

PROF. DR. F. C. ELOFF – AN APPRECIATION

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I have been requested to write an appreciation of the man to whom these proceedings of a symposium on the Kalahari Ecosystem are dedicated — Prof. Dr. F. C. Eloff, or Fritz as he is popularly referred to. I undertook the task with some trepidation and the only claim to the honour to write this article may be the fact that I have known Professor Eloff since 1949 when I was a green-shanked first year veterinary student at the University of Pretoria where he lectured in zoology to the new students. Some 10 years later, my acquaintance with him was renewed when I was appointed on his lecturing staff in the Department of Zoology at the University of Pretoria where I had the opportunity of getting to know Eloff more intimately. My association with him goes back to some 36 years and therefore I agreed to the request of the relevant organizing committee to compile this brief resumé of the life of F. C. Eloff.

Frederick Christoffel Eloff was born on 18 May 1920 in the Pietersburg district of northern Transvaal, Republic of South Africa. At the end of 1936 he completed his primary and secondary school years by matriculating at the Pietersburg High School. In 1937 the young Eloff enrolled at the University of Pretoria as a first year science student with zoology and botany as major subjects. At the end of 1939 he successfully completed this first phase of his tertiary education and he was awarded the B.Sc. degree.

Funds were limited, and Eloff had to look for some form of income. He was appointed as a technical assistant at the National Zoological Gardens in Pretoria on 1 December 1939, a post he held for three years. During this period, in collaboration with the then director, Dr. R. Bigalke, and Dr. T. G. Nel, he acted as co-author of a publication issued by the National Zoological Gardens entitled “*Ons Diere-skoolblad*”, published for scholars visiting the zoological gardens. With the assistance of Dr. Nel, Eloff was also responsible for the compilation of pamphlets explaining the new biological curriculum for secondary schools. While employed as a technician at the zoological gardens, Eloff enrolled as a M.Sc. student at his *alma mater* and was awarded the M.Sc. degree (with distinction) in 1942 on a thesis entitled “*Die osteologie en myologie van *Otomys tropicalis**”.

Towards the end of 1942 there was a vacancy on the academic staff in the Department of Zoology, University of Pretoria. Eloff applied for the post and was appointed lecturer in January 1943. Two assessments of his character were expressed

by two senior professors. Professor B. Engelbrecht, Head of the Department of Botany, stated “. . . Mnr. Eloff is 'n man met 'n kalm, aangename en gelykmatige karakter . . .” while Professor D. E. Malan, Head of the Department of Zoology stated “. . . met sy medemens kom hy maklik oor die weg”. Prophetic words, indeed.

But the 23-year-old lecturer was as yet not satisfied with his academic achievements and once more he enrolled for a higher degree. The post-graduate study was successfully completed in 1946, when the D.Sc. degree (with distinction) was conferred on him by the University of Pretoria on a dissertation entitled “The early development of the skull of *Otomys tropicalis*”.

In 1947 he was approached by the then Pretoria Technical College to present a series of lectures on zoology to pharmacy students. This he continued doing on an annual basis until 1954 with the exception of 1951 when Eloff was awarded the prestigious British Council Travel Bursary. This allowed him one full academic year of study overseas. He chose to pursue his interests in comparative anatomy at the University of London where he worked in close collaboration with Professor A. D'Bellairs for a period of six months. While in London, he lectured to the Fauna Protection Society on “Wildlife Preservation in South Africa” and to the Zoological Society of London on “The organ of Jacobson and the nasal floor cartilages in the chondrocranium of *Galago senegalensis*”. He then moved on to the world-famous Hubrecht Laboratory for Experimental Embryology in Utrecht, the Netherlands, where he developed an interest in this discipline under Professor P. Nieuwkoop and Dr. J. Faber.

