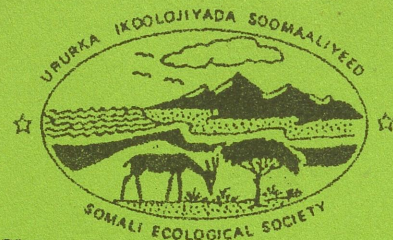


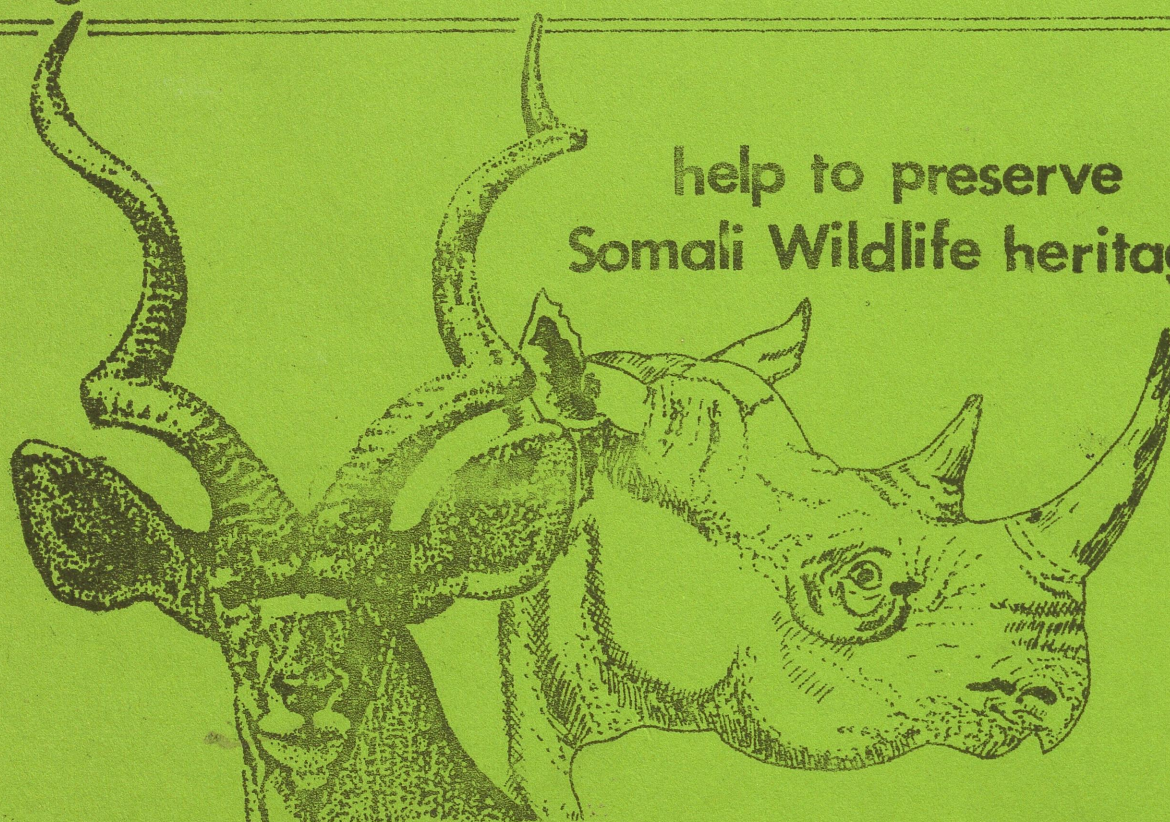
SOMALI ECOLOGICAL SOCIETY
Founded in 1983

B/L

Associated with
National Range Agency
Ministry of Livestock Forestry and Range
P.O. BOX 1789
Mogadishu - Somalia



help to preserve
Somali Wildlife heritage



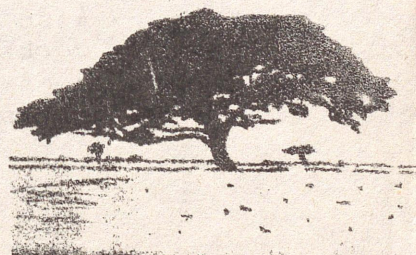
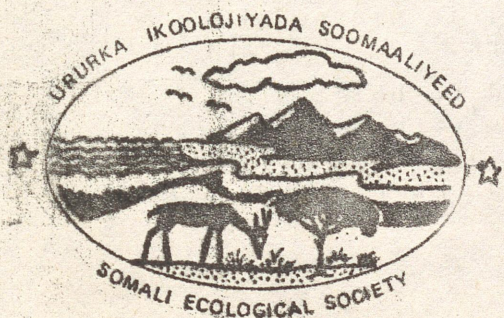
NEWS LETTER

