



Turtle Dove report: Kinda education, Holton, Suffolk

RSPB - Operation Turtle Dove

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photo credit: Barend van Gernerden

Site visit 17/01/2025

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Priorities:

Working in co-ordination with Holton pits CIC, the most immediate priority should be to provide supplementary seed for Turtle Doves. There is some suitable nesting habitat for Turtle Doves on the edge of the site with the potential for more to develop. Allowing small areas of scrub to develop along the edges of the newly planted woodland would be an easy way to achieve this. Allowing some annual arable plants and flowering species to grow alongside tracks and in the planned agri-forestry area would be the best option to encourage natural foraging for Turtle Doves.

Disclaimer

All recommendations are based on information supplied to the RSPB from the landowner(s)/ occupiers. This report may not deal with every aspect of how the management should be applied to particular circumstances and should not be treated, or relied on, as a substitute for specific advice relevant to particular circumstances. Accountability and responsibility for the land management remains with the landowner(s)/ occupiers. No responsibility is accepted for any loss which may arise from reliance on the information provided.

Please note:

- The client must check the information provided on which the recommendations of this report are based.
- Accountability and responsibility for land management remains with the landowner(s) (e.g., compliance with Agri-Environment Schemes (AES) such as Countryside Stewardship agreements).
- (For AES agreement holders only) The report is not intended to address all the prescriptions required by your AES. You are responsible for ensuring the requirements of your AES agreement will still be met.
- The advice in the report does not supersede:
 - Responsibility to meet Defra regulations, including Farming Rules introduced by Defra.
 - Any legal obligations including planning requirements and/or consents.
 - AES management prescriptions.



Figure 1. - [A] New pond, [B] Scrub, [C] Arable field – to be woodland.

