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CONTENTS

Editorial	50
Comments from the council	51
TAXONOMIC CHANGES AFFECTING THE AFROTROPICAL BUTTERFLIES AND SKIPPERS (LEPIDOPTERA) SINCE THE PUBLICATION OF CARCASSON'S BUTTERFLIES OF AFRICA - PART 1: LYCAENIDAE. By Mark C. Williams	52
CAPE TOWN 1999 : LEPIDOPTERA: <i>Ambassadors of Biodiversity</i> The journey so far By Jenny Heath	70
THE LIPTENIDS OF THE BANCO FOREST :A CASE STUDY IN CONSERVATION By H. Warren-Gash	75
BIONOMICS OF AFRICAN KITE SWALLOWTAILS, WITH A REQUEST FOR INFORMATION By R. I. Vane-Wright & C. R. Smith	81
A NOTE ON THE RED LISTED <i>METISELLA MENINX</i> SKIPPER (LEPIDOPTERA: HESPERIIDAE) By James M. Lawrence, Paul D. Lawrence and David R. Lawrence	84
OBSERVATIONS ON THE DIURNAL ACTIVITY OF NECTAR-FEEDING BUTTERFLIES ASSOCIATED WITH THE KALAHARI APPLE-LEAF <i>LONCHOCARPUS NELSI</i> (SCHINZ) SCHINZ EX HEERING & GRIMME (PAPILIONOIDEAE) IN MAKGADIKGADI NATIONAL PARK, BOTSWANA By Susan Leftwich	86
"BUG MUGGERS AND OTHERS " THE YEBO GOGGA EXHIBITION 1999. Held at the Johannesburg Zoo, 1-7 March 1999. By P. R. Roos	91
Letters to the Editor	95

Covers: Front: *Kedestes sarahae* (Hesperiidae) female, photographed at type locality, Cedarberg, September 1998. [Photo J. Ball]

Back: *Kedestes sarahae* (Hesperiidae) male, photographed in situ, Cedarberg, September 1998. [Photo J. Ball]

Editorial

The front page headline in *Lepidoptera News* N0.1 March 1999 (Published by ATL, Florida, USA) reads: "BRITISH MUSEUM DECLARATION OF SPECIMEN COPYRIGHT". In a hard hitting article the Natural History Museum, London, UK, is criticised for compelling anybody that wants to make images of any specimens or label data housed in their museum to sign a form, which effectively passes the copyright of such images from the creator on to the museum. The museum argues that this is necessary to safeguard the use of their collections from possible exploitation. They are quick to add: "It is not our aim to prevent academics from using any resources legitimately. But not to try to protect against abuse would be negligent on our part." The article argues that material, especially type material, in the possession of public institutions such as in the NHM should be freely accessible to those wishing to study and make images of them. Being forced to sign away the copyright of ones images seriously infringes on ones rights to free access and may be the beginning of more and more restrictions which could lead to the stopping of much needed taxonomic research on plants and animals, the article argues. Certainly both sides have valid arguments.

The requirement of signing away copyright of images is perhaps new to Lepidoptera but is certainly not unique to scientific institutions. Many research institutes do this to safeguard their property. In most cases they only require that the source of the material is acknowledged in publications and this will probably also be the case here. I am sure that the NHM, and other such institutions world-wide, recognise that probably the majority of material housed in their collections was and is donated by individuals and institutions specifically for the purpose of making such material available to the world. Certainly wherever I have visited museums specifically to photograph type material, including the NHM, London, I have been received courteously and staff have gone out of their way to assist me in every way. I will continue to donate material to these institutions because I believe they are still the safest places in which to deposit such material, which brings us closer to the real problem, the continued safety of this world heritage. Governments around the world, especially in poorer countries like those in Africa, find it more and more difficult to fund museums. This seriously increases the risk to the safety of material housed in these museums. Not only do the custodians of this world heritage have an obligation to make the material available for study but they also have an obligation to safeguard it for future generations. What we are seeing is the NHM, London, trying whatever it can to fulfil this obligation. I think the time has come to recognise that the material housed in the NHM is of world importance and that its upkeep should be a world responsibility. We as Lepidopterists should rally together to promote this wherever we can. Only if we manage to convince public opinion of the value of this heritage will it survive.

Hermann Staude

Comments from the council

We will devote the comments in this issue to introducing to the members the various projects supported and undertaken by the society. The most visible project is of course the Brenton Blue project. In this way LepSoc has spearheaded the campaign and together with other organisations have succeeded in achieving the first goal of securing a site on which the species could survive. This is however only the start and the management of this is to continue if survival of the species is to be maintained.

A new project is concerned with updating the status of the Red Data Book. This will be an attempt to not only use current information but also to draw on the excellent knowledge available in the society. Again we would like to request members to participate.

A third project, related to the above, is the creation and maintenance of an electronic database/atlas of African Lepidoptera. This project is currently in the definition stage and initial prototypes have been demonstrated. The objective is to create a current library of information on Lepidoptera and specifically maintain a distribution atlas.

Of course an on-going project is our relationship with the various conservation bodies in the country. A number of our members have been very active in surveying various nature parks and have produced excellent reports on this. In this we would like to encourage our members to treat conservation seriously. Good cooperation between us and these bodies results in a win-win situation. We get the opportunity to collect in unspoilt areas and if we provide them with accurate reports they have more information at their disposal to manage these and other areas better.

We would appreciate it if all branches could submit to us other projects that they are involved in so that we could inform our members about them. At the same time we would request all members interested in any of the projects to please contact the society.

Bennie Coetzer

TAXONOMIC CHANGES AFFECTING THE AFROTROPICAL BUTTERFLIES AND SKIPPERS (LEPIDOPTERA) SINCE THE PUBLICATION OF CARCASSON'S BUTTERFLIES OF AFRICA - PART 1: LYCAENIDAE.

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INTRODUCTION

Carcasson's Butterflies of Africa (Ackery, *et al.*, 1995) represents, in my view, the single most important publication on the butterflies of the Afrotropical region. The painstaking scholarship and attention to detail evident in its pages make it a very valuable document with regard to the taxonomy of the Afrotropical fauna. This paper is an attempt to update "Carcasson's", particularly with respect to taxonomic changes over the last nine years (1990 to 1998). Unfortunately a number of relevant papers that appeared in the primary literature between 1990 and 1995 were not included in "Carcasson's". Some of these papers contradict the taxonomic arrangement used in "Carcasson's". I have been particularly careful to point out these discrepancies and have accorded them (chronological) priority.

The present article is the first of three parts that are envisaged. The second part will deal with taxonomic changes affecting the Nymphalidae, and the third will deal with the Papilionidae, Pieridae and Hesperidae. The author will be most grateful to readers if they could bring any errors and/or omissions to his notice.

In the list below entries to genera and subgenera and addenda to "Carcasson's" appear in boldface.

FAMILY LYCAENIDAE SUBFAMILY LIPTENINAE TRIBE PENTILINI

Genus *Alaena* de Boisduval, 1847

Alaena bjornstadi Kielland, 1993 [*Lambillionea* 93(1)(Tome II): 115; first description of female by Congdon and Collins, 1998: 56 (Congdon and Collins, 1998. Supplement to Kielland's *Butterflies of Tanzania*)]

Genus *Pentila* Westwood, [1851]

Pentila tropicalis fuscipunctata Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 127 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Pentila umangiana mpanda Congdon, Kielland and Collins, 1998 [Supplement to Kielland's *Butterflies of Tanzania*, p.58]

Genus *Ornipholidotos* Bethune-Baker, 1914

Ornipholidotos irwini Collins and Larsen, 1998 [*Metamorphosis* 9(2):72]

Ornipholidotos jax Collins and Larsen, 1998 [*Metamorphosis* 9(2):70]

TRIBE LIPTENINI

Genus *Durbania* Trimen, 1862

Durbania amakosa sagittata Henning and Henning, 1993 [*Metamorphosis* 4(4): 160]

Genus *Durbaniella* van Son, 1959

Durbaniella clarki belladonna Ball, 1994 [*In* Pringle, et al., 1994: 132 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Durbaniella clarki jenniferae Ball, 1994 [*In* Pringle, et al., 1994: 131 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Durbaniella clarki phaea Ball, 1994 [*In* Pringle, et al., 1994: 131 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Genus *Mimeresia* Stempffer, 1961

Mimeresia dinora discirubra (Talbot, 1937)

=*meyerbeeri* D'Abrera, 1980 [Given as a subspecies of *Mimeresia dinora* in Ackery, et al., 1995: 493 but regarded as a synonym of *Mimeresia dinora discirubra* by Congdon and Collins, 1998: 61 (Supplement to Kielland's *Butterflies of Tanzania*)]

Mimeresia moyambina (Bethune-Baker, 1904) [First description of & - Collins and Larsen, 1998. *Metamorphosis* 9(2):73]

Genus *Eresiomera* Clench, 1965

Eresiomera campbelli Collins and Larsen, 1998 [*Metamorphosis* 9(2):76]

Eresiomera isca occidentalis Collins and Larsen, 1998 [*Metamorphosis* 9(2):75]

Eresiomera kiellandi Larsen, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.62)]

Eresiomera nancy Collins and Larsen, 1998 [*Metamorphosis* 9(2):76]

Eresiomera phillipi Collins and Larsen, 1998 [*Metamorphosis* 9(2):74]

Genus *Baliochila* Stempffer and Bennett, 1953

Baliochila lequeuxi Kielland, 1994 [*Lambillionea* 94(4)(Tome I): 503]

Baliochila warrengashi Collins and Larsen 1996 [*Lambillionea* 96(3)(Tome I): 465]

Baliochila woodi mwanihanae Congdon, Kielland and Collins, 1998 [*In*: Congdon and Collins, 1998. Supplement to Kielland's *Butterflies of Tanzania*, p.63]

Genus *Cnodontes* Stempffer and Bennett, 1953

Cnodontes bouyeri Kielland, 1994 [*Lambillionea* 94(4)(Tome I): 503]

Genus *Liptena* Westwood, [1851]

Liptena amabilis nyanzae Congdon, Kielland and Collins, 1998 [*In*: Congdon and Collins, 1998. Supplement to Kielland's *Butterflies of Tanzania*, p.66]

Liptena boei Libert, 1993 [*Bulletin de la Societe Entomologique de France* 97(4): 321]

Liptena kiellandi kiellandi Congdon and Collins, 1998 [*In*: Congdon and Collins, 1998. Supplement to Kielland's *Butterflies of Tanzania*, p. 67]

Liptena kiellandi kakamegae Congdon and Collins, 1998 [*In*: Congdon and Collins, 1998. Supplement to Kielland's *Butterflies of Tanzania*, p.67]

Liptena priscilla Larsen, 1995 [*Entomologist's Record and Journal of Variation* 107(1-2): 29]

Genus *Obania* Collins and Larsen, 1998 [*Metamorphosis* 9(2):67]

- Obania subvariegata subvariegata* (Grose-Smith and Kirby, 1890) [New combination, Collins and Larsen, 1998. *Metamorphosis* 9(2):67; given as a species of *Liptena* in Ackery, *et al.*, 1995]
- Obania subvariegata aliquanta* (Druce, 1910) [New combination, Collins and Larsen, 1998. *Metamorphosis* 9(2):67; given as a species of *Liptena* in Ackery, *et al.*, 1995]
- Obania tullia* (Staudinger, 1892) [New combination, Collins and Larsen, 1998. *Metamorphosis* 9(2):67; given as a species of *Liptena* in Ackery, *et al.*, 1995]
- Obania tulliana* (Grose-Smith, 1901) [New combination, Collins and Larsen, 1998. *Metamorphosis* 9(2):67; given as a species of *Liptena* in Ackery, *et al.*, 1995]
- Genus *Kakumia*** Collins and Larsen, 1998 [*Metamorphosis* 9(2):67]
- Kakumia ferruginea* (Schultze, 1923) [New combination, Collins and Larsen, 1998. *Metamorphosis* 9(2):68; given as a species of *Liptena* in Ackery, *et al.*, 1995]
- Kakumia ideoides* (Dewitz, 1887) [New combination, Collins and Larsen, 1998. *Metamorphosis* 9(2):67; given as a species of *Liptena* in Ackery, *et al.*, 1995]
- Kakumia otauga* (Grose-Smith and Kirby, 1890) [New combination, Collins and Larsen, 1998. *Metamorphosis* 9(2):67; given as a species of *Liptena* in Ackery, *et al.*, 1995]
- = *infima* (Grose-Smith and Kirby, 1890) [New synonymy, Collins and Larsen, 1998; given as a good species of *Liptena* by Ackery, *et al.*, 1995]
- = *gordoni* (Druce, 1903) [New synonymy, Collins and Larsen, 1998; given as a good species of *Liptena* by Ackery, *et al.*, 1995]
- Genus *Tetrarhanis*** Karsch, 1893
- Tetrarhanis baralingam* (Larsen, 1998) [*Lambillionea* 98(1) (Tome I): 78; (*Thermoniphas*)]
- Tetrarhanis okwangwo* Larsen, 1998 [*Lambillionea* 98(1)(Tome 1): 78]
- Genus *Epitola*** Westwood, [1851]
- Epitola eliasis* Kielland and Congdon, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.116)]
- Epitola gerdæ* Kielland and Libert, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.117)]
- Epitola insulana* Aurivillius, 1923
- = *convexa* Roche, 1954 [Given as a good species in Ackery, *et al.*, 1995: 521 but treated as a synonym of *Epitola insulana* Aurivillius by Libert, 1998: 108 (Supplement to Kielland's *Butterflies of Tanzania*)]
- = *intermedia* Roche, 1954 [Given as a good species in Ackery, *et al.*, 1995: 521 but treated as a synonym of *Epitola insulana* Aurivillius by Libert, 1998: 108 (Supplement to Kielland's *Butterflies of Tanzania*)]
- Epitola izidori* Kielland and Congdon, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.115)]
- Epitola kiellandi* Libert and Congdon, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.113)]
- Epitola liberti* Collins, 1998 [*Metamorphosis* 9(2):63]
- Epitola martini* Libert, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.110)]

