METAMORPHOSIS

JOURNAL OF THE LEPIDOPTERISTS'
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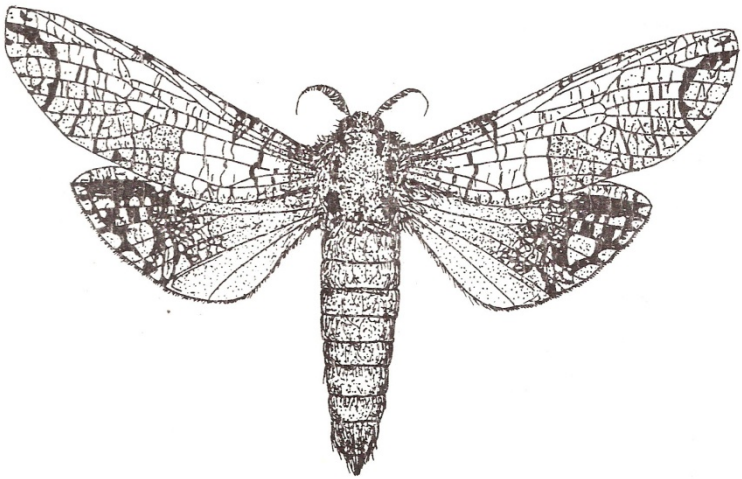


Xyleutes vosserleri (Cossidae) female
(Forewing length 58 – 68 mm)

LEPIDOPTERISTS' SOCIETY OF SOUTHERN AFRICA

EXECUTIVE COUNCIL

The **aims** of the Lepidopterists' Society of Southern Africa are to promote the scientific study and conservation of Lepidoptera in Southern Africa; and to promote the publication of original scientific papers as well as articles of a less technical nature in the journal, *Metamorphosis,* or other publications of the Society.

Membership of the Society is open to all persons interested in the study of Lepidoptera. There is no geographical limit to membership.

There are three categories of membership:

	Local	**Overseas**	
Full members	R55,00 p.a.	US$40,00 p.a.	UK £20
Junior members and Pensioners	R28,00 p.a.	US$20,00 p.a.	UK £10
Affiliate members (Scientific Societies, museums, libraries, schools, etc.	R55,00 p.a.	US$40,00 p.a.	UK £20

Persons may become **Life Members** by paying eight hundred Rand (R800,00) locally and US$600.00 overseas.

Membership fees are due on **1 April**. Overseas rates are higher due to increased postage.

CORRESPONDENCE

The Hon. Secretary, P.O. Box 470, FLORIDA HILLS, 1716

All drawings, unless otherwise stated, are by S.F. Henning.

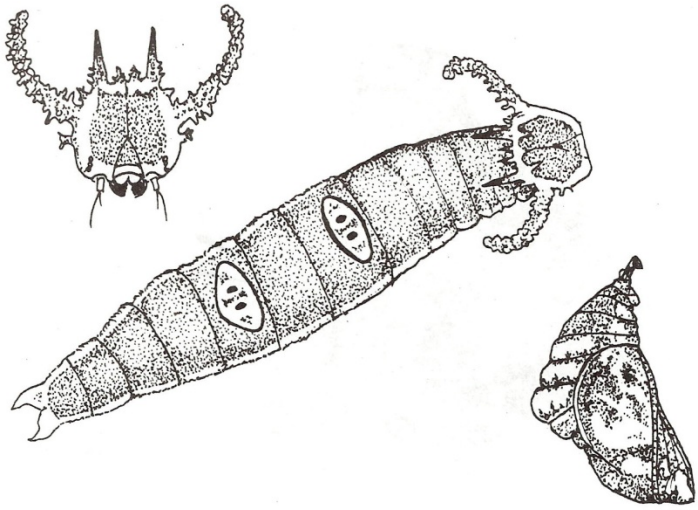
EDITORIAL

It is Conference and AGM time again and I would like to encourage all of you to attend this year on the 13th and 14th August for what again looks like an enjoyable weekend. There is still time to send in slides for the photographic competition and to decide to present a paper.

Talking about papers, how about more contributions for *Metamorphosis*? Remember we are always looking for articles about your latest collecting trips and observations.

In this issue Ernest Pringle ·has contributed a most thought provoking article about veld fires. I agree with a lot of what he has said and would like to add that annual burning is necessary in the Ruimsig Entomological Reserve to ensure suitable habitat for the rare lycaenid *Aloeides dentatis.* When the reserve was first established in 1984 and fenced in we carefully surrounded the perimeter with firebreaks to help prevent it from being burnt out. The following year *A. dentatis* was absent in the reserve but thriving happily on the firebreaks. It appears that the host ant *Acantholepis capensis* and the foodplant *Hermannia depressa* (and consequently *A. dentatis)* like open and disturbed areas. The foodplant, for example, creeps flat on the ground and is easily overgrown with the 1-2 metre high veld grass unless the old growth is cleared or burnt away every year. We do not bum the whole reserve every year, just small sections on a rotation basis. Over the past 10 years this has worked out very well and the colony of *A. dentatis* on this small 12 hectare reserve is as strong or stronger than at any time since it was discovered at the site in 1963.

W.H. Henning



Euxanthe wakefieldi (Nymphalidae: Charaxinae), fifth instar larva, head and pupa

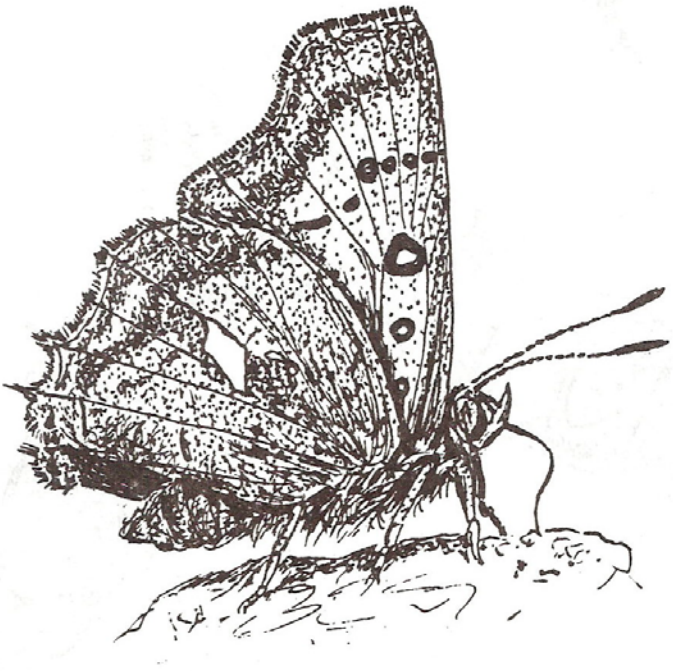
COMMENT BY THE PRESIDENT

The study of Lepidoptera in our country has come a long way over the past thirty years. One of the people who has led the way and done much to unravel the mysteries of the butterfly fauna of the Cape is Victor Pringle. With his love of nature and dedication to the study and conservation of butterflies he has served as a shining example to us “younger" butterfly enthusiasts.

Recently Victor has had problems with his eyesight and he has reluctantly resigned from the Society. He says he is virtually blind and has difficulty reading anything at all and will now have to rely on his son Ernest to keep him up to date on the butterflies. However, I am sure one of the highlights for him over the next few months will be the publication of the second revised edition of *Pennington's Butterflies of Southern Africa* which was co-edited by Ernest.

I, on behalf of the Lepidopterists' Society of Southern Africa, would like to pay tribute to Victor Pringle for his contribution to the study of butterflies in South Africa.

Stephen Henning



Phasis pringlei male underside

REGIONAL ROUNDUP

The last few months have been pretty quiet for many collectors what with the elections and the unrest situation but some collecting trips were undertaken.

Some of those who have been out have enjoyed reasonable success. Chris Ficq has spent a lot of time in. the Cape and has collected a number of *Torynesis* of various species in various localities and he also went to Zululand where he collected a number of *Acraea rabbaiae* Ward and some *Anthene minima* (Trimen). There was also a society gathering in Zululand organised by Hermann Staude about which we hope to have an article written, although apparently butterflies were in short supply. ·

Several trips to eastern Zimbabwe were made by Andrew Mayer, Johan Greyling and Steve Woodhall. Some of the notable species recorded by them are as follows:-

Hesperiidae
Borbo micans (Holland) collected in a marsh by Andrew; *Platylesches picanini* Holland; *Chondrolepis niveicomis* (Plotz); *Gorgyra johnstoni* (Butlar);
Pieridae
Mylothris carcassoni was seen in the Santi forest by Andrew and Johan but they were flying so high around the treetops that it was impossible to get close to them. It is however nice to know that they are still around as this species is the only Zimbabwe species listed as VULNERABLE in the conservation review of southern African butterflies published in our Practical Guide. *Mylothris sagala umtaliana* Van Son was also flying and Andrew managed to capture a couple.
Lycaenidae
A very dark grey female *Leptomyrina* was recorded by Andrew but as this genus from Zimbabwe has not been investigated adequately it cannot be conclusively identified. It does however resemble *Leptomyrina gorgias sobrina* Talbot which is known from further to the west.
Lipaphnaeus adema spindasoides (Aurivillius); *Deudorix zeloides* (Butler); *Deudorix lorisona coffea* Jackson; *Deloneura sheppardi* Stevenson; *Teriomima puellaris* Trimen.
Nymphalidae
Precis artaxia Hewitson; *Sallya rosa* (Hewitson); *Neptis penningtoni* Van Son; *Charaxes manica* Trimen.

Rudolf Swart and Daan Humphris also visited eastern Zimbabwe, they were there from 26th March to 1st April. Rudolf reports that the forests were very dry in the Mutare, Vumba, Burma Valley, Bomponi/Pungwe areas but that Mt. Selinda and Rusito were not bad. He thanks Rob Pare and John Daffue for directions to collecting spots. Rusito Forest is a bird watching locality!
In Rusito Rudolph and Daan collected *Oboronia bueronica* Karsch, *Neptidopsis ophione velleda* (Mabille), *N. fulgurata platyptera* Rothschild & Jordan, *Neptis carcassoni* Van Son and *Acraea satis* Ward. They found *Acraea insignis gorongozae* Van Son at Pungwe along with *T. puellaris.* At Mutare they found *Euphaedra mardania orientis* (Karsch). At Mt. Selinda the following species were recorded; *Pentila swynnertoni* Stevenson, *Salamis cacta* (Fabricius), *Apaturopsis cleochares schultzei* Schmidt, *Cyrestis pantheus sublineatus* Lathy, *Euriphene achlys* (Hopffer). For such a short trip a lot of ground was covered and some good captures recorded. Just to show me what I was missing Rudolf sent me a photograph of some perfect specimens of *Sallya rosa* Hewitson. He also sent along pictures of a melanistic male and a partial mosaic gynandromorph of *Belenois gidica* (Godart).

Talking of gynandromorphs, Martin Krüger showed us a specimen donated to the Transvaal Museum by Neville Duke of an almost halved gynandromorph of *Appias epaphia contracta* Butler, quite spectacular!

Another contribution by Rudolf Swart was a series of photographs of the variety of female forms of *Appias sabina phoebe* (Butler) which he has recorded. This species was out in some numbers at Woodbush and Malta Forest (Lagalametsi) as seen by Paul Kruger.

