

## INTRODUCTION TO THE PROCEEDINGS OF THE SYMPOSIUM "THE STATE OF NATURE CONSERVATION IN SOUTHERN AFRICA"

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The idea of arranging this symposium originated with the Chief Director of the National Parks Board of Trustees, Dr R Knobel, towards the end of 1974. It is often stated that the Republic of South Africa (RSA) plays a leading role in the global conservation movement, but that there seems to be a lack of cross-fertilization with other countries and that the RSA is failing to implant the philosophy of nature conservation in the presently developing countries. Unless the emerging states can be convinced of the value of wildlife for mankind, there remains little hope for any future action concerning nature conservation.

The previous conference referring to nature conservation in the RSA (15-16 April 1962), was also held at Skukuza at the initiative of the National Parks Board (NPB) of Trustees. From those discussions, the National Co-ordinating Council for Nature Conservation (NACOR) resulted, with representatives of all bodies in the RSA administering nature conservation on state-owned grounds. It was also decided that a similar symposium would be held every five years subsequent to 1962. This aspect, however, never materialized.

During 1976 the National Parks Board of Trustees attained its Golden Jubilee and it was thought to be an ideal situation to convene a Symposium to assess the status and value of nature conservation, not only for the RSA but for southern Africa as a whole. The Board meeting of the National Parks endorsed this idea in March 1975 and emphasised the close co-operation with sister organisations, both within and outside the Republic and that the venue would be the Kruger National Park in September 1976, and that the NPB would sponsor it. This resolution was also in keeping with the decision of the International Union for the Conservation of Nature and Natural Resources (IUCN), at its meeting held in September 1975 in Zaïre that regional conferences would be encouraged.

A Steering Committee was appointed. It consisted of Mr A M Brynard, Deputy Chief Director, Dr U de V Pienaar, Director of the Nature Conservation Division and Dr G de Graaff, Assistant Director of

Scientific Liaison and Scientific Publications. It was their task to formulate the programme, approach given speakers and collate contributions.

Throughout the proceedings, Dr Knobel acted as Chairman. A glance through the Table of Contents shows a wide scope of individual contributions, covering the past, present and the future. While the chapters do not cover all aspects of nature conservation in southern Africa, it is hoped that from the contributions themselves (as well as the associated lists of references) the reader will gain a realistic impression of the state of nature conservation in this subcontinent. The object of these introductory remarks is to review briefly the subjects dealt with and to indicate noteworthy advances.

In the keynote address (Chapter I) VOLLMAR represented both the World Wildlife Fund and its sister organization, the IUCN. Conservation as a global task is stressed as well as the fact that the Earth can only support a finite number of people, with the accompanying demands on natural resources. Action in this field by varying bodies is referred to and one is warned that there is no room left for complacency when it comes to nature conservation.

A M BRYNARD, (Chapter II), takes us through the past history and presents the situation of the National Parks of the RSA. This contribution gives us a clearer understanding of the development of the National Parks movement in the RSA during the past five decades. A logical consequence to this exposition is an elaboration of the research principles and objectives adhered to by the National Parks Board in the RSA and is clearly circumscribed by PIENAAR in Chapter III. It is evident that effective nature conservation is doomed if it is not founded on firm and sound scientific research.

D HEY (Chapter IV) emphasises, like Vollmar, that there are no grounds for complacency. He sees two basic and real problems looming even larger in the future viz. human numbers as well as human attitudes. Reverence for life must be reinstated, which would lead to nature conservation in the spirit of true stewardship. This can probably only be achieved by a multiple approach, including the all important economic elements.

If one were to analyse a wilderness landscape in planning schemes, it would cost money as is implied by VAN RIET (Chapter V). In an enlightening paper, he describes how such procedures can be applied to, *inter alia* the Mountain Zebra National Park where concepts such as "wilderness experience", the "need for wilderness" and the ability of landforms to accept change are discussed. These ideas are followed up by LA GRANGE (Chapter VI) indicating to what important extent nature conservation plays in basic usage of the soil as planned by the State in the RSA. Special reference is made to the National Physical Development Plan and other associated bodies advising the Department of Planning and the Environment.