- =*azurea* Jackson, 1962 [Given as a species of *Epitola* in Ackery, *et al.*, 1995: 520 but regarded as a synonym of *Epitola martini* by Libert (*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*)]
- Epitola peteri*** Kielland and Congdon, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.116)]
- Epitola pinodes pinodes*** Druce, 1890
= *conjuncta* Grose-Smith and Kirby, 1893 [Given in Ackery, *et al.*, 1995: 521 as a good species but treated as a synonym of *Epitola pinodes* Druce by Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.78).]
- Epitola pinodes budduana*** Talbot, 1937 [Given in Ackery, *et al.*, 1995: 521 as a subspecies of *Epitola conjuncta* Grose-Smith and Kirby but regarded as a subspecies of *Epitola pinodes* Druce by Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.78).]
- Genus *Deloneura*** Trimen, 1868
Deloneura abri Congdon and Collins, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.73)]
- Genus *Epitolina*** Aurivillius, 1895
Epitolina melissa Druce, 1888 [Given in Ackery, *et al.*, 1995: 528 as a synonym of *Epitolina dispar* Kirby but regarded as a good species by Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.79).]
- Genus *Stempfferia*** Jackson, 1962
Stempfferia abri Libert and Collins, 1997 [*Lambillionea* 97(1)(Tome I): 31]
- Genus *Phytala*** Westwood, [1851]
= *Hypophytala* Clench, 1965. [Treated as a good genus by Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.80.)]
- Genus *Hewitsonia*** Kirby, 1871
Hewitsonia amieti Bouyer, 1997 [*Lambillionea* 97(1)(Tome II): 90]
Hewitsonia boisduvalii (Hewitson, 1869)
[*H. boisduvalii nigeriensis* Jackson is a synonym of *H. b. boisduvalii* according to Bouyer, 1997 [*Lambillionea* 97(1)(Tome II): 84]]
Hewitsonia congoensis Joicey and Talbot, 1921 [Raised from *H. boisduvalii congoensis* by Bouyer 1997 [*Lambillionea* 97(1)(Tome II): 84]]
Hewitsonia danane Stempffer, 1969 [*H. dennisangwina* D'Abrera is a synonym of *H. danane* according to Bouyer, 1997 [*Lambillionea* 97(1)(Tome II): 92]]
Hewitsonia inexpectata Bouyer, 1997 [*Lambillionea* 97(1)(Tome II): 89]
Hewitsonia intermedia Jackson, 1962 [Given in Ackery, *et al.*, 1995: 532 as a synonym of *Hewitsonia gomensis* Dufrane but treated as a good species by Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.80).]
Hewitsonia occidentalis Bouyer, 1997 [*Lambillionea* 97(1)(Tome II): 87]
Hewitsonia prouvesti Bouyer, 1997 [*Lambillionea* 97(1)(Tome II): 88]
Hewitsonia ugandae ugandae Jackson, 1962 [Raised from *H. similis ugandae* Jackson by Bouyer, 1997 [*Lambillionea* 97(1)(Tome II): 86]]
Hewitsonia ugandae jolyana Bouyer, 1997 [*Lambillionea* 97(1)(Tome II): 86]
- SUBFAMILY LIPHYRINAE
- Genus *Egumbia*** Bethune-Baker, 1924
Egumbia febe Libert, 1994 [*Lambillionea* 94(1)(Tome I): 43]

- Egumbia katangana* Romieux, 1937 [Given as a synonym of *Egumbia ernesti* in Ackery, et al., 1995. Removed from synonymy with *E. ernesti* (Karsch, 1895) by Libert, (1994) [*Lambillionea* 94(1)(Tome I): 42]]
- Egumbia karamoja* Libert, 1994 [*Lambillionea* 94(1)(Tome I): 43]
- Genus *Aslauga*** Kirby, 1890
- = *Paraslauga* Bethune-Baker, 1925. [Regarded as a synonym of *Aslauga* by Libert, 1994 [*Lambillionea* 94(3)(Tome II): 411]
- Aslauga abri* Collins and Libert, 1997 [*Lambillionea* 97(4)(Tome I):548]
- Aslauga aura* Druce, 1913
- = *bella* Bethune-Baker, 1914 [Given as a good species in Ackery, et al., 1995 but treated as a synonym of *A. aura* Druce by Libert, 1994 [*Lambillionea* 94(3)(Tome II): 428]]
- Aslauga bouyeri bouyeri* Libert, 1994 [*Lambillionea* 94(3)(Tome II): 420]
- Aslauga bouyeri congdoni* Libert and Collins, 1997 [*Lambillionea* 97(4)(Tome I):549]
- Aslauga confusa* Libert, 1994 [*Lambillionea* 94(3)(Tome II): 417]
- Aslauga guineensis* Collins and Libert, 1997 [*Lambillionea* 97(4)(Tome I):550]
- Aslauga imitans* Libert, 1994 [*Lambillionea* 94(3)(Tome II): 411; first description of % in *Lambillionea* 97(4)(Tome I):550]
- Aslauga kallimoides* (Schultze, 1912) [Given as a species of *Paraslauga* in Ackery, et al., 1995]
- Aslauga marginalis* Kirby, 1890 [Given as a synonym of *Aslauga vininga* (Hewitson, 1875) in Ackery, et al, 1995 but removed from synonymy by Libert, 1994 [*Lambillionea* 94(3)(Tome II): 424]]
- Aslauga marshalli adamaouna* Libert, 1994 [*Lambillionea* 94(3)(Tome II): 426]
- Aslauga prouvesti* Libert and Bouyer, 1997 [*Lambillionea* 97(4)(Tome I):546]
- Aslauga satyroides* Libert, 1994 [*Lambillionea* 94(3)(Tome II): 412]
- Aslauga tanga* Libert and Collins, 1997 [*Lambillionea* 97(4)(Tome I):552]
- Aslauga vininga kiellandi* Libert, 1997 [*Lambillionea* 97(4)(Tome I):554]
- SUBFAMILY MILETINAE
- TRIBE LACHNOCNEMINI
- Genus *Lachnocnema*** Trimen, 1887
- Lachnocnema abyssinica* Libert, 1996 [*Lambillionea* 96(2)(Tome II): 367]
- Lachnocnema albimacula* Libert, 1996 [*Lambillionea* 96(3)(Tome I): 491]
- Lachnocnema angolana* Libert, 1996 [*Lambillionea* 96(2)(Tome II): 370]
- Lachnocnema bamptoni* Libert, 1996 [*Lambillionea* 96(2)(Tome II): 380]
- Lachnocnema bimoides* Libert, 1996 [*Lambillionea* 96(2)(Tome II): 379]
- Lachnocnema brunea* Libert, 1996 [*Lambillionea* 96(3)(Tome I): 485]
- Lachnocnema congoensis* Libert, 1996 [*Lambillionea* 96(3)(Tome I): 496]
- Lachnocnema dohertyi* Libert, 1996 [*Lambillionea* 96(2)(Tome II): 385]
- Lachnocnema ducarmeii* Libert, 1996 [*Lambillionea* 96(2)(Tome II): 371]
- Lachnocnema inexpectata* Libert, 1996 [*Lambillionea* 96(3)(Tome I): 494]
- Lachnocnema intermedia* Libert, 1996 [*Lambillionea* 96(1)(Tome II): 202]
- Lachnocnema jolyana* Libert, 1996 [*Lambillionea* 96(3)(Tome I): 486]
- Lachnocnema katanga* Libert, 1996 [*Lambillionea* 96(2)(Tome II): 376]
- Lachnocnema kiellandi* Libert, 1996 [*Lambillionea* 96(1)(Tome II): 198]

Lachnocnema laches (Fabricius, 1793) [Given in Ackery, *et al.*, 1995: 542 as a synonym of *Lachnocnema bibulus* (Fabricius) but treated as a good species by Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.83).]

Lachnocnema luna Druce, 1910 [Given in Ackery, *et al.*, 1995: 543 as a synonym of *Lachnocnema reutlingeri* Holland but treated as a good species by Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.84).]

Lachnocnema nigrocellularis Libert, 1996 [*Lambillionea* **96**(3)(Tome I): 484]

Lachnocnema obscura Libert, 1996 [*Lambillionea* **96**(2)(Tome II): 380]

Lachnocnema overlaeti Libert, 1996 [*Lambillionea* **96**(2)(Tome II): 381]

Lachnocnema pseudobibulus Libert, 1996 [*Lambillionea* **96**(1)(Tome II): 196]

Lachnocnema regularis regularis Libert, 1996 [*Lambillionea* **96**(2)(Tome II): 377]

Lachnocnema regularis grisea Libert, 1996 [*Lambillionea* **96**(2)(Tome II): 378]

Lachnocnema reutlingeri perspicua Libert, 1996 [*Lambillionea* **96**(3)(Tome I): 483]

Lachnocnema riftensis Libert, 1996 [*Lambillionea* **96**(1)(Tome II): 197]

Lachnocnema sosia Libert, 1996 [*Lambillionea* **96**(1)(Tome II): 197]

Lachnocnema tanzaniensis Libert, 1996 [*Lambillionea* **96**(1)(Tome II): 199]

Lachnocnema triangularis Libert, 1996 [*Lambillionea* **96**(2)(Tome II): 372]

Lachnocnema nicolor Libert, 1996 [*Lambillionea* **96**(3)(Tome I): 495]

Lachnocnema vuattouxi Libert, 1996 [*Lambillionea* **96**(2)(Tome II): 383]

Genus *Thestor* Hübner, [1819]

Thestor barbatus Henning and Henning, 1997 [*Metamorphosis* **8**(2):85]

Thestor camdeboo Dickson and Wykeham, 1994 [In Pringle, *et al.*, 1994: 148 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Thestor dicksoni warreni Ball, 1994 [In Pringle, *et al.*, 1994: 143 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Thestor malagas Dickson and Wykeham, 1994 [In Pringle, *et al.*, 1994: 143 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Thestor pictus van Son, 1941 [Given as a subspecies of *Thestor montanus* in Ackery, *et al.*, 1995 but raised to species level by Heath, 1994. In Pringle, *et al.*, 1994: 146 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Thestor protumnus mijburghi Dickson and Wykeham, 1994 [In Pringle, *et al.*, 1994: 141 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Thestor rooibergensis Heath, 1994 [In Pringle, *et al.*, 1994: 146 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Thestor terblanchei Henning and Henning, 1993 [*Metamorphosis* **4**(4): 162]

SUBFAMILY THECLINAE

TRIBE AMBLYPODIINI

Genus *Myrina* Fabricius, 1807

Myrina silenus suzannae Larsen and Plowes, 1991 [*Metamorphosis* **2**(4): 7]

TRIBE APHNAEINI Distant, 1884

[The Afrotropical genera were reviewed by Heath, 1997 (*Metamorphosis Occasional Supplement* No. 2, April, 1997). The order of genera below follows Heath, 1997]

Genus *Pseudaletis* Druce, 1888

Pseudaletis malangi Collins and Larsen, 1995 [*Lambillionea* **95**(3)(Tome II): 430]

Genus *Chloroselas* Butler, 1886

= *Desmolycaena* Trimen, 1898 [New synonymy, Heath, 1997 (*Metamorphosis Occasional Supplement* No. 2: 12)]

Chloroselas arabica (Riley, 1932) [New combination, Heath, 1997. As species of *Desmolycaena* in Ackery, et al., 1995]

Chloroselas mazoensis (Trimen, 1898) [New combination, Heath, 1997. As species of *Desmolycaena* in Ackery, et al., 1995]

Genus *Vansomerenia* Heath, 1997 [*Metamorphosis Occasional Supplement* No. 2: 13]

Type-species: *Desmolycaena rogersi* Riley, 1932 by monotypy.

Vansomerenia rogersi (Riley, 1932) [New combination, Heath, 1997. As species of *Desmolycaena* in Ackery, et al., 1995]

Genus *Cesa* Seven, 1997 [*Centre for Entomological Studies Miscellaneous Papers* 43: 4]

Type-species: *Spindasis waggae* Sharpe, 1898, by monotypy.

= *Jacksonia* Heath, 1997 (*Metamorphosis Occasional Supplement* No. 2: 14); invalid because of *Jacksonia* Theobald, 1923 [Hemiptera]

Cesa waggae (Sharpe, 1898) [New combination, Seven, 1997. As species of *Spindasis* in Ackery, et al., 1995]

Genus *Chrysoritis* Butler, 1897

= *Poecilmitis* Butler, 1899 [New synonymy, Heath, 1997 (*Metamorphosis Occasional Supplement* No. 2: 16)]

= *Bowkeria* Quickelberge, 1972 [New synonymy, Heath, 1997 (*Metamorphosis Occasional Supplement* No. 2: 16)]

= *Oxychaeta* Tite and Dickson, 1973 [New synonymy, Heath, 1997 (*Metamorphosis Occasional Supplement* No. 2: 16)]

Chrysoritis adonis (Pennington, 1962) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis aethon (Trimen, 1887) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis arida (Pennington, 1953) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis atlantica (Dickson, 1966) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis aurea (van Son, 1966) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis azuria (Swanepoel, 1975) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis balli (Dickson and Henning, [1981]) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis bamptoni (Dickson, 1976) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis beaufortia beaufortia (Dickson, 1966) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis beaufortia charlesi (Dickson, 1970) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis beulah (Quickelberge, 1966) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, et al., 1995]

Chrysoritis blencathrae (Heath and Ball, 1992) [*Metamorphosis* 3(3): 86] [New combination, Heath, 1997]

- Chrysoiritis braueri* (Pennington, 1967) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis brooksi brooksi* (Riley, 1938) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis brooksi tearei* (Dickson, 1966) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis chrysaor* (Trimen, 1864) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis coetzeri*** Dickson and Wykeham, 1994 [In Pringle, *et al.*, 1994: 208 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]
- Chrysoiritis daphne* (Dickson, 1975) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis dicksoni* (Gabriel, 1947) [New combination, Heath, 1997. As species of *Oxychaeta* in Ackery, *et al.*, 1995]
- Chrysoiritis endymion* (Pennington, 1962) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis felthami felthami* (Trimen, 1904) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis felthami dukei* (Dickson, 1967) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis henningi* (Bampton, 1981) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis hyperion* (Dickson, 1975) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis irene* (Pennington, 1968) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis kaplani* (Henning, 1979) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis lycegenes* (Trimen, 1874) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis lycia* (Riley, 1938) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis lyncurium* (Trimen, 1868) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis lyndseyae* (Henning, 1979) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis lysander lysander* (Pennington, 1962) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis lysander hantamsbergae* (Dickson, 1978) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis midas* (Pennington, 1962) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis mithras* (Pringle, 1994) [*Metamorphosis* 5(3): 107] [New combination, Heath, 1997]
- Chrysoiritis natalensis* (van Son, 1966) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis nigricans nigricans* (Aurivillius, 1923) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis nigricans zwartbergae* (Dickson, 1982) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]

