



Helping your local turtle doves

Conservation advice from Operation Turtle Dove

The turtle dove is now the UK's most threatened breeding bird. Its population has fallen by 94% in the UK since 1995 and they have now disappeared from more than half of the breeding range they occupied in 1970. These birds spend the winter in West Africa before returning to the UK countryside in spring to breed. Creating and maintaining good quality breeding habitat is key to their recovery and we really need your help to provide this habitat.



Credit: Andy Hay (rspb-images.com)

What do turtle doves need?

Research shows that turtle doves require three key resources ideally within 300m of each other:

- 1. Food:** turtle doves feed on the ground, almost entirely on seeds of low growing wild plants or spilt crop seeds. They need sparse vegetation and or patches of open ground to be able to find the seeds. Turtle doves are now in such a precarious situation that in addition to growing seed-bearing plants, we also recommend **supplementary feeding**, using a specially-designed seed mix.
- 2. Nesting habitat:** they nest in dense woody vegetation, eg. tall thick hedgerows, or tall dense scrub.
- 3. Accessible water:** such as a shallow-sided pond.

How can I help?

Protecting and creating places for turtle doves to feed, nest and drink in areas where the birds are present is the best way that we can help save them. Evidence clearly shows that replacing these lost resources in our countryside is the number one priority action for turtle doves in the UK.

Your area might have one or more of the key resources that turtle doves need already. Consider what is missing and look to see where gaps can be filled. Can you work with others within your local area to give turtle doves places to feed, drink and nest?

Creating turtle dove friendly zones where land managers and communities work together to roll out conservation

measures for turtle doves across the landscape will be the most effective way of helping this special bird.

With your help, we can make sure that when turtle doves return to the UK in spring they are met with the habitats, food and water that they so desperately need. The following guidance provides information on how key features can be created or maintained.

The Operation Turtle Dove partnership, your local Natural England or an RSPB advisor can help to provide locally relevant guidance for all of these measures.



Credit: Ben Andrew (rspb-images.com)

Advisors can help provide locally-tailored guidance

Help turtle doves – help wildlife

Providing any of the features listed in this note is likely to benefit other wildlife, including plants, butterflies, bees, mammals and other birds. By supporting turtle doves you will be benefiting a whole host of other wildlife.

Providing food

Turtle doves feed almost entirely on seeds on the ground. They need low plants and patches of open ground where they can find the seeds. It is essential that there is a suitable source of seeds available when the birds first arrive back from migration in order that they can get into breeding condition quickly. These measures should be established near to suitable turtle dove nesting habitat (see **Providing nesting habitat** section).

You can help to provide vital seed-rich habitats in two ways:

- 1) **Plant a bespoke seed mix**
- 2) **Allow plants to regenerate naturally**

The following guidance is designed for options being delivered through the English Countryside Stewardship Scheme (CS) – available only to farmers. They can be adapted to situations outside CS. The options in CS are highlighted in green below.

1) Plant a bespoke seed mix

Sow a specially designed seed mix that will provide turtle doves with the right food plants. This will provide a source of food throughout the breeding season. The mix consists of early English vetch (25%), black medick (20%), birdsfoot trefoil (20%), early white clover (20%), early red clover (10%) and fumitory (5%).

This mix is available from several seed merchants – contact your local Natural England or RSPB advisor to find out where to order the mix. If you are in an area with rare arable plant interest, then this option may not be suitable. Please consider option 2) below instead.

When and where to sow

Establish the mix in blocks or strips, approximately six metres wide, between 1 August and 15 October. Plots

should be sown at approximately 12kg per hectare, but this may vary with soil type – consult your local advisor. It should be broadcast, not drilled. Once sown, the area should be rolled.

Maintenance

During the first year, you can top the plots to control the growth of problem weeds during establishment. Each following summers, between 15 June and 7 July, half of the plot should be cut or scarified to approximately 10-15cm on a rotational basis ie. do not cut the same area in successive years. The whole area should then be cut or scarified between 1 and 30 September and the cut vegetation removed so that patches of dead vegetation don't become established. Mixes may need to be re-sown every two to three years. Successful establishment and maintenance of these plots can benefit from local advice.

This management option can be delivered under CS as a modified version of **ABI, nectar flower mix**.

2) Allow plants to regenerate naturally

Cultivate an area of land and allow plants to naturally grow up. The plants that grow up may provide seeds for turtle doves to feed on. This measure may also benefit rare arable plants that might be present in the seed bank and may establish once the soil is cultivated.

This is particularly useful on lighter soils and is most beneficial for turtle doves if autumn cultivated as this then allows for plants to regenerate and set seed early the following summer.

Even on heavy soils, it can be possible to use a two stage cultivation programme, incorporating an autumn cultivation followed by an application of a non-selective herbicide prior to a secondary cultivation completed in early spring, to deliver weed-rich habitat with minimal pernicious weed problems.

Establishment

1. Cultivate the allocated area between 1 August and 1 November each year in order to produce a flush of autumn growth.

2. Spray off the resultant weed growth by 15 February using a non-selective herbicide.
3. Carry out a final cultivation to achieve a fine tilth by 15 March. This should produce spring germinating plants such as knotgrass, black bindweed, chickweed and fumitory.
4. Do not disturb fallow areas until 31 August.



Suitable foraging habitat for turtle doves, including areas of bare ground to allow the birds to find seeds

This management option can be delivered under CS as **ABI I, cultivated areas for arable plants**.

3) Supplementary feeding

We are now also recommending supplementary feeding as an important emergency conservation measure for all areas where turtle doves still breed. Providing the birds with a specially formulated mix of seeds helps ensure that they have sufficient food when natural sources are scarce.

What to feed?

