

The Dalean Legacy - James Charles Dale (13th December 1791 to 6th February 1872)

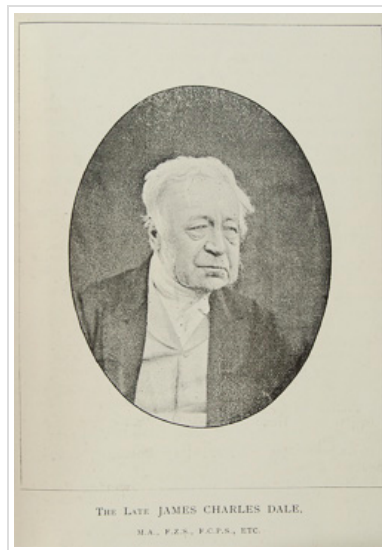
Mark Colvin

Abstract: James Charles Dale was born at Iwerne Minster, near Blandford, Dorset, on the 13th December 1791. He was undoubtedly one of the most influential entomologists of his time and his collections, spanning numerous insect orders, are probably the single most important and comprehensive to have ever been compiled in the British Isles. His collections, daily journals, correspondence and detailed books of records, which are housed at the Oxford University Museum of Natural History (OUMNH), form one of the most important historical legacies left by any British entomologist. This article provides an insight into the man, his work and a bygone era.

James Charles Dale (Figures Ia, Ib and Ic) was born at Iwerne Minster, near Blandford, Dorset, on the 13th December 1791. Born into a family of wealthy landowners he spent much of his adult life studying entomology. He was undoubtedly one of the most influential entomologists of his time, and his collections, spanning numerous insect orders, are probably the single most important and comprehensive to have ever been compiled in the British Isles.



James Charles Dale, date unknown (Figure Ia)



James Charles Dale, from *The British Naturalist*, 1892 (Figure Ib)



James Charles Dale, circa 1864, (Figure Ic)

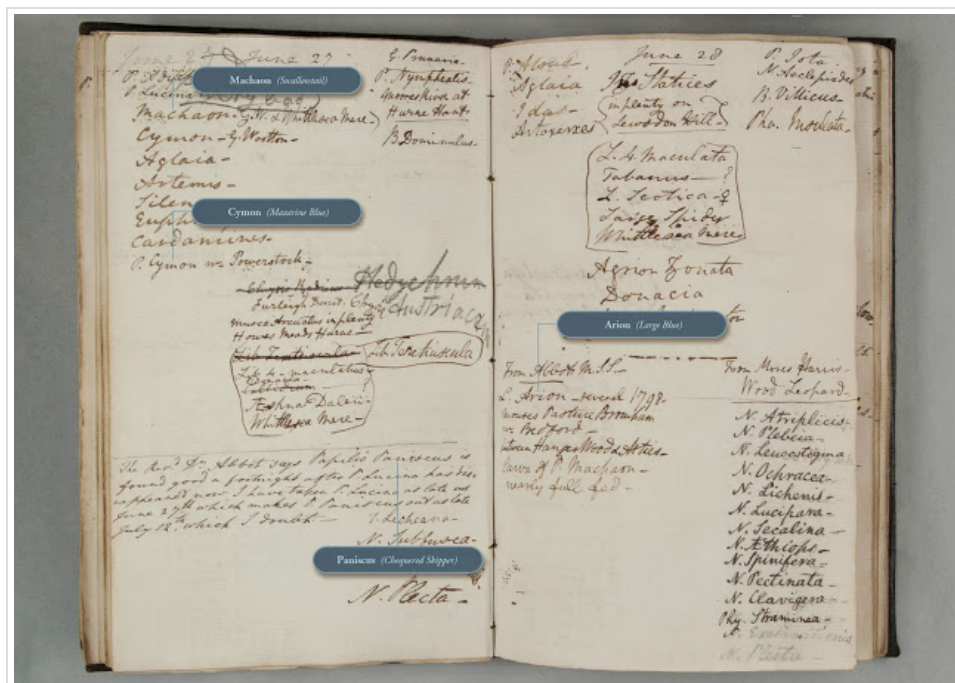
In his early years, whilst attending Wimborne Greene Preparatory School, Dale was given a specimen of the Clifden Nonpareil, *Catocala fraxini*, reputedly taken by the Reverend W. Stovey (Rector of Hinton Martell, 1785-1799) at Boveridge, near Cranborne, around 1740, and whose son was a fellow pupil at the same school (Dale, 1808, cited in Brown, 1980). This specimen is still in the Dale collection (Figure II). When just nine years old, Dale captured a specimen of the Queen of Spain Fritillary, *Issoria lathonia*, at West Orchard, near Sturminster Newton. The capture of this rarity, one of the very first to be taken in this country, and the earlier gift of *fraxini*, must have been a great encouragement for him to take up the study of entomology, a passion that would last his lifetime (Brown, 1980).



