

Science and Conservation

Mary Seely — Director, D.E.R.U.

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Conservation of natural resources has been going on for a very long time. Centuries ago, royalty had their hunting preserves and forests from which the common man was excluded. More recently, conservation became synonymous with preservation, and tracts of land or particular species were protected without consideration of the interrelationships of the animals or plants and the area in which they lived. Although the era of simple preservation has not completely passed, conservation is more and more being placed on a scientific basis. What contribution can science have to conservation?

The scientific method in itself has significance for conservation. As the world's natural resources dwindle, we can no longer afford to attempt solutions at random. Knowledge gained in one place is often applicable in another, and should be sought out and used where appropriate. The process of deductive reasoning from basic principles is often of value in a particular conservation situation. Although field experience is always important, interpretation of that field experience within a framework provided by basic scientific knowledge is also essential.

Basic biological principles which can be of immediate use in conservation ma-

nagement are those dealing with concepts such as diversity, biogeography, home ranges and territories, and breeding units. Many people dealing in conservation use these basic principles without being aware of the scientific research which has been carried out in these particular areas. Whereas many managers have empirically derived aspects of these concepts for themselves, recognition of the basis for many of their feelings, and a study of other people's experiences in similar situations, could speed up the process of attaining a working knowledge of the system to be managed — and hence be of benefit to the system being conserved. Today, the luxury of slowly finding out everything for one's self is no longer possible, and we must use scientific methods of gaining and exchanging information to the benefit of conservation in our rapidly changing world.

Specific investigations into the biology and ecology of a particular plant or animal species or the species diversity of a particular ecosystem are also necessary. To conserve a species or an area, information is needed about interactions with other species and the environment: minimum ranges, migration

routes, pollinators of plants, the importance of disturbances such as fire, and a number of other factors. Informed decisions about conservation can only be made from this type of accurate and extensive information.

Last to be mentioned, but perhaps one of the most important aspects of conservation today, is the scientific interpretation of conservation to the public at large. In most countries only a few people, usually the more wealthy, are interested in conservation — whereas the majority, often less wealthy, are intimately involved with conservation on a daily basis. Everyone needs to be informed and reminded about the interrelations between the quality of life and the life-support system which is a healthy planet.

Many have never heard the message about the importance of tropical rain forests, clean air, clean water and wild places, unless they happen to be affected directly, usually adversely, in some way. Until everyone is aware that conservation is of direct importance to them and their children, conservationists have not done their job and attempts at conserving a habitable planet will not be successful.

Vere waai

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voëls moeg was, het duidelik geblyk uit hulle gejaagde asems en die feit dat hulle elke nou en dan vir 'n oomblik moes rus. Uiteindelik het een van die voëls weer daarin geslaag om weg te kom, maar is onmiddellik deur die ander een agternagesit en die twee het in die digte bosse verdwyn, maar die geskil was beslis nog nie afgehandel nie!

Ons het verder gestap, maar die voorval het baie vrae by ons laat ontstaan: Was die bakleierey veroorsaak deur territoriale gedrag en indien wel, gebeur dit dikwels? Indien nie, waarom het die twee baklei? Hoe lank het die bakleierey voortgeduur en wat het met die verloop gebeur?



Agriculture

J.P. Venter — Research

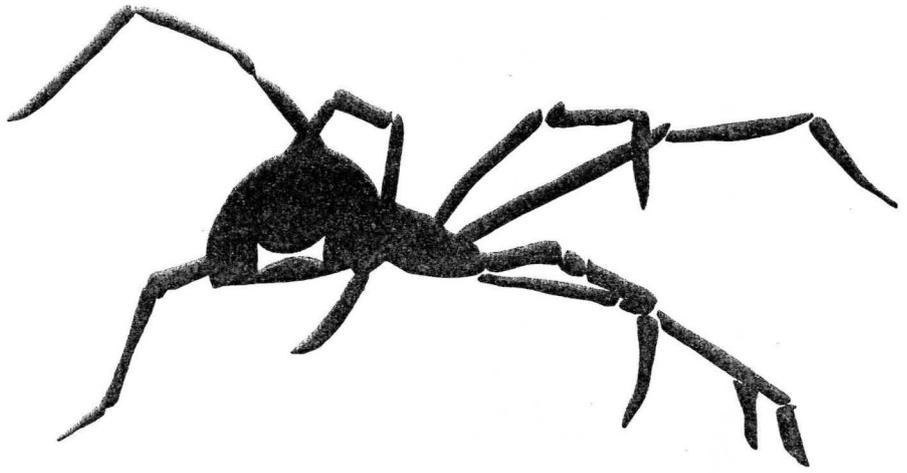
Agricultural research is carried out at four experimental farms. Gellap-Ost, 16 km north-west of Keetmanshoop, is the home of an excellent grey karakul stud and the aim is, mainly, to improve the pattern and quality of the grey pelts through breeding and selection. A second experiment comprises the selection and breeding of a recessive-white herd — the only one in the world today. These white karakuls were bred from black with small white spots on the head and tail. It started in 1952. Today the average point for white, on a scale of ten (1 = black with one or two white spots; 10 = white) is about 8.9.

