

2006 DRAGONFLY REPORT

We are sure that like most Recorders, we are going to start by reporting that the summer season of 2006 was hotter than usual and for longer. Insect species like dragonflies need warm conditions to be active, - generally considered to be 16°C and above. The past summer's weather meant that dragonflies were about in greater numbers than usual and for a longer time, both each day and for the whole flight period. Also as few dragonfly observers can pick their days out in the field on the weather conditions at the time, the good temperatures meant that more dragonflies were seen when people were out.

In 2005 we were pleased to have a first for the county, with the finding of a Lesser Emperor. This was a vagrant and not of real significance for the county in the long term. However on the 30th of May 2006, Keith Balmer found a freshly emerged Downy Emerald Dragonfly (*Cordulia aenea*) at the Greensand Trust Reserve of Sandhouse Lane at Heath and Reach. This was the first confirmed record of this species in Bedfordshire in over 50 years! The discovery caused a rush of others to this and nearby sites, some of which were successful and some not. A total of 11 sightings of Downy Emeralds were seen by seven people at Sandhouse Lane, Kings Wood, Jones Pit and at a nearby private site, but these could have all come from only one or two insects! The private site looked the most likely to be the location of the breeding colony, but when later in the year one of us (DA) and Steve Cham, with the permission of the owner, hunted for larvae, we could not find any. The Downy Emerald likes mature, well-established ponds surrounded by woodland. It is thought to have a three or four year life cycle of the larvae which live in the slowly decomposing leaf litter that builds up in undisturbed lakes. If this is a new colony and has only one age group, then it could be 2009 or even 2010 before we see them again. However all the sites will be thoroughly checked during 2007. It is of interest that new sites for this species have also turned up in 2006 in the neighboring counties of Northamptonshire and Buckinghamshire.

The second new and exciting species of the year was the discovery of Red-veined Darters (*Sympetrum fonscolombii*) on the 20th June at Marston Vale Country Park. This was swiftly followed by finding the species at Broom Quarry on the 23 June and then finally at The Lodge at Sandy on the 15th July. Broom turned out to be the most used location. The Darters were at Broom until the 29th July and up to 38 individuals were seen on one occasion. In total over 20 people saw this species which again had not previously been recorded in Bedfordshire. It is a known migrant and can pass from egg to adult within a few months in suitable habitat. As females were seen egg laying at Broom a check was made for a second generation but none were found. The Red-veined Darter likes shallow, warm water bodies, at which its life cycle can be as short as three months. Second generation emergence was observed at several locations around the country, one as close as in Cambridgeshire. A check will be made in 2007 to see if any dragonflies emerge at our site.

Against all this good news I have to report the not unexpected situation of no sign of any Scarce Blue-tailed Damselflies (*Ischnura pumilio*) from their previous location in Sundon Quarry. The sad fact is that the site now looks really good after the work done on cutting suitable water runnels and clearing out the rubbish and colonizing scrub. The phrase 'shutting the stable door ---' comes to mind. For an SSSI classified for this damselfly its deterioration was lamentable.

All the other Bedfordshire dragonfly species were recorded in their usual numbers. With the two new species this year the 2006 total is 22 species and for the accumulation from 2001 to 2006 the species total is 24.

The first dragonfly of the year, as usual a Large Red Damselfly, was seen by on the 22nd April 2006, at Duck End Nature Reserve and the last dragonfly of the year, again as usual a Common Darter, was seen on the 29th of November at Sandy. The dates for 2005 were 21st April and 18th November. The 2005 last date was itself the latest date recorded from 2001 onwards, so it can be seen that the 2006 season lasted two weeks longer than usual. Heavy rain and an overnight low temperature on the 29th November prevented us from getting a record in December for the first time.

In 2006 we received a significant increase with a total of 2416 records from 63 contributors, compared to only 1480 in 2005 from 54 contributors.

Number of Records for each Species

Table 1 lists the number of records of adults for each species in increasing numeric order. Although not proof of species abundance, it does give some indication of this, being a combination of distribution and population, with the bias of observer site preference and maybe ease of species observation ! For comparison the figures for 2005 are also listed. It can be seen that the number of records was up for every species, often by 100%. This table also shows the number of days over which each species was recorded. There was a considerable variation in this time, from as short as 25 days to as long as 166 days.

