

Recording dragonflies in Sussex



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British Dragonfly Society
Sussex Recorder



Dragonfly or damselfly?



Dragonfly

- Relatively large and robust predators
- Powerful flight
- Wings outstretched when perched
- Pairs of wings different in shape (*Anisoptera*)
- Eyes join on head

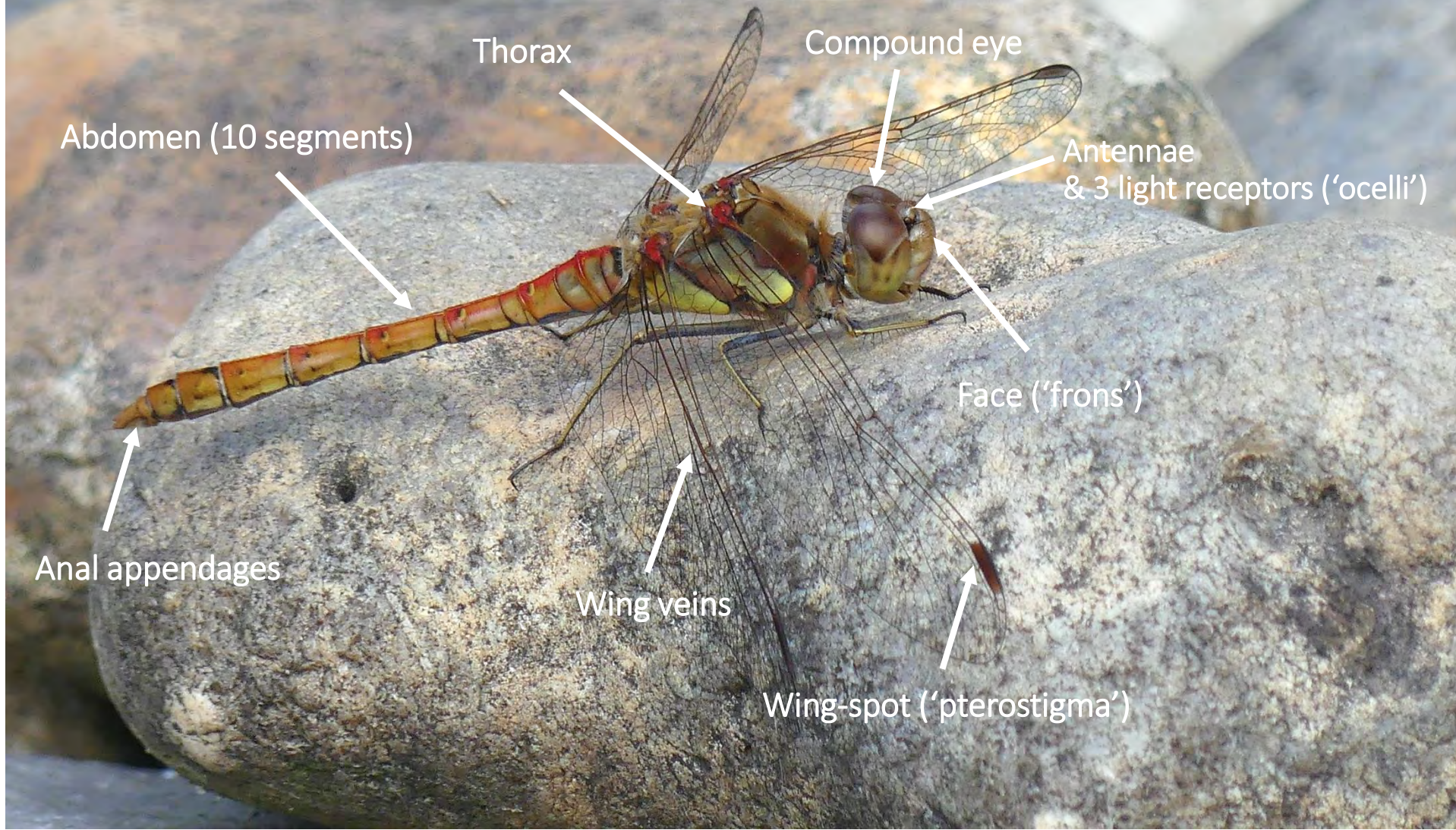


Damselfly

- Small and delicate predators
- Fluttery flight
- Wings folded over back when perched (most!)
- Pairs of wings similar in shape (*Zygoptera*)
- Eyes separated on head