Several projects are being carried out at Omatjenne, 25 km north-west of Otjiwarongo. The best known is a production comparison of six cattle breeds. Related to this key project are comparisons of: milk production (qualitative and quantitative); the evaluation of feed and grazing intake; resistance to parasites; water and lick intake; body measurements; condition counts; blood typification; meat characteristics; walking distance.

The Sandveld Research Station is 60 km north-east of Gobabis. A project started in 1986 comprises an economic-biological evaluation of beef production with four fixed stocking rates and two beef cattle types (one small, one large framed). The improvement of the indigenous "Sanga" will form an integral part of this large-scale project.

At Sonop, 118 km north-east of Grootfontein, a beef-cattle demonstration project is being carried out with Afrikaner and Santa Gertrudis cattle, into which has been incorporated an investigation of an 18-monthly breeding system in comparison with the traditional 12-month system.

A subsequent investigation includes the practical incorporation of game (eland and giraffe) on a cattle farm and the meat production potential of these game species. For this project the experimental farm was fenced off with game-proof fencing and divided into game-proof camps. Furthermore a pastoral investigation is being made into the use of fire as a follow-up treatment for the bush after chemical control measures, and the practical application of fire in bush control in this area.

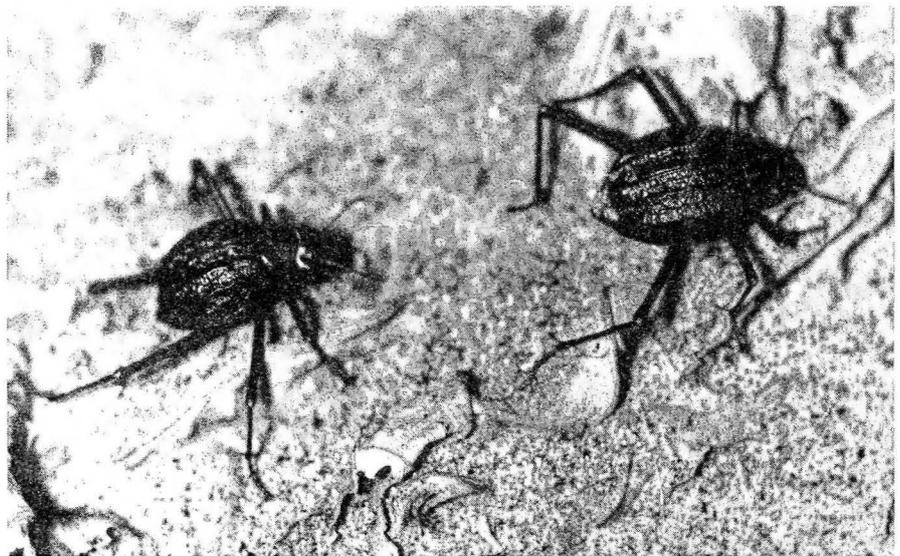


Desert Ecological Research Unit, Gobabeb

M.K. Seely — Director

Until recently there were three research associates at Gobabeb. One has just completed his studies on the population ecology of the endemic dune lizard *Merolus cunierostris*, as well as studies on the thermal biology and reproduction of the Skeleton Coast lizard, *Angolosauris skoogi*. Another is studying the ecology of thysanura (fish moths) in the dune ecosystem. The third is conducting an ecological study of dune-living spiders and co-ordinating taxonomic work on some of these. The main emphasis of the study is on the comparative foraging behaviour and prey selection of the white lady hunting spiders and the buck spoor spiders.

Research on the tenebrionid beetles continues with projects on developmental rates of larvae of two species under controlled temperature conditions, further work on their distribution patterns within the Namib sand dunes across the climatic gradient, and on their thermal biology. In addition, a new M. Sc. project was initiated to study movements of the tenebrionids beneath the surface. Another active project of interest to zoologists is that of cataloguing the satellite fauna associated with the perennially flowering dwarf shrubs of the Namib plains. As always, projects undertaken by the Director and her assistants involve the work of many collaborators.



Tenebrionid beetles of the Namib; Namib-tokkies; Toktokkie Käfer der Namib;
Photo: M.K. Seely

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The Start of the Wildlife Society

W.A. Morkel — Founder Member

The idea of starting a Wildlife Conservation Society in South West Africa was conceived in anger.

Shortly after arrival in South West Africa from East Africa, where I had been closely associated with various forms of wildlife conservation, as professional hunter and farmer, I observed the over-grazed state of the farming areas immediately surrounding Windhoek. This, was deduced, would cause a rapid run-off of a relatively scarce commodity in South West Africa viz. rain-water, the item with which virtually all forms of life start and remain dependant.