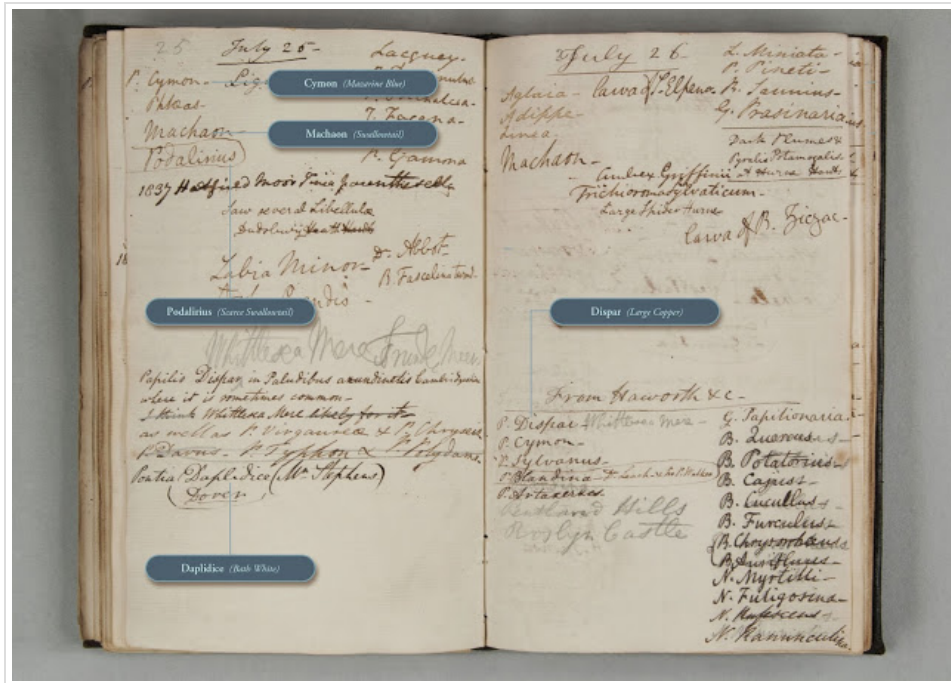
Clifden Nonpareil, *Catocala fraxini*, circa 1740 (Figure II)

After attending Wimborne Grammar School, in 1807 he was sent for private tutoring with the Reverend Thomas Shepherd, MA, who had a school at Enborne, near Newbury in Berkshire (Brown, 1980). In the same year Dale commenced his entomological diary, which was to continue every day without break for 64 years, the last entry being on the day of his death in February 1872.