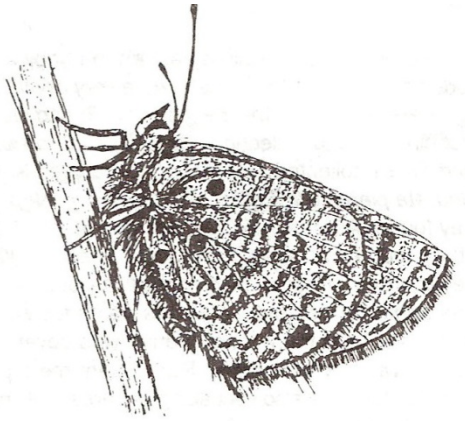
Gordon Fraser-Grant reports the following from Cape Town where he saw "a male *Hypolimnas misippus* (Linnaeus) in the Silvermine Reserve, Cape Town on 15 March 1994. This I believe may be the first recorded sighting in the Cape Peninsula since Dr André Claassens' report of 4 April 1988. (Metamorphosis No. 22). The insect was flying low and slowly around some *Protea* bushes on the opposite side of the road above which I was standing. It was there for long enough· for me to make an identification before it flew off. But unfortunately not long enough for me to collect it."

This story of sightings recorded well away from normal habitats reminds me of a story that happened in February 1974. We were in East London on a collecting holiday and had the pleasure of accompanying Clive Quickelberge to one of his favourite collecting sites just outside town. This was a series of small hilltops high above a river with a pronounced horseshoe bend. I had gone ahead and arrived at a small hilltop. There sporting about was a *Charaxes jasius saturnus* Butler. It settled on the end of a branch in front of me. I looked closely at it and saw that it was an extremely worn and broken specimen. Like a good Transvaal collector I gave it a playful jab with the pole of my net and watched happily as it took to the wing and flew from sight. Some twenty minutes or so later a delighted Clive hurried up to us with a great treasure clutched in his hands. There in his fingers was this old broken *saturnus,* and to Clive's great glee he pronounced that *saturnus* had never been collected so far south before! If you read Pennington's Butterflies you will see this record.

A recent paper published in January this year is by our members Steve Collins and Torben Larsen in which they investigate the *Abantis bismarcki* Karsch group. In it they identify our Zimbabwe representative as a species distinct from *arctomarginata* Lathy and name it *Abantis bamptoni* Collins & Larsen. -

Please drop me a line or phone me, or better still fax me your rough notes! My home number is (all 011) 768-1949, work 47 4-1466 and fax 47 4-2985. I hope to hear from you.

Graham Henning



Anthene minima male underside

RECENT OBSERVATIONS ON LEPIDOPTERA

By A.J.M Claassens

203 High Level Road, Sea Point, Cape Town, 8001

Abstract Observations on *Acraea rahira, Junonia hierta cebrene* (Nymphalidae), *Poecilmitis thysbe, lolaus bowkeri* (Lycaenidae) and *Macrogossum trochilus* (Sphingidae) from the Western Cape Province, South Africa.

Acraea rahira recorded from Breë river and Tulbach

From 15–18 March 1994 I observed a colony of *Acraea rahira* on a friend's farm situated in the upper Breë River valley, a little distance below the Waaihoek mountains. The butterflies occurred in a dried up ditch overgrown in parts by the indigenous weed *Polygonum salicifolium* Brouss ex Willd *(=P. serrulatum* Lag.). They occurred mainly in three patches where the food-plant grew in abundance. Many of the leaves of the food-plant were half to three-quarters eaten, supposedly by the larvae of *A. rahira.* The· imagines fed readily on the nectar of the tiny flowers of the same plant. A small beetle-with black males and colourful females also fed on the leaves, but they ate small holes in the leaf blades, leaving their shape and outline intact. I did not succeed in finding the early stages of *A. rahira* and I failed to observe oviposition, even though females, many with a sphragium, were much in evidence proving that they had mated. In the series of specimens caught at random the females outnumbered the males by far. Most specimens were in mint or fair condition.

Regards the food plant, I must admit that l relied on my own identification. The plant closely resembles *P. salicifolium* depicted in colour in Wild Flowers of the Cape Peninsular by Mary Maytham Kidd. Does the recorded food-plant *P. pulchrum,* used by the larvae of *A.rahira* in other parts of the country occur in the Western Cape?

Mike Schlosz in *Metamorphosis* No. 27 recorded *A. rahira* from various localities in the Worcester area on 17th March 1990. That the butterfly actually occurs in an even wider area is borne out by the fact that I found the ·species on 16th March 1994 in Tulbach where a small number were observed flying on the banks of the small stream which one crosses just before reaching the Koop Wynkelder. Must I stress that I saw them before and after wine tasting?

Strong winds simply blow the weak flying acraeids off their habitat as soon as they spread their wings. It was on windy days that I noticed two *A. rahira* being blown right past me on the same farm in Breë River in February 1987 and again one in February 1990.

It is indeed very satisfactory to know that *A. rahira* definitely occurs and breeds fairly close to Cape Town. There is of course H. F. Hunts' February 1917 record of seven specimens having been taken by him at Somerset Strand where he found them common in a dried swamp in the Public Gardens. This record occurred in "Butterflies Observed within a 15 Mile Radius of Simon's Town", ·a long overlooked little, but interesting, article in "Annual of the Mountain Club of South Africa" of which I have neither the exact date of publication, nor the number. I wonder whether that habitat still exists, or let alone there being a chance of *A. rahira* still occurring there?

Poecilmitis thysbe in Hout Bay

In December 1993 I came across a small colony of *Poecilmitis thysbe* f. *thysbe* in Hout Bay. The colony occurs as sea level close to the harbour road, where it lives on a fair number of bushes of the food-plant *Chrysanthemoides monilifera* growing on a narrow strip of waste ground left undeveloped between a tarred road on one side and fenced-in gardens of

private homes on the other side. I wonder how long that colony will survive as the food-plants are constantly threatened by fires, cutting down, car fumes, dust and other agents of destruction?

Am I correct *in* thinking that there are no records of *P. thysbe* from any locality as close to the Table Mountain Range as this Hout Bay one? Even the late Mr. C. G. C. Dickson never mentioned Hout Bay as a locality of the butterfly and he certainly would have done so in connection with our publication of *Butterflies of the Table Mountain Range.* The Hout Bay colony is of particular interest as we included in that publication as frontispiece a previously unpublished life history plate of *P. thysbe* by G. C. Clark, even though we were convinced at that time that *P. thysbe* did not occur on or in the immediate vicinity of the Table Mountain Range. The inclusion of the beautiful plate has now become much more relevant and justified.

Because *P. thysbe* occurs in many other localities, usually in much larger numbers than it does in Hout Bay, I am sure that fellow collectors will leave this endangered colony well alone.

***Iolaus bowkeri* in Breë River**

On 14 December 1991 I caught a specimen of /. *bowkeri* on the lower slopes of the Waaihoek mountains just below the "hut" of the UCT Mountain and Ski Club. The specimen was in good condition. Has this species ever before been recorded from a locality as close to Cape Town?

***Junonia hierta cebrene* in Camps Bay**

On 18 March 1994, while visiting Blink Water Gorge in Camps Bay in the company of Mr. Gordon Fraser-Grant, I caught a specimen of *Junonia hierta cebrene.* This species turns up now and then in the Cape Peninsula from where I and others have recorded it several times in the past. The specimen was in very poor condition indicating that it must have been a migrant. Has anybody else seen the butterfly in the Cape Peninsula during last summer or autumn?

***Macroglossum trochilus* on the increase in the Cape Peninsula**

During the last four. years or so I have observed a steady increase in the occurrence of *Macroglossum trochilus,* the day-flying African Humming Bird hawk moth in my garden and the Cape Town area in general. I have lived and seen to my garden in Sea Point since 1966 and for many years I never saw a specimen of this moth either in my own garden or in the neighbourhood. However, since about 1990 the moth has visited flowers in my garden with increasing regularity and it has been breeding here for the last two years or so. In my garden as well as further afield the moth oviposits on *Coprosma repens* (Mirror Plant) and possibly other species of *this* genus *of* popular garden shrubs. Pinhey in *Hawk Moths of Central and Southern Africa* and in *Moths of Southern Africa* lists as food-plants of *M. trochilus* only *Galium* and *Rubia.*

I have often observed the moth ovipositing and found the eggs and final instar larvae on *Coprosma* and also reared the moth on sprigs of the food-plant in captivity. As in certain other hawk moths, the larvae of *M. trochilus* occur in more than one colour variety, that is after the first instar during which they are all green. Eggs of the moth laid on the food-plant in my garden are either heavily parasitised or the newly hatched larvae are parasitised or otherwise preyed upon as larvae are rarely found even though eggs are easily spotted. I have followed the entire life-cycle of the fast-flying, pretty and interesting moth in captivity on sprigs of the food-plant and intend describing the cycle in some detail at a later stage, allowing myself some more time to gather more information.

ARE FIRES THE ENEMY?

By Ernest Pringle

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Abstract. The effect of veld fires on butterflies in South Africa is discussed and there appears to be no evidence to support the contention that fires cause butterfly extinctions, in fact, there is evidence to the contrary.

Perhaps the time has come to lay an old ghost to rest. For many years, South African butterfly collectors have been attempting to attribute butterfly disappearances (or rather, potential disappearances) to the veld fires that sweep over large areas of the country each year. That fires would eradicate species was a view firmly held by all our older collectors such as Swanepoel, Dickson and Pennington. I remember well the time that Ken Pennington watched a grassveld fire jump the road and consume his 'Yellowwoods" locality for *Poecilmitis lycegenes* and *Durbania limbata.* He told my father and I that he was certain that both species had been eradicated from there. Much to his surprise, however, both species emerged live and well later in the same season. Charles Dickson, too, used to shudder with horror at the dreadful fires that threatened the locality for *Argyrocupha malagrida malagrida* from time to time, and was adamant that fires had caused the disappearance of certain Peninsula species from some of their older haunts. Interestingly, their views were also reflected in the attitude of most of the botanists of that time, who were convinced that fires were detrimental to the Cape Fynbos, in particular.

Botanists in the grassveld and savanna regions of our country, however, had long held a different view, realising that fires were an integral and important part of the ecology of those regions. Unburnt grassveld becomes moribund, and is prone to ·invasion by bush or trees. This can obviously have an extremely detrimental effect on certain butterfly species which inhabit grassveld, as their food-plants may, in fact, be smothered by moribund climax grasses, or pioneer bush species. In fact, certain collectors from grassveld such as the Transvaal highveld had long appreciated the relationship between their butterflies and fires; the Hennings pointed out to me as long as twenty years ago that certain Lepidochrysops species generally do not emerge in sizable numbers until the normal spring fires had swept through their colonies. I myself witnessed this a few years ago, when collecting *Chrysoritis oreas* in the Loteni area of the Drakensberg - another very fire-prone region. The area was a patchwork of burnt and unburnt regions, but the butterfly was virtually confined to areas that had recently been burnt.

In fact, if you think about our grassveld butterflies, almost all, with the notable exception of the Satyridae and Hesperiidae, utilize ants in their cycle, which gives them a built in protection against fires. In addition to this, most breed in rocky or open areas, which adds to this protection, as they are not very fire-prone. The Satyridae and Hesperiidae on the other hand, which seem to have no known defence against fires, appear to able to survive through the scattered nature of their populations. In other words, should a population in a given area be destroyed by fire, it is soon repopulated from a neighbouring area. So the set-back would be a temporary one, at worst. Other Satyrids, such as Aeropetes *tulbaghia,* actually leave their food-plants to populate in nearby sheltered areas or even under stones, thereby actively shielding themselves against the danger.

