

Extinction and Hope ...

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Abstract: This article, concentrating on the Large Copper (*Lycaena dispar*), reflects on the decline and extinction of the British butterfly fauna. In contemplating these losses, the article suggests that we must learn from our mistakes and successes in order to conserve.

Lycaena dispar ...

"The beauty and genius of a work of art may be reconceived, though its first material expression be destroyed; a vanished harmony may yet again inspire the composer; but when the last individual of a race of living beings breathes no more, another heaven and another Earth must pass before such a one can be again."

William Beebe (1877-1962)

- American naturalist, entomologist, ornithologist, marine biologist, explorer and author.

The above quotation has always inspired me. Recent visits to the Hope Department of Entomology at the Oxford University Museum of Natural History (OUMNH) have left me pondering with sadness, the ultimate extinction of some species of butterfly from the British Isles and the worrying decline of many others.

It is all too easy to blame the collector for the demise of a particular species or race; although the greediness and irresponsible actions of some early collectors undoubtedly played a very important part in the loss of the beautiful Large Copper (*Lycaena dispar ssp. dispar*), that was endemic to the British Isles (Feltwell, 1995; Ford, 1967). In the case of *L. dispar dispar*, the changing fenland management and, in particular, the drainage of the fens, also played a significant role in its demise due to critical habitat loss. This, coupled with the lack of any protected status for the butterfly and its required habitat at that time, pushed the British subspecies, *dispar*, into extinction in the Fenlands around 1851 (Dennis, 1977).

It should be noted that although 1851 is often quoted in text as the date of extinction of *L. dispar dispar*, records exist as late as 1864 (Irwin, 1984, cited in Feltwell, 1995; Asher *et al.*, 2001). These include records as far north as Walkeringham, Nottinghamshire by Miller, and Gainsborough, Lincolnshire by Farrington and Miller (Dennis, 1977). It is also reputed to have 'definitely inhabited the Somerset marshes', with a record by Crouch in 1857 (Allan, 1966, cited in Dennis, 1977). Records from other locations also exist.



Large Copper *ssp.dispar* (*Lycaena dispar dispar*)

Photo © OUMNH



Large Copper *ssp.rutilus* (*Lycaena dispar rutilus*)

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In 1909, an unsuccessful attempt was made to introduce the continental subspecies, *rutilus*, into Wicken Fen, Cambridgeshire; the main reason for failure being the scarcity of its food plant (Ford, 1967). Several years later, in 1913-14, Captain E. B. Purefoy successfully introduced *rutilus* into a snipe-bog at Greenfields, Tipperary in Southern Ireland. This colony existed until at least 1928 (Dennis, 1977; Ford, 1967). With the exception of supplementation of adults in 1926 and 1943 from Dutch stock, the colony was self-sustaining. It was last observed in 1954 (Lavery *in litt.*, cited in Emmet and Heath, 1989). 1926 also saw an attempt to introduce *rutilus* to a marsh in Norfolk, the stock coming from Ireland. This colony only survived for several years as conditions, once again, proved unfavourable (Ford, 1967).

In 1915, a new race of the Large Copper, *batavus*, was discovered in Friesland, Holland. Sadly, due to drainage schemes and irresponsible collecting after its presence was made known, it was on the verge of extinction within a few years (Ford, 1967).

Batavus, morphologically, is far more comparable to *dispar* than *rutilus* (Ford, 1967; Frowhawk, 1934; Thomas and Lewington, 2010). It was therefore decided that every effort would be made to stock Woodwalton Fen with this form; the first butterflies being released in 1927. Due to the early signs of success, a further release was made at nearby Wicken Fen in 1929-1930 (Dennis, 1977; Ford, 1967); though this colony only survived for around 12 years after an adjacent fen was reclaimed for agriculture (Duffey, 1974, cited in Feltwell, 1995). The colony at Woodwalton continued to prosper for many years, though was regularly supplemented with captive-bred stock. Despite fresh stock being introduced, along with regular caging of the larvae in order to provide a level of predatory protection, the colony was finally lost in 1969. Several further reintroductions were made until the programme was stopped during the 1990s (Thomas and Lewington, 2010).



Large Copper *ssp.batavus* (*Lycaena dispar batavus*)

Photo © OUMNH

Unfortunately, in Britain, all reintroduction attempts to date have ultimately ended in failure; though much has been learnt. In the Netherlands, *batavus* has shown a welcome recovery following a successful fen management programme (Thomas and Lewington, 2010). In Britain, the Great Fen project may shed a ray of hope on the future of the Large Copper in its former habitat. This ambitious 50-year project aims to create a huge wetland area comprising some 3,700 hectares (9,143 acres), between Peterborough and Huntingdon. It is destined to be one of the largest wetland restoration projects of its type in Europe. It encompasses both Holme Fen and Woodwalton Fen, two of the Large Copper's most famous historic breeding grounds. So maybe all is not lost and, one day, in the hopefully not too distant future, we may see a successful reintroduction programme for the Large Copper in Britain.

Fingers crossed ...

So what does this tell us ...

It tells me that we must highly value and protect what we have. It tells me we must continue to research and keep learning - we may only have 59 native species of butterfly in the UK but there is still much we do not know. We must learn from our successes and we must learn from our mistakes. We must educate and we must conserve.

We have a responsibility ...

References

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