies, and some may support range-restricted species (such as the Downy Emerald at tree-lined estate ponds/lakes). Some of these sites have free access (e.g. South Hill Park, Popes Meadow, Farley Moor Lake) whilst many are on private land.

3. DRAGONFLY SPECIES

Table 2 lists all the 30 dragonfly species recorded in the Borough from 1993 to 2012. In the five years from 2008 to 2012, 28 species of Odonata (11 damselfly; 17 dragonfly) were recorded. A major reason for the very high number of local species is the good range of habitats available, in particular the presence of heathland to the south of Bracknell town, plus river systems to the north and south of the Borough. The bog pools, woodland ponds and other areas of open water located on the heathland provide the specialised habitat required by several nationally important or locally important species. A significant addition to the local list during the last 5 years has been the **Hairy Dragonfly** (*Brachytron pratense*), which has dispersed into this and nearby areas of Berkshire. The frequency with which local records of flying adults have been obtained suggests a resident breeding population has established. In 2012, the first and only record of **Scarce Chaser** (*Libellula fulva*) in the Borough was obtained on the River Blackwater by DS. All the remaining 27 species have been recorded on a number of occasions between 2008 and 2012. In the period 1993 to 1999, two species which have not been seen since were recorded; they are listed separately.

Several local dragonflies are scarce or rare. The International Union for Conservation of Nature (IUCN) is the world's main authority on the conservation status of biological species. Precise criteria have been established by the IUCN to evaluate the risk of extinction of

thousands of species and subspecies. The aim is to convey the urgency of conservation issues to the public and policy makers, as well as help the international community to try to reduce species extinction. The **IUCN Red List of Threatened Species** (also known as the **IUCN Red List** or **Red Data List**) is the world's most comprehensive inventory of the global conservation status of species. In 2008, the British Dragonfly Society (BDS) reviewed the British Red Data List for dragonflies and damselflies. Species that are considered so threatened as to be in one of the IUCN threat categories were classified as **nationally important**. In addition, **Small Red Damselfly** (*Ceriagrion tenellum*), though not considered to be under threat, was included as a nationally important species, as it is nationally scarce (occurring in less than 100 10-km squares).

Three species which are currently regarded by the BDS as **Nationally Important** have been recorded in the Borough during the survey period. These are:

Brilliant Emerald (*Somatochlora metallica*) **Nationally important - vulnerable**

Small Red Damselfly (*Ceriagrion tenellum*) **Nationally important – nationally scarce**

Scarce Chaser (*Libellula fulva*) **Nationally important – near threatened**

The BDS has also considered the frequency with which species are encountered on a regional or county basis. Bracknell Forest Borough is in the region which comprises the three counties of Berkshire, Buckinghamshire and Oxfordshire. Five species which are recorded regularly in the Borough have been classified by the BDS as **Locally Important** within the three counties. These are:

Hairy Dragonfly (*Brachytron pratense*)

Common Hawker (*Aeshna juncea*)

Golden-ringed Dragonfly (*Cordulegaster boltonii*)

Downy Emerald (*Cordulia aenea*)

Keeled Skimmer (*Orthetrum coerulescens*)

A discussion of all species recorded in the Borough from 1993 to 2012 is given below. Some 20 species have been recorded consistently over the twenty years and for these a brief statement is given. For species that have been recorded less frequently, more detailed statements are provided. The 28 species found in the Borough from 2008 to 2012 are considered first, with the two other species at the end.

Beautiful Demoiselle (*Calopteryx virgo*)

The only breeding record for this species was obtained on 9 July 2010 when a female, recorded at Lower Bush Fields, Swinley Forest, was observed to oviposit into the fast-moving

waters emerging from a spillway. Careful monitoring during 2011 revealed that there are small populations of **C virgo** embedded within the much larger **C splendens** population along the River Blackwater; records of **C virgo** were obtained at two Sandhurst sites, Shepherd Meadows and near Horseshoe Lake. There is now sufficient evidence that this species, previously regarded as a visitor species, should henceforth be regarded as resident in the Borough. This species is prone to wander away from the river systems, and has been recorded sporadically elsewhere in the Borough.

Banded Demoiselle (*Calopteryx splendens*)

Banded Demoiselle is present in large numbers along the River Cut and its tributaries, such as the Bull Brook, in the north of the Borough, and also along the River Blackwater, in the south of the Borough. This species is prone to wander from its breeding sites on the river systems, and has been recorded widely throughout the Borough.

Emerald Damselfly (*Lestes sponsa*)

This is a species with an uneven distribution in the Borough. There are well-established populations at Englemere Pond, Swinley Brick Pits, Mill Pond (Swinley Forest) and Rapley Lakes. In recent years, with the increased availability of areas of open water, a stable colony has developed at Crowthorne Wood.

White-legged Damselfly (*Platycnemis pennipes*)

For many years, records of this species were few and far between. There are three records from the River Cut, in the north of the Borough, the earliest from the 1970s, the others in 1992 and 1999. In the south of the Borough, seven individuals were seen on the 2nd July 1997 in the vicinity of the River Blackwater. On 9 June 2003, David White reported one male and one female in rank grass in Windsor Great Park at Grid reference SU 931 733. From 2005 onwards, records have been obtained consistently each year. On 23 June 2005, DS reported two at Crowthorne Wood Bog. Later that year, on 21 August, four mating pairs, two of which were ovipositing were seen at Butter Bottom Ponds. A good population of **White-legged Damselfly** (*Platycnemis pennipes*) has become established at Butter Bottom Ponds, and breeding activity is recorded there each year. No other breeding population of this species is known in the Borough.

Small Red-eyed Damselfly (*Erythromma viridulum*)

During August 2005, several **Small Red-eyed Damselfly** (*Erythromma viridulum*) were observed at Englemere Pond, including an ovipositing pair. These were new records, not only for the Borough but for Berkshire. From 2005 to 2010, the species expanded its range in the Borough, and was recorded at several other sites. However in the past two years the number of records for this highly-mobile species has started to contract, and its presence on some sites appears to have been purely temporary. From 2006 onwards it has been seen consistently at Allsmoor Pond and Felix Farm Trout Fishery.

Red-eyed Damselfly (*Erythromma najas*)

In 1977, Beth Savan's report[4] found the **Red-eyed Damselfly** to be scarce in Berkshire and even suggested artificial introduction to extend its range. Up to 1995 there were isolated records [1] from a few sites in the Borough, but until then it was locally very scarce. Since then things have changed markedly for the better. In 1997 a strong breeding colony was recorded at Englemere Pond, and the species is now recorded there each year. Since 1997 there has been further strong expansion of the species' range within the Borough. There are now good populations on most of the local lakes and large ponds, including Butter Bottom Ponds, Englemere Pond, Felix Farm Trout Fishery, Rapley Lake and RMA Sandhurst, as well as the pond system at Wellington College and Chaucer Woods. Nevertheless, at all these sites **Red-eyed Damselfly** is heavily outnumbered by the **Common Blue Damselfly**. A population of **Red-eyed Damselfly** is also present on the River Blackwater at Sandhurst.

Large Red Damselfly (*Pyrrosoma nymphula*)

This species is widespread throughout the Borough, using a wide range of habitats, from garden ponds and balancing ponds, through to the specialised habitat on heathland sites. It is usually the first species on the wing and heralds the start of the flying season each year.

Small Red Damselfly (*Ceriagrion tenellum*)

The **Small Red Damselfly** (*Ceriagrion tenellum*), is one of three **nationally important** species recorded in the Borough and has been one of the key 'targets' for much of the conservation work undertaken by the FCT and others. It is a small and rather inconspicuous species, easily overlooked by the inexperienced observer at sites where the numbers are low. Records prior to 1990 indicated the presence of flying adults at just three sites: Swinley Brick Pits, Mill Pond and Owlsmoor. In 1993 a single male was observed on two occasions at Mill Ride. In 1995 two males were seen regularly at Owlsmoor for a period of weeks, and a male was recorded on a single occasion at Crowthorne Woods Bog. Most significantly, a breeding colony was found on the middle ponds at Swinley Brick Pits. Up to 1995 the middle ponds were completely surrounded by mature trees. The removal of these trees later in the year had a profound effect. During the period 1996 –1999, the species dispersed over the whole of the Brick Pits complex to form a thriving colony. From 2000 onwards further dispersal into new sites continued with successful establishment of new colonies, assisted by long-term habitat improvement at several wet heathland sites [9].

Azure Damselfly (*Coenagrion puella*)

This species is widespread throughout the Borough and uses a wide range of habitats, from garden ponds and balancing ponds, through to the more specialised habitat on heathland sites.

Common Blue Damselfly (*Enallagma cyathigerum*)

This species is very common on ponds and lakes. Some of the larger ponds and lakes hold large populations (e.g. Horseshoe Lake where numbers are difficult to count or estimate but are certainly in the 'few to many thousands' category).

Blue-tailed Damselfly (*Ischnura elegans*)

This species is common on many local water bodies, including ponds and streams, even where water quality is poor. However the species is never particularly numerous and rather surprisingly, the species is only observed sporadically at some heathland sites, such as Gormoor and Mill Pond, Swinley Forest.

Hairy Dragonfly (*Brachytron pratense*)

The **Hairy Dragonfly** is a **locally important species**, rarely seen in the past, with two isolated records, one each in 1998 and 1999, neither over water. However, in the past four years records have increased considerably and males have been recorded over water at several sites. A singleton was recorded in 2009 at Wildmoor Heath by Vicky Potts, during a routine survey for BBOWT. In 2010 and 2011 records were obtained at Whitmoor Bog, Englemere Pond, Swinley Brick Pits, Rapley Lake, Felix Farm Trout Fishery and Chaucer Wood Ponds. In 2012, the poor weather restricted dragonfly survey work, but the species was recorded for the third year running at Swinley Brick Pits and for the second year at Chaucer Wood Ponds.

Common Hawker (*Aeshna juncea*)

The **Common Hawker** is a **locally important species**. Never a common species in the Borough, records have been variable over many years. Beth Savan, in her survey report of 1977, indicates that this species was present in her study area but does not give any precise details or records. Clearly in 1977 the species must have been very rare locally. By the time recording for the present survey started in the early 1990s, the status of the species in the Borough had improved. Though never common, records, including breeding records, were obtained regularly over several sites from 1993 to 1999. However, records started to decline during the period 2000 to 2007, and worsened still from 2008 to 2012. During 2008 and 2009, not a single record was obtained, despite regular visits to the sites where it was formerly seen. In 2010, three records were obtained: an exuvia was collected at Gormoor, an ovipositing female was observed at Bush Fields, and a male was seen on the wing at Wildmoor Heath. A single record of a flying male, at Crowthorne Wood, was obtained in 2011, but no records were obtained in the Borough during 2012.

Migrant Hawker (*Aeshna mixta*)

The **Migrant Hawker** is usually the last species to take to the wing during the flying season, and records are often obtained well into November. It is reasonably common at both heathland and non-heathland sites and has a preference for breeding sites with stands of *Typha* or *Phragmites*. During its immature phase of adult life, when it disperses away from water, it is frequently seen in social groups flying in forest rides.

Southern Hawker (*Aeshna cyanea*)

This species is very common, using small garden ponds through to the largest lakes for breeding. Adults are often seen hawking in forest rides.

Brown Hawker (*Aeshna grandis*)

This species is common and uses a wide range of open water habitats, including still and flowing water bodies. It is another species that can be found hawking in rides and over open heathland.

Emperor Dragonfly (*Anax imperator*)

This impressive dragonfly is common and can usually be found at all but the smallest areas of open water, including ponds and rivers.

Golden-ringed Dragonfly (*Cordulegaster boltonii*)

The **Golden-ringed Dragonfly** is a **locally important species**. This beautiful large dragonfly uses flowing water for breeding and, in the Borough, is found on the drainage ditches on heathland at Wildmoor Heath, Swinley Forest and Crowthorne Wood. Very occasionally it is seen on the rivers to the north and south of the Borough. Records of flying adults are consistently obtained at its main sites across the years, though the numbers of sightings remain low. Copulating and ovipositing records for this species are rarely obtained; searches for larvae in drainage ditches are usually rewarded.

Downy Emerald (*Cordulia aenea*)

The **Downy Emerald** is a **locally important species**. Woodland ponds are the sites most favoured by this species. There are good populations at Swinley Brick Pits, Rapley Lake and Mill Pond, Swinley Forest.

Brilliant Emerald (*Somatochlora metallica*)

The **Brilliant Emerald** is a **nationally important species**. Although flying males are recorded in the Borough every year, the species is highly elusive. Females are rarely seen and evidence of breeding is hard to come by. Forest Pond, Rapley Lake, and the lakes at Wellington College and Swinley Brick Pits provide the best opportunities to see this rare dragonfly. Compared with the **Downy Emerald**, the **Brilliant Emerald** is more likely to be found away from its main sites, and isolated records have been obtained at most local heathland sites. However, despite the fact that it is a good disperser, *S. metallica* is, in reality, a very rare species in the area. It is not unusual to visit one of its main sites during the flying season to find it is absent, and it is exceptional to see two or more males flying simultaneously.

Four-spotted Chaser (*Libellula quadrimaculata*)

This species is common throughout the Borough, using a wide range of standing water bodies.

Broad-bodied Chaser (*Libellula depressa*)

The **Broad-bodied Chaser** is not quite so common as the **Four-spotted Chaser**, although at sites such as Wildmoor and Crowthorne Wood it is present in good numbers, and it does breed in some garden ponds.

Scarce Chaser (*Libellula fulva*)

This species, classified as **nationally important**, has been recorded in the Borough just once. On 25 July 2012, for a period of about 30 minutes, DS observed a male on the River

Blackwater at Shepherd Meadows, Sandhurst. It had probably dispersed downstream, as the species occurs on the River Wey (Hants/Surrey borders) and has been seen in the Ash/Aldershot areas in recent years.

Black-tailed Skimmer (*Orthetrum cancellatum*)

This species frequents large ponds and lakes, where it can be present in abundance. In recent years there has been some decline in the number of sites where it can be found and in population sizes. Englemere Pond and Felix Farm Trout Fishery, Binfield, are two sites where it is present in good numbers.

Keeled Skimmer (*Orthetrum coerulescens*)

The **Keeled Skimmer** is a **locally important species**. Bog pools and other areas of open water on wet heathland are favoured by this species. It has a very good ability to colonise new sites, and has benefited substantially from the various conservation initiatives in the Borough over the past twenty years. The principal local site for the species is the Owlsmoor part of Wildmoor Heath, where there is a long-established breeding colony; numbers have increased substantially since 1994, following the introduction of cattle on to the site. Stable colonies are now found at Gormoor, Bush Fields, Cobblers Hole Bog, Caesars Camp Pond, Crowthorne Wood, and on the ditch system near Mill Pond, Swinley Forest.

Common Darter (*Sympetrum striolatum*)

This is one of the commonest of species and is found at most water bodies, including garden ponds, bogs and lakes. Each year, it is usually the last species on the wing, flying late into November and exceptionally into the early days of December.

Ruddy Darter (*Sympetrum sanguineum*)

Good populations of this species exist at some local heathland and non-heathland sites, such as Swinley Brick Pits and Felix Farm Trout Fishery, but it has a variable distribution and is absent from other seemingly-similar sites. It is not nearly as common as the **Common Darter**.

Black Darter (*Sympetrum danae*)

This is a species of heathland; it is present in good numbers at sites such as Crowthorne Wood, Swinley Brick Pits and Mill Pond, Swinley Forest, though it seems to have been lost from Englemere Pond in recent years.

Yellow-winged Darter (*Sympetrum flaveolum*)

During 1995 there was a strong influx of this species into the UK [10], and some found their way into the Borough, with records from 5 sites [5]. The main invasion into this area was at Swinley Brick Pits where the species stayed for a period of several weeks in August. A maximum of 21 were counted on 13 August 1995. A few females were present and copulation was observed, but no records of ovipositing were obtained. Up to 8 stayed at Englemere Pond through three weeks of August. Three males were seen at Leiper Pond on 9 August. A single male was observed at By-pass Pond on 14 August, and another at Mill Pond, Swinley Forest, on 4 September. The above observations have an interesting sequel. On 30 June 1999, at Swinley Brick Pits, amongst the vast numbers of recently-emerged *Sympetrum spp.*, one

specimen stood out as different, a single *Sympetrum flaveolum*. It had a slightly crumpled leading-edge to the outer right fore-wing, where contact with vegetation during emergence had prevented full expansion of the wing. But the insect was still able to fly, albeit imperfectly. The damaged wing and the immature coloration of the body indicated that emergence must have occurred at the site. No more specimens were found, despite numerous subsequent searches.

Scarce Blue-tailed Damselfly (*Ischnura pumilio*)

The nationally-important species **Scarce Blue-tailed Damselfly** (*Ischnura pumilio*) was recorded at Owlsmoor on 8 July and 10 July 1996, when a single male and two males, respectively, were observed. These are only the second reported occurrences of this species in the Borough. DS had previously been notified by correspondence that on 23 June 1992 a female had been photographed at Shepherds Meadow, on the Berkshire bank of the River Blackwater at Sandhurst. (During 1997 a single *I. pumilio* was found at Brentmoor Heath, some 5 miles from the Borough, just over the Surrey border. Up to the early 1990s, the species used to be recorded regularly at Decoy Heath in West Berkshire; it then went unrecorded for some 15 years, until a few records were obtained in 2011).

4. ANALYSIS OF DRAGONFLY RECORDS

In this part of the report dragonfly records for the 30 species collected from 1993 to 2012 are analysed in various ways. For convenience and in order to establish trends over the 20-year period, the data are divided into three shorter periods: 1993 to 1999; 2000 to 2007, and 2008 to 2012. The records up to 2011 are available on the internet at NBN Gateway.

Before presenting the analysis, it is worthwhile reflecting on the process by which records are obtained. Regular surveys of different sites are well designed to capture records of consistent behaviour and the commonplace. However, another way of looking at the recording process highlights its weakness. With 26 Principal Sites and three observers (DS, JWS and the BBOWT team at Wildmoor), at any given time activity at 23 or more sites is going unobserved. Put another way, at most times, dragonfly activity at nearly 90% of the Principal sites is passing unobserved. With such a recording framework, it is a matter of chance whether or not the unusual is recorded. The data give a broad but incomplete picture of events at any single site. On the other hand, they probably provide a good overview of what is happening in the Borough as a whole.

4.1 Species Abundance

A summary of data collected for the period 2008 to 2012 is given in Table 3(a). Abundance levels are indicated in the following way. To indicate the maximum count on any one visit to a site, the following symbols are used, based on BDS practice: a = 1; b = 2 to 5; c = 6 to 20; d = 21 to 100; e = 101 to 500; f = 501 or more. A capital letter indicates that evidence of breeding has been obtained. The dates on which the maximum count and the evidence of breeding were obtained were not necessarily the same. In Table 3(a) data from 25 Principal sites is shown; during the period 2008 to 2012 no records were collected at the 26th site, Bagshot Road Ponds.

Table 3(b) is similar to Table 3(a) but covers the period from 2000 to 2012. Tables 3(a) and 3(b) are mainly based on the records of JWS, but also include records of important species obtained by other observers, see Table C2, Appendix C. In Table 3(b) records obtained between 2000 and 2007 which are different in any respect from corresponding records for the period from 2008 to 2012 are highlighted. Three different colour codes are used. Purple is used to denote records obtained between 2000 and 2007 for which there was no corresponding record during the period 2008 to 2012. The green colour code indicates that a breeding record was obtained between 2000 and 2007, where only a flying record was obtained from 2008 to 2012. Finally, brown denotes a greater level of species abundance was observed during 2000 to 2007 when compared with the period 2008 to 2012.

In all five summers during the period 2008 to 2012, the weather was poor, with cloudy, wet weather prevailing (See Appendix D). The summer of 2012 was the wettest for over 100 years, and it had a seriously adverse effect on the numbers of butterflies, moths, bees and wasps on the wing. It is a measure of the resilience of dragonflies in withstanding these difficult conditions that, in this period, 28 species were recorded on the wing, and evidence of breeding was obtained for 26 of the 28 species. When Tables 3(a) and 3(b) are compared, however, there is some evidence that dragonfly numbers were slightly down in the period 2008 to 2012 compared to 2000 to 2007.

4.2 Species Rarity

Some dragonfly species are rarely seen in the Borough; others are very common, and in between are the scarce or uncommon species. In Table 4(a) an attempt is made to express these considerations in quantitative terms. Table 4(a) shows the average frequency (%) with which records for all 30 species were obtained at the Principal sites in the Borough for each of the periods 1993 to 1999, 2000 to 2007, and 2008 to 2012. The overall average figure for the 20-year period 1993 to 2012 is also given. Data for flying adults and evidence of breeding of local species are shown. The order of the species in Table 4(a) is based on the 20-year average of records for flying adults, with the rarest at the top. The details of the method used to calculate the frequency data are given in Appendix C.

The 30 species featuring in Table 2 which are considered in Table 4(a) can be separated into three groups, with perhaps a little uncertainty about which group some species should be in.

Group 1 Locally rare residents or infrequent visitors

Eight species – **Scarce Chaser, Scarce Blue-tailed Damselfly, Yellow-winged Darter, Hairy Dragonfly, Beautiful Demoiselle, White-legged Damselfly, Small Red-eyed Damselfly** and **Common Hawker** – having been recorded on significantly fewer occasions than other species, are either locally rare residents or infrequent visitors to the Borough. Two of these species have only moved into the Borough during the survey period, **Small Red-eyed Damselfly** between 2000 and 2007, and **Hairy Dragonfly** between 2008 and 2012.

Group 2 Locally scarce to quite common

Some 13 species - **Banded Demoiselle, Emerald Damselfly, Red-eyed Damselfly, Small Red Damselfly, Migrant Hawker, Golden-ringed Dragonfly, Downy Emerald, Brilliant Emerald,**

Black-tailed Skimmer, Keeled Skimmer, Broad-bodied Chaser, Ruddy Darter, Black Darter - occupy the middle ground, ranging from the scarce through to the quite common. Of these 13 species, Banded Demoiselle could perhaps be transferred to Group 3, because it is common on the river systems in the Borough. Based on the 1993 to 1999 data, Broad-bodied Chaser would also merit inclusion in Group 3, but the data from 2000 onwards are consistent with a slight decline in numbers: hence its inclusion here in Group 2.

Group 3 Locally common

Nine species – **Large Red Damselfly, Azure Damselfly, Common Blue Damselfly, Blue-tailed Damselfly, Common Darter, Four-spotted Chaser, Southern Hawker, Brown Hawker, Emperor Dragonfly** - are relatively common, having been recorded regularly at over half the Principal sites, and also consistently over the three periods 1993 to 1999, 2000 to 2007 and 2008 to 2012.