- Chrysoritis orientalis* (Swanepoel, 1976) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis palma palma* (Stoll, [1781]) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis palma margueritae* (Dickson, 1982) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis pan* (Pennington, 1962) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis pelion* (Pennington, 1953) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis penningtoni* (Riley, 1938) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis perseus* (Henning, 1977) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis phosphor phosphor* (Trimen, 1864) [New combination, Heath, 1997. As species of *Bowkeria* in Ackery, *et al.*, 1995]
- Chrysoritis phosphor borealis* (Quickelberge, 1972) [New combination, Heath, 1997. As species of *Bowkeria* in Ackery, *et al.*, 1995]
- Chrysoritis plutus* (Pennington, 1967) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis psyche* (Pennington, 1967) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis pyramus* (Pennington, 1953) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis pyroeis pyroeis* (Trimen, 1864) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis pyroeis hersaleki* (Dickson, 1970) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis rileyi* (Dickson, 1966) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis stepheni* (Dickson, 1978) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis swanepoeli* (Dickson, 1965) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis thysbe thysbe* (Linnaeus, 1764) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis thysbe schloszae*** (Dickson, 1994) [In Pringle, *et al.*, 1994: 214 (*Pennington's Butterflies of Southern Africa*, 2nd Edition); as *Poecilmitis thysbe schloszae*] [New combination, Heath, 1997.]
- Chrysoritis trimeni* (Riley, 1938) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis turneri turneri* (Riley, 1938) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis turneri amatola* (Dickson and McMaster, 1967) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoritis uranus uranus* (Pennington, 1962) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]

- Chrysoiritis uranus schoemani*** (Heath, 1994) [*In* Pringle, *et al.*, 1994: 225 (*Pennington's Butterflies of Southern Africa*, 2nd Edition); as *Poecilmitis uranus schoemani*] [New combination, Heath, 1997.]
- Chrysoiritis violescens* (Dickson, 1971) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Chrysoiritis whitei*** (Dickson, 1994) [*In* Pringle, *et al.*, 1994: 216 (*Pennington's Butterflies of Southern Africa*, 2nd Edition); as *Poecilmitis whitei*] [New combination, Heath, 1997]
- Chrysoiritis williami* Henning, 1977 [Replacement name for *Poecilmitis dicksoni* Henning, 1977, which is a junior secondary homonym of *Oxychaeta dicksoni* (Gabriel, 1947), Heath, 1997 (*Metamorphosis Occasional Supplement No. 2: 17*)] [As *Poecilmitis dicksoni* in Ackery, *et al.*, 1995]
- Chrysoiritis wykehami* (Dickson, 1980) [New combination, Heath, 1997. As species of *Poecilmitis* in Ackery, *et al.*, 1995]
- Genus *Trimenia*** Tite and Dickson, 1973
 = *Argyrocupha* Tite and Dickson, 1973 [New synonymy, Heath, 1997 (*Metamorphosis Occasional Supplement No.2: 19*)]
Trimenia argyropлага cardouwae Dickson and Wykeham, 1994 [*In* Pringle, *et al.*, 1994: 179 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]
Trimenia malagrida malagrida (Wallengren, 1857) [New combination, Heath, 1997. As species of *Argyrocupha* in Ackery, *et al.*, 1995]
Trimenia malagrida cedrusmontana (Dickson and Stephen, 1975) [New combination, Heath, 1997. As species of *Argyrocupha* in Ackery, *et al.*, 1995]
Trimenia malagrida maryae (Dickson and Henning, 1980) [New combination, Heath, 1997. This subspecies was omitted in Ackery, *et al.*, 1995]
Trimenia malagrida paarlensis (Dickson, 1967) [New combination, Heath, 1997. As species of *Argyrocupha* in Ackery, *et al.*, 1995]
Trimenia wallengreni gonnemoui Ball, 1994 [*Metamorphosis* 5:104]
- Genus *Cigaritis*** Donzel, 1847
 [Hesselbarth, *et al.*, 1995 (*Tagfalter der Türkei unter Berücksichtigung der angrenzenden Länder* 3: 453) regard *Apharitis* Riley, 1925 as a synonym of *Cigaritis* Donzel, 1847 and Heath, 1997 regards *Apharitis* Riley, 1925 as a synonym of *Spindasis* Wallengren, 1857. Therefore *Spindasis* is also a synonym of *Cigaritis*, the latter being the senior synonymic genus by 10 years]
 = *Apharitis* Riley, 1925 [New synonymy, Hesselbarth, *et al.*, 1995 [*Tagfalter der Türkei unter Berücksichtigung der angrenzenden Länder*, 3: 453]].
 = *Spindasis* Wallengren, 1857 [New synonymy (with *Apharitis*), Heath, 1997]
Cigaritis acamas acamas (Klug, 1834) [As species of *Apharitis* in Ackery, *et al.*, 1995]
Cigaritis acamas bellatrix (Butler, 1886) [As species of *Apharitis* in Ackery, *et al.*, 1995]
Cigaritis acamas divisa (Rothschild, 1915) [As species of *Apharitis* in Ackery, *et al.*, 1995]
Cigaritis acamas hypargyros (Butler, 1886) [As species of *Apharitis* in Ackery, *et al.*, 1995]
Cigaritis apelles (Oberthür, 1878) [As species of *Spindasis* in Ackery, *et al.*, 1995]
Cigaritis apuleia (Hulstaert, 1924) [As species of *Spindasis* in Ackery, *et al.*, 1995]
Cigaritis avriko (Karsch, 1893) [As species of *Spindasis* in Ackery, *et al.*, 1995]

- Cigaritis baghirmii* (Stempffer, 1946) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis brunnea* (Jackson, 1966) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis buchmanani* (Rothschild, 1921) [As species of *Apharitis* in Ackery, *et al.*, 1995]
- Cigaritis collinsi* (Kielland, 1980) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis crustaria crustaria* (Holland, 1890) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis crustaria mysteriosa* (Clench, 1965) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis cynica* (Riley, 1921) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis dufranei* (Bouyer, 1991) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis ella* (Hewitson, [1865]) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- [*Cigaritis junodi* D'Abrera is given as a valid species of *Spindasis* in Ackery, *et al.*, 1995. It is merely a dry-season form of *C. ella* - see Pringle, *et al.*, 1994 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]
- Cigaritis gilletti* Riley, 1925 [As species of *Apharitis* in Ackery, *et al.*, 1995]
- Cigaritis homeyeri* (Dewitz, 1887) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis iza* (Hewitson, [1865]) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis lutosa* (Plötz, 1880) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis menelas* Druce, 1907 [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis modesta modesta* (Trimen, 1891) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis modesta heathi* (D'Abrera, 1980) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis montana* (Joicey and Talbot, 1924) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis mozambica* (Bertolini, 1850) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis myrmecophila myrmecophila* Dumont, 1922 [As species of *Apharitis* in Ackery, *et al.*, 1995]
- Cigaritis nairobiensis* (Sharpe, 1904) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis namaqua* (Trimen, 1874) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis natalensis* (Westwood, [1851-2]) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis nilus* (Hewitson, [1865]) [As species of *Apharitis* in Ackery, *et al.*, 1995]
- Cigaritis nyassae* (Butler, 1884) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis phanes* (Trimen, 1873) [As species of *Spindasis* in Ackery, *et al.*, 1995]
- Cigaritis pinheyi* (Heath, 1983) [As species of *Spindasis* in Ackery, *et al.*, 1995]

- Cigaritis scotti* (Gabriel, 1954) [As species of *Spindasis* in Ackery, *et al.*, 1995]
Cigaritis shaba (Bouyer, 1991) [As species of *Spindasis* in Ackery, *et al.*, 1995]
Cigaritis somalina (Butler, 1886) [As species of *Spindasis* in Ackery, *et al.*, 1995]
Cigaritis tanganyikae (Kielland, 1990) [As species of *Spindasis* in Ackery, *et al.*, 1995]
Cigaritis tavetensis (Lathy, 1906) [As species of *Spindasis* in Ackery, *et al.*, 1995]
Cigaritis trimeni trimeni (Neave, 1910) [As species of *Spindasis* in Ackery, *et al.*, 1995]
Cigaritis trimeni congolana (Dufrane, 1954) [As species of *Spindasis* in Ackery, *et al.*, 1995]
Cigaritis victoriae (Butler, 1884) [As species of *Spindasis* in Ackery, *et al.*, 1995]

Genus *Axiocerses* Hübner, [1819]

- [Generic review by Henning and Henning, 1996 (*Metamorphosis Occasional Supplement* No. 1, October, 1996)]
Axiocerses amanga baumi Weymer, 1901 [Given as a valid species in Ackery, *et al.*, 1995: 564 but regarded as a subspecies of *A. amanga* by Henning and Henning, 1996 (*Metamorphosis Occasional Supplement* No. 1, October, 1996: 39)]
Axiocerses amanga borealis Aurivillius, 1915 [Given as a synonym of *A. amanga* in Ackery, *et al.*, 1995: 563 but regarded as a valid subspecies of *A. amanga* by Henning and Henning, 1996 (*Metamorphosis Occasional Supplement* No. 1, October, 1996: 38)]
Axiocerses bambana orichalcea Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 20]
Axiocerses bamptoni Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 33]
Axiocerses callaghani Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 11]
Axiocerses coalescens Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 27]
Axiocerses collinsi Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 34]
Axiocerses croesus (Trimen, 1862) [Re-instated as a valid species by Henning and Henning, 1996 (*Metamorphosis Occasional Supplement* No. 1, October, 1996: 16); given as a synonym of *A. bambana* by Ackery, *et al.*, 1995: 564]
Axiocerses heathi Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 23]
Axiocerses karinae Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 28]
Axiocerses kiellandi Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 32]
Axiocerses melanica melanica Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 24]
Axiocerses melanica aurata Henning and Henning, 1996 [*Metamorphosis Occasional Supplement* No. 1, October, 1996: 24]
Axiocerses punicea cruenta (Trimen, 1894) [Given as a synonym of *A. punicea* in Ackery, *et al.*, 1995: 564 but regarded as a valid subspecies of *A. punicea* by

Henning and Henning, 1996 (*Metamorphosis Occasional Supplement No. 1*, October, 1996: 42)]

Axiocerses susanae Henning and Henning, 1996 [*Metamorphosis Occasional Supplement No. 1*, October, 1996: 15]

Axiocerses styx Rebel, 1905 [Lectotype designated, Henning and Henning, 1996 (*Metamorphosis Occasional Supplement No. 1*, October, 1996: 31)]

Axiocerses tjoane tjoane (Wallengren, 1857) [Given as a synonym of *A. bambana* Grose-Smith in Ackery, *et al.*, 1995: 564 but regarded as a good species, and lectotype designated, by Henning and Henning, 1996 (*Metamorphosis Occasional Supplement No. 1*, October, 1996: 14)]

Axiocerses tjoane rubescens Henning and Henning, 1996 [*Metamorphosis Occasional Supplement No. 1*, October, 1996: 15]

Genus ***Aloeides*** Hübner, [1819]

Aloeides argentea Henning and Henning, 1994 [In Pringle, *et al.*, 1994: 190 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Aloeides barbarae Henning and Henning, 1994 [In Pringle, *et al.*, 1994: 200 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Aloeides carolynnae aurata Pringle, 1994 [In Pringle, *et al.*, 1994: 197 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Aloeides mbuluensis Pringle, 1994 [In Pringle, *et al.*, 1994: 188 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Aloeides monticola Pringle, 1994 [*Metamorphosis* 5(3): 112]

Aloeides mullini Henning and Henning, 1996 [*Metamorphosis* 7(1): 9]

Aloeides namibiensis Henning and Henning, 1994 [In Pringle, *et al.*, 1994: 204 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Aloeides pallida juno Pringle, 1994 [*Metamorphosis* 5(3): 111]

Aloeides pallida liversidgei Pringle, 1994 [In Pringle, *et al.*, 1994: 185 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Aloeides thyra orientis Pringle, 1994 [*Metamorphosis* 5(3): 109]

Genus ***Aphnaeus*** Hübner, [1819]

= *Paraphnaeus* Thierry-Mieg, 1904 [Treated as a synonym by Stempffer, 1954: 516 and Heath, 1997: 27; regarded as a subgenus in Ackery, *et al.*, 1995).

Aphnaeus charboneli Bouyer and Libert, 1996 [*Bulletin de la Société Entomologique de France* 101(1): 49]

Genus ***Tylopaedia*** Tite and Dickson, 1973

Tylopaedia sardonyx cerita Henning and Henning, 1998 [*Metamorphosis* 9(4): 180-183]

TRIBE IOLAINI

Genus ***Iolais*** Hübner, [1819]

Subgenus *Epamera* Druce, 1891

Iolais (Epamera) apatosus (Stempffer, 1952) [Given as a subspecies of *Iolais (Epamera) aemulus* in Ackery, *et al.*, 1995: 585 but raised to specific status by Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.88).]