Phylum: **Arthropoda** > Class: **Insecta** > Order: **Odonata**

Naming the components



Lifecycle

Emergence & dispersal



Mating



Egg laying



Larval development



Mating and egg-laying in Azure Damselfly

Mating wheel



Egg-laying or 'ovipositing'



Basics of recording

- Choose a suitable wetland site but note that species also disperse widely across dry vegetation
- Treat as a single site except a very extensive one with complex habitat
- Record an appropriate OS map reference (4 figure references should be sufficient in most cases)
- Identify the species:
 - adults – concentrate on mature males (ID of females* & young males may be difficult)
 - larvae (pond-dipping; ID fairly difficult)
 - larval skin or 'exuvia' (ID fairly difficult)
- Records of mating or egg-laying would be interesting but are not essential
- Walking along a given route on several dates that cover the flight season would be useful
- Estimate roughly how many of each species are present at site (e.g., 1, 10, 100, 1000)
- Send in record preferably by iRecord (see later); photos are helpful

*Females tend to remain hidden until mating and egg-laying



Damselflies (males)

Simple key to adult male damselflies

<i>Metallic</i> blue or blue-green	Beautiful Demoiselle or Banded Demoiselle
Perches with spread wings	Emerald Damselfly or Willow Emerald Damselfly
Mainly red	Large Red Damselfly or Small Red Damselfly (heathland, scarce)
Significant blue	Blue abdomen tip & red eyes Red-eyed Damselfly or Small Red-eyed Damselfly
	Blue abdomen tip & black / white wing-spots Blue-tailed Damselfly
	Pale blue with obvious white legs White-legged Damselfly
	Mainly bright blue Azure Damselfly , Common Blue Damselfly , Variable Damselfly

Metallic blue or blue-green damselflies - the Demoiselles

Beautiful Demoiselle ♂



Banded Demoiselle ♂



- Very common and widespread
- Spring – summer
- Streams and rivers
- All dark wings

- Very common and widespread
- Spring – summer
- Streams and rivers
- Dark band on wings



Damselflies that perch with spread wings – the ‘Spreadwings’



(Common) Emerald Damselfly ♂

- Status uncertain (possibly declining)
- Spring – summer
- Wing-spots dark bordered pale on each side
- Blue eyes; pale blue at top and tip of abdomen



Willow Emerald Damselfly ♂

- Rapid recent increase in distribution
- Summer – autumn
- Wing-spots pale; jagged, forward-pointing dark mark – thorax sides
- Characteristic egg-laying scars on bark of waterside trees

Red damselflies

Large Red Damselfly ♂



- Common and widespread including garden ponds
- From early April (first damselfly on wing)
- Black legs; some black on abdomen

Small Red Damselfly ♂



- Almost exclusively heathland (very restricted). *Not gardens!*
- Summer
- Red legs; all red abdomen

Damselflies with blue abdomen tip & red eyes



- Widespread
- Spring – summer
- Red-eyes (no blue spots behind eyes)
- Blue tip to tail
- Perches on lily pads



- Fairly widespread and increasing
- Summer
- Red-eyes (no blue spots behind eyes)
- Stepped blue and black tip to tail
- Perches on lily pads

Damselflies with blue abdomen tip & black / white wing-spots



Blue-tailed Damselfly ♂

- Widespread including garden ponds
- Spring - summer
- Bluish eyes
- Blue on tail
- Black & white wing-spots ('pterostigmas')

Pale blue damselflies – with obvious white legs



White-legged Damselfly ♂

- Common and widespread
- Most likely damselfly to be seen in dry vegetation
- Spring – summer
- Powder blue colour
- All-blue eyes
- Pale yellowish wing-spots

Mainly bright blue damselflies



Azure Damselfly ♂

- Commonest damselfly and widespread
- Including garden ponds
- Spring – early autumn
- 'U-shaped' black mark - top of abdomen
- Narrow blue stripes over thorax
- Black 'bow tie' at tip of tail



