

ENVIRONMENTAL EDUCATION CENTRES OMGEWINGSOPVOEDING SENTRUMS

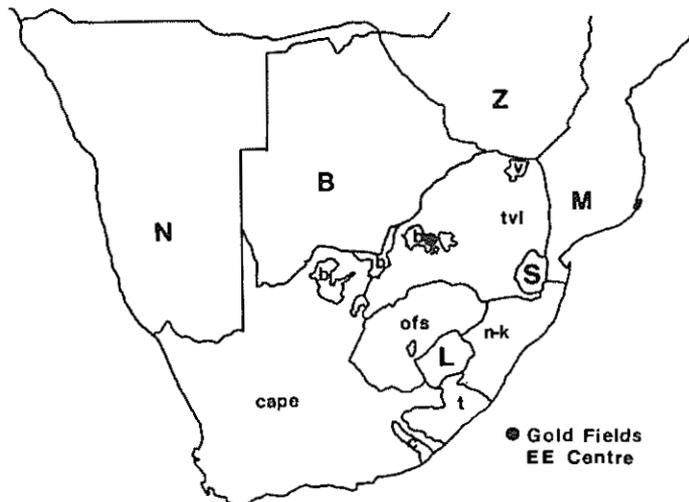
PILANESBERG NATIONAL PARK AND GOLD FIELDS ENVIRONMENTAL EDUCATION CENTRE

This article is the fourth in a series aimed at covering all the major environmental education centres in Southern Africa. The article was compiled by the editor.

Gold Fields Environmental Education Centre is situated in the 50 000 ha Pilanesberg National Park, within two and a half hours' drive of the Witwatersrand - the major urban centre of Southern Africa. The park is managed by the National Parks and Wildlife Management Board of Bophuthatswana.

The Pilanesberg, an extinct volcanic crater some 1 200 million years old and roughly 25km in diameter, is a unique geological feature composed of alkaline volcanic rocks forming concentric rings of hills. The park falls within Acock's Veld Type 20 (Sour Bushveld) and contains 32 species (some 8 000 individuals) of large and medium animals, including all 'big game' other than lion. There are also 45 known species of small mammals and more than 75 species of reptiles and amphibians. Over 300 species of birds have been recorded and there are at least 150 different types of trees including a number of rare and unusual species. Pilanesberg National Park is a virtual paradise of wildlife and with its well developed road network is ideally suited to environmental education both formal and informal. There are also numerous features of historical interest in the park ranging from both stone age and iron age sites to the site of the first Dutch Reformed Church in the Transvaal. The park has superb tourist and accommodation facilities both rustic and modern.

Gold Fields Environmental Education Centre, purpose built as a base from which to operate environmental education programmes in the park, was opened in October 1984 and contains *inter alia* offices, a library, projection facilities, an outdoor amphitheatre and a subdivisible 'lecture' hall able to accommodate up to 90 participants at a time. Apart from educational use these facilities are well suited to conferences, many of which have already been held here. The centre was funded largely by the Gold Fields Foundation through the South African Nature Foundation. Other significant donors were: S.A. Breweries Trust



Fund, Standard Bank Investment Corporation, Anglo-American and De Beers Chairman's Fund, Constantia Brokers, O.K. Bazaars, Safari Club International Conservation Fund and R.P.M. Education Trust Fund. There are attractive and modern accommodation and catering facilities for 300 at nearby Bosele Camp and an Intensive Educational Area is being developed adjacent to the Environmental Education Centre to further refine and enhance the effectiveness of the courses being taught.

Education for and about the environment has been germane to government thinking in Bophuthatswana since 1977. Among the primary reasons for the establishment of Pilanesberg National Park in 1979 was that it should be used for educational purposes. Schools began to use the park from February 1981 and to date over 60 000 school pupils, 3 000 teachers and 1 000 college and university students have attended or participated in environmental education courses. These figures include visits by over 700 schools - more than half the total number in Bophuthatswana.

The essence of the educational programme at Pilanesberg National Park is to convey knowledge, understanding, a sense of aesthetic appreciation and a feeling



FIGURE 1
Students in the Intensive Educational Area with Gold Fields Education Centre in the background.

of wonder, joy and belonging to all participants. The programme also aims to promote peoples' awareness of *their relationship* with nature, thereby encouraging them to live sustainably within the constraints imposed by and opportunities offered by the natural environment. To these ends the focus of courses run by the park is on practical field ecology - getting out, seeing, doing and enjoying! A number of specialist courses are also offered, the most significant of which are the modules which have been developed for Standards 3, 4, 9 and 10 as practical complements to the ecology taught in schools at those levels. The courses are run by qualified staff; the Bophuthatswana Department of Education seconds a principal and three teachers and the Parks Board provides administrative back-up services. There are regular in-service and staff development activities and the Centre itself is registered with the Department of Education as a school.