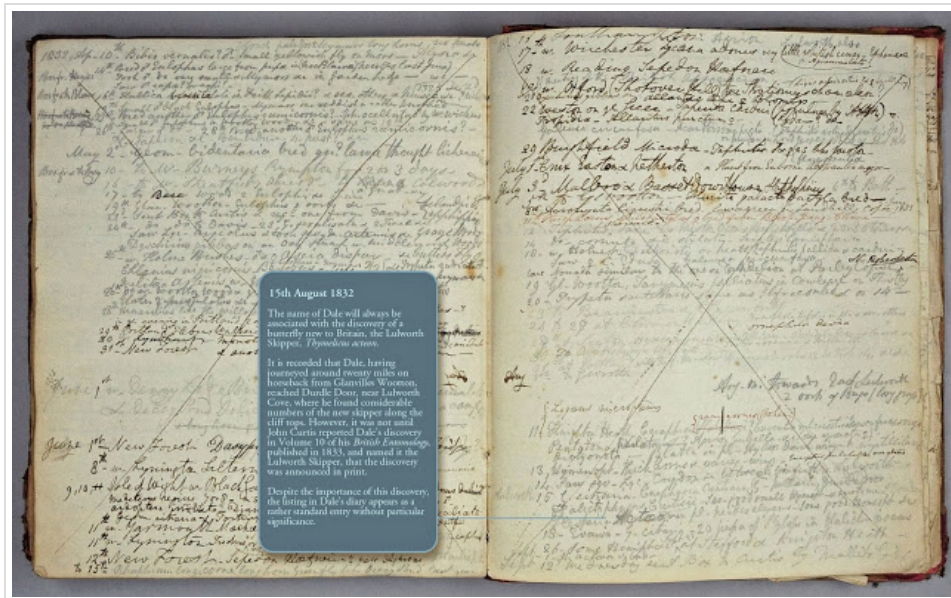
In total, Dale's daily journals and detailed books of records, which are accessible, by appointment, at the Library of the Oxford University Museum of Natural History (OUMNH), comprise an impressive 57 volumes. In addition, there are over 5000 letters from around 287 correspondents, excluding societies (Smith, 1986). They form one of the most important historical legacies left by any British entomologist. Reading through his diaries and correspondence, as I have been privileged to do on many occasions, has provided me with a captivating window into both his mind and era. Several pages from his journals of 1815 (Figures III and IV), 1832 (Figure V) and 1872 (Figure X), are shown below and highlight a number of British rarities and events including (i) Mazarine Blue (*cymon*), (ii) Swallowtail (*machaon*), (iii) Scarce Swallowtail (*podalirius*), most probably collected by the Rev. Dr. Abbott of Bedford, who died in 1817, and purchased after his death by Dale (Dale, 1890; Walker, 1907), (iv) Large Copper (*dispar*), (v) Bath White (*daplidice*), (vi) Large Blue (*arion*), (vii) his discovery, new to Britain in 1832, of the Lulworth Skipper (*Thymelicus acteon*), and, not least, his death in 1872.



Dale's diary for June 1815 (Figure III)



Dale's diary for July 1815 (Figure IV)



The discovery of *Thymelicus acteon*, 15th August 1832 (Figure V)

Dale's school days were spent between Enborne and his family home at Glanvilles Wootton in Dorset (Brown, 1980). For butterflies, the surrounding Dorset countryside was extremely productive territory. The Black-veined White, *Aporia crataegi*, which he had already come across at Enborne, was found at Glanville's Wootton in the years 1813, 1814 and 1815. The last specimen he took, a female, was on 10th June 1815. This is still in the Dale collection (Figure VI). This species then disappeared from the area and was not seen again at Glanvilles Wootton (Dale, 1890).



Black-veined White, *Aporia crataegi*, 10th June 1815 (Figure VI)

In his diary dated 1812, he notes a number of records for *machaon*, the Swallowtail, which was first seen at Glanvilles Wootton during 1808, and occurred commonly every year until 1816 (Brown, 1980). The last specimen he took was on Newland Common, which was close to the manor house, on 17th August 1815 (Dale, 1890). This is still in the collection, and has a date label in Dale's handwriting (Figure VII). He also found two larvae on wild carrot (Brown, 1980). These records undoubtedly relate to the continental form, *gorganus*, which is highly mobile migrating throughout most of Europe breeding as it goes (Asher et al., 2001); thus making these records especially rare and notable. The British form, *britannicus*, being confined solely to the Norfolk Broads (Thomas and Lewington, 2010).



Swallowtail, *Papilio machaon*, 17th August 1815 (Figure VII)