The important role played by the various Nature Conservation Departments on the provincial level in the RSA and South West Africa was dealt with by DU PLESSIS (Chapter VII) emphasising the establishment and management of nature reserves, the control of the utilization of wildlife by the general public and the control of problem animals as well as pollution. The importance of conservation in the economy of South West Africa was ably dealt with by DE LA BAT (Chapter VIII) and he stresses that conservation should be economically defensible, meeting the needs of all sections of the local population and enjoying their full support. In contrast to the provincial nature reserves, LE ROUX (Chapter IX) discusses the contribution made to conservation by private nature reserves and according to Le Roux, the answer can at best be strongly qualified in the affirmative – qualified, because the permanency of any private conservation effort is strictly limited by a number of factors, “. . . many of which at one stage or another be beyond the control of the owner of the land”. He then continues to consider a number of variables. D EDWARDS (Chapter X) posed the question whether there is a need for strict control of nature reserves. The need for action by man in directing the course of events that takes place biologically in a nature reserve is generally accepted today and he continues to define the concept “strict” as to the essence of the question raised. Finally he concludes that control to serve the conservation objective is an ecological problem depending on the character of the ecosystem in the reserve, upon external factors influencing these ecosystems and in essence it is a problem of controlling the dynamics of ecosystems.

An idea of what the position of nature conservation is in neighbouring states was presented by ANSTEY and HALL-MARTIN (Chapter XI), CHILD (Chapter XII), PHILLIPS (Chapter XIII), VON RICHTER (Chapter XIV) and REILLY and ELIZABETH REILLY (Chapter XV). Child accentuated the conflicting emotions which are generated around the aesthetic qualities of wildlife and the necessity of wildlife for mankind on the other hand. The reorganisation of the Rhodesia Department of National Parks and Wildlife Management is elaborated upon and an outline is given indicating the range of nature conservation in Rhodesia. Reference is made to game ranching which was pioneered in Rhodesia in the early 1960's, while the relationship between wildlife and disease of domestic stock is placed in perspective. With some 10% of the country earmarked for nature conservation, the problem is to use this land in the interim (at least into the first decade of the 21st Century) without compromising the resource values.

In the contribution by Anstey and Hall-Martin (Chapter XI) an overall view is given about the physiography, climate, vegetation, nature conservation legislation, parks and reserve administration, as well as a brief description of the fauna and flora of the National Parks in Malaŵi.

A viable Department of National Parks and Wildlife has been created by the Malaŵi Government.

A similar situation exists in Botswana, (Chapter XIV) as described by von Richter. The sparse human population and the general lack of surface water over most parts of the Republic of Botswana, have contributed to the fact that Botswana supports a varied and rich Wildlife population. The Botswana environment is described as well, as in the policy of wildlife conservation and the present status of conservation. Finally, thoughts are presented on the future prospects of conservation in Botswana, conservation areas already covering some 17% of the country including a cross section of all major habitats.

In the Republic of Lesotho, according to Phillips (Chapter XIII), no official action had been taken towards nature conservation prior to independence. Priority was given to rural development schemes, improvement of agricultural practices, and to urban and industrial development. A description follows on the development of Lesotho's first National Park i.e. Sehlabathebe. The role played (in an advisory capacity) by the National Parks Board of Trustees of the RSA is acknowledged as well as financial aid emanating from the South African Nature Foundation. These developments in Lesotho work according to a "master plan". It is stressed that, perhaps, Sehlabathebe's greatest treasure is its unique flora.

The paper contributed by the Reilly's (Chapter XV) on behalf of Swaziland, was most informative. It emphasises what nature conservation can achieve under stable leadership, in this case, His Majesty King Sobhuza II, Ngwenyama of Swaziland. The prehistory of Swaziland and the advance of "civilisation" is described, leading to the exploitation of wildlife and its eventual recovery by means of conservation efforts. Since independence a Swaziland National Trust Commission has been formed (1972) in order to establish and promote national parks, nature reserves, monuments, sacred places and the National Museum. The two National Parks (Hlane and Mliwane) together make up less than 1% of Swaziland's surface area, but it aims to bring at least 4% of the Kingdom under its protection. Threats (especially new economic pressures) face these parks and the eventual outcome will depend on values. His Majesty fortunately tempers shallower, short term values in a developing world. Finally, the Reilly's stress the importance of the role played by politicians, education and participation of the entire population in the cause of nature conservation.