NO. 5

JULY 1990

T a b l e o f C o n t e n t s

	<u>Pages</u>
. Editorial (Dr J. Sale)	1-2
. National Wildlife Day Celebration in Mogadishu	3-4
. A new wildlife law for Somalia (Mr. Lloyd Gaiger)	5-7
. Family Extension Component of the CRRDP recognizes the unique role of women (Ms Ambara Hersi Abdi)	8-9
. 11 July 1990 - World Population day	10
. Somali Fauna and Flore: New Species Identified (Osman Gedow Amir & A.M. Dahir)	11-12
. The National Herbarium presents: <u>Tamarindus indica</u> (A.M. DAHIR)	13-14
. Focus on Ecology Worldwide	15-16
. SES News in Brief (Awards - A vote of thanks - Life Memberships - Best wishes to Tim Dodman - Dr D. Packer, Gwent Wild- life Trust - An SES/AWF Project - Collaboration between SES and WCI - Visitors to the Balcad Nature Reserve)	17-19
. Maintaining the Somali Connection (Dr. D. Packer)	20
. About SES (Background - Achievements to date - Recreational activities - Charges & membership fees - Friends of SES - SES publications)	21-25
. The Somali Ecological Society - How to Become Involved	26



EDITORIAL

RECENT ECOLOGICAL DEVELOPMENTS IN SOMALIA

A number of exciting and significant things have happened in the ecological sphere in Somalia in the last few months. Several of them are reported in detail in articles in this issue of our Newsletter, including the discovery of a new bird and a new species of plant in Somalia; developments concerning the role of women in rangeland management and the drafting of entirely new wildlife legislation for the control of this vital natural resource in the Somali Democratic Republic.

On 5th June, which is World Environment Day, Somalia celebrated its first National Wildlife Day - an innovation called for in the Mogadishu Manifesto on Wildlife Conservation signed by H.E. the President of the Republic in November 1989 (see Newsletter no.4 for details). Preceding Wildlife Day there were newspaper articles, radio and television programmes on Somalia's wildlife and banners across Mogadishu highways proclaimed the conservation message. A multi-faceted presentation on aspects of wildlife and active conservation in Somalia was organized at the National Museum on the day itself. Guest of honour was H.E. the President, who was accompanied by several of his ministers and various other V.I.P.'s. Speeches and video presentations were followed by the opening of an exhibition on "Somalia's Wildlife Heritage" on the fourth floor of the Museum. This display of pictures, photographs and information on the distribution and status of species, as well as an exposition of conservation problems and solutions, will remain open to the public for an indefinite period at normal Museum opening times (8 a.m. to 12 noon Saturday to Thursday) and all S.E.S. members should make an effort to visit it.

A very detailed feasibility study on the establishment of Bush Bush National Park at the extreme southern tip of Somalia was completed recently with EEC assistance. It contains bold proposals for a unique Park with both terrestrial, estuarine and marine components, including several of the Bajun Islands. The report is under consideration by the Government and the EEC with a view to early implementation of the main recommendations. Once established, the Bush Bush National Park will provide Somalia with a conservation area equal to many of the famous parks elsewhere in Africa. A detailed management plan for the Alifunto National Park on the lower Shabelle will soon be completed, with the assistance of the FAO Wildlife Project. When implemented the plan will create a secure sanctuary for elephants as well as other endangered species, including topi, giraffe and black rhinoceros. Controlled wildlife utilization, for the benefit of local rural people, is planned for the buffer zone surrounding the National Park.

Also under EEC auspices, it is planned to hold a 3-day workshop to review the country's needs with regard to the conservation and management of wildlife and its habitats. This meeting will be in August or September, 1990, and

robust input from S.E.S. members is hoped for.

The organization of the Society has recently been overhauled and, in addition to the Management Committee, we now have the following three subcommittees: Membership and Fund-raising Subcommittee; Education and Conservation Subcommittee; Editorial Subcommittee. ***

There is good news about founder member John D. Leefe, who has been selected for a new award for outstanding commitment and service to nature conservation in Somalia by H.E. the President of the Republic - a further innovation made in connection with National Wildlife Day to reward exceptional effort on behalf of Somalia's natural heritage. Hearty congratulations!

Finally, a new set of stamps is planned, depicting rare and endemic wildlife species of Somalia: this will provide further good publicity for our fauna.

