

Dragonflies 2008

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It is obvious that any small flying insect is very much at the whim of the weather and the 2008 Dragonfly season was no exception to that. The summer period was fairly warm, but periods of heavy rain caused problems. The end of the season from late September onwards had cold nights, heavy rain and falls of snow, so it was surprising that for the first time we recorded a dragonfly, a Common Darter, still being about on the 1st December. The first Dragonfly of the year was seen on the 24th April and as always it was a Large Red Damselfly. For comparison the dates for 2007 were 15th April and 21st November, so the 2008 season was about ten days later at both ends of the year. During the year we received records for all the usual 21 species, but in 2008 there were no sightings of any of the vagrant species which we have been fortunate enough to have had in the previous two years. Of these 21 species, 14 were recorded as definitely breeding – records of Exuvia or Emerging Adults – but the other seven species were most likely also breeding, just that no one saw it happening. A total of 2064 records were supplied, up from 1803 in 2007 and above the eight year average of 1782 records. These records came from 55 different people, one more than in 2007. During the year observers reported site populations of over 500 individuals for Common Darter, Banded Demoiselle, Azure and Common Blue Damselflies. Our rarest species is again the Scarce Chaser and only 14 records were obtained, one up from 2007. The species is found in Bedfordshire only on a short length of the River Ouse, south from the county border at St. Neots as far as the junction with the River Ivel and although very localized is holding its own. This is one of the species with proven breeding during 2008 and although only a small number of records were obtained the species was often recorded in good numbers, records being in the over 20 group size.

The Downy Emerald Dragonfly - new to Bedfordshire in 2006 – is our next rarest species and 16 records were obtained, again one up on the number in 2007. The Downy Emerald is similar in many ways to the Scarce Chaser. It is found in a restricted area, this time in the east of the county Sand Pits. It was recorded in good numbers in the over 20 group size and for the first time in 2008 it has been proved as breeding, so the species is only endangered by its small range.

In the 2007 Dragonfly Report Emerald Damselfly was our second rarest resident species with just 14 records, which was less than the number for Downy Emerald Dragonfly. People were asked to especially look for this species during 2008 which they did, with the result being a total of 41 records, placing the species in fifth place. Although mainly seen as ones or two, it was seen at one site at over 20 in number. It looks as if this species is hard to find due to usually existing in small numbers and being a week flyer with a secretive nature, but well distributed across the county and holding its own.

The White-legged Damselfly was the surprise of the year, with the number of records dropping from a total of 40 in 2007 to a total of just 24 in 2008 and listing the species as our third rarest, rarer than Hairy Dragonfly and Emerald Damselfly. The flight season was very short compared to previous years and finished at least six weeks early. This damselfly will have to be our target species for 2009 to check if this is a real drop in population or just observer effort.

During the late summer the Recorders suffered a total failure of the computer recording system used. The system is no longer supported by its developer or the British Dragonfly Society so help was widely sought, but without success. When it was finally conceded that all was lost the back-up Data-base was converted into a readable spreadsheet and data entry continued. However it is probable that a small amount of data would have been lost in the change over. If people or records are missing the Recorders offer their apologies.

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 population size it does give some indication of this being a combination of distribution, abundance

and length of adult life but with the bias of observer site preference and ease of species observation ! For comparison the figures for 2007 are also listed. This table also shows the number of days over which the flying adults of each species were recorded. There is a considerable variation in this time, from as short as 48 days to as long as 164 days. The length of the adult flight period is a factor of species robustness, population size and whether each species has a synchronous or progressive emergence. Long flying species are likely to receive more records and be less affected by periods of poor weather. Table 2 shows the change between 2007 and 2008 of the number of records obtained. Three species had a decrease in the number of records while 17 species had an increase in the number and only one species was the same for both years.

Table 1 Number of records for each species and flight length.