It is convenient here to refer to the position of nature conservation in the Developing Territories of South and South West Africa as described by DE BEER (Chapter XVI). As far as these territories are concerned, the Department of Bantu Administration and Development bears a certain amount of responsibility for nature conservation in these areas (some 41 million ha in extent). According to the classification of Acocks (1953), no fewer than 34 of its  $\pm$  70 main veld type fall within these

areas. Responsibility for nature conservation has already been assumed by the Ciskei, KwaZulu, Lebowa, Gazankulu, Venda, Bophuthatswana, Qwaqua, Ovambo, Kavango and the eastern Caprivi. All of these (except the latter) have already adopted the necessary legislation. The various provincial ordinances still apply to all land which has not yet been allocated to a specific homeland. Reference is made to the Manyelethi Game Reserve, maintained by the Department, as well as training facilities for black nature conservation officers at the Cwaka Agricultural College in Natal. It is stressed, once again, that the prerequisite for progress is thorough planning.

In a similar vein, NTLOKO (Chapter XVII) answers the question whether there is a place for conservation in the recently independent Republic of the Transkei. After a brief but thorough account of the veld types of the Transkei, the various nature reserves (proposed or existing) are referred to, and he emphasized the tremendous need for nature conservation in this new State – especially preserving its national assets and boosting its national economy through tourism.

The educational aspect of nature conservation was also dealt with at the Symposium. This was discussed by RYCROFT (Chapter XVIII) on the role of botanic and zoological gardens in national conservation planning, by BOTHMA (Chapter XIX) on conservation education on the academic level in the RSA and GEDDES PAGE (Chapter XX) on the interpretation of our wildlife heritage in educational and conservation programmes. Rycroft defined the meaning(s) of botanical and zoological gardens and the principle which apply to them which would include (i) public service (ii) education, (iii) conservation and (iv) research. The preservation of the biological community in its entirety is to be maintained. The importance of antecological and synecological studies were stressed and again, it would be the politician who could either make or break any conservation plan or programme. Utilising zoological or botanical gardens could be the institutions of higher education in the RSA, as described by Bothma. He outlines the role of universities and conservation training in southern African and also stresses the importance of students qualifying in a conservation direction, to do so research-wise and management-wise on an interagency and interdisciplinary basis. The correct use of available graduates is defined and employment opportunities are referred to. A broad approach to environmental conservation has become a necessity, which can only be achieved by a National Conservation Action Plan administered on a national level. The subject of the educational value and interpretation of our wildlife heritage was ably treated by Geddes-Page. If education was the “hard-shell” approach to nature conservation, interpretation should be the “soft-shell” part of our approach to its primary objective of increasing visitor satisfaction and enjoyment. He refers to Tilden’s six principles of interpretation and gave a lucid exposition of the media available and most suited for nature conserva-

tion interpretation. His paper brought in the sociological side of nature conservation and it deals with interpretive steps undertaken on both national and provincial levels (as well as other bodies) in the RSA as far as interpretation of nature conservation is concerned. It is reaffirmed that we all have good cause for a hopeful and ever-improving prognosis for the future of nature conservation in the RSA.

The State Departments (in the stricter sense of the word) also contributed well documented papers. ACKERMAN (Chapter XXI) stressed the importance of the conservation role of forestry in the RSA, emphasising an element of stewardship (*cf.* Hey) – in this case the stewardship of green landscapes. Nature conservation, combined with outdoor recreation and the promotion of tourism is actively pursued by the Department of Forestry and the role which the Department of Forestry has played in the RSA to conserve the natural vegetation is described. This department controls some 30 nature reserves ( $\pm 7\,500$  ha in extent) managed for the conservation of specific rare plant species or ecosystems. To make these conserved areas accessible to the people, a system of hiking trails is being developed. Large sums of money are also spent on the eradication of undesirable alien vegetation growing on State forest land but this can only be tackled successfully by a co-ordinated national effort backed by adequate finance.