There are important conclusions to be drawn from Table 4(a) in relation to breeding data. Few flying records have been obtained for the first eight species in Table 4(a), so it is not surprising that breeding records for these species were also few and far between. However, Table 4(a) shows that there are a number of species – **Banded Demoiselle, Brilliant Emerald, Golden-ringed Dragonfly, Downy Emerald** and **Migrant Hawker** – for which breeding records are low, both in absolute terms and in relation to the number of flying records for that species. It is interesting to note, for **Downy Emerald**, that the number of breeding records collected has improved significantly in recent years, but that for the other species the records have remained roughly constant over the years. There is unlikely to be any significance in the changes in the **Downy Emerald** breeding records; it is probably an outcome of random sampling, a quirk of the statistics. By using targeted recording, it should not be difficult to increase the number of breeding records obtained for **Banded Demoiselle** and **Migrant Hawker**. But that is not the case for the other three species. These data show how difficult it is to obtain breeding records for the nationally-important **Brilliant Emerald** and the two locally-important species – **Golden-ringed Dragonfly** and **Downy Emerald**. For these three species, targeted larval searches, at sites where adults are seen on the wing, are probably the most efficient way to improve breeding records.

Table 4(b) shows the ranking of the species in the Borough over the three periods 1993 to 1999, 2000 to 2007 and 2008 to 2012. Table 4(b) is based on the flying data contained in Table 4(a), and again displays the rarest species at the top of the Table. Between them, Tables 4(a) and 4(b) are useful in various ways. First, in Table 4(b), it is interesting to note that, for the period 1993 to 1999, the nationally- and locally-Important species are clumped together amongst the rarest species in the Borough, consistent with their designations. Second, Tables 4(a) and 4(b) show that, whilst the status of the majority of species has remained reasonably constant over the 20 years, the status of certain species has changed markedly, both in relative and absolute terms. There are several species that have done well over the years. Outstanding among these is the **Small Red Damselfly**. Referring to Table 4(b), this was 22nd on the list in 1993 to 1999, moved up to 11th during 2000 to 2007, and was ranked 9th from 2008 to 2012, a dramatic improvement for this nationally-important species. This improvement is directly connected to the conservation work done on wet heathland sites (breeding habitat

restoration and creation) during this period [8]. The species has built from a small remnant population at two or three source sites into a dispersed metapopulation distributed over nearly twenty sites. The locally-important **Keeled Skimmer** has also benefitted from this conservation work, as to a lesser extent has **Emerald Damselfly**. **Red-eyed Damselfly**, which favours floating vegetation on open water, is another species that has done well over the past twenty years. In the period 1993 to 1999, and ranked at 23, it was one of the rarest damselflies in the Borough. During 2000 to 2007 it climbed to 20th, and in 2008 to 2012, improved further to 14th in the ranking. Two species have shown a progressive decline over the 20-year survey period. Most serious is the downward trend of the locally-important **Common Hawker**, which, during the period 1993 to 1999 was recorded every year from several sites, but has only been recorded in two of the five years from 2008 to 2012. **Black-tailed Skimmer** is another species that has declined in numbers over the survey period.

4.3 Site Statistics

There are exceptionally few records for **Scarce Chaser**, **Scarce Blue-tailed Damselfly**, **Yellow-winged Darter**. Excluding these three species, and based on the other 27 species listed in Tables 4(a) and 4(b), Table 5 presents data on the records obtained at the 26 Principal Sites. The ranking in Table 5 is based firstly on the number of nationally-important species recorded at the site from 2008 to 2012, and second on the number of breeding species for the same period. The table contains, in summary form, the number of different species recorded at each site, the number of species for which evidence of breeding was obtained, and the numbers of nationally- and locally- important species recorded, for each of the periods 1993 to 1999, 2000 to 2007 and 2008 to 2012. Some seven sites are shown to be rich in dragonfly species in general, and locally- and nationally-important species in particular.

Three sites – Swinley Brick Pits, Crowthorne Wood and Wildmoor Heath – have particularly good records for the range of species observed on the wing. In these comparisons, it should be noted that the site records for Wildmoor benefit from the systematic surveys that BBOWT carries out on the site. Over the 20-year period from 1993 to 2012, 26 different species were observed at Swinley Brick Pits and Wildmoor Heath, and 25 at Crowthorne Wood. Swinley Brick Pits is especially good when abundance and breeding records are assessed (see Tables 3(a) and 3(b)). All three sites have numerous different waterbodies and types of wetland habitat within the sites, together with extensive terrestrial habitat nearby, suitable for dragonflies to complete their life cycles (such as when maturing and feeding away from the breeding site). This diversity of waterbodies improves the potential for the sites to have a diversity of dragonfly species, but also for species to have large and robust populations.

5. DISCUSSION

In this Section some other aspects of the data collected over 20 years are discussed.

Table 6 lists the all-time records of first and last dates for flying adults in the Borough. In some cases the same date has been achieved in two different years. Where an existing record has been equalled, both dates are quoted. Some records are worthy of further comment. With several early flying records from April and a late record for **Common Darter** of 2 December, obtained in 2006, records of flying dragonflies have been obtained locally over nine months of

the year. The early flying record for **Common Darter** has survived for 19 years, and four late flying records remain from the twentieth century. Five early flying records survive from the glorious early spring weather of 2007 and there are four other first flight dates from the early years of the new millennium. Eight late flying records come from that period. In the past five years, new early flying records have been obtained for 17 species and late flying records for 14 species.

An interesting late-flying record of a different kind was established in 2010 when 5 species were seen on the wing on a single day in November 2010. On 3 November, at Felix Farm Trout Fishery, Binfield, **Common Blue Damselfly**, **Migrant Hawker** and **Common Darter** were recorded, whilst **Black Darter** and **Southern Hawker** (plus **Common Darter**) were observed at Crowthorne Wood. Another interesting late record was of an ovipositing pair of **Common Darter** observed on 29 November 2007 at Felix Farm Trout Fishery.

Detailed records give some interesting insights into the movement of species on several scales. The appearance of **Yellow-winged Darter** at a number of sites in the Borough in 1995 was an example of large-scale migration from the continent, with records obtained across the UK [10]. The first records of **Small Red-eyed Damselfly** in the Borough in 2005 were the culmination of range expansion within the UK, this species having also moved in from the continent. It was first recorded in the UK in 1999. Recent records for **Hairy Dragonfly**, **White-legged Damselfly** and **Scarce Chaser** at sites in the south of the Borough are probably best explained by movements from sites in Surrey or North Hampshire across the county boundary. Within the Borough there are several examples of movement on a local scale. The opening up of sites such as Gormoor, Bush Fields, Cobblers Hole Bog and the Embankment complex has provided species with the opportunity to establish new populations, and the data show that colonisation has indeed happened. Some species, for example **Keeled Skimmer**, move in quickly, others at a slower pace. **Banded Demoiselle**, and to a lesser extent, **Beautiful Demoiselle** provide further evidence of the movement of Odonata within the Borough. Both species depend primarily on the river systems to the north and south of the Borough for breeding, yet they have been recorded widely across the whole Borough, including at sites which do not provide the species with breeding habitat. Yet more evidence of the dynamics of species populations comes from site records which show a transient presence. A couple of examples are cited. For three successive years in the early 2000s, male **Golden-ringed Dragonfly** were recorded flying at Swinley Brick Pits, but the species has not been recorded there, before or since, probably because the linear drainage features there are inferior to the drainage ditches available elsewhere in the Borough. For a number of years at the turn of the millennium, Englemere Pond held stable populations of breeding **Small Red Damselfly** and **Black Darter**, yet in the past 7 or 8 years there have only been isolated records of flying adults, with no breeding records. The explanation for the loss of these species from the site is uncertain, but it could well be associated with the fact that, in dry summers, the water level drops considerably. When this happens the pond becomes, in effect, a large puddle with muddy margins, whereas when the water level only drops slightly the water remains in contact with sedges, rushes, grasses and flora such as Marsh St Johns Wort.

Observations of some events in the lives of dragonflies remain extraordinarily rare. For the lover of dragonflies, one of the great spectacles is the sight of a mating pair of **Golden-ringed Dragonfly**, flying in tandem, with their bodies aligned one behind the other. The writer has only twice witnessed this magnificent aerial spectacle, once each at Mill Pond, Swinley Forest, and at Wildmoor. The first occasion was in the early 1990s and the other was in 1995. Some 17 years have elapsed without another sighting of this event. We end on another exceptional sighting, this time obtained by another recorder (see Table C2). Although flying adult Brilliant Emeralds are observed in the Borough each year, the sight of mating adults of this species locally is very rare. So when Allan Brandon visited Forest Pond, Swinley Forest, on 4 July 2011, he was exceptionally fortunate because he saw four adult Brilliant Emerald, and observed mating and, subsequently, ovipositing.

6. CONCLUDING REMARKS

The area within Bracknell Forest Borough continues to support a healthy diversity of dragonflies, including some good populations of nationally important species. The dragonfly fauna has significantly benefited from recent habitat management, particularly on heathland sites, but it is important to recognise that on some of these sites sustainable populations are dependent on continual site maintenance.

Thirty species have been recorded in the Borough during the period 1993 to 2012, and 28 during the period 2008 to 2012. Dragonfly diversity has increased in the Borough over the survey period. Two species – **White-legged Damselfly** and the locally-important **Hairy Dragonfly** – for which there were only isolated records in the twentieth century, are now seen regularly. **Small Red-eyed Damselfly** was recorded in the Borough for the first time in 2005 and is another species that is now seen regularly. The populations of two other species – **Red-eyed Damselfly** and the nationally-important **Small Red Damselfly** – have increased significantly and they are currently found at many more sites than was the case in the early 1990s. Another positive record was the first ever sighting of **Scarce Chaser**, which was recorded in the Borough in 2012. On the down-side, the locally-important **Common Hawker** is in decline in the Borough and the number of records of **Black-tailed Skimmer** has also fallen.

The Future

It is hoped that the Borough will continue to support strong dragonfly fauna, but this will require active site maintenance, and opportunities for wetland creation. It will be interesting to see if the **Small Red-eyed Damselfly** and **Hairy Hawker** consolidate breeding populations, and if the Scarce Chaser colonises from the south. Only 3 other species that are found as established residents in central southern England have not been recorded from the Borough, namely **Common Club-tail** (*Gomphus vulgatissimus*), **Southern Damselfly** (*C. meruriale*), **Variable Damselfly** (*C. pulchellum*). Of these it is possible that suitable habitat for the latter species might allow colonisation from the nearest known colonies at Cookham and Reading. Lack of suitable habitat makes it unlikely that either of the other 2 species would colonise, although Common Club-tail might be expected as a dispersive visitor. With an increasing frequency of sightings of other migrant and dispersive dragonflies, it is likely that other species will be recorded in future years.

7. ACKNOWLEDGEMENTS

Over many years I have valued Des Sussex for his shared interest in dragonflies, for his company and friendship, and his broad knowledge of wildlife in general and dragonflies in particular. He has also kindly commented on an earlier version of this report. In recent years Mike Turton, in his role as Berkshire recorder, has facilitated the process of moving data into the DRN, and has provided additional data on dragonfly records obtained within the Borough. The map showing the location of sites within the Borough was produced using DMAP, courtesy of Dr Alan Morton. JWS is grateful to the owners or managers of several sites who have given permission for visits to areas not normally open to public access. These are: Crown Estate, who have allowed access to Wood Pond in Windsor Great Park and the enclosed area at Swinley Brick Pits; the authorities at Royal Military Academy, Sandhurst and Wellington College, Crowthorne, who, separately, allowed the exploration of ponds, lakes and other areas of open water in their grounds; Broadmoor Staff Angling Club who allowed access to survey Butter Bottom Ponds; and, finally the proprietor and bailiffs at Felix Farm Trout Fishery who gave permission to make regular circuits of this lovely fishing lake.

8. REFERENCES

1. Listing of former records of dragonflies in East Berkshire. Reading Museum, 1990.
2. Graham Vick. Dragonfly distribution maps compiled for BBONT in the late 1970s.
3. Beth Savan. The status and distribution of dragonflies on the tertiary in the eastern part of the southern region. Report to the Nature Conservancy Council, 1977.
4. Odonata Recording Scheme (ORS) records for 1975-1987 and 1988-1992.
5. Ward-Smith, J and Sussex, D. A survey of dragonflies in south-east Berkshire for the period 1991 to 1995, 1996.
6. Ward-Smith, J and Sussex, D. A survey of dragonflies in Bracknell at the turn of the millennium, 2000.
7. Dragonfly and damselfly records collected and collated by the Dragonfly Recording Network (DRN), for the period 1807-2011. This dataset incorporates the previous DRN and Biological Records Centre (BRC) dragonfly datasets on the Gateway. Available to registered users, via the internet, at NBN Gateway. 2012.
8. Ward-Smith J. Conservation work for Odonata in South-East Berkshire. Dragonfly News 62, pp 16-17. Autumn 2012.
9. Ward-Smith J and Sussex D. Population expansion of Small Red Damselfly *Ceriaton tenellum* (Villers) in South East Berkshire. Journal of the British Dragonfly Society, Vol 21, No. 2, pp 55-67, 2006.

10. Silsby J and Ward-Smith J. The influx of *Sympetrum flaveolum* (L.) during the summer of 1995. Journal of the British Dragonfly Society, Vol. 13, No. 1, pp14-22, 1997.

Map of Dragonfly Sites in Bracknell Forest Borough

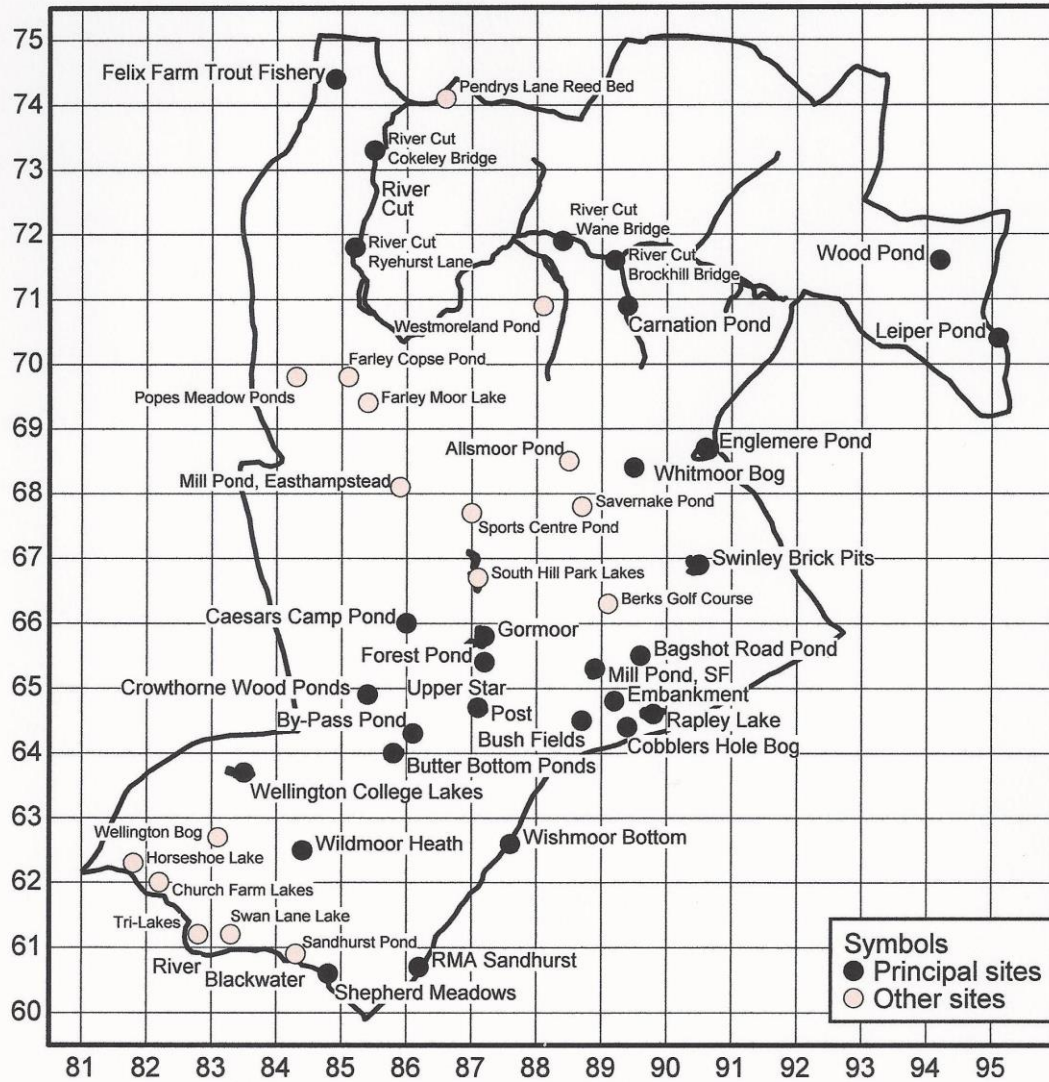


Table 1. Principal Dragonfly Sites. Location and Owners

Site	Grid Reference SU	Ownership
Bagshot Road Pond*	896655	Crown Estates
Bush Fields	887645	Crown Estates
Butter Bottom Ponds	858640	Broadmoor Hospital
By-Pass Pond	861643	Crown Estates
Caesars Camp Pond	860660	Crown Estates
Carnation Park Pond	894709	Water Board/BFBC
Cobblers Hole Bog	894644	Crown Estates
Crowthorne Wood Ponds [#]	854649	Forest Enterprise
Embankment, Swinley Forest	892648	Crown Estate
Englemere Pond	907687	Crown Estates
Felix Farm Trout Fishery	849744	Privately owned
Forest Pond, Swinley Forest	872654	Crown Estates
Gormoor	872658	Crown Estates
Leiper Pond, WGP	951704	Crown Estates
Mill Pond, Swinley Forest	889653	Crown Estates
Rapley Lake	898646	Crown Estates
River Cut	8xx7xx	Various
River Blackwater, Sandhurst***	848606	BFBC and others
RMA, Sandhurst	862607	MOD
Swinley Brick Pits [#]	905669	Crown Estates
Upper Star Post	870647	Crown Estates
Wellington College Lakes**	835637	Wellington College
Whitmoor Bog	895684	Crown Estates
Wildmoor Heath [#]	844625	BBOWT and BFBC
Wishmoor Bottom	876626	MOD
Wood Pond, WGP	942716	Crown Estates

Other Sites

Allsmoor Pond	885685	Water Board/BFBC
Mill Pond, Easthampstead	859681	Water Board/BFBC

Notes

The Grid References given here are consistent with those used on the Living Record web site

** Records also include some from the adjacent Chaucer Wood Ponds, a BFBC site

*** Records mainly from Shepherd Meadows, Sandhurst

[#] Crowthorne Wood, Swinley Brick Pits and Wildmoor Heath are large sites, have numerous discrete areas of open water, and other grid references might equally well apply

Table 2. Odonata Recorded in Bracknell Forest Borough

Damselflies recorded 2008 to 2012 (11 species)

Beautiful Demoiselle	<i>Calopteryx virgo</i>
Banded Demoiselle	<i>Calopteryx splendens</i>
Emerald Damselfly	<i>Lestes sponsa</i>
White-legged Damselfly	<i>Platycnemis pennipes</i>
Small Red-eyed Damselfly	<i>Erythromma viridulum</i>
Red-eyed Damselfly	<i>Erythromma najas</i>
Large Red Damselfly	<i>Pyrrhosoma nymphula</i>
Small Red Damselfly	<i>Ceriagrion tenellum</i>
Azure Damselfly	<i>Coenagrion puella</i>
Common Blue Damselfly	<i>Enallagma cyathigerum</i>
Blue-tailed Damselfly	<i>Ischnura elegans</i>

Dragonflies recorded 2008 to 2012 (17 species)

Hairy Dragonfly	<i>Brachytron pratense</i>
Common Hawker	<i>Aeshna juncea</i>
Migrant Hawker	<i>Aeshna mixta</i>
Southern Hawker	<i>Aeshna cyanea</i>
Brown Hawker	<i>Aeshna grandis</i>
Emperor Dragonfly	<i>Anax imperator</i>
Golden-ringed Dragonfly	<i>Cordulegaster boltonii</i>
Downy Emerald	<i>Cordulia aenea</i>
Brilliant Emerald	<i>Somatochlora metallica</i>
Four-spotted Chaser	<i>Libellula quadrimaculata</i>
Broad-bodied Chaser	<i>Libellula depressa</i>
*Scarce Chaser	<i>Libellula fulva</i>
Black-tailed Skimmer	<i>Orthetrum cancellatum</i>
Keeled Skimmer	<i>Orthetrum coerulescens</i>
Common Darter	<i>Sympetrum striolatum</i>
Ruddy Darter	<i>Sympetrum sanguineum</i>
Black Darter	<i>Sympetrum danae</i>

*Scarce Chaser was recorded by Des Sussex at Shepherd Meadows, Sandhurst, on the River Blackwater on 26 July 2012, a new record for the Borough.