All this leads me to conclude that, in the grassveld regions at any rate, fires are an integral part of butterfly existence and conservation. The only danger would be if a fire were to sweep through a colony at a time when the adults were on the wing, or had recently laid their eggs. But, as I have already pointed out, it seems that the butterflies have already

taken this into account by their tendency to emerge in recently burnt areas, or at a time when the rains have greened the area sufficiently to nullify the fire hazard. ·

What about our Fynbos areas? Obviously, the same rules do not apply, as the emergence of all the Fynbos butterflies coincides ~h the dry season, when there is a considerable fire hazard - exactly the opposite to the position in the grassveld areas. But there are similarities between the interrelationship between plants, insects and fires in both ecological regions: these we cannot ignore. Up till approximately twenty years ago, fires were considered a calamity to the Fynbos, until research started looking harder at their effects, and came up with some surprising findings. Today it is generally accepted that many of the Fynbos species require fire to induce healthy rejuvenation, a great number of species only germinating after a fire. There are good examples of this in the cases of the Vlei rose and *Orothamnus zeyheri* and the Blushing Bride *Serrurae florida;* in both instances, the only known colonies had been reduced to a handful of specimens who were being carefully conserved. Fires were kept away from the plants at risk of life and limb, and it was considered catastrophic when in the end fires swept through the areas, reducing the last plants to ashes. More extinctions wailed the botanists. Imagine their surprise when they returned to the respective areas the following season to find hundreds of these plants in full bloom! They had, in fact, come dangerously close to killing both species off through kindness.

The big counter argument to allowing burning in the Fynbos was that, in its original state, Fynbos must have burned very infrequently, ~use thunder weather, with its accompanying lightning, does not often occur in the Fynbos areas. During my recent trip to Grootvadersbosch near Swellendam, I put this to the chief Nature Conservation officer, Chris Martens. Yes, he replied, lightning is infrequent, but when it does occur there, it invariably sets the veld alight. The result is that natural fires are, in fact, surprisingly common in this area, and they burn extensively and for a long time as, unlike the position in the grassveld areas, the thunder storms· are not accompanied by sufficient rain to extinguish the fires, occurring as they do during the hot dry months. It might be added that *it* is the Cape Nature Conservation's policy not to interfere with this natural process in its wilderness areas, such as on the Langeberg.

The upshot of all this is that now the great debate among Fynbos botanists has shifted away from where the burning should take place to the questions of when and how frequently it should take place - altogether different issues. .

How do the Fynbos butterflies fit into this new perspective? Like the grassveld butterflies, all of them have protective mechanisms against the threat of fire. Some are protected by their habitats, which are either rocky, sparsely vegetated, or swampy. Others are protected by their widespread distribution, enabling them to recolonise burnt-out areas from adjacent areas. Most, however, are protected by their own habits, as most of the species, through their association with ants, spend nearly their whole life cycle in sheltered areas, either under the ground or under stones. The major difference between Fynbos butterflies and the grassveld butterflies is that most Fynbos butterflies emerge in their adult form during the dry season, when their habitats are at their most flammable. How does this affect the position? To answer this question, we must look at particular case studies, and I take as my best example a localised butterfly which emerges at the peak of the dry period, namely *Argyrocupha malagrida.* Everyone will admit that, as far as fires are concerned, this little insect is particularly vulnerable, as it Is highly localised and flies only when its surroundings are outstandingly ·hot and · dry. Two years ago, my wife and I rediscovered the *A. malagrida maryae,* on a prominent ridge near Bredasdorp. Part of the ridge is in a nature reserve, and is kept studiously free of fires; the other part, where we found the insect, is on private farm land, and is burnt on a very regular basis. This has affected the vegetation mix of each area, the reserve area having a denser *Protea* and bush component, and the farm area having more short flowering plants and restios. It came as no surprise to find *maryae* common and widespread on open ground in the farming area, but altogether

absent within the reserve. When I showed the area to an official from Nature Conservation, I was asked (rather hopefully) whether, in order to conserve the species, stricter burning controls should not be imposed on the farmers. This was obviously a bone of contention between the farmers and the conservationists, and it was evidently hoped that I would say "yes". But my answer was an emphatic "no": whatever these farmers were doing, it was obviously favouring the butterfly life - not just that of *maryae* - of this area. My observations in this regard .received unexpected corroboration from Tony Brinkman who has been observing the highly endangered *A. malagrida malagrida* for some years now, and told me that he had never been it so common as in the year after a fire had swept through its colony. Unfortunately, because we are still ignorant as to what the larval food of species like *malagrida* is, we are not able to say how this comes about.

Of course, should a fire bum out a colony during the flight period of any of these butterflies, it is likely to destroy all specimens and unhatched eggs on the site. This would, of course, be a set-back; however, the butterflies counter this threat by staggering their emergence over a two-month period so that their reserve population, safely preserved underground, could replenish the colony. Fire will never bum twice over the same area in any one season, and may not be able to travel over that area again for some years to come, so this effectively minimises the threat of recurring disasters. This is in contrast to the position regarding collecting on a localised colony: this may be done extremely efficiently and repetitively, so .that the potential for damage would probably be greater. The staggered period of emergence would also in this case probably ensure ·survival, but the fact remains that very localised species should not be subjected to intensive and repetitive collecting, because this has harmful potential.

To conclude, it can be stated that there is no evidence to support any contention that fires cause butterfly exterminations; in fact, there is evidence to the contrary. This is particularly the case when butterfly food-plants are threatened by bush encroachment, or by encroachment by moribund grasses or other vegetation. So when I am told that the *ariadne*· spot at Karkloof is becoming overgrown, to the detriment of the butterfly's food-plant, I am sorely tempted to run for my matchbox!

Argyrocupha malagrida maryae male upperside

REPORT ON LEPIDOPTERISTS' SOCIETY VISIT TO LAPALALA WILDERNESS 18TH-19TH FEBRUARY 1994

By S. E. Woodhall

10 Bay Close, Bloubosrand ext.9, Randburg, South Africa

Abstract. A report on a survey of the Lapalala Wilderness area in the Transvaal by the Lepidopterists' Society of Southern Africa with check1ists of the Lepidoptera recorded.

1. Objectives

To survey the wilderness, to assess the health of the lepidopteran population in summer conditions following good rains.

2. Members Present

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SE Woodhall, P Roos, K Roos, L Durham, B Mee, R Oberprieler, J Joannou, H Staude, P du Toit, N du Toit, B Coetzer, A Coetzer, P Ward.

3. Weather

18th: Warm night, clear sky. 19th: Hot and sunny, clear skies during day, night warm at first becoming cool and humid with gathering clouds. 20th: Rain in morning, clearing partly by mid-morning.

4. Areas Surveyed

i) Hill slopes near house at Mosetsi.
ii) Old farmlands near school, and thick bush along school road with *Acacia nigrescens, Peltophorum africanum* and *Ziziphus mucronata.*
iii) Wooded ridge above Mosetsi, with gullies.
iv) Along the Visgat road following the Dubbelrivier valley up from reception. River was flowing strongly, springs in the bank were flowing over the road, marshy conditions made it difficult to penetrate the riverbank area.

5. Updated Checklist

See appended checklists of butterflies (Papilionoidea and Hesperioidea) and moths (Geometroidea: Geometridae, compiled by H Staude (appended); Bombycoidea: Satumiidae, Lasiocampidae, Eupterotidae, compiled by R Oberprieler; and Sphingoidea: Sphingidae, compiled by J Joannou). Checklist of butterflies now stands at 128 species.

6. Behavioural Observations

i) Butterflies were not as numerous as one would have expected from the very lush green condition of the bush. The vast numbers of Graphium swordtails seen on previous trips were absent, although several *G. morania* and the occasional *G. antheus* were seen on mud in the Dubbelrivier valley. It was noted that the foodplant used by these species at Lapalala, *Hexalobus monopetala,* was just beginning to produce young shoots. Observations in KwaZulu have indicated that these butterflies' larvae can only feed successfully on new growth, and that the adults emerge at just the right time to 'lay on this. It would appear therefore that we observed the very beginning of the hatch.

ii) *Iolaus pallene* males were again observed in the Dubbelrivier river bed. They were not as numerous as they had been a year ago.

iii) Traps baited with fermenting fruit were set near the school and in the Dubbelrivier valley near reception. Charaxes achaemenes was again the commonest species recorded. C. jasius saturnus and C .jahlusa rex were also abundant. Both sexes of C. phaeus were recorded. C. varanes varanes, the forest species which has been found in small numbers in the riverine areas, was more numerous on this visit than ever before. It appears that the moister conditions are to its liking.

iv) The road bridge over the river on the way to the School tum-off had been used as a toilet by the local baboon population and the faeces lying at the side of the tarmac were attracting *Charaxes*, namely *varanes, phaeus* and *jahlusa rex,* and *Spialia diomus ferax.*

v) The moth traps operated on the nights of the 18th and 19th attracted a good cross-section of the local species. A species list is appended, but we confined ourselves to the families Geometridae, Sphingidae and Saturniidae.

vi) The springs flowing across the road in the Dubbelrivier valley were attracting various Nymphalids, Lycaenids and Hesperiids. *Junonia hierta cebrene* was quite common, as was *J. oenone* and *Byblia ithyia.* The small population of *Precis ceryne* was well in evidence, but not as common as !he other Nymphalids. Lycaenidae were mainly *Tuxentius calice, T. melaena, Freyeria trochylus* and *Lampides boeticus,* which latter was extremely common. The Hesperiids were all *Spialia* species, occupying small territories at the roadside in the tall grass. Every few meters one would encounter a group of 6-8 individuals of the four species recorded, constantly whirling about at an altitude of only a few centimetres.

vii) The roadsides at the entrance to the Dubbelrivier valley were very muddy, almost quicksand in places. Both here and further up the road, male *Charaxes achaemenes* were sitting drinking alongside *Graphium morania* and the occasional *G. antheus.*

viii) Reported by H Staude: Geometroidea. A total of 76 species were recorded for the month of February (a previous visit having been made on 2/2/94). This relatively high diversity in species (56 species Maphelana; 53 species Umzumbe) is probably due to the occurrence of different veld types, as a number of species found in the river valley were not found in the Terminalia sandveld and vice versa. Five undescribed species were collected *(Coenina spp., Tephrina spp. Heterorachis spp.; Prasinocyma spp.;* and *Mixocera spp.)* of which the latter seems not to have been recorded before. As many species in this family are

single or double brooded, surveys should be conducted in other months of the year in order to compile a comprehensive checklist.

7. Conclusions

Despite the damper conditions and abundance of green growth, the lepidopteran population of Lapalala appears not to have regained the strength it showed during earlier visits in the 1980's. This is not altogether surprising, as several generations will be required to build up numbers again.

8. Acknowledgements

The author wishes· to thank Mr Clive Walker of Lapalala Wilderness for permission to carry out this survey and for accommodation in the reserve.

Checklist of Geometridae (Loopers)

Locality: Light traps (Oberpreiler type, 6 traps) in mixed sour bushveld.

