

BLACK MOUNTAIN BUTTERFLIES

by L.J. Dumbleton

The black mountain butterflies are two in number and in general both frequent the same mountain habitat. Both species may occur in the same habitat e.g. the tarn at Mt. Olympus.

The large mountain butterfly Percnodaimon pluto Fereday was described in 1872 by William Richard Fereday from Christchurch. Fereday came out to New Zealand in 1862, together with his wife and her sister. He lived two years with his brother Edwin, who then had Oakleigh Station, Rakaia. He arrived by the "Queen of Mersey". He was born at Ellowes, Staffordshire, the fifth son of John Turton Fereday. He was admitted as a solicitor and attorney in 1849. He was admitted to the New Zealand bar in 1864. He wore a black and white plaid. His parrot greeted him with "Ivory Joey, you Devil". He was the Captain of the Archers Club for eleven years. He was a member of the Philosophical Society from May 1868. His hobby was Lepidoptera. He was a corresponding member of the Entomological Society of London. He studied the Grass grub and the Woolly Aphis. He advocated the biological control of insects by birds and other insects. There was another man in Christchurch, Edward Meyrick, who was to become a world figure as a micro-lepidopterist, and he helped him with information on where to find particular insects. He noted that there was none of the jealousy sometimes found among scientists. Later on he was President of the Canterbury Philosophical Society and a Fellow of the Entomological Society of London. Incidentally he was a Member of the Canterbury Society of Botanists. He was a capable self taught artist - there is a picture of his in the Canterbury Museum of the Avon River. He was furious at a deer hunt in the Park but found that no law applied. He presented a collection of English insect life to the Canterbury Museum. He was a Governor of Canterbury College from 1876 to 1897. He was Vice President of the Canterbury Law Society from 1885 to 1888. His wife died in 1890 at Fendalton aged 54. He described Erebia butleri Fereday Dodonidia helmsi Fereday, Oeceticus omnivorus Fereday. Eight butterflies and 300 moths were sent to England - seven-eighths of them new to science. They were described by Walker, Butler and Guenee. He had papers in the Entomological Society from 1867, and in the Entomological Monthly Magazine from 1869. He had 19 papers in the Transactions of the New Zealand Institute from 1872 to the last in 1898. H.W. Bates in 1867 described Feredays specimens. His second marriage took place in Dunedin. He died at Christchurch on the 30th July 1899, aged 79.

Large Mountain Black Butterfly: Percnodaimon pluto -
Fereday 1872.

This species was described from the Western Province of Canterbury and Lake Guyon, collected by another famous man in the field of entomology, Mr. J.D. Enys. He held Castle Hill in 1864 as well as Otarama near Kowai Bush. He sold out in 1891 and returned to England.

Now known from mountain tops only in the South Island, from Nelson to Lake Wakatipu. The adult flies in the sunshine over the piles of broken rock which form the screes. The wing expansion is one and three-quarter inches for the male, and two inches for the female. The wings are a rich bronzy-black on the upper side. The fore wings have a paler patch near the apex containing 2 small and 3 large black spots, with white centres. The immature stages were first made known by Dr. G.W. Gibbs of Victoria University in 1970. (N.Z. Entomologist Vol. 4, No. 4. pp. 12-18). He proved that the eggs were laid singly on the lower surface of stones or in crevices. They hatch in about 12 days at sea level and much longer at 5,000'. The egg shell is usually eaten by the young caterpillar. The egg is barrel shaped 1.18 mm. high x 1.12 mm. wide with 35 ridges. The duration of the various stages which the larva passes through is usually one month each of the first, third and fourth stages. Including the second and fifth stages the duration of the larval stage is thought to occupy more than one year. The caterpillar (final stage) is in length 17-25 mm, the maximum width at about mid-length, tapering slightly toward the head, more markedly toward the posterior. Head capsule rounded, 2.95 - 3.90 mm, whole head densely clothed with black bristles 0.5 - 0.7 mm. long. Segmental divisions of body marked by transverse furrows. Terminal segment with a pair of very short "tails" above the anus. General colour from bluish-grey through shades of brown to ochreous. There are two prominent sub-dorsal lines broad at the segmental level and narrower at inter-segmental level. The body colour mostly dark-brown or greyish-brown. There is an ochreous or grey lateral line along the side of the body. The body is furnished with ambulatory prolegs on the ventral side, these have a single line of crotchets (hooked hairs). The pupa, or chrysalis, its length 16.0 mm., with a slight waist behind the thorax. The most characteristic feature is the suspension from a very massive cremaster (Spiny terminal segment) so that the pupa hangs almost horizontal adjacent to the rock surface, and not vertically downwards. The pupa has the abdomen recurved ventrally, so that segments 6-8 overlap along the ventral mid-line. The pupa is held in position by a loop of silk which passes round the abdomen. Pupation occurs on the underside of loose stones and they have been found up to 3 feet from the nearest food plant, Poa colensoi, a low tufted grass that grows on shingle screes. It feeds only at night or on very dull days.

P. pluto: Are found only where the tufts of P. colensoi are adjacent to rocky area, or growing as isolated clumps amongst the shingle of a stable scree slope. They probably spend much more time among the loose shingle, or at the base of the grass plants, than they do in feeding.

It is a coincidence that the European species which is closest to the New Zealand species is also known as Erebia pluto (de Prun). i.e. quite distinct as is evidenced by the name in brackets after it.

SMALL MOUNTAIN BLACK BUTTERFLY (Erebiola butleri) - Fereday 1879.

This species also was described by Fereday in 1879, on the basis of 3 individuals collected by J.D. Enys at 4,000' on Whitcombe Pass up the Rakaia River, on March 8th 1879. It is also known from the Humboldt Range, Harris Saddle, Mt. Earnslaw and Mount Cook. It is rarer and more local than Percnodaimon pluto. It has been taken in January and March. The expansion of the wings of the male is $1\frac{5}{8}$ " and of the female $1\frac{1}{2}$ ". On the upper side all the wings of the male are smoky brown; the fore wings have a large black ocellus near the apex, enclosing 2 white dots, followed by a smaller ocellus toward the dorsum; the hind wings have 3 black spots near the termen, sometimes enclosing white dots. Occasionally these ocelli are surrounded by a patch of deep reddish-brown.

The female is much paler, with large patches of yellowish-brown surrounding the ocelli. On the underside the fore-wings of the male are smoky-brown with an irregular blotch of reddish brown near the apex, surrounding a small white centred black ocellus. The hind wings are dark reddish brown, with several conspicuous black-edged silvery markings, and 4 yellowish-red spots near the termen. The under side of the female is very much paler.

Erebiola butleri feeds on snow tussocks, the larvae of P. pluto may be distinguished by the different food plant, Poa colensoi.

-----oOo-----

PLANT NAMES

by Eileen Fairbairn

In an article "Lob in the West Country" by Denis Doyle, in Journal of the Royal Horticultural Society Vol. XCIX November 1974 Part II, the author writes charmingly about the folk names of wild flowers of Britain but regrets that garden flowers are not so happily named. He blames the Linnean system, the dead weight of Latin, and "botanists who fill our gardens with foreign professors", for the lack of vivid flower names.

Yet, on the lips of country folk some of these can be curiously and delightfully changed; mesembryanthemum to Sally my handsome; Esther Read Shasta daisy to Astereen, and Laurestinus to "Lord sustine Us" a beautiful name and so comforting as the old cottager told her vicar.

In this category comes New Zealand's Senecio greyi which, in Cornwell has become "grey eyes", suiting its tight little buds.