On 1 July 1954, Eloff, then 34 years of age, was appointed as Professor and Head of the Department of Zoology at the University of Pretoria, as successor to Professor D. E. Malan who had reached retirement age. It is interesting to note that he was appointed to this senior post without ever having been a senior lecturer. As the years went by, commitments proliferated and looking back it is clear that the late fifties and the early sixties were busy periods for Eloff. Apart from running the department administratively, and doing his fair share of teaching, he also looked after the interests of post-graduate students for which he acted as promoter (including myself). He was elected Chairman of the Board of Control of the Transvaal Museum in 1964 (a position which he still holds today) and in 1965 he was elected as a member of the Advisory Committee for Nature Conservation in the Transvaal. Since 1964 he also served on two important governmental committees viz. i) the Scientific Advisory Council for National Parks and Nature Reserves and ii) the National Coordinating and Advisory Committee for Fauna Research. The functions of these two committees have since been completed and their existence discontinued.

As Head of the department he created opportunities which allowed him to develop his long-standing interest in nature conservation and its concomitant mammalian fauna in particular. To my way of thinking, this resulted in two major contributions which Eloff has made in his lifetime to nature conservation and zoology in southern Africa.

On 16 August 1962 a meeting was held with the university authorities and it was decided in principle that an honours degree of one year duration be established in

wildlife management at the University of Pretoria. It was Mr. T. Steyn, the then director of Nature Conservation in the Transvaal, who was personally responsible that the National Coordinating and Advisory Committee for Fauna Research requested the university to establish a degree programme in wildlife management. As it was realised that such a degree course would attract a limited number of students, the university would not consider the implementation of the course unless financial resources could be found for the project, and in this context, Mr. T. Robson became a pivotal figure. The course was launched in 1965 and as there were no suitably qualified persons in the Republic of South Africa to lecture on some of the more specialised techniques and methods of wildlife management, it was decided to invite a number of suitably qualified experts from the USA to the RSA to handle specific sections of the course. Professor George Petrides of the Michigan State University was the first of five consecutive visiting lecturers since 1965.

Meanwhile, the South African Nature Foundation, with Dr. A. Rupert as President, came forward and pledged a grant sufficient to establish a permanent Chair of Wildlife Management at the University of Pretoria. At Dr. Rupert's own request this chair was to be named the Eugène Marais Chair of Wildlife Management in 1970. Professor J. du P. Bothma (an ex-student of Eloff) was appointed the first permanent occupant of this chair in 1970, a position he still holds today. As is to be expected, Eloff has been a member of the Board of Control ever since the inception of the course and the chair.

The establishment of the Eugène Marais Chair of Wildlife Management understandably gave Eloff much satisfaction, while it also realised a great ideal for the nature conservation movement in South Africa. From the very beginning, the course was a success but it was evident that nature conservation training required more detailed research on fundamental and applied aspects of both plant and animal life. The diversity and wealth of southern African mammals was in dire need of additional and concerned research, especially pertaining to ecology, ethology and physiology. The path ahead was clear to Eloff.

Over the years he had directed his department in the direction of mammalogy. Eloff envisaged a research section within his department where students could be taught the methodology of research and resultant techniques which would serve as a magnet to enhance mammalogy in southern Africa by enticing local and overseas researchers to come to the University of Pretoria for postgraduate work in mammalogy.

On 28 June 1965 Eloff wrote a letter to the University authorities requesting permission to establish a research institute devoted to the study of mammals. The request was granted in principle but again (as was the case with the Eugène Marais Chair of Wildlife Management), Eloff could not go ahead if sufficient funds were not forthcoming. Eloff took up the gauntlet and the establishment of the eventual Mammal Research Institute within the Department of Zoology became a reality on 1 April 1966. Dr. J. A. J. Meester was appointed as its first director. Initial funds were provided by the Department of Nature Conservation of the Transvaal while Mr. D. A. Els was appointed as its first full-time research officer on 1 October 1966. Assistance was also given by the Smithsonian Institution, Washington, D.C. In 1967 the Council for Industrial and Scientific Research entered the field

and "Unit"-status was granted in 1969 by the CSIR. At a request of the CSIR, a board of control was formed in 1972 and needless to say, Eloff has been on this board ever since its inception. It is well known that the Mammal Research Institute has gone from strength to strength under its present director, Professor J. D. Skinner (who succeeded Professor Meester in 1972) and will be celebrating its 20th birthday in 1986. However, it must be emphasised that Eloff not only brought forth the conceptus but also actively looked after his young brainchild.

