



# Studies in Mycology

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# 100 Years of Fungal Biodiversity in southern Africa

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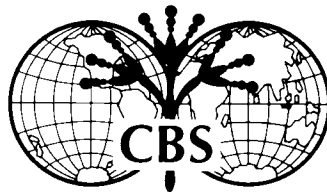
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## PREFACE

The year 2005 marked the 100<sup>th</sup> Anniversary of the National Collection of Fungi (NCF), now part of the Biosystematics Division of the Plant Protection Research Institute, Agricultural Research Council of South Africa. In effect, this was also the 100<sup>th</sup> anniversary of mycology in southern Africa. The advent of this remarkable milestone in mycology was known to some but to most it came as a surprise when it was featured in January 2005 at the joint meeting of the Southern African Society for Plant Pathology (SASPP), the African Mycological Association (AMA), and the Pan-African Medical Mycological Society (PAMMS).

When mycologists and plant pathologists mainly from Africa but including a good number of colleagues from other parts of the world were confronted with the impressive history of mycology in southern Africa, it was plainly obvious that something needed to be done to commemorate this proud occasion. It was decided to launch a special issue of the *Studies in Mycology* dedicated to the anniversary of mycology in South Africa. The fact that the journal would also be freely available on-line to all African mycologists who otherwise would not be able to purchase it, was also very relevant. The document that you are now reading, as a hard copy or electronically, marks our efforts to recognise the attention that mycology has received in southern Africa, and also to promote the future of this important research field.

As requirement for this special volume of *Studies in Mycology*, manuscripts submitted for review needed to have a biosystematic approach, dealing at least in some way with fungal biodiversity of southern Africa. Preference was given to papers employing a polyphasic approach, e.g., including molecular and other data sets on various novel species of fungi that can be grown in pure culture. The present volume contains 20 papers in which 101 new entities are introduced (including 1 family, 10 genera, 37 species, 1 forma and 52 new combinations). As can be seen in the paper dealing with species numbers from South Africa, it is estimated that more than 200 000 species of fungi can be found in South Africa (Crous *et al.* 2006 – this volume), of which a large portion will prove to be unique.

In considering the assemblage of papers presented in this volume, it is clear that far too little work has been done to adequately collect, study and understand the unique fungal biota of Africa. As shown in the various papers, many of these fungi are important to agriculture, forestry, and ecotourism, to name but a few economic sectors that benefit directly from fungal research. Our passionate view is that the time has come for a serious reconsideration of funding for mycology in South Africa. There is an urgent need to actively support the training of mycologists in the region, to create the capacity to deal with the collection, preservation and study of fungi. There can be no question that this would be directly linked to creation of employment and economic growth. While this might seem to be a southern African issue, enhancement of mycology in the region is crucially important in a global sense. This is easily understood when one considers that pathogens in one country threaten the biodiversity of other lands, or when one reflects on the value that products from yet to be discovered fungi might have on global health and welfare. We hope that our colleagues worldwide will help us to promote mycology in a region that has so much fungal promise.

There are numerous mycological aids to assist researchers in identifying and characterising fungi. Yet every mycologist who deals with fungi from southern Africa recognises that a single *magnum opus* remains at the core of fungal biodiversity knowledge from this region. The book we refer to is the monumental publication of Ethel Mary Doidge (1950), "*The South African Fungi and Lichens to the end of 1945*". Is it not remarkable that this volume has passed its half Century, yet remains essential to every mycologist in southern Africa, and many others all over the world? In considering the 100<sup>th</sup> anniversary of mycology in South Africa, we recalled the fact that "Doidge" has been out of print for many years. This has become a serious problem for several research groups in Africa, and other parts of the world. With the assistance of the Centraalbureau voor Schimmelcultures, we have digitised "Doidge" in order to make it freely available online. It thus gives us great pleasure to launch "*Doidge-online*" [www.cbs.knaw.nl/mycoheritage](http://www.cbs.knaw.nl/mycoheritage) to also mark the 100<sup>th</sup> anniversary of mycology in South Africa. Future plans are that the NCF will further refine and update these data, eventually also making them available to the Global Biodiversity Information Facility (GBIF), through the South African portal (SABIF) for which the Mycology Herbarium (PREM) is a data provider.

It is our sincere hope that this special volume of SIM will be scientifically useful and exciting to our many colleagues interested in mycology. Cultures of all of the new taxa described and many others mentioned in this volume are available from the CBS for study. Types and other reference material are lodged in PREM, and DNA sequence data have been deposited so that they will be easily available for

future study. We hope that you enjoy this volume and thank you for celebrating this special milestone in mycology with us.

#### **ACKNOWLEDGEMENTS**

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*The Editors*

*February 2006*

***For those who have collected African fungi***



Adapted from Doidge (1950).