

19 DRAGONFLIES

1 Introduction

- 1.1 The British dragonfly (Odonata) fauna numbers 44 species, of which three are believed to be extinct and several are wholly or partly immigrants. A list of 15 resident species, ranging from the endangered to the scarce, has been selected as deserving individual representation in site selection. The remaining, more widespread species are to be represented according to outstanding assemblages. Distribution patterns of species are given by Hammond (1983), and these have been revised in interim distribution maps of dragonflies compiled by Merritt (1986). Despite the fact that Scotland has a few species which are absent from England and Wales, dragonflies decrease in numbers of species with distance north in Britain, so allowance has to be made for this trend in site evaluation. All species need water for breeding, but as adults they also utilise terrestrial habitats.

2 Site selection requirements for individual species

2.1 Nationally rare and scarce species

Site selection should cover the following individual species.

- 2.1.1 Believed extinct in Great Britain (Red Data Book category 1⁺:
Shirt 1987)

<u>Oxygastra curtisii</u>)	If rediscovered, all sites qualify for selection.
<u>Coenagrion armatum</u>)	
<u>C. scitulum</u>)	

- 2.1.2 Endangered in Great Britain (Red Data Book category 1)

<u>Aeshna isosceles</u> (listed in Schedule 5 of the Wildlife and Countryside Act 1981)		All sites qualify for selection.
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- 2.1.3 Vulnerable in Great Britain (Red Data Book category 2)

<u>Coenagrion hastulatum</u>)	Use guidelines under 2.2.
<u>Lestes dryas</u>)	

- 2.1.4 Rare in Great Britain (Red Data Book category 3)

<u>Somatochlora arctica</u>)	Use guidelines under 2.2.
<u>Libellula fulva</u>)	
<u>Coenagrion mercuriale</u>		Internationally endangered (see 2.1.6 and 2.2).

- 2.1.5 Nationally scarce (known or presumed to occur in 16-100 10 km squares
in Great Britain, but not RDB species)

<u>Aeshna caerulea</u>)	Use guidelines under 2.2.
<u>Brachytron pratense</u>)	
<u>Coenagrion pulchellum</u>)	
<u>Cordulia aenea</u>)	

<u>Ischnura pumilio</u>)	
<u>Leucorrhinia dubia</u>)	
<u>Somatochlora metallica</u>)	Use guidelines under 2.2.
<u>Ceriagrion tenellum</u>)	
<u>Gomphus vulgatissimus</u>)	Internationally vulnerable (see 2.1.6 and 2.2).

2.1.6 Threatened in Europe and breeding in Britain (Tol & Verdonk 1988)

<u>Coenagrion mercuriale</u>)	
(endangered in Europe))	
<u>Gomphus vulgatissimus</u>)	Use guidelines under 2.2.
(vulnerable in Europe))	

2.2 Guidelines for selection of sites for nationally rare and scarce species

2.2.1 The aim should be adequately to conserve strong populations of all nationally rare and scarce species present within each AOS. The number of sites chosen for each species will vary, but sites containing combinations of species are especially valuable.

2.2.2 A single internationally threatened, RDB category 2 or 3 or nationally scarce species qualifies a site for selection if it contains:

- (a) the largest or only population of this species in the AOS;
- (b) a strong population of the species on a site which, although a good example of a habitat type, has not already been selected;
- (c) a strong population of the species in an AOS supporting a substantial proportion of localities for the species; or
- (d) a strong population on the edge of the species' geographical range.

3 **Outstanding assemblages**

3.1 Figure 8 shows total numbers of **all** dragonfly species regarded as outstanding assemblages in different parts of Britain. All sites which reach or exceed the relevant qualifying number should be considered for selection.

4 **Further guidelines for site selection**

- 4.1 All records should be within three years of the selection date. Only confirmed breeding records should be considered. Transient populations should not be considered.
- 4.2 If possible, every breeding species firmly established within the AOS should be present in at least one SSSI.
- 4.3 In the definition of site boundaries, semi-natural terrestrial habitats used for feeding and resting should be included, as well as the breeding sites themselves. It may also be necessary to include part of the catchment in order to protect water quality or quantity.

