

Back from the Brink – Species summary

Chequered Skipper

BftB project: IPO6 Roots of Rockingham

Project lead organisation: Butterfly Conservation

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Species name – common & scientific	<p style="text-align: center;">Chequered Skipper <i>Carterocephalus palaemon</i></p>
	<div style="text-align: center;">  <p>© Dave James / Back from the Brink</p> </div>
Taxon group	<p>Lepidoptera</p>
Conservation status	<p>Protected under the Nature Conservation Act in Scotland UK BAP: Priority Species Butterfly Conservation priority: High European status: Not threatened Protected In Great Britain for sale only</p>

<p>UK distribution</p>	<p>Restricted to a small area of western Scotland. Formerly occurred in woodlands in eastern England but died out there in 1976. Distribution Trend Since 1970's = -44%</p>  <p>Map: Butterfly Conservation</p>
<p>Habitat associations</p>	<p>In Scotland, the butterfly breeds on open damp grassland, dominated by tall Purple Moor-grass. Favoured sites are on the edges of open broadleaved woodland as richer soils produce a lush growth of the foodplant. Former colonies in England occurred in woodland rides and glades, and occasionally in fens or ungrazed calcareous grassland amongst the scrub. It may also have bred formerly in damp coppiced woodland as it does elsewhere in northern Europe.</p> <p>The main foodplant in Scotland is Purple Moor-grass (<i>Molinia caerulea</i>). In England, most records were on False Brome (<i>Brachypodium sylvaticum</i>), though a range of grasses, including Wood Small-reed (<i>Calamagrostis epigejos</i>), may have been used as they are in continental Europe.</p>
<p>BftB work carried out:</p>	
<p>Survey & Monitoring</p>	<p>Vegetation surveys carried out at 3 sites. Monitoring of Chequered Skipper adults during entire flight period carried out at reintroduction site over the four years of the project. Larval hunts carried out annually following reintroduction.</p>

<p>Sites habitat management works</p>	<p>7.2km ride widening/scalloping across 5 sites. 23ha ride management across 7 sites (Rotational mowing and mulching of ride side vegetation to remove brash and stumps to widen rides and enable rotational mowing to take place). 3.5ha glade management at 1 site (scrub removal and cut & collect of vegetation). 10ha ride across 3 sites incorporated into Countryside Stewardship agreement to change management to system of rotational mowing/management of rides and ditches</p> <p>Landowners/managers have been advised of continued management, with maps produced. Advice has been embedded within site management plans, forestry design plans or incorporated into Countryside Stewardship agreements where possible.</p>
<p>Conservation 'interventions' incl. reintroductions & translocations</p>	<p>Reintroduction of Chequered Skipper to Rockingham Forest. Adult butterflies sourced from Belgium. Disease Risk Assessment carried out by DRAHS department of ZSL/Institute of Zoology, with a protocol produced for safe collection, transport and release of individuals. Adult butterflies were collected from Fagne-Famenne region of Belgium with the support of Philippe Goffart (Service Public de Wallonie), Dirk Maes (Research Institute for Nature and Forest (INBO)) and local volunteers. This region was chosen after climate and habitat suitability modelling was carried out along with population estimates). After collection, adults were stored individually in pots and kept cool in cool boxes to minimise activity. Health checks were carried out by a vet from ZSL after capture in Belgium prior to transport and again in UK before release. Adults were transported back to UK in cool boxes via car & Eurotunnel. Adults were released within 36 hours of time of capture. In 2018, 42 adult butterflies (32 females, 10 males) were released into Site 1 in Rockingham Forest. In 2019 an additional 24 adult butterflies (10 females, 12 males) were released into Site 1 to augment the emerging population.</p>
<p>Technical advice provision</p>	<p>Site visits with landowners. Section on managing woodland for Lepidoptera was included in each of the three landowner workshops and in the video 'Managing woodlands for nature' available on YouTube. Advice provided to input into rewilding project on nearby estate.</p>
<p>Links made with other taxa / conservation work?</p>	<p>Ride widening and management will benefit Dingy Skipper, Grizzled Skipper, Concolorous & Wood White. It will also increase plant diversity & abundance and corresponding invertebrate activity, so providing additional foraging grounds for project bat and bird species.</p>
<p>Wider engagement & advocacy activities?</p>	<p>ID & survey training, family engagement events, presentations about the project and the reintroduction (some available online e.g.), volunteer work parties, annual Chequered Skipper Steering Group meeting, education workshops with schools, watercolour illustration workshop with artist Lizzie Harper, PhD Research update talk, short film produced on reintroduction</p>
<p>BftB results obtained:</p>	
<p>Recorded Distribution (in BftB focal areas)</p>	<p>Breeding population on one site.</p>

<p>Recorded Abundance of species populations</p>	<p>English emerged adults (does not include sightings of Belgian released butterflies or sightings where it could not be determined if Belgian/English) Sightings: 105 (2019), 60 (2020, though survey period effected by pandemic restrictions), 64 (2021). Sightings per survey hour: 0.41 (2019), 0.21 (2020), 0.19 (2021) Peak adult count: 12 (2019), 13 (2020), 9 (2021)</p>
<p>Other results documented?</p>	<p>6 larvae found in 2019. No larvae found in 2018, 2020, 2021. Approximate occupied area of reintroduction site (by English emerged adults): 4.4km/65ha (2019), 4.7km/70ha (2020), 5.1km/86ha (2021) – see Fig 1. For maps.</p>
<p>Species Recovery Curve progress made</p>	<p>Species Recovery Curve moved from 3 to 7. Chequered Skipper has been reintroduced into Rockingham Forest with the reintroduction process shown to work successfully. Chequered Skipper have been able to complete their life cycle in the Rockingham Forest habitat and English Chequered Skipper have emerged for 3 consecutive years. Whilst the pandemic meant that no reintroduction could take place in 2020, it did confirm that CS can breed and complete the life cycle in their new habitat without the population being augmented with individuals from Belgium. The habitat is in good condition and a rotational mowing programme established with the agreement of the landowner. CS have spread throughout the area which is encouraging for future colonisation of nearby sites.</p>
<p>Recommendations for future work:-</p>	<p>Maintenance of 2-3 year rotational mowing system of ride edges. Creation of more open space within woodlands through widening and creation of glades/scallops. Reintroduction of Chequered Skipper into additional sites, ideally to at least one site in each of the 5 identified woodland networks within the Rockingham Forest area. Annual monitoring of Chequered Skipper adults during flight period and larvae hunts in Autumn.</p>

Fig 1: Area of habitat occupied by English-emerged Chequered Skipper on Reintroduction Site 1 2019-21 (All maps ©Butterfly Conservation)