NOTE: The following two visitor species were recorded in the 1990s, but not in the 21st century

Yellow-winged Darter	<i>Sympetrum flaveolum</i>	(1995, 1999)
Scarce Blue-tailed Damselfly	<i>Ischnura pumilio</i>	(1996)

Table 3 (a). Principal Sites in Bracknell Forest Borough
Records of All Species 2008 to 2012

	Damselflies										Dragonflies																			
Initials of Scientific Names	C	C	P	L	E	E	P	C	I	E	C	A	A	A	A	B	C	C	S	O	O	L	L	L	S	S	S			
are given in the columns	s	v	p	s	n	v	n	t	e	c	p	c	g	j	m	i	p	b	a	m	c	c	f	d	q	d	s	s		
e.g. Csp = Calopteryx splendens	p	i	e	p	a	i	y	e	l	y	u	y	r	u	i	m	r	o	e	e	a	o	u	e	u	a	a	t		
Site																														
BRACKNELL FOREST BOROUGH	E	B	D	E	D	E	E	E	D	F	F	C	B	A	C	C	b	B	D	B	D	D	a	C	D	D	E	28	26	
Bush Fields	a			a			D	C		b	C	B	b	A	a	B	B	a		c			B	B	B	C	18	11		
Butter Bottom Ponds	a		D	a	D	C	C		c	D	C	a	b		b	B		c	b		B		A	C		B	19	11		
By-Pass Pond			a				B	c	b		D	a	a					a	a					C	B	b	12	4		
Caesars Camp Pond		a		a			C	C	b	b	D	b	a			b		b		b	B		b	c	a	a	b	18	4	
Carnation Park Pond				c			b		C	a	C		a	a	a			a					a			b	11	2		
Cobblers Hole Bog				a			D	B		a	C	B	a		a		b			C			B	C	b	b	b	15	7	
Crowthorne Wood Ponds	a			C	C	a	D	D	B	D	D	B	B	a	b	C	b	a	a	B	C		C	D	D	a	D	24	16	
Embankment	a	A		A			D	a		b	C	A	b		a	a	b		a		C		B	C	C		C	18	10	
Englemere Pond				E	D	b	D	b	D	C	E	a	B		c	B	b		c	b	C		A	D	b	B	D	21	13	
Felix Farm Trout Fishery	b			b	D	E	B		E	F	E		B		C	C	a		C		D		a	D		D	18	14		
Forest Pond, Swinley Forest	a						C		b	b	B	B			a			B					a	B	b	b	a	13	5	
Gormoor	a			a			D	D	a		D	C	b	A	c	b		b		a	a	C		b	C	C	c	19	8	
Leiper Pond, WGP				a			B	C	b	b	D				a	b										C	B	10	5	
Mill Pond, Swinley Forest	a			C	C		C	B		E	C	C	B		b	C		b	c	a	b	B		a	C	D	a	C	21	13
Rapley Lake	a			D	D		C	C	B	E	E	a	B		C	B	a		C	b	b	a		a	D		C	D	21	14
River Cut	c							C					a					a								B		5	2	
River Blackwater, Shepherd Meadows	E	b		C			B		b	b	C		b		C	b		a		a			a					13	5	
RMA Sandhurst	B	a		D	a		D		C	D	D		b		B			D	a	C				C		D	15	11		
Swinley Brick Pits	a	a		D	C		E	E	D	C	F	C	B		B	C	b		D	B	b	b		B	D	D	D	E	23	18
Upper Star Post				b			B			B	C	B			B				a				a	a				9	5	
Wellington College+Chaucer Wood	a			B	D		C	a	C	E	D	B	B		b	C	a	a	C	b	B	C		B	c		D	21	14	
Whitmoor Bog				c			D		a	B	D	b	a		a	a			a					B	C		D	13	6	
Wildmoor Heath	a	b		b			D	D	b	C	D	B	B	a	B	B	b	b	b	a	a	D		C	C	b	b	D	24	12
Wishmoor Bottom							C	B			B	A						b			C			C		b	b	9	6	
Wood Pond, WGP				C	a		E	c	b	b	E		b		b	b		a	b		a				C	A	D	B	17	7
Initials of Scientific Names	C	C	P	L	E	E	P	C	I	E	C	A	A	A	A	B	C	C	S	O	O	L	L	L	S	S	S			
are given in the columns	s	v	p	s	n	v	n	t	e	c	p	c	g	j	m	i	p	b	a	m	c	c	f	d	q	d	s	s		
e.g. Csp = Calopteryx splendens	p	i	e	p	a	i	y	e	l	y	u	y	r	u	i	m	r	o	e	e	a	o	u	e	u	a	a	t		
Annotation																														
a, A = 1; b, B = 2 - 5; c, C = 6 - 20; d, D = 21 - 100; e, E = 101 - 500; f, F > 500																														
a, b, c, d, e, f Flying adult; A, B, C, D, E, F Evidence of breeding																														
Records were mainly obtained by JWS																														
See separate listing (Table C2) for records of other observers																														

Table 3(b). Principal Sites in Bracknell Forest Borough
Records of All Species 2000 to 2012

	Damselflies										Dragonflies																		
Initials of Scientific Names	C	C	P	L	E	E	P	C	I	E	C	A	A	A	A	B	C	C	S	O	O	L	L	L	S	S	S		
are given in the columns	s	v	p	s	n	v	n	t	e	c	p	c	g	j	m	i	p	b	a	m	c	c	f	d	q	d	s	s	
e.g. Csp = Calopteryx splendens	p	i	e	p	a	i	y	e	l	y	u	y	r	u	i	m	r	o	e	e	a	o	u	e	u	a	a	t	
Site																													
BRACKNELL FOREST BOROUGH	E	B	D	E	E	E	F	D	F	F	C	C	B	D	D	b	B	D	B	D	E	a	C	E	E	E	E	28 26	
Bagshot Road Pond	a			C			D	C	a	c	F	B	B		b	B		b	a						D	D	C	D	17 11
Bush Fields	a			a			D	C		B	C	C	b	A	b	B		B	a		C			B	B	C	b	C	19 13
Butter Bottom Ponds	a		D	a	E	C	C		c	D	C	a	B		B	B		c	b	B	B			A	C		B	20 14	
By-Pass Pond			a		B		D	c	b	c	D	B	a			B		B	a					C		C	b	15 8	
Caesars Camp Pond		a		C			D	C	b	b	D	B	B	a	b	b		b		b	C			C	D	D	a	D	20 11
Carnation Park Pond	a				c		C		C	a	D		a		a	B		b		a				c		a	B	14 5	
Cobblers Hole Bog				B			D	B	b	a	C	B	a	A	a	A		b	a	a	a	C		B	C	C	b	C	21 12
Crowthorne Wood Ponds	a			C	C	a	E	D	B	D	D	B	B	a	B	C		B	a	a	C	D		C	D	D	a	D	24 16
Embankment	a	A		B			D	b		b	C	B	b	a	a	b		b	b	a	C			B	C	C		C	20 10
Englemere Pond	a			E	D	D	D	D	C	E		a	B	b	c	B	b	C	b	D	a			A	D	D	D	D	21 17
Felix Farm Trout Fishery	b			B	D	E	B		E	F	E	a	B		D	C	a	C		D				a	D		D	D	19 15
Forest Pond, Swinley Forest	a						C		b	b	B	B	a			a		b	B					a	B	b	b	B	15 6
Gormoor	a			a			E	D	a	a	D	C	b	A	c	b		b		a	a	C		B	C	C	a	C	21 10
Leiper Pond, WGP				a	a		C	C	C	F	F	a	B			C	B		b		b			C		D	B	16 11	
Mill Pond, Swinley Forest	a			D	C		D	C	a	F	D	C	B	a	b	C		b	C	a	C	C		A	D	D	a	C	23 16
Rapley Lake	a			D	D		C	C	B	E	E	B	B		C	B	a	C	b	B	a			a	D	b	C	D	21 16
River Cut	d						x		C				b					a									B	5 2	
River Blackwater, Shepherd Meadows	E	b		C			B		C	b	C		b		D	b		a		a			a	a		C		13 7	
RMA Sandhurst	B	a		D	a		D		C	F	D		b		B			D	a	C				C		D		15 11	
Swinley Brick Pits	b	a		E	C		E	F	D	D	F	C	C	a	C	C	b	b	D	B	C	C		B	E	E	E	E	25 20
Upper Star Post	a			a	b		C		a	C	C	B	a			B		a	a	a				B	B		B	16 8	
Wellington College+Chaucer Wood	a			B	D		C	a	C	E	D	B	B		C	C	a	a	C	b	B	C		B	C		D	21 16	
Whitmoor Bog				c			D		a	B	D	b	a			a	a			a				B	C		b	D	14 6
Wildmoor Heath	b	b		B	b		E	D	C	C	E	B	B	a	B	D	b	B	b	a	B	E		C	D	D	b	D	25 17
Wishmoor Bottom		a					C	B	a		C	A			a	A		b		a	C			C	a	b	b	15 7	
Wood Pond, WGP				C	a		E	c	b	E	F	b	B			C	B		a	b	a	a		a	C	A	D	B	20 10
Initials of Scientific Names	C	C	P	L	E	E	P	C	I	E	C	A	A	A	A	B	C	C	S	O	O	L	L	L	S	S	S		
are given in the columns	s	v	p	s	n	v	n	t	e	c	p	c	g	j	m	i	p	b	a	m	c	c	f	d	q	d	s	s	
e.g. Csp = Calopteryx splendens	p	i	e	p	a	i	y	e	l	y	u	y	r	u	i	m	r	o	e	e	a	o	u	e	u	a	a	t	
Annotation																													
a, A = 1; b, B = 2 - 5; c, C = 6 - 20; d, D = 21 - 100; e, E = 101 - 500; f, F > 500																													
a, b, c, d, e, f Flying adult; A, B, C, D, E, F Evidence of breeding																													
Records were mainly obtained by JWS																													
See separate listing (Table C2) for records of other observers																													
Records obtained from 2000 to 2007 for which no records were obtained during 2008 to 2012																													
Breeding records obtained from 2000 to 2007 for which no breeding records were obtained during 2008 to 2012																													
Higher abundance from 2000 to 2007																													

Table 4(a). Average Frequency of Species Observation										
Rarest at top; commonest at base of Table										
			Flying %			Breeding %			Flying %	Breeding
			1993	2000	2008	1993	2000	2008	1993	1993
			to	to	to	to	to	to	to	to
			1999	2007	2012	1999	2007	2012	2012	2012
Scarce Blue-tailed Damselfly			1	0	0	0	0	0	0	0
Scarce Chaser			0	0	1	0	0	0	0	0
Yellow-winged Darter			5	0	0	1	0	0	1	0
Hairy Dragonfly			0	0	7	0	0	0	2	0
Beautiful Demoiselle			2	2	5	0	0	1	2	0
White-legged Damselfly			2	2	5	0	2	4	3	2
Small Red-eyed Damselfly			0	7	15	0	5	9	7	4
Common Hawker			23	14	3	8	2	2	14	4
Banded Demoiselle			17	27	30	1	2	3	24	2
Brilliant Emerald			28	25	27	1	2	1	27	1
Red-eyed Damselfly			12	30	43	5	13	18	28	12
Golden-ringed Dragonfly			26	37	32	2	2	1	32	2
Black-tailed Skimmer			46	34	26	9	17	10	36	13
Ruddy Darter			38	40	31	10	15	15	36	13
Downy Emerald			36	38	36	2	4	9	37	5
Emerald Damselfly			37	41	45	14	20	19	37	18
Small Red Damselfly			16	46	49	8	26	26	37	20
Keeled Skimmer			28	41	43	14	23	22	37	20
Migrant Hawker			41	45	34	8	7	6	41	7
Broad-bodied Chaser			50	35	43	18	17	15	42	17
Black Darter			36	48	40	15	25	18	42	20
Southern Hawker			51	59	46	22	26	21	53	23
Blue-tailed Damselfly			57	59	52	16	19	12	56	16
Common Blue Damselfly			54	61	57	14	28	27	58	23
Brown Hawker			55	65	59	17	19	12	60	16
Emperor Dragonfly			60	67	62	20	30	25	63	26
Four-spotted Chaser			61	73	69	23	38	38	68	33
Common Darter			70	80	69	39	42	37	74	40
Azure Damselfly			71	80	85	45	59	66	79	56
Large Red Damselfly			80	83	85	48	64	65	83	59

Table 4(b). Rank order of species					
Rarest at top; commonest at foot of table					
1993		2000		2008	
to		to		to	
Rank	1999	Rank	2007	Rank	2012
28	Hairy Dragonfly			28	Scarce Chaser
27	Scarce Blue-tailed Damselfly			27	Common Hawker
26	Beautiful Demoiselle	26	Beautiful Demoiselle	26	Beautiful Demoiselle
25	White-legged Damselfly	25	White-legged Damselfly	25	White-legged Damselfly
24	Yellow-winged Darter	24	Small Red-eyed Damselfly	24	Hairy Dragonfly
23	Red-eyed Damselfly	23	Common Hawker	23	Small Red-eyed Damselfly
22	Small Red Damselfly	22	Brilliant Emerald	22	Black-tailed Skimmer
21	Banded Demoiselle	21	Banded Demoiselle	21	Brilliant Emerald
20	Common Hawker	20	Red-eyed Damselfly	20	Banded Demoiselle
19	Golden-ringed Dragonfly	19	Black-tailed Skimmer	19	Ruddy Darter
18	Brilliant Emerald	18	Broad-bodied Chaser	18	Golden-ringed Dragonfly
17	Keeled Skimmer	17	Golden-ringed Dragonfly	17	Migrant Hawker
16	Downy Emerald	16	Downy Emerald	16	Downy Emerald
15	Black Darter	15	Ruddy Darter	15	Black Darter
14	Emerald Damselfly	14	Emerald Damselfly	14	Red-eyed Damselfly
13	Ruddy Darter	13	Keeled Skimmer	13	Broad-bodied Chaser
12	Migrant Hawker	12	Migrant Hawker	12	Keeled Skimmer
11	Black-tailed Skimmer	11	Small Red Damselfly	11	Emerald Damselfly
10	Broad-bodied Chaser	10	Black Darter	10	Southern Hawker
9	Southern Hawker	9	Blue-tailed Damselfly	9	Small Red Damselfly
8	Common Blue Damselfly	8	Southern Hawker	8	Blue-tailed Damselfly
7	Brown Hawker	7	Common Blue Damselfly	7	Common Blue Damselfly
6	Blue-tailed Damselfly	6	Brown Hawker	6	Brown Hawker
5	Emperor Dragonfly	5	Emperor Dragonfly	5	Emperor Dragonfly
4	Four-spotted Chaser	4	Four-spotted Chaser	4	Four-spotted Chaser
3	Common Darter	3	Common Darter	3	Common Darter
2	Azure Damselfly	2	Azure Damselfly	2	Azure Damselfly
1	Large Red Damselfly	1	Large Red Damselfly	1	Large Red Damselfly

Table 5. Numbers of Species Recorded at Principal Sites												
	Flying			Breeding			Nationally important			Locally important		
Site	1993 to 1999	2000 to 2007	2008 to 2012	1993 to 1999	2000 to 2007	2008 to 2012	1993 to 1999	2000 to 2007	2008 to 2012	1993 to 1999	2000 to 2007	2008 to 2012
Bracknell Total							2	2	2	5	5	5
Swinley Brick Pits	21	23	23	19	19	18	2	2	2	3	4	3
Crowthorne Wood	19	20	24	6	17	16	2	1	2	3	4	4
Rapley Lake	19	19	21	6	11	14	1	1	2	1	1	2
Chaucer Woods	8	15	21	3	9	14	0	1	2	1	1	3
Mill Pond, SF	22	22	21	17	16	13	2	2	2	4	4	3
Englemere Pond	20	23	21	16	16	13	2	2	2	2	3	1
Wildmoor Heath	21	24	24	13	15	12	1	2	2	3	4	4
Embankment	0	18	18	0	6	10	0	0	2	0	4	2
Gormoor	22	21	19	10	10	8	2	2	2	4	3	3
By-Pass Pond	20	14	12	11	8	4	1	1	2	3	1	1
Bush Fields	15	18	18	3	10	11	1	1	1	3	3	4
RMA Sandhurst	15	0	15	4	0	11	1	0	1	1	0	1
Butter Bottom Ponds	18	16	19	9	11	11	1	1	1	2	1	2
Cobblers Hole Bog	17	21	15	4	12	7	1	2	1	2	4	2
Wood Pond, WGP	17	16	17	10	8	7	1	2	1	1	1	2
Wishmoor Bottom	13	15	9	5	7	6	1	1	1	2	2	2
Leiper Pond	16	16	10	15	10	5	0	1	1	1	1	0
Upper Star Post	18	15	9	10	8	5	1	1	1	2	1	0
Caesars Camp Pond	18	19	18	10	12	4	1	1	1	3	3	2
Shepherd Meadows	14	13	13	5	7	5	0	0	1	1	1	1
Forest Pond	15	12	13	9	5	5	1	1	1	1	1	0
Felix Farm Fishery	0	18	18	0	13	14	0	0	0	0	1	2
Whitmoor Bog	0	7	13	0	4	6	0	0	0	0	0	1
Carnation Park Pond	16	14	11	11	5	2	0	0	0	1	1	1
River Cut	11	5	5	4	1	2	0	0	0	1	1	1
Bagshot Road Pond	15	17	0	8	11	0	1	2	0	1	1	0
Rank order based on 2008 to 2012 number of nationally-important species, followed by 2008 to 2012 breeding records.												
With the exception of the 2012 Scarce Chaser record, based solely on JWS records												

Table 6 First and Last Sightings of species in Bracknell from 1993 to 2012.
All-time Records

	<u>First</u>		<u>Last</u>	
<i>C. splendens</i>	21/04	2011	22/09	1998
<i>L. sponsa</i>	13/06	2010	01/10	1995
<i>E. najas</i>	01/05	2011	29/09	2008
<i>E. viridulum</i>	27/06	2010	13/09	2007
<i>P. pennipes</i>	21/05	2009	07/09	2007
<i>P. nymphula</i>	13/04	2009* & 2012 (*Des Sussex)	18/09	2009
<i>C. tenellum</i>	31/05	2009* (*Des Sussex)	13/10	2011
<i>I. elegans</i>	26/04	2011	15/10	2011
<i>E. cyathigerum</i>	01/05	2011	03/11	2010
<i>C. puella</i>	28/04	2007	12/09	2010
<i>A. cyanea</i>	16/06	2004	19/11	2010
<i>A. grandis</i>	11/06	2009	03/10	1997
<i>A. juncea</i>	15/07	2003	18/10	1997
<i>A. mixta</i>	11/07	2010	03/11	2007 & 2010
<i>Anax imperator</i>	19/05	2007	09/09	2007
<i>C. boltonii</i>	14/06	2004 & 2009* (*Des Sussex)	28/09	2011* (*Robin Dryden)
<i>C. aenea</i>	24/04	2011	13/08	2002
<i>S. metallica</i>	10/05	2011	19/08	2009
<i>O. cancellatum</i>	24/05	2011	12/09	2005
<i>O. coerulescens</i>	24/05	2007	21/09	2009* (*Mike Turton)
<i>L. depressa</i>	19/04	2007	26/09	2008
<i>L. quad</i>	19/04	2007	12/09	2003
<i>S. danae</i>	20/06	2003	15/11	2009
<i>S. sanguineum</i>	23/06	2009	15/10	2011
<i>S. striolatum</i>	05/06	1993	02/12	2006

Where unspecified, records were obtained by JWS

A1. Bagshot Road Pond

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle												a								
Emerald Damselfly					a		b	C(co)	c	B(co)	B(te)				a					
Red-eyed Damselfly																				
Large Red Damselfly					b	b	C(ov)	C(co)	D(ov)	B(co)	B(ov)	D(co)	b							
Small Red Damselfly					a				a	b	b	C(co)	b							
Blue-tailed Damselfly					b				a	a										
Common Blue Damselfly					b		b		c	c										
Azure Damselfly					B(co)	e	E(ov)	F(ov)	F(ov)	E(co)	E(co)	E(te)	c							

Southern Hawker					B(co)			B(ov)	B(ex)	B(ex)	B(ex)	a								
Brown Hawker								B(ov)			a									
Common Hawker																				
Migrant Hawker					B(ov)			b				a								
Emperor Dragonfly							B(co)	B(ov)	b	a	a									
Golden-ringed Dragonfly																				
Downy Emerald							b	b	b	a		b								
Brilliant Emerald												a								
Black-tailed Skimmer							B(te)													
Keeled Skimmer																				
Broad-bodied Chaser																				
Four-spotted Chaser						b	b	D(ov)	C(ov)	C(ov)	C(te)	D(ex)	b							
Black Darter					C(ov)		b	D(ov)		b	b									
Ruddy Darter					b	c		c	B(te)	b	C(co)	a			C(co)					
Common Darter					C(ov)		b	D(ov)		B(te)	b	a			a					

A2. Bush Fields, Swinley Forest

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle									a					a				a		
Emerald Damselfly										a							a			
Red-eyed Damselfly																				
Large Red Damselfly							D(ov)	D(te)	C(ov)	D(te)	D(te)	C(co)	C(ov)	C(ov)	C(co)	D(ov)	C(ov)	C(ov)	B(ov)	B(co)
Small Red Damselfly										a	B(te)	b	b		B(co)	C(co)	C(ov)	a	B(co)	b
Blue-tailed Damselfly																				
Common Blue Damselfly							a	B(te)		a		a	b				a	a		b
Azure Damselfly							C(co)	C(co)		C(ov)	b	b	B(ov)	c		b	C(ov)	B(ov)	C(co)	B(co)
Southern Hawker						a	b	A(te)	b	a	C(ex)	B(te)	B(ex)	b	A(ex)	B(ex)	b	b	b	b
Brown Hawker						b	a	a	a		a	a			a	a	b	b	b	a
Common Hawker							a				a							A(ov)		
Migrant Hawker						b	a													
Emperor Dragonfly												a	a	b						
Golden-ringed Dragonfly																				
Downy Emerald						b	b	b	b	B(ov)	b	a	b	a		b	b	B(ov)	b	a
Brilliant Emerald						a														
Black-tailed Skimmer																				
Keeled Skimmer							b	b	a	c	b		B(co)	b		a	c	b		
Broad-bodied Chaser						b	B(ov)		b				B(te)			C(ov)	B(ov)	B(ov)	a	
Four-spotted Chaser						a	a	a	C(te)	b	a	b	a			B(ov)	C(ov)	b	C(ov)	
Black Darter							b		B(te)	b	b	C(te)	c	B(te)		b	b	b	B(co)	a
Ruddy Darter						a			a						b					
Common Darter						b	b	a	a	a	b	b	a	b		b	C(ov)	b	a	b

A3. Butter Bottom Ponds

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle				a	a		a								b	a		a		a
Emerald Damselfly																a				
Red-eyed Damselfly		B(co)					c					D(co)	c	E(ov)	C(co)	d	C(ov)	d	C(ov)	c
Small Red-eyed Damselfly														b	C(co)	C(co)	b			
Large Red Damselfly	x	B(co)	c	C(co)	D(co)	x	C(co)					C(ov)	a	C(ov)	b	C(co)	C(ov)	b	C(co)	b
White-legged Damselfly													C(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	C(co)	D(ov)
Blue-tailed Damselfly	x	b	b	b	a	d	C(co)					b	a	c	c	c	c	b	b	b
Common Blue Damselfly	x	D(co)	x	d	b	d	E(co)					D(co)	C(co)	E(te)	D(ov)	D(co)	D(co)	E(co)	d	D(co)
Azure Damselfly	x	D(ov)	x	D(co)	d		C(ov)					C(ov)	B(te)	C(ov)	a	c	B(co)	a	B(co)	b
Southern Hawker		a															a			
Brown Hawker	x	B(ov)		a									B(ov)	b	b	b	b	b	b	a
Common Hawker																				
Migrant Hawker	x	a					a								B(ov)	a	b			
Emperor Dragonfly	x	B(ov)		b								B(ov)	B(ov)	b	B(ov)	B(ov)	B(ov)	a	B(ov)	B(ov)
Golden-ringed Dragonfly																				
Downy Emerald	x	b	a	b	c	a	b					c	c	b	c	c	a	a	c	b
Brilliant Emerald		a													a	a	b	a	a	
Black-tailed Skimmer	x	d	c	c		b	c					b		b	B(ov)					
Keeled Skimmer				a													B(ov)	A(em)	b	a
Broad-bodied Chaser		b		a													a		a	
Four-spotted Chaser	x	C(ov)	b	b	b		c					b	a	b	b	b	b	C(co)	b	
Black Darter																				
Ruddy Darter		b																		
Common Darter	x	D(ov)		B(te)		b	a								B(ov)	B(co)	b			