TABLE 1: NUMBER OF RECORDS FOR EACH SPECIES AND FLIGHT LENGTH

Order	Species		No. of Records	2005	Flight period in Days
1	Downy Emerald	<i>Cordulia aenea</i>	11	0	25
2	Scarce Chaser	<i>Libellula fulva</i>	22	4	36
3	Emerald Damselfly	<i>Lestes sponsa</i>	24	20	91
4	Hairy Dragonfly	<i>Brachytron pratense</i>	24	15	55
5	Red-veined Darter	<i>Sympetrum fonscolombii</i>	38	0	40
6	Broad-bodied Chaser	<i>Libellula depressa</i>	47	30	62
7	White-legged Damselfly	<i>Platycnemis pennipes</i>	52	44	104
8	Small Red-eyed Damselfly	<i>Erythromma viridulum</i>	54	22	71
9	Ruddy Darter	<i>Sympetrum Sanguineum</i>	70	31	104
10	Red-eyed Damselfly	<i>Erythromma najas</i>	104	60	106
11	Large Red Damselfly	<i>Pyrrhosoma nymphula</i>	115	99	89
12	Brown Hawker	<i>Aeshna grandis</i>	123	91	92
13	Black-tailed Skimmer	<i>Orthetrum cancellatum</i>	123	66	107
14	Banded Demoiselle	<i>Calopteryx splendens</i>	130	66	183
15	Four-spotted Chaser	<i>Libellula quadrimaculata</i>	136	63	95
16	Azure Damselfly	<i>Coenagrion puella</i>	145	110	122
17	Migrant Hawker	<i>Aeshna mixta</i>	163	113	143
18	Southern Hawker	<i>Anax cyanea</i>	169	132	135
19	Emperor Dragonfly	<i>Anax imperator</i>	185	78	101
20	Blue-tailed Damselfly	<i>Ischnura elegans</i>	207	146	140
21	Common Blue Damselfly	<i>Enallagma cyathigerum</i>	213	101	160
22	Common Darter	<i>Sympetrum striolatum</i>	261	182	166

First and last dates

Table 2 lists the first and last date for each species, together with the site and observer. The Table is in first to last emergence date order. The Table also shows the first and last dates for the 2001 – 2005 period. Four species show an earlier first date than recorded in the previous five years and nine species show a later last date. In 2005 there were also nine species flying later than in the previous four years, so dragonflies are consistently living later in the year. The last few autumns have been warmer and dryer than normal which can only help dragonfly survival. In November 2006 there were three species still on the wing, while in October there were still six species flying.

TABLE 2: FIRST AND LAST DATES FOR EACH SPECIES.

Species	First Date	Last Date	2001 – 2005 Dates
Large Red Damselfly	22 April-Maulden-S.Cham	19 July-Sandy-M.Ward	17April – 3 October
White-legged Dam.	24 April-Maulden-S.Cham	5 Aug.-Willington-S.Cham	22 May – 4 Sept.
Four-spotted Chaser	4 May-Sandy-K.Fuller	6 Aug.-Willington-S.Cham	23 April – 9 Sept.
Banded Demoiselle	5 May-East Hyde-B.Squires	2 Nov.-Odell-R.Bates	12 May – 30 Sept.
Hairy Dragonfly	7 May-Kempston -K.Balmer	30 June-Felmersham-S.Baylis	7 May – 3 July
Blue-tailed Damselfly	7 May-Eversholt-S.Brooke	23 Sept.-Willington-S.Cham	23 April – 24 Sept.
Azure Damselfly	10 May-Maulden-D.Anderson	8 Sept.-Maulden-S.Plummer	9 May – 11 Sept.
Common Blue Dam.	23 May-Amphill-S.Plummer	29 Oct-Felmersham-K.Balmer	11 May – 24 October
Scarce Chaser	25 May-Roxton-T.Sharrock	29 June-Gr.Barford-P.Giles	22 May – 22 June
Broad-bodied Chaser	28 May-Kempston-K.Balmer	28 July-Wrest Park-C.Carpenter	15 May – 19 August
Red-eyed Damselfly	28 May-Tempsford-A.Banthorpe	10 Sept.-Broom-S.Cham	3 May – 8 Sept.
Downy Emerald	30 May-Heath & R.-K.Balmer	23 June-Heath & R.-S.Plummer	None
Emperor Dragonfly	3 June-Marston M.-L.Carman	11 Sep.-Maulden-D.Withers	16 May – 28 Sept.
Black-tailed Skimmer	3 June-Marston-L.Carman	17 Sep.-Broom-S.Cham	24 May – 13 Sept.
Southern Hawker	9 June-Sandy-I & D. Dawson	21 Oct.-Luton-B.Clutten	7 June – 4 Nov.
Brown Hawker	13 June-Maulden-S.Cham	12 Sep.-Broom-R.Revels	10 June – 5 Nov.
Common Darter	17 June-Willington-L.Carman	29 Nov.-Sandy-I & D. Dawson	15 May – 18 Nov.
Red-veined Darter	20 June-Marston-P.Wright	29 July-Broom-S.Blain	None
Emerald Damselfly	22 June-Felmersham-S.Cham	20 Sept.-Heath & R.-S.Cham	28 May – 12 Sept.
Ruddy Darter	1 July-Haynes-P.Giles	12 Oct.-Maulden-D.Withers	9 June – 15 Nov.
Migrant Hawker	1 July-Totternhoe-C.Carpenter	20 Nov.-Bedford-S.Plummer	3 July – 14 Nov.
Small Red-eyed Dam.	2 July-Sundon-L.Carman	10 Sept.-Broom-S.Cham	13 July – 7 Sept.