Common Blue Damselfly ♂

- Common and widespread
- Large ponds and lakes
- Spring – autumn
- 'Mushroom' black mark - top of abdomen
- Broad blue stripes over thorax
- Blue tip to tail



Variable Damselfly ♂

- Limited distribution but common
- Marshes particularly
- Spring – summer
- 'Goblet' black mark – top of abdomen
- Blue exclamation mark on thorax (var.)
- Black 'bat-shape' at tip of tail

Dragonflies (males)



Simple key to adult male dragonflies - 1

Red	Common Darter or Ruddy Darter
Black and small	Black Darter (heathland, rare and decreasing)
Brown	Distinctly orange-brown wings Brown Hawker
	Two obvious black spots on each wing, robust Four-spotted Chaser
	Obviously green eyes Norfolk Hawker (rare but increasing)
Black & yellow rings, green eyes, large	Golden-ringed Dragonfly
Green & black with a club-shaped tip	Common Clubtail (River Arun & tributaries)

Red or small black dragonflies

Common Darter ♂



- Commonest dragonfly and widespread
- Including garden ponds
- Early summer – early winter
- Orange-red abdomen
- Yellow panels on sides of thorax
- Yellow stripes on black legs

Ruddy Darter ♂



- Fairly common and widespread
- Various habitats
- Early summer - autumn
- Deep red abdomen
- Brown thorax
- All black legs

Black Darter ♂



- Rare and declining
- Heathland
- Late summer - autumn
- Small and predominantly black

Brown dragonflies



Brown Hawker ♂

- Fairly common and widespread
- Early summer – autumn
- Wings appear orange-brown in flight
- Large



Four-spotted Chaser ♂

- Fairly common and widespread
- Spring - summer
- Wings with distinct black spots
- Black at base of hind wings
- Robust



Norfolk Hawker ♂

- Rare but increasing
- Particularly grazing marshes
- Spring – early summer
- Orange-brown with green eyes

Golden-ringed Dragonfly and Common Clubtail



- Fairly common on heathland and near woodland streams
- Early summer - autumn
- Distinct yellow markings on long black body
- Green eyes



- Unlikely away from River Arun and tributaries
- Spring – early summer
- Distinctly club-shaped tail
- Dull green eyes

Simple key to adult male dragonflies - 2

Metallic green with bright green eyes	Downy Emerald or Brilliant Emerald
Predominantly blue abdomen	Green thorax & eyes, large Emperor Dragonfly
	Blue abdomen bordered by yellow spots, robust Broad-bodied Chaser
	Narrow blue abdomen, medium-sized Scarce Chaser, Black-tailed Skimmer or Keeled Skimmer
Abdomen spotted with blue or green	Summer or autumn Southern Hawker, Migrant Hawker or Southern Migrant Hawker
	Spring Hairy Dragonfly

Metallic green dragonflies with bright green eyes

Brilliant Emerald ♂



- Scarce and restricted
- Early - mid summer
- Abdomen usually straight in flight
- Broadest part of abdomen 2/3 to tip
- Extensive yellow on face

Downy Emerald ♂



- Fairly scarce and restricted
- Spring – early summer
- Abdomen often up-tilted in flight
- Abdomen broadest at tip
- Little / no yellow on face



Dragonflies - blue abdomen & green eyes / thorax

Emperor ♂



- Dominant species – large (long)
- Fairly common and widespread
- Spring – autumn
- Green eyes & thorax with blue abdomen

Dragonflies - blue abdomen edged yellow, robust

Broad-bodied Chaser ♂



- Dominant species – large (broad, robust)
- Common and widespread including gardens
- Spring – summer
- Blue abdomen edged by yellow spots
- Dark patches on wing bases

Dragonflies with narrow blue abdomen, medium-sized

Scarce Chaser ♂



Black-tailed Skimmer ♂



Keeled Skimmer ♂



- Fairly common & widespread (spreading east)
- Slow-flowing rivers
- Spring – early summer
- Blue abdomen with dark tip
- Bluish eyes & dark patches at base of wings
- Diagnostic black wing-tips (absent on some)

- Common and widespread
- Perches on bare ground at edge of ponds
- Spring – summer
- Blue abdomen with dark tip
- Greenish eyes and clear wings

