

KEY TO DRAGONFLIES AT POTTERIC CARR NATURE RESERVE

This key can be used for dragonflies and damselflies at Potteric Carr Nature Reserve **only**; it should not be used at other sites where other species may occur. Bear in mind that teneral (immatures) can look quite different.

The key starts with deciding whether you are viewing a damselfly or a dragonfly.

- Large and robust-looking; never less than 30 mm long; eyes touching; strong flyers; often patrolling an area; wings always held at right angles to the body when at rest – **Go to DRAGONFLIES**
- Smaller and delicate; never more than 45 mm long; eyes separate; weak, fluttery flight; usually rest with wings over body – **Go to DAMSELFLIES**

DRAGONFLIES

- Length >55 mm **Go to Hawkers**
- Length 45 mm – 55 mm ... **Go to Skimmers and Chasers**
- Length <45 mm **Go to Darters**

Hawkers

- Length greater than 70 mm **Go to 1**
 - Length less than 70 mm **Go to 2**
- Thorax green, abdomen blue (male) or green (female) with black median line; in flight, noticeable area of blue on segment 2 on male; drooping end to abdomen in flight **➤ Emperor Dragonfly**
 - Abdomen brown with indistinct blue (male) or yellow (female) spots, sexes otherwise very similar; wings suffused with amber; **➤ Brown Hawker**
 - Abdomen dark with green spots becoming blue towards tip in male, or yellowish-green(variable) in female; spots on last two segments joined (see illustration); prominent shoulder stripes (antehumeral stripes); yellow triangle on segments 1 & 2; often seen hawking woodland rides; may approach observer **➤ Southern Hawker**
 - Abdomen dark with blue spots (male) or yellow spots (female), including last two segments where the spots are **not** joined (see illustration); shoulder stripes absent or very faint, yellow costa (front edge of forewing) **➤ Common Hawker**
- Abdomen dark with blue spots (male) or yellow spots (female); yellow “golf tee” on segments 2; extensive area of pale blue or yellow on underside of rear of thorax and segments 1 and 2; **➤ Migrant Hawker**
 - Abdomen dark with blue (male) or yellow (female) spots; green antehumeral stripes in male; yellow and very short in female; on the wing in May and June generally before other hawkers are around **➤ Hairy Dragonfly**

– End of Hawkets –

Recommended Field Guides

Brooks, S. & Lewington, R., *Dragonflies and Damselflies of Great Britain & Ireland*, British Wildlife Publishing, 2004

Powell, D., *A Field Guide to Dragonflies*, Arlequin Press, 1999

Smallshire, D., & Swash, A., *Britain's Dragonflies*, WildGuides, 2010

Skimmers and Chasers

- **Overall length about 55 mm:-**
Abdomen powdery blue **Go to 3**
Abdomen not blue **Go to 4**
 - **Overall length about 45 mm:-**
Abdomen blue; **Go to 5**
Abdomen not blue **Go to 6**
- Abdomen pale blue; slender with last three segments dark; base of wings always clear **➤ Black-tailed Skimmer; male**
 - As above but abdomen uniform yellow ochre with two prominent dark lines along it **➤ Black-tailed Skimmer female or immature male**
 - Abdomen blue with yellow spots along sides; short and fat; base of wings dark **➤ Broad-bodied Chaser; male**
 - As above, but mid-brown with yellow spots along sides; **➤ Broad-bodied Chaser female or immature male**
 - Abdomen brown with a blackish end; two dark spots at node at the middle of the leading edge of fore and hind wings (as well as at pterostigma); base of wings yellow with dark area on hind wings **➤ Four-spotted Chaser**

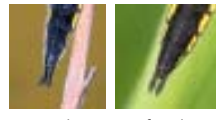
– End of Skimmers and Chasers –



Segment 2 on Migrant Hawker (left) “golf tee” shaped, and Southern Hawker (right) more of a triangle. However, note the bands underneath blue (or pale) on the Migrant Hawker compared with green on the Southern Hawker



Segments 9 and 10 of Southern Hawker (left, forming a bar) Common Hawker (right, divided)



male female Anal appendages of Four-spot Chaser

NB: The sexes of all damselflies and most of the dragonflies at Potteric Carr can be determined by field observation of their markings. The exceptions are Brown Hawker, the spots on the abdomen being quite indistinct, and Four-spot Chaser, where there is no colour difference. Determination of the sex in such cases is by examination of the anal appendages. See example above and field guides for further information.