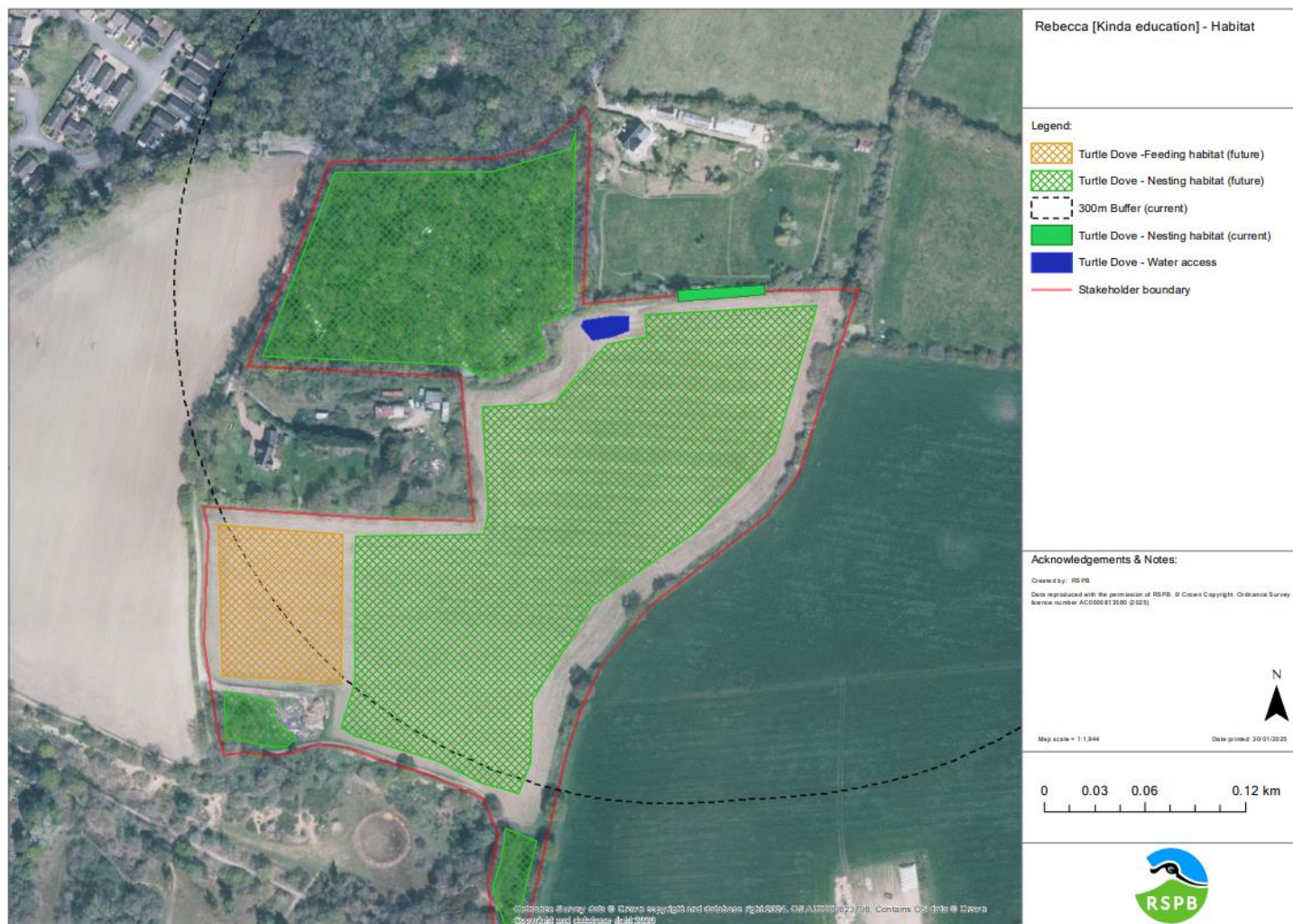


Figure 2. Site map

Habitat requirements for Turtle Doves:

Turtle Doves are a migratory dove, slightly bigger than a Blackbird and are obligatory seed eaters. They require three key habitats in the UK:

- **Food** – Turtle Doves need seed rich habitat with 30-60% bare ground and low vegetation (<15cm) to be able to access it. Unlike many farmland birds, Turtle Doves don't feed their chicks insects but create a crop milk from seeds. They feed on a wide variety of seeds of arable plants like chickweed and fumitory, and brassicas like oilseed rape.
- **Nesting habitat** – In the UK Turtle Doves nest in large dense thorny hedgerows and scrub, which provides protection from the weather and predators.
- **Accessible water** – A seed-based diet is low in water content, so they need water to be able to make crop milk for their chicks.

The Turtle Doves decline in the UK and Western Europe is associated with the following factors:

1. Food shortages on their breeding grounds.
2. Unsustainable levels of hunting on migration.

The best way to help Turtle Doves thrive is to provide extra resources in areas where Turtle Doves are still present, so they can have more breeding attempts per season and fledge more chicks. Whilst supplementary feeding is recommended as a short-term, important emergency measure, there should also be a focus on providing other abundant and good quality foraging habitat, nesting habitat and water sources.

Nesting habitat

To be considered suitable for turtle doves, existing scrub and hedgerow nesting habitat must have the following characteristics:

- *Tall (at least 3 metres and preferably higher with some taller mature trees within providing variation).*
- *Wide (at least 4 metres) and dense.*
- *Containing thorny species such as hawthorn and blackthorn, bramble, as well as native climbers such as ivy, clematis and dog rose.*

1] Tall and dense scrub identified on the north side near the newly created pond (see Figure 2).

2] Woodland Coppicing system and future removal of diseased oak will allow the understory to develop, this is already evident with the development of an understory including privet and other shrubs.

3] There is also scope for providing Turtle Dove nesting in the future with woodland planting in the main field. Creating and maintaining opens areas and woodland rides running east to west are particularly good for wildlife. Consider the addition of Hawthorn and Blackthorn in and along the edges of the woodland to benefit the scrub layer. See Holton pits for the succession from walked track to taller plants, bramble and then trees. After planting you could experiment by adding in fenced areas to exclude deer grazing and laying a few of the trees once the roots have established, both these options will create a denser understory to benefit warblers and nightingale.

4] Consider letting a few corners of land to naturally regenerate and scrub up (see Figure 2), new areas will take 15-20 years before it is 'turtle dove ready' but in the interim will benefit a wide range of farmland species.

Accessible water

Accessible water is important for turtle doves to drink and bathe, as their obligate seed diet contains little water. Ideally this should be within 300 m of their nesting habitat. Turtle doves either need sloping edges with low or no vegetation or perches to access water from.

Large pond newly created (see Figures 1A and 2) and woodland ponds allow water access for turtle doves. Due to heavy soils the vegetation might become dense around the pond, clearing access to the water edge or putting a large branch in the water may be needed for Turtle Dove to access water in the future.