During the first part of the nineteenth century, the Mazarine Blue, *Cyaniris semiargus* (referred to by Dale at that time as *Papilio cymon*), was not uncommon in a number of localities in England and Wales. Glanvilles Wootton appears to have played host to a strong colony. Dale first recorded it in his diary on 22nd June 1808. In addition, it was recorded once in both 1811 and 1812, it was common in 1813, 1814, 1815 (one being taken as late as 1st August) and 1816, scarce in 1817 and 1818, common in 1819, 1820 and 1821, scarce in 1822 and 1823, common in 1825 (twenty specimens being taken by Dale on 13th June), scarce in 1828, 1830 and 1831, common in 1834 and 1835, only one seen in 1836, a few in 1837, none recorded in 1838, scarce in 1839 and 1840, and in 1841 a pair on the 19th June, being the last ever recorded in Dorset (Dale, 1890). The exact locality where they occurred was in a section of the estate known as Mullett's Long Ground; a hayfield adjoining a copse, and situated between the Manor House and the Iron Age hill fort to the south known as Dungeon Hill. It was also taken on this hill in 1839. Other localities in Dorset where it was found include Middlemarsh, where one was taken by L. Denny on 4th August 1814; at West Parley, in the extreme southeast of the county in 1816, and again on 28th May 1833. Records also exist from Loders, near Bridport, on 27th July 1811, and at Powerstock and Has[z]elbury Bryan (Brown, 1980).

The following specimens (Figure VIII) are from the Dale Collection and are the same examples as figured on Plate 1 of E. B. Ford's *Butterflies*, 1945.



Mazarine Blue, *Cyaniris semiargus* (*Papilio cymon*), (Figure VIII)

In the summer of 1819, after graduating from Sidney Sussex College, Cambridge, Dale travelled to Whittlesea and Yaxley Meres in Huntingdonshire [Cambridgeshire] for the first time. His main objective was to look for the Large Copper, *Lycaena dispar* (referred to by Dale at that time as both *Papilio* and *Chrysophanus dispar*), which it was rumoured had been found there. He was unsuccessful, but whilst searching the Fens, Dale met a boatman, a Mr. T. Speechley, and he asked him to keep a lookout for a 'red-looking butterfly'. On 4th August 1819, Speechley took a female *dispar*, the locality being a part of the fen called Trundle Mere. He wrote to Dale to inform him of his success and sent the *dispar*, together with a number of *machaon* in a box to a Dr. Leach at the British Museum, with instructions that they should be forwarded on to Glanvilles Wootton. This butterfly, the first to be taken in Whittlesea Mere (Brown, 1980), is still in the collection and bears the label: Whittlesea Mere, July, 1819 (Figure IX).

The following year, 1820, Dale commissioned Benjamin Standish to go to the fens and collect *dispar* for him. The locality, Trundle Mere, in Yaxley Fen, was shown to him by Speechley, the boatman. The trip did not appear to have been very successful, as Standish was there for six days in early August before he saw his first *dispar*. In all he took 12 specimens (Brown, 1980). Later in the month, on 21st August, he returned and took several more. The news soon spread around that this butterfly was worth money and two dealers came up from Cambridge and caught a large number, which they took down to London and sold for 3-4 shillings a dozen. The Standish family, which consisted of the father and two sons, were likewise very active. They were successfully charging ten shillings each for set specimens (Brown, 1980). As a cost comparison, farm labourers were earning around nine shillings a week (45p) in 1830 (Tolpuddle Martyrs' Museum, 2013). Dale himself went up to the Fens in 1826, 1827, and again in 1833 (Brown, 1980).

Dale had a correspondent, J. Henderson, of Peterborough, who wrote to Dale between 1826 and 1845. The following is an extract from a letter dated 4th March 1830: '*Such immense numbers of the larvae of L. dispar have been taken during the spring of 1828-29 that I fear the habitat will be totally destroyed. They are taken by every labourer residing near the Fen. I went to the Fens one day last summer when the insect was on the wing but found them very scarce indeed*', (Henderson, 1830). Later that spring, Henderson returned to the fen to look for larvae but was unsuccessful. Henderson reared *dispar* from larvae in 1835 and 1836. In June 1841 he sent Dale some pupae, but said that drainage was ruining the fen (Henderson, 1841). By 1843 it was confined to just one locality where the ground had not either been burnt or ploughed (Brown, 1980).