The use and usage (as well as conservation) of agriculturally valuable soils was stressed by IMMELMAN (Chapter XXII). The basic requirements of mankind depend on agricultural production. The exponential growth of the human species paints no rosy picture and this is especially applicable to the RSA. We have a low rainfall; fluctuating and unpredictable falls and rises in temperatures; our surface soils, used for agriculture, are relatively poor leading to a carrying capacity for domestic cattle. Our water resources are scarce and the general topography of the country is rather unfavourable for organised agriculture. We have more than our fair share of plant diseases. In fact as far as agricultural production goes, the future seems bleak. Natural resources as far as agriculture is concerned are approaching their maximum limit. However, to avoid this pending dilemma, it implies that organised agriculture be practised in harmony with natural environmental factors; that our agricultural resources be protected to the utmost; and thirdly, that such practices be administered on a sound economic basis. All this implies an efficient classification of agricultural resources in the RSA. Secondly, we must see to it that our technology remains under control. This would lead to concepts of land systems, land types and ecotypes. Such are the research programmes undertaken by the Department of Agricultural Technical Services. Organised agriculture is developed to enhance the natural resources as well as incorporating the conservation motif.

A third contribution by a State Department concerns deep sea fisheries and its conservation implication, submitted by BOTHA (Chap-

ter XXIII). He described himself reluctantly as a “crisis conservationist”, because in marine fisheries conservation, they are exposed to the full blast of human greed. Fisheries finds itself in the unenviable position of applying conservation principles to species which are more often than not in an advanced stage of commercial exploitation. In these cases, ethics, aesthetics and scientific principles cut little ice with decision-makers i.e. the economists. In this regard he associates himself strongly with Vollmar, de la Bat and others who emphasise that decision-makers for conservation are influenced by fact whether a conservation measure is an economic proposition. Reference is made to foreign countries removing  $\pm$  one million tons of fish from oceans surrounding the RSA. These problems (not confined to the RSA alone) culminated in a convention in 1972 when the newly established International Commission for the Southeast Atlantic Fisheries (ICSEAF) met in Madrid to give effect to the terms of the convention. It must be emphasised that there is much dissatisfaction with existing international deep-sea fisheries commissions, prompting many countries to strive for exclusive state control of fisheries. This implies the number of nautical miles off their respective coasts and the competence and expertise which certain countries can provide. Throughout Botha’s papers, a note of optimism is evident and gives the impression that man will rise to the challenge – thus ensuring protection of our marine wildlife.

In addition to the above-mentioned contribution, ROBINSON (Chapter XXIV) also focussed attention on the marine environment applicable to marine conservation in the RSA. He points out that conservation in the RSA is predominantly terrestrially orientated. However, the RSA, with its long and beautiful coastline (2 961 km), has only one Marine National Park. The importance of the cold Benguella Current mixing with the “warmer” Agulhas Current gives a tropical flavour to the marine life of the Tsitsikama Coastal Marine National Park. Robinson describes the wise use of marine resources, also emphasising its aesthetic and recreational values, and enquires whether there would be any possibility of implementing Resolution No. 15 (1962), taken at the First World Conference on National Parks (discussing underwater preservation). Robinson continues his theme by discussing threats to marine resources, terminology and the eventual purpose of Marine Parks and Reserves (see Rycroft in this issue). He terminates his address with a brief description of the existing (and proposed) marine parks and reserves in the RSA.

Nature conservation is, we think, a complicated procedure. Some of us are pessimistic, others are optimistic about the future. The entire concept stands on two fundamental appendages: nature conservation (*sensu strictu*) and the usage thereof i.e. tourism. It is an undeniable fact that nature conservation can not do without its second leg i.e. the concept of tourism and therefore economics.