Species Notes**BANDED DEMOISELLE**

The first record was on the 5th May, which is seven days earlier than for the previous five years. However the last date was on the 2nd November, which is a massif 33 days later than usual. The next latest date was on the 2nd September with a further six records in August, so the November sighting was most unusual. In 2005 there was a single very early record so this species seems prone to some odd dates.

EMERALD DAMSELFLY

The third least frequent species with only 24 records from 10 sites. However this is a small increase from 20 records in 2005. With a 91 day flight period and the 10 sites being well spaced across the county, Emerald Damselflies are not easy to find. The species was flying eight days later in 2006 than in the 2001 to 2005 year period.

AZURE DAMSELFLY

It is interesting to compare this species with the similar Common Blue Damselfly. The Azure emerges earlier by two weeks and finishes earlier by seven weeks, thus having a shorter flight period. Otherwise the two species have very similar life requirements. However, typically, most Azure Damselflies emerge over a three week period starting in mid-May, whereas the Common Blue Damselflies continue to emerge in August and possibly into September. If you see one of these blue damselflies in October it is most likely to be a Common Blue. We had three reports of Azure Damselflies being eaten by other dragonflies. One by Phil Hasell being eaten by a mature Black-tailed Skimmer. Several being eaten by an Emperor and another one being eaten by a Large Red Damselfly, both by Steve Cham.

COMMON BLUE DAMSELFLY

Our second most frequent species with over twice the number of records obtained in 2005. The last record was five days later than from the previous five years. This species was recorded over a 160 day flight period, which is also the second longest of our dragonflies.

RED-EYED DAMSELFLY

A well recorded species which in 2006 was flying just two days later than in the previous five years.

SMALL RED-EYED DAMSELFLY

This species continues to increase its range and population size in both the county and the South of England. Records were obtained from 17 people at 23 different sites in Bedfordshire. It is our latest species to emerge, not being recorded until the 2nd of July which was itself 11 days earlier than seen in the previous five years. It was also flying three days later than previously. Often colonising species like this last for a few years and then die out. The Small Red-eyed Damselfly looks as if it is going to be a permanent addition to our species list. The 'Beds on Sunday' newspaper had a small article on the presence of this species in Bedfordshire, but managed to show a photograph of a Ruddy Darter! They did not reply to correspondence.

BLUE-TAILED DAMSELFLY

Our third most recorded species, with the third longest flight period. An easy to identify species, present in a wide range of habitats.

SCARCE BLUE-TAILED DAMSELFLY

As reported above and after three years of negative searching this species is now extinct in Bedfordshire. The very first record was by Nancy Dawson on the 1st July 1975 at Houghton Regis Quarry, although this record was not confirmed at that time as the national 'experts' would not believe that this species could live away from the west coast. The Scarce Blue-tailed Damselfly was next reported by John Comont at Sundon Quarry in July 1987 where it lived until the very last sighting, by Steve Cham on the 19th July 2003.

LARGE RED DAMSELFLY

As usual the first species to emerge at about the usual date. The Large Red emerges in good numbers but is not on the wing after mid-summer. A widespread and common species giving no cause for concern.

WHITE-LEGGED DAMSELFLY

This species seems to be increasing its distribution in the county and hence the number of records obtained. The first emergence was 28 days earlier than the date from the previous five years, but this was a single record. The next date was not until the 28th May, which is much more inline with the usual time.

SOUTHERN HAWKER

Recorded in its usual numbers over the usual time period.

BROWN HAWKER

A species that is easy to identify in flight by its brown wings and hovering flight jizz. Another widespread and common species, although it was not recorded flying as late in the year as some years.

MIGRANT HAWKER

A late emerging and late flying species, although in 2006 it was recorded two days earlier than in the previous five years and lasted six days later than before. As usual the Migrant Hawker was still flying in November, helping it to the third longest recorded flight period.