Iolais (Epamera) bamptoni Congdon and Collins, 1998 [In: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.89)]

Iolais (Epamera) congdoni (Kielland, 1985)

= *uluguru* (Kielland, 1985) [Given as a subspecies of *Iolais (Epamera) congdoni* in Ackery, *et al.*, 1995: 586 but considered to be a synonym]

of *Iolauus (Epamera) congdoni* by Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.90)]

Iolauus (Epamera) diametrus littoralis Congdon and Collins, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.91)]

Iolauus (Epamera) diametrus zanzibarensis Congdon and Collins, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.92)]

Iolauus (Epamera) djaloni Collins and Larsen, 1998 [*Metamorphosis* 9(2):81]
Iolauus (Epamera) obscurus Aurivillius, 1923

[Koçak, 1996 (*Centre for Entomological Studies Miscellaneous Papers* 27-28: 14) proposed *Iolauus (Epamera) yusuf* as a replacement name for *I. (Epamera) obscura* Aurivillius, 1923, nec *I. (Hemiolauus) caeculus obscurus* (Suffert, 1904). This new name is unnecessary because *Hemiolauus* Aurivillius had previously been transferred to *Hypolycaena* Felder (see Henning, *in* Pringle, *et al.*, 1994:161 (*Pennington's Butterflies of Southern Africa*, 2nd Edition))]

Iolauus (Epamera) silanus rondo Congdon and Collins, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.93)]

Iolauus (Epamera) silanus zanzibaricus Congdon and Collins, 1998 [*In*: Congdon and Collins, 1998 (Supplement to Kielland's *Butterflies of Tanzania*, p.93)]

Subgenus *Etesiolauus* Stempffer and Bennett, 1959

Iolauus (Etesiolauus) kyabobo Larsen, 1996 [*Lambillionea* 96(21)(Tome I): 276]

Subgenus *Iolaphilus* Stempffer and Bennett, 1958

Iolauus (Iolaphilus) gabunicus mbami Libert, 1993 [*Bulletin de la Société Entomologique de France* 97(4): 329]

Iolauus (Iolaphilus) icipe Collins and Larsen, 1998 [*Metamorphosis* 9(2):82]

Iolauus (Iolaphilus) newporti Larsen, 1994 [*Entomologist's Record and Journal of Variation* 106(11-12): 197]

Iolauus (Iolaphilus) shaba Collins and Larsen, 1995 [*Lambillionea* 95(4)(Tome II): 563]

Subgenus *Argioloaus* Druce, 1891

Iolauus (Argioloaus) crawshayi littoralis (Stempffer and Bennett, 1958)

[Koçak, 1996 (*Centre for Entomological Studies Miscellaneous Papers* 27-28: 14) proposed *Iolauus (Argioloaus) crawshayi kalleb* as a replacement name for *I. (Argioloaus) crawshayi littoralis* (Stempffer and Bennett, 1958), nec *I. (Hemiolauus) caeculus littoralis* Stempffer, 1954. This new name is unnecessary because *Hemiolauus* Aurivillius had previously been transferred to *Hypolycaena* Felder (see Henning, *in* Pringle *et al.*, 1994:161 (*Pennington's Butterflies of Southern Africa*, 2nd Edition))]

Iolauus (Argioloaus) manasei Libert, 1993 [*Bulletin de la Société Entomologique de France* 97(4): 327]

Iolauus (Argioloaus) pamae Heath, 1994 [*Metamorphosis* 5(1): 31]
[Replacement name for *I. (A.) pamela* (Heath, 1983)]

Iolauus (Argioloaus) silarus brainei Henning and Henning, 1984 [Omitted from Ackery, *et al.*, 1995]

Subgenus *Stugeta* Druce, 1891

lolaus (Stugeta) bowkeri albeza Koçak, 1996 [Centre for Entomological Studies Miscellaneous Papers 27-28: 13] [Replacement name for *l. (S.) bowkeri caerulea* (Stempffer, 1947), nec *l. (Epamera) cytaeis caerulea* (Riley, 1928)]

TRIBE HYPOLYCAENINI

Genus *Hypolycaena* Felder, 1862

Subgenus *Hypolycaena* Felder, 1862

Hypolycaena (Hypolycaena) clenchi Larsen, 1997 [Metamorphosis 8(4):177]

Hypolycaena (Hypolycaena) coerulea Aurivillius, 1895 [Given as a subspecies of *H. (H.) lebona* (Hewitson, 1865) in Ackery, et al., 1995 but regarded as a good species by Larsen, 1997. (Metamorphosis 8(4):178)]

Hypolycaena (Hypolycaena) kakumi Larsen, 1997 [Metamorphosis 8(4):180]

Hypolycaena (Hypolycaena) lebona davenporti Larsen, 1997 [Metamorphosis 8(4):177]

Hypolycaena (Hypolycaena) scintillans Stempffer, 1957 [Given as a synonym of *H. (H.) lebona coerulea* Stempffer, 1967 in Ackery, et al., 1995 but regarded as a good species by Larsen, 1997. (Metamorphosis 8(4):179)]

Hypolycaena (Hypolycaena) tearei Henning, 1981 [Omitted from Ackery, et al., 1995]

Subgenus *Hemiolaus* Aurivillius, 1923

[Status revised by Henning, 1994, in Pringle, et al., 1994: 161 (*Pennington's Butterflies of Southern Africa*, 2nd Edition); transferred from *lolaus* Hübner to *Hypolycaena* Felder]

Hypolycaena (Hemiolaus) caecula caecula (Hopffer, 1855) [Given in Ackery, et al., 1995 as *lolaus (Hemiolaus) caeculus caeculus*]

Hypolycaena (Hemiolaus) caecula littoralis (Stempffer, 1954) [Given in Ackery, et al., 1995 as *lolaus (Hemiolaus) caeculus littoralis*]

Hypolycaena (Hemiolaus) caecula tsodilensis (Pinhey, 1969) [Given in Ackery, et al., 1995 as *lolaus (Hemiolaus) caeculus tsodilensis*]

Hypolycaena (Hemiolaus) caecula vivida (Pinhey, 1962) [Given in Ackery, et al., 1995 as *lolaus (Hemiolaus) caeculus vividus*]

Hypolycaena (Hemiolaus) ceres (Hewitson, 1865) [Given in Ackery, et al., 1995 as *lolaus (Hemiolaus) ceres*]

Hypolycaena (Hemiolaus) cobaltina Aurivillius, 1898 [Given in Ackery, et al., 1995 as *lolaus (Hemiolaus) cobaltina*]

Hypolycaena (Hemiolaus) margites Mabille, 1899 [Given in Ackery, et al., 1995 as *lolaus (Hemiolaus) margites*]

Hypolycaena (Hemiolaus) maryra Mabille, [1887] [Given in Ackery, et al., 1995 as *lolaus (Hemiolaus) maryra*]

Hypolycaena (Hemiolaus) varnieri (Stempffer and Bennett, 1958) [Given in Ackery, et al., 1995 as *lolaus (Hemiolaus) varnieri*]

TRIBE DEUDORIGINI

Genus *Deudorix* Hewitson, [1863]

Subgenus *Hypokopelates* Druce, 1891

Deudorix (Hypokopelates) boormani Larsen, 1996 [Entomologist's Record and Journal of Variation 108(1-2): 7]

Subgenus *Pilodeudorix* Druce, 1891

- Deudorix (Pilodeudorix) congoana* Aurivillius [Given as a subspecies of *D. (P.) diyllus* in Ackery, *et al.*, 1995 but regarded as a good species by Congdon and Collins, 1998. Supplement to Kielland's Butterflies of Tanzania, p.100]
- Subgenus *Diopetes*** Karsch, 1895
- Deudorix (Diopetes) ducarme* (Collins and Larsen, 1998) [*Metamorphosis* 9(2):83]
- Deudorix (Diopetes) kakumi* (Larsen, 1994) [*Tropical Lepidoptera* 5(2): 83]
- Deudorix (Diopetes) kiellandi* (Congdon and Collins, 1998) [*Lt*: Congdon and Collins, 1998. Supplement to Kielland's Butterflies of Tanzania, p.100]
- Subgenus *Virachola*** Moore, 1881
- Deudorix (Virachola) montana* Kielland, 1985 [First description of male - Kielland, 1993 (*Lambillionea* 93(1)(Tome II): 114)]
- Genus *Capys*** Hewitson, [1865]
- Capys usambarae* Congdon and Collins, 1998 [*Lt*: Congdon and Collins, 1998. Supplement to Kielland's Butterflies of Tanzania, p.101]
- SUBFAMILY POLYOMMATINAE
- TRIBE LYCAENESTHINI
- Genus *Anthene*** Doubleday, 1847
- Anthene helpsi* Larsen, 1994 [*Lambillionea* 94(4)(Tome II): 550]
- Anthene juanita* Henning and Henning, 1993 [*Metamorphosis* 4(4): 156]
- Anthene lindae* Henning and Henning, 1994 [*Lt* Pringle, *et al.*, 1994: 233 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]
- Anthene rubrimaculata zanzibarica* Congdon and Collins, 1998 [*Lt*: Congdon and Collins, 1998. Supplement to Kielland's Butterflies of Tanzania, p.102]
- Genus *Cupidesthes*** Aurivillius, 1895
- Cupidesthes eliasi* Congdon, Kielland and Collins, 1998 [*Lt*: Congdon and Collins, 1998. Supplement to Kielland's Butterflies of Tanzania, p.104]
- TRIBE POLYOMMATINI
- Genus *Uranothauma*** Butler, 1895
- Uranothauma antinorii bamendanum* Libert, 1993 [*Bulletin de la Société Entomologique de France* 97(4): 329]
- Uranothauma belcastroi* Larsen, 1997 [*Lambillionea* 97(1)(Tome I): 5]
- Uranothauma frederikkae frederikkae* Libert, 1993 [*Bulletin de la Société Entomologique de France* 97(4): 324]
- Uranothauma frederikkae manengoubense* Libert, 1993 [*Bulletin de la Société Entomologique de France* 97(4): 325]
- Uranothauma nubifer abyssinicum* Libert, 1993 [*Bulletin de la Société Entomologique de France* 97(4): 330]
- Genus *Cacyreus*** Butler, 1898
- Cacyreus tespis tespis* (Herbst, 1804) [Replacement name for *Papilio palemon* Stoll in Cramer 1782, nec *Papilio palaemon* Pallas 1771 - see Koçak, 1996 (*Centre for Entomological Studies Miscellaneous Papers* 27-28: 13)]
- Cacyreus tespis ghimirra* Talbot, 1935 [Replacement name for *C. palemon ghimirra* - see Koçak, 1996 (*Centre for Entomological Studies Miscellaneous Papers* 27-28: 13)]
- Genus *Eicochrysops*** Bethune-Baker, 1924
- Eicochrysops damiri* Turlin, 1993 [*Lambillionea* 93(4)(Tome I): 361] and 1995 [*Lambillionea* 95(2)(Tome I): 201]
- Eicochrysops sanyere* Libert, 1993 [*Bulletin de la Société Entomologique de France* 97(4): 323]

Genus *Euchrysops* Butler, 1900

Euchrysops kabrosae rosieae Congdon, Kielland and Collins, 1998 [*In*: Congdon and Collins, 1998. Supplement to Kielland's Butterflies of Tanzania, p.105]

Euchrysops unigemmata sagba Libert, 1993 [*Bulletin de la Societe Entomologique de France* 97(4): 330]

Genus *Lepidochrysops* Hedicke, 1923

Lepidochrysops chittyi Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 248 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Lepidochrysops gydoae Dickson and Wykeham, 1994 [*In* Pringle, *et al.*, 1994: 251 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Lepidochrysops heathi Gardiner, 1998 [*Metamorphosis* 9(1): 37]

Lepidochrysops ketsi leucomacula Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 242 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Lepidochrysops kocak Seven, 1997 [Nom. nov. for *Lepidochrysops gigantea* (Trimen, 1898); Nec Groum-Grshimailo, 1885 - see Seven, S. 1997. *Centre for Entomological Studies Miscellaneous Papers* 48:1] [Given as *Lepidochrysops gigantea* Trimen in Ackery, *et al.*, 1995: 660]

Lepidochrysops rossouwi Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 256 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Genus *Orachrysops* Vári, 1986

Orachrysops brinkmani Heath, 1997 [*Metamorphosis* 8(1):27]

Orachrysops lacrimosa (Bethune-Baker, 1923)

=*major* Bethune-Baker, 1923 [Regarded as a good species by Vári and Kroon, 1986 and given as such in Ackery, *et al.*, 1995. Treated as a synonym of *Orachrysops lacrimosa* by Henning and Henning, 1994 (*In*: Pringle, *et al.*, 1994 (*Pennington's Butterflies of Southern Africa*, 2nd Edition))].

Orachrysops mijburghi Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 267 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Orachrysops montana Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 268 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Orachrysops nasuta nasuta Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 269 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Orachrysops nasuta rema Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 270 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Orachrysops regalis Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 265 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Orachrysops subrava Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 264 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Orachrysops violescens Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 266 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Orachrysops warreni Henning and Henning, 1994 [*In* Pringle, *et al.*, 1994: 271 (*Pennington's Butterflies of Southern Africa*, 2nd Edition)]

Genus *Oboronia* Karsch, 1893

= *Athysanota* Karsch, 1895 [*See* Sourakov-A, and Emmel-TC 1997. *Tropical Lepidoptera* 8(Supplement 3):31]

Oboronia ornata ornata (Mabille, 1890) [Given as *Athysanota ornata ornata* in Ackery, et al., 1995]

Oboronia ornata flava Holland, 1920 [As *Athysanota ornata flava* in Ackery, et al., 1995]

Oboronia ornata vestalis (Aurivillius, 1895) [As *Athysanota ornata vestalis* in Ackery, et al., 1995]

Genus *Chilades* Moore, [1881]

= *Freyeria* Courvoisier, 1920 [See Hesselbarth, et al., 1995 (*Tagfalter der Türkei unter Berücksichtigung der angrenzenden Länder*, Band 3), and Balint and Johnson, 1997 (*Neue Entomologische Nachrichten* 40:8)]

Chilades minuscula (Aurivillius, 1909) [New combination, Hesselbarth, et al., 1995 (*Tagfalter der Türkei unter Berücksichtigung der angrenzenden Länder*, Band 3); as *Freyeria minuscula* in Ackery, et al., 1995]

Chilades trochylus (Freyer, 1843) [New combination, Hesselbarth, et al., 1995 (*Tagfalter der Türkei unter Berücksichtigung der angrenzenden Länder*, Band 3); as *Freyeria trochylus* in Ackery, et al., 1995]

Genus *Polyommatus*

Subgenus *Albulina* Tutt, 1909 [Given as *Plebejidea* Koçak in Ackery, et al. 1995: 672 but treated as a subgenus of *Polyommatus* by Koçak and Seven, 1998 (*Centre for Entomological Studies Miscellaneous Papers* 49: 4)]

= *Plebejidea* Koçak, 1983 [See Balint, Z., and Johnson, K. 1997. *Neue Entomologische Nachrichten* 40:7]

Polyommatus (Albulina) loewii uranicolus (Walker, 1870) [Given as *Plebejidea loewii uranicola* in Ackery, et al., 1995: 672]

Polyommatus (Albulina) pylaon philbyi (Graves, 1925) [Given as *Plebejidea pylaon philbyi* in Ackery, et al., 1995: 672]

**CAPE TOWN 1999 : LEPIDOPTERA:
Ambassadors of Biodiversity
The journey so far**

By Jenny Heath

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It is the beginning of June now and just over half way towards the big event of the year in Cape Town. When first embarking on this, we had a small brainstorming session with a few members, namely, Hamish Robertson, Jonathan Ball & John White. John is well known for organising his Vintage Car Rallies, and Hamish [of the S.A.Museum], who seemed to be pretty burnt-out, having just finished organising an Entomological Congress. Both felt that it normally takes at least two full years to get something of this magnitude off the ground; regrettably, neither were available to assist further in the organisation.