A4. By-Pass Pond

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
White-legged Damselfly																		a		
Emerald Damselfly		B(co)	c	E(ov)		b	b													
Red-eyed Damselfly												B(ov)								
Large Red Damselfly		B(co)	a	b		a	C(co)					D(te)	C(te)		C(co)	b		B(te)		b
Small Red Damselfly													b			c		b		b
Blue-tailed Damselfly		b	b			b	B(co)					c	b			b		a		
Common Blue Damselfly		a		D(ov)		c	c					c								
Azure Damselfly		d	d	B(co)		B(ov)	C(co)					D(ov)	D(ov)		C(ov)	D(ov)		c		c
Southern Hawker		a				a	b					B(te)	b			a		a		b
Brown Hawker		B(ov)		b			a					a	a			a				
Common Hawker		B(ov)		a																
Migrant Hawker						a	b													
Emperor Dragonfly		b	b	a								B(ov)	a		a					
Golden-ringed Dragonfly				b																
Downy Emerald							a					B(ov)	b		a	a				
Brilliant Emerald							a											a		
Black-tailed Skimmer		b	a	b																
Keeled Skimmer				C(co)			A(ov)													
Broad-bodied Chaser		A(te)																		
Four-spotted Chaser		b	b	b		b	c					c	B(ov)		C(ov)	C(ov)		C(te)		
Black Darter		a		B(te)								a						b		
Ruddy Darter				b		a	b					C(ov)	b			B(ov)				
Common Darter		C(te)	C(te)	D(te)		d	D(te)					b	a			B(ov)		b		
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

A5. Caesars Camp Pond

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beautiful Demoiselle																a				
Banded Demoiselle																				
Emerald Damselfly			b	b	b			b	b		a		C(ov)	a					a	a
Large Red Damselfly			b	b	C(ov)	c	C(te)	D(ov)	C(te)	C(ov)	C(te)	C(ov)	C(te)	D(te)	C(ov)	C(co)	c	b	C(co)	C(ov)
Small Red Damselfly							b	C(te)	C(ov)	C(co)	C(co)	D(te)	C(te)	C(te)	C(co)	b	c	C(co)	C(co)	C(co)
Blue-tailed Damselfly			a		b	a	b	b	a	b	a		a	b	b	b	b			
Common Blue Damselfly					b		a	b	b			b	a	b	a	b				b
Azure Damselfly			a	B(ov)	C(ov)	b	C(ov)	C(ov)	C(ov)	C(co)	C(co)	C(ov)	C(co)	D(ov)	C(ov)	D(ov)	C(co)	B(co)	B(ov)	C(ov)
Southern Hawker					B(ex)		a	A(ex)	B(ov)	a			a					b		
Brown Hawker			a	B(ov)	a	a		a	a	b	a	a	A(ov)		a				a	a
Common Hawker							a					a								
Migrant Hawker					a		a		a					b						
Emperor Dragonfly			B(ov)	B(ov)	a		B(ov)	B(ov)	B(ov)	A(ov)	a	B(ov)	B(ov)	B(ov)	B(ov)	b	a	b	b	b
Golden-ringed Dragonfly				b	a	b	a	b	b	b	b	a	a		b	a	b	a		a
Downy Emerald																				
Brilliant Emerald																				
Black-tailed Skimmer			b	b			a		a							b				
Keeled Skimmer			b	C(ov)	B(co)	C(co)	C(ov)	B(ov)	C(ov)	b	b	C(ov)	C(co)	c	b	a	B(ov)	a	a	
Broad-bodied Chaser			B(ov)	B(ov)	B(ov)		a	B(ov)	B(ov)	b		B(ov)	c	b	B(ov)	b	a	a		a
Four-spotted Chaser			b	B(ov)	b	a	b	B(ov)	C(ov)	b	b	C(ov)	C(ov)	D(ov)	c	b	b	c	c	c
Black Darter				b	b	b	D(ov)	D(te)	D(te)	b	C(ov)	C(ov)	C(co)	b	b	a	a	a	b	b
Ruddy Darter												a	a		a	a				
Common Darter			c	c	C(ov)	b	C(ov)	D(ov)	C(ov)	b	b	b	C(ov)	C(ov)	c	b	b	a	b	b

A6. Carnation Balancing Pond, Winkfield

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle			a			a			a											
Emerald Damselfly																				
Red-eyed Damselfly	x			c	C(ov)		b	a		a			a	a		b	a	c	b	
Large Red Damselfly	x	a	C(co)	C(co)	C(ov)	c	c	a	C(co)		a	b								b
Small Red Damselfly																				
Blue-tailed Damselfly	x	B(co)	B(te)	C(co)	C(co)	C(co)	D(co)	b	C(ov)	B(co)	C(co)	B(co)	C(te)			a		C(co)	b	
Common Blue Damselfly		a	C(co)	a	b			a	b								a			b
Azure Damselfly	x	b	C(co)	D(ov)	D(ov)	D(ov)	C(ov)	B(ov)	D(ov)	b	B(co)	C(co)	C(co)					b		C(co)
Southern Hawker		a				a	b													
Brown Hawker					a	b	a	a				a	a				a		a	
Common Hawker																				
Migrant Hawker	x	b				a	C(co)		b								a			
Emperor Dragonfly		B(ov)	B(ov)	B(ov)	B(ov)	b		B(ov)	B(ov)	b	b	a	a	a				a		
Golden-ringed Dragonfly																				
Downy Emerald				a				b	b									a		
Brilliant Emerald																				
Black-tailed Skimmer	x	b		B(te)	a	b			a	a										
Keeled Skimmer																				
Broad-bodied Chaser	x	B(ov)	a		a															
Four-spotted Chaser		x	b	B(ov)	B(ov)	C(ov)		b	c				b	b				a		
Black Darter																				
Ruddy Darter					b	b	b		a			a								
Common Darter		b	C(ov)	b	b	C(ov)		B(co)					a				b		a	
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

A7. Chaucer Woods and Wellington College Ponds

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle													a	a	a	a	a			
Emerald Damselfly												a				B(co)	b			
Red-eyed Damselfly							D(ov)					D(co)	D(ov)	D(co)	D(co)	D(co)	b	c		
Large Red Damselfly		C(co)										a	b			C(co)	b	B(co)		
Small Red Damselfly																a				
Blue-tailed Damselfly	x	a					a					c	c	c	b	C(co)	c	b		
Common Blue Damselfly			b				d					D(co)	E(co)	D(co)	E(co)	D(co)	c	C(ov)		
Azure Damselfly							C(co)					B(ov)	b	a		D(ov)	B(co)	B(ov)		
Hairy Dragonfly																			a	a
Southern Hawker																A(ex)	b			
Brown Hawker												C(ov)	B(ov)	b		A(ov)	B(ov)			
Common Hawker																				
Migrant Hawker												C(co)	b	b		b				
Emperor Dragonfly	x		a				a					b	C(ov)	B(ov)	C(ov)	C(ov)	a	B(ov)		
Golden-ringed Dragonfly																				
Downy Emerald		c													a	a	C(ov)	b	b	
Brilliant Emerald												a				a	b	a	a	
Black-tailed Skimmer	x		b				b					B(co)	b			b	B(ov)		b	
Keeled Skimmer																	c	b	B(em)	
Broad-bodied Chaser																	b		B(ov)	
Four-spotted Chaser													A(ov)				b		c	
Black Darter																				
Ruddy Darter																				
Common Darter												b			C(te)		D(ov)	B(co)		

A8. Cobblers Hole Bog, Swinley Forest

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beautiful Demoiselle							a													
Banded Demoiselle																				
Emerald Damselfly												B(ov)	b	B(co)	c		a			b
Large Red Damselfly					B(co)	c	B(ov)		c	D(ov)	c	B(ov)	C(co)	C(te)	a	C(ov)	D(ov)	C(ov)	C(ov)	C(ov)
Small Red Damselfly											A(te)		a	a	b	B(co)	B(co)	b		c
Blue-tailed Damselfly										b										
Common Blue Damselfly					c	c	b		b	b	a				b	a	a	a		
Azure Damselfly						b	B(ov)		a	c	b	C(ov)	C(ov)	B(ov)		C(ov)	C(co)	C(co)	b	C(ov)
Southern Hawker					a		b	b	b	B(ex)	B(ov)	B(ex)	B(ov)	a		B(ex)		a		
Brown Hawker					a		a		b	a			a	b	a	a	a	a		b
Common Hawker												A(ov)								
Migrant Hawker					a	a	a					a		a						
Emperor Dragonfly					a										A(ov)			a		a
Golden-ringed Dragonfly					b		a			b	a	a	b		a	b		b		a
Downy Emerald										a			a							
Brilliant Emerald						b							a							
Black-tailed Skimmer							B(te)				a									a
Keeled Skimmer							b		a	C(ov)	b	a	C(co)	c	b	C(ov)	C(te)	C(ov)	C(co)	C(co)
Broad-bodied Chaser					b	b	a			B(ov)	a	b	b		a	B(ov)			a	
Four-spotted Chaser						b			a	a	b	C(te)	C(ov)	C(te)	a	C(ov)	B(ov)	C(te)	b	c
Black Darter					b		a	b	b	C(ov)	c	C(ov)	C(te)	b					a	b
Ruddy Darter							a			a		a		a	b	b	a			a
Common Darter					C(ov)	c	b	B(ov)	b	C(ov)	B(te)	C(ov)	a	b	c	b	b	b		
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

A9. Crowthorne Wood Ponds

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beautiful Demoiselle							a													
Banded Demoiselle																		a		a
Emerald Damselfly									b	a	B(ov)	b	b	c	B(te)	b	b	C(ov)	C(ov)	C(te)
Red-eyed Damselfly																C(ov)	a	c	b	
Small Red-eyed Damselfly																a				
Large Red Damselfly	x	C(co)	D(co)	C(ov)	a	a	C(co)	C(co)	D(te)	D(ov)	E(te)	C(te)	D(te)	D(ov)	D(te)	D(ov)	D(co)	D(ov)	C(ov)	D(ov)
Small Red Damselfly			a				a	a	b	C(co)	C(co)	C(co)	D(te)	D(te)	D(te)	C(co)	D(co)	D(co)	D(co)	D(co)
Blue-tailed Damselfly			a				a	a		a	b	B(co)	a	b	a	a	b	a	a	B(co)
Common Blue Damselfly										a	a	b	a	b	B(co)	C(co)	b	b	b	D(co)
Azure Damselfly		a					B(co)	a	b	c	D(ov)	D(ov)	D(co)	D(ov)	C(ov)	C(ov)	D(ov)	D(ov)	D(ov)	C(ov)
Southern Hawker	x		a	A(te)	a	a	C(ov)	B(ex)	a	b	a	B(ex)	a	B(ov)		B(ov)	A(ov)	B(ov)	b	a
Brown Hawker	x	a	b	a	a		a		a	a	A(ov)	a	b	A(ov)	a	a				B(ov)
Common Hawker							a						a	a					a	
Migrant Hawker	x		a			a			a	a	a	B(ov)	b	B(ov)					a	b
Emperor Dragonfly				a				a	a	A(ov)	B(ov)	b	B(ov)	B(ov)	B(ov)	b	B(ov)	C(ov)	C(ov)	C(ov)
Golden-ringed Dragonfly	x	b	b	b					a	a	c	B(ov)	b	b	a	b	a	a	b	b
Downy Emerald										a						a		a		
Brilliant Emerald							a										a			
Black-tailed Skimmer	x		a								b	C(co)	B(ov)	b	b	a			a	B(ov)
Keeled Skimmer			b	b			b	b	B(co)	b	C(co)	D(ov)	D(te)	C(ov)	C(ov)	c	C(ov)	C(em)	C(ov)	C(co)
Broad-bodied Chaser				a						a	C(ov)	B(ov)	C(te)	B(te)	B(ov)	C(ov)	C(ov)	C(ov)	c	C(ex)
Four-spotted Chaser			a	B(ov)		B(ov)	C(ov)	B	C(co)	c	C(ov)	C(ov)	D(te)	D(ex)	D(ov)	D(ov)	D(ov)	D(ov)	C(ov)	D(ex)
Black Darter			a	b			D(ov)		D(ov)	b	D(te)	D(ov)	D(te)	D(ov)	D(ov)	D(ov)	D(ov)	C(em)	D(ov)	D(ov)
Ruddy Darter	x	b										a				a				
Common Darter		a	b	c	a		D(ov)	b	b	B(ov)	D(te)	C(ov)	C(ov)	D(ov)	C(ov)	C(ov)	D(ov)	C(em)	C(ov)	D(ov)

A10. Englemere Pond

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle										a	a			a						
Emerald Damselfly				C(co)		b	D(ov)	D(co)	D(co)	E(ov)	C(co)	D(ov)	D(te)	E(te)	E(ov)	d	C(ov)	D(co)	C(ov)	E(ov)
Red-eyed Damselfly					C(ov)	b	C(co)	c	C(co)	b	c	c	D(ov)	D(ov)	c	a	c	D(ov)	D(ov)	D(ov)
Small Red-eyed Damselfly													B(co)	D(ov)	B(co)		b	a		
Large Red Damselfly	x	b	a	A(te)	a	b	B(ov)	C(te)	B(co)	b	C(te)	B(co)	a	B(co)	B(co)	a	a	C(ov)	D(ov)	
Small Red Damselfly							B(co)		C(co)	B(te)	D(co)	a		a			b			
Blue-tailed Damselfly	x	a	a	b	b	B(co)	D(co)	C(co)	C(co)	C(co)	C(co)	b	c	C(co)	B(co)	c	D(co)	c	c	b
Common Blue Damselfly	x		c	D(co)	b	b	D(co)	c	C(co)	C(co)	c	D(co)	b	C(ov)	b	b	b	C(co)	c	b
Azure Damselfly	x	d		c	c	c	C(co)	D(ov)	C(co)	D(co)	E(co)	c	D(ov)	E(ov)	D(co)	b	D(ov)	E(ov)	C(co)	B(ov)
Southern Hawker					a	a	a	a	a	a	a	a	a	a		a				
Brown Hawker	x		b	b	a	B(ov)	C(ov)	B(ov)	b	B(ov)	b	b	B(ov)	B(ov)	b	a	a	b	b	B(ov)
Common Hawker	x				a	a	A(ov)		a	a	b									
Migrant Hawker	x		a	a	b	a	C(co)	b	c	a	a	c	b	c	b	b	c	b		a
Emperor Dragonfly	x		a	b	a	a	B(ov)	b		B(ov)	b	B(ov)	B(ov)	B(ov)			a	B(ov)	b	a
Golden-ringed Dragonfly																				
Hairy Dragonfly																		b	b	
Downy Emerald	x	b		b	b	b	b	c	a	C(ov)	B(te)	b	b	b	b	b	b	c	b	a
Brilliant Emerald						a	a	a	a		a		b	a	a		a	b		
Black-tailed Skimmer	x		a	B(ov)	c	C(co)	D(ov)	C(ov)	D(ov)	D(co)	C(te)	C(ov)	D(te)	D(te)	a		C(co)	C(co)	b	C(ov)
Keeled Skimmer									a											
Broad-bodied Chaser				a	a	b	a	a		a								A(ov)		
Four-spotted Chaser	x	b	A(co)	a	b	b	C(te)	C(te)	C(co)	C(ov)	C(ov)	a	D(ov)	C(ov)	C(te)	C(ov)	c	D(ov)	D(ov)	b
Black Darter			a	b	c	B(co)	C(ov)	c	C(te)	D(te)	c	B(te)	a				b		a	
Ruddy Darter	x		d	D(ov)	b	c	C(co)	C(co)	C(co)	D(te)	a	D(ov)	c	C(te)	C(co)		a	c	b	B(co)
Common Darter	x	c	B(co)	D(ov)	D(ov)	D(ov)	D(ov)	D(te)	d	C(te)	c	D(te)	C(te)	C(te)	C(ov)	C(ov)	D(ov)	C(ov)	C(co)	C(ov)
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

A11. Felix Farm Trout Fishery, Binfield

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle												a		b	b	a	a	b	b	a
Emerald Damselfly															B(co)	a	b	b		a
Red-eyed Damselfly									D(co)			C(co)	b	D(ov)	D(ov)	D(ov)	D(co)	D(co)	C(ov)	D(co)
Small Red-eyed Damselfly															B(ov)	D(ov)	E(ov)	D(ov)	D(ov)	C(ov)
Large Red Damselfly									b			a				B(co)	B(ov)	b	a	a
Blue-tailed Damselfly									E(co)	a		D(co)	C(co)	C(co)	D(co)	E(co)	E(co)	D(co)	C(co)	C(co)
Common Blue Damselfly									F(co)			E(co)	F(co)	F(te)	F(ov)	E(ov)	F(ov)	E(ov)	F(ov)	E(ov)
Azure Damselfly									C(ov)	a		B(co)	B(co)		B(co)	E(ov)	D(ov)	B(ov)	C(ov)	C(ov)
Southern Hawker															a					
Brown Hawker									b			b	a	b	B(ov)	b	B(ov)	a	b	a
Common Hawker																				
Migrant Hawker									D(co)				c	c	C(co)	C(ov)	C(co)	C(ov)	b	C(co)
Emperor Dragonfly									B(ov)			b	b	C(ov)	B(ov)	B(ex)	B(ov)	B(ov)	B(ov)	C(ov)
Hairy Dragonfly																			a	
Downy Emerald									b			a			a	b		a	a	C(ov)
Brilliant Emerald																				
Black-tailed Skimmer									D(co)			D(co)	D(co)	E(te)	D(te)	D(co)	D(ov)	D(co)	D(co)	D(ov)
Keeled Skimmer																				
Broad-bodied Chaser									a							a			a	a
Four-spotted Chaser									D(te)	a		c	C(co)	c	C(te)	D(ex)	C(ov)	c	D(ov)	b
Black Darter																				
Ruddy Darter									c			c	c	c	D(co)	D(co)	D(ov)	D(ov)	b	b
Common Darter									C(ov)			C(te)	b	C(ov)	C(co)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)

A12. Forest Pond, Swinley Forest

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle																	a			
Emerald Damselfly		B(co)	B(co)	b																
Red-eyed Damselfly																				
Large Red Damselfly		B(co)	c	C(ov)	C(ov)	C(co)	b	B(co)	a	a	B(co)	a	B(co)	B(co)	B(co)	B(co)	C(co)	C(co)	C(ov)	C(ov)
Small Red Damselfly																				
Blue-tailed Damselfly																		b		
Common Blue Damselfly							b			a		b				a	b			
Azure Damselfly		D(co)	B(co)	D(ov)	C(co)	B(co)	c			B(co)					b	B(co)	b	b	b	B(co)
Southern Hawker		B(ov)	b	b	C(ex)	A(ex)	B(ex)	B(ex)	B(ex)	b	b	B(ex)	b	b	b	B(ov)	a	a	b	
Brown Hawker				a					a	a	a	a								
Common Hawker																				
Migrant Hawker				a			a													
Emperor Dragonfly		A(ov)	A(ov)	B(ov)								a	a	a			a	a		
Golden-ringed Dragonfly																				
Downy Emerald			a							a		b								
Brilliant Emerald			A(ov)	b		b	a		a	b	b	B(ex)	B(ov)	b	b	a	b	b	b	
Black-tailed Skimmer																				
Keeled Skimmer																				
Broad-bodied Chaser		B(co)	b	B(ov)		a	a								b	a				
Four-spotted Chaser		b		a		a	a		b		a	b	a			b	B(ov)			
Black Darter		a	b	B(ov)			a	b				c				b				
Ruddy Darter				a														b		
Common Darter		B(ov)		C(ov)	b	B(ov)	b	a		B(ov)			A(ov)		b			a		

A13. Gormoor, Swinley Forest

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle						a		a		a	a	b				a		a		
Emerald Damselfly				b	a	b						a		a		a				a
Red-eyed Damselfly																				
Large Red Damselfly		C(co)	C(co)	C(ov)	D(ov)	E(te)	D(te)	C(co)	D(ov)	E(ov)	D(co)	D(te)	D(te)	D(te)	D(ov)	D(co)	D(ov)	D(ov)	D(co)	D(ov)
Small Red Damselfly						a		a		a	b	B(ov)	b	c	C(co)	a	D(co)	D(co)	b	B(te)
Blue-tailed Damselfly		a		a	a	a		a	a	a			a		a	a				a
Common Blue Damselfly					a					a		a	a							
Azure Damselfly		B(ov)	B(co)	C(ov)	C(ov)	C(co)	C(co)	a	b	D(co)	c	C(co)	C(ov)	c	C(ov)	b	D(ov)	C(co)	C(co)	b
Southern Hawker		B(ov)	b	B(ov)	B(ov)	B(ov)	C(ex)	B(ex)	b	B(ex)	B(co)	B(ov)	B(te)	c	B(ex)	B(ex)	B(ex)	C(ex)	C(ov)	B(ex)
Brown Hawker		a	b	b	b	b	b	a	b	b	b	a	a			b	b		b	b
Common Hawker		a			A(ov)	A(ov)	a	A(ov)				A(ov)	A(ov)	a				A(ex)		
Migrant Hawker				c	c	b	c	b	b	a	b	b	b	b	b	b	c		a	
Emperor Dragonfly			a	b	b	b	a	a	b	a	b	a	b	b	a		a	a	b	b
Golden-ringed Dragonfly		a	b	c	c	a	b		a	b	b	b	b	a		b	b	b		
Downy Emerald			a																	
Brilliant Emerald			a	a	b	a	a	b			a	a							a	a
Black-tailed Skimmer			a	a	b	a		a			a		a							a
Keeled Skimmer				C(ov)	b	C(ov)	c	b	B(ov)	C(ov)	C(co)	b	C(te)	C(ov)	B(te)	b	C(co)	c		b
Broad-bodied Chaser		a	b	C(ov)	B(co)	C(te)	B(te)	A(te)	a	A(ov)	a	B(ov)		B(ov)	a		b	b	a	
Four-spotted Chaser			a	a	b	C(ov)	C(co)	b	C(te)	C(ov)	b	C(ov)	C(te)	c	b	b	C(ov)	b	b	b
Black Darter				b	c	C(ov)	C(ov)	b	c	C(ov)	c	b	b	b	b	c	C(em)	B(ov)	b	
Ruddy Darter				B(ov)	b	b	a		a					a						
Common Darter		a	b	D(ov)	C(ov)	C(ov)	C(co)	b	b	b	b	b	b	c	C(co)	c	b	b	c	b