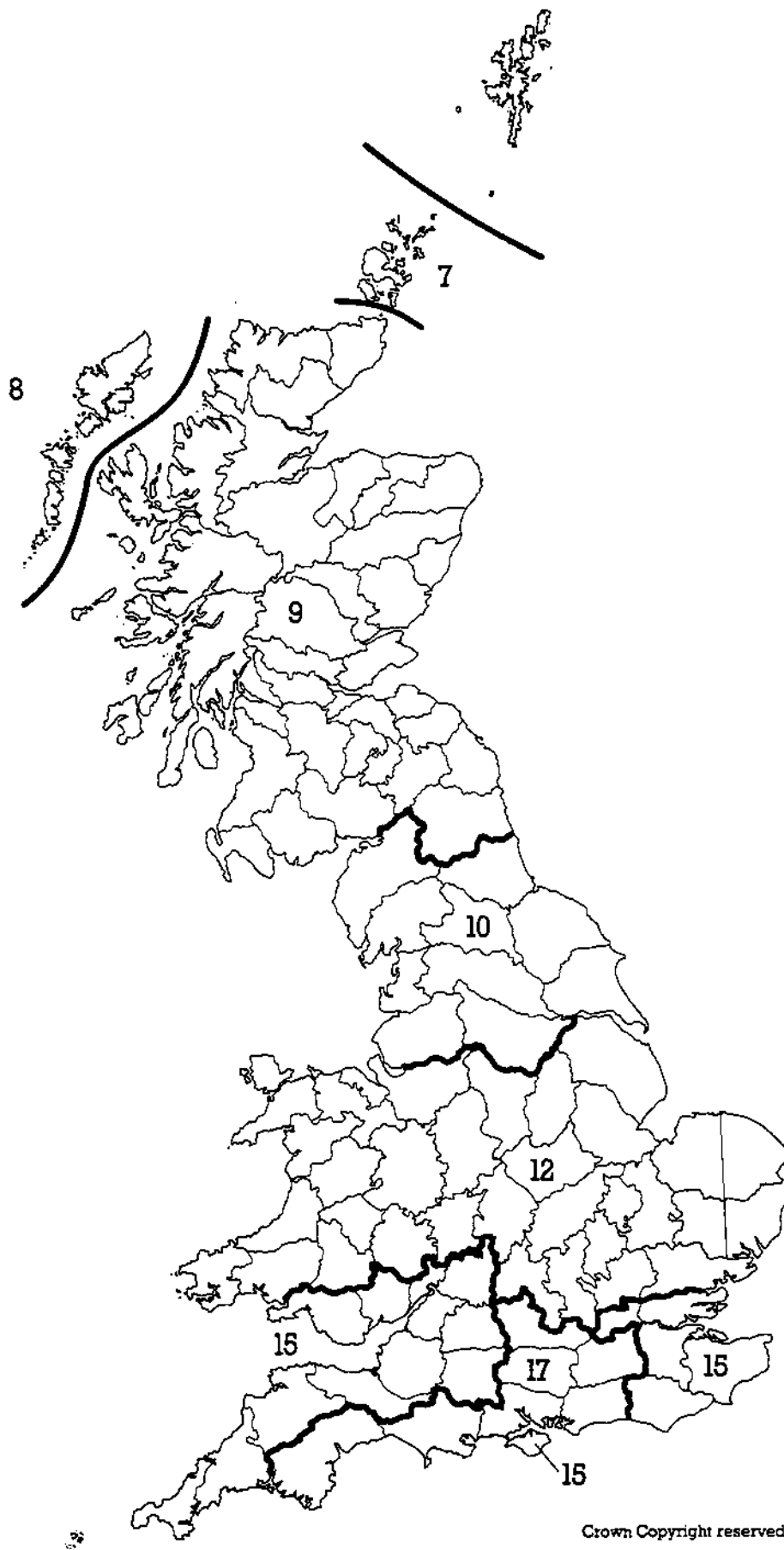


Figure 8 Total numbers of dragonfly species regarded as outstanding assemblages in different parts of Britain

(Note that the total number of species in Shetland is too small for this concept to be valid.)

5 **References**

- HAMMOND, C.O. 1983. The dragonflies of Great Britain and Ireland. 2nd ed. Colchester, Harley Books.
- MERRITT, R. 1986. Interim distribution maps of Odonata (dragonflies). NCC/NERC contract HF 3/03/250. Unpublished report.
- SHIRT, D.B., ed. 1987. British Red Data Books: 2. Insects. Peterborough, Nature Conservancy Council.
- TOL, J. van, & VERDONK, M.J. 1988. The protection of dragonflies (Odonata) and their biotopes. Strasbourg, Council of Europe (Nature and environment series, No. 38).