Order	Species		No. of Records 2008	2007	Flight period in Days
1	Scarce Chaser	<i>Libellula fulva</i>	14	13	69
2	Downy Emerald	<i>Cordulia aenea</i>	16	15	48
3	White-legged Damselfly	<i>Platycnemis pennipes</i>	24	40	57
4	Hairy Dragonfly	<i>Brachytron pratense</i>	29	29	56
5	Emerald Damselfly	<i>Lestes sponsa</i>	41	14	87
6	Broad-bodied Chaser	<i>Libellula depressa</i>	43	33	64
7	Small Red-eyed Damselfly	<i>Erythromma viridulum</i>	54	45	76
8	Black-tailed Skimmer	<i>Orthetrum cancellatum</i>	58	71	124
9	Ruddy Darter	<i>Sympetrum sanguineum</i>	60	58	105
10	Red-eyed Damselfly	<i>Erythromma najas</i>	85	83	126
11	Emperor Dragonfly	<i>Anax imperator</i>	93	102	86
12	Four-spotted Chaser	<i>Libellula quadrimaculata</i>	101	76	100
13	Migrant Hawker	<i>Aeshna mixta</i>	109	88	130
14	Brown Hawker	<i>Aeshna grandis</i>	111	83	125
15	Banded Demoiselle	<i>Calopteryx splendens</i>	126	111	131
16	Azure Damselfly	<i>Coenagrion puella</i>	153	133	117
17	Large Red Damselfly	<i>Pyrrhosoma nymphula</i>	159	126	94
18	Southern Hawker	<i>Anax cyanea</i>	172	166	140
19	Common Blue Damselfly	<i>Enallagma cyathigerum</i>	175	161	164
20	Blue-tailed Damselfly	<i>Ischnura elegans</i>	176	143	145
21	Common Darter	<i>Sympetrum striolatum</i>	265	206	161

Table 2 Change in the number of records obtained 2007 to 2008.

No.	Species	% Change
1	Emerald Damselfly	+193%
2	Brown Hawker	+34%
3	Four-spotted Chaser	+33%
4	Broad-bodied Chaser	+30%
5	Common Darter	+29%
6	Large Red Damselfly	+26%
7	Migrant Hawker	+24%
8	Blue-tailed Damselfly	+23%
9	Small Red-eyed Damselfly	+20%
10	Azure Damselfly	+15%

11	Banded Demoiselle	+13%
12	Common Blue Damselfly	+9%
13	Scarce Chaser	+7%
14	Downy Emerald	+6%
15	Southern Hawker	+4%
16	Ruddy Darter	+3%
17	Red-eyed Damselfly	+2%
18	Hairy Dragonfly	0%
19	Emperor	-8%
20	Black-tailed Skimmer	-18%
21	White-legged Damselfly	-40%

First and last dates

Table 3 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 – 2007 period. Five species show an earlier first date than recorded in the previous seven years and five species show a later last date. One species, the Small Red-eyed Damselfly, had both an earlier and a later date than previously so this species had a long season accompanied by a 20% increase in the number of records obtained. In November 2008 there were still two species flying, compared to one in 2007 but four in 2006. However in December 2008 there was still one species present, a Common Darter, even if it was only on the 1st of December, seen by Ian & Debra Dawson on a south facing wall of the RSPB Lodge, Sandy. This is the first time that we have had a December record for Bedfordshire.

Table 3 First and last dates for each species.