A14. Leiper Pond, Windsor Great Park

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle																				
Emerald Damselfly			b		a		B(co)						b	b					a	
Red-eyed Damselfly							C(ov)	a				a								
Large Red Damselfly			B(te)		a		B(co)		b	B(co)	a	b	C(co)	c	b	a		B(ov)		
Small Red Damselfly												b	c	C(co)	d	C(co)		c		
Blue-tailed Damselfly			a		C(co)	B(co)	C	c	B(co)	a	b	C(co)	C(ov)	C(ov)	C(co)	b		a		
Common Blue Damselfly			D(co)		D(ov)	a	D(co)	d	F(co)	b	D(co)	c	C(co)	B(ov)	C(co)	b		b		
Azure Damselfly			a			D(ov)	C(ov)	a	E(ov)	F(co)	E(co)	C(co)	E(ov)	E(ov)	C(co)	D(co)		D(ov)	b	
Southern Hawker			B(ov)				b						a							
Brown Hawker			B(ov)		B(ov)	a	B(ov)				a	a	b		B(ov)					
Common Hawker																				
Migrant Hawker					C(ov)		C(co)					C(ov)	b		b			a		
Emperor Dragonfly			a		B(ov)	B(ov)	b	a	B(ov)		a		b	B(ov)		a		b		
Golden-ringed Dragonfly																				
Downy Emerald					a		a		b	a		a	a							
Brilliant Emerald																				
Black-tailed Skimmer					B(co)	b	b		b											
Keeled Skimmer																				
Broad-bodied Chaser			B(ov)		A(ov)	A(ov)	a													
Four-spotted Chaser					a	B(ov)	C(ov)		C(ov)	a	a	a	b	b						
Black Darter																				
Ruddy Darter			C(co)		C(ov)		C(co)				C(co)	B(ov)	C(ov)	C(te)	D(ov)	C(ov)		C(co)	B(co)	
Common Darter			B(te)		D(ov)	C(ov)	D(te)	b			b	b	b	b	b	b		b	B(co)	
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

A15. Mill Pond, Swinley Forest

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle											a	a				a				
Emerald Damselfly	x	B(te)	B(co)	c	b	C(co)	D(co)	b	a	C(co)	C(te)	C(te)	D(ov)	C(co)	C(co)	C(co)	C(ov)	B(co)	b	b
Red-eyed Damselfly							c		b			b	C(co)	c		a	b	C(co)	c	b
Large Red Damselfly	x	D(co)	B(ov)	C(te)	D(co)	C(ov)	C(ov)	C(te)	B(ov)	D(co)	C(co)	D(ov)	C(te)	C(te)	C(ov)	C(ov)	C(co)	B(te)	B(co)	C(ov)
Small Red Damselfly	x			B(co)	a	a	a		a	b	a	b	C(co)	b	B(co)	b	B(te)	b	b	b
Blue-tailed Damselfly				a			a			a					a					
Common Blue Damselfly	x	B(co)	e	E(co)	F(co)	D	E(co)	F(co)	d	E(co)	E(co)	E(ov)	E	D(co)	C(co)	D(co)	D(co)	E(co)	D(co)	D(co)
Azure Damselfly	x	B(co)	b	C(co)	C(co)	D(ov)	D(co)	c		C(co)	D(co)	c	C(ov)	b	b	C(co)	B(co)	C(ov)	B(co)	a
Southern Hawker	x	b	B(te)	c	C(ov)	B(te)	B(ov)		a	B(ov)	b	b	a	b	a	C(co)	b	b	a	a
Brown Hawker	x	a	a	b	B(ov)	b	B(ov)	B(ov)		B(ov)	B(ov)	B(ov)	A(ov)	b	a	a	B(ov)	a	B(ov)	b
Common Hawker	x	a	a		a	a	a					a		a						
Migrant Hawker	x		B(ov)		b		b		a	c		b	a	b	b			b		
Emperor Dragonfly	x	b	B(ov)	B(ov)	B(ov)	a	b	b	a	B(ov)	b	a	B(ov)	b	B(ov)	C(ov)	a	b	b	
Golden-ringed Dragonfly	x	B(ov)	b	b	b	a	a	a	a	b	a	b	b	a	a			b	a	a
Downy Emerald	x	b	B(ov)	b	b	c	C(ov)			c	C(ov)	c	b	c	b	c	b	c	c	b
Brilliant Emerald	x	a	a	a		b	a		a		a	a	a			a	a			a
Black-tailed Skimmer	x		b	a	a		B(ov)				C(ov)	b	c	a	B(co)		b			
Keeled Skimmer	x	C(co)	B(co)	b	b	B(ov)	c	C(ov)	b	B(ov)	b		C(ov)	B(co)	b	a	B(ov)	b	b	b
Broad-bodied Chaser	x	B(co)	a	b		a									A(te)	a				
Four-spotted Chaser	x	C(ov)	B(co)	b	c	C(ov)	C(co)	C(te)	B(ov)	c	d	C(ov)	C(ov)	c	B(co)	C(ov)	b	C(ov)	C(co)	c
Black Darter	x	C(ov)	C(ov)	C(te)	C(ov)	b	C(co)	B(co)	C(te)	C(te)	D(ov)	D(ov)	D(ov)	C(ov)	C(ov)	C(co)	B(ov)	C(ov)	D(ov)	C(te)
Ruddy Darter	x		b				a											a		
Common Darter	x	C(ov)	C(ov)	c	D(ov)	C(ov)	C(ov)	B(co)	b	b	C(ov)	C(co)	C(co)	b	B(co)	C(ov)	b	C(ov)	c	b

A16. Rapley Lake, Swinley Forest

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle							a						a			a			a	
Emerald Damselfly	x		b	b	d	b	b			b	b	C(co)	C(co)	D(ov)	c	a	c	B(co)	C(ov)	D(co)
Red-eyed Damselfly							c		c	a	B(co)	c	B(co)	b	C(co)	C(co)	c	D(ov)	C(ov)	C(co)
Large Red Damselfly	x		B(co)		B(co)	b	b			b		C(te)	C(co)	C(co)	B(ov)	B(co)	C(ov)	C(co)	C(ov)	b
Small Red Damselfly																	c	a	B(co)	C(co)
Blue-tailed Damselfly			a									b	b	b	b	a		a	B(co)	b
Common Blue Damselfly	x		D(co)	a	D(co)	d	E(co)		f	F(ov)	d	D(co)	E(ov)	D(co)	E(co)	E(co)	E(co)	D(co)	D(co)	D(co)
Azure Damselfly	x		a	C(co)	C(ov)		b			d	b	B(co)	D(ov)	C(ov)	B(ov)	E(ov)	E(ov)	C(ov)	D(ov)	B(co)
Southern Hawker	x			a		a				b	a	a	B(ov)	a				a		a
Brown Hawker				a	A(ov)		B(ov)			b	a	A(ov)	B(ov)	B(ex)		a	a	B(ov)	B(ov)	b
Common Hawker																				
Migrant Hawker					a							b	a			b	b	C(co)		
Emperor Dragonfly			a	a	a		b					A(ov)		B(ov)	a	A(ov)	A(ov)	b	B(ov)	a
Hairy Dragonfly																			a	
Golden-ringed Dragonfly																				
Downy Emerald	x		b	b	b	b	b		b	a	b	b	b	c		b	B(ov)	b	c	C(ov)
Brilliant Emerald			a		a	b	b		b	a			b		b	a	a	b	b	b
Black-tailed Skimmer	x						b					a	B(co)	a	a	b	b	b	a	
Keeled Skimmer																		a		
Broad-bodied Chaser			a										a				a		a	
Four-spotted Chaser	x		C(ov)	b	B(ov)	b	b			b	b	C(ov)	B(ov)	b		C(co)	C(ov)	D(ov)	C(ov)	C(ov)
Black Darter	x			a						b	b	b	a							
Ruddy Darter	x			a			b			b		a	a	b	a	b	b	C(co)	a	c
Common Darter	x			a	C(co)	C(ov)	b			c	a	B(ov)	C(ov)	C(ov)	b	C(ov)	D(ov)	C(ov)	b	b
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

A17. Royal Military Academy, Sandhurst

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beautiful Demoiselle																				a
Banded Demoiselle							c									B(ov)	b			a
Emerald Damselfly																				
Red-eyed Damselfly							e									D(co)	c		c	d
Small Red-eyed Damselfly																a	a			
Large Red Damselfly							B(co)									D(ov)	C(co)			D(co)
Small Red Damselfly																				
Blue-tailed Damselfly							c									b	C(co)		b	b
Common Blue Damselfly							f									c	D(co)		b	D(co)
Azure Damselfly							C(co)									D(ov)	C(ov)			D(co)
Southern Hawker							b													
Brown Hawker							b										a	b		
Common Hawker																				
Migrant Hawker							b													
Emperor Dragonfly							a										B(ov)			
Golden-ringed Dragonfly																				
Downy Emerald							a									c	B(ov)			D(ex)
Brilliant Emerald							a										a			a
Black-tailed Skimmer							B(co)									C(co)	b			A(te)
Keeled Skimmer																				
Broad-bodied Chaser							a													
Four-spotted Chaser																	C(ov)		a	C(te)
Black Darter																				
Ruddy Darter																				
Common Darter							D(ov)									c	D(ov)			

A18. River Blackwater, Shepherd Meadows

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beautiful Demoiselle											a							b	b	
Banded Demoiselle	x	c		d		c	D(te)	d		D(te)	D(co)	c	B(te)	D(te)	c	D(te)	D(te)	E(em)	c	d
Emerald Damselfly																				
Red-eyed Damselfly							b	B(co)		B(co)	b	c		a		C(co)		b	C(ov)	
White-legged Damselfly					c															
Large Red Damselfly	x	x		x		B(co)	b	a		B(co)	b	a		B(ov)		b	B(co)	a	B(co)	
Small Red Damselfly																				
Blue-tailed Damselfly	x	x		b		b	B(co)			B(co)	C(co)	a				b		a	a	
Common Blue Damselfly							b			x		a				a	b	a		
Azure Damselfly	x			x		C(ov)	b	a		C(ov)				B(ov)					C(co)	
Southern Hawker																				
Brown Hawker	x	a				b				a	b	a					b			a
Common Hawker																				
Migrant Hawker							b			b	c	c	D(co)	b	c		b			C(ov)
Emperor Dragonfly	x	b		a		b	a	a			a	a					a	a	b	a
Golden-ringed Dragonfly								a									a			
Downy Emerald	x			a																
Brilliant Emerald																	a			
Black-tailed Skimmer							a													
Keeled Skimmer																				
Broad-bodied Chaser																				
Four-spotted Chaser								a												
Black Darter																				
Ruddy Darter							a													
Common Darter	x	x					b			B(co)	b	a	b	a	C(ov)					

A19. Swinley Brick Pits

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beautiful Demoiselle																			a	
Banded Demoiselle							a				a	b								a
Emerald Damselfly	x	D(co)	D(ov)	E(ov)	E(ov)	E(ov)	D(te)	D(co)	E(co)	E(te)	C(te)	C(ov)	c	c	C(te)	D(ov)	C(ov)	C(em)	C(ov)	D(co)
Red-eyed Damselfly												B(ov)	a	b	b	a	C(ov)	b	b	b
Large Red Damselfly	x	D(co)	c	C(te)	D(co)	E(te)	C(ov)	E(te)		D(co)	D(te)	B(te)	C(te)	D(ov)	D(ov)	E(ov)	C(co)	D(ov)	D(ov)	D(ex)
Small Red Damselfly			D	D(co)	D(co)	D(co)	D(te)	D(co)	D(ov)	F(co)	F(ex)	E(ov)	D(te)	D(co)	D(te)	D(co)	E(co)	D(co)	D(co)	D(co)
Blue-tailed Damselfly	x		b	c	c	b	C(co)	D(co)	c	D(co)	C(co)	c	C(co)	C(co)	C(co)	D(co)	D(co)	b	c	b
Common Blue Damselfly	x		a	D(ov)	b	c	C(co)	B(co)	c	C(co)	b	C(co)	b	D(co)	C(co)	C(co)	b	c	C(co)	C(co)
Azure Damselfly	x	D(co)	e	D(ov)	D(co)	E(ov)	E(ov)	F(ov)	D(ov)	E(co)	d	D(ov)	E(ov)	E(ov)	E(ov)	F(ov)	D(ov)	E(ov)	D(ov)	D(ov)

Southern Hawker	x	B(te)	B(ov)	B(ov)	C(ov)	B(ov)	C(ov)	B(ex)		B(ex)	b	b	b	c	b	c	B(ov)	B(ov)	C(ov)	C(ex)
Brown Hawker		a	B(ov)	B(ov)	B(ov)	b	B(ov)	b	a	C(ov)	a	a	a	b	B(ov)	B(ov)	B(ov)		B(ov)	B(ov)
Common Hawker	x	a	A(ov)	B	B(ov)	a	B(ov)		a	a				a						
Migrant Hawker		a	B(ov)	B(ov)	b	B(co)	a				C(co)	a	b	C(ov)	b	a	B(ov)	b	b	b
Emperor Dragonfly	x	a	B(ov)	C(ov)	B(ov)	C(ov)	B(ov)	b	b	B(ov)	b	b	b	c	C(ov)	B(ov)	B(ov)	B(ov)	C(ov)	b
Hairy Dragonfly																		a	b	b
Golden-ringed Dragonfly											a	a	b							
Downy Emerald	x	B(ov)	b	c	b	c	b	c	a	c	A(te)	c	b	c	C(co)	D(co)	C(ov)	C(ov)	D(ov)	C(ov)
Brilliant Emerald		b	a	b	a	a	b	b		b	a	a	b	a	A(te)			a	B(te)	a
Black-tailed Skimmer		A(te)	b	b	c	b	C(te)	C(ov)	B(co)	B(co)	B(ov)	C(co)	c	c		a	b	b		
Keeled Skimmer			b	b	b	a	C(co)		b	B(co)	c	B(ov)		b	c		b		a	
Broad-bodied Chaser			A(ov)	B(ov)	b	A(te)	a	a		a			b	a	b	a	b	B(ov)	b	a
Four-spotted Chaser	x	D(ov)	D(ov)	E(ov)	D(ov)	E(te)	E(ov)	E(te)	c	D(ov)	C(te)	d	D(ov)	D(te)	D(ov)	D(ov)	C(ov)	D(ov)	D(ov)	C(ov)
Black Darter	x	a	D(ov)	E(te)	E(ov)	D(ov)	D(ov)	C(te)	d	E(ov)	D(te)	D(te)	C(te)	C(co)		C(co)	D(ov)	b	C(ov)	D(ov)
Ruddy Darter	x	c	D(ov)	E(ov)	D(ov)	D(ov)	C(ov)	b	b	D(te)	C(te)	D(ov)	C(ov)	D(ov)	E(ov)	D(ov)	C(ov)	C(ov)	D(ov)	D(ov)
Common Darter	x	x	C(ov)	C(te)	D(te)	D(ov)	C(te)	C(te)	b	D(te)	D(te)	B(te)	C(ov)	D(te)	B(te)	D(ov)	E(ov)	D(ov)	D(ov)	D(ov)

A20. Upper Star Post Pond, Swinley Forest

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle														a						
Emerald Damselfly	x	C(co)											a							
Red-eyed Damselfly																b				
Large Red Damselfly	x	D(ov)	C(co)	b		C(ov)	C(co)			b	b	B(ov)	C(co)	B(ov)	C(co)	B(ov)	b	b	b	a
Small Red Damselfly																				
Blue-tailed Damselfly	x	x					B(co)			a				a						
Common Blue Damselfly	x	d					b			b	b	C(co)	b	C(co)	b					B(co)
Azure Damselfly	x	D(co)		D(ov)	b	b				b	c	C(ov)	C(co)	C(ov)	C(ov)	b	C(ov)	c	B(co)	B(co)

Southern Hawker	x	B(ov)					B(ov)	b				B(ov)	B(ov)	a	b	B(ov)				
Brown Hawker	x	B(ov)										a								
Common Hawker	x																			
Migrant Hawker	x																			
Emperor Dragonfly	x	D(ex)	D(ex)	A(ex)	a					B(ov)	a	b	B(ov)		A(ov)	B(ov)			a	
Golden-ringed Dragonfly													a							
Downy Emerald		x				a						a			a					
Brilliant Emerald	x	b									a			a					a	
Black-tailed Skimmer		a																		
Keeled Skimmer																				
Broad-bodied Chaser	x	A(ov)	b	B(co)	a		a						a	B(ov)		a	a			
Four-spotted Chaser	x	B(ov)									a	B(ov)	a					a	a	a
Black Darter							b													
Ruddy Darter	x						a													
Common Darter	x	C(co)				a	C(ov)	b				b	B(ov)	a	B(ov)					

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
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A21. River Cut

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle			c	d	b		a	b	a	b		c	c	c	d		b	c	b	c
Emerald Damselfly																				
Red-eyed Damselfly																				
White-legged Damselfly							a													
Large Red Damselfly				B(co)	a			x												
Small Red Damselfly																				
Blue-tailed Damselfly			B(co)	B(co)	D(co)			a		a		b			a		C(co)	c	a	b
Common Blue Damselfly																				
Azure Damselfly					C(co)															

Southern Hawker							b													
Brown Hawker								b				a					a			
Common Hawker																				
Migrant Hawker							b													
Emperor Dragonfly			a	a																
Golden-ringed Dragonfly							a										a*		a*	
Downy Emerald																				
Brilliant Emerald																				
Black-tailed Skimmer																				
Keeled Skimmer																				
Broad-bodied Chaser				a	b															
Four-spotted Chaser																				
Black Darter																				
Ruddy Darter																				
Common Darter							C(ov)	B(ov)									B(co)		a	

A22. Whitmoor Bog

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle																				
Emerald Damselfly																	a	c	b	b
Red-eyed Damselfly																				
Large Red Damselfly													D(te)				C(co)	D(ov)	C(ov)	C(ov)
Small Red Damselfly																				
Blue-tailed Damselfly													a					a		
Common Blue Damselfly																				B(co)
Azure Damselfly													B(ov)				b	D(ov)	b	C(ov)

Southern Hawker													a					a		b
Brown Hawker																	a			
Common Hawker																				
Migrant Hawker																				
Emperor Dragonfly																		a		a
Hairy Dragonfly																		a		
Golden-ringed Dragonfly																				
Downy Emerald																				
Brilliant Emerald																				
Black-tailed Skimmer																				a
Keeled Skimmer																				
Broad-bodied Chaser																	a	B(ov)		
Four-spotted Chaser																	b	C(ov)	b	c
Black Darter																				
Ruddy Darter													b							
Common Darter													C(co)				D(ov)	b		B(te)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
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A23. Wildmoor Heath

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beautiful Demoiselle							a			a		a				b				
Banded Demoiselle						a	b	a	a	a	a	b				a			a	
Emerald Damselfly	x		a							a		A(te)			a	b			a	b
Red-eyed Damselfly															b					
Large Red Damselfly	x	B(co)	b	C(ov)	D(ov)	B(co)	D(ov)	C(ov)	E(te)	D(ov)	D(te)	D(co)	D(te)	D(te)	D(ov)	D(ov)	D(ov)	C(ov)	C(co)	C(co)
Small Red Damselfly			b	b	B(co)	B(co)	C(co)	D(co)	C(te)	D(te)	D(te)	C(te)	D(te)	D(co)	C(te)	C(co)	D(ov)	D(co)	C(ov)	D(co)
Blue-tailed Damselfly	x	b	a	b	B(co)	a	b	c	b	b	a	b	b	a	C(co)	a		b	b	a
Common Blue Damselfly	x	x		c	b	b	b			a		a		b	b			c		B(co)
Azure Damselfly	x	b	B(ov)	b	D(ov)	D(ov)	C(ov)	D(ov)	D(ov)	D(ov)	D(ov)	C(te)	E(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)
Southern Hawker	x	a	A(ov)	a	C(ex)	a	B(te)	A(te)	C(ov)	A(ov)	B(ov)	B(ov)	a	B(ov)	a	B(ov)	A(ov)	B(ov)	A(ov)	b
Brown Hawker	x	B(ov)	B(ov)	b	A(te)	B(ov)	a	B(ov)	b	B(ov)	B(ov)	b	B(ov)	A(ex)		B(ov)	a		b	b
Common Hawker		A(ov)	A(ov)	A(ov)		a	a			a	a	a	a					a		
Migrant Hawker		a		a		a	a	a		a	b	b	b	b	a		a	A(em)	a	b
Emperor Dragonfly	x		a	a		a	a	b		B(ov)	B(ov)	B(ov)	B(ex)	D(ex)	B(ov)			b	A(ov)	B(ex)
Golden-ringed Dragonfly	x		B(co)	b	b	b	a	A(ov)	b	A(ov)	a	b	a	b		b	b	b		a
Downy Emerald										a						b				
Brilliant Emerald													a							
Black-tailed Skimmer	x	b	a		a		a			a	B(ov)	B(co)	B(te)	a	B(co)	a				
Keeled Skimmer	x	C(co)	D(co)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(te)	E(ov)	D(ov)	D(ov)	D(te)	C(ov)	D(ov)	C(co)	D(ov)	C(ov)	D(ov)
Broad-bodied Chaser	x	a	a	B(ov)	a	b	a	c	C(ov)	C(te)	C(ov)	B(ov)	C(ov)	B(ov)	B(ov)	C(ov)	C(ov)	B(ov)	B(ov)	a
Four-spotted Chaser	x		b	a	B(te)	b	a	b	B(ov)	D(ov)	D(ov)	C(te)	C(te)	D(ex)	C(ex)	C(ex)	d	c	a	b
Black Darter	x		a				C(ov)	C(te)	C(co)	C(te)	D(ov)	b	a	c	a	b	b			
Ruddy Darter		b	a	a			b		a	a		b	a		b	a		b		
Common Darter	x	b	B(ov)	C(te)	C(ov)	C(ov)	D(ov)	C(ov)	D(ov)	D(te)	D(ov)	D(te)	D(te)	C(te)	C(te)	D(ov)	D(ov)	C(ov)	D(ov)	D(ov)

A24. Wishmoor Bottom

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beautiful Demoiselle												a								
Banded Demoiselle							b													
Emerald Damselfly																				
Red-eyed Damselfly																				
Large Red Damselfly							C(ov)			C(co)	C(ov)	C(co)	b		C(co)	C(co)	b	b		C(co)
Small Red Damselfly															b	B(co)	b	a		b
Blue-tailed Damselfly							b					a			a					
Common Blue Damselfly							a													
Azure Damselfly										C(ov)	B(ov)	C(ov)			b	B(co)		b		
Southern Hawker													A(te)		A(ex)	A(ex)				a
Brown Hawker							b					a			A(ex)					
Common Hawker																				
Migrant Hawker													a							
Emperor Dragonfly							a						a		a					
Golden-ringed Dragonfly							b			c	b	b	b		b	b	b	b		a
Downy Emerald																				
Brilliant Emerald							a													
Black-tailed Skimmer							B(te)					a								
Keeled Skimmer							C(ov)			b	C(ov)	B(ov)	c	a	C(ov)	C(co)	C(ov)	c		C(ov)
Broad-bodied Chaser							C(te)			b	c	B(ov)	b			C(ov)	a	a		
Four-spotted Chaser							a				a	a								
Black Darter																	b	a		
Ruddy Darter																				
Common Darter							C(co)			B(te)		b	b	B(ov)	B(te)	b	b			a
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