We only recommend feeding with a mix of suitable seed types, not just a single seed, to provide nutritional variation. We recommend a mix that is known to be effective that reflects a range of seed types known to be currently well represented in turtle dove diet and that provides high nutritional value to turtle doves, at a reasonable price: 10% wheat, 35% oil seed rape, 35% feed white millet, 10% canary seed, 10% sunflower hearts. This can be viewed as a high standard ideal mix.

As a minimum, we recommend that any supplementary seed mix for turtle doves should contain at least three seed types picked from the five above, with no more than 10% wheat in any mix, and at least 10% of any other single component (eg. 50% millet, 40% oilseed rape and 10% sunflower hearts). This should ensure that nutritional balance and quality of the overall mix is maintained. Each feeding site will require 75 kg of the seed mix each year. This should be enough to enable weekly deployment of the supplementary feed for at least eight weeks.

Location & management of feed areas

Supplementary food should be located near to (within 300m of) good turtle dove nesting habitat – eg. tall thick hedges, areas of dense scrub, particularly near ponds. If there is local knowledge of where turtle doves are currently breeding, or have nested recently, supplementary food is best placed within 300m of these locations.

The feeding site must be a bare surface free of vegetation or have vegetation that is short (<15cm) and patchy, including at least 30% (preferably 50-60%) bare areas.

If the vegetation grows to cover the ground and becomes taller than 15cm before late June, it should be cut back or rotovated.

Suitable areas for seed deployment could include stubbles, other fallow or recently established or cultivated areas (including fallow or seed plots), bare or sparsely vegetated tracks, beet pads, very short grass etc.

The fed area should be a strip 50m long by 5m wide, or similar. Feeding stations should be in an open location, and not under tree canopy. On farmland they can be located either in-field or adjacent to field boundaries. Maintaining the supplementary feeding site in the same location through a breeding season is the preferred method. If for any reason the original feeding site cannot be maintained throughout the breeding season, eg. because the vegetation becomes too over-grown or there is build up

of uneaten seed, then the seed should be moved as short a distance as possible to a location that is suitable, rather than continuing to use what becomes unsuitable vegetation structure.

When, and how much to feed

Supplementary feeding for turtle doves should be carried out for at least eight weeks from the first week of May until late June. Starting earlier (mid-April) and continuing into July could be beneficial in at least some situations, and can be done wherever possible.

Seed should be put out each week; spun or scattered to spread it thinly and evenly across the whole feeding site, to avoid creating piles or trails of seed. 6kg of seed per week over a 50m x 5m feeding site is the recommended rate.

This low rate of seed delivery has been tested and found to be safe for preventing a build up of pathogens. If you want to provide more seed then consider putting in more than one feeding plot. A trail camera is a good way of monitoring your feeding sites. If there is a visible build-up of unused food, stop feeding for at least one week to reduce the chance of pathogen build-up.



Other considerations

If you are in an agri-environment scheme such as CS you may need to seek permission from Natural England if the area selected for the supplementary feed is within an agreement option. Contact your local Natural England advisor for more information.

Seed-eating birds other than turtle doves are highly likely to find and use this supplementary food. The presence of other birds should not prevent use by turtle doves, and indeed may alert turtle doves to the presence of the seed, which may then increase the chance of them benefitting from it. Other seed-eating bird species of conservation concern may also benefit from supplementary feeding, possibilities including: grey partridge, skylark, linnet, bullfinch, yellowhammer and reed bunting.

Providing nesting habitat

What is good nesting habitat?

In the UK, turtle doves usually nest in tall, dense mature scrub or hedgerows, especially if they contain standard trees, thorny shrubs and climbers. Dense thorny vegetation provides the birds with a safe place to build their nest, which is often just a small collection of twigs.

Providing scrubby habitats can also benefit lots of wildlife – from birds like nightingales and bullfinches to butterflies and other invertebrates.



A patch of scrub used by turtle doves

Protect what's there

If you already have scrubby areas and hedgerows in your local landscape then you hold a vital resource for turtle doves.

Good turtle dove nesting habitat can take a long time to develop from scratch, so it's essential to protect what's there. Think about how you can help your neighbours to protect hedgerows and scrubby areas in your local landscape.

Key management tips

To provide the dense scrubby structure that's ideal nesting habitat for turtle doves, we recommend the following:

- Areas of scrub or dense hedgerow should be, as a minimum, 3m tall and 4m wide. Allow room for hedges to expand if necessary.
- Encourage and keep thorny species such as hawthorn or blackthorn.
- Encourage and keep native climbing plants such as dog rose, clematis or ivy.
- In the long-term, scrub will eventually turn into woodland and hedges may turn into mature treelines. To maintain the dense, scrubby structure that turtle doves prefer, we recommend that one fifteenth of the area is cut in any one year or, alternatively, that one fifth is cut every three years on a rotational basis.
- Avoid management and cutting between March and September (inclusive) as turtle doves can still be breeding in August.

Providing suitable turtle dove nesting habitats can be delivered under three CS options. Option **BE3 Management of Hedgerows** provides for the management of hedgerows; Options **WD7 Management of Successional Areas and Scrub** and **WD8 Creation of Successional Areas and Scrub** provide more specifically for the management and creation of successional areas of scrub.

Providing water

Ponds within 300m of suitable nesting habitat will provide turtle doves with a place to drink and bathe.

Ponds for turtle doves should have at least one gently sloping side that should be kept open to allow them to safely access the water.

If the local soil structure is not suitable for pond creation, then it is possible to provide other water sources, such as a shallow livestock drinking trough. Care must be taken to ensure this is safe for all wildlife and the water in the trough is changed periodically.



Pond with gently sloping side suitable for turtle doves

Options WN5 or 6 and WT4 and 5 provide for pond management under CS.