White-tailed eagle
*Haliaeetus albicilla*

**Status**
Red listed. H1D, BR, SPEC 3 (R)
Schedule 1 of WCA 1981
Annex I of EC Wild Birds Directive

**National monitoring**
All white-tailed eagle sites are monitored annually by the RSPB and/or SNH.
Rare Breeding Birds Panel.

**Population and distribution**
Once relatively common in the far north and west of Britain, white-tailed eagles became extinct as a British breeding species in 1916. They bred in the more remote coastal areas on cliffs and islands, and since 1975 a long-term reintroduction programme has successfully brought the birds back as a breeding species to western Scotland (Love 1985). In 1996, there were estimated to be 13–14 occupied home-ranges in Scotland.

**Ecology**
Breeding is largely confined to coastal areas. On cliffs, nests may start as simple scrapes which are added to in subsequent years. On ledges, cliff tops, slopes and in trees, these can become bulky structures of branches, twigs and driftwood lined with grass, lichens or seaweed. Eggs are laid from March to May and there are usually two eggs in a clutch; there is one brood and the young fledge from mid-July (Red Data Birds).

**Breeding season survey – population**
These procedures (taken from Bainbridge 1995) are considered the minimum standard of information required from each breeding site. They are carried out annually.

<table>
<thead>
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<th>Information required</th>
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<tr>
<td>• number of occupied territories</td>
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<td>• number of breeding pairs</td>
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<td>• completed nest recording forms (Figure 1) and sighting forms (see Figure 2 in red kite).</td>
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**Number and timing of visits**
One visit in December or January to check for the presence of a pair (not essential). For high-priority sites, at least one visit (preferably more) between 15 and 28 February to determine territorial occupancy. Weekly visits from 5 March to 5 April to confirm incubation, unless confirmation has been obtained earlier. For low-priority sites, at least one visit during the season.

**Time of day**
Any time.
Bird monitoring methods – white-tailed eagle

Weather constraints
Avoid visiting in persistent rain, strong winds or poor visibility.

Sites/areas to visit
Priority 1 All nest-sites where breeding has been proved/attempted in the last five years.

Priority 2 All nest-sites at which eagles have been recorded in the last five years, but where breeding has not been proved.

Priority 3 All nest-sites at which eagles have been recorded, but not in the last five years should be visited at least once between January and August.

Priority 4 Any other potential white-tailed eagle nest-sites should, if time allows, receive at least one visit between January and August.

If birds are recorded at priority 3 or priority 4 sites, those sites should be treated as of higher priority and visited more regularly.

Equipment
• 1:25,000 field maps of the survey areas
• recording forms
• Schedule 1 licence.

Safety reminders
Always tell someone where you are going and when you expect to return. Carry a compass and know how to use it. In more remote upland areas, always carry extra clothing, food, a survival bag and first-aid kit.

Disturbance
Keep to a minimum. Egg-collectors are a serious threat.

Methods
Visit all potential nest-sites between 15 and 28 February, in order of priority (see above), and watch from a distance for 3–4 hours. Look for evidence of territoriality and nest-building, ie a pair seen together, birds carrying nest material, copulation, courtship behaviour, display, or aggression towards other birds.

Make weekly visits from 5 March to 5 April to watch for evidence of incubation. Watch the nest without disturbing the birds; a sitting bird
and/or the eggs may be visible; otherwise, watch for an incubation changeover.

Record all breeding information on the nest recording form (Figure 1). Any sightings away from the nest should be recorded on the sighting form (see Figure 2 in red kite). There are other forms which must be filled in as part of annual sea-eagle monitoring, to record nest-site characteristics, home-ranges and individual bird history. Please contact RSPB Edinburgh for details.

The number of occupied white-tailed eagle territories is defined as the total number of suitable breeding sites at which white-tailed eagles were seen. The number of breeding white-tailed eagles is defined as the number of occupied territories at which there was evidence that nest-building took place and/or eggs were laid.

Breeding season survey – breeding success and productivity

**Information required**
- breeding status on each visit
- clutch size (if possible)
- brood size (if possible)
- when and how many chicks fledge
- presence of fledged juveniles (not essential).

**Number and timing of visits**
Weekly from 5 March until chicks have fledged or nest has failed.
Bird monitoring methods – white-tailed eagle

Time of day
Any time.

Weather constraints
As above.

Sites/areas to visit
All active nest-sites recorded earlier in the season (see above).

Equipment
- 1:25,000 field maps of the survey area
- Schedule 1 licence and separate licence to collect addled eggs
- nest recording and sighting forms
- a mirror attached at 45° on an extendable pole up to 20 m long (dependent on site)
- equipment for ringing, tagging and measuring chicks, and for collecting prey remains, moulted feathers and addled eggs.

Safety reminders
Always tell someone where you are going and when you expect to return. Only climb trees if trained to do so, and ensure that you are accompanied. Don’t attempt to reach cliff or ledge sites if this poses any danger to yourself. Do not climb alone or without appropriate safety equipment. You will need help to process the chicks quickly and safely.

Disturbance
Keep disturbance to an absolute minimum. Egg-collectors are a threat to this species.

Methods
On the first visit, establish whether incubation is taking place by watching the site for 3–4 hours. An incubation changeover should take place during this time. If possible, record the clutch size. Try to do this by observing the contents from a distance. If this is not possible, but the nest is accessible, visit the nest-site. Use a mirror on a pole to look at the nest contents and count the eggs. On subsequent visits, record the clutch size, the number of eggs that have hatched and the brood size early in the chick-rearing period. Visits to the nest should only last 5–10 minutes and, whenever possible, should be made when the adults are absent.

During each observation record and identify (stating whether alive or dead) any food items that are brought in by adults. If making visits to the nest, record any prey items or pellets found in the nest. If supplementary feeding is taking place, record the prey species and the number of items involved. Fill in the details on the nest recording form (Figure 1).

Young should only be ringed and tagged if the site is accessible and the process can be completed without danger to birds or people. Visit the nest-site in June to record the brood size later in the chick-rearing period and to ring the young. On the nest recording form (Figure 1) give details of the progress of the young (eg size, feather stage), rings, tags, measurements and blood samples taken.

Throughout this period, if failure is suspected it must be confirmed. If all the chicks are lost, there is no need to monitor the site further.
Bird monitoring methods – white-tailed eagle

Visit the vicinity of the nest every week from 1 July to 10 August to record the brood size at fledging. The approximate fledging date can be worked out if the hatching dates are known. Visits should start about 60 days from the hatching date. White-tailed eagles fledge at 70–75 days and may be fed at the nest for a further 30–40 days before becoming independent (BWP). Again fill out the nest recording form for each site after each visit and continue to fill out sighting forms for any birds seen away from the nest-site.

During August–October, if time is available, continue to make weekly visits to record the activities of any fledging or post-fledging chicks. In particular, record the size and appearance of the young and the sex of young flying with adults.

Apart from nest recording and sighting forms there are other forms which must be filled in as part of annual sea-eagle monitoring; these are to record nest-site characteristics, home-ranges and individual bird history. Please contact RSPB Edinburgh for details.

References