A25. Wood Pond, Windsor Great Park

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Banded Demoiselle							a													
Emerald Damselfly					b	b	b					c	c		c	b		C(co)	c	C(co)
Red-eyed Damselfly																		a		
Large Red Damselfly					D(ov)	b	C(co)					C(co)	C(ov)					E(ov)		
Small Red Damselfly												a	a			b		c		
Blue-tailed Damselfly					b	b	B(co)					b			b	b				
Common Blue Damselfly					d	d	c					d	E(co)		D(ov)				b	
Azure Damselfly					D(ov)	D(ov)	D(co)					E(ov)	F(ov)		F(ov)	E(ov)		D(co)	C(co)	C(co)
Southern Hawker					b		a					b								
Brown Hawker					b	b	B(ov)					a	B(ov)		B(ov)	b			a	a
Common Hawker																				
Migrant Hawker					C(ov)							C(co)	b		b			b		b
Emperor Dragonfly					B(ov)	a	b					a	b		B(ov)	a		b		
Golden-ringed Dragonfly																			a	
Downy Emerald					b		b					b	b					b		
Brilliant Emerald					a								a							
Black-tailed Skimmer					a		b											a		
Keeled Skimmer																				
Broad-bodied Chaser					B(ov)		a					a								
Four-spotted Chaser					C(ov)	a	C(ov)					b	c					C(ov)		
Black Darter																		A(em)		
Ruddy Darter					C(co)	c	C(co)					D(ov)	D(ov)		D(ov)	c		D(co)	C(ov)	D(ov)
Common Darter					C(ov)	b	a					D(te)	C(ov)		C(co)	b			B(te)	b

A26. Embankment Complex, Swinley Forest

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Beautiful Demoiselle																		A(ov)		
Banded Demoiselle																	a			
Emerald Damselfly														b		a		A(ov)		
Red-eyed Damselfly																				
Large Red Damselfly								c	C(ov)				C(co)	D(te)	C(ov)	D(ov)	C(ov)	D(ov)	C(co)	C(ov)
Small Red Damselfly														b						a
Blue-tailed Damselfly																				
Common Blue Damselfly								b					b			b			a	b
Azure Damselfly									C(ov)				b	B(ov)	b	c	C(ov)	C(ov)	B(co)	b
Southern Hawker													b	b			a	a		A(ex)
Brown Hawker								a	a					a	a	a	b	a	a	b
Common Hawker														a						
Migrant Hawker														a			a			
Emperor Dragonfly														b	b		a	a		
Golden-ringed Dragonfly													a	b	b	b	a	a	b	a
Downy Emerald												b								
Brilliant Emerald																		a		
Black-tailed Skimmer																				
Keeled Skimmer														b	B(te)	C(co)	C(co)	C(te)	b	b
Broad-bodied Chaser														b	B(te)		B(co)			
Four-spotted Chaser									b						C(te)	C(ov)	C(ov)	C(ov)	C(co)	b
Black Darter													b	b	a	b	C(te)	a	C(ov)	a
Ruddy Darter														a	a					
Common Darter								a	b				b	C(ov)	b	C(ov)	B(ov)		a	

B1. Beautiful Demoiselle

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Caesars Camp Pond																a				
Cobblers Hole Bog							a													
Crowthorne Wood							a													
RMA Sandhurst																				a
Shepherd Meadows											a							b	b	
Swinley Brick Pits																			a	
Wildmoor Heath							a			a		a								
Wishmoor Bottom												a								
Embankment																				A(ov)

B2. Banded Demoiselle

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond												a								
Bush Fields									a					a				a		
Butter Bottom Ponds				a	a		a								b	a		a		a
By-Pass Pond																				
Caesars Camp Pond																				
Carnation B P			a			a			a											
Chaucer Woods													a	a	a	a	a			
Cobblers Hole Bog																				
Crowthorne Wood																		a		a
Englemere Pond										a	a			a						
Felix Farm												a		b	b	a	a	b	b	a
Forest Pond																	a			
Gormoor						a			a		a	a	b			a		a		
Leiper Pond																				
Mill Pond											a	a				a				
Rapley Lake							a						a						a	
RMA Sandhurst							c									B(ov)	b			a
Shepherd Meadows	x	c		d		c	D(te)	d		D(te)	D(co)	c	B(te)	D(te)	c	D(te)	D(te)	E(em)	c	d
Swinley Brick Pits							a				a	b								a
Upper Star Post														a						
River Cut			c	d	b		a	b	a	b		c	c	c	d		b	c	b	c
Whitmoor Bog																				
Wildmoor Heath						a	b	a	a	a	a	b					a			a
Wishmoor Bottom							b													
Wood Pond, WGP							a													
Embankment																	a			
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

B3. Emerald Damselfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond					a		b		C(co)	c	B(co)	B(te)			a					
Bush Fields										a							a			
Butter Bottom Ponds																a				
By-Pass Pond		B(co)	c	E(ov)		b	b													
Caesars Camp Pond			b	b	b			b	b		a		C(ov)	a					a	a
Carnation B P																				
Chaucer Woods												a				B(co)	b			
Cobblers Hole Bog												B(ov)	b	B(co)	c		a			b
Crowthorne Wood									b	a	B(ov)	b	b	c	B(te)	b	b	C(ov)	C(ov)	C(te)
Englemere Pond				C(co)		b	D(ov)	D(co)	D(co)	E(ov)	C(co)	D(ov)	D(te)	E(te)	E(ov)	d	C(ov)	D(co)	C(ov)	E(ov)
Felix Farm															B(co)	a	b	b		a
Forest Pond		B(co)	B(co)	b																
Gormoor				b	a	b						a		a		a				a
Leiper Pond			b		a		B(co)						b	b					a	
Mill Pond	x	B(te)	B(co)	c	b	C(co)	D(co)	b	a	C(co)	C(te)	C(te)	D(ov)	C(co)	C(co)	C(co)	C(ov)	B(co)	b	b
Rapley Lake	x		b	b	d	b	b			b	b	C(co)	C(co)	D(ov)	c	a	c	B(co)	C(ov)	D(co)
RMA Sandhurst																				
Shepherd Meadows																				
Swinley Brick Pits	x	D(co)	D(ov)	E(ov)	E(ov)	E(ov)	D(te)	D(co)	E(co)	E(te)	C(te)	C(ov)	c	c	C(te)	D(ov)	C(ov)	C(em)	C(ov)	D(co)
Upper Star Post	x	C(co)											a							
River Cut																				
Whitmoor Bog																				
Wildmoor Heath	x		a							a		A(te)			a	b		a	c	b
Wishmoor Bottom																			a	b
Wood Pond, WGP					b	b	b					c	c		c	b		C(co)	c	C(co)
Embankment															b	a			A(ov)	

B4. Red-eyed Damselfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond																				
Bush Fields																				
Butter Bottom Ponds		B(co)					c					D(co)	c	E(ov)	C(co)	d	C(ov)	d	C(ov)	c
By-Pass Pond												B(ov)								
Caesars Camp Pond																				
Carnation B P	x			c	C(ov)		b	a		a			a	a		b	a	c	b	
Chaucer Woods							D(ov)					D(co)	D(ov)	D(co)	D(co)	D(co)	b	c		
Cobblers Hole Bog																				
Crowthorne Wood																				
Englemere Pond					C(ov)	b	C(co)	c	C(co)	b	c	c	D(ov)	D(ov)	c	C(ov)	a	c	D(ov)	D(ov)
Felix Farm										D(co)		C(co)	b	D(ov)	D(ov)	D(ov)	D(co)	D(co)	C(ov)	D(co)
Forest Pond																				
Gormoor																				
Leiper Pond							C(ov)	a				a								
Mill Pond							c		b			b	C(co)	c		a	b	C(co)	c	b
Rapley Lake							c		c	a	B(co)	c	B(co)	b	C(co)	C(co)	c	D(ov)	C(ov)	C(co)
RMA Sandhurst							e									D(co)	c		c	d
Shepherd Meadows						b	B(co)			B(co)	b	c		a		C(co)		b	C(ov)	
Swinley Brick Pits												B(ov)	a	b	b	a	C(ov)	b	b	b
Upper Star Post																b				
River Cut																				
Whitmoor Bog																				
Wildmoor Heath															b					
Wishmoor Bottom																				
Wood Pond, WGP																		a		
Embankment																				

B5. Small Red-eyed Damselfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Allsmoor Pond														b	B(ov)	b	C(ov)	c	C(ov)	C(ov)
Butter Bottom Ponds														b	C(co)	C(co)	b			
Crowthorne Wood																a				
Englemere Pond												B(co)	D(ov)	B(co)			b	a		
Felix Farm														B(ov)	D(ov)	E(ov)	D(ov)	D(ov)	C(ov)	B(ov)
RMA Sandhurst																a	a			
Mill Pond, Easthampstead														C(ov)	b			B(ov)		

B6. Large Red Damselfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond					b	b	C(ov)	C(co)	D(ov)	B(co)	B(ov)	D(co)	b							
Bush Fields						D(ov)	D(te)	C(ov)	D(te)	D(te)	C(co)	C(ov)	C(ov)		C(co)	D(ov)	C(ov)	C(ov)	B(ov)	B(co)
Butter Bottom Ponds	x	B(co)	c	C(co)	D(co)	x	C(co)					C(ov)	a	C(ov)	b	C(co)	C(ov)	b	C(co)	b
By-Pass Pond		B(co)	a	b		a	C(co)					D(te)	C(te)		C(co)	b		B(te)		b
Caesars Camp Pond			b	b	C(ov)	c	C(te)	D(ov)	C(te)	C(ov)	C(te)	C(ov)	C(te)	D(te)	C(ov)	C(co)	c	b	C(co)	C(ov)
Carnation B P	x	a	C(co)	C(co)	C(ov)	c	c	a	C(co)		a	b								b
Chaucer Woods		C(co)										a	b			C(co)	b	B(co)		
Cobblers Hole Bog					B(co)	c	B(ov)		c	D(ov)	c	B(ov)	C(co)	C(te)	a	C(ov)	D(ov)	C(ov)	C(ov)	C(ov)
Crowthorne Wood	x	C(co)	D(co)	C(ov)	a	a	C(co)	C(co)	D(te)	D(ov)	E(te)	C(te)	D(te)	D(ov)	D(te)	D(ov)	D(co)	D(ov)	C(ov)	D(ov)
Englemere Pond	x	b	a	A(te)	a	b	B(ov)	C(te)	B(co)	b	C(te)	B(co)	a	B(co)	B(co)	a	a	C(ov)	D(ov)	
Felix Farm									b			a				B(co)	B(ov)	b	a	a
Forest Pond		B(co)	c	C(ov)	C(ov)	C(co)	b	B(co)	a	a	B(co)	a	B(co)	B(co)	B(co)	B(co)	C(co)	C(co)	C(ov)	C(ov)
Gormoor		C(co)	C(co)	C(ov)	D(ov)	E(te)	D(te)	C(co)	D(ov)	E(ov)	D(co)	D(te)	D(te)	D(ov)	D(ov)	D(co)	D(ov)	D(ov)	D(co)	D(ov)
Leiper Pond			B(te)	a			B(co)		b	B(co)	a	b	C(co)	c	b	a		B(ov)		
Mill Pond	x	D(co)	B(ov)	C(te)	D(co)	C(ov)	C(ov)	C(te)	B(ov)	D(co)	C(co)	D(ov)	C(te)	C(te)	C(ov)	C(ov)	C(co)	B(te)	B(co)	C(ov)
Rapley Lake	x		B(co)		B(co)	b	b			b		C(te)	C(co)	C(co)	B(ov)	B(co)	C(ov)	C(co)	C(ov)	b
RMA Sandhurst							B(co)										D(ov)	C(co)		D(co)
Shepherd Meadows	x	x		x		B(co)	b	a		B(co)	b	a		B(ov)		b	B(co)	a	B(co)	
Swinley Brick Pits	x	D(co)	c	C(te)	D(co)	E(te)	C(ov)	E(te)		D(co)	D(te)	B(te)	C(te)	D(ov)	D(ov)	E(ov)	C(co)	D(ov)	D(ov)	D(ex)
Upper Star Post	x	D(ov)	C(co)	b		C(ov)	C(co)			b	b	B(ov)	C(co)	B(ov)	C(co)	B(ov)	b	b	b	a
River Cut				B(co)	a			x												
Whitmoor Bog													D(te)				C(co)	D(ov)	C(ov)	C(ov)
Wildmoor Heath	x	B(co)	b	C(ov)	D(ov)	B(co)	D(ov)	C(ov)	E(te)	D(ov)	D(te)	D(co)	D(te)	D(ov)	D(ov)	D(ov)	D(ov)	C(ov)	C(co)	C(co)
Wishmoor Bottom							C(ov)			C(co)	C(ov)	C(co)	b		C(co)	C(co)	b	b		C(co)
Wood Pond, WGP					D(ov)	b	C(co)					C(co)	C(ov)					E(ov)		
Embankment								c	C(ov)				C(co)	D(te)	C(ov)	D(ov)	C(ov)	D(ov)	C(co)	C(ov)

B7. Small Red Damselfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond					a				a	b	b	C(co)	b							
Bush Fields										a	B(te)	b	b		B(co)	C(co)	C(ov)	a	B(co)	b
Butter Bottom Ponds																				
By-Pass Pond													b			c		b		b
Caesars Camp Pond							b	C(te)	C(ov)	C(co)	C(co)	D(te)	C(te)	C(te)	C(co)	b	c	C(co)	C(co)	C(co)
Carnation B P																				
Chaucer Woods																a				
Cobblers Hole Bog											A(te)		a	a	b	B(co)	B(co)	b		c
Crowthorne Wood			a				a	a	b	C(co)	C(co)	C(co)	D(te)	D(te)	D(te)	C(co)	D(co)	D(co)	D(co)	D(co)
Englemere Pond							B(co)		C(co)	B(te)	D(co)	a		a			b			
Felix Farm																				
Forest Pond																				
Gormoor						a		a		a	b	B(ov)	b	c	C(co)	a	D(co)	D(co)	b	B(te)
Leiper Pond												b	c	C(co)	d	C(co)		c		
Mill Pond	x			B(co)	a	a	a		a	b	a	b	C(co)	b	B(co)	b	B(te)	b	b	b
Rapley Lake																	c	a	B(co)	C(co)
RMA Sandhurst																				
Shepherd Meadows																				
Swinley Brick Pits			D(co)	D(co)	D(co)	D(co)	D(te)	D(co)	D(ov)	F(co)	F(ex)	E(ov)	D(te)	D(co)	D(te)	D(co)	D(co)	D(co)	D(co)	D(co)
Upper Star Post																				
River Cut																				
Whitmoor Bog																				
Wildmoor Heath			b	b	B(co)	B(co)	C(co)	D(co)	C(te)	D(te)	D(te)	C(te)	D(te)	D(co)	C(te)	C(co)	D(ov)	D(co)	C(ov)	D(co)
Wishmoor Bottom															b	B(co)	b	a		b
Wood Pond, WGP												a	a			b		c		
Embankment														b						a

B8. Blue-tailed Damselfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond					b				a	a										
Bush Fields																				
Butter Bottom Ponds	x	b	b	b	a	d	C(co)					b	a	c	c	c	c	b	b	b
By-Pass Pond		b	b			b	B(co)					c	b					a		
Caesars Camp Pond			a		b	a	b	b	a	b	a		a	b	b					
Carnation B P	x	B(co)	B(te)	C(co)	C(co)	C(co)	D(co)	b	C(ov)	B(co)	C(co)	B(co)	C(te)			a		C(co)	b	
Chaucer Woods	x	a					a					c	c	c	b	C(co)	c	b		
Cobblers Hole Bog										b										
Crowthorne Wood			a				a	a	a	b	B(co)	a	b	a		a	b	a	a	B(co)
Englemere Pond	x	a	a	b	b	B(co)	D(co)	C(co)	C(co)	C(co)	C(co)	b	c	C(co)	B(co)	c	D(co)	c	c	b
Felix Farm									E(co)	a		D(co)	C(co)	C(co)	D(co)	E(co)	E(co)	D(co)	C(co)	C(co)
Forest Pond																		b		
Gormoor		a		a	a	a		a	a	a			a		a	a				a
Leiper Pond			a		C(co)	B(co)	C(co)	c	B(co)	a	b	C(co)	C(co)	C(ov)	C(co)	b		a		
Mill Pond				a			a			a					a					
Rapley Lake			a									b	b	b	b	a		a	B(co)	b
RMA Sandhurst							c									b	C(co)		b	b
Shepherd Meadows	x	x		b		b	B(co)			B(co)	C(co)	a				b		a	a	
Swinley Brick Pits	x		b	c	c	b	C(co)	D(co)	c	D(co)	C(co)	c	C(co)	C(co)	C(co)	D(co)	D(co)	b	c	b
Upper Star Post	x	x					B(co)			a				a						
River Cut			B(co)	B(co)	D(co)			a		a	b				a		C(co)	c	a	b
Whitmoor Bog													a					a		
Wildmoor Heath	x	b	a	b	B(co)	a	b	c	b	b	a	b	a	a	C(co)	a		b	b	a
Wishmoor Bottom							b						a		a					
Wood Pond, WGP					b	b	B(co)					b			b	b				
Embankment																				

B9. Common Blue Damselfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond					b		b		c	c										
Bush Fields							a	B(te)		a		a	b				a	a		b
Butter Bottom Ponds	x	D(co)	x	d	b	d	E(co)					D(co)	C(co)	E(te)	D(ov)	D(co)	D(co)	E(co)	d	D(co)
By-Pass Pond		a			D(ov)		c	c				c								
Caesars Camp Pond					b		a	b	b			b	a	b	a	b				b
Carnation B P		a	C(co)	a	b			a	b								a			b
Chaucer Woods			b				d					D(co)	E(co)	D(co)	E(co)	D(co)	c	C(ov)		
Cobblers Hole Bog					c	c	b		b	b	a				b	a	a	a		
Crowthorne Wood										a	a	b	a	b	B(co)	C(co)	b	b	b	D(co)
Englemere Pond	x		c	D(co)	b	b	D(co)	c	C(co)	C(co)	c	D(co)	b	C(ov)	b	b	b	C(co)	c	b
Felix Farm									F(co)			E(co)	F(co)	F(te)	F(ov)	E(ov)	F(ov)	E(ov)	F(ov)	E(ov)
Forest Pond							b			a		b				a	b			
Gormoor					a					a		a	a							
Leiper Pond			D(co)		D(ov)	a	D(co)	d	F(co)	b	D(co)	c	C(co)	B(ov)	C(co)	b		b		
Mill Pond	x	B(co)	e	E(co)	F(co)	D(co)	E(co)	F(co)	d	E(co)	E(co)	E(ov)	E(co)	D(co)	C(co)	D(co)	D(co)	E(co)	D(co)	D(co)
Rapley Lake	x		D(co)	a	D(co)	d	E(co)		f	F(ov)	d	D(co)	E(ov)	D(co)	E(co)	E(co)	E(co)	D(co)	D(co)	D(co)
RMA Sandhurst							f									c	D(co)		b	D(co)
Shepherd Meadows							b			x		a				a	b	a		
Swinley Brick Pits	x		a	D(ov)	b	c	C(co)	B(co)	c	C(co)	b	C(co)	b	D(co)	C(co)	C(co)	b	c	C(co)	C(co)
Upper Star Post	x	d					b			b	b	C(co)	b	C(co)	b					B(co)
River Cut																				
Whitmoor Bog																				B(co)
Wildmoor Heath	x	x		c	b	b	b			a		a		b	b			c		B(co)
Wishmoor Bottom							a													
Wood Pond, WGP					d	d	c					d	E(co)		D(ov)				b	
Embankment								b					b			b			a	b

B10. Azure Damselfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Bagshot Road Pond					B(co)	e	E(ov)	F(ov)	F(ov)	E(co)	E(co)	E(te)	c								
Bush Fields						C(co)	C(co)		C(ov)	b	b	B(ov)	c			b	C(ov)	B(ov)	C(co)	B(co)	
Butter Bottom Ponds	x	D(ov)	x	D(co)	d		C(ov)					C(ov)	B(te)	C(ov)	a	c	B(co)	a	B(co)	b	
By-Pass Pond		d	d	B(co)		B(ov)	C(co)					D(ov)	D(ov)		C(ov)	D(ov)		c		c	
Caesars Camp Pond			a	B(ov)	C(ov)	b	C(ov)	C(ov)	C(ov)	C(co)	C(co)	C(ov)	C(co)	D(ov)	C(ov)	D(ov)	C(co)	B(co)	B(ov)	C(ov)	
Carnation B P	x	b	C(co)	D(ov)	D(ov)	D(ov)	C(ov)	B(ov)	D(ov)	b	B(co)	C(co)	C(co)					b		C(co)	
Chaucer Woods							C(co)					B(ov)	b	a		D(ov)	B(co)	B(ov)			
Cobblers Hole Bog						b	B(ov)		a	c	b	C(ov)	C(ov)	B(ov)		C(ov)	C(co)	C(co)	b	C(ov)	
Crowthorne Wood		a					B(co)	a	b	c	D(ov)	D(ov)	D(co)	D(ov)	C(ov)	C(ov)	D(ov)	D(ov)	D(ov)	C(ov)	
Englemere Pond	x	d		c	c	c	C(co)	D(ov)	C(co)	D(co)	E(co)	c	D(ov)	E(ov)	D(co)	b	D(ov)	E(ov)	C(co)	B(ov)	
Felix Farm									C(ov)	a		B(co)	B(co)		B(co)	E(ov)	D(ov)	B(ov)	C(ov)	C(ov)	
Forest Pond		D(co)	B(co)	D(ov)	C(co)	B(co)	c			B(co)				b		B(co)	b	b	b	B(co)	
Gormoor		B(ov)	B(co)	C(ov)	C(ov)	C(co)	C(co)	a	b	D(co)	c	C(co)	C(ov)	c	C(ov)	b	D(ov)	C(co)	C(co)	b	
Leiper Pond			a			D(ov)	C(ov)	a	E(ov)	F(co)	E(co)	C(co)	E(ov)	E(ov)	C(co)	D(co)		D(ov)	b		
Mill Pond	x	B(co)	b	C(co)	C(co)	D(ov)	D(co)	c		C(co)	D(co)	c	C(ov)	b	b	C(co)	B(co)	C(ov)	B(co)	a	
Rapley Lake	x		a	C(co)	C(ov)		b			d	b	B(co)	D(ov)	C(ov)	B(ov)	E(ov)	E(ov)	C(ov)	D(ov)	B(co)	
RMA Sandhurst							C(co)									D(ov)	C(ov)			D(co)	
Shepherd Meadows	x			x		C(ov)	b	a			C(ov)			B(ov)					C(co)		
Swinley Brick Pits	x	D(co)	e	D(ov)	D(co)	E(ov)	E(ov)	F(ov)	D(ov)	E(co)	d	D(ov)	E(ov)	E(ov)	E(ov)	F(ov)	D(ov)	E(ov)	D(ov)	D(ov)	
Upper Star Post	x	D(co)		D(ov)	b	b				b	c	C(ov)	C(co)	C(ov)	C(ov)	b	C(ov)	c	B(co)	B(co)	
River Cut						C(co)															
Whitmoor Bog														B(ov)			b	D(ov)	b	C(ov)	
Wildmoor Heath	x	b	B(ov)	b	D(ov)	D(ov)	C(ov)	D(ov)	D(ov)	D(ov)	D(ov)	C(te)	E(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	
Wishmoor Bottom												C(ov)	B(ov)	C(ov)	b	B(co)		b			
Wood Pond, WGP					D(ov)	D(ov)	D(co)					E(ov)	F(ov)		F(ov)	E(ov)		D(co)	C(co)	C(co)	
Embankment									C(ov)					b	B(ov)	b	c	C(ov)	C(ov)	B(co)	b