Notwithstanding this bit of advice and armed with a draft Conference proposal, I proceeded to the 1998 Lep. Soc. AGM, where I was asked to present to the Lep. Soc. EXCO a few scenarios of what, where, and how to proceed. Well, with the limited time available, we had fun considering the various options. What quickly emerged was Steve Collins' vision and global thrust for a top of the range, international event. At that stage we had not a brass farthing or a budget, but instead of limiting our thinking, and with Steve's enthusiasm, he confidently steered us towards choosing the Old Mutual Conference & Exhibition Centre at Kirstenbosch. This is certainly not cheap. It is the world renowned venue at which the recent, Gore - Mbeki Bi-National Commission was held. Vice President Al Gore was so impressed, that he described it [Kirstenbosch] as "the most beautiful garden in the world". To quote Steve, " Don't let money limit us, in other words, don't let the tail wag the dog. Let's think big". And so we did.

From then on we got onto the proverbial 'roller-coaster'. Our initial big push was to get the organising 'up and running' before the end of year, so that academics from international institutions would have sufficient time to budget and access funds if they wished to attend. We all know how slowly these big bureaucracies work. Thank heavens for the wonderful invention of the e-mail and Internet. Before Christmas, with thanks to Hamish [S.A.Museum], Martin Krüger [Transvaal Museum] and Anton Marais of our Western Cape Branch, we were proudly able to announce that we are now.... "On the Internet". So we entered the cyberspace world. We are indebted to the Royal Entomological Society, U.K. for getting the word out before the end of December. Also a big thanks goes to Dr.Jackie Miller of the [American] Lepidopterists' Society who got us onto several U.S.A networks and Elleunorah Marais of the Entomological Society of Africa on Rostrum. Today we are reaping the results.

In December we had two super Christmas gifts. This being two of our first 'big' names to confirm. This was Prof. Naomi Pierce of Harvard, U.S.A, who wrote she "was definitely coming, possibly with two or three Post-Grad Students." Also shortly thereafter, Dr. Tim New, famous for his work on Butterfly Conservation, currently 'down under' in Australia, expressed his desire to attend. And so the ball got rolling. At present we have 38 speakers from 13 different countries, representing 4 continents world-wide. The line-up of international experts is most encouraging. It reads like a 'Who's Who' of the lepidopterist - naturalists' world.

We are thrilled to tell you that Prof. Phil DeVries has agreed to be our Keynote speaker. He has a delightful sense of humour and this will help make the proceedings fun. He will be accompanied by his petite wife, Dr. Carla Penz, who is also from Oregon University, U.S.A. His subject is quite topical for us in the Western Cape on "Ecology & Evolution of butterfly-ant symbioses: Lessons from the Neotropics". Apparently, amongst other things, we will be able to hear how caterpillars and ants communicate with each other. So be prepared to learn yet another 'indigenous' language.

Another big plus was the early support we got from the National Botanical Institute. We are delighted to have the support of top botanists such as Prof. Brian Huntley [Kirstenbosch], Prof. Gideon Smith [NBI Pretoria], and Prof. Roy Lubke [Rhodes]. A very big thanks goes to Reinier Terblanche of Potchefstroom University, North-West Province, for his enthusiasm, support and excellent networking. Reinier has been a Star!

We have also got excellent support from within our own membership. Names such as Prof. Mark Williams, Dr. Martin Krüger, Prof. Mike Samways, Dr. Bennie Coetzer, Dr. Jonathan Ball, Dr. Henk Geertsema are just a few who have offered to contribute. The names are still 'rolling-in' and the final programme looks as if it will be interesting, really diverse and stimulating. It certainly seems we are reaching our target group of a wide range of naturalists, people who will be able to participate in a forum where observation, experience and know-how can be shared in order to broaden utilisation of resources.

As in the past we will have our highly successful slide [35mm] competition for participants. We will be using three categories, namely: illustrative, scientific and general. Each participant is encouraged to focus on illustrating the interface between Lepidoptera, foodplant or nectar supply and any other relevant biotic characteristics. Details are available on enrolment.

We will scatter the sessions over the three days. As in the past we will use our highly successful formula of peer-review. But this year at the final formal closing we will also have the additional advantage of 'professional input' when choosing the final winners. Professional photographers from Audio-lens / Fuji have expressed interest in coming on board but this is still in the pipe-line. Naturally it goes without saying that Steve Woodall and John Joannou will play a vital role in helping to make this happen. We are also drawing on their vast library of excellent slides to assist with other different initiatives. Hopefully we

can 'persuade' Audio-lens to contribute a few prizes. That will be a real incentive to the photography buffs!

This international conference is being organised by ABRI [African Butterfly Research Institute- Kenya] and the Lepidopterists' Society of Africa, which as you all know, are private, non-profit making organisations and have limited funds. We have fortunately been able to host this event with the generous assistance of a few members who have dug deeply into their pockets. For their generosity we are most grateful. Most of the Speakers have offered to come to South Africa and present their papers at no charge. In addition, airfares and other costs are being personally carried. We are overwhelmed by their generosity towards our cause. As a gesture of our thanks the Lepidopterists' Society of Africa has exempted ALL Speakers from paying registration fees [Overseas / RSA]. We are however currently looking for major corporate sponsorship, and would be most grateful if any member / delegate could assist with sponsorship, donations or prizes. Steve Collins and Alf Curle provided us with the initial 'working capital'. Fortunately we are now starting to see a positive cash flow as the Speakers / Delegates are returning their Enrolment Forms & Fees. Our first 'money in the bank' came from a very keen, retired, Swedish Amateur Lepidopterist / Botanist, who has had a passion to come to South Africa for some time. He is looking forward to meeting others with similar interests.

Enrolments are due on or before 1 August 1999. [Late enrolments - after 1 September will need to pay an extra R 100-00.] This is because we need to have the capital well in advance in order to pay the many subcontractors. As you all know November is peak tourist time in the Cape, especially at Kirstenbosch. Visitor statistics show an average of 90 000 passing through the Visitors Centre at this time.

Although we still do not have any significant cash donations from corporate sponsors, we certainly do have a great deal of goodwill. Fedsure has donated 12 signed prints, commissioned by Dianne Carmichael for the 1998 calendar. These are stunning! They have offered to print posters for advertising later on in the campaign. We were very hopeful that Old Mutual would become our 'major' sponsor, but that was not to be. They have, however offered to supply us with folders, name tags, pens etc. In addition we will be able to advertise in their 'Light Years' magazine at no cost. Alf Curle from Design Pac has offered to organise conference T-Shirts, with our 'cape town 1999' logo on it. Steve Collins is busy organising other promotional material. And so it goes. Little by little we are getting there.

When talking about sponsorship we must mention what a terrific support the whole staff of Kirstenbosch have been. I must especially name Prof. Huntley, Chief Executive and Cheryl Gibson, the Manager of the Visitors' Centre. As a sign of their support they have dedicated the whole of November towards an open exhibition of quality works on butterflies and moths by reputable artists & photographers. **If any members have work which they would like to submit, please send your portfolio, in A4 Format and a brief**

biographical description by 1 August 1999. This will then be submitted to the Kirstenbosch Art & Sculptor Committee, where they will select the final works for the exhibition. As I have mentioned we do not have corporate sponsorship, so if you do send a portfolio, could you also include a stamp-addressed envelope in order for us to return your work in due course.

Once the possibility of an Art Exhibition arose, Steve Collins submitted examples of the work of Andrew Kamiti from Kenya. He has been working with him at ABRI. Andrew was born in Nairobi in 1970. He is a self-trained African wildlife artist, yet he has developed an amazing feel for expressing the lesser known African invertebrate kingdom. His work, which will be on display in November, is inspirational and we believe he is one of Africa's rising stars.

As you know we are working hard at raising funds and have explored many different avenues. With the work of Andrew in mind, Steve suggested we organise a 'competition' to involve scholars; the aim was to reward the 'winners' with appropriate prizes. At this time I approached the Principals of two Art Centres, linked to the Cape Education Department: namely the Frank Joubert Art & Design Centre and Battswood Art Centre. They were over-the-moon with enthusiasm. One thing led to another and finally, with the blessing from Kirstenbosch's Art & Sculptor Committee, permission was granted. This will result in a Multimedia Art & Design Exhibition running concurrently with our conference. Exhibit spaces will be outside of the Conference Centre in the foyer, on the outside Piazza, on the Sculptor terrace and in the Glass-Conservatory. What this all amounts to, will be a fantastic, three-dimensional 'visual happening'. A sure crowd pleaser! Naturally this creates an enormous wave of enthusiasm and publicity, as everyone wants to get involved with the 'Festival of the Butterfly'. I have been overwhelmed and encouraged by the support received.

Throughout November, the Goldfields Educational Centre, Kirstenbosch, in liaison with Butterfly World, Klapmuts, will incorporate aspects of butterflies and moths into the curriculum of all their youth programmes, so further preparing learners for the holistic approach of 'Curriculum 2005'. Butterfly World will also be running 'specials' such as a colour-in competition, through bodies like the Cape Argus Jellybean Journal and the Bonus Burger. All in all, the level of awareness of butterflies, moths, plants and so on, will be considerably raised.

In addition, in November we will formally be recognising the contribution of those enlightened key players in the very successful Brenton Blue Campaign. This was a watershed achievement for endangered wildlife, especially of the formerly scant publicised insect kingdom of Africa. This was a test case for our new constitution. As you know this initiative was spearheaded by our Society in 1995. Ernest Pringle and Dave Edge are busy with this matter. We will be inviting Minister Pallo Jordan [formerly] of the Department of Environmental Affairs and Tourism; Dr. John Ledger and Conrad Steenkamp of the Endangered Wildlife Trust; The CEO of Gilbey's - South Africa [J&B], as

well as others within our society, such as Jonathan Ball, Mark Williams, Stephen & Graham Henning to name just a few role players. As we look back over the last 5 years, it is important that we acknowledge our progress and raise the profile of our collective successes!

It is worthy of mention that on Saturday afternoon, after the formal part of the conference is over, we will be hosting a Slide Presentation and Public Lecture on the Introduction to Butterflies with special reference to Kirstenbosch and the inter-relationship of plants and other insects. This will include a guided tour of the garden. It will be possible to buy plants from the Botanical Society's Garden Shop, Butterfly World and other local nurseries, so that one may encourage butterflies into the garden. This will have a wide appeal amongst Cape gardeners! With a little know-how everyone can enjoy the beauty of our natural heritage.

This will also afford us an ideal opportunity to recruit new members into the society. A follow up programme is envisaged of, say, monthly sessions, in order to assist new members to broaden their interests and gain a focus i.e. gardening, photography, walks in the montane fynbos and so on.

Six months ago I was entrusted with the role of Conference Organiser. At that time the decision was ".....to keep the core committee small, but to consult widely." I was in the fortunate position to be able to volunteer myself full-time towards this objective. I have been supported one hundred percent in this task by Steve C., Jonathan B., Alan H., Alf C., and Hermann S. Not to mention all the other folks who are working quietly in the background on numerous aspects. I want to thank all those who have come forward and offered their help. I am aware that many people have very busy work schedules and are not in a position to assist as much as they would like, but I do appreciate any contribution, however small. As we go into the next phase the amount of tasks will escalate and I am confident that I will get even more participation.

I hope that I have been able to 'whet the appetite' of our membership by sharing the exciting developments so far and the amount of enthusiasm I have received along the way. I am appealing to all members to give our list of world renowned Speakers, who have shown such faith in our cause, our full support. I am sure this will be the 'event' of the century. Well worth raiding your piggy-bank! Hope to see you there!

THE LIPTENIDS OF THE BANCO FOREST : A CASE STUDY IN CONSERVATION

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Abstract The Banco Forest is a protected mature secondary forest on the outskirts of Abidjan, in Côte d'Ivoire. Other forest relics remain, but have not received the same attention in terms of conservation. A comparison is made of the liptenids now occurring in Banco and the nearby forest area of Adiopoudoumé in relation to records from the 1960s. The result suggests that butterflies can survive well in a relatively small area of forest but that conservation is essential.

Introduction

I arrived in Côte d'Ivoire eighteen months ago, fondly imagining that the southern half of the country was covered with dense forest. That is what the map said. Fat chance. The tree-fellers have been at work here, as everywhere else. Only an estimated 10% of the original West African tropical forest belt remains. The attrition rate in Côte d'Ivoire has been particularly severe.

But right on the outskirts of Abidjan is the Banco Forest - a monument to foresight and intelligent conservation.

Protection of the area dates back to the 1920s with full National Park status since 1953. It now covers 3,200 hectares, including the source and upper reaches of the Banco River. It has had its fair share of problems. Poaching wiped out most of the larger animals, including the elephant once found there. And it became the hide-out of armed gangs and not a healthy place to visit.