Species	First Date	Last Date	2001 – 2007 Dates
Large Red Damselfly	24 April-Bedford-S.Williams	27 July-Sundon Pit-L.Carman	15 April – 3 Oct.
Hairy Dragonfly	4 May-Felmersham-S.Cham	1 July-Kempston-C.Carpenter	28 April – 3 July
Banded Demoiselle	6 May-East Hyde-D.Anderson	13 Sept-Flitwick-R.Morrisey	5 May – 30 Sept.
Blue-tailed Damselfly	6 May-East Hyde-D.Anderson	28 Sept-Kempston-S.Cham	23 April – 24 Sept.
Four-spotted Chaser	7 May-Kempston-L.Carman	15 Aug-Kempston-L.Carman	23 April – 9 Sept.
Azure Damselfly	7 May-Sandy-I.&D.Dawson	1 Sep-DENR-J.Pitts	25 April– 13 Sept.
Common Blue Dam.	7 May-RSPB Sandy-N.Willits	17 Oct-Willington-M.Palmer	11 May – 29 Oct.
Black-tailed Skimmer	9 May-Willington-M. Palmer	12 Sept-Bedford-J.Pitts	20 May – 17 Sept.
Broad-bodied Chaser	10 May-Greenfield-S.Cham	13 July-Sundon Pit-S.Cham	21 April – 19 August
Downy Emerald	11 May-Heath & R -S.Cham	28 June-Heath & R.-S.Cham	6 May – 23 June
Red-eyed Damselfly	11 May-Heath & R -S.Cham	14 Sept-L.Buzz-R.Morrisey	3 May – 15 Sept.
Scarce Chaser	18 May-Roxton- S.Cham	26 July-Willington-S.Cham	18 May – 29 June
White-legged Dam.	31 May-Tempsford-K.Fuller	29 July-DENR-J.Pitts	24 April – 15 Sept.
Southern Hawker	31 May-Silsoe – S.Cham	20 Oct- Luton-H.Griffiths	3 June – 4 Nov.
Emperor Dragonfly	5 June-RSPB Sandy-K.Fuller	30 Aug-Kempston-S.Cham	16 May – 28 Sept.
Brown Hawker	8 June-Southhill-P.Donald	11 Oct-Bromham-P.Almond	10 June – 5 Nov.
Common Darter	23 June-RSPB Sandy-M.Ward	1 Dec-Sandy-I.&D.Dawson	15 May – 29 Nov
Small Red-eyed Dam.	30 June-Sandy-I.&D.Dawson	13 Sept-Flitwick-S.Cham	2 July – 10 Sept.
Ruddy Darter	1 July-Broom-S.Blain	11 Oct-Bromham-P.Almond	9 June – 15 Nov.
Migrant Hawker	1 July-Kempston-C.Carpenter	7 Nov-RSPB Sandy-N.Willits	1 July – 20 Nov.
Emerald Damselfly	2 July-MVCP-M.Shaw	26 Sep-Toddington-J.Pitts	28 May – 30 Sept.

Species Notes

Demoiselles

Banded Demoiselle

Observations were made of Confirmed Breeding in the county – Emergence or Exuvia – and the number of all records was an increase on the previous year. The best sighting was of more than 500 along the River Ouse at Roxton in June.

Emerald damselflies

Emerald Damselfly

In 2007 this was a species that was listed as of Local Concern with only 14 reports and the second rarest resident species. As a result of this observers were asked to look for the damselfly in 2008 with the result of 41 records and it falling to the position of now the fifth rarest species. This rather shy and small damselfly was not recorded as confirmed breeding but was seen in Cop. The first sighting was a full month later than usual but from thereon it was found widely across the county and on one occasion over 20 were seen together.

White-legged damselflies

White-legged Damselfly

Listed as a species of Local Concern. The highest level of recording obtained during this year was of an Ovipositing female. The number of records was considerably down on the previous year from 40 to 24, a drop of 40%. This made it our third rarest species compared to a more usual position of eighth. The flight period was only 57 days as against 118 days in 2007 while the first emergence was one week late, but the last sighting was six weeks early. No observer commented on this drop in the population, but as the species has fairly specific habitat requirements and lives in small numbers it is a species that has to be looked for rather than just found. However Peter Almond did see this damselfly at Bromham NR twice in numbers of 21-100 on the 8th and the 19th of June. The damselfly was seen at three other locations as singletons, at two other sites as 2-5 and at two more sites as 6-20 and one other site again as 21-100, making only nine sites in total. From 2004 to 2006 the population was increasing, but then for the last three years it has been declining. The number of records is now back to just one more than where it was in 2004. Observers are requested to keep an eye open for this species in 2009.

Red damselflies and blue damselflies

Large Red Damselfly

Confirmed as Breeding in the county. As always the first species to emerge in the spring with average start and finish dates, but the number of records increased by 26%. The largest group seen was in the 21 to 100 size range. Although the adults are finished by the end of July the number of records obtained makes it the fifth most common species. Hugh and Jenny Griffiths reported that at their garden pond 25 emerged between the 5th May and the 10th May, four adults were seen back at the pond between the 11th May and the 6th June and the first Egg Laying was seen on the 14th June.