The education programmes at Pilanesberg National Park are guided and overseen by a sub-committee of the National Parks Board, which regards environmental education as one of its primary functions. This committee formulates policy, sets goals, monitors progress and evaluates performance. Its membership includes senior personnel of the Parks Board, representatives of the University of Bophuthatswana and the Department of Education and, actively involved in the decision-making process, the teaching staff of the Environmental Education Centre. Another important function of the committee is the co-ordination of the environmental education activities at Pilanesberg National Park with the other educational programmes operated by the Parks Board viz. Lengau Conservation Clubs, the Mobile Film Van and extension and inter-

pretation services. The activities of the Centre are thus part of the wider network of environmental education in Bophuthatswana.

In accordance with national policies of Bophuthatswana the park and its facilities are open to *anyone* wishing to utilize them - whether from within Bophuthatswana or without. Further enquiries concerning the environmental education programme may be directed to: The Principal

Gold Fields Environmental Education Centre
Box 1201
MOGWASE 0302
Bophuthatswana

Tel. (014652) 2405.

Further information on environmental education in Bophuthatswana may be found in the following references:

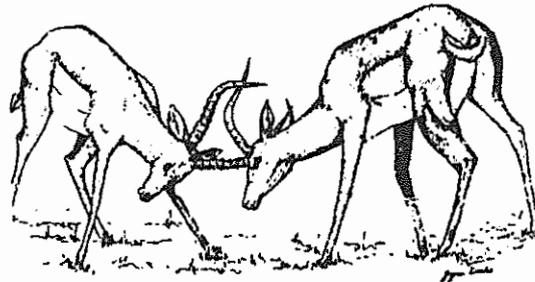
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Forum



AFRICAN RAPTOR INFORMATION CENTRE (ARIC)

The African Raptor Information Centre has recently been established with the aim of promoting the active conservation of our magnificent raptors, several species of which are rapidly dwindling in numbers. The following comment has been received from Richard Fyfe, former chairman of the World Working Group on Birds of Prey:

In my former position as Chairman of the World Working Group on Birds of Prey, I witnessed the phenomenally positive change in attitudes towards these magnificent birds. The formation of the African Raptor Information Centre (ARIC) is yet another important step towards universal support and conservation for this valuable resource.

Perhaps, to put this phenomena into perspective for some of the newly converted, it is necessary to look to a time when the public concept was that the only good raptor was a dead one. For large areas of the world this was the prevalent attitude no more than twenty to thirty years ago. In this incredibly short time frame, we have seen an unparalleled change in attitudes towards these birds. Unfortunately, in most areas of the world as late as the 1950s, raptors

were considered vermin to be shot, trapped or poisoned at every opportunity. In the late 50s some initial efforts were being made by conservationists to have birds of prey protected. Although some progress was made, for the most part these successes tended to be very localized and for only a limited number of species. In my opinion, the first major change in attitudes came after it was recognized that one species of raptor, the Peregrine Falcon (*Falco peregrinus*), had declined severely on two continents, apparently as a direct result of environmental contamination through the pesticide DDT. Indeed it was determined that some subspecies of this bird potentially faced extinction in the next decade. I believe this was the major turning point in public attitude towards the birds of prey as it was then first realized that birds of prey could serve as early warning indicators of environmental problems. Indeed the Peregrine became a symbol of man's environmental concerns in many parts of the world and most particularly in North America and in some countries in Europe.

For my own part, as a member of the Canadian Wildlife Service (CWS) in 1967, I initiated the first pesticide and raptor monitoring programme in western Canada. Then in 1970, although not so designated as a result of our field work, this for all purposes

became the CWS Peregrine Falcon Recovery Programme. In the short span of about 20 years I had witnessed the Peregrine go from the status of 'vermin' to that of a valuable endangered species with recovery programmes funded in several countries. Fortunately, because of the excellent spirit of co-operation among raptorphiles, these programmes have been uniquely successful with the result that the Peregrine is being re-introduced and has not only become a symbol of man's environmental concerns, but now also of our hope in restoring and maintaining a healthy environment.