Foraging habitat

Research shows the decline of turtle doves as a UK breeding species is the result of fewer breeding attempts per year. This is largely due to a decline in food availability. The national survey conducted in 2021 estimated the population at 2,100 pairs. Turtle doves typically feed on a mixture of crop seeds and arable plant seeds, with both being important components of their diet. Ideal foraging habitat for turtle doves is considered to have the following characteristics:

- At least 30% bare ground, preferably 50-60% (for birds to land and access seed)
- Arable plants growing such as fumitory, knotgrass, chickweed, white clover, black medick and bird's-foot trefoil (not an exhaustive list) to provide a seed resource for Turtle doves.
- Forage throughout the breeding season (April-September), with vegetation height under 15cm. Availability early in the season (April/May) is particularly important.

Foraging habitat should be available within 300m of nesting habitat to benefit fledglings which stay very close to the nest in the 3 weeks following fledging.

1] Due to heavy soils maintaining cultivated margins for arable plants may be difficult due to likelihood of pernicious weed establishment (Thistles demonstrated in Figure 1c). Along the edge of this area small arable plants were discovered i.e. scarlet pimpernel and field madder a rare arable plant (see Appendix 2). The ground would require annual disturbance for these to germinate. If track vegetation is kept short Turtle Doves may use it to access seed along margins.

2] For your future Hazel alleys and forest garden (see figure 2,3 and Appendix 1) activity here will create bare ground for arable plants like chickweed to germinate. A tolerance of some 'weeds' in this area, where possible, is likely to be the best option for grown Turtle Dove seed on the site. Given the history of this land as arable there is the possibility of other, more rare, annual arable plants appearing which might be worth looking out for. This is the fastest declining group of plants in the UK.

3] The concrete pad in south-west corner had easily accessible overhanging nettles, nettle seed have been shown to be part of turtle dove diet. Some flower rich margins could be created next to tracks or mown areas to allow access to seed for Turtle Doves.

Supplementary feeding

Early in the summer when there is less seed available in the landscape, supplementary feeding can help adults get into breeding condition more quickly. This means that over the course of the summer they are likely to have more breeding attempts and produce more chicks to help the population recover.

Supplementary feeding

Supplementary feeding is an immediate measure which can be deployed at sites with suitable nesting habitat for Turtle Doves. Small seeds distributed weekly at a low density according to the Operation Turtle Dove protocols can provide much needed seed when there isn't much available in the landscape. Potential supplementary feeding options marked on the map in Figure 3:

- 1) A concrete pad located on Kinda Education land would be perfect for a co-ordinated approach. It is within 300m of the best nesting habitat on both sites and will not require additional habitat management to maintain access throughout the season.
- 2) Holton pits could provide supplementary feed on the area of short vegetation at the base of the SSSI cliff. However this approach would mean that Kinda Education would need to feed at site 3 on the map.
- 3) Kinda Education could provide supplementary seed near the new pond at the north of the site. This would require regular mowing to maintain a short sward so the seed is accessible.

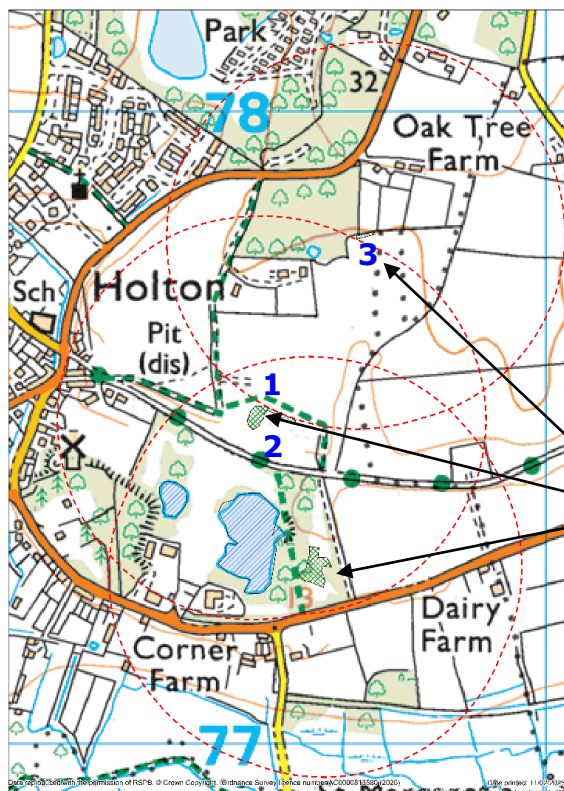


Figure 3: Map showing approximate locations of the best nesting habitat with 300m buffers showing the foraging range of Juvenile Turtle Doves after fledging. The three potential supplementary feeding options are indicated by blue numbers.