EMPEROR DRAGONFLY

A large and bold dragonfly making it easily seen and contributing to it being the fourth most recorded species. Nigel Willits had an interesting observation on the 8th of July at Broom involving an Ovipositing Emperor that was harassed by several male Common Blue Damselflies and then by two male Black-tailed Skimmers, which the Emperor reacted to by lunging at them. This was enough to drive them off.

HAIRY DRAGONFLY

An early emerger, perhaps catching out some observers! Add to this a short flight time and it is understandable why it has so few records, being our fourth scarcest species.

DOWNY EMERALD

The real surprise of the year, but despite much searching we do not as yet understand where it has come from. With only 11 records over just 25 days it has taken over the title of our scarcest species. See the introduction of this Report for more details.

BROAD-BODIED CHASER

This species has a fairly short flight period and not a lot of records. However the number of records was an increase on 2005 so the trend is in the right direction.

SCARCE CHASER

Now only our second rarest species, but still with only 22 records from 14 people and with a short flight period of 36 days. This is a considerable increase in the number of records compared to 2005 when only four were obtained. The species was recorded flying seven days later than the best from the previous five years. A record was obtained from the River Ouse at Great Barford which is three to four kilometres up river from the traditional sites. All of these increases are good news for the species.

FOUR-SPOTTED CHASER

Always a well reported species with a countywide coverage. The good number of records is helped by the four wing spots being a quick aid to identification. The number of records for the year was over 100% up on 2005. Barry Squires photographed a male of this species at Sandhouse Lane with a damaged tail that was blue in colour. This was most probably due to damage during emergence from the Exuvia, always a dangerous event.

BLACK-TAILED SKIMMER

An easy to see species that is widespread. Again an over 100% increase in records compared to 2005.

RED-VEINED DARTER

A most welcome visitor to the county in 2006. However it is unlikely to become a permanent resident. The first Bedfordshire record was on the 20th June, but on the 10th June there was a large influx along the coast from Devon to Yorkshire. The Red-veined Darters in Bedfordshire were always very flighty, taking flight early and being hard to get close to and photograph. See the introduction of this Report for more details.

RUDDY DARTER

A good increase in the number of records for a species that is not the easiest to identify. It seems to have stopped flying quite early this year.

COMMON DARTER

Always our last dragonfly on the wing at the end of the season, but this year it was still flying up to the 29th of November compared to the latest date from the previous five years of the 18th of November, so being 11 days later. The last date is not matched by a late start date, as the Common Darter is no way the last species to emerge, it first being seen on the 17th of June when five other species are yet to fly.

Contributors

Our thanks go to the following 63 observers and five Groups and the five unnamed people who contributed to the British Dragonfly Society On-line, Banded Demoiselle Survey. Without your sightings this report and our knowledge of Bedfordshire's dragonflies would be a lot poorer. Special thanks also to Richard Bashford and Ian Dawson at the RSPB for sending on the wealth of records from that site. Also thanks to the two sharp eyed people who discovered our new county species that contributed to our knowledge and gave a considerable number of people a lot of pleasure.

All the records obtained have been archived in the Bedfordshire Biological Record Centre, the British Dragonfly Society National Data-base and with the National Biological Network.

J.Adams, B.&Y.Anderson, D.& K.Anderson, C.Andrews, D.Ball, C. Banks, K.Balmer, A.& M.Banthorpe, R.Bashford, R.Bates, S.Baylis, S.Blain, S.Brooke, P. Brown, P.Burfield, L.Carman, C.Carpenter, S.Cham, B. Clutten, P.Cook, M.Davis, I.& D.Dawson, K. Dufek, M.Eaton, LGR.Evans, M.Fleming, K.Fuller, P.Giles, P.Glenister, M.Green, H.Griffiths, P.Hassell, J. Hoare, T.Ilott, R.Lawrence, M.McCarrick, D. Morrissey, D. Oakley-Martin, M.Palmer, J.Pitts, S.Plummer, N.Renwick, R.Revels, D.Roy, M.Rule, M.Russell, JTR.Sharrock, H.A.Smith, B.Squires, C.Tack, M.Thomas, M. Tisdale, M.Ward, M.Webber, G.White, S. Williams, N.Willits, D.Withers, P.Wright. The Beds. Birds Email Group, the BNHS Email Group, the Dunstable Wetland Centre Group, the East Hyde Wader Scrape Group and the RSPB The Lodge Group.

David & Karen Anderson.

Dragonfly Recorders.

21st May 2007.



Red-veined Darter. 27th May 2007



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Red-veined Darter. 30th June 2006



© S. Williams

Red-veined Darter. 15th July 2006



© M. Palmer

Large-red eating Azure Damselfly at Duck End N.R. 25th May 2006



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