But the situation has radically improved in recent years. Poaching has diminished, some of the illicit settlers have been evicted, paths and walkways have been re-opened and it is again pleasant and safe to visit. Monkey colonies are on the increase and, if you are lucky, chimpanzees can again be seen. With the help of the local Rotary Club, an arboretum with 750 species has been cleaned up and the trees identified and labelled.

Down the road is Adiopoudoumé - another forest relic no more than 10 miles away as the crow flies. It was doubtless historically connected to Banco. Even in the 1960s, the butterfly fauna was less rich than Banco. The forest had suffered more severe damage over the years. But for many years it housed the French ORSTOM research station and was protected from further depredation. Now the researchers are gone, and it is free-for-all.

I have spent many happy hours in both places, researching the butterfly fauna.

I am not the first. Côte d'Ivoire has been relatively well studied by West African standards. In the 1960s, Henri Stempffer and T.H.E.(Pinkie) Jackson both looked at the fauna in some depth - Jackson through the intermediary of his collector, Watulege. Others since include Roger Vuattoux, and more recently the Plowes family, and the survey conducted by Larsen & Dall'Asta of the butterflies of the Bossématie Forest (1994).

But there is always more to learn. I have been particularly interested since my arrival here at the end of 1997 by the impact of conservation, and the ability of butterflies to survive in a rapidly degrading environment.

Stempffer produced lists in the 1960s of the Lycaenidae in both Banco and Adiopoudoumé. Within the Lycaenidae, the Lipteninae, with their retiring habits and their tendency to stay close to their foodplants, looked like being useful indicators. So for comparative purposes, I have concentrated on them.

Results

The results, in terms of species caught, looks like this:

Banco		Adiopoudoumé	
1960s	Now	1960s	Now
38	54	22	12

To put these in perspective, set them alongside total comparative figures for Côte d'Ivoire of 95 species of liptenid recorded from Côte d'Ivoire in the 1960s as against 86 that I have found so far, country-wide. A full table follows.

Tribe Pentilini

	RCI 1998	RCI 1960s	Banco 1998	Banco 1960s	A'doumé 1998	A'doumé 1960s
<i>PTELINA</i> Clench, 1965						
<i>P.carnuta</i> Hewitson, 1873	x	x		x		
<i>PENTILA</i> Westwood, 1852						
<i>P.pauli pauli</i> Staudinger, 1888	x	x				
<i>P.petreia</i> Hewitson, 1874	x	x	x	x	x	x
<i>P.petreoides</i> B.-Baker, 1915	x					
<i>P.condamini</i> Stempffer, 1963	x	x				
<i>P.preussi</i> Staudinger, 1888	x	x				
<i>P.picena picena</i> Hewitson, 1874	x	x	x	x		
<i>P.abraxas abraxas</i> Hewitson, 1852	x	x				
<i>P.phidia</i> Hewitson, 1874	x	x				

<i>P.h. hewitsoni</i> G.-S. & K,1887	x	x				
<i>TELIPNA</i> Aurivillius,1895						
<i>T.acraea acraea</i> Hewitson,1851	x	x		x		
<i>T.semirufa</i> G-S & K,1889	x	x	x			
<i>T.rothi</i> Grose-Smith,1898		x				
<i>ORNIPHOLIDOTOS</i> Bethune-Baker,1914						
<i>O.kirbyi</i> Aurivillius,1895		x				
<i>O.nigeriae</i> Stempffer,1964	x	x				
<i>O.issia</i> Stempffer,1969		x				
<i>O.tiassale</i> Stempffer,1969		x				
<i>O.larseni</i> Stempffer,1969	x	x				
<i>O.perfragilis</i> Holland,1890	x					
Tribe Liptenini						
<i>MIMACRAEA</i> Butler,1872						
<i>M.n. neurata</i> Holland,1895	x	x	x			
<i>M.d.darwinia</i> Butler,1872	x	x		x		
<i>MIMERESIA</i> Stempffer,1961						
<i>M.libentina</i> Hew.1866	x	x	x	x		x
<i>M.debora catori</i> Bethune-Baker,1904	x	x	x			
<i>M.semirufa</i> Grose-Smith,1902	x	x				
<i>M.cellularis</i> Kirby,1890		x		x		
<i>M.issia</i> Stempffer,1969	x	x	x			
<i>M.moyambina</i> Bethune-Baker,1904	x	x				
<i>PSEUDERESIA</i> Butler,1874						
<i>P.eleaza eleaza</i> Hewitson,1873	x	x	x	x	x	x
<i>P.nigra</i> Cator,1904	x		x			
<i>ERESIMERA</i> Clench,1965						
<i>E.bicolor</i> G-S & K,1887	x	x	x	x	x	x
<i>E.isca occidentalis</i> Coll.& Lars.1998	x	x	x	x		x
<i>E.jacksoni</i> Stempffer,1969		x				
<i>E.petersi</i> St. & Bennett,1956	x	x	x			
<i>CITRINOPHILA</i> Kirby,1887						
<i>C.marginalis</i> Kirby,1887	x	x	x	x	x	x
<i>C.similis</i> Kirby,1887	x	x	x	x	x	x
<i>C.erastus erastus</i> Hewitson,1866	x	x				x
<i>ERESINA</i> Aurivillius,1898						
<i>E.maesseni</i> Stempffer,1956	x					
<i>E.fontainei</i> Stempffer,1956		x				
<i>E.fusca</i> Cator,1904	x	x	x	x	x	
<i>E.pseudofusca</i> Stempffer,1961	x		x		x	
<i>E.saundersi</i> Stempffer,1956	x	x	x			x
<i>E.rougeoti</i> Stempffer,1956		x				
<i>E.theodori</i> Stempffer,1956	x	x	x		x	
<i>ARGYROCHEILA</i> Staudinger,1892						

<i>A.u.undifera</i> Staudinger, 1892	x	x		x		
<i>LIPTENA</i> Westwood, 1851						
<i>L.titei</i> Stempf., Bennett & May, 1974		x				
<i>L.griveaudi</i> Stempffer, 1969	x	x		x		x
<i>L.submacula tringa</i> S,B & M, 1974	x					
<i>L.submacula liberiana</i> S,B & M, 1974	x	x	x	x		
<i>L.simplicia</i> Moschler, 1888	x	x	x	x		x
<i>L.augusta</i> Suffert, 1904		x				
<i>L.tiassale</i> Stempffer, 1969		x				
<i>L.albicans</i> Cator, 1904	x	x	x	x		
<i>L.alluaud</i> Mabilie, 1890	x	x		x		
<i>L.ferrymani bigoti</i> Stempffer, 1964	x	x				
<i>L.septistrigata</i> Bethune-Baker, 1903	x	x	x			x
<i>L.evanescens</i> Kirby, 1887		x				
<i>L.xanthostola coomassiensis</i> H-Smith, 1933	x	x				
<i>L.rochei</i> Stempffer, 1951	x	x				
<i>L.flavicans oniens</i> Talbot, 1935	x	x	x	x		x
<i>L.similis</i> Kirby, 1890	x	x				x
<i>L.helena</i> Druce, 1888		x				
<i>L.catalina</i> G-S & Kirby, 1890	x	x		x		
<i>KAKUMIA</i> Collins & Larsen, 1998						
<i>K.otlauga</i> G-S & Kirby, 1890	x	x	x	x		
<i>TETRAHANIS</i> Karsch, 1893						
<i>T.symphlocus</i> Clench, 1965	x	x	x	x	x	x
<i>T.diversa diversa</i> B-Baker	x					
<i>T.baralingam</i> Larsen, 1998	x					
<i>FALCUNA</i> Stempffer & B, 1963						
<i>F.leonensis</i> S & B, 1963	x	x	x	x		x
<i>F.campimus</i> Holland, 1890	x	x	x	x		x
<i>LARINOPODA</i> Butler, 1871						
<i>L.eurema</i> Plötz, 1880	x	x	x	x	x	x
<i>MICROPENTILA</i> Aurivillius, 1895						
<i>M.adelgitha</i> Hewitson, 1874	x	x	x	x		
<i>M.dorothea</i> Bethune-Baker	x	x		x		
<i>M.b.brunnea</i> Kirby, 1887	x	x		x		
<i>M.mabangi</i> B-Baker, 1904	x	x		x		
Tribe Epitolini						
<i>IRIDANA</i> Aurivillius, 1920						
<i>I.incredibilis</i> Staudinger, 1891	x	x	x			
<i>I.rougeoti</i> Stempffer, 1964		x				
<i>I.nigeriana</i> Stempffer, 1964		x				
<i>TERATONEURA</i> Dudgeon, 1909						
<i>T.i.isabellae</i> Dudgeon, 1909						

<i>EPITOLA</i> Westwood, 1851						
<i>E.m.miranda</i> Staudinger, 1890	x		x			
<i>E.posthumus</i> Fabricius, 1793	x	x	x			
<i>E.urania urania</i> Kirby, 1887	x	x				
<i>E.crowleyi crowleyi</i> Sharpe, 1890	x	x	x	x		
<i>E.ceraunia</i> Hewitson, 1879		x		x		x
<i>E.c. cephena</i> Hewitson, 1873		x				
<i>E.pinodes</i> Druce, 1890	x		x			
<i>E.vinalli</i> Talbot, 1935						
<i>E.nigra</i> Bethune-Baker, 1903		x				
<i>E.ivoirensis</i> Jackson, 1967		x				
<i>E.obscura</i> Hawker-Smith, 1926	x	x	x	x		
<i>E.sublustris</i> B-Baker, 1904						
<i>E.asibeyi</i> Collins & Larsen, mss	x		x			
<i>E.kholifa</i> B-Baker, 1904	x	x				
<i>E.leonina</i> Staudinger, 1898	x	x	x			
<i>E.moyambina</i> B-Baker, 1903	x	x	x			
<i>E.baoule</i> Libert, 1999	x					
<i>E.dorothea</i> B-Baker, 1904	x	x	x	x		
<i>E.m.michelae</i> Libert, 1999	x	x	x		x	
<i>E.staudingeri</i> Kirby, 1890	x	x	x	x		
<i>E.gerina</i> Hewitson, 1878	x	x				
<i>E.albomaculata</i> B-Baker, 1903	x	x	x			
<i>E.virginea</i> B-Baker, 1904		x				
<i>NEAVEIA</i> Druce, 1910						
<i>N.lamborni</i> Druce, 1910	x	x	x			
<i>EPITOLINA</i> Aurivillius, 1895						
<i>E.dispar</i> Kirby, 1887	x	x	x	x	x	x
<i>E.melissa</i> Druce, 1898	x		x			
<i>E.catori catori</i> B-Baker, 1904	x	x				
<i>E.cf. catori</i>	x		x			
<i>PHYTALA</i> Westwood, 1851						
<i>P.elais catori</i> B-Baker, 1903		x		x		
<i>HYPOPHYTALA</i> Clench, 1965						
<i>H.hyettoides</i> Aur. 1895	x	x				
<i>H.hyetina</i> Aur. 1897	x	x	x	x		
<i>H.henleyi</i> Kirby, 1890	x	x				x
<i>H.benitensis</i> Holland, 1890		x				
<i>AETHIOPANA</i> Bethune-Baker, 1915						
<i>A.honorius divisa</i> Butler, 1901	x					
<i>HEWITSONIA</i> Kirby, 1871						
<i>H.b.boisduvali</i> Hew. 1869	x	x	x	x	x	x
<i>H.occidentalis</i> Bouyer, 1997	x		x			
<i>H.danane</i> Stempf. 1969		x				
<i>H.inexpectata</i> Bouyer, 1997	x	x	x			
TOTAL	88	97	52	39	12	22

Discussion

The first thing these figures tell you is that my collecting has been geographically uneven. The second is that there are surely more species to be found in Banco. And the third is that I have spent much more time in Banco than in Adiopoudoumé.

As a serious statistical analysis, therefore, health warnings are in order. But trends are clear. Adiopoudoumé is going downhill. Pockets of very localised material remain e.g. the surprising presence of three *Eresina* species. But otherwise common liptenids are absent. The absence of protection is taking its toll.

Banco is, by contrast, in relatively good shape. There is no special significance in my list being more extensive than Stempffer's. I have found an 'Epitola tree', and a good dozen of the species have been taken there, and only there. It is therefore legitimate to conclude that conservation has had an important and beneficial effect in the case of Banco. Old hands tell me that it is not what it was, and that ambient pollution has reduced population levels. Some nocturnal insects may have disappeared altogether. But for me the important point of reference is not some past ideal, but the prospect of what would have happened if conservation measures had not been in place. The stark contrast between the edges of the forest, and the shanty towns across the street, with not a tree left standing, says it all.

A broader but significant conclusion, based on what I have turned up in Banco over the past year, is that butterflies are surprisingly well able to survive in isolated and relatively small forest relicts, provide that the latter are well looked after. Given its size and isolation, Banco has an amazingly rich butterfly fauna: at least 500 species and possibly more.

During work on his book *Butterflies of West Africa - origins, natural history, diversity and conservation*, Torben Larsen (pers. comment) has found that nearly 95% of all butterflies ever recorded from West Africa have been recaptured during the 1990s. Most of these have been found within the fragile network of National Parks, emphasising their role in conserving biodiversity. All the more reason, I believe, to develop a full inventory of Banco butterflies as a benchmark for long-term monitoring.

Acknowledgements

I would like to express my grateful thanks to the Ivorian authorities for issuing me with the necessary research permit to carry out this study, and to Dr Torben Larsen for his advice on the manuscript.

BIONOMICS OF AFRICAN KITE SWALLOWTAILS, WITH A REQUEST FOR INFORMATION

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While preparing a detailed taxonomic overview of the Afrotropical species of the genus *Graphium* (Smith & Vane-Wright, in prep.), we have become acutely aware of a dearth of information about the biology of most species. In the hope that readers of *Metamorphosis* may have personal knowledge that could help us, or are aware of descriptions and other information in the literature that we have evidently overlooked, we present here a brief overview of the bionomics of the African kite-swallowtails.

Kite swallowtails occur throughout most of Africa and Madagascar, affecting a wide range of habitats from dry scrub to dense forest. Only true deserts (e.g. Namib, Sahara) and the highest mountain peaks seem completely devoid of these butterflies. However, few species are found throughout this entire range, most specialising either in open savannah to woodland habitats, or in heavy woodlands to dense forests.