Subfamily Ennominae

Aphilpota decepta Janse
Cabera elatina (Prout LB)
Cleora nigrisparsalis (Janse)
Coenina spp.
Colocleora prox. proximaria (Walker)
Drepanogynis tripartita (Warren)
Ectropis spoliataria (Walker)
Eulycia extorris (Walker)
Eulycia grisea apysta Prout LB
Eulycia subpunctata (Warren)
Heterostegane auranticollis Prout LB
Heterostegane indularia (Guenee)
Hystomodes nubilata Warren
Macaria brongusaria (Walker)
Macaria inconspicua (Warren)
Macaria multistrigata (Warren)
Macaria trirecurvia sororcula (Warren)
Obolcola petronaria (Guenee)
Omphalucha matumaria (Moschler)
Orbamia octomaculata (Wallengren)
Petrodava leucicolor Butler
Petrodava subapicata Warren
Plateoplia acrobelia (Wallengren)
Racotis squalida (Butler)
Sicyodes cambogiaria (Guenee)
Tephrina dee"aria Walker
Tephrina inconspicuaria (Hübner)
Tephrina supergressa Prout LB
Tephrina spp.
Zamarada adiposata Felder & Rogenhofer
Zamarada consecuta Prout LB
Zamarada differens Bastelberger
Zamarada opposita Prout LB
Zamarada plana denticincta Hampson
Zamarada pulverosa Warren

Subfamily Geometrinae

Allochrostes biomata Prout LB
Allochrostes impunctata (Warren)
Antharmostes papilio Prout LB
Celidomphax quadrimacula Janse
Chlorissa approximans (Warren)
Chlorissa stibolepida Butler
Comibaena leucospilata (Walker)
Comibaena pulchra (Staudinger)
Comostolopsis stillata (Felder & Rogenhofer)
Heterorachis spp.
Mimandria cataractae cataractae Prout LB
Mictoschema swierstrai Prout LB
Mixocera frustratoria (Wallengren)
Mixocera spp. nr. viridans
Mixocera xanthostephana Prout LB
Neromia strigulosa Prout LB
Pingasa lahayi Oberthuer
Prasinocyma gerrninaria (Guenee)
Prasinocyma spp.
Victoria fuscithorax Warren
Xenochlorodes xina Prout LB
Xenochroma candidata Warren

Subfamily Sterrhinae

Chlorerythra rubriplaga rubriplaga Warren
Discomiosis crescentifera (Warren)
Idaea basicostalis (Warren)
Idaea sinuilinia Prout LB
Rhodometra sacraria (L)
Scapula caesaria (Walker)
Scapula curvimarga (Warren)
Scapula intemataria (Walker)
Scapula rufinubes (Warren)
Scapula serena Prout LB
Scapula sincera (Warren)
Scapula sinnaria (Swinhoe)
Somatina ctenaphora Prout LB
Somatina figurata Warren
Somatina vestalis (Butler)
Traminda falcata Warren

Subfamily Larentinae

Chlorostylis lita Prout LB
Conchylia pactalaria Wallengren
Trimetopia aetheraria Guénee

Checklist of Bombycoidea

Locality: Light traps (Oberpreiler type, 6 traps) in mixed sour bushveld.

Family Saturniidae (Emperor Moths)

Aurivillius aratus (Westwood)
Heniocha mamois (Rogenhöfer)
Heniocha apollania (Cramer)
Rahaniella pygmaea (Maassen & Weyding)
Usta terpsichore (Maassen & Weyding)
Gaodia kuntzei (Dewitz)
Cirina forda (Westwood)

Family Lasiocampidae (Eggars)

Craspia igneotincta Aurivillius
Eucraera gemmata (Distant)
Eucraera salammbo (Vuillot)
Henometa clarki (Aurivillius)
Rhinobombyx cuneata Aurivillius

Family Eupterotidae (Monkey Moths)
Phasicnecus obtusus (Walker)
Phasicnecus roseus (Distant)

Checklist of Sphingidae (Hawk Moths)

Locality: Light traps in Mosetsi area

Platysphinx piabilis (Distant)
Rufaclanis numosae (Wallengren)
Afraclanis calcarea (Rothschild & Jordan)
Theretra capensis (Linnaeus)
Hippotion celerio (Linnaeus)
Hyles lineata Fabricius
Agrius convolvuli (Linnaeus)
Basiathea medea (Fabricius)
Batocnema africana (Distant)
Cephonodes hylas (Linnaeus)
Macropoliana oheffanani Gess
Neopolyptychus compar (Rothschild & Jordan)
Nephele comma Hopffer
Polyptychoides grayi (Walker)
Praedora plagiata Rothschild & Jordan

In addition, the following were recorded by RG Oberprieler on 10/1 /94 during a visit by personnel from the National Collection of Insects:

Rufoclanis jansei (Vari)
Theretra monteironis (Butler)

Checklist of Papilionoidea (Butterflies)

Area	Dubbelrivier Valley	River at Mosetsi	Ridge at Mosetsi
Family Danaidae (Monarchs)			
Danaus chrysippus aegyptius (Schreber)	*	*	*
Family Satyridae (Browns)			
Physcaeneura panda (Boisduval)		*	*
Pseudonympha narycia narycia Wallengren			*
Ypthima asterope asterope (Klug)	**	*	
Family Acraeidae (Bitter Acraeas)			
Acraea neobule neobule Doubleday	*		
Acraea rahira rahira Boisduval		**	
Acraea axina Westwood	*		
Acraea zetes barberi (Trimen)		*	*
Acraea eponina eponina (Cramer)	*	*	
Family Charaxidae (Emperors)			
Charaxes varanes varanes (Cramer)	*		
Charaxes jasius satumus Butler	**	**	**
Charaxes achaemenes achaemenes Felder	***	***	***
Charaxes phaeus Hewitson	*		
Charaxes vansoni vansoni Van Someren	*	*	*
Charaxes jahlusa rex Henning, SF	**	**	**
Charaxes zoolina zoolina (Westwood)		*	
Family Nymphalidae (Pansies, Commodores, Nymphs)			
Hypolimnas misippus (Linnaeus)	*		*
Junonia hierta cebrene Trimen	**	**	**
Junonia oenone oenone (Linnaeus)	**	**	**
Junonia ceryne ceryne (Boisduval)	*		

Vanessa cardui (Linnaeus)	*		*
Phalanta phalanta aethiopica (Rothschild & Jordan)			*
Byblia ilithyia ilithyia (Drury)	*	*	*
Hamanumida daedalus (Fabricius)	**	**	**
Family Lycaenidae (Blues, Coppers, Hairstreaks, Buffs)			
Alaena amazoula ochroma Vári	*	*	
Spindasis natalensis (Westwood)	*		
Axiocerses tjoane (Wallengren)		*	
Axiocerses amanga (Westwood)	*	*	
Aloeides taikosama taikosama (Wallengren)	*	*	
Iolaus pallene (Wallengren)	*		*
Stugeta bowkeri tearei Dickson		*	
Hypolycaena philippus philippus (Fabricius)	*		
Anthene definita definita (Butler)		*	*
Lampides boeticus (Linnaeus)	***	***	***
Cyclyrius pirithous (Linnaeus)		*	
Tuxentius calice calice (Hopffer)	*		*
Tuxentius melaena melaena (Trimen)	*		
Zizeeria knysna (Trimen)	*		
Azanus jesous jesous (Guerin-Meneville)			*
Eicochrysops messapus mahallokoaena (Wallengren)			*
Freyeria trochylus (Freyer)	**		
Family Pieridae (Whites, Tips, Yellows)			
Catopsilia florella (Fabricius)	**	**	**
Eurema brigitta brigitta (Cramer)	**	**	**
Pinacopteryx eriphia eriphia (Godart)	**	**	**
Cofotis vesta mutans (Butler)	*		*
Colotis danae annae (Wallengren)	*		
Colotis antevippe gavisa (Wallengren)	*	*	*
Colotis evippe omphale (Godart)	*	*	*
Colotis eris eris (Klug)	*	*	
Colotis subfasciatus subfasciatus (Swainson)	*		
Belenois aurota aurota (Fabricius)	*	*	*
Belenots creona severina (Stoll)	*		
Belenois gidica (Godart)			*
Mylothris agathina (Cramer)	*	*	*
Family Papilionidae (Swallowtails, Swordtails)			
Papilio demodocus demodocus Esper	*	*	*
Papilio nireus lyaeus Doubleday			*
Graphium morania (Angas)	*		*
Graphium antheus (Cramer)	*		*

Family Hesperiidae (Skippers)

Coeliades forestan torestan (Stoll)			*
Sarangesa phidyle (Walker)		*	
.*Leucochitonea levubu* Wallengren	*	*	*
Abantis venosa venosa Trimen	*		
Spialia delagoae (Trimen)	*		
Spialia diomus ferax (Wallengren)	*		
Spialia spio (Linnaeus)	*		
Spialia colotes transvaaliae (Trimen)	*		
Gegenes niso niso (Linnaeus)	*		*

Lapalala again - a description of the social side of the weekend

On the afternoon of Friday 18th Feb. 1994, Herman Staude, John Joannou and I set off from John's house in Herman's Nissan Sani. I was sick of driving on collecting trips and wanted to be a passenger for a change. So I was wedged onto the back seat, fighting for space with nets, moth traps, cases of beer, etc, etc. Herman is quite proud of his Sani, a four-wheel drive station wagon which has seen quite a bit of South Africa! It is the subject of his "Total Neglect" policy. I don't know how many km's it has covered, but I bet one day soon he'll be able to get Nissan to pay for it as a subject of an advertisement, showing just how much abuse their vehicles can withstand and still actually move!

We reached Lapalala in the late afternoon and who should we bump into straight away but Clive Walker himself, looking relaxed and part of the bush as always. He helped us get organised in the house at Mosetsi, and soon we were unpacked and awaiting the arrival of the other parties. The steep little track leading up the hill to the house caught Andre du Toit unawares and high-centred his VW Jetta with its laden trailer, on one of the drainage ditches cut across it. The trusty Nissan was roped in as tow vehicle, rescuing the du Toits. This drainage ditch had just been re-made and resembles one of the "sleeping policemen" used in supermarket car parks to slow one.down. I don't think there's much chance of anyone doing 100 km/h up the track to Mosetsi!

Soon we were all comfortably ensconced around the campfire. Various cold libations flowed, and old friends greeted. Lapalala put on a wonderful sunset show as the moth men crashed around in the bush setting up their light traps. After a convivial braai, most of us went to bed fairly early, planning to be up betimes to inspect the traps. Sure enough, even I was persuaded to roust myself out of bed to see what had presented itself. There were no vast assemblies of moths, but enough to interest everyone. It was a great treat for the youngsters to be up at this ungodly hour, at home Messrs. Pierre du Toit and Andre Coetzer would have been tucked up in bed, but they were able to make the acquaintance of lots of moths they hadn't seen before.

The sun rose and shone on a perfect African day. Breakfast was bacon with "the works" on a skottel - the smell of bacon cooking in the fresh air has to be the most appetizing aroma known to man! Lindsey announced that she had work to do and would stay in camp, looking forward to collecting on the morrow. She was cajoled to take advantage of such a lovely day, but was adamant. The rest of us split up, some of us pottering around the house (notable the nocturnal persons!) and others climbing the ridge behind the house or braving the thick riverine bush across the flats. I drove off with Peter Ward and Barry Mee to see what

was potting in the Dubbelrivier valley, my favourite part of Lapalala. There had been a lot of rain recently and the rivers were flowing strongly. The bush was green and lush, I had seldom seen the place looking so g~. The usual trapnets were set up for Charaxes, and we noticed some baboon dung on the river bridge was attracting a few of these. I amused everyone by grovelling on my not-inconsiderable tum trying to get "worm's-eye" photos of their disgusting feast. ·

Dubbelrivier valley has springs flowing from its sides that wet the road surface, often ·attracting good numbers of butterflies. We didn't find anything new for the area, but Peter and Barry got a few new ones for themselves, such as *Abantis venosa.* Peter in particular was keen to catch the freshly-emerged *Graphium antheus* that were sucking the mud in company with many *Charaxes achaemenes* males, which I entertained myself by hunting. Unfortunately the mud at the roadsides was deeper than It looked and we both got mucky feet. Peter was foiled as he lurked up to an *antheus* that was sitting on one of these innocent-looking quagmires. As he lined up his net he went in up to his shins, a barrage of most un-Peter like curses escaping him! The same thing happened to me soon afterwards, which served me right for laughing.