Tourism implies economy and today the concept of tourism is highly

organised. The South African Tourist Corporation (SATOUR) is responsible for the promotion of tourism in the RSA, as was emphasised by OWEN (Chapter XXV). The RSA as a tourism product has many components – geographically, climate and scenery. There are a variety of tourist attractions including a visit to national parks, a well organised tourist market organisation and a slogan used by SATOUR “Conservation is a 300-Year-Old-Word in the RSA”. The RSA has much tourist intake available and 1975 seems to have been a record year. Owen points a finger, however: tourism also harbours the seeds of destruction. Figures applicable to the USA are staggering and the RSA will never be able to cope with such dimensions. Therefore Owen begs the support of the Chief Director of National Parks for nature protection (against man) on a national level. It must be emphasised that all natural resources can be exhausted but that the next 50 years of nature conservation as a natural resource in the RSA should be more prosperous than the 50 years that have elapsed.

To summarise the proceedings MARTINY (Chapter XXVI) was approached. In a brilliant address, he not only implied what was said (*inter alia* the population explosion, the fact that scientists should see eye-to-eye, the importance of communication, putting words into action, etc), but the fact that conservationists are in the game for idealism and the belief in conservation in the strict sense of the word. He pleaded the cause for more research of “normal” farming versus farming with “game”. He hinted at businessmen by imploring and entrenching their properties to provincial organisations or the National Parks Board of Trustees, where the best chances exist of conserving those areas. If not, the area concerned will go under plough. If given to the State, however, it will be conserved and that could be their memorial and contribution to the future of nature conservation. Dr. Martiny also mentioned other reasons why conservation is required – the chemical effect of digitalis, penicillin, the Rh factor, elephant skin disease, the possibility of biological control *apropos* insects, etc. He also pointed out the choice between dictatorship and education. Conservation does not end at a border or a fence and he reiterated the need for a single Department of Conservation and the Environment. (See the contribution by Bothma). This not only applies to the RSA but also beyond our borders. Should we not do a swop around and entrench valuable reserves under national, rather than provincial control as brought up by du Plessis? Dr. Martiny also made another major plea: if a country like Malawi has taken the plunge to have 11% of their land surface put aside for conservation, where to we, in the RSA, figure with 2,4%? Surely the aim of the RSA must be to acquire at least 10% conserved prior to the year 2000.

Due to unforeseen circumstances, the Hon Minister of Agriculture, Mr H Schoeman could not attend the symposium and the Deputy Minister, the Hon Mr J J Malan, deputised for him. In his speech SCHOEMAN (Chapter XXVII) signified the 50th anniversary of the

National Parks Board of Trustees and he paid homage to the figure of the late President Paul Kruger. He also cherished the memory of many private individuals who have passed away but who were enthusiastic nature lovers and contributed to the development of our National Parks by grants of land, money or other benefits. He also lauded a long-serving Board member, Mr W H Faure, who served on the Board faithfully for some 26 years. Similarly, ex-employees of the National Parks Board were mentioned.

The Hon Minister stated that National Parks are necessary to protect and nourish the continued existence of objects of nature for the benefit of the nation. The Government of the RSA never lightly refuses requests on the sustained pressures for new national parks. He pleaded the cause for the enlargement of the Mountain Zebra National Park, the Bontebok National Park and the Tsitsikama Forest National Park, if this were at all possible. The Hon Minister then announced the proclamation of a new National Park and he was in the fortunate position to announce the establishment of a Karoo National Park near Beaufort West (hitherto ± 16 000 ha) with the blessing of the cabinet. The roles played by the Municipality of Beaufort West as well as that by the South African Nature Foundation was elucidated. The important part played by the general public, and especially the youth of the RSA in obtaining funds was highlighted and gratefully acknowledged. The fiftieth anniversary of the National Parks Board of Trustees was therefore highlighted by the proclamation of a tenth National Park.

In conclusion, it is to be hoped that, by collecting these papers on nature conservation in southern Africa, we will better understand the challenging powers which exist. Furthermore, we need to learn how to manipulate more wisely the tremendous potential forces of our natural resources against the human population explosion and its associated threat of global pollution.