Azure Damselfly

Confirmed as Breeding in the county. A common and widespread species with 153 reports being received, 15% up from the 133 in 2007. The flight period was much as usual but the best sighting was of a record of over 500 in number. This damselfly is similar in many ways to the following species, but it noticeably finishes earlier in the year. The last Azure record was on the 1st of September, while the last Common Blue was seen on the 17th of October.

Common Blue Damselfly

Found as a Confirmed Breeder in the county. The third most common species with a similar number of records to the previous year, but flying both earlier and later than in 2007. With the longest flight period of all species in 2008 it held on into October. This damselfly is often recorded in large numbers and this year was

counted at over 500 individuals on five different dates and three different sites. Steve Plummer commented that on a typical visit to a site holding seven flying species, all of which apart from the Common Blues were present at no more than five of each species, the Common Blues were present at between 21 and 100.

Blue-tailed Damselfly

Found as a Confirmed Breeder in the county, with an increase in the number of records supplied. The last record of the year for this species was four days later than any record in the previous seven years. Its long flight period is only exceeded by two other species, contributing to the number of records obtained only being exceeded by one other species. The largest group size seen was over 100, but below the 500 level. This was observed twice, the first time on the 8th June at Felmersham and the second time on the 14th August at Willington.

Red-eyed Damselfly

Found as a Confirmed Breeder in the county. Recorded in similar numbers as the previous year. The largest count of the year was in the 101 to 500 size group. This species is sometimes difficult to find due to its habit of flying around floating vegetation, which means it is away from the waters edge and therefore harder to see.

Small Red-eyed Damselfly

This species had a 20% increase in the number of records obtained but no Confirmed Breeding was recorded, the best record being of Ovipositing. However the flight period increased at both the start and end of the season by a few days. This early emergence pulled it forward from its usual position of being the last species flying. In 2008 three other species followed it onto the wing, but by only a few days. However the Small Red-eyed Damselfly still has a fairly short flight period and, at only a total of 54 records, this places it at our seventh rarest species. The largest group seen was in the 21 to 100 size category.

Hawkers

Hairy Dragonfly

Confirmed as Breeding in the county. Normally this species is only seen in small numbers together, but on the 8th June Steve Cham observed over 35 dragonflies of this species around the Felmersham Reserve, a most unusual situation. The total number of records and the flight period were similar to most years, but the season did start and finish almost a week later than in 2007. For 2008 the Hairy Dragonfly was our fourth rarest species and the one with the second shortest flight period.

Migrant Hawker

Only reported as Ovipositing in the county, but the number of records was up on 2007 with a good length to the flight period. The first record was on the same date as the earliest from the last seven years, and the last date was at the end of the first week in November. It was the second last species to emerge and the second last species still flying. Apart from the Common Darter seen on the 1st December, the Migrant Hawker was the only other species still flying in November. The largest group reported was in the 21-100 size range.

Southern Hawker

Confirmed as Breeding in the county. The usual level of records and length of flight period, although the first record was four days earlier than seen in the previous seven years. The final record of the year was on the 20th October, where as in some years it has been seen into early November. The Southern Hawker is our fourth most common species, but is a species that likes to keep its distance from others, so the largest groups reported were in the 6 to 20 size range and these were from the whole of the Duck End and Marston Vale sites. Nigel Willits reported a Southern Hawker fighting with a Common Darter which reinforces the behaviour of this species in not liking other dragonflies coming too close.

Brown Hawker

Only reported as Ovipositing in the county. The number of records was up by 34% on 2007, helped by a long flight period. The first record was two days earlier than any year in the previous seven, with the last record being in October and not into November as has been recorded. The largest number seen together was in the 6 to 20 range.

Emperor Dragonfly

Confirmed as Breeding in the county with the largest group seen being in the 6 – 20 size range. The number of records was down by 8%, from 102 to 93. During the three years from 2004 to 2006 the number of records increased, but from then on the number of records has decreased each year. The length of the flight period was also reduced due to the last record being 16 days earlier than in 2007, as opposed to most species that were flying later than in 2007.