A major occurrence in the history of the Mammal Research Institute took place in 1983 with the publication of "*The mammals of the southern African subregion*" by Dr. R. H. N. Smithers who completed this work under the auspices of the Mammal Research Institute. This publication was a long-cherished ideal of Eloff which came to successful fruition. Eloff's efforts behind the scenes to have this *magnum opus* published, is often overlooked.

By 1967, the foundations for both the Eugène Marais Chair of Wildlife Management and the Mammal Research Institute were firmly laid and in that same year Eloff was awarded the esteemed Ernest Oppenheimer Memorial Trust Bursary. He coupled this award to his sabbatical leave and visited the United States of America in order to make a first hand study of some American universities and nature conservation agencies, while also attending the annual meeting of the American Society of Mammalogists in North Carolina. He also visited the American Institute of Biological Sciences at College Station, Texas, delivering a paper titled "Observations on the behaviour of the gemsbok (*Oryx gazella*)".

In 1971, he again visited the USA to attend an international symposium on "The Ecology, Behaviour and Conservation of the World's Cats", which convened in Laguna Hills, California. His contribution to the symposium was a paper titled "Ecology and behaviour of the Kalahari lion (*Panthera leo vernayi*)".

The interest Eloff showed in nature conservation over the years was recognised in September 1971 when he was appointed to the National Parks Board of Trustees of the Republic of South Africa. In 1979 he was elected chairman of this board. This undoubtedly was a well-earned acknowledgement of Eloff's deep-rooted concern about the environment locally and abroad. In the latter context he is an honorary consultant for the Cat Specialist Group of the International Union for the Conservation of Nature and Natural Resources (IUCN) and he serves in the same capacity for the Survival Service Commission of the IUCN.

And so the saga continues to the day when Eloff is to retire as Head of the Department of Zoology of the University of Pretoria at the end of June 1985 after 42½ years of service. He was elected as a full member of the Suid-Afrikaanse Akademie vir Wetenskap en Kuns in 1960. He is an honorary member of the Endangered Wildlife Trust (since 1973) and also serves that organisation on its Scientific Advisory Council; in a similar capacity, he is a member of the Scientific Advisory Committee of the South African Nature Foundation (since 1968); he was Chairman of a Committee appointed by government to complete a masterplan for the conservation, management and utilization of nature reserves in the Namibian areas of Damaraland and Kaokoland (1975-1977); he has been elected a member of the Advisory Committee for Nature Conservation and Tourism envisaged by

Quaqua; he is a member of the Board of Directors of, *inter alia*, the Saambou Building Society, the Coffee Corporation of South Africa (Pty) Ltd and of Hoofstadpers Bpk (alternate).

It is an established fact that a scientist should publish his research results — this he owes to the community. Eloff's first scientific publication appeared in 1948 and through the years there had been a constant flow from his pen. A list of his publications is appended to this resumé as Appendix A.

Throughout this resumé of Eloff's career, I have hitherto pursued a more or less chronologic course, mainly because any ranking of scientific and other activities may involve a personal bias. Although many details have been omitted, I feel that enough data have been given to show that Eloff is the kind of scholar we all admire. It is therefore not surprising that the South African Biological Society awarded its coveted Senior Captain Scott Memorial Medal to Eloff in 1981.

However, not only did Eloff make his mark academically, scientifically and culturally, but in his earlier years he was also a crack sportsman. For a few details we have to turn back the clock again to the late 1930's.