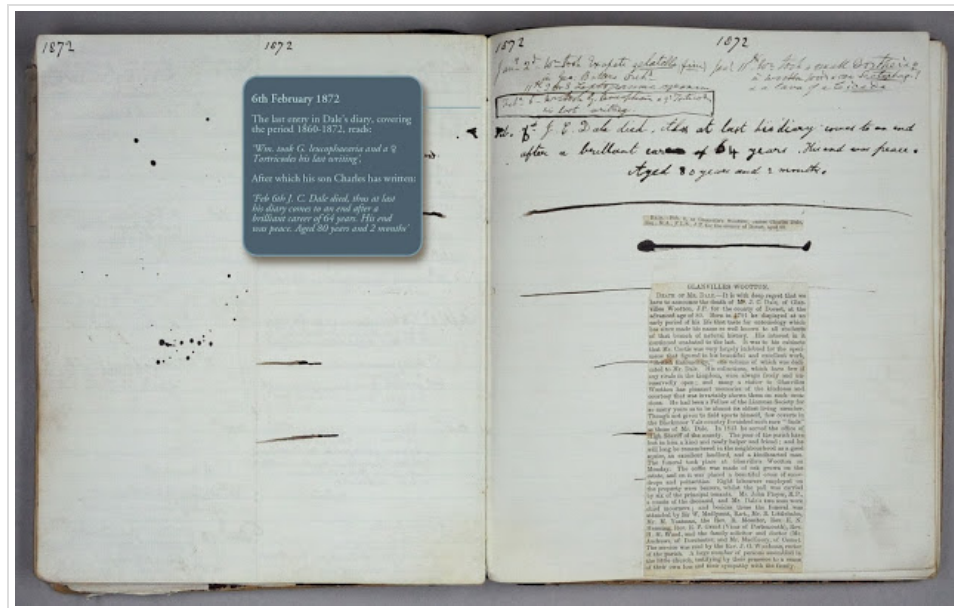


Large Copper, *Lycaena dispar dispar*, July 1819 (Figure IX)

It is of course all too easy to blame collectors for the demise of a particular species or race; although the greediness and irresponsible actions of some of them undoubtedly played a significant role in the loss of the beautiful Large Copper endemic to the British Isles, *Lycaena dispar ssp. dispar*, (Feltwell, 1995; Ford, 1945). In the case of the Large Copper, the changing fenland management and, in particular, the drainage and remodeling of the fens for agriculture, unquestionably 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 the habitat it depended on, pushed the British subspecies into extinction in the Fenlands around 1851 (Dennis, 1977).

To the Lepidopterist the name of Dale will always be associated with the discovery of a butterfly new to Britain, *Thymelicus acteon*, the Lulworth Skipper. It is recorded, that on the 15th August 1832, Dale, having journeyed around twenty miles on horseback from Glanvilles Wootton, reached Durdle Door, near Lulworth Cove. Here he found considerable numbers of *acteon* along the cliff tops (Dale, 1832; Dale 1890; Brown, 1980). However, it was not until John Curtis reported Dale's discovery in Volume 10 of his British Entomology, published in 1833, and named it the Lulworth Skipper, that the discovery was announced in print. Curtis wrote, '*We cannot often hope to record the addition of a Butterfly to our British Fauna, but this species was discovered at Lulworth Cove in Dorsetshire, last August, by J. C. Dale, Esq. through whose liberality it now ornaments most of our cabinets: it was found upon Thistles, and was very local*', (Curtis, 1833). There are 22 specimens of *acteon* in the Dale collection, though it is difficult to determine exactly which of those are his initial discoveries; cabinet labels referring only to Burning Cliff, Lulworth and Swanage.

Dale passed away on the 6th February 1872. The last entry, in his diary covering the period 1860-1872, reads: '*Wm. took G. leucophaearia and a ♀ Tortricodes his last writing*', after which his son Charles has written, '*Feb 6th J. C. Dale died, thus at last his diary comes to an end after a brilliant career of 64 years. His end was peace. Aged 80 years and 2 months*' (Dale, 1872). He is buried at Glanvilles Wootton churchyard (Grave Index 366), the grave being just to the right of the entrance.