I believe that this success has had a most positive spin-off for all conservation and in particular for all birds of prey. I have been amazed at the tremendous increase in interest and concern for raptors in so many parts of the world. Unfortunately and too frequently this concern has resulted because of declining, threatened or endangered raptor species. It is in this light that the formation of ARIC is so important at this time in Southern Africa. Although undoubtedly your raptor populations are somewhat diminished, ARIC is coming into existence at a time when, with the exception of the Egyptian Vulture (*Neophron percnopterus*), your incomparable raptor population, though reduced and vulnerable, is largely intact. Hopefully, through ARIC, with a co-ordination of effort and a strong unified voice for raptor conservation, you will not have to resort to the dramatic last ditch effort of captive breeding to maintain a gene pool or save a species.

With this background you can see why I feel it is timely that ARIC has been initiated. ARIC has been set up incorporating many of the best concepts of both the (North American) Raptor Research Foundation (RRF) and the Israel Raptor Information Centre (IRIC). It is similar to the IRIC in that the primary role is that of education through an active programme for *all* people, but particularly aimed at schools and the general public. This implies that ARIC must serve as a repository for raptor information and publications, and in turn must generate material for education purposes. On the other hand ARIC, like the RRF, is founded on the principle of working with all persons whose stated and demonstrated interest is in the resource itself. Like RRF it is designed to co-ordinate the activities of raptorphiles whether their primary interest lies in research, ringing, migration, rehabilitation, falconry or just observing.

Indeed South Africa with 79 species of raptors recorded within its borders, has one of the richest raptor resources in the entire world. In my association with raptorphiles living in South Africa I have long been impressed by their dedication and enthusiasm. More recently in my brief visit to South Africa in July and August of this year I have been equally impressed by the interest of the general public and the media. Consequently in much the same manner as I have seen RRF grow in Canada and the United States (from an initial meeting of perhaps a dozen dedicated people to an annual membership of over 1 500 raptorphiles), I feel confident ARIC will grow and become one of the principal driving forces for Raptor Conservation in Southern Africa. I am pleased to have had the opportunity to contribute in a small way and wish ARIC every success.

Richard Fyfe
Box 3263
Fort Saskatchewan
Alberta T8L 2T2
Canada

Readers who are interested in further information about ARIC can write to Johan van Jaarsveld, Director, Education and Husbandry, ARIC, Private Bag X11, Parkview 2122 South Africa.

RHINO AND ELEPHANT FOUNDATION LAUNCHES WHITE RHINO SURVEY

At the turn of the century the official estimate of the number of white rhino surviving in Zululand was just ten. Today, 87 years later, the game reserves of Zululand are exporting white rhino to many different corners of the globe. The battle seems to have been won, but is the war over?

This is why the Rhino and Elephant Foundation has launched the survey, the object of which is to determine the population status of the white or square-lipped rhino in Southern Africa and to evaluate the growth of this population on both private and public land. It will therefore be conducted in both private and national game reserves and on private farms where populations of rhino are known to exist.

The man who will be counting rhino is Daan Buys of the University of Pretoria. There are a number of objectives: to establish where population growth has differed from the expected growth and to identify the positive or negative factors responsible; to evaluate to what extent the introduction of white rhino to privately-owned land has been successful in improving the animal's status; to identify the likely reasons why some such introductions have been unsuccessful; and to draw conclusions on the basis of the above on whether there is cause for concern regarding the management of white rhino on privately-owned land, and if so, identify corrective action which may be taken to rectify the situation.

The survey is being sponsored by R.J. Reynolds International, the Camel People, and the results, which should be ready by the end of the year, will be made available to all interested parties.

Dave Holt-Biddle (Broadcaster)
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OUR WASTEFUL CIVILIZATION

It is widely recognized in South Africa that water is a scarce resource. Some recent figures released by the United Nations therefore make frightening reading. According to a UN report, in industrial countries it takes 10 000l of water to produce 12 eggs, 500l for 1 orange, 3 000l for 1kg of beef and 450 000l of water to produce one motor car!

Even more frightening is the imbalance in energy exchange which has been revealed by studies of agricultural practices in different countries. The agricultural process in the USA is estimated to require 5 calories of energy to produce one calorie of food, yet so-called primitive farmers in New Guinea manage an output of 20 calories of food for every one calorie put into its production. In Chinese wet rice agriculture a yield of 50 calories for every one calorie input is obtained.

Clearly, we have a great deal to learn about conservation in its broadest sense.

With acknowledgements to *Ichthos Newsletter* No. 13 (Jan 1987) p. 3.