Eloff excelled in two sports: boxing and rugby. It may come as a surprise to some people that this kindly man was heavyweight boxing champion of the University of Pretoria (in the early 1940's). The elements of being a leader of men was clearly demonstrated when he was captain of the 1st under 19 Rugby XV in 1938 and 1939. This was followed by a successful spell as captain of the 1st Rugby XV of the University of Pretoria (1941-1946) and he served the Oostelike Rugby Club in the same capacity (1947-1950).

He attained his first provincial rugby cap for Northern Transvaal in 1942 and represented Northern Transvaal in some nine matches. To the best of my memory (he once told me so), he played for Northern Transvaal in every position in the scrum, with the exception of hooker. In 1963 he was chosen as honorary secretary of the Northern Transvaal Rugby Union (NTRU) and he filled this post during 1964 as well. In 1965 he was elected President of the NTRU, a position he still holds to this day with dignity and distinction. The Loftus Versveld Stadium, the home field of the NTRU, stands as visual manifestation of Eloff's farsightedness and efforts. Higher honours were yet to come. In 1968 he acted as manager for the Springbok team on their visit to France. In 1977 he was elected Vice-President of the South African Rugby Board which also made him a member of the International Rugby Board. He has been made a life-member of the NTRU as well as the University of Pretoria Rugby Club.

Over the years, Eloff has developed a multifaceted image of his personality. His love for the outdoors is well known and well documented as is reflected in his publications. At no time is he in a happier and more contented frame of mind than when being in the Kalahari Gemsbok National Park, amongst his revered Kalahari lions. Eloff has always been a hard worker and a hard player. Not only is he scientifically sound, but he has a well developed administrative inclination. He has the ability to direct his knowledge at a diversity of situations. He is able to plan and shows initiative and tenacity — factors which I have noted over the years when I was exposed to his personality and leadership in both academic and private situa-

tions. Eloff's unfaltering dedication to his work is coupled with a strong sense of responsibility and productivity. I know that his personality and character is based on integrity and his self-control under trying circumstances is well developed. This implies adaptability as far as his environment and immediate surroundings are concerned and a positive inclination towards new ideas, methods and circumstances. I know that he has the ability to work in harmony with others, but should the occasion arise, he can take an impartial or decisive stand without giving up his principles. I think I have shown Eloff to have leadership ability, generating respect and co-operation as far as his seniors, peers and inferiors are concerned. Inevitably this results in teamwork which is of prime importance in the present day and age.

This appreciation would be incomplete if no word was alluded to the lady Eloff married on 20 December 1947. Valerie Schraader gave Eloff two daughters (Elize and Marita) and today the Eloff's are the grandparents of a little boy. The success Eloff achieved in his long and useful career is in no small measure attributable to his wife who gave him her unstinting support and love. Honoré de Balzac (1799-1850) said: "A woman must be a genius to create a good husband." I know that Eloff is an excellent husband and by deduction Valerie is a genius!

It is evident that Professor Eloff has done much to advance the science of nature conservation in southern Africa and at the same time has remained a gentle, good natured person. It is for all this that we, his colleagues and friends, honour him on this occasion.