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Darters

- Legs black with white or cream/yellow line along them **Go to 7**
... Not as above **Go to 8**
- 7 Abdomen pale red/orange-red, turning dark with age; only slightly waisted **➤ Common Darter, male**
- As above but abdomen yellow ochre **➤ Common Darter, immature male**
- As above, but abdomen fatter, not waisted, pale brown/yellow; turning olive with age **➤ Common Darter, female**
- 8 Legs all black; pterostigma (in mature specimens) ...
... Black **Go to 9**
... Not as above **Go to 10**
- 9 Abdomen black; very short and club shaped **➤ Black Darter; male**
- As above but abdomen yellow with variable black markings **➤ Black Darter; immature male**
- As above but abdomen not club shaped, pale brown/yellow; black triangle on thorax; **➤ Black Darter; female**
- 10 Abdomen pillar box red; club shaped **➤ Ruddy Darter, male**
- Abdomen yellow ochre; club shaped **➤ Ruddy Darter, immature male**
- Abdomen yellow ochre, not club shaped, with black “T” on thorax **➤ Ruddy Darter, female**

– End of Dragonflies –

DAMSELFLIES

- Longer than 40 mm **Go to 11**
 - Shorter than 40 mm **Go to 12**
- Electric blue with dark blue bands across wings **➤ Banded Demoiselle, male**
 - Metallic green with green/brown wings sometimes glinting iridescent pink **➤ Banded Demoiselle, female**
 - Abdomen red, very slim, with black on segments 7-9 only; very faint black/yellow lines between segments **➤ Large Red Damselfly, male**
 - As above but abdomen much thicker and with more black (variable depending on form – refer to field guides); noticeable black/yellow lines between segments **➤ Large Red Damselfly, female**
 - Abdomen green metallic with a bronze sheen; powdery pale blue markings on segments 2, 9 and 10; blue eyes; wings when at rest often held away from the body; **➤ Emerald Damselfly, male**
 - As above but uniformly green, without any blue markings **➤ Emerald Damselfly, female or immature male**
 - Abdomen mainly blue with some black markings **Go to 13**
 - Abdomen black with a blue “tail” **Go to 14**
 - Abdomen appearing mainly black with no blue “tail” **Go to 15**

- Abdomen predominantly blue with black markings; black ‘U’ shaped mark on segment 2; segments 8 and 9 blue with black markings on 9 (see illustration below) **➤ Azure Damselfly, male**
- As above but with a black spot, with or without a stalk, on segment 2; segments 8 and 9 all blue apart from two indistinct black spots on segment 9 **➤ Common Blue Damselfly, male**
- Abdomen all black except segment 8 which is bright blue; thorax black with thin blue thoracic stripes and blue sides **➤ Blue-tailed Damselfly, male**
- As above but slightly thicker abdomen; thorax black with either blue, pinkish, pale violet, pale green or brown thoracic stripes and sides (various colour phases - refer to field guides) **➤ Blue-tailed Damselfly, female**
- Abdomen black above with a thin green line at each segment; green underside; thistle head design (variable) on segment 2 (10% of population is a blue form - see field guides) **➤ Azure Damselfly, female**
- Abdomen dark blue, brown or greeny-blue with various torpedo-shaped black marks on segments 3 – 7 and a ‘Christmas tree’ shaped mark on segment 8 (see below) **➤ Common Blue Damselfly, female**

– End of Damselflies –

This key covers all eighteen species that could be regularly encountered most years at Potteric Carr. It is intended to assist identification, but it does not include all colour forms for which please refer to a good field guide.

Confusion may occur with summer immigrants, e.g. Red-veined and Yellow-winged Darters, Lesser Emperor, etc.; these are not included in this key but do occasionally occur as may others!

If you are still unable to identify the species from the key, try working through the procedure carefully again. In particular, darter females and female and immature damselflies can be very confusing.

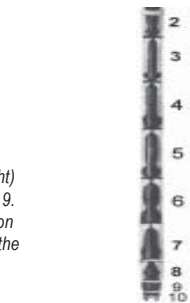
If you are still in doubt, make a note of the description and, if possible, take a photograph or series of photographs, which could assist identification later. Consult one of the recognised field guides.



Common Blue (left) and Azure (right) damselflies showing segments 8 & 9. Segment 9 is clear blue on Common Blue and has black marks on it on the Azure



Abdomen of Ruddy Darter male showing “waisted” or club-shaped appearance



Abdominal segments 2-10 of a typical damselfly. This is a female Common Blue female a key identification feature being the Christmas tree marking on segment 8