

**APPROACHES TOWARDS A CRITICAL EVALUATION  
AND UPDATE OF THE RED LIST  
OF SOUTH AFRICAN BUTTERFLIES**

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**Declaration**

**I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.**



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**Signature**

**Date**

## **ABSTRACT**

Using the World Conservation Union's (formerly the International Union for the Conservation of Nature) IUCN 2001 categories and criteria, the conservation status of the South African butterfly fauna has been reassessed. This study includes an assessment of the 62 globally threatened South African taxa and 1 that has a marginal distribution in this region. The evaluation has been made using the first Red Data Book (RDB) on South African butterflies by Stephen & Graham Henning (1989) as a point of departure.

In the seventeen years since the publication of this RDB, great political and environmental changes have taken place. The updated IUCN recommendations for adjusting the global categories and criteria for national Red Listing have also been taken into account.

An analysis of the present South African butterfly species in regards to their changed taxonomy, further habitat degradation and present threats, extant IUCN Red List categorization and partially revised environmental law is presented. A precautionary rather than an evidentiary approach is used. A total of 63 butterfly taxa are Red Listed, which is 7.9% of the total butterfly fauna for South Africa, Lesotho and Swaziland (671 sp. and 129 ssp.). 81% of these Red Listed taxa are lycaenids.

There is a considerable void in our present knowledge apropos the distribution, biology and ecology of most of the taxa. It is evident that some of the endemic butterflies with small distributions are under severe threat. Most of the threats appear to be synergistic.

## UITTREKSEL

Die bewaringsstatus van die Suid-Afrikaanse skoenlapper fauna is herbepaal deur gebruik te maak van die 'World Conservation Union's' IUCN se kategorieë en criteria. Die evaluasie is gedoen deur die eerste Rooi Data Boek (RDB) oor Suid-Afrikaanse skoenlappers van Stephen en Graham Henning (1989) as 'n vertrekpunt te neem.

In die vyftien jaar sedert die publisering van hierdie RDB het groot politieke en omgewing veranderinge plaasgevind. Die opgedateerde IUCN aanbevelings vir die aanpassing van die globale kategorieë en criteria vir nasionale Rooilysting is ook in ag geneem. Ingesluit in die studie is 'n evaluasie van 62 globaal bedreigde Suid-Afrikaanse taksa en 1 met 'n marginale voorkoms.

'n Ontleding van die huidige Suid-Afrikaanse skoenlapper spesies met betrekking tot hulle veranderde taksonomie, verdere habitat agteruitgang en huidige bedreigings, bestaande IUCN Rooi Lys kategorisasie en gedeeltelike hersiene omgewingswetgewing is gemaak. 'n Voorkomende eerder as 'n bewysbenadering is gebruik. 'n totaal van 63 skoenlapper taksa, wat 7.9% van die totale skoenlapper fauna vir Suid-Afrika, Lesotho en Swasieland (671 sp. en 129 ssp.) behels, word op die Rooi Lys geplaas. 81% van die Rooi gelyste taksa is lycaeniede.

Daar is 'n aansienlike leemte in ons huidige kennis ten opsigte van die verspreiding, biologie en ekologie van al die skoenlapper taksa. Dit is duidelik dat sommige van die endemiese Suid-Afrikaanse soorte met klein areas van verspreiding ernstig bedreig word. Meeste van die bedreigings skyn sinergisties te wees.

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**“All true biologists deserve the coveted name of naturalist.  
The touchstone of a naturalist is his abiding interest in living  
Nature in *all* its aspects.”**

**Frederick G. Hopkins (1929 Nobel prize winner for Physiology and  
Medicine). Presidential address  
London Natural History Society, 1936.**

**He was stimulated to study molecular biodiversity as a  
schoolboy, trying to extract colour from butterfly wings and  
isolating the substance explosively discharged by bombardier  
beetles (*Brachinus explodens*) (Campbell 2003).**

**“What sets worlds in motion is the interplay of differences,  
their attractions and repulsions.  
Life is plurality, death is uniformity.”**

**Octavio Paz (1914-1998)**

**“Nothing endures but change.”  
Heraclitus (540- 430 BC), quoted by Stern 2005.**



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