*** The following is the present composition of the Management Committee and its Subcommittees:

Management Committee

Chairman:	Dr Mohamed Abdirahman
Vice-Chairman (& conservation Officer):	Mr Abdi Mohamed Dahir
Members:	Dr John Sale
	Dr Ali Talib
	Mr Osman Gedow Amir
	Ms. R. Todaro

Membership & Fund-raising Subcommittee

Dr Ali Talib
Mr. A.A. Guled
Ms Andrea Jost
Ms R. Todaro

Education & Conservation Subcommittee

Mr A.M. Dahir
Dr John Sale
Mr Osman Gedow Amir
Mr Ismail D. Gammadid

Editorial Subcommittee

Dr John Sale
Mr A.M. Dahir
Mr Robin Corcos
Ms. R. Todaro

NATIONAL WILDLIFE DAY (5 June 1990)
CELEBRATION IN MOGADISHU

Following the issuance of the Mogadishu Manifesto on the conservation of wildlife, Somalia celebrated its first National Wildlife Day on 5 June 1990 (see Editorial in this issue). The President of the Republic opened the exhibition of Somalia's Wildlife Heritage at the National Museum, after introductory speeches by the Vice Minister for Livestock, Forestry and Range, and by the FAO Chief Technical Adviser on Wildlife, excerpts of which are given below.

From the speech of the Vice Minister
for Livestock, Forestry and Range, M. M. Shiil

"... Collectively, natural resources constitute the main spring-board for development, and therefore require planned and effective management, especially in developing countries like Somalia... Indeed, the continuing degradation of our environment is a problem of the greatest concern to us in Somalia today...

"These problems have been precipitated by the combined effect of some natural factors over which we have no control and human-related factors which we can control if we have the will to do so.

"Somalia, like some other developing countries, has been a victim of repeated droughts. Rainfall is very scanty and unpredictable in time and space. The high temperature has baked and progressively impoverished the soil. The strong winds, prevalent virtually all year round, aggravate dune movements and erode the soil... There is little we can do about these natural phenomena.

"On the other hand, as our population has continued to surge at the astonishing rate of 3.2 per annum, coupled with increasing human settlements and growing urbanisation, excessive pressure has been put on the environment to satisfy increasing human needs for food, shelter and energy. Consequently extreme deforestation continued unabated to provide fuelwood and building materials; improper agricultural practices triggered off a chain of environmental deterioration; rangelands were laid bare by livestock overgrazing with attendant compaction of soil; rivers and other water resources drastically diminished in yield as most of the rainwater was lost through run-off when the compacted and denuded soils gradually lost their percolation capacity... Desertification of untold magnitude has set in.../We must be/ cautious and judicious with regard to our activities in the environment and ensure that environmentally damaging practices are eliminated...

"A drive has been initiated to implement a concerted reforestation programme which is co-ordinated by NRA's Forestry Department... Consideration is being given to the adoption of a Tropical Forest Action Plan for Somalia, which would more effectively ordinate all aspects of forestry management....

"Like our forests, our soils and our water, wildlife is an important natural resource for Somalia, but its protection and management for the benefit of the people have been somewhat neglected in recent years. We are now determined to make a concerted effort to remedy the situation and prevent further degradation of the country's wildlife... A number of the actions called for in the new policy document - the Mogadishu Manifesto - are already in progress, including the revision of wildlife legislation, the setting up of two national parks and a country-wide public awareness campaign... The Wildlife Exhibition which we are here to inaugurate is part of the public awareness campaign that has been initiated."

From the speech of Dr. J.B. Sale,
FAO Chief Technical Adviser, Wildlife

"The idea of having a national wildlife day on 5 June coinciding with World Environment Day has its origin in the recently issued guidelines on the status and conservation of Somali wildlife, known as the Mogadishu Manifesto. This wise and far-sighted declaration of wildlife policy for Somalia in the 1990's, which has been widely acclaimed internationally, calls for a number of decisive actions relating to the conservation of the country's wild fauna and flora. These include the establishment of protected areas, the revision of conservation legislation and strengthening of the Anti-Poaching Unit, which is to be brought under the Wildlife Department. In addition, no less than four of the ten articles in the Manifesto deal with various aspects of educating people about wildlife and creating public awareness on conservation issues. The Manifesto thus implicitly recognizes that the technical actions in wildlife management it prescribes can only be effectively implemented if there is a greatly improved climate of public opinion regarding conservation in the country. It is noteworthy that His Excellency the President did not merely proclaim a wildlife day but a "Wildlife Conservation Day", thus clearly indicating the nature of Somalia's awakened interest in wildlife as one of conservation or wise use.