We reassembled at Clive and Conita Walker's house after inspecting the *Charaxes* traps, to meet the young black rhinos they are rearing. Everyone, especially the children, was enchanted by these surprisingly tame and confiding creatures. Bwana, the male, was orphaned before he was weaned, and is totally imprinted on Conita. He follows her around like a little dog, making plaintive hooting sounds.

Rolf and his family \Vent canoeing on the river after that, with Peter and Herman braving the crocs for a mm. We had a difficult job getting them out in time to get back to camp for the braai. After the braai we went to the school where Rolf and I gave a slide show on butterflies and moths to a huge congregation of teenage schoolgirls who were at Lapalala on an educational trip. This was well received - hopefully they all went out the next day ready to grill their teachers (Haneke and Jenny, and the rest of the Lapalala rangers) on lepidoptera.

This made quite for a late evening and soon it was time to check the light traps again. During the night a veil of clouds had covered the moon and stars, so we hoped for a good haul. Unfortunately the clouds brought cold winds and eventually rain, so we were foiled in this, In fact after breakfast the weather started to get really foul, disappointing poor Lindsey who had been looking forward to swinging a net. We all told her she was to blame for cocking a snook at good weather yesterday. As it looked like Setting in for a couple of days' rain we decided to push off home early and impress our wives!

Although it lacks the super-rare butterflies of Zululand and the Northern Transvaal, Lapalala is a wonderful place, especially for moths. Herman went home content, having found two species that have never been caught in SA before, and a great rarity, *Trimetopia aetheraria.* We will definitely be planning another visit one day.

Poecilmitis aureus final instar larva with host ant

BRIEF HUNTING AT 'HUNTLY GLEN' NOVEMBER 1993

By Gordon Fraser - Grant

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Abstract: A discussion of a brief collecting trip to the Bedford area of the Eastern Cape.

THE RAINS CAME - heralding the possible ending of one of the worst droughts in living memory in the Eastern Cape. Hopefully it meant more butterflies. With this good news there came as well a wonderful invitation from both Victor and Ernest Pringle that now was the time to visit them at "Huntly Glen " and do some collecting in the Bedford area. Stay with us said Ernest!

Having avidly studied the *"Annotated Check-list of Butterflies for the Bedford District'* by Ernest, Dr André Claassens and I set off from Cape Town on 8November1993 drooling with anticipation of things to come. With the fridge firmly strapped behind the driver's seat the faithful Starwagon was fully packed with camping gear. It was our intention to "do" the Port Elizabeth, Plettenberg Bay and Knysna areas on our return trip.

We left in extremely strong winds which persisted for most of our journey. Reluctantly we had as a result to ignore many potential collecting spots such as Matjiesfontein where we had intended looking for *Poecilmitis turneri turneri and Chrysoritis chrysantas.* We did find at the side of the road near Aberdeen some *Aloeides damarensis, Belenois aurota aurota* and *Tsitana uitenhaga.*

After one or two missed turns we finally arrived in the early evening at the farm "Huntly Glen". And we must say with some trepidation. All very well accepting invitations to stay from male members of the fraternity. But had the better half been truly involved and would she really be happy to accept these strange lepi's in her home? We need not have worried. Ernest's wife Anne was one of those gems who just knows how to make you feel at home. Thank you Anne for all you did for us and for your wonderful hospitality.

The next day 9 November (Victor was away for a few days) Ernest loaded us into his bakkie, drove across some neighbours' farms and up a fair sized mountain virtually to the top. A stiff walk (for us oldies) and we were on the summit. The Winterberg mountains in the distance seemed very close. Back for lunch with *Aloeides dicksoni, A. depicta, Pseudonympha magoides, P. paludls, Dingana bowkeri clarki, Lepidochrysops lacrimosa* (after much discussion), *Kedestes barbarae, Gegenes niso niso* and *Neita durbani.*

Hard work this collecting. No time for postprandial napping said the "Doc" and off we went to "walk-about". An early end to the afternoon as a few drops of rain drove us back to the farmstead. Added however were *Belenois aurota, Trimenia argyroplaga, Colotis eris johnstoni, Cacyreus palemon* and *Crudaria leroma.*

After seeing the *C. leroma* Ernest showed us a spot near the farm house where he had been observing and studying the early stages (larvae and pupae) of this insect. The nest of the pugnacious ant *Anoplolepis custodiens* with which they associate, was close to an *Acacia karroo* (sweet thorn) and he suspected that this was the food plant of the larvae. That night the larvae emerged from the nest following their hosts on their. way to their food source. This could either be the leaves of the plant or scale insects living on the branches of the *Acacia karroo.* We both wish Ernest well in his continued study of the life-cycle of this butterfly. Right there on his own doorstep!

An evening relaxing over the joys of Anne's culinary arts gave us the opportunity to plan the next day's activities. The weather report seemed to indicate a build up from the south. Earlier rather excited thoughts of heading for Grahamstown to look for *Kedeses chaka* were as a result rather sadly abandoned and it was decided we should head north .. At Tarkastad we believed we would find *Trimenia macmasteri* and at Queenstown there would be *Lepidochrysops graham* on the Long Hill. Or so Ernest said. We were however to be disappointed. Tarkastad produced only (although not to be scorned) *Stygionympha irrorata* and *Spialia asterodia.* Queenstown found us joyfully with *Cupidopsis jobates jobates* from Bowker's Kop. Obviously however we were just a little too quick after the first rains for the big ones.

THEN THE RAINS CAME!

They really came. By 14h00 it was doing so heavily as we left Queenstown. It duly did so all the way back to "Huntly Glen". In the gloom and almost impenetrable heavy mist of the mountains it was inevitable~ I*Ne* should take a wrong turn (I thought the "Doc" was navigating, he says he thought I was). Two hours later than expected, hungry and needless to say thirsty, we arrived with barely time for a quick wash as Anne's evening blessing went on the table.

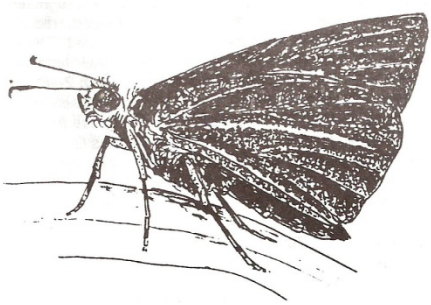
He was getting worried about us and had been thinking of mounting a rescue party. So Ernest said. But what with the TV, open book and empty can next to his chair one somehow wondered?

The next day the weather was again poor and we spent time looking at a library of butterfly literature that would make the mouth of even the most ardent professional water. And what must be one, if not the finest, collection of Cape butterflies. Not to mention Victor's magnificent collection of birds eggs. Just to see these collections is worth the distance and effort to visit "Huntly Glen". If you should be so lucky!

Hours of discussion with enthusiasts who must have almost unequalled knowledge of Cape butterflies just made the day.

The 12th dawned wet and miserable. The smiles and joys of the farming Pringles offset a little by the disappointed lepi's. Weather reports indicated the same conditions over the whole of the Cape for at least the next few days. There was no option but to pack up and take the shortest route back to Cape Town.

"Do come again" cried the Pringle family and ~ knew we would. Over and above the potential in this area for a collector, who could resist the friendliness and hospitality we had just enjoyed.



Tsitana uitenhaga female underside

BOTSWANA AND ZIMBABWE REVISITED

DECEMBER 1993 - JANUARY 1994

By Martin Lunderstedt

3 Umvula Rd,Glen Harmony, 9435, OFS

Abstract: A collecting trip through Botswana and Zimbabwe during which many rare and interesting specimens were recorded.

We went through to Botswana via the Lobatse border post and from our home base at Virginia in the OFS to Gaborone and beyond we observed the annual migration of *Belenois aurota aurota* (Fabricius 1793). From Palapye to Maun the migration continued until we· entered the Moremi Game Reserve in the Okavango Swamps. In the reserve, not much was ·flying as the rains were late last year. We encamped at 3rd Bridge. We stayed there for three days and I only caught two *Charaxes candiope candiope* (Godart 1824), a very arid form, damaged specimens which I released. Also recorded were a couple of *C. .jasius satumus* Butler 1865, some *Ypthima granulosa* Butler 1883, *Ypthimomorpha itonia* (Hewitson 1865) and an extreme rnelanic form of *Danaus chrysippus aegyptius* (Schreber 1759) with no white in the forewings, just orange and black. *Byblia acheloia anvatara* (Wallengren 1857) was everywhere but strangely, very few Colotis were seen.

We then went to Zimbabwe just before Christmas and I did a few trips around Mutare, notably Burma Valley and Cross Kopje, both places being ·extremely negative, the only *Charaxes* coming to the traps being *C.bohemani* C & R Felder 1859 and *C.guderiana guderiana* (Dewitz 1879). *Physcaeneura pione* Godman 1880 was flying but tattered and the weather turned disagreeable too. At Mutare Park, I nailed two good male *Bebearia mardania orientis* (Karsch 1895)and some *Omipholidotos peucetia peucetia* (Hewitson 1866) were emerging. At this stage I was seriously considering quitting lepidopterising and frequenting the local bars because they were the only places where life was good and you didn't need to worry about the weather.

On 29/12/93 and again on 211 /94 I went down to ye olde Pungwe Bridge in the Honde Valley. An enormous hardwood tree had collapsed in the centre of that small forest and *Teriomima puelaris Trimen* 1894 abounded. Within 30 minutes I had caught ten males and two females. That's when the place erupted! In one of my traps I discovered *Charaxes violetta melloni* Fox 1963 and throughout the day more and more appeared. The males were very territorial and pugnacious. They fought so readily and shared their territories with *C. pollux gazanus* van Someren 1967. Their perching places were all about 2-4m up, which is quite reassuring for us collectors! Other specimens of note caught or observed were: *Euryphene achlys* (Hopffer 1855), *Cyrestis camillus sublineata* Lathy 1901 , *Euphaedra neophron neophron* (Hopffer 1855), *Euxanthe wakefieldi* (Ward 1873), *Cymothoe coranus* Grose-Smith 1889 (a very rare find for Zimbabwe), *Acraea egina areca* Mabille 1888, and *Virachola lorisona coffea* (Jackson 1965). The shock of the trip was observing a female *Euphaedra orientalis Rothschld* 1898, sunning herself on the pathway. What a beauty and extremely wary too. I made one step and she disappeared promptly! . .