Probably without exception, the adult males of all Afrotropical kite swallowtails are attracted to water, mud or damp sand, where they "mud-puddle", occasionally in huge numbers and often in company with a variety of other butterflies. Both sexes are attracted to flowering trees and bushes (more occasionally low-growing herbs), hovering with rapid wing beats in front of the flowers and not settling, in typical "swallowtail" fashion, with only the tips of their legs in contact with the plant. Indeed, *Graphium* are generally restless creatures, quartering the ground in weaving or zigzag patterns, often at great speed (Schultze considered *G. tynderaeus* to be the fastest-flying papilionid in Africa). Exceptions to this general rule occur among the more clearly mimetic species (such as *G. leonidas*), at least when not disturbed and affecting the same micro-habitats as their presumed models (some of these *Graphium* may prove to be chemically defended in their own right). The smaller forest swordtails have a more fluttering flight. However, with the exception of certain species, such as *G. leonidas*, females are not often encountered, and for several species the female sex remains unknown. This may be explicable partly by hostplants (mainly larger trees of the Annonaceae), the females perhaps being literally inaccessible most of the time, searching for oviposition sites and feeding from flowers in the canopy. Although females, at least of some species, do come to water, it is only the males that do this avidly, thereby making themselves far more available to the collector than the apparently secretive females.

In addition to the Annonaceae, there are records of Malpighiaceae and Apocynaceae as hostplants, this last group being of particular interest in the context of mimicry. Frustratingly, however, we know least about the main group of presumed or potential mimics, a complex of rare and poorly known species from the Central and West African forests. However, the most striking mimetic African kite swallowtail of all is the Red *Graphium*, *G. ridleyanus*, a species highly divergent in wing shape, pattern and coloration, but otherwise a typical member of the 'white lady' group of species (of which the very widespread *G. angolanus* is the most common and well known). *G. ridleyanus* is recorded as an Annonaceae feeder, perhaps suggestive that both main 'life ways' to employ mimicry in butterflies (Batesian and Müllerian) may have evolved in this one group.

Details of mating behaviour and communication among these butterflies are virtually unknown. Torben Larsen has noted males of *G. leonidas* to be territorial, perhaps suggestive of a shift in mate-locating strategy from patrolling concomitant with adoption of a mimetic, and thus more habitat-specific lifestyle—but this is just speculation. With respect to communication, like so many papilionid species, the males have well-developed androconial systems on the hindwing anal margin, including the more or less spectacular erectile hairpencils or fans, but the manner and mode of their use is unknown. As with so many butterflies, we do not even know if they can differentiate among themselves between the more or less different colour patterns exhibited within the group. Their generally rapid and erratic flight and almost certain lack of suitability for captive study means that our understanding of these aspects of their behaviour is likely to be limited for a long time to come.

Variation among Afrotropical *Graphium*, although not spectacular compared to some of the true swallowtails, is quite challenging to understand. Sexual dimorphism is slight, so much so that sexing some species is not always immediately obvious. Polymorphism is also not prevalent, but *G. leonidas* offers an example, albeit apparently somewhat complex (*G. ridleyanus* may be another case). The basic dimorphism in *leonidas*, affecting both sexes (unimodal polymorphism) relates to alternative models: throughout most of Africa *leonidas* is a more or less good mimic of the 'blue-tiger' patterned African *Tirumala petiverana*, but in the extreme south this model is not available, and *leonidas* apparently switches its mimetic pattern to match the darker 'friars', notably *Amauris echeria*. In a wide transition zone both models are mimicked, to give a region where the butterfly is polymorphic. This seems to be further complicated by some degree of geographic variation, notably on Pemba and Zanzibar, where various subspecies have been recognised. There may also be some seasonal variation involved.

The degree to which African *Graphium* show seasonal variation is uncertain, although various lepidopterists have invoked polyphenism to explain certain more or less subtle variations. In some cases (such as *G.*

schaffgotschi) uncertainty exists as to whether or not a particular pattern represents seasonal or geographical variation within a single species, or the

overlap of closely related but nonetheless distinct, co-existing species. The development of individual butterflies under differing environmental conditions is widely understood to have the capacity to affect the adult phenotype. If this happens in a group that naturally occurs in a wide range of habitats, and in which the adults live a long time (which seems likely for *Graphium*) during which they undergo wide individual dispersal and/or more co-ordinated migrations (both apparently the case in *Graphium*), comprehending the end-result in terms of local, "seasonal" or even wider patterns of geographical variation may be very difficult, certainly if we are limited simply to the examination of preserved specimens.

Knowledge of the early stages is poor, although some of the more common species have been reared on a number of occasions. Good quality drawings or photographs of eggs, larvae and pupae are rare, while the written descriptions are prepared to different standards and are mainly superficial in the characters they describe. Differences between descriptions of the same species from different areas may be due to faulty description, misidentification, or unknown geographical variation. To take our understanding of the early stages forward, and get some really comparative data for use in phylogenetic work or even to make reliable identification keys, well-preserved specimens (see Carter *et al.*, 1997, *Metamorphosis* 8: 99–106) and better photographs of all stages of even the most common species would be of great value.

In conclusion, we only have reasonable information on the bionomics and life histories for half a dozen of the African kite swallowtails (*G. antheus*, *G. porthaon*, *G. angolanus*, *G. morania*, *G. ridleyanus*, *G. leonidas*), and even for these we really need better data and well preserved early stages. Of the other 32 species we currently recognise, practically no first hand field observations exist, with scraps of information about the life histories of just a few of them. We really would appreciate any help that readers may be able to offer.

A NOTE ON THE RED LISTED *METISELLA MENINX* SKIPPER (LEPIDOPTERA: HESPERIIDAE)

By James M. Lawrence, Paul D. Lawrence and David R. Lawrence

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Abstract: Four new colonies of the rare skipper *Metisella meninx* (Trimen, 1873) found in the eastern part of the Witwatersrand, Gauteng, South Africa, are reported.

Introduction

The genus *Metisella* Hemming, 1934 comprises 22 species (Larsen, 1996), of which six are found in southern Africa (Vári and Kroon, 1986; Pringle, *et al.*, 1994; Henning, *et al.*, 1997). Of these six southern African species, both *M. meninx* (Trimen) and *M. syrinx* (Trimen) are red listed (Henning and Henning, 1989). The former species requires special attention as the destruction of its marshland habitat (Swanepoel, 1953), especially around the Witwatersrand, South Africa, has resulted in the loss of several colonies (Henning and Henning, 1992). Also, this species is probably endemic to South Africa, although an unconfirmed record from Angola exists (Evans, 1937).

Results

Extensive collecting on the East Rand (the eastern region of the Witwatersrand) by the authors has resulted in the finding of four new colonies of *M. meninx*. The colonies were discovered between February 1999 and March 1999 in the Boksburg and Benoni areas, East Rand, South Africa. The colonies are situated in marshland areas, at the following co-ordinates:

colony 1 – (26°08'48" S and 28°17'28" E, 1653 m a.s.l.);

colony 2 – (26°08'12" S and 28°17'08" E, 1653 m a.s.l.);

colony 3 – (26°11'22" S and 28°15'24" E, 1652 m a.s.l.),

colony 4 – (26°07'44" S and 28°16'44" E, 1654 m a.s.l.).

The four colonies are all situated in areas of some disturbance, either surrounded by residential or agricultural areas. At colony 2, individuals were commonly seen feeding on the purple flowers of the exotic *Verbena brasiliensis* Vell., with a large number of individuals in the immediate vicinity of the flowers. The species was commonly encountered in each of their colonies, but colony 1 had the fewest individuals. Similar numbers of males and females were seen in each colony. The last individuals were seen on 27 March 1999 at colony 2. Both males and females were occasionally encountered in undisturbed grass areas adjacent to the marshlands.

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OBSERVATIONS ON THE DIURNAL ACTIVITY OF NECTAR-FEEDING BUTTERFLIES ASSOCIATED WITH THE KALAHARI APPLE-LEAF *Lonchocarpus nelsii* (SCHINZ) SCHINZ EX HEERING & GRIMME (PAPILIONOIDEAE) IN MAKGADIKGADI NATIONAL PARK, BOTSWANA

By Susan Leftwich
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Abstract: The diurnal activity of the nectar-feeding butterflies: *Axiocerses tjoane* (Wallengren), *Axiocerses amanga* (Westwood), *Leptotes* sp., *Azanas ubaldus* (Stoll), *Gomalia elma* (Trimen), *Colotis ione* (Godart), and *Belenois* sp. associated with the kalahari apple-leaf *Lonchocarpus nelsii* (Schinz) Schinz ex Heering & Grimme (Papilionoideae) observed in Makgadikgadi National Park, Botswana, is reported on.

Introduction

There are four species of lance-pod tree *Lonchocarpus* Kunth in southern Africa, and their distributions are particularly centred around Zimbabwe. The Kalahari apple-leaf occurs in western Zimbabwe and extends through northern Botswana into northern Namibia (Palgrave, 1991). At the Xhumaga Campsite on the western boundary of Makgadikgadi National Park, scattered stands of this tree are present amongst camel thorn *Acacia erioloba* E. Meyer, in the open dry riverine woodland which separates the Boteti River from the surrounding sandveld grassland. The ground vegetation here is typical of deep sandy soils and is characterised by the grass *Stipagrostis uniplumis* (Roodt, undated). Kalahari apple-leaf, known in Tswana as 'mohata', is a small bushy tree less than 4m in height which becomes covered with branched sprays of lilac-coloured, pea-shaped flowers. Each flower bears yellow pollen and has abundant sweet-tasting nectar.

Only one species of butterfly, the large blue charaxes *Charaxes bohemani* C. & R. Felder (Nymphalidae: Charaxinae), is known to use the Kalahari apple-leaf as a larval foodplant (Pringle et al., 1994). Both this species and the skipper *Coeliades forestan* (Stoll) breed on its close relative, the apple-leaf or rain tree *L.capassa* Rolfe, and all are found in Botswana. There does not appear to be any information, however, relating to butterfly foraging behaviour on this genus of tree.

Materials and methods

In early September 1994 four trees in full flower around the campsite were selected and, over two days, behavioural observations of the associated butterflies were gathered between sunrise and sunset (approximately 0600 - 1830 hours). During these intensely hot days (in excess of 37°C), a total of seven species were observed and these comprised four lycaenids, a hesperiid and two pierids. Butterflies were only observed in flight between 0925 - 1525 hours, but remained active throughout the hottest times of the day. The results for each species, including known autecological information, are presented.

Results

Common scarlet *Axiocerses tjoane* (Wallengren) (Lycaenidae: Theclinae)

Up to four individuals of this species appeared between 1015 -1030 each day, and moved between the flower sprays on each tree. A single specimen was also found roosting on long dead grass beneath a tree at 0700 hours. The common scarlet is a woodland butterfly and it is recorded that they 'often visit sweet-scented flowers and sport among bushes, especially in the afternoons' (Pringle et al., 1994), but this observation was not supported by this survey, perhaps as a consequence of the high temperature. Male common scarlets are also known to be territorial. Williams (1994) describes them 'keeping to a particular spot where they alight frequently on low bushes and on grass, about a metre above the ground', however, no such observations were made at Xhumaga. A further interesting observation of Migdoll (1994) refers to the common scarlet's habit when settled of 'rubbing the hindwings slowly together, the body leaning over to the left and right'. This is thought to be behaviour intended to deceive predators such as birds. Similar to other lycaenids, this movement would tend to attract attacks towards the false 'antennae' along the hindwing margin. This species appears to fly during all the hot months, and in the warmer sub-tropical regions is found throughout the year. Four species of Leguminosae are known to be used as foodplants.

Bush scarlet *Axiocerses amanga* (Westwood) (Lycaenidae: Theclinae)

In excess of five bush scarlets were observed feeding at blossoms at any one time, the species first appearing around 1030 hours and a few individuals were also noted later in the day at 1500 hours. Despite intensive observations around mid-day, no specimens were seen, and an avoidance of either the hottest hours or perhaps this habitat type might be suggested. Pringle et al.(1994) note that the bush scarlet is 'often seen on the tops of hills, but can also be found on adjacent slopes and flats' and that it is a fast flier which 'settles frequently on low shrubs and bushes'. A few individuals were observed perching on foliage at heights in excess of two metres, periodically chasing other individuals and returning to the same tree. This would suggest territoriality and indeed Migdoll (1994) confirms this behaviour and suggests that these are males protecting their immediate airspace from selected vantage points. The

bush scarlet is described as a bushveld species, unlike the common scarlet which also occurs in more open conditions. It has been recorded in flight during every month of the year, and Pringle et al. (1994) have noted that it is more common than the common scarlet in Botswana.

A blue *Leptotes pirithous* (L.) or *L. brevidentatus* (Tite) (Lycaenidae: Polyommatinae)

Only two examples of this butterfly were observed over the two days. Unfortunately, the abdomens became detached from the preserved material, so it was not possible to identify the species. An individual, presumed to have been roosting, was disturbed at 0700 hours from amongst long dead grass, whilst another visited blossoms at 1030 hours. Pringle et al. (1994) note that the common blue *L. pirithous* 'flies weakly and settles frequently on the leaves or flowers of its foodplants' and that it occurs in a variety of habitats, often throughout the year. The short-toothed blue *L. brevidentatus* appears to have similar habits and flight-period to the common blue. The principal larval foodplant of both species is *Plumbago auriculata* Lam. (Plumbaginaceae), while species of Fabaceae and Rosaceae are also recorded for the common blue.

Velvet-spotted blue *Azanus ubaldus* (Stoll) (Lycaenidae: Polyommatinae)

Small numbers of this butterfly were found roosting amongst long dead grass near the Kalahari apple-leaf trees, between 0630 - 0925 hours. Individuals appeared randomly on the blossoms between 1000 - 1200 hours and, similar to the bush scarlets, were then absent until late afternoon when they re-appeared c. 1500 - 1525 hours. The velvet-spotted blues always stayed on the upper half of the tree canopy, where they frequently flew around on short rapid forays. This observation agrees with Pringle et al. (1994), who found its flight to be 'rapid around the tops and sides of flowering acacias'. It is reported to fly during any of the warmer months, and Williams (1994) notes that the males mud-puddle actively. The presence of this butterfly may also be linked to the number of camel thorn trees around the campsite, as acacias (Fabaceae) are the principal foodplant.