Appendix A

List of publications by F. C. Eloff

Scientific publications

- ELOFF, F. C. 1948. The early development of the skull of *Otomys tropicalis*. *Ann. Transv. Mus.* XXI, 3: 103-152.
- ELOFF, F. C. 1950. On the nasal region of the chondrocranium of the Cape hare, *Lepus capensis*. *Ann. Transv. Mus.* XXI, 3: 222-233.
- ELOFF, F. C. 1950. On the relations of the vomer to the ethmoidal skeleton in certain rodents. *Ann. Transv. Mus.* XXI, 3: 217-221.
- ELOFF, F. C. 1950. The homology of the mammalian pterygoid in the light of some new evidence. *Proc. Linn. Soc. Lond.* Session 162, Part 1: 56-63.
- ELOFF, F. C. 1951. Observations on the chondrocranium of *Rhabdomys pumilio*. *Ann. Transv. Mus.* XXI, 4: 369-379.
- ELOFF, F. C. 1951. On the organ of Jacobson and the nasal-floor cartilages in the chondrocranium of *Galago senegalensis*. *Proc. Zool. Soc. Lond.* 121, Part III: 651-655.
- ELOFF, F. C. 1952. On the relations of the human vomer to the paraseptal cartilages. *J. Anat. Lond.* 86: 16-20.
- ELOFF, F. C. 1952. Soölogiese navorsingswerk aan Britse Universiteite. *Tydskr. Wet. en Kuns*, Deel XII: 115-119.
- ELOFF, F. C. 1953. On the occurrence of pineal cartilages in the chondrocranium of a mammal. *J. Linn. Soc. Lond.* XLII: 269-272.
- ELOFF, F. C. 1953. Vorm en funksie van die soogdier-klavikula. *Tydskr. Wet. en Kuns* April: 179-186.
- ELOFF, F. C. 1954. On the probable significance of an additional pterygoid element found in the dog's skull. *S. Afr. J. Sci.* 50, No. II: 296-298.
- ELOFF, F. C. 1957. Teoretiese aspekte van ekologie en die toepassing daarvan in suidelike Afrika. *Tydskr. Wet. en Kuns*, Deel XVII: 105-139.
- ELOFF, F. C. 1959. Observations on the migration and habits of the antelopes of the Kalahari Gemsbok Park. Part I. *Koedoe* 2: 1-29.
- ELOFF, F. C. 1959. Observations on the migration and habits of the antelopes of the Kalahari Gemsbok Park. Part II. *Koedoe* 2: 30-51.
- ELOFF, F. C. 1961. Observations on the migration and habits of the antelopes of the Kalahari Gemsbok Park. Part III. *Koedoe* 4: 18-30.
- ELOFF, F. C. 1961. Enkele beskouings oor die moontlike oorsake vir die uitsterf van diere. *Koedoe* 4: 141-166.
- ELOFF, F. C. 1962. Observations on the migration and habits of the antelopes of the Kalahari Gemsbok Park. Part IV. *Koedoe* 5: 128-136.
- ELOFF, F. C. & G. DE GRAAFF. 1963. A note on the golden moles, bats and rodents of Inhaca island. *S. Afr. J. Sci.* 59: 88-89.

- ELOFF, F. C. 1964. On the predatory habits of lions and hyaenas. *Koedoe* 7: 105-112.
- ELOFF, F. C. 1965. Desert research in South Africa. *News Bull. Zool. Soc. S. Afr.*, Vol 6, No. 3: 2-5.
- ELOFF, F. C. 1966. Range extension of the blue wildebeest. *Koedoe* 9: 34-36.
- ELOFF, F. C. 1967. Observations on the behaviour of the gemsbok (*Oryx gazella*). *Amer. Zool.* 7 (2): 215.
- ELOFF, F. C. & E. JOUBERT. 1971. Notes on the ecology and behaviour of the black rhinoceros *Diceros bicornis* Linn, 1758, in South West Africa. *Madoqua*: Ser. 1 (3): 5-54.
- ELOFF, F. C. 1972. Ecology and behaviour of the Kalahari lion. In: EATON, R. L. (Ed.). *The World's Cats*, Vol 1. World Wildlife Safari, Winston, Oregon.
- ELOFF, F. C. & J. A. J. MEESTER. 1973. Mammal research in South Africa. *S. Afr. J. Sci.* 69: 300-302.
- ELOFF, F. C. 1973. Water use by the Kalahari lion *Panthera leo vernayi*. *Koedoe* 16: 149-154.
- ELOFF, F. C. 1973. Suid-Afrika binne Afrika-verband: dierkundig gesien. *Suid-Afrika binne Afrika-verband* (red. COERTZE P. J.), Kaapstad: H.A.U.M.
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