Lesser Emperor

This vagrant species was not found in Bedfordshire during 2008. It was seen on two dates in 2007 and over a period of four days in 2005. Nationally there are a few sites where it occurs each year and may be resident. Perhaps a species trying to colonise the southern part of England.

Emeralds

Downy Emerald

Listed as a species of Local Concern, but for the first time was proved to be Breeding in the county. Our second rarest species with only 16 records, one more than in 2007. However the largest number seen together at a site was in the 21 to 100 size range, so the population is of restricted range but of satisfactory size within that small range. The flight period was the shortest of any species at only 48 days, but this was considerably longer than that recorded in 2007. The season started five days later than in 2007, but finished 18 days later. The population was definitely stronger than in previous years, being seen at all the water bodies in the area.

Chasers, skimmers and darters

Four-spotted Chaser

Recorded as Breeding in the county. The largest group seen was up in the 101 to 500 size range. There were 101 records obtained which is a 33% increase on 2007. However the flight period was shorter than in 2007 by eight days as the first sighting was 12 days later and the last sighting was four days later. At the BNHS Field Meeting at Wadelows NR in June, two members witnessed a male Four-spotted Chaser catch a female and go into Cop whilst flying, but the mating only lasted for three seconds! The pair then separated and the female immediately started egg laying with the male guarding her by flying above and around her for the next minute or so while they were visible. The new “Dragonflies” book by Corbet & Brooks states that ‘the Libellulidae, in particular, complete copulation very rapidly, some species being able to do so in less than ten seconds’. In the “Field Guide to the Damselflies and Dragonflies of Great Britain and Ireland” by Brooks & Lewington, they say ‘copulation in Four-spotted Chasers is completed in flight and is brief, lasting 5-20 seconds’, so the Bedfordshire mating was typical and not exceptionally fast for this species!

Scarce Chaser

Classified as a Locally Rare Species. Recorded as Breeding in the county and seen in the 21 to 100 group size. This is our rarest species with only 14 records, one up on 2007. The flight period was considerably longer than in 2007 due to the last record being a full month later. This last sighting date was also three weeks later than any date in the previous six years, so the species seems to have had a successful year. There is again no sign of the Scarce Chaser extending its range south along the River Ouse or River Ivel and its future is of concern due to the short length of the river that it occupies. The species does however exist north along the River Ouse as a continuing distribution into Huntingdon.

Broad-bodied Chaser

Confirmed as Breeding in the county, but only ever seen in the group size of two to five. The number of records was small at 43, but that was a 30% increase on 2007. The flight period was short at only 64 days. It started three weeks later than in 2007 and finished one week earlier. It is surprising that 2008 produced 30% more records than 2007, but from a 30% shorter flight period and from a species that only appears in small numbers together.

Black-tailed Skimmer

Only recorded as Ovipositing within Bedfordshire during 2008. For the second year running this species declined in the number of records obtained. From 2007 to 2008 the records were down 18% although there is no obvious reason for this. The flight period of 124 days was much longer than in 2007, but this was due to a most unusual first date of the 9th May, with the next record not being until the 4th June. In the previous seven years the earliest date was not until the 20th May, so this dragonfly was not typical. For the past three years the species has gone down from 12th place to 11th to 8th as listed in Table 1, which shows the Number of Records in abundance order, while the actual number of records has declined from 207 to 71 to 58. Nigel Willets commented that he did not see a single one all summer among his 225 records.

Common Darter

Confirmed Breeding in the county, with the highest number recorded together in the 500+ group size. The total number of records was 29% up on the figure for 2007 and as usual was both our commonest species and the last still flying. As has already been reported, in 2008 a Common Darter was seen on the 1st December, compared to the latest date from the previous seven years of the 29th November. Surprisingly the flight period in 2008 started a whole month later than in 2007, but lasted only 11 days longer.

Ruddy Darter

Only recorded as in Cop, the lowest level of recording for any species during 2008, but the highest number seen together was in the 21 to 100 size range. There were a total of 60 records for the year, putting the species in ninth position in the order of abundance. These results are very similar to the figures for 2007, but the flight period at 105 days in 2008 was longer due to the season starting a week earlier and finishing a week later than in 2007. There was a general observation that the Ruddy Darter had a good season in 2008 but the above figures do not support this, so it may have just been that the longer flight period gave the impression of a larger population.

