



Avocet

Recurvirostra avosetta

Status

Amber listed: BL, WL, SPEC 3^W(L^W)
Schedule 1 of WCA 1981
Annex I of EC Wild Birds Directive

National monitoring

Rare Breeding Birds Panel.
WeBS.

Population and distribution

Avocets became extinct as a breeding species in Britain in the mid-19th century, eventually recolonising Norfolk, Essex and Suffolk in the 1940s. They now also breed in Kent, and generally the population has slowly increased (88–91 *Atlas*). Avocets require a specialised habitat of shallow, brackish coastal lagoons with bare or sparsely vegetated low islands (BWP). The breeding population in England is 450–492 pairs with an estimated 1,270 wintering in Britain (*Population Estimates*).

Ecology

Avocets prefer to nest in the open on bare, low muddy islands. They will, however, also nest on shingle and short grass, and consequently by the end of the incubation period it is not unusual to find birds nesting in what appears to be totally unsuitable habitat (eg among dense grass or reed where they are barely visible). Avocet breeding seasons can be very variable. Nesting can start within a very short period after the birds have returned to their breeding areas, leading to closely synchronised hatching and fledging. On the other hand, if the colony is large and regularly disturbed, birds can take a long time to settle and start incubating, so the last birds may still be going down on eggs as the first nests start to hatch. Although avocets only rear one brood a year, they will re-nest if they lose eggs or young. The latest successful nesting attempt recorded at Minsmere started on 29 June. Under these circumstances young from early nests will be fledging when late nests are hatching and re-nests are just starting (H Welch pers comm). A clutch of 3–5 eggs is laid from mid-April onwards (*Red Data Book*). Further details of avocet breeding behaviour are given at the end of this entry.

Breeding season survey – population

Information required

- number of breeding pairs
- map of the site with observation points marked.

Number and timing of visits

Three visits in May, with a week between visits.

Time of day

Preferably early morning (0600–0900 BST) and/or late afternoon or early evening (1600–1900 BST), although other times will do. Take as long as necessary. At sites where the numbers of adults are greatly affected by the tide, count individuals on the date when the tide is high; this makes birds easier to see.

Weather constraints

Do not survey if visibility is restricted by rain, mist or high winds.

Sites/areas to visit

Areas of shallow brackish standing water surrounded by bare or sparsely vegetated ground, eg man-made saline lagoons/scrapes, floodlands and flashes.

Equipment

- up-to-date large-scale OS map of the area (at least 1:10,000) showing all islands and waterbodies as accurately as possible
- clipboard
- telescope (20 × magnification)
- Schedule 1 licence.

Safety reminders

Take care when working close to water.

Disturbance

Do not disturb the colony while counting as this could affect breeding success. Carry out all observations from a discreet distance and from an unseen position or hide.

Methods

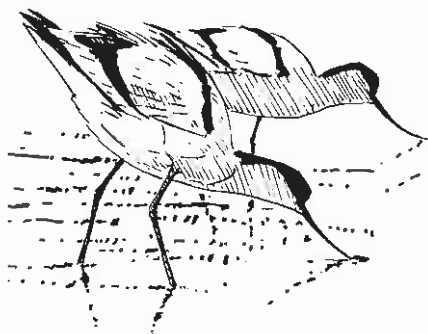
Before counting, assess the extent of the whole colony and mark it on the map. Find vantage points giving good views of all parts of the colony, checking that there are no blind spots. The number of vantage points required will depend on the size of the colony and the geography of the area. Split the colony into convenient sections, depending upon which areas can be seen from which vantage points, and mark and number them on the map.

Be absolutely clear (both in your mind and on the map) which sections are to be counted from which vantage points. You may find it useful to carry out a 'practice run' to familiarise yourself with the site and to establish whether birds visible at, for example, point 'A' are the same as those seen from hide 'B'.

Visit each vantage point in turn, in a logical sequence dependent on the layout of the site and on light conditions. Count the number of adult avocets in each section and note the count on the map.

