Dec. 1988

Terry, you'll have ISBs batiem - while they are being reared! ISBs

Notes from Bob Hay

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In search of Ogyris otanes (C. and R. Felder 1865).

In the Australian Museum Register there is the following entry:- "1 male, 2 females Stirling Range W.A. Oct. 1911 F.L. Whitlock, caught at the western end of Stirling Range."

Specimens were classified by G.A. Waterhouse as Ogyris otanes but doubt exists regarding this identification.

During the past 77 years no records have appeared of any further captures of this species in or around the Stirlings. An effort therefore to re-discover the existence of this butterfly was warranted.

Currently the status of the new species of Ogyris from Leeman is being evaluated. Thus, if the Stirling Range species could be found, it would make possible taxonomic and biological comparisons leading to the establishment of the specific status of the respective butterflies.

A visit to the Stirling Ranges was organised for the period Oct. 31 to Nov 4, 1988. My companions were Hugh Bollam and Peter Valentine (Senior Lecturer in Geography, James Cook University, Townsville).

Soon after arrival we introduced ourselves to Ranger Tony Smith who subsequently introduced us to Forest Officer Greg. Broomhill. I would like to stress that Tony was most understanding, interested and co-operative throughout our investigation, for which we are appreciative and grateful.

Our first aim was to look for Choretrum glomeratum, the known larval food plant of O. otanes in South Australia. We drove extensively along Salt River Road, Chester Pass Road, South Road, Bluff Knoll Road, Stirling Range Drive, and Red Gum Pass, examining on foot the Choretrum where it appeared.

This semi-parasitic shrub seems to grow invariably in conjunction with the eucalypt Wandoo in valley bottom situations.

The first encouraging prospect resulted from the netting of a female specimen which indicated the probable existence of a breeding colony in the vicinity. Our search for bushes commenced.

The tell-tale signs are a "scorched" appearance of a bush, feeding marks along the bark of stems and phyllodes and most vital of all, the presence of a sugar ant (Campanotus group) at the base of the bush. Our first examination of bushes proved fruitless.

It was the realisation that absence of ants could be due to unfavourable soil conditions which led to our first discovery. Soil consistency had to be such as to facilitate burrowing for undergroung nests. This eliminated a vast number of bushes growing in lateritic clay. Soon we found several bushes which satisfied all requirements. We marked these with a view to returning after dark for examination. In our continued search we found only one other potentially productive location.

Due to the apparent scarceness of colonies we wish to express our concern about habitat destruction particularly through burning. A concern that was, to our great satisfaction, equally appreciated by Tony and Greg.

That night we visited both marked locations and by torch-light found the proof we had sought.

In many species of Lycaenidae there exists a symbiotic relationship between lavae and ants. The ants benefit from secretions exuded by the larvae and in reciprocation guard the larvae in all stages to pupation, and during the pupal stage until the imago emerges and flies away.

During day-light hours larvae are tended in the underground nests. During darkness they are conducted to the feeding areas on the plant, being attended by ants at all times.

This species conforms to this behaviour.

Larvae, accompanied by ants, were in evidence singly, but only a few to a bush. We also observed some advancing up stems while others were retreating down, each with its own ant escort. Ants become agitated when larvae appear to be threatened and will virtually drag them down the nest hole to seek safe shelter.

This seemed to indicate that soon after nightfall the first batch of larvae are led up to feed and then conducted down to the nest. Thereafter others are brought up to feed in relays.

Logically such behaviour would safeguard the colony from total disaster (say fire) by not exposing the whole population simultaneously to danger

Tony was sufficiently interested to join us one night. He has promised to monitor the area and assist with further observations.

Although specialised conditions which contribute to successful populations are isolated, we feel sure that other colonies exist in remote areas, but they would not be in abundance.

Only the following were netted because weather conditions were very poor:-

18 males and 4 females.

Of these, 3 males and 1 female have been sent to E.D. Edwards C.S.I.R.O. Canberra for taxonomic evaluation.

Also, some larvae and attendant ants were taken with a view to rearing through to adults. If successful it is intended to lodge 2 pairs in the National Collection, Canberra, and 2 pairs in Perth Museum. A few specimens we shall retain in our respective private collections. Further advice will be submitted in due course outlining results.

Despite this initial success it is obvious that more trips to this region will be necessary if a comprehensive life-history is to be obtained, and we shall, in due course, be applying for an extention of our Permit to this end.

Although our interest was mainly focused on Ogyris we hoped to observe and collect other Lepidoptera.

At the southern limit of the Park where it adjoins Branson Road two specimens, both positively identified as Ogyris idmo, were sighted. This may prove a first sighting in this area, thus providing a new distribution.

One other significant discovery was made in a large stand of Choretrum off Stirling Range Road. Though the Campanotus ant was absent, many bushes revealed evidence of an Iridomymex sp. ant. In a byre constructed around the base of the main stem of one bush we discovered 6 larvae of Hypochrysops ignitus (probably sub-species olliffi) Unfortunately all larvae proved to be parasitised.

Concerning other Lepidoptera occurring in this region it would seem reasonable to assume that those attributed to this area by Common and Waterhouse do in fact occur there.

M.A. Day.
20/11/88.