Education for those who needed it, and possibly enforced forms of grazing control was obviously sadly neglected. Grasses and other forms of vegetation are as necessary to animals as the control were obviously sadly neglected. ensure a continued adequate supply of the former. That such neglect had been permitted, gave rise to anger and it was appreciated that the views of an indivi-

dual would have little effect on those who had the powers to enforce grazing control. Public opinion was called for, to be voiced loud enough for action to be taken as in the case of the former East African Professional Hunters Association and the Kenya Wildlife Society, whose opinions and recommendations were very much respected and acted upon by Government. Also, during this time, as secretary to the South West African Parks Board, it was with shock that discussions of subjects concerning problem animal (predator) control was heard. One prominent Board member recommended complete destruction in any possible way, of certain predators on farm land, by any one capable thereof, rather than in a humane way by trained officers. It was considered imperative that a similar body be formed in South West Africa as existed in East Africa.

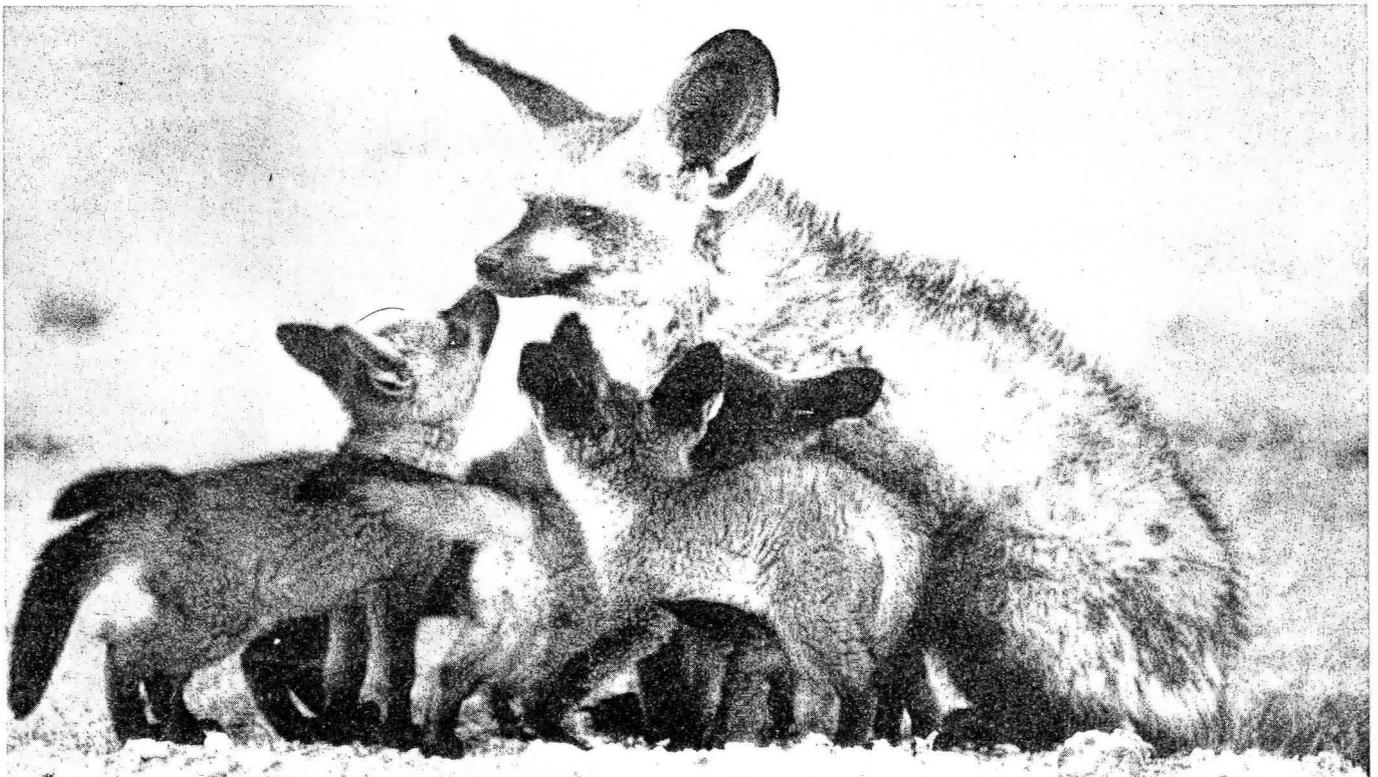
With the assistance of the local press the public was informed of the intention

of forming a South West African Wildlife Society and advised of a meeting of all interested parties to be held.

The first response to this was a call from a Mrs Levinson, informing me of the particular interest in this respect of a Miss Adrienne Norman in Windhoek, who would be prepared to assist with secretarial duties. With the enthusiastic assistance of the now, regrettably, late Miss Norman, initial preparations were made to get the ball rolling and a date was set to assemble all those interested in the formation of a local Wildlife Conservation Society.

On the 1st July, 1966 the inaugural meeting of this Society was held at the old Wanderers Club in Windhoek, then as a branch of the Wildlife Society of Southern Africa.

Regrettably, it was observed that the Department of Nature Conservation did not show sufficient interest to be officially represented.



Bat-eared foxes; Bakoorjakkalse; Löffelhunde

Photo: Nature Conservation

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