Record also the following on the map: observer, site, date, start and finish times of observations and weather (wet/dry, wind force and temperature).

Take the maximum count of individuals from any one visit, divide it by two and report this as the number of pairs for the whole colony for the season. If a colony is spread over several 'sites', sum the counts for each site to give a total for each visit and again use the maximum from any one visit (ie do not add counts from different dates). Strictly speaking,



this method only provides a population index for a colony, but at some sites this index may approximate the number of pairs present.

Make a note of the expected hatching and fledging dates if you intend to monitor productivity. Clutches hatch 23 days after the start of continuous incubation and chicks fledge 33–42 days from hatching.

Breeding season survey – productivity

Information required

- estimated number of fledged young.

Number and timing of visits

Weekly from 10 June to mid-August or whenever the last chicks disappear.

Sites/areas to visit, Safety reminders, Disturbance

As for population survey (above).

Equipment

As for population survey (above) plus a recording form (see Figure 1).

Methods

You should know from previous visits roughly when young are due to fledge. Return to the colony at this time and, during weekly visits, note the status of pairs and chicks on the map using standardised symbols (see below). Transfer these records to a recording form (Figure 1). It may help to number nests and young on the map to allow you to cross-reference these to the recording form. You do not need to be able to relocate individual pairs/chicks from one visit to the next, but you should visit the colony often enough to be able to estimate the number of pairs still present and the number of chicks near fledging age, and to be able to assess whether chicks that disappear have fledged or have been predated or washed out.

		COLONY													
SITE		VISIT 1	VISIT 2	VISIT 3	VISIT 4	VISIT 5	VISIT 6	VISIT 7	VISIT 8	VISIT 9	VISIT 10	VISIT 11	VISIT 12	VISIT 13	VISIT 14
PAIR, NEST, OR BROOD NUMBER	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS	STATUS
1															
2															
3															
4															
5															
6															
7															
8															
Total Hatched															
Total Fledged															

Recording symbols

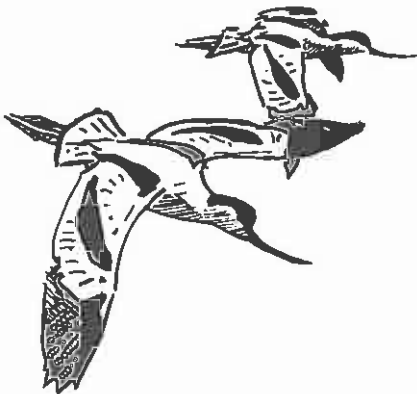
- o = Pair apparently intent on breeding or prospecting for a nest site
- (J) = A bird sitting
- J = A bird incubating
- X = Nest abandoned or seen to be predated
- *h = Expected hatch date
- *f = Expected fledge date
- y = Adults brooding chicks or young seen but number unknown
- 3y1/8 = Adults with young (3 young 1/8 th adult size)
- F = Young fledged, prefixed by the number

Figure 1
An example avocet productivity recording form.

At some sites (eg saltmarsh) avocets move newly hatched young from the breeding site to feeding areas (eg mudflats) which are difficult to observe. In these situations, it may be difficult (or even impossible) to estimate productivity.

Use the following symbols on the map to help you to determine the fate of nests and young:

- Pairs showing signs of attempting to nest (nest prospecting), ie birds nest-scraping, picking up vegetation or showing prolonged interest in one area (perhaps dropping onto their chest and scraping/kicking out behind with their feet).
- (✓) Bird sitting on the ground for short periods, or eggs seen but clutch not yet complete; bird sitting on the ground looking around alertly; sitting bird picking up vegetation and arranging it around itself; bird picking up and flicking vegetation towards a sitting bird; bird chasing off intruders and repeatedly returning to sit in the same place.
- ✓ Bird sitting tight, assumed to be incubating; changeover at nest observed. Other indications of birds with eggs are: birds squatting with their legs half bent and using their bills to rearrange the eggs before settling back down; birds shaking their feet as they leave the water; birds lowering themselves carefully to the ground and shuffling into position before settling.
- X Nest abandoned, no adults showing any interest in established nest, or nest seen to be predated (note cause/culprit).
- y Adults brooding chicks, or young seen but number unknown (prefix with a number when young can be counted). Indicate the **size** of the young in relation to an adult if possible, eg $\frac{1}{4}$, $\frac{1}{2}$, etc.
- *h Expected hatching date (23 days after the start of continuous incubation).
- *f Expected fledging date (33 days from the first signs of newly hatched young).
- 3y $\frac{1}{4}$ Adults with young (where there are three young, about $\frac{1}{4}$ the size of an adult).
- F Young fledged and the number.