Appendix 1: Future plans for the site



Appendix 2 Rare arable plants.

Species	Species Score	Dafor	Score
Pheasant's-eye <i>Adonis autumnalis</i>	8		
Corncockle <i>Agrostemma githago</i>	9		
Ground-pine <i>Ajuga reptans</i>	8		
Rough Marsh-mallow <i>Althaea hirsuta</i>	8		
Small Alison <i>Alyssum alyssoides</i>	8		
Blue Pimpernel <i>Argemone arvensis</i> ssp. <i>foemina</i>	5		
Small Bugloss <i>Anchusa arvensis</i>	1		
Corn Chamomile <i>Anthemis arvensis</i>	8		
Stinking Chamomile <i>Anthemis cotula</i>	7		
Annual Vernal-grass <i>Anthoxanthum aristatum</i>	8		
Bur Chervil <i>Anthriscus caucalis</i>	3		
Dense Silky-bent <i>Apera interrupta</i>	4		
Loose Silky-bent <i>Apera spica-venti</i>	6		
Slender Parsley-piert <i>Aphanes austriaca</i>	1		
Lamb's-succory <i>Artemisia minima</i>	9		
Bristle Oat <i>Avena strigosa</i>	5		
Black Mustard <i>Brassica nigra</i>	2		
Lesser Quaking-grass <i>Braea minor</i>	5		
Field Brome <i>Bromus arvensis</i>	6		
Interrupted Brome <i>Bromus interruptus</i>	9		
Rye Brome <i>Bromus secalinus</i>	7		
Greater Pignut <i>Bunium bulbocastanum</i>	6		
Thorn-wax <i>Bupleurum rotundifolium</i>	9		
False Flax <i>Camelina sativa</i>	5		
Small Bur parsley <i>Caucalis platycarpus</i>	9		
Cornflower <i>Centaurea cyanus</i>	8		
Small Toadflax <i>Chamaenerion minus</i>	1		
Fig-leaved Goosefoot <i>Chenopodium ficifolium</i>	2		
Maple-leaved Goosefoot <i>Chenopodium hybridum</i>	3		
Nettle-leaved Goosefoot <i>Chenopodium murale</i>	7		
Many-seeded Goosefoot <i>Chenopodium polyspermum</i>	2		
Upright Goosefoot <i>Chenopodium urticum</i>	9		
Corn Marigold <i>Chrysanthemum segetum</i>	7		
Tansy Mustard <i>Descurainia sophia</i>	3		
Purple Viper's bugloss <i>Echium plantaginum</i>	8		
Common Stork's-bill <i>Erodium cicutarium</i>	1		
Musk Stork's-bill <i>Erodium moschatum</i>	3		
Treadle-mustard <i>Erysimum cheiranthoides</i>	2		
Dwarf Spurge <i>Euphorbia exigua</i>	6		
Broad-leaved Spurge <i>Euphorbia platyphylla</i>	3		
Narrow-leaved Cudweed <i>Flago gallica</i>	9		
Red-tipped Cudweed <i>Flago lutescens</i>	8		
Broad-leaved Cudweed <i>Flago pyramidalis</i>	8		
Common Cudweed <i>Flago vulgaris</i>	6		
Tall Ramping-fumitory <i>Fumaria borealis</i>	2		
White Ramping-fumitory <i>Fumaria capreolata</i>	3		
Dense-flowered Fumitory <i>Fumaria densiflora</i>	3		
Common Ramping-fumitory <i>Fumaria muralis</i> ssp. <i>neglecta</i>	7		
Western Ramping-fumitory <i>Fumaria occidentalis</i>	5		
Fine-leaved Fumitory <i>Fumaria parviflora</i>	7		
Purple Ramping-fumitory <i>Fumaria purpurea</i>	4		
Martin's Ramping-fumitory <i>Fumaria reuteri</i>	8		
Few-flowered Fumitory <i>Fumaria vallonensis</i>	7		
Red Hemp-nettle <i>Galeopsis angustifolia</i>	9		
Downy Hemp-nettle <i>Galeopsis segetum</i>	9		
Large-flowered Hemp-nettle <i>Galeopsis speciosa</i>	7		
False Cleavers <i>Galium aparine</i>	8		
Corn Cleavers <i>Galium tricornutum</i>	9		
Nit-grass <i>Gastridium ventriosum</i>	5		
Long-stalked Crane's-bill <i>Gensium columbinum</i>	2		