Green-marbled skipper *Gomalia elma* (Trimen) (Hesperiidae: Pyrginae)

A single green-marbled skipper (or sandman) was observed at 1530 hours feeding along the side of one tree. This species appears to be relatively common in wooded areas. Pringle et al. (1994) note that they are 'seldom seen on koppies at midday, preferring the lower ground where they frequent open spots or the more exposed parts of woods. Williams (1994) refers to the 'darting, zig-zag flight' of this species 'less than a metre above ground'. The larval foodplants include two species of mallow (Malvaceae).

Bushveld Purple Tip *Colotis ione* (Godart) (Pieridae: Pierinae)

The dry season season form f. *jalone* Butler was in flight at the time of the survey. Singletons of this species appeared early morning on both days between 0925 and 1015 hours respectively, after which it returned at 1525 hours. Despite intensive observations around mid-day, an avoidance of either the hottest hours or perhaps this habitat type might be suggested. The species was observed between 1300 - 1400 hours drinking on wet mud within the nearby drying riverbed. Individuals appeared quickly at the tree, and generally stayed for only a few minutes before moving away. Pringle et al. (1994) describe this species as 'a fast flier which moves rapidly through open bushveld, settling frequently on flowers or on the ground'. The known larval foodplants are bush-cherries *Maerua* spp. Forsk. (Capparaceae), including needle-leaved bush-cherry *M. rosmarinoides* and forest bush-cherry *M. racemulosa*.

An unidentified forest white of the genus *Belenois* Hübner

Rapid flying individuals appeared at blossoms at 1515 and 1525 on one day, but evaded capture. There are a number of forest whites which frequent the central areas of southern Africa, some of which favour woodland while others are found in more open countryside.

Discussion

During the survey period, as well as butterflies, other invertebrates were observed feeding at the flowers, including a wide variety of wasps (particularly solitary and ichneumon), bees, beetles, and hoverflies. As few other trees were in flower here during early September 1994, at times the Kalahari apple-leaf would appear to provide an important seasonal nectar source along the riverine woodland/sandveld interface.

Butterflies are likely to be attracted to the Kalahari apple-leaf from the scent of its abundant nectar supply. It is also possible that colouration might be involved as purple is known to be associated with important butterfly nectar plants, and the striped petals might possess ultra-violet nectar guides as demonstrated by other flowers. Williams (1994) notes that most members of the genus *Colotis* for example, are particularly attracted to purple flowers, so the bushveld purple-tips recorded at the Xhumaga campsite may be frequent nectar-feeders on the Kalahari apple-leaf blossoms.

The preponderance of lycaenids at the blossoms during the survey is thought to be due to the relative species abundance of this family, rather than indicating a particular preference for nectar from this tree. Similarly, as no observations of oviposition or mating behaviour were observed, no foodplant associations are suggested for any of the species recorded.

The diurnal activity of the bush scarlet, velvet-spotted blue and bushveld purple tip may suggest that the period 1230 - 1500, in particular, may be actively avoided, while all seven species would not appear to be active until after c.0900 hours. Whilst the early morning absence might simply be due to low temperatures and the warming up of flight muscles, it might also relate to predator avoidance, as early morning is a time of peak foraging activity for woodland birds. The suggested avoidance of the mid-day period is likely to be accounted for by thermoregulatory requirements, but might also relate to nectar production or availability in the flowers. A build up of winged invertebrate predators might also be implicated, as the Kalahari apple-leaf certainly attracted enormous numbers of predatory wasps, for example. Further research into the foraging dynamics of butterflies associated with this tree is clearly required.

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"BUG MUGGERS AND OTHERS "
THE YEBO GOGGA EXHIBITION. 1999..
Held at the Johannesburg Zoo 1-7 March 1999.

By P. R. Roos

PO Box 38827, Booyens, 2016, South Africa

The planning started with the first co-ordination meeting held at the Johannesburg Zoo Library on the 1st December 1998, and we immediately became involved with a very enthusiastic committee. The committee consisted of representatives of Wits Zoology Department, The Spider Club and of course The Lepidopterists' Society of Africa.

The theme centred around the diversity of the Arthropod Underworld. This would link up with the current craze of insect movies such as "A Bugs Life" etc. Everything went relatively smoothly until 2 weeks before the opening, when final preparations begun. Sponsors were slow to respond and it became evident that funds would be very short for this year's show. We did not have a butterfly cage, but it did not take long to find a company to donate one, but it also had to be designed and manufactured. It was eventually delivered in pieces the Saturday morning before the Exhibition opened. We still had to assemble it, make adjustments and add a final lick of paint on the Sunday. Monday morning it was operational, complete with butterflies.

We wanted the emphasis to be on live specimens for maximum interest, but it was difficult to find suitable livestock. I started breeding *Acraea horta* in the beginning of January so that we could have live larvae and also emerging adults during the first week of March. The pupae were also stored in the fridge until required, and to my surprise this was a success. We also spent a lot of time catching Parktown prawns for a prank that was planned for Jeremy Mansfield as a pre-publicity stunt on the Saturday morning before the Exhibition opened. The Parktown prawns were placed in a Musical Box, and when he turned the handle a few times the Music "Jack in the Box" expelled the Prawns all over the studio.

A week before the Exhibition we were given 13 almost fully matured *G. tyrreha* moth larvae which were ready to pupate, so to slow them down, we split them up and into the refrigerator they went. These were feeding on normal plum tree leaves, so food plant was no problem.

The weekend was spent putting up posters and arranging displays provided by Graham Henning. A lot of time was spent adjusting the décor. By Sunday evening it was ready.

LEPSOCS contribution for "FRAUD" was a display of mimicry in butterflies and another of Atlas Moths arranged by Graham Henning. We put up a static display of *Pieris brassicae* under the banner of "INVADERS". Thanks to André Coetzer for his set specimen of *Pieris brassicae* as we could not obtain any livestock. For "THEFT and ATTACK" there was another static display of the

Death's Head Hawk moth and its intrusion into beehives. We were sorry we could not find any live specimens for this display either.

Under the banner of "SOLITARY CONFINEMENT" we had a couple of live bagworms, with some nests of gregarious moth larvae (species unknown) feeding on *Combretum*. These were kindly donated by John Joannou . For the "WEAPONS" and "POISONERS" we had terrariums with larvae of *G. tyrrhea*, *Argema mimosae*, *B. alcinoe* and various *Papilio* larvae. These were also kindly donated by Pierre Le Roux and transported safely on time by Bennie and André Coetzer from Levubu in the North.

The *Acraea horta* larvae and pupae were displayed under "DEFENSE and SECURITY". There were numerous static displays of posters and laminated Photos of butterflies, larvae and some our latest enlargements of *Chrysoritis aureus*, larvae with the attending cocktail ants, the eggs and the male and female imago. Displays of set specimens displaying Camouflage, Warning Colours and also a Collection of Emperor Moths . Thanks to Nolan Owen-Johnston for the loan of a pair of *G. tyrrhea* moths to complete the collection of Emperor Moths.

Posters promoting LEPSOC, BUTTERFLY WORLD and the BRENTON BLUE TRUST were put up on the INFORMATION DESK. LEPSOC membership applications were also put out for prospective members.

Finally there was the butterfly cage that was stocked continuously with fresh live specimens generously provided by Bennie and André Coetzer, Graham Henning and Keith Roos. Although the exhibition was manned by Wits students during the week, thanks must go to Keith Roos, Nolan Owen-Johnston and my wife Johanna who gave daily food and care to our live specimens. The displayed foodplants were provided by myself and Graham Henning with decorative plants from the Zoo Nursery.

The great Finale was on the Sunday, when the Flea Market took place. Many Thanks to Nolan Owen- Johnston and Graham Henning who manned our LEPSOC stand in the hot sun all day. Nolan made some great sales of Keyrings, Fridge Magnets and specially the "Sticky Insects". Jeremy Mansfield was the greatest crowd puller on Sunday Morning for the "BUG BRUNCH" with his crew of professional chefs preparing the GOGGA CUISINE of insect delicacies which were freely handed out to the visiting public.

The attendance was in excess of 13,000 tickets through the gate and was told that there were 17 school buses in the parking on the Thursday morning alone. One school alone brought 170 pupils for a visit. The Sunday was the greatest attendance with a queue of 70 - 80 visitors standing in the hot sun, waiting to gain entrance to the exhibition. This queue was maintained from the morning until about 4 o'clock in the afternoon.

It was with great relief that the show was finished and by six that evening we were packed and on our way home.

Conclusion

I believe that a few comments are in order, if we cannot look back to see if we have achieved our goal, we will have learnt nothing. I have personally learned a lot from the experience and wish to share our successes and failures with those in the society that may be interested.

Firstly it was great working with professionals Marcus Byrne and Caroline Crump (Wits Zoology) Louise Gordon ,Donald McCullem, Jonathan Leeming, Jacqui Thomson ,Hennie Van Heerden (Zoo) and Werner Croucamp (Spider Club). We must not forget the Fiends of the Zoo volunteers who did all the cleaning and menial tasks, and the Zoo staff who went out of their way to help.

The Butterfly Cage.

On the more technical side, the butterfly cage was only partly successful, as we did not expect the very hot weather that was to cause certain fatalities in our live butterflies each day. There was just not enough air circulation in the cage and since the daily temperatures rose to 32 degrees Centigrade, the butterflies continued to die from heat build-up. Even though we had 55% shade cloth over the roof, it had to be covered later with wet hessian plus large shade umbrellas placed on the sides to shade the cage from direct sun during the hot afternoons.

We also observed that the butterflies needed perches to rest on as they continuously tried to cling to the glass and tired themselves out. These perches will have to be placed next to the glass next year. To avoid the heat, most butterflies attempted to crawl into the wet straw on the bottom of the cage. Many of them then were caught in the straw and could not get out again. We were glad that the cage was built on the paving and that it was not invaded by the usual ant armies seeking out our livestock.

Breeding *Acraea horta*.

The other lessons are those I learned a lot by breeding butterflies (*Acraea horta*) for the show. I started by collecting larvae from the *Kiggelaria africana* that grows in my garden. At first the larvae did very well up to the third instar, and then the majority (+/-70%) stopped eating and started crawling off the foodplants onto the sides and lid of the canned fruit jars that they were kept in. After a day or so I found that they had all been parasitised by small wasps . The wasp larvae came out of the *A. horta* larvae and spun beautiful small white cocoons attached to their host. There was only one parasite per host, and I recorded a total of close to a hundred parasitised larvae. The parasitic small wasp emerged after 5-8 days. The pupation period seemed to depend on temperature and humidity. I froze some cocoons for up to 2 weeks at 5-12°C and they survived the freezing to release normal adults. The wasps had a 4mm wing span with clear wings and shiny black bodies. The jars had lids with a fine gauze covering so that the wasps could not get to the *A. horta* larvae, but they had obviously been parasitised shortly after the eggs had hatched.

It seems safe to conclude that you will have a better success rate from eggs gathered in the wild than from collecting larvae, providing you keep them

safe from parasitic wasps. My success rate from eggs to pupae was 98% thereafter. I did not find any other enemies or predators at all.

Since the first *A. horta* pupated during the 4th week of January, I needed to delay emergence of the imagines until the first week of March. I could find no literature on the recommended temperatures that they would survive under as pupae, so I had to feel my way around. Firstly I left a few in situ at normal ambient temperatures and conditions as control specimens to define the standard emergence time and temperatures. These emerged within 10 days after pupation.

The others were placed in sealed Tupperware boxes, the pupa being packed between clean dry tissue paper. I first tried keeping them at below 10°C in a cooler box, by replacing the ice bricks twice daily.

On one day I could not change the ice bricks and the temperature rose to 20°C for about 12-18 hrs. The butterflies had started to emerge by the time I got to replace the ice bricks. Seven imagines had emerged and were all normal and perfectly healthy specimens which I then put into envelopes with the pupae. I then measured the temperature inside the refrigerator and found a suitable spot where I could keep the pupae and butterflies between 5 – 9° C.

I must have bred +/- 130 pupae and up till today (10 days after the show) there are only 7 that have not emerged yet. About 5% emerged deformed, but that was mainly due to them not being suspended against a wall or rock face as in the natural environment. I also had a few melanic aberrations, one having almost completely black wings and others without the hindwing spots.

Caring for the other larvae

After a day or two after the exhibition had started, we noticed a very distinct deterioration in the condition of the *G. tyrrhea* and *B. alcinoe* larvae. They had stopped feeding and did not show very much interest in food or even moving around. Nolan found that some had even died, and he suspected a virus had infected them. When I got there shortly after, I found water in the bottom of the terrariums and then discovered that some eager do-gooder was spraying all specimens and food plants with water to keep them cool. I had to stop them immediately and dried out everything. I also put signs on the displays "Do Not Water or Spray" This helped immediately.

I discovered that it is better to have dry wilted foodplants than freshly watered soggy vegetation, especially in the heat. The larvae do not die in the dry atmosphere, but will certainly contract viral infections in a moist atmosphere. The proof will be seen in nature. Also keep the helping hands at bay; too much kindness will kill.

Letters to the Editor

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Advertisements in Metamorphosis were discontinued last year. However, due to increased demand and enquiries for this service, the Council decided to re-introduce the advertisements as soon as possible.

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New Webpage for the Butterfly Atlas Project for Namibia

We have launched a webpage to introduce a means of communication with interested parties on our Butterfly Atlas Project for Namibia.

At this stage it contains little information, but it will be updated from time to time.

The webpage contains some photographs and descriptions of some of the "strange specimens" which we collected. We want some comments on our findings and we would be delighted if a taxonomist showed interest to look at the specimens.

Please give us your comments on the user friendliness of the webpage in terms of accessibility, ease of use, time to load, etc.

The webpage address is: <http://www.natmus.cul.na/ento/butterfly>

Enjoy the webpage,

Francois Swart

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