

### Explanation of each of the seven steps

#### 1. Presence

Recording the **presence of species** found at the site indicates important species or a high diversity of species at that site.

It does not however indicate whether these species form viable populations, able to regularly breed.

Presence only records therefore means that a site can only be determined as a **Possible Key Site**.

To confirm the site as a key site, additional recording of abundance and evidence of breeding of these important or diverse species is required.

#### 2. Abundance

Recording the **abundance of species** gives a better indication of a viable population at the site. As shown on the RA83 recording card, populations numbers are estimated within ranges, each given a letter A to F. This estimation may be from any life stage.

For **damselfly species**, recording over 21 individuals (estimated number “D”) can be regarded as indicating an abundant population. For the two rarer damselfly species, listed below, fewer individuals are often seen. For these species recording 6 or more individuals (estimated number “C”) may indicate an abundant population.

- Scarce Emerald Damselfly (*Lestes dryas*)
- Scarce Blue-tailed Damselfly (*Ischnura pumilio*)

For **dragonfly species**, recording 6 or more individuals (estimated number “C”) can be regarded as indicating an abundant population. A number of species, are commonly seen at larger numbers. For these species listed below recording over 21 individuals (estimated number “D”) is required to indicate an abundant population.

- Migrant Hawker (*Aeshna mixta*)
- Four-spotted Chaser (*Libellula quadrimaculata*)
- Keeled Skimmer (*Orthetrum coerulescens*)
- Black-tailed Skimmer (*Orthetrum cancellatum*)
- Common Darter (*Sympetrum striolatum*)
- Ruddy Darter (*Sympetrum sanguineum*)
- Black Darter (*Sympetrum danae*)

Recording abundance does not provide actual evidence of a breeding population at a site. Therefore sites with important or diverse species can only be determined as a **Possible Key Site**.

To confirm the site as a key site, additional evidence of breeding of these important or diverse species is required.

### 3. Breeding

Criteria for proof of breeding has been defined by the Dragonfly Conservation Group, in March 2004. For the key site criteria evidence of breeding consists of recording one of the following.

- possible breeding (observation of **copulating pair**)
- probable successful breeding (observation of **ovipositing, larvae, or emergence**)
- confirmed successful breeding (presence of **exuviae**)

### 4. Persistence

In some sites finding the numbers required to determine abundance for important species may be difficult.

Difficulty with access, site conditions, weather conditions or behaviour of particular species may mean that these species fail to meet the abundance criteria, despite the presence of a good viable population at the site.

In these cases, the alternative of recording **evidence of breeding on 2 or more occasions in the 10 year period** can be taken as evidence of a persistent breeding population at the site.

### 5. Possible Breeding

Recording **copulating pairs** indicates possible breeding of species at the site.

Combined with recording of abundance or persistence of important or diverse species at a site, this indicates that the site is a key site

However, as copulating pairs are not evidence of successful breeding, then the site can only be determined as a **Probable Key Site**.

To confirm the site as a key site, additional evidence of successful breeding of these important or diverse species is required.

### 6. Successful Breeding

Recording successful breeding for an important or diverse species, either probable successful breeding (observation of **ovipositing, larvae, or emergence**) or confirmed successful breeding (presence of **exuviae**), on top of abundance or persistence, confirms the presence of a viable breeding population at the site.

This site is therefore a **Confirmed Key Site**

### 7. Significance

At a national level key sites may be regarded as either of national or local significance.

Sites that have been determined as being a Probable or Confirmed Key Site, as a result of containing at least one viable breeding population of a nationally important species, are regarded as a **Site of National Importance**.

Alternatively, if the criteria have been met by recording species of local importance or a diverse number of species then the site is regarded as one of **Local importance**.