B11. White-legged Damselfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Butter Bottom Ponds													C(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	C(co)	D(ov)
By-Pass Pond																		a		
Crowthorne Wood													b							
Shepherd Meadows						c														
River Cut							a													

B12. Hairy Dragonfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Chaucer Woods																			a	a
Englemere Pond																		b	b	
Felix Farm																			a	
Rapley Lake																			a	
Swinley Brick Pits																		a	b	b
Whitmoor Bog																		a		
Wildmoor Heath																	a			

B13. Southern Hawker

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond					B(co)			B(ov)	B(ex)	B(ex)	B(ex)	a								
Bush Fields						a	b	A(te)	b	a	C(ex)	B(te)	B(ex)	b	A(ex)	B(ex)	b	b	b	b
Butter Bottom Ponds		a															a			
By-Pass Pond		a				a	b					B(te)	b			a		a		b
Caesars Camp Pond					B(ex)		a	A(ex)	B(ov)	a			a					b		
Carnation B P		a				a	b													
Chaucer Woods																A(ex)	b			
Cobblers Hole Bog					a		b	b	b	B(ex)	B(ov)	B(ex)	B(ov)	a		B(ex)		a		
Crowthorne Wood	x		a	A(te)	a	a	C(ov)	B(ex)	a	b	a	B(ex)	a	B(ov)		B(ov)	A(ov)	B(ov)	b	a
Englemere Pond					a		a	a	a	a	a	a	a	a		a				
Felix Farm															a					
Forest Pond		B(ov)	b	b	C(ex)	A(ex)	B(ex)	B(ex)	B(ex)	b	b	B(ex)	b	b	b	B(ov)	a	a	b	
Gormoor		B(ov)	b	B(ov)	B(ov)	B(ov)	C(ex)	B(ex)	b	B(ex)	B(co)	B(ov)	B(te)	c	B(ex)	B(ex)	B(ex)	C(ex)	C(ov)	B(ex)
Leiper Pond			B(ov)				b						a							
Mill Pond	x	b	B(te)	c	C(ov)	B(te)	B(ov)		a	B(ov)	b	b	a	b	a	C(co)	b	b	a	a
Rapley Lake	x			a		a				b	a	a	B(ov)	a				a		a
RMA Sandhurst							b													
Shepherd Meadows																				
Swinley Brick Pits	x	B(te)	B(ov)	B(ov)	C(ov)	B(ov)	C(ov)	B(ex)		B(ex)	b	b	b	c	b	c	B(ov)	B(ov)	C(ov)	C(ex)
Upper Star Post	x	B(ov)					B(ov)	b				B(ov)	B(ov)	a	b	B(ov)				
River Cut							b													
Whitmoor Bog													a					a		b
Wildmoor Heath	x	a	A(ov)	a	C(ex)	a	B(te)	A(te)	C(ov)	A(ov)	B(ov)	B(ov)	a	B(ov)	a	B(ov)	A(ov)	B(ov)	A(ov)	b
Wishmoor Bottom													A(te)		A(ex)	A(ex)				a
Wood Pond, WGP					b		a					b								
Embankment													b	b			a	a		A(ex)

B14. Brown Hawker

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond								B(ov)			a									
Bush Fields						b	a	a	a		a	a			a	a	b	b	b	a
Butter Bottom Ponds	x	B(ov)		a									B(ov)	b	b	b	b	b	a	
By-Pass Pond		B(ov)		b			a					a	a			a				
Caesars Camp Pond			a	B(ov)	a	a		a	a	b	a	a	A(ov)		a				a	a
Carnation B P					a	b	a	a					a				a			
Chaucer Woods												C(ov)	B(ov)	b		A(ov)	B(ov)			
Cobblers Hole Bog					a		a		b	a			a	b	a	a	a	a		b
Crowthorne Wood	x	a	b	a	a		a		a	a	A(ov)	a	b	A(ov)	a	a			B(ov)	
Englemere Pond	x		b	b	a	B(ov)	C(ov)	B(ov)	b	B(ov)	b	b	B(ov)	B(ov)	b	a	a	b	b	B(ov)
Felix Farm									b			b	a	b	B(ov)	b	B(ov)	a	b	a
Forest Pond				a					a	a	a	a								
Gormoor		a	b	b	b	b	b	a	b	b	b	a	a			b	b		b	b
Leiper Pond			B(ov)		B(ov)	a	B(ov)				a	a	b		B(ov)					
Mill Pond	x	a	a	b	B(ov)	b	B(ov)	B(ov)		B(ov)	B(ov)	B(ov)	A(ov)	b	a	a	B(ov)	a	B(ov)	b
Rapley Lake				a	A(ov)		B(ov)			b	a	A(ov)	B(ov)	B(ex)		a	a	B(ov)	B(ov)	b
RMA Sandhurst							b									a	b			
Shepherd Meadows	x	a				b				a	b	a					b			a
Swinley Brick Pits		a	B(ov)	B(ov)	B(ov)	b	B(ov)	b	a	C(ov)	a	a	a	b	B(ov)	B(ov)	B(ov)		B(ov)	B(ov)
Upper Star Post	x	B(ov)										a								
River Cut								b				a					a			
Whitmoor Bog																	a			
Wildmoor Heath	x	B(ov)	B(ov)	b	A(te)	B(ov)	a	B(ov)	b	B(ov)	B(ov)	b	B(ov)	A(ex)		B(ov)	a		b	b
Wishmoor Bottom						b						a			A(ex)					
Wood Pond, WGP					b	b	B(ov)					a	B(ov)		B(ov)	b			a	a
Embankment								a	a					a	a	a	b	a	a	b

B15. Common Hawker

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond																				
Bush Fields							a				a							A(ov)		
Butter Bottom Ponds																				
By-Pass Pond		B(ov)		a																
Caesars Camp Pond							a					a								
Carnation B P																				
Chaucer Woods																				
Cobblers Hole Bog												A(ov)								
Crowthorne Wood							a						a	a					a	
Englemere Pond	x				a	a	A(ov)		a	a	b									
Felix Farm																				
Forest Pond																				
Gormoor		a			A(ov)	A(ov)	a	A(ov)				A(ov)	A(ov)	a				A(ex)		
Leiper Pond																				
Mill Pond	x	a	a			a	a					a		a						
Rapley Lake																				
RMA Sandhurst																				
Shepherd Meadows																				
Swinley Brick Pits	x	a	A(ov)	B(ov)	B(ov)	a	B(ov)		a	a				a						
Upper Star Post	x																			
River Cut																				
Whitmoor Bog																				
Wildmoor Heath		A(ov)	A(ov)	A(ov)		a	a			a	a	a	a					a		
Wishmoor Bottom																				
Wood Pond, WGP																				
Embankment															a					

B16. Migrant Hawker

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond					B(ov)				b			a								
Bush Fields						b	a					a	a	b		a		a	a	
Butter Bottom Ponds	x	a					a								B(ov)	a	b			
By-Pass Pond						a	b													
Caesars Camp Pond					a		a		a					b						
Carnation B P	x	b				a	C(co)		b								a			
Chaucer Woods												C(co)	b	b		b				
Cobblers Hole Bog					a	a	a					a		a						
Crowthorne Wood	x		a			a			a	a	a	B(ov)	b	B(ov)					a	b
Englemere Pond	x		a	a	b	a	C(co)	b	c	a	a	c	b	c	b	b	c	b		a
Felix Farm									D(co)				c	c	C(co)	C(ov)	C(co)	C(ov)	b	c
Forest Pond				a			a													
Gormoor				c	c	b	c	b	b	a	b	b		b	b	b	c		a	
Leiper Pond					C(ov)		C(co)					C(ov)	b		b			a		
Mill Pond	x		B(ov)		b		b		a	c		b	a	b	b			b		
Rapley Lake					a							b	a			b	b	C(co)		
RMA Sandhurst							b													
Shepherd Meadows							b			b	c	c	D(co)	b	c		b			C(ov)
Swinley Brick Pits		a	B(ov)	B(ov)	b	B(co)	a				C(co)	a	b	C(ov)	b	a	B(ov)	b	b	b
Upper Star Post	x																			
River Cut							b													
Whitmoor Bog																				
Wildmoor Heath		a		a		a	a	a		a	b	b	b	b	a		a	A(em)	a	b
Wishmoor Bottom													a							
Wood Pond, WGP												C(co)	b		b			b		b
Embankment															a		a			

B17. Emperor Dragonfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond							B(co)	B(ov)	b	a	a									
Bush Fields													a			A(ex)	b	a	a	a
Butter Bottom Ponds	x	B(ov)		b								B(ov)	B(ov)	b	B(ov)	B(ov)	B(ov)	a	B(ov)	B(ov)
By-Pass Pond		b		a								B(ov)	a		a					
Caesars Camp Pond			B(ov)	B(ov)	a		B(ov)	B(ov)	B(ov)	A(ov)	a	B(ov)	B(ov)	B(ov)	B(ov)	b	a	b	b	b
Carnation B P		B(ov)	B(ov)	B(ov)	B(ov)	b		B(ov)	B(ov)	b	b	a	a	a				a		
Chaucer Woods	x		a				a					b	C(ov)	B(ov)	C(ov)	C(ov)	a	B(ov)		
Cobblers Hole Bog					a										A(ov)			a		a
Crowthorne Wood				a				a	a	A(ov)	B(ov)	b	B(ov)	B(ov)	B(ov)	b	B(ov)	C(ov)	C(ov)	C(ov)
Englemere Pond	x		a	b	a	a	B(ov)	b		B(ov)	b	B(ov)	B(ov)	B(ov)			a	B(ov)	b	a
Felix Farm									B(ov)			b	b	C(ov)	B(ov)	B(ex)	B(ov)	B(ov)	B(ov)	C(ov)
Forest Pond		A(ov)	A(ov)	B(ov)								a	a	a			a	a		
Gormoor			a	b	b	b	a	a	b	a	b	a	b	b	a		a	a	b	b
Leiper Pond			a		B(ov)	B(ov)	b	a	B(ov)		a		b	B(ov)		a		b		
Mill Pond	x	b	B(ov)	B(ov)	B(ov)	a	b	b	a	B(ov)	b	a	B(ov)	b	B(ov)	C(ov)	a	b	b	
Rapley Lake			a	a	a		b					A(ov)		B(ov)	a	A(ov)	A(ov)	b	B(ov)	a
RMA Sandhurst							a										B(ov)			
Shepherd Meadows	x	b		a		b	a	a			a	a					a	a	b	a
Swinley Brick Pits	x	a	B(ov)	C(ov)	B(ov)	C(ov)	B(ov)	b	b	B(ov)	b	b	b	c	C(ov)	B(ov)	B(ov)	B(ov)	C(ov)	b
Upper Star Post	x	D(ex)	D(ex)	A(ex)	a					B(ov)	a	b	B(ov)		A(ov)	B(ov)			a	
River Cut			a	a																
Whitmoor Bog																		a		a
Wildmoor Heath	x		a	a		a	a	b		B(ov)	B(ov)	B(ov)	B(ex)	D(ex)	B(ov)			b	A(ov)	B(ex)
Wishmoor Bottom							a						a		a					
Wood Pond, WGP					B(ov)	a	b					a	b		B(ov)	a		b		
Embankment														b	b		a	a		

B18. Golden-ringed Dragonfly

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond																				
Bush Fields						b	b	b	b	B(ov)	b	a	b	a		b	b	B(ov)	b	a
Butter Bottom Ponds																				
By-Pass Pond				b																
Caesars Camp Pond				b	a	b	a	b	b	b	b	a	a		b	a	b	a		a
Carnation B P																				
Chaucer Woods																				
Cobblers Hole Bog					b		a			b	a	a	b		a	b		b		a
Crowthorne Wood	x	b	b	b					a	a	c	B(ov)	b	b	a	b	a	a	b	b
Englemere Pond																				
Felix Farm																				
Forest Pond																				
Gormoor		a	b	c	c	a	b		a	b	b	b	b	a		b	b	b		
Leiper Pond																				
Mill Pond	x	B(ov)	b	b	b	a	a	a	a	b	a	b	b	a	a			b	a	a
Rapley Lake																				
RMA Sandhurst																				
Shepherd Meadows								a									a			
Swinley Brick Pits											a	a	b							
Upper Star Post													a							
River Cut							a													
Whitmoor Bog																				
Wildmoor Heath	x		B(co)	b	b	b	a	A(ov)	b	A(ov)	a	b	a	b		b	b	b		a
Wishmoor Bottom							b				c	b	b	b	b	b	b	b		a
Wood Pond, WGP																			a	
Embankment													a	b	b	b	a	a	b	a

B19. Downy Emerald

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond							b	b	b	a		b								
Bush Fields																			a	
Butter Bottom Ponds	x	b	a	b	c	a	b					c	c	b	c	c	a	a	c	b
By-Pass Pond							a					B(ov)	b		a	a				
Caesars Camp Pond																				
Carnation B P				a				b	b									a		
Chaucer Woods		c												a	a	C(ov)	b	b		
Cobblers Hole Bog										a			a							
Crowthorne Wood										a						a		a		
Englemere Pond	x	b		b	b	b	b	c	a	C(ov)	B(te)	b	b	b	b	b	b	c	b	a
Felix Farm									b			a			a	b		a	a	C(ov)
Forest Pond			a								a	b								
Gormoor			a																	
Leiper Pond					a		a		b	a		a	a							
Mill Pond	x	b	B(ov)	b	b	c	C(ov)			c	C(ov)	c	b	c	b	c	b	c	c	b
Rapley Lake	x		b	b	b	b	b		b	a	b	b	b	c		b	B(ov)	b	c	C(ov)
RMA Sandhurst							a									c	B(ov)			D(ex)
Shepherd Meadows	x			a																
Swinley Brick Pits	x	B(ov)	b	c	b	c	b	c	a	c	A(te)	c	b	c	C(co)	D(co)	C(ov)	C(ov)	D(ov)	C(ov)
Upper Star Post		x				a						a			a					
River Cut																				
Whitmoor Bog																				
Wildmoor Heath										a						b				
Wishmoor Bottom																				
Wood Pond, WGP					b		b					b	b					b		
Embankment													b							

B20. Brilliant Emerald

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond												a								
Bush Fields						a														
Butter Bottom Ponds		a												a	a	b	a	a	a	
By-Pass Pond							a													
Caesars Camp Pond																				
Carnation B P																				
Chaucer Woods												a			a	b	a	a		
Cobblers Hole Bog						b							a							
Crowthorne Wood							a										a			
Englemere Pond						a	a	a	a		a		b	a	a	a	a	b		
Felix Farm																				
Forest Pond			A(ov)	b		b	a		a	b	b	B(ex)	B(ov)	b	b	a	b	b	b	
Gormoor			a	a	b	a	a	b			a	a							a	a
Leiper Pond																				
Mill Pond	x	a	a	a		b	a		a		a	a	a			a	a			a
Rapley Lake			a		a	b	b		b	a			b		b	a	a	b	b	b
RMA Sandhurst							a										a			a
Shepherd Meadows																	a			
Swinley Brick Pits		b	a	b	a	a	b	b		b	a	a	b	a	A(te)			a	B(te)	a
Upper Star Post	x	b									a			a					a	
River Cut																				
Whitmoor Bog																				
Wildmoor Heath													a							
Wishmoor Bottom							a													
Wood Pond, WGP					a								a							
Embankment																		a		

B21. Black-tailed Skimmer

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond							B(te)													
Bush Fields																				
Butter Bottom Ponds	x	d	c	c		b	c					b		b	B(ov)					
By-Pass Pond		b	a	b																
Caesars Camp Pond			b	b			a		a							b				
Carnation B P	x	b		B(te)	a	b			a	a										
Chaucer Woods	x		b				b					B(co)	b		b	B(ov)		b		
Cobblers Hole Bog							B(te)				a									a
Crowthorne Wood	x		a								b	C(co)	B(ov)	b	b	a			a	B(ov)
Englemere Pond	x		a	B(ov)	c	C(co)	D(ov)	C(ov)	D(ov)	D(co)	C(te)	C(ov)	D(te)	D(te)	a		C(co)	C(co)	b	C(ov)
Felix Farm									D(co)			D(co)	D(co)	E(te)	D(te)	D(co)	D(ov)	D(co)	D(co)	D(ov)
Forest Pond																				
Gormoor			a	a	b	a		a			a		a							a
Leiper Pond					B(co)	b	b		b											
Mill Pond	x		b	a	a		B(ov)				C(ov)	b	c	a	B(co)		b			
Rapley Lake	x						b					a	B(co)	a	a	b	b	b	a	
RMA Sandhurst							B(co)													A(te)
Shepherd Meadows							a													
Swinley Brick Pits		A(te)	b	b	c	b	C(te)	C(ov)	B(co)	B(co)	B(ov)	C(co)	c	c		a	b	b		
Upper Star Post		a																		
River Cut																				
Whitmoor Bog																				a
Wildmoor Heath	x	b	a		a		a			a	B(ov)	B(co)	B(te)	a	B(co)	a				
Wishmoor Bottom							B(te)					a								
Wood Pond, WGP					a		b													
Embankment																				

B22. Keeled Skimmer

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond																				
Bush Fields							b	b	a	c	b		B(co)	b		a	c	b		
Butter Bottom Ponds				a													B(ov)	A(em)	b	a
By-Pass Pond				C(co)			A(ov)													
Caesars Camp Pond			b	C(ov)	B(co)	C(co)	C(ov)	B(ov)	C(ov)	b	b	C(ov)	C(co)	c	b	a	B(ov)	a	a	
Carnation B P																				
Chaucer Woods																c	b	B(em)		
Cobblers Hole Bog							b		a	C(ov)	b	a	C(co)	c	b	C(ov)	C(te)	C(ov)	C(co)	C(co)
Crowthorne Wood			b	b			b	b	B(co)	b	C(co)	D(ov)	D(te)	C(ov)	C(ov)	c	C(ov)	C(em)	C(ov)	C(co)
Englemere Pond									a											
Felix Farm																				
Forest Pond																				
Gormoor				C(ov)	b	C(ov)	c	b	B(ov)	C(ov)	C(co)	b	C(te)	C(ov)	B(te)	b	C(co)	c		b
Leiper Pond																				
Mill Pond	x	C(co)	B(co)	b	b	B(ov)	c	C(ov)	b	B(ov)	b		C(ov)	B(co)	b	a	B(ov)	b	b	b
Rapley Lake																		a		
RMA Sandhurst																				
Shepherd Meadows																				
Swinley Brick Pits			b	b	b	a	C(co)	b	B(co)	c	B(ov)		b	c			b		a	
Upper Star Post																				
River Cut																				
Whitmoor Bog																				
Wildmoor Heath	x	C(co)	D(co)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(ov)	D(te)	E(ov)	D(ov)	D(ov)	D(te)	C(ov)	D(ov)	C(co)	D(ov)	C(ov)	D(ov)
Wishmoor Bottom							C(ov)			b	C(ov)	B(ov)	c	a	C(ov)	C(co)	C(ov)	c		C(ov)
Wood Pond, WGP																				
Embankment															b	B(te)	C(co)	C(co)	C(te)	b

B23. Broad-bodied Chaser

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond																				
Bush Fields						b	B(ov)		b				B(te)			C(ov)	B(ov)	B(ov)	a	
Butter Bottom Ponds		b		a													a		a	
By-Pass Pond		A(te)																		
Caesars Camp Pond			B(ov)	B(ov)	B(ov)		a	B(ov)	B(ov)	b		B(ov)	c	b	B(ov)	b	a	a		a
Carnation B P	x	B(ov)	a		a															
Chaucer Woods																b		B(ov)		
Cobblers Hole Bog					b	b	a			B(ov)	a	b	b		a	B(ov)			a	a
Crowthorne Wood				a						a	C(ov)	B(ov)	C(te)	B(te)	B(ov)	C(ov)	C(ov)	C(ov)	c	C(ex)
Englemere Pond				a	a	b	a	a		a									A(ov)	
Felix Farm									a							a			a	a
Forest Pond		B(co)	b	B(ov)		a	a							b		a				
Gormoor		a	b	C(ov)	B(co)	C(te)	B(te)	A(te)	a	A(ov)	a	B(ov)		B(ov)	a		b	b	a	
Leiper Pond			B(ov)		A(ov)	A(ov)	a													
Mill Pond	x	B(co)	a	b		a								A(te)		a				
Rapley Lake			a										a				a		a	
RMA Sandhurst							a													
Shepherd Meadows																				
Swinley Brick Pits			A(ov)	B(ov)	b	A(te)	a	a		a			b	a	b	a	b	B(ov)	b	a
Upper Star Post	x	A(ov)	b	B(co)	a		a						a	B(ov)		a	a			
River Cut				a	b															
Whitmoor Bog													A(te)				a	B(ov)		
Wildmoor Heath	x	a	a	B(ov)	a	b	a	c	C(ov)	C(te)	C(ov)	B(ov)	C(ov)	B(ov)	B(ov)	C(ov)	C(ov)	B(ov)	B(ov)	a
Wishmoor Bottom							C(te)			b	c		b			C(ov)	a	a		
Wood Pond, WGP					B(ov)		a					a								
Embankment														b	B(te)	b	B(co)			