I met an American collector called Ted Sabine at the White Horse Inn in the Vumba and we decided to go to Cloudlands, the forest at 1410m, the next day. Up there the normal butterflies were out - *Cymothoe vumbui* Bethune-Baker 1926, *C. alcimeda rhodesiae* Stevenson 1934, *Precis tugela tuge/a* (Trimen 1879), *Belenois zochalia zochalia* (Boisduval 1836), *Mylothris sagala umtaliana* (AurivHHus 1901), *Papilio echerioides chirindanus* (van Son 1956), and ofcourse *Neptis swynnertoni swynnertoni* Trimen 1912 were flying around when I spotted what looked like a normal, common male *Charaxes varanes vologeses* (Mabille 1876). He parked himself at his normal 2m up and basicallly instructed us to catch

him. I asked Ted if he wanted it, he gave me an affirmative answer. Nonchalantly I took a swipe and missed. I thought it a bit of a joke and proceeded to watch Ted go out of his wits trying to catch it for the next hour, weather permitting. Needless to say it had got rather alert and tended to elude him every time and he became more interested in the lovely *Papilio dardanus cenea* (Stoll 1790) which were flying around. At this stage I suddenly realised that I've never seen C. *varanes* so high up in the Vumba and decided to investigate. Clouds came over and I had to use my maximum extension poles, and of course I caught him. My first perfect male *Charaxes* acumin~tus *vumba* van Someren 1963. All that would never have happened if I hadn't taken Ted up with me. On the wing, C. *acuminatus vumbui* is identical to C. *varanes,* having the same size and flight habits.

Also in the Mutare area is a forest beyond Penhalonga called Stableford Forestry Estates. This estate has an immense forest at 1600m and *Charaxes alpinus* van Someren & Jackson 1957 has been caught there. The forester has the most incredible view over Mozambique and you can see all the major mountains and extinct volcanoes in the hinterland there. Sad to say the roads are a bit bad and we had to physically· remove four trees from the road and even then we couldn't get past one monster, so we turned and went back to the road above. The forester has given permission for us to collect butterflies there.

My last two days were spent down in Chirinda Forest at Mt.Selinda. A collector's dream it turned out to be. On the 11 /1 /94 I started to drive into the forest and saw where a huge tree had fallen, making a clearing down by the stream. This spot is way beyond the Swynnerton memorial and just before the old homestead. After forcing my way through thick vines and ginger plants I ended up on top of this pile of rotting undergrowth and tree. A darkish shape disentangled itself from the canopy and flew downwards towards me. At this stage I was trying to balance myself on a narrow tree trunk so all I could do was to try and identify this strange object. *Salamis cacti amaniensis* Vosseler 1907! It flies like a small, dark Mother of Pearl but from the ground it resembles a black Charaxes in flight. Only when it rests and semi-opens its wings can you then see the purple lustre inside. As it was, there were about four of them and to my knowledge they are still there, as I didn't get another opportunity to catch one there. At another clearing in the road I stood on top of my bakkie with extensions, also to no avail. I must have spent four hours in two days trying, and I came upon their secret by chance.

During this time I collected *Apaturopsis cleochares schultzei* Schmidt 1921 , *Lachnoptera ayresii Trimen* 1879, *Pseudacraea lucretia tarquinia* (Trimen 1868) *f. ochrescens, Dixea pigea* ' (Boisduval 1836) *f. rubrobasalis,* and a good series of *Appias sabina phoebe* (Butler 1900). The next day saw me on the tar road collecting a good series of *Pentila swynnerloni* Stevenson 1940 and some *lolaus lalos lalos* (Druce 1896) when I noticed a familiar dark butterfly flying along the road~ Too quick, it was gone! Eight times I saw S. *cacta* and they were just too quick. Instead of roaming around I stood in the middle of the road (moving only for buses) and ended up getting four males and one female. On the way out down at the base of the hill I got a nice male *Charaxes nichetes leoninus* Butler 1895.

That was that, it could have been a better trip but for the at least two solid weeks of drizzle and clouds, but that's Zimbabwe!

SURVEY OF MODDERFONTEIN CONSERVATION PARK

By S. E. Woodhall

10 Bay Close, Bloubosrand ext 9, Randburg, South Africa.

Abstract: Modderfontein Conservation Park was surveyed on the 9th October 1993 for its spring butterfly species. Ten species were observed, of which two were migrants. Modderfonte.in Conservation Park, 800ha in extent, was proclaimed in 1987. It is adjacent to the AECI Modderfontein dynamite factory near Kempton Park in the Transvaal. Interestingly for a site so close to a large chemical works, it is rich in birds (ca. 200 species) and plants (110 indigenous species). AECI set apart the land as part of a long term project to remove all exotic vegetation and replace it with indigenous flora. Dr R H Jones, who is a member of the Modderfontein Conservation Society (MCS) which monitors the reserve, invited me to give lectures on local butterfly species. This survey grew from the lectures.

Observations

On 9Oct1993, I met Lindsay Durham, the du Toits, (Nonah and Pierre), and Benny and Andre Coetzee at the park. Dr Jones was there with members of the MCS.

We decided to stick together as a group and investigate the areas of the park which according to Dr Jones, had the richest indigenous flora: These were:-

An area of natural bush along the road to lsidleke, the conference centre situated in the park; Grassland with granite koppies and a patch of dense Acacia woodland surrounded by grassland on top of a rise, very close to the factory.

The first thing we noted was that butterflies were generally scarce. There were several flowering trees, most of which were *Acacia caffra.* These were attracting the lycaenids which were seen during the survey. The paucity of butterflies could well have been due to the cool spring weather - it was only 20 deg.C and if had recently rained heavily.

The vegetation in the park was heavily seeded with exotic aliens. The riverine areas are full of Black Wattle *(Acacia meamsi).* The grassland with granite koppies is infested with blackjacks *(Bidens pilosa)* and khakibos *(Tagetes minuta).* The purest indigenous vegetation was found in the Acacia woodland with good specimens of *A.karroo* and *A.caffra* as well as many other typical high veld trees. This would be expected to be the richest area for butterflies, as was found during this survey. Many specimens of *Spindasis el/a* were feeding on the flowers of the Acacias, as were *S.natalensis. Lampides boeticus* and *Acraea neobule.*

The granite koppies were frequented by hilltopping *Papilio demodocus* as well as *L. boeticus* and the pierids, *Belenois aurota* and *Catopsilia florella.* These latter two were obviously members of a fairly sparse migration, and were feeding on flowers of *Ehretia rigida.*

Checklist of species

Danaidae:
Danaus chrysippus aegyptius (Schreber, 1759)

Acraeidae:
Acraea neobule neobule (Doubleday, 1848)

Nymphalidae:
Junonia hierta cebrene Trimen, 1870
Vanessa cardui (Linnaeus, 1758)

Lycaenidae:
Spindasis el/a (Hewitson, 1865)
Spindasis natalensis (Westwood, 1852)
Lampides boeticus (Linnaeus, 1767)

Papilionidae:
Papilio demodocus demodocus (Esper, 1798)

Pieridae:
Catopsilia floreUa (Fabricius, 1775)
Belenois aurota aurota (Fabricius, 1793)

Discussion

It would be unfair to state that the Modderfontein Conservation Park is poor in butterfly species on the basis of this one survey. Not only was it carried out very early in the season, but the weather was not conducive to lepidopteran activity. The species we saw were typical highveld ones and it is to be expected that more such species will be found during the summer months.

Invertebrates, especially the conspicuous lepidoptera, are one of the most sensitive indicators of the health of a natural environment. Consequently, continuing monitoring of the park's butterfly species will be of great interest in the light of AECI's stated intention of eliminating exotic alien plants and returning the area to its original indigenous flora. Also, very few areas of the Witwatersrand have been earmarked for conservation in this way. The park is much larger than the Ruimsig butterfly reserve. Unlike Melville Koppies it contains much grassland and it is hoped that our local grassland species, which are in need of a sanctuary, will be found in greater numbers during future surveys. Members of the Lepidopterists' Society are urged to support these, which will be arranged in future.

Acknowledgements

Our thanks to Dr R.H. Jones and the members of MCS for arranging the survey and the braaivleis for the weary and footsore surveyors!

Typical cossid pupa (Lepidoptera: Cossidae)

PHOSPHOR FROLICS

By John Joannou

PO Box 894, Krugersdorp, 1740

Bowkeria phosphor - no lepidopterist worth his salt can hear these words without an involuntary raising of an eyebrow or a quickening of the pulse. This is truly a butterfly that never fails to stir some sort of emotion in all of us, and so, in tribute to this prince of the coppers, I recount some of the moments experienced with the magic *phosphor.*

I shall never forget my first sighting of this forest jewel. r recall, in minutest detail, how my mouth suddenly went dry and how I instantly developed goose bumps the size of golf balls, even though it really was quite warm. It flew - if that's the right word - around a bunch of bramble flowers, and I vaguely recall watching and waiting for it to land. It never did of course and with 20/20 hindsight I know now that I should have swung my net there and then - but that's academic now. During those brief mesmerised moments, scratching for my scattered marbles, I saw in its place a golden red electron orbiting *its* atomic nucleus of flowers and then it was gone. I don't mean that it flew off, I mean it just disintegrated, and I cringed, waiting for the blast and mushrooming smoke that never came. And suddenly, I was aware that I was standing on the roadside on Kowyns Pass with Chris Ficq shaking my shoulder and asking “Hey, Jo, what the *&%@$%#Ifs the matter with you, are you OK?" Inexplicably, my response to his concern was to shout disjointed words like *phosphor,* mushroom, bang, gone, where? suitably interspersed with some ripe expletives. All this mind you, pitched at a few hundred decibels some six inches from Chris' ear. His perplexed face floated back into view and in his kindest, most gentle and patronising voice said "Let's go sit in the shade a while, I told you you should have brought a hat!

Fully focused now, I retorted "Don't be daft old son, there's *phosphor* on the wing and we got to catch them!" And right on cue, one scorched over our heads, slowed down to about a zillion miles an hour to examine the flowers and disappeared again. This was the pattern for the next ten minutes or so. I watched Chris perform some ballet moves that made Nijinsky look like a hippo. He would leap ten foot in the air before executing the most incredibly tortuous bodily twists necessitated by the sudden swerve of the *phosphor.* I, all the while, stood firm, my toes growing roots as I realised I was no· match for these insects. Despite all this however, they beat Chris too and we had to change our strategy. The insects although not feeding, were showing some interest in the bramble flowers. It was their incredible speed however, which made them difficult to contend with. In the end we decided to stand at opposite ends of the bramble patch, facing each other and shouting as an insect flew over one's shoulder giving the other advance warning of its arrival. What the passing motorists made of these two idiots apparently duelling with nets, Lord alone knows, but at the time this was the least of our concerns. our strategy provided some near misses and many laughs but no *phosphor* and eventually at about 10 am they stopped flying and we disconsolately focused our attention on other species.

My second encounter with phosphor was at that delightful patch of forest between KMP's legendary homestead 'Yellowwoods' and Curries Post in the Natal midlands. Steve Woodhall and I had gone down for *Papilio euphranor* and were not expecting to encounter the prince on this particular outing. Steve saw the first incoming missile and asked, rhetorically, (for in reality the vision had been branded full flush on his grey matter) "What the?*%# was that?" Knowing Steve's propensity for exaggerated enthusiasm, I lifted my gaze from the *Streptocarpus* plants I was observing and nonchalantly encircled my nose with thumb and forefinger and accompanied the gesture with a shrug of the shoulders. "I

don't know Steve, what do you think It was?" came my eventual laconic verbal response. "It was a *phosphor* man, a *phosphor* I tell you!" shouted Steve, his underpants obviously severely twisted because he now spoke in strangled tones some four octaves higher than his norm. I hurried across to where he stood and together we peered intently down into the bramble covered ravine. Sure enough another red bullet came hurtling towards us, but ten feet from where we stood it went into a vertical climb to disappear in the forest canopy behind us. We watched, helpless, as oblivious to the greetings of passing motorists as to the choking dust raised by their vehicles. A half dozen times phosphor repeated this performance until eventually Steve's enthusiasm got the better of him. He waded into the sloping, four foot deep bed· of brambles to the point where the insects had begun their vertical climb. With eyes riveted down the ravine, but head twisted through one eighty degrees, Steve, in a theatrically muted tone, whispered over his shoulder "Good-stuff brambles, they're holding me in place. I'll be able to swing with either hand when the little@%#* comes past." And the little @%#* did come past, rigidly adhering to Murphy's law by still flying just out of reach. Steve lunged forward to swing his net but, surprisingly, he remained in the same place. And it was only then that the enormity of his folly struck him. To cut a long story short, Steve eventually managed to free himself and for the next ten minutes or so, passers-by were treated to the occasional glimpse amongst the bushes of pale, English derriere as bramble thorns were being gingerly extricated. Then, as had happened at Kowyns, shortly before ten, the jewels ceased to fly. We went on to catch *euphranor,* but even they were a poor substitute for the fiery prince and we left the forest with the score two/love in phosphor's favour.