Dale's final diary entry before his death, 6th February 1872 (Figure X)

Dale's entire collection is housed in the Hope Department of Entomology, Oxford. The Dalean collection was received at Oxford in 1906, after being bequeathed, with additions, by his son Charles William Dale (1852-1906). The original collection comprised of seven cabinets of British Lepidoptera, three cabinets of foreign Lepidoptera, five cabinets of British Coleoptera, 14 cabinets of British Hymenoptera and Diptera, four cabinets of Odonata and seven or eight cabinets of shells, birds eggs, etc.; the Odonata and Orthoptera have been transferred to modern cabinets in the general collection for safety. The collection contains a number of Lepidoptera types, described by J. Curtis and collected during Sir John Ross's second voyage in search of a north-west passage, 1829-1833, a few Selys Odonata types, some syntypes of Walker Chalcidoidea, a number of Haliday specimens, insects collected in France by Curtis in 1830, and some taken by F. Walker in Sweden and Norway in 1836. There are also four drawers of Wollaston beetles from Madeira, Cape Verde, Canary Islands, and St Helena, and five drawers of shells from the Atlantic Islands. Two Bronze celts, which had formed part of the Dale Collection, were transferred to the Ashmolean Museum in 1961 (Smith, 1986).

My thanks to Darren Mann and James Hogan of the Hope Department of Entomology for their generosity in providing time and unrestricted access to the Dalean collection, to Katherine Child for her image capture skills, and to Kathleen Santry, Head of Archival Collections and Librarian at the Oxford University Museum of Natural History, for providing access to Dale's archives. To Phil Everitt and Peter Eeles, my thanks for their editorial comments and encouragement. To Tony Ladd, my thanks for his expertise in the black art of image manipulation. Finally, but by no means least, my thanks must go to James Charles Dale himself for leaving such an important treasure trove of entomological literature.

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References

- (1872) *Entomologist's Monthly Magazine*, **8**, pp.255-256.
- (1872) *Petites Nouvelles Entomologiques*. Paris: E. Deyrolle. **49**, pp.197.
- (1892) *The British Naturalist*, **2**, pp.156.
- Asher, J., Warren, M., Fox, R., Harding, P., Jeffcoate, G. and Jeffcoate, S. (2001) *The Millenium Atlas of Butterflies in Britain and Ireland*. Oxford: Oxford University Press, pp.84-87.
- Brown, S. C. S. (1980) *J. C. Dale of Glanvilles Wootton*. Dorset: Dorset Natural History & Archaeological Society, Dorset County Museum, pp.1-15.
- Curtis, J. (1833) *British Entomology*, **10**, p.442.
- Dale, C. W. (1890) *The History of our British Butterflies*. London: John Kempster & Co, pp.2-11, 56-58, 59-62, 217-222.
- Dale, J. C. (1808) *Calendar for the years of 1807-1812*.
- Dale, J. C. (1815) *Entomological Diary for 1815*.
- Dale, J. C. (1832) *Entomological Diary for 1808-1835*.
- Dale, J. C. (1842) *Entomological Diary for 1835-1865*.
- Dale, J. C. (1872) *Entomological Diary for 1860-1872*.
- Dennis, R. L. H. (1977) *The British Butterflies - Their Origin and Establishment*. Faringdon, Oxon: E. W. Classey Ltd, pp.97-100, 104.
- Feltwell, J. (1995) *The Conservation of Butterflies in Britain (past and present)*. Battle, East Sussex: Wildlife Matters, pp.55-69.
- Ford, E. B. (1945) *Butterflies*. London: Collins (New Naturalist), pp.142, 166-169.
- Henderson, J. (1830) Letter to J C Dale dated, 4th March 1830.
- Henderson, J. (1841) Letter to J C Dale dated, 14th June 1841.
- Newman, E. (1872) *The Entomologist*, **6**, pp.56.
- Oxford University Museum of Natural History [Online]. www.oum.ox.ac.uk [Accessed 26 November 2013].

- Smith, A. Z. (1986) *A History of the Hope Entomological Collections in the University Museum, Oxford with lists of Archives and Collections*. Oxford: Clarendon Press, pp.72-73.
- Thomas, J. and Lewington, R. (2010) *The Butterflies of Britain & Ireland*. Gillingham, Dorset: British Wildlife Publishing, pp.39-42.
- Tolpuddle Martyrs' Museum [Online]. www.tolpuddlemartyrs.org.uk [Accessed 26 November 2013].
- Walker, J. J. (1907) Some Notes on the Lepidoptera of the Dale Collection of British Insects, now in the Oxford University Museum. *Entomologists Monthly Magazine*, **43**, pp.93-101, 130-134.
- Westwood, J. O. (1872) *The Transactions of the Entomological Society of London*.