B24. Four-spotted Chaser

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond						b	b	D(ov)	C(ov)	C(ov)	C(te)	D(ex)	b							
Bush Fields						a	a	a	C(te)	b	a	b	a			B(ov)	C(ov)	b	C(ov)	
Butter Bottom Ponds	x	C(ov)	b	b	b		c					b	a	b	b	b	b	C(co)	b	
By-Pass Pond		b	b	b		b	c					c	B(ov)		C(ov)	C(ov)		C(te)		
Caesars Camp Pond			b	B(ov)	b	a	b	B(ov)	C(ov)	b	b	C(ov)	C(ov)	D(ov)	c	b	b	c	c	c
Carnation B P		x	b	B(ov)	B(ov)	C(ov)		b	c					b				a		
Chaucer Woods													A(ov)			b		c		
Cobblers Hole Bog						b			a	a	b	C(te)	C(ov)	C(te)	a	C(ov)	B(ov)	C(te)	b	c
Crowthorne Wood			a	B(ov)		B(ov)	C(ov)	B(ov)	C(co)	c	C(ov)	C(ov)	D(te)	D(ex)	D(ov)	D(ov)	D(ov)	D(ov)	C(ov)	D(ex)
Englemere Pond	x	b	A(co)	a	b	b	C(te)	C(te)	C(co)	C(ov)	C(ov)	a	D(ov)	C(ov)	C(te)	C(ov)	c	D(ov)	D(ov)	b
Felix Farm									D(te)	a		c	C(co)	c	C(te)	D(ex)	C(ov)	c	D(ov)	b
Forest Pond		b		a		a	a		b		a	b	a			b	B(ov)			
Gormoor			a	a	b	C(ov)	C(co)	b	C(te)	C(ov)	b	C(ov)	C(te)	c	b	b	C(ov)	b	b	b
Leiper Pond					a	B(ov)	C(ov)		C(ov)	a	a	a	b	b						
Mill Pond	x	C(ov)	B(co)	b	c	C(ov)	C(co)	C(te)	B(ov)	c	d	C(ov)	C(ov)	c	B(co)	C(ov)	b	C(ov)	C(co)	c
Rapley Lake	x		C(ov)	b	B(ov)	b	b			b	b	C(ov)	B(ov)	b		C(co)	C(ov)	D(ov)	C(ov)	C(ov)
RMA Sandhurst																	C(ov)		a	C(te)
Shepherd Meadows								a												
Swinley Brick Pits	x	D(ov)	D(ov)	E(ov)	D(ov)	E(te)	E(ov)	E(te)	c	D(ov)	C(te)	d	D(ov)	D(te)	D(ov)	D(ov)	C(ov)	D(ov)	D(ov)	C(ov)
Upper Star Post	x	B(ov)									a	B(ov)	a					a	a	a
River Cut																				
Whitmoor Bog																	b	C(ov)	b	c
Wildmoor Heath	x		b	a	B(te)	b	a	b	B(ov)	D(ov)	D(ov)	C(te)	C(te)	D(ex)	C(ex)	C(ex)	d	c	a	b
Wishmoor Bottom							a				a									
Wood Pond, WGP					C(ov)	a	C(ov)					b	c					C(ov)		
Embankment									b					b	C(te)	C(ov)	C(ov)	C(ov)	C(co)	b

B25. Black Darter

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Bagshot Road Pond		a		B(te)	C(ov)	b	D(ov)	b	D(ov)	b	b	C(te)	c	B(te)		b	b	b	B(co)	a	
Bush Fields																					D(ov)
Butter Bottom Ponds																					
By-Pass Pond																					
Caesars Camp Pond																					
Carnation B P																					
Chaucer Woods																					
Cobblers Hole Bog																					
Crowthorne Wood																					
Englemere Pond																					
Felix Farm																					
Forest Pond	b	c	C(ov)	c	B(te)	a		b	c	b	b	b	c	C(em)	B(ov)	b					
Gormoor																					
Leiper Pond																					
Mill Pond																					
Rapley Lake																					
RMA Sandhurst																					
Shepherd Meadows																					
Swinley Brick Pits																					
Upper Star Post																					
River Cut																					
Whitmoor Bog																					
Wildmoor Heath	x	a		C(ov)	C(te)	C(co)	C(te)	D(ov)	b	a	c	a	b	b	a	C(ov)	a				
Wishmoor Bottom																					
Wood Pond, WGP																					
Embankment																					

B26. Ruddy Darter

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond					b		c		c	B(te)	b	C(co)	a		C(co)					
Bush Fields						a			a						b					
Butter Bottom Ponds		b																		
By-Pass Pond				b		a	b					C(ov)	b			B(ov)				
Caesars Camp Pond												a	a		a	a				
Carnation B P					b	b	b		a			a								
Chaucer Woods																				
Cobblers Hole Bog							a			a		a		a	b	b	a			a
Crowthorne Wood	x	b										a				a				
Englemere Pond	x		d	D(ov)	b	c	C(co)	C(co)	C(co)	D(te)	a	D(ov)	c	C(te)	C(co)		a	c	b	B(co)
Felix Farm									c			c	c	c	D(co)	D(co)	D(ov)	D(ov)	b	b
Forest Pond				a														b		
Gormoor				B(ov)	b	b	a		a					a						
Leiper Pond			C(co)		C(ov)		C(co)			C(co)	B(ov)	C(ov)	C(te)	D(ov)		C(ov)		C(co)	B(co)	
Mill Pond	x		b				a											a		
Rapley Lake	x			a			b			b		a	a	b	a	b	b	C(co)	a	c
RMA Sandhurst																				
Shepherd Meadows							a													
Swinley Brick Pits	x	c	D(ov)	E(ov)	D(ov)	D(ov)	C(ov)	b	b	D(te)	C(te)	D(ov)	C(ov)	D(ov)	E(ov)	D(ov)	C(ov)	C(ov)	D(ov)	D(ov)
Upper Star Post	x						a													
River Cut																				
Whitmoor Bog													b							
Wildmoor Heath		b	a	a			b		a	a		b	a		b	a		b		
Wishmoor Bottom																				
Wood Pond, WGP					C(co)	c	C(co)					D(ov)	D(ov)		D(ov)	c		D(co)	C(ov)	D(ov)
Embankment														a	a					

B27. Common Darter

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bagshot Road Pond					C(ov)		b		D(ov)		B(te)	b	a		a					
Bush Fields						b	b	a	a	a	b	b	a	b		b	C(ov)	b	a	b
Butter Bottom Ponds	x	D(ov)		B(te)		b	a								B(ov)	B(co)	b			
By-Pass Pond		C(te)	C(te)	D(te)		d	D(te)					b	a			B(ov)		b		
Caesars Camp Pond			c	c	C(ov)	b	C(ov)	D(ov)	C(ov)	b	b	b	C(ov)	C(ov)	c	b	b	a	b	b
Carnation B P		b		C(ov)	b	b	C(ov)	B(co)					a				b		a	
Chaucer Woods												b		C(te)		D(ov)	B(co)			
Cobblers Hole Bog					C(ov)	c	b	B(ov)	b	C(ov)	B(te)	C(ov)	a	b	c	b	b	b		
Crowthorne Wood		a	b	c	a		D(ov)	b	b	B(ov)	D(te)	C(ov)	C(ov)	D(ov)	C(ov)	C(ov)	D(ov)	C(em)	C(ov)	D(ov)
Englemere Pond	x	c	B(co)	D(ov)	D(ov)	D(ov)	D(ov)	D(te)	d	C(te)	c	D(te)	C(te)	C(te)	C(ov)	C(ov)	D(ov)	C(ov)	C(co)	C(ov)
Felix Farm									C(ov)			C(te)	b	C(ov)	C(co)	D(ov)	D(ov)	D(ov)	D(ov)	C(co)
Forest Pond		B(ov)		C(ov)	b	B(ov)	b	a		B(ov)			A(ov)		b			a		
Gormoor		a	b	D(ov)	C(ov)	C(ov)	C(co)	b	b	b	b	b	b	c	C(co)	c	b	b	c	b
Leiper Pond			B(te)		D(ov)	C(ov)	D(te)	b			b	b	b	b	b	b		b	B(co)	
Mill Pond	x	C(ov)	C(ov)	c	D(ov)	C(ov)	C(ov)	B(co)	b	b	C(ov)	C(co)	C(co)	b	B(co)	C(ov)	b	C(ov)	c	b
Rapley Lake	x			a	C(co)	C(ov)	b			c	a	B(ov)	C(ov)	C(ov)	b	C(ov)	D(ov)	C(ov)	b	b
RMA Sandhurst							D(ov)									c	D(ov)			
Shepherd Meadows	x	x					b			B(co)	b	a	b	a	C(ov)					
Swinley Brick Pits	x	x	C(ov)	C(te)	D(te)	D(ov)	C(te)	C(te)	b	D(te)	D(te)	B(te)	C(ov)	D(te)	B(te)	D(ov)	E(ov)	D(ov)	D(ov)	D(ov)
Upper Star Post	x	C(co)				a	C(ov)	b				b	B(ov)	a	B(ov)					
River Cut							C(ov)	B(ov)									B(co)		a	
Whitmoor Bog													C(co)				D(ov)	b		B(te)
Wildmoor Heath	x	b	B(ov)	C(te)	C(ov)	C(ov)	D(ov)	C(ov)	D(ov)	D(te)	D(ov)	D(te)	D(te)	C(te)	C(te)	D(ov)	D(ov)	C(ov)	D(ov)	D(ov)
Wishmoor Bottom							C(co)			B(te)		b	b	B(ov)	B(te)	b	b			a
Wood Pond, WGP					C(ov)	b	a					D(te)	C(ov)		C(co)	b			B(te)	b
Embankment								a	b				b	C(ov)	b	C(ov)	B(ov)		a	
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

APPENDIX C

Species Rarity Analysis: Bracknell Forest

Some dragonfly species are rarely seen in the Borough; others are common. Here, an attempt is made to quantify the frequency with which flying and breeding records of local species have been obtained over the survey period. Partly for internal consistency and partly on the grounds of practicality, this part of the report is based primarily on the records obtained by JWS; important records obtained by other recorders, as set out in Table C2, are also included. Table C1 contains information on the number of times local sites were visited by JWS from 1992 onwards – a total of 2152 separate site visits (over 100 visits each to 7 sites). There are 26 Principal Sites, each deserving to be visited regularly, and so some sort of overall strategy was required in the planning of visits. With time available for about 100 visits each year throughout the flying season, this averages out at about four visits per site per summer. With the peak flying season roughly occupying the four-month period from mid-May to mid-September, the figures show that, on average, each of the Principal Sites could be visited about once a month. However, the recording process is influenced by a number of additional factors – the targeting of rare species, ease of site access, obtaining permission to visit sites with restricted access, weather, etc. - which modify this structured approach. Taking all these considerations into account, the data considered in this report are essentially the outcome of a process of sampling, with samples taken at roughly monthly intervals.

As an introduction to the analysis of the frequency of observations, two Methods of analysis (1 and 2) are compared here. Starting with Method 1, we consider the data presented in Table 3(a) for the 5-year period 2008 to 2012, concentrating on the 25 Principal sites, noting that no records were collected at Bagshot Road Pond (a Principal site). For illustrative purposes, the records of Common Hawker for this period are examined. Common Hawker was recorded at 4 of the 25 Principal sites. Hence, between 2008 and 2012, Common Hawker was observed at just $(4 \times 100)/25 = 16\%$ of the Principal sites. This percentage score may be interpreted as a measure of the frequency of observation of this species in the Borough. Method 2 is similar in principle to Method 1, but looks at the records in finer detail, examining the data year-by-year. In introducing Method 2, we again consider the records for Common Hawker. This species went unrecorded in the Borough in 2008, 2009 and 2012; there were records from 3 Principal sites in 2010, and 1 in 2011. Taking account of the number of Principal sites from which records were obtained each year, these figures correspond to yearly scores as follows: 2008, 0%; 2009, 0%; 2010, 12%; 2011 4%; 2012 0%. Over the 5-year period 2008 to 2012 these figures yield an average score of 3%. The score for Common Hawker yielded by Method 2 is lower than that for Method 1. This is an inherent property of the two methods; it applies to all species. Method 2 is more sensitive to annual variations, and is a better indicator of the frequency of observation of a dragonfly species than is Method 1. The above analysis relates

to records of flying adults; exactly the same approach can be used to quantify the frequency of breeding records. The data in the main body of the report (Tables 4(a) and 4(b)) are based on Method 2, with each dragonfly species analysed in turn.

Table 4(a) provides information on the frequency with which flying and breeding records of all the local species have been obtained over the 20-year period from 1993 to 2012. The data are broken down into the three shorter periods 1993 to 1999, 2000 to 2007, and 2008 to 2012. Table 4(a) is set out with the rarest species at the top of the list and the commonest at the bottom, the ranking being based on the average of the flying data over the 20-year period. The simplest way to apply Method 2 is to use a point-scoring approach, based solely on records obtained at the 26 Principal sites. Each dragonfly species is analysed in turn. For a given species, seen at a given site in one year, one point is counted for that species, independent of the number of times the site was visited or the actual numbers of flying insects observed. For example, a species, say Downy Emerald, is awarded 1 point if it was recorded at a Principal site, say Swinley Brick Pits, in any given year, say 2010. There are 26 Principal sites. In principle, in any given year a species could be recorded at up to 26 sites, so in that single year an individual species could potentially accumulate 26 points. For the five-year period 2008 to 2012, if all the sites had been visited every year, there was the potential for $26 \times 5 = 130$ points to be awarded to an individual dragonfly species. In practice not all the sites were visited every year, so the points potentially available for each species was lower than 130. For the period between 2008 and 2012 the maximum number of points actually available to each species was 117. Similarly for the period 1993 to 1999 the figure was 132 and for the period 2000 to 2007 it was 162, with a grand total of 411 for the 20-year period 1993 to 2012. A similar approach was used in relation to breeding records; if evidence of breeding was observed at a given site in a given year, a breeding point was counted, independent of the number of site visits or breeding records obtained. On occasions where exuvia were collected these were included in both the flying and breeding data. For a given species and for each time period (1993 to 1999, 2000 to 2007, 2008 to 2012), the points were aggregated over the 26 Principal sites, and a percentage figure for the species was calculated. This is the basis of Table 4(a). For example, Downy Emerald was recorded at RMA Sandhurst in 2008, 2009 and 2012, thereby contributing 3 points to the flying score for that species in the period from 2008 to 2012. In two of these years evidence of breeding was obtained, contributing 2 points to the breeding points count. The points for Downy Emerald were aggregated over all 26 Principal sites, to give totals of 42 flying points and 11 breeding points, yielding, after rounding to the nearest whole number, percentage scores of $(42 \times 100)/117 = 36\%$ and $(11 \times 100)/117 = 9\%$ respectively, as shown in Table 4(a).

Table C1. JWS Visits to Principal and Other Sites in Bracknell Forest Borough

Year	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	Tot
Principal Sites																						
Bagshot Road Pond						6	2	5	1	7	3	4	4	5	0	1	0	0	0	0	0	38
Bush Fields							5	5	2	3	4	4	5	9	1	2	5	4	6	5	3	63
Butter Bottom Ponds		3	4	1	2	1	1	2	0	0	0	0	2	3	4	5	4	6	3	4	3	48
By-Pass Pond			2	1	2	0	1	3	0	0	0	0	6	4	5	1	4	0	2	0	1	32
Caesars Camp Pond				6	4	3	1	9	4	9	7	7	6	9	6	5	8	3	3	4	3	97
Carnation Park Pond		3	4	5	4	5	8	5	3	5	1	1	3	3	3	1	1	1	1	1	1	59
Chaucer Woods+Wellington College	5	1	1	1	0	0	0	2	0	0	0	0	5	3	2	1	4	2	1	0	0	28
Cobblers Hole Bog						5	2	4	1	2	4	2	4	6	4	3	5	4	3	3	3	55
Crowthorne Wood	3	4	3	5	3	1	2	8	1	2	8	14	12	16	13	7	13	13	9	16	9	162
Embankment									2	2	0	0	0	4	5	5	3	4	6	3	3	37
Englemere Pond	10	14	8	8	9	7	8	13	12	10	9	9	9	16	11	6	5	5	6	6	4	185
Felix Farm Fishery										4	1	0	3	2	5	10	16	10	9	9	8	77
Forest Pond			15	8	14	6	5	6	4	2	4	3	7	7	3	4	6	3	4	4	3	108
Gormoor			16	12	24	13	10	9	5	4	5	4	8	8	5	4	6	3	6	4	4	150
Leiper Pond				5	0	3	2	3	1	1	1	1	5	3	1	1	1	0	2	1	0	31
Mill Pond (Swinley Forest)	6	10	14	21	6	4	7	7	4	3	5	6	7	8	5	5	5	5	7	5	4	144
Rapley Lake	3	2	0	1	1	3	2	4	0	1	2	2	5	6	5	3	5	4	4	4	3	60
River Cut				4	3	1	0	2	0	1	1	0	3	1	0	0	0	2	5	2	2	27
R Blackwater, Shepherd Meadows	2	5	3	0	1	0	2	5	1	0	5	4	4	2	2	1	1	3	3	4	3	51
RMA Sandhurst								3	0	0	0	0	0	0	0	0	2	3	0	1	1	10
Swinley Brick Pits	12	9	10	19	12	14	8	13	6	2	5	7	6	9	9	4	7	5	9	13	12	191
Upper Star Post	7	7	13	5	1	1	2	4	1	0	1	1	5	5	5	3	4	2	2	2	2	73
Whitmoor Bog														3	0	0	0	3	4	1	2	13
Wildmoor Heath	16	13	5	8	10	8	8	12	8	11	13	12	13	11	9	6	6	5	6	5	6	191
Wishmoor Bottom								6	0	0	2	1	4	3	1	1	2	2	1	1	1	25
Wood Pond, WGP						4	1	2	0	0	0	0	4	3	0	1	1	0	2	1	1	20
Totals for Principal Sites	64	71	98	110	96	85	77	132	56	69	81	82	130	149	104	80	114	92	104	99	82	1975
Other Sites																						
Allsmoor Pond (SU 885 685)	1	0	0	0	0	0	0	1	0	0	0	0	0	1	2	1	1	2	3	2	3	17
Berkshire Golf Course (SU 891 663)			2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Farley Copse Pond (SU 851 698)						1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Horseshoe Lake (SU 818 622)								1	0	0	0	0	0	0	0	0	0	1	0	2	1	5
Mill Pond (Easthampstead) (SU 859 681)															4	2	4	2	2	3	2	19
Pendrys Lane Reed Bed (SU 866 741)					5	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	8
Pond nr Binfield Manor (SU 855 707)	13	8	A temporary balancing pond; no longer a pond																			21
Sandhurst Pond (SU 843 609)		1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Savernake Pond (SU 887 678)	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3
South Hill Park Lakes (SU 872 667)	3	6	2	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	15
Sports Centre Pond (SU 870 677)	21	8	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Wellington Bog (SU 831 627)	1	0	0	0	2	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	7
Westmoreland Pond (SU 881 709)		2	12	11	4	2	2	4	1	1	0	1	0	0	1	0	0	0	0	0	0	41
Totals for other sites	40	25	21	14	12	4	3	12	1	1	0	1	1	1	8	4	5	5	5	7	7	177
Grand Totals	104	96	119	124	108	89	80	144	57	70	81	83	131	150	112	84	119	97	109	106	89	2152
Year	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	

Table C2: Other Major Records 2008 to 2012

2012 26 May, Vicky Potts, Downy Emerald, Wildmoor Heath

2012 9 June Mike Turton, Downy Emerald, Wildmoor Heath

2012 26 July Des Sussex, Scarce Chaser, Shepherd Meadows

2012 22 July David White, Golden-ringed Dragonfly, Wane Bridge, River Cut

2012 Des Sussex, Brilliant Emerald, Wildmoor

2012 Des Sussex , Hairy Dragonfly, Chaucer Wood

2012 11 May Des Sussex, Golden-ringed Dragonfly larva near Embankment complex, Swinley Forest

2011 Des Sussex, Hairy Dragonfly, Chaucer Wood

2011 4 July Allan Brandon, Forest Pond, Brilliant Emerald, 4 males and a female, copulation and ovipositing observed

2010 5 June Vicky Potts, two Hairy Dragonfly, Wildmoor Heath

2010 David White, Golden-ringed Dragonfly, Bush Fields, an ovipositing female plus male.

2010 25 July Vicky Potts, Downy Emerald, Wildmoor Heath

2009 7 June Vicky Potts, Hairy Dragonfly, Wildmoor Heath

2009 David White, Golden-ringed Dragonfly, close to the River Cut in Winkfield

2009 Des Sussex, Golden-ringed Dragonfly, at Wellington College

APPENDIX D. Weather 2008 to 2012

2008

Adverse weather conditions made 2008 a poor year for dragonflies. Two intense hailstorms on 7 and 28 July, which spanned a brief spell of good weather in the middle of the month, had a severe effect on dragonfly numbers. There was a late spell of fine weather in mid- and late September, and into October. Otherwise, cloud, rain and strong winds prevailed; still, sunny conditions were few and far between. As in 2007, water levels remained high at all sites; recording was particularly difficult at Englemere. A few Common Darters remained on the wing as late as 27 November, despite a significant fall of snow (about 2 inches, 50 mm) accompanied by frost and ice overnight 28/29 October 2008, followed by several frosty nights in November. According to a report in the Bracknell News, 2008 was the first year that Bracknell had had lying snow in October since 1912, when records first began.

2009

This was publicised as going to be a BBQ summer. There was a heat wave at the end of June, running into early July, and a late spell of fine weather in September. However, for the third year running, adverse weather conditions made it a poor year for dragonflies. July, at the peak of the flying season, was an exceptionally wet month. September was exceptionally dry and, at the end of the season, water levels were slightly lower than in 2007 and 2008.

2010

After a cold winter and late spring, much of the early part of the flying season was highly favourable for dragonflies, with hot, dry, sunny weather from late May, through June and into early July. Thereafter, the weather deteriorated. During the latter parts of July, through August and into September, the weather was mainly cloudy with few sunny days, although there was below average rainfall. So, for the fourth year running, adverse weather conditions made it a poor year for dragonflies during the latter part of the flying season. As a whole, the summer was exceptionally dry and by August water levels were low at many sites.

2011

Much of the early part of the flying season was highly favourable for dragonflies, with hot, dry, sunny weather from early April through to the end of May, and into the first four days of June. Thereafter, the weather deteriorated markedly and for most of the next four months - the remainder of June, and most of July, August and September - it was generally cool, wet and cloudy. Sunny days were few and far between. The summer was the coolest since 1993. There was then a short period of record-breaking sunny weather with high temperatures that spanned the final days of September and the first few days of October. October was exceptionally warm. For the fourth year running, adverse weather conditions made it generally a poor year for dragonflies during the latter part of the flying season.

2012

Exceptionally dry weather over an 18-month period beginning late 2010, extending throughout 2011, and taking in the first three months of 2012, led to drought conditions and a hose-pipe ban being imposed in early April 2012. There was an exceptionally warm, sunny spell over the last few days of March and the first few days of April 2012, with temperatures considerably above average. The weather then changed abruptly for the worse and the month of April as a whole was the wettest since detailed records began in 1910. Wet and cloudy weather, with below-average temperatures and cool winds, continued throughout much of May. Finally, a good spell of warm, sunny weather returned on 22 May, lasting till the end of the month. The month of June was generally wet and windy, with little sunshine. The three months April, May, June were, by over ten per cent, the wettest ever on record. The cloudy, wet and windy weather continued as far as the third week of July. Towards the end of July there was a hot spell of sunny weather but by the beginning of August the weather was again rainy. There were spells of sunny weather later in August and in the first two weeks of September. Overall, the summer was the cloudiest since 1987 and the wettest for 100 years.