- Scarce and restricted
- Mainly heathland
- Summer
- All-blue abdomen
- Bluish eyes and clear wings

Dragonflies with abdomen spotted with blue or green

– summer / autumn



- Common & widespread
- Summer - autumn
- Solitary & inquisitive – low flying
- Yellow on thorax - stripes (top) / panels (sides)
- Blue or green paired spots on abdomen
- Two bluish bands at tip of tail



- Common and widespread
- Summer – late autumn
- Forms loose groups – high flying
- Very restricted yellow on thorax
- Blue paired spots down abdomen to tip



- Scarce but increasing in ditches & marshes
- Summer
- All-blue eyes
- Bluish-green sides to thorax
- Blue paired spots down abdomen to tip

Dragonflies with abdomen spotted with blue or green

- spring



Hairy Dragonfly ♂

- Fairly common & widespread
- Spring – early summer
- Apart from the Emperor – the only spring hawker
- Paired blue spots down abdomen

Individual not illustrated above?

- Could be a female or a young male

Compared to adult male - study:

- pattern on thorax and / or abdomen even if different colour
 - size, shape, pattern, behaviour
- *Extremely unlikely* but possibly a species not illustrated

If you've checked online and still are uncertain,
send a photo & details to:

countyrecorder@sussexdragonflies.org.uk



Scarce Chaser ♀

Females of several species

Banded Demoiselle ♀



Azure Damselfly ♀



Blue-tailed Damselfly *rufescens* phase ♀



Broad-bodied Chaser ♀



Black-tailed Skimmer ♀



Common Darter ♀



Recording damselfly and dragonfly sightings

iRecord

Record of Southern Migrant Hawker (*Aeshna affinis*)

Record details

Record ID	38791902
Recommended name	<i>Aeshna affinis</i> Vander Linden, 1820
Common name	Southern Migrant Hawker
Name as entered	Southern Migrant Hawker
Taxonomy	Animalia :: Odonata :: Aeshnidae
Survey	iRecord general data
Recorder	Linington, Simon
Record status	Accepted as correct
Verified by	Foreman, Bob
Date	21/08/2024
Grid ref	TQ92131897
Site name	Near Castle Water, Rye Harbour
Sample comment	Drainage ditch
Submission date	Entered on 9th October 2024 at 10:26 and last updated on 17th October 2024 at 17:29
EUNIS Habitat	Running waters
Certainty	Certain
Quantity	1
Sex	male
Recorder Name	Linington, Simon
Stage - invertebrates	adult

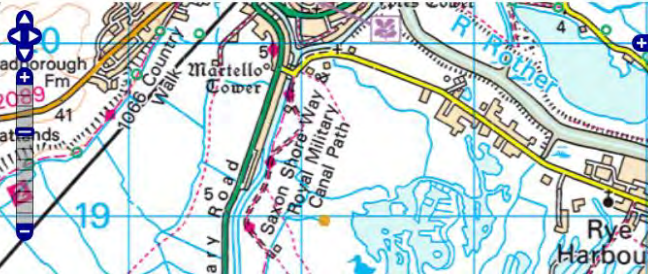
[+](#) [f](#) [t](#) [e](#)

[Edit this record](#) [Explore records of Aeshna affinis](#) [Aeshna affinis details page](#)

Photos and media



Map



Comments

Foreman, Bob 3 months ago
Accepted as correct
3 months ago
Males can be identified in the field with care and experience. Female identification only accepted from known recorders or from good photographic evidence or else needs confirmation from a BDS County Dragonfly Recorder.

[Add new comment](#)

Preferably submit sightings online via **iRecord**

You'll need to register to use iRecord but then it's straightforward to use

Can also send records to the **Sussex Biodiversity Record Centre** at Falmer. Please include:

Observer

Date

Species

Insect stage

Number (rough guess)

Location and OS ref

Habitat (simple description)

Photos are always useful!

References



The Damselflies & Dragonflies of Sussex (2024)

Websites:

- [Sussex Dragonfly Group](#)
- [British Dragonfly Society](#)

Thanks to Alan Martin for the emergent dragonfly photo on page / slide 4