Round three was the result of a deliberate visit following the capture of a red prince by Chris Ficq. Chris had been visiting the Shiyalongubo forest above Barberton and while indulging in his favourite pastime, had somehow managed to collect a *phosphor.* The details of that excursion are better left unrecorded and we move on to when Graham Henning, Steve Woodhall and I duly arrived at the forest the following weekend with great expectations. I got out of the car, deciding that my first priority was to rid myself of the two glasses of orange juice I had had with breakfast. Like any good lepidopterist, knowing butterflies' affinity for bodily salts, I decided to replenish a drying mud puddle on the road. I was standing there, revelling, squint eyed at the relief offered by this most basic of human functions when I was rudely awakened by Graham shouting "Duck!' I peered down the road, curious as to what species of waterfowl would inhabit a forest, when suddenly, Graham's net, singing like telephone wires in the wind, re-arranged my hairstyle. I was furious. 'What the**&%# are you doing?" I sputtered. Not only was this behaviour dangerous, it had caused my aim to waiver and I had a soggy left boot. Graham responded wild-eyed, in one word *"Phosphon"* The insect had been orbiting some flowers not six inches above my head and Graham had decided that my possible decapitation was well worth the risk of a swipe. He missed and the jewel departed, not giving anybody a second chance. All the nets were at the ready now, three pairs of eyes scouring the flowers and surrounding foliage. Three minds willing the prince to make a re-appearance. This with so much intensity that all the spoons within a hundred mile radius were surely buckled beyond recognition. But no *phosphor.* Eventually the intensity wore off, we flexed muscles stiff from being clenched motionless and life continued. The excitement was too much for Steve and he wandered off a few paces to replenish a puddle of his own. Net in one hand, aiming with the other, his cursing just audible above the waterfall sounds he was generating. Suddenly an anguished "YeeoouLIVM'!" erupted from his direction. We turned to see Steve executing a series of precisely orchestrated Chinese swipes. My first impression was that he was being attacked by wasps - Steve has this ongoing affair with these insects and *'Ne* have come to expect that he be stung at least once per outing. But it was not the case. A *phosphor* had come to investigate his activities and one of the swipes had actually netted the insect! Words cannot describe the scene that followed. In his haste and excitement, his previous preoccupation had been simply abandoned and there he was now, jumping up and down, hanging free so

to speak, shrilling "I've got one, I've got one" Well we could see that and having duly admonished him for his serious lapse in dress code we approached to inspect the prize. All the superlatives at my command seem inadequate in trying to describe that first, close up view of a living *phosphor.* All due credit to Steve, he kept the jewel alive, risking damaged scales, in order to later photograph the insect. We caught, indeed saw, no more princes that day, hut we left Shiyalongubo happy, basking in Steve's success. Needless to say, the trip home was unbearable. If Steve repeated the story and all its variations once, he repeated it a thousand times. But in the end we forgave him because it was after all a *phosphor!*

Bowkeria phosphor borealis male upperside (top) and underside (below)

EXCURSION TO ZAMBIA AND ZIMBABWE

By Colin Walmsley

PO Box 1683, Linkhills, 3652

I recently had the opportunity of going on a missionary trip to a mission station at Lukango, 4 km outside Kabwe, Zambia. The trip itself was very rushed and so we had very little time to do any serious collecting; we only found time for a few brief stops in Zimbabwe on the way back. It was a great pity that we had no time to stop at Chirundu and the Zambezi Valley (we were rushing to make it through the border post after losing three hours due to a blowout). The number of butterflies encountered, however, warrants going back for a holiday (the exchange rate makes it reasonable) with lots of time to catch.

I found the most prolific place, for the number of species per area, was on the road from Masvingo to Belt Bridge. We stopped twice along this road: at Ngundu and at the Lion.& Elephant Inn, near the Bubi River. All specimens taken at the Lion & Elephant Inn were caught in a patch of wild flowers among the grass at the entrance to the Inn - an area of about 25 m^2. There was a good selection of orange tips with a wide variety of black markings.

It was a pity that I did not have my bait trap a Ngundu, as various *Charaxes* kept buzzing us and, of course, we were unable to net. The local herd boys, after seeing what we were doing, soon thought they had a money-spinning idea - they would shake the bushes and then beat the living daylights out of anything that moved, after which they presented us with hands full of battered moths. They soon gave it up when they realised we wouldn't pay for pieces of insect. All specimens at Ngundu were caught in an area of bush, of about 100 m^2 near the river.

Whilst in Zambia, we had very little relaxation time and so, unfortunately, we were unable to do any serious netting. What we did catch was from the public park in Kabwe. There is a possibility that I will be going up again in July, so then I might be able to do ·a decent study.

The most exciting thing about the short time we had, was the number of personal firsts taken. It really is good to have a good chase through the bush to bag something new - it even took the edge off doing 1250 km per day (which is what we were averaging). A list of all specimens is attached. However, plenty of others were seen, many of which were identifiable.

Kabwe, Zambia: 19/2/94 ·

Acada biseriatus (Mabille)
Bicyclus safitza (Hewitson)
Precis natalica (Felder)
Metisella willemi (Wallengren)
Cupidopsis cissus cissus (Godart)
Precis octavia sesamus f. *natalensis* Staudinger
Colotis antevippe gavisa (unusually marked form) (Wallengren)

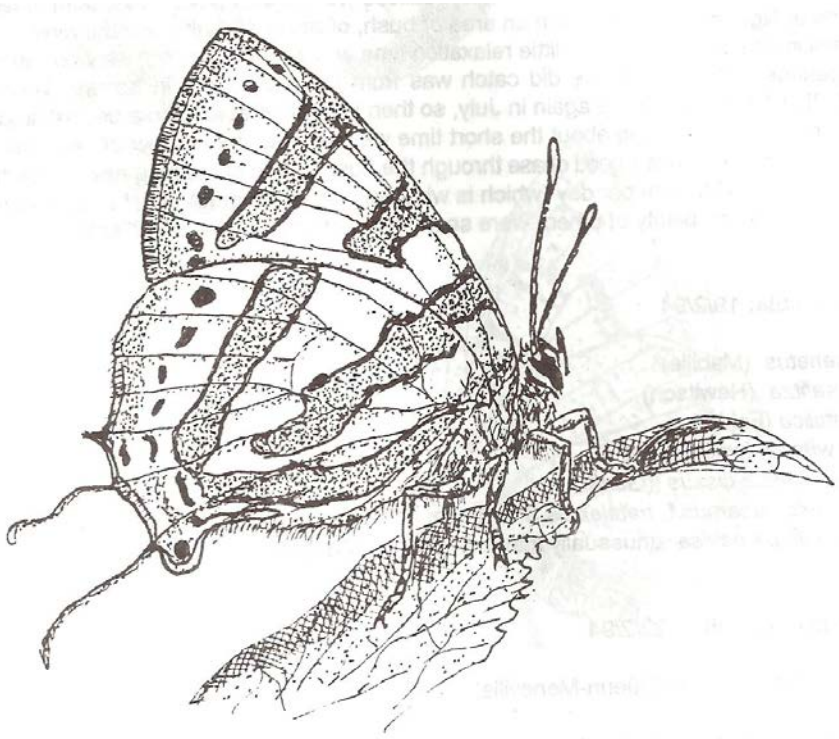
Great Zimbabwe ruins: 22/12/94

Anthene amarah amarah (Guerin-Meneville)
Spiala spio (Linnaeus)
Eurema brigitta f. *brigitta* (Cramer)

Ngundu, Zimbabwe: 22/2/94

Acraea zetes acara Hewitson
Acraea anemosa Hewitson
Iolaus caeculus caeculus Hopffer
Aloeides trimeni trimeni Tite & Dickson
Castalius melaena melaena (Trimen)
Castalius hintza hintza (Trimen)
Coeliades forestan (Stoll)
Belenois creona severina (Stoll)

Lion & Elephant Inn, Bubi River, Zimbabwe: 22/12/94
Acraea neobule neobule Doubleday
Colotis ione f .*phlegyas* Butler
Colotis danae annae (*d* & ~) (Wallengren)
Colotis pallene f.absurda van Son
Colotis evagore antigone f.phlegetonia Boisduval
Colotis evenina f.evenina (Wallengren)



Iolaus diametra natalica male underside

CAPE NATURE CONSERVATION - A REPLY TO J. VLOK

By S. E. Woodhall

PO Box 67317, Bryanston, 2021

I would like to thank J. Vlok of Cape Nature Conservation for his reply to my article. I admit that I was a little controversial, but the object was to draw comment. We must never forget that *Metamorphosis* is the only southern African forum for discussion between amateur and professional lepidopterists and the conservation authorities. Constructive co-operation between amateur lepidopterists and the Nature Conservation bodies of Transvaal, Natal and the National Parks Board has been achieved to date. I am extremely gratified that Mr Vlok has offered to facilitate such co-operative projects in his area. ·

Amateur lepidopterists can help the conservation authorities to gain data on populations by responsible reporting on collecting trips in the areas in question. Most collectors respond to the granting of permits by:

(1) Only collecting a small number of specimens, i.e., that they require for their own collections
- please, Mr Vlok, commercial collecting of these tiny lycaenids and satyrids is highly unlikely- overseas collectors pay money only for showy, large species, not little brown jobs!
Local collectors have proved themselves over the years to be a responsible lot. The stories of commercial collecting, for example that of *Oxychaeta dicksoni,* are apocryphal. However, the urge to collect butterflies to complete one's selections of local species is a strong one. One may take the "bunny hugger'' view that it is wrong to take any life; but in fact it is not in any conservation officer's interest to do so because of amateur collectors;

(2) Conscientious reporting on their observations and captures. They can be the eyes and ears of the conservation officer. Only the amateur lepidopterist is willing and able to spend the time on repeated field trips, which when reported on and collated over time, give valuable information on the long term health of populations. This is precisely the kind of information that will allow Mr Vlok to answer questions like the one he raises in his letter on the effect of fires.

But here I must emulate my countrywoman Margaret Thatcher and do some straight talking. He will not get this data and information if amateur lepidopterists have onerous conditions to comply with in order to get a permit. The status quo will remain. It is no use trying to tie us down to a particular date to visit an area; we are at the mercy of the weather and need to keep our options open. Few amateurs will have the time or inclination to apply for a government-approved research project number. Like it or not, most of us are collectors first and foremost and generally only begin to specialise when the law of diminishing returns starts to limit our collecting options. We will only be too happy to "pay" for our collecting of rare species with detailed reports on any observations we make whilst doing so. Some of us may become sufficiently involved and interested to develop our simple observations into more in-depth studies. But we need to be trusted to do so and that means open permits. There needs to be a "quid pro quo".