A rough indication of chick age can be gained as follows:

- | | |
|--------------------------|---|
| <i>Under 10 days old</i> | Unstable when walking (first couple of days only).
Looks like grey ball of fluff.
Legs look stocky.
Bill straight, feeds by pecking at surface. |
| <i>Over 10 days old</i> | Very independent, often ignores adults.
Head starts to look 'angular'.
Bill has distinct upturn.
Legs growing long, bird looks 'leggy'.
Feeds with adult sweeping motion. |

Young are considered to have fledged when they are capable of flying a distance of several metres. Noting the approximate size and/or age of young and their expected fledging dates will help explain any unexpected disappearances of young.

At the end of the season, estimate the number of fledged young. Divide by the number of pairs (from population survey, as above) to report the overall number of chicks per pair.

Avocet breeding behaviour – contributed by Hilary Welch

The following may help in assessing productivity (and to a lesser extent population size) with greater certainty.

- When the eggs are due to hatch the adults become very restless. The sitting bird regularly stands to turn the eggs, or shuffles on the nest, fluffing up its feathers and adjusting its position on the eggs. The second bird in the pair is usually in close attendance, flicking extra items of material in the direction of the nest and keen to take over incubation. This behaviour can start a day or more before any young are seen and probably means the adults can hear the young calling from inside the eggs.
- The young usually hatch one at a time over a period of 24–48 hours, sometimes longer. During this period, one adult may look after the young which have hatched and need to feed, while the other continues to incubate the remaining eggs. You may therefore see a bird still sitting on the nest, but another adult close by with young or brooding. When the young are very small, adults can brood young while sitting flat on the ground, as if on eggs; this can be confusing! More often, brooding adults sit on their 'elbows', and the legs of the young can be seen beneath them. To be 100% sure of the number of young, you need to wait for the adult to stand up; counting the number of legs is not reliable as chicks sometimes stand on one leg.
- Once all the chicks in a brood have hatched, the adults will establish and defend a brood-feeding territory in which to rear them. The feeding territory may be some distance from the nest-site, and birds may later move the brood to an alternative area if they are disturbed (by predators or other avocets), or if better feeding is available elsewhere. As a rule of thumb, however, each family of chicks is likely to be feeding in a discrete area during any one visit.
- Early in the season there are frequent territorial disputes as pairs establish nesting territories, but then, during incubation, there is a period of comparative quiet. Late on in the season, territorial behaviour is most usual between pairs with young or pairs where the eggs are about to hatch. Such behaviour is always worth following up as there may be previously unobserved young present. Territorial behaviour includes:
 - Two birds walking a line, shoulder to shoulder, apparently feeding.
 - A group of birds, usually three or more, in a tight group with heads down making a lot of noise (low bubbling sound), often with fighting skirmishes and attacks on chicks (this most often happens when the chicks are very small and being moved from nesting to feeding territory; the chicks lie flat on the ground while the adults fight, and can be very hard to see).
 - 'Butterfly' flight: adult gliding with wings in a V, legs dangling and jinking its body from side to side as it lands. This is done when there are intruders in a feeding territory, and has only been seen in birds which have young.
- Birds which have fledged seem to prefer to stay on at the breeding site as long as they and the site are not disturbed.



Winter survey

WeBS.

See *Generic wintering bird monitoring methods* in the generic survey methods section.