Red-veined Darter

Another vagrant species that was not found in Bedfordshire during 2008. It was seen in large numbers in the county during 2006 and just three times in 2007.

Acknowledgements

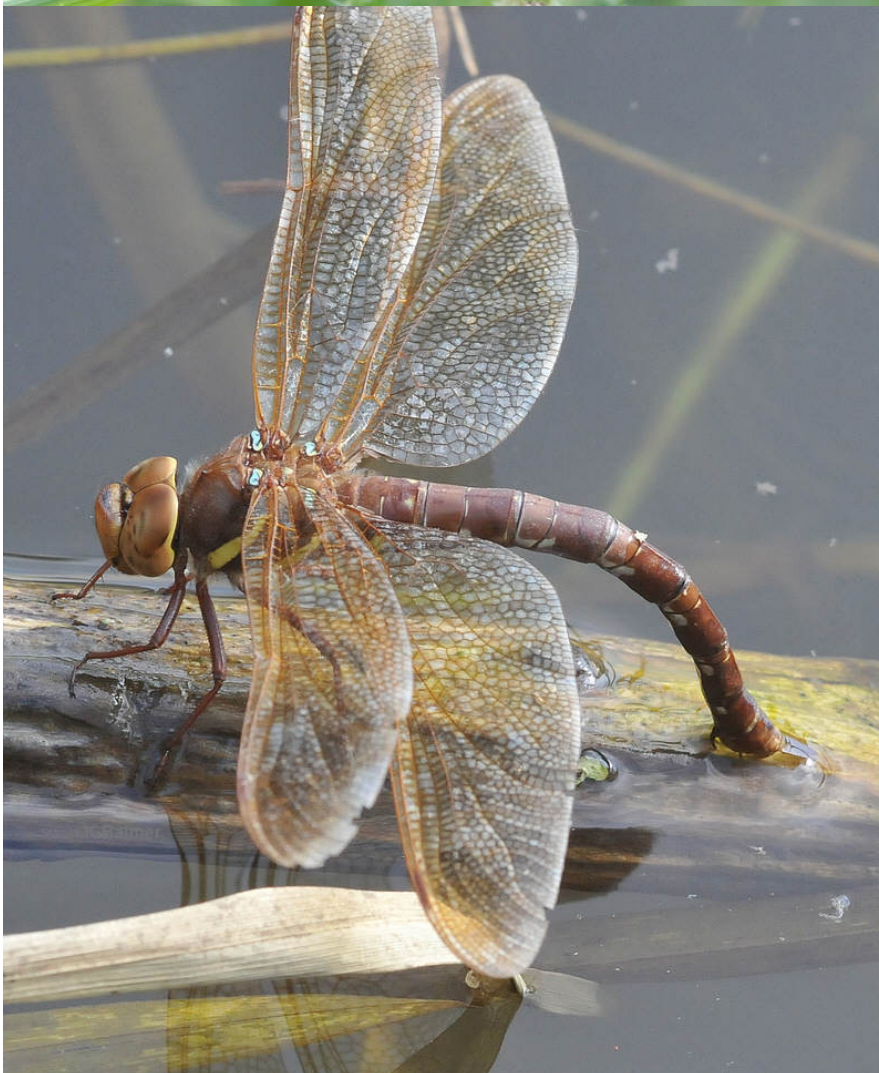
Our thanks go to the following 55 people and the three Groups. A special welcome to the first time observers, but also our thanks to the regulars. Without all of you this Report and our knowledge of Bedfordshire's dragonflies would be a lot poorer. Special thanks also to Richard Bashford and Ian Dawson at the RSPB for sending on the wealth of records from that site. Also thanks to the people who took the trouble to search for the rarer species and found them.

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.

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Ruddy Darter.
Marston Vale CP.
23 August 2008
© Martin Green.



Brown Hawker.
River Ouse - Great Barford.
21 September 2008.
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