The question arises: who will actually do the collation of all this data and transform it into useful information of a kind that can be used effectively to conserve the butterflies' habitats? Is there someone in CNC like Koos de Wet in the Transvaal who can work with us amateurs and achieve real results such as the work being done with *Erikssonia acraeina* and *Alaena margaretacea?* Is this someone you, Mr Vlok? If so then I say "great, let's work

together!" Or maybe we need our resident Cape lepidopterists to take the lead and organise projects with Mr Vlok which we unfortunate souls who live outside th~ Cape can be invited to help via permits during our all-too-brief visits to their province? Perhaps one or more of my Cape colleagues would like to offer comment on this?

. Mr Vlok, I hope you find this a fair reply to your letter in defence of CNC. Whilst I admit that my language was perhaps rather inflammatory (no pun intended), I do not apologise for my intention to press for a fairer deal for the amateur lepidopterist. All over the world, in, for example, certain American States and Germany, we are finding our hobby being circumscribed all the more. I do not want to see the criminalisation of butterfly collectors occur in the new South Africa, as I feel we have a great deal to achieve if we work together. But I do believe it is necessary to deal on a basis of straight talking ...

Next time I plan to visit the Cape I will contact you and hope to have the pleasure of meeting you. .

Corrigenda

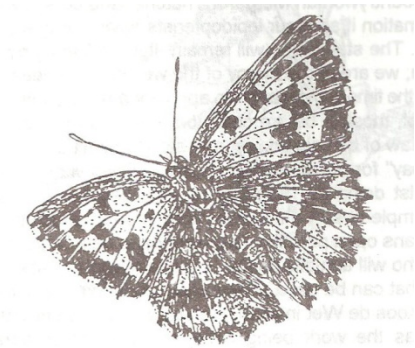
I apologise for, and would like to correct, a couple of errors that crept into my article on the Zimbabwe safari with Jan Coetzee:

At the bottom of p.176 I mention that "at 1300 hrs the first *Aphnaeus marshalli* males started to appear". I only wish they had - they were actually all *A.erikssoni bamesi.*

The /o/aus *australis* that I claimed to have caught at Greenhills on p. 178 were actually *I. bakeri.*

The "strange little *Deudorix'* mentioned on p.179 turned out to be *D. magda,* and I still haven't had all the *Neptis* identified yet, so a detailed checklist will just have to wait for a future volume of *Metamorphosis!*

Finally, it has been pointed out to me that Monomatapa actually refers to the Great Zimbabwe area and Nyanga is nowhere near it. That is as may be and I don't apologise for it; Monomatapa is one of the most beautiful African words and I claim artistic license in moving it to one of the most beautiful places in Africa!



Oxychaeta dicksoni male upperside

SUMMARY OF A MEETING HELD BY THE CAPE MEMBERS OF THE LEPIDOPTERSTS' SOCIETY

By Alan Heath

The meeting was held at "Blencathra", Cambridge Avenue, Tamboerskloof, Cape Town on 25th May 1994 at 19:00.

IN ATTENDANCE:

Dr Jonathan Ball
Tony Brinkman
Dr Andre Claassens
Gordon Fraser-Grant
Ingrid Hansen
Alan Heath
Dr Pieter Oosthuizen
Dr Hamish Robinson (S A Museum)
Mike Schlosz
Harold Selb
Tim Waters
Vernon Wykeham

Host - Charles Wykeham

APOLOGIES:

David Edge
Colin Owen
Andre Marais
John White

Alan Heath, the organiser of the meeting, welcomed those present and proposed that they introduce themselves and provide a brief background to their interests and activities over the past few months. During general discussion it became apparent that the group needed to pool their knowledge and work more closely as a co-ordinated team. In order to put this idea into effect it was suggested that a Butterfly Atlas Project to accurately identify butterfly populations/species in the Fynbos Biome be undertaken.

The challenge was favourably accepted and a three year time limit was proposed for its completion. In discussing the concept, it was pointed out that in order to plot localities it was not accurate enough to simply quote “Cape Town" but that a precise grid reference should be provided. This was felt to be important for collections generally, especially in the "New South Africa" where place names may well change over time. Hamish explained that the South African Museum held a good foundation collection of South African butterflies as one of the earlier curators was Roland Trimen who could be regarded as one of the fathers· of butterfly study in South Africa and that at least half of his collection was housed in the Insect Department.

The records from the Museum collection together with those from the private collections could form the basis upon which the project could be built and he suggested that all information be channelled through the Museum where a database could be set up. It was agreed that Hamish would .prepare a form upon which to record the data already in the various collections.

In order to prepare the necessary database, it was recognised that funding may have to be sought but that this issue would be addressed at a later stage.

In order to begin the forthcoming collecting season with the project firmly in mind Hamish undertook to prepare a locality or site record form which could be completed after each trip. This information could be used as a back-up for the Atlas.

In regard to the question of food plants Jonathan advised that he already had a list of all known foodplants from the new *Pennington's Butterflies,* however anyone who could add thereto should contact him directly.

After further discussion it was agreed that the project would back conservation ideals and in order for it to be undertaken in a professional manner the group needed to prove its objectives

in a committed approach, and contribute individually to the combined success of the project. With reference to the question of permits, Hamish undertook to assist those dedicated persons to obtain them from the relevant authorities, should they be required.

A further issue that was raised was the conservation of the locality of the *Oxychaeta dicksoni* Gabriel. Alan explained the work thus far undertaken in studying the insect and described ·its scarcity during 1992 and non-appearance last season in both Mamre as well as the South Coast locality. It was agreed that further research under his leadership be undertaken during the forthcoming season.

On the question of future meetings it was agreed that these would take place 3 times per year and that the next meeting would be held on the 12th August 1994 at "Blencathra" at 19:00.

A vote of thanks went to the generous hosts Charles and Ingrid.

Alan Heath

Poecilmitis adonis male upperside (top) female upperside (bottom)

GETTING TO KNOW MOTHS
- SWALLOWTAIL MOTHS -

By Stephen Henning

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Swallowtail moths belong to the family Uraniidae (Superfamily Geometroidea). This family of small to large broad-winged white or iridescent moths have the hindwing often angled (fig. 1) or with numerous tails. Ocelli are absent and the antennae are thickened in the male and sometimes shortly dentate. The haustellum is present, maxillary palpi are one-segmented and the labial palpi are ascending. The abdomen of the male has lateral tympanal organs on tergum 2 which open posteriorly. In the female they are ventral at the base of the abdomen.

Eggs are flattened and the larvae have normal prolegs. The larvae are phytophagous. Pupation occurs in a loose silken cocoon.

There are two subfamilies, the Uraniinae and the Microniinae. The former contains large, tailed species which resemble papilionid butterflies, and are without a frenulum. One of the most spectacular of all lepidopterous insects *Chrysiridia croesus* (Gerstaecker) belongs to this group. It is found in the coastal lowlands of Kenya and Tanzania at least as far as the Mozambique border and probably further south. This species and its Madagascar relative have jet black wings with shimmering bands and streaks of green, or blue-green. The hindwing has numerous short white-fringed tails. They are diurnal in habit and often fly in the sunshine in large numbers. The moths feed at flowers, rest with their wings outspread, and sometimes, towards evenings, fly to and fro high above the trees.

The Microniinae (fig. 1) are delicate, nocturnal, white species with pencilled markings. The hindwings are produced to an acute angle at the end of vein M3. A vestigial frenulum is sometimes present. They rest with wings outspread and have slow, laboured flight. There are two species belonging to two genera in Southern Africa

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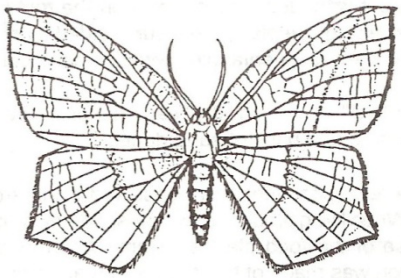

Fig. 1. *Acropteris illiturata* Warren (Uraniidae: Microniinae)

OBSERVATIONS ON *ANOPLOCHEILUS RUST/CUS* - (GORY & PERCHERON) (SCARABAEIIDAE: CETONIINAE) (TRUE OR DAY FLYING FRUIT CHAFERS)

By A.P. (Andre) Marais

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Abstract: Variations found within *Anoplocheilus rusticus* (Gory & Percheron) are noted, and observations are made on their behaviour and habitat.

All species of the genus *Anoplocheilus* Macleay appear to be associated with sandy soil and the distribution of *Anoplocheilus rusticus* (Gory & Percheron) is distinctly coastal.

This rare species is the smallest of the *Anoplocheilus* and the only collecting dates known are in August and October.

Very little is known about this species and therefore my wife and I decided to try and establish some more information about the species' habitat and behaviour.

During the middle of November 1993 we began our investigation on the sand dunes at Betty's Bay in the Cape Province.

All the *Anoplochelus* seem to be root feeders and after several days of digging around the roots of numerous wild flowers on the sand dunes, we did eventually discover the "food" plant, and the beetles.

The following observations were made:-

1. Food plant *Senecio elegans* L. Common name: Wild cineraria.
   A hardy annual, which can be up to 1.5m tall when growing in damp shady places. Plants growing close to the coast look very different from those further inland.
   The maritime form has thick leaves and is more condensed and hairy. Flowers - July to March.

2. The beetles were only to be found on the roots of this specific plant from just underneath the surface to a depth of about 20cm. Some were actually found on the sand at the base of the food plant. Another very interesting fact, is that the beetles were not just only found on the roots of this plant, but without exception, only on the roots of the plants that are isolated from other plant species e.g. the plant is not surrounded by other plant species and therefore there are no other plant roots entangled with this particular plant.
3. The beetles were found on "wet" as well as "dry" sand dunes at the same depths, and on various elevations e.g. top, side and base of sand dunes.
4. On hot sunny days only a few specimens were observed flying around, in a very active manner about 60cm high. When flying around, they just suddenly drop down onto the sand about 30cm from the base of the food plant and then start to walk towards the plant. Unfortunately no observation was made of the beetles actually "digging" into the sand.
5. It appears that the weather conditions only affect the actual flying around of the beetles, as this was only observed on hot sunny days with very little wind. However, there was no effect on the number of beetles that we actually dug out e.g. the numbers that we dug out on cold, overcast days with very strong south easterly winds, were about the same as on hot sunny days with very little or no wind at all.

6. Pronotum and Scutellum

The pronotum and scutellum are without any exception, always dark.

7. Elytra

Four (4) definite variations occur namely:-
- elytra with brown to ochre coloration, and with irregular dark spots
- elytra which is totally black
- elytra which is also totally black, but with irregular reddish/brown spots around scutellum and first half of elytra
- elytra coloration which can be better described as intermediate between the reddish/brown - and the black variation. The reddish/brown and black coloration are equally distributed over the entire elytra, and there are no spots. (Two specimens caught)

8. The following two species were also collected at Betty's Bay, under the same conditions and the same food plant as *Anoplocheilus rusticus* (Gory & Percheron), but in a much lesser degree, namely: -

Genus *Anoplocheilus* Macleay

Anoplocheilus germati (Wiedeman)

(Only 4 specimens were found).

Available records indicate that the flight period or adult activity is mainly in February with single records as early as September. Distribution is strictly limited to coastal dunes.

Genus *Xeloma* Kraatz

Xeloma atra (Thunberg)

13 pecimens were found.

Available records indicate that the flight period is mainly unestablished. Distribution is limited to the Western Cape and Namaqualand.

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