Small-flowered Crane's-bill <i>Geranium pusillum</i>	2		
Jagged Chickweed <i>Helostemum umbellatum</i>	9		
Henbane <i>Hyoscyamus niger</i>	7		
Smooth Cat's-ear <i>Hypochaeris glabra</i>	7		
Wild Candytuft <i>Iberis amara</i>	7		
Sharp-leaved Rue <i>Kidoo elatior</i>	2		
Round-leaved Rue <i>Kidoo spuria</i>	3		
Henbit Dead-nettle <i>Lamium amplexicaule</i>	1		
Northern Dead-nettle <i>Lamium confertum</i>	3		
Yellow Vetchling <i>Lathyrus aphaca</i>	7		
Small Tree-mallow <i>Lavatera cretica</i>	7		
Venus's-looking-glass <i>Legousia hybrida</i>	3		
Field Pepperwort <i>Lepidium campestre</i>	3		
Corn Gromwell <i>Lithospermum arvense</i>	8		
Darnel <i>Lolium temulentum</i>	9		
Grass-poly <i>Lythrum hyssopifolium</i>	8		
Dwarf Mallow <i>Molva neglecta</i>	2		
Field Cow-wheat <i>Metoprynium arvense</i>	8		
Corn Mint <i>Mentha arvensis</i>	1		
Annual Mercury <i>Mercurialis annua</i>	2		
Weasel's-snout <i>Mesopates orontium</i>	7		
Mousetail <i>Myosurus minimus</i>	7		
Cat-mint <i>Nepeta cataria</i>	7		
Common Broomrape <i>Orobancha minor</i>	2		
Prickly Poppy <i>Papaver argemone</i>	7		
Babington's Poppy <i>Papaver dubium</i> ssp. <i>leucog</i>	2		
Rough Poppy <i>Papaver hybridum</i>	3		
Corn Parsley <i>Petroselinum segetum</i>	3		
Four-leaved Allseed <i>Polycarpon tetraphyllum</i>	5		
Northern Knotgrass <i>Polygonum boreale</i>	4		
Cornfield Knotgrass <i>Polygonum ruivagum</i>	3		
Corn Buttercup <i>Ranunculus arvensis</i>	9		
Rough-fruited Buttercup <i>Ranunculus muricatus</i>	6		
Small-flowered Buttercup <i>Ranunculus parviflorus</i>	3		
Hairy Buttercup <i>Ranunculus scardus</i>	3		
Wild Radish <i>Raphanus raphanistrum</i>	1		
Greater Yellow-rattle <i>Rhinanthus angustifolius</i>	7		
Shepherd's needle <i>Scandix pecten-venensis</i>	9		
Annual Knapweed <i>Scleranthus arvensis</i>	8		
Field Madder <i>Sherardia arvensis</i>	1		
Small-flowered Catchfly <i>Silene gallica</i>	8		
Night-flowering Catchfly <i>Silene noctiflora</i>	7		
White Mustard <i>Sinapis alba</i>	2		
Corn Spurney <i>Spargano angustifolius</i>	7		
Field Woundwort <i>Stachys arvensis</i>	6		
Cut-leaved Germander <i>Teucrium botrys</i>	7		
Perfoliate Penny-cress <i>Thlaspi perfoliatum</i>	7		
Spreading Hedge-parsley <i>Tonlis arvensis</i>	8		
Knotted Hedge-parsley <i>Tonlis nodosa</i>	3		
Narrow-fruited Cornsalad <i>Valerianella dentata</i>	8		
Broad-fruited Cornsalad <i>Valerianella rimosa</i>	8		
Green Field-speedwell <i>Veronica agrestis</i>	1		
Grey Field-speedwell <i>Veronica polia</i>	2		
Breckland Speedwell <i>Veronica procer</i>	8		
Fingered Speedwell <i>Veronica triphylla</i>	8		
Spring Speedwell <i>Veronica verna</i>	8		
Slender Tare <i>Vicia parviflora</i>	7		
Smooth Tare <i>Vicia tetrasperma</i>	2		
Wild Parsley <i>Vilva tricolor</i> ssp. <i>tricolor</i>	6		
Assemblage Score (sum of all individual scores of species)			

Figure 1: Plant life's Rare Arable Plant Scorecard (scores from 1 [common] to 9 [rare])



Figure 2: Field madder spotted during site visit