"The Manifesto states that the purpose of this special day shall be ... "to demonstrate the importance of wildlife to the country and the Government." It further refers to the benefits of wildlife... It is, of course, vitally important that a country's leaders and policy makers should fully understand the significance of wildlife and the part that it plays in maintaining a balanced and healthy environment, as well as its potential contribution to socio-economic advancement. It is thus entirely appropriate that Somalia has chosen to concentrate attention on wildlife matters as part of its celebration of World Environment Day. For only by regarding wildlife as a vital component of man's total environment will it be given proper recognition and the protection which it so urgently needs. A well managed environment implies a well managed wildlife resource in relation to which man is exercising proper stewardship, as well as enjoying its benefits..."

A NEW WILDLIFE LAW FOR SOMALIA

(by M. Lloyd Gaiger, FAO Conservation
Legislation Consultant)

There is evidence that during the 1960's hunting in Somalia has taken place on a very large scale.

A new Law on Fauna (Hunting) and Forest Conservation, superseding the Italian and British laws of 1952 and 1955 respectively, was passed in 1969. This law, when not dealing with forestry matters, is mainly concerned with the control of hunting. Since 1969 the emphasis has changed, and although control of hunting is still considered important, so also is the management and control of wildlife in their habitats. Furthermore, in 1982 Somalia acceded to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): this Convention provides for strict controls over international trade in animals and trophies not included in the 1969 law.

The Administration in Somalia has for some time realised that there is a need for changes in the wildlife laws. A new wildlife law has now been drafted under the auspices of FAO.

To ensure its effectiveness, the draft is based on three fairly straightforward principles: (1) wildlife is a resource which we have a duty to conserve and hand on undiminished, and if possible enriched, to future generations; (2) present and future generations should derive advantages from the protection of wildlife; (3) an efficient institutional structure should be established to achieve (1) and (2).

The need for a dynamic institutional structure has been met by providing for a new Wildlife Service headed by a Director of Wildlife. The Service will have a uniformed division within which a Wildlife Protection Unit (WPU) will be specially trained and equipped to protect wildlife and seek out and arrest poachers. The Service has a broad and extensive range of duties, amongst others: managing protected areas and advising on their establishment, protecting wildlife and its habitats with particular attention to endangered species, carrying out and coordinating research and collection of statistics (an often neglected but vital function, for one cannot manage a resource without sufficient knowledge about it), promotion of public awareness about wildlife and its conservation.

The law will cover all animals, including fish. Three schedules grade the animals according to the strictness of the protection given to them.

The protection of animals will be provided in four ways: (1) establishment of protected or safe areas where animals and their habitats receive protection; (2) prohibition of hunting of certain animal species; (3) control over the hunting of some other species; (4) control over trade in animals or trophies.

There will be three types of protected areas: National Reserves, National Parks, and National Conservation Areas. Under the African Convention on the Conservation of Nature and Na-

tural Resources (known as the Algiers Convention, whose provisions Somalia respects, although not a party to it), countries should create strict Natural Reserves where human interference with the fauna and flora is reduced to the absolute minimum and entry only allowed for the purpose of bona fide research. The power to establish these reserves will be used sparingly and only where indispensable.

National Parks will give protection equal to that of National Reserves, except that entry will be allowed to members of the public for educational and recreational purposes; no one may live in national parks, but there may be accommodation for park staff and camping sites (or even a lodge or hotel, if there is a genuine demand).

A third type of protected areas - National Conservation Areas - may be declared by the competent authority, with a system of control enabling the people to carry on crop and animal farming and following the criteria laid down by the International Union for the Conservation of Nature and Natural Resources (IUCN): it is felt that this arrangement will provide the flexibility to cover protection in the areas selected, with minimum interference with the way of life of the local inhabitants. The success of this novel type of protection will depend on how it is used: time and experience will show how effective it is.

To ensure the integrity of reserves and parks a number of activities will be specifically prohibited in them with severe penalties for contraveners. The heaviest maximum fine applies to offences relating to pollution; other prohibited activities will be mining, quarrying and prospecting, cutting or setting fire to vegetation, introducing animals or damaging objects or structures, as well as the low flying and landing of aircraft.

The National Conservation Areas may be used as buffer zones to protect the border areas of reserves or parks. The law also specifically provides for parks or conservation areas to be established in border areas contiguous to protected areas in neighbouring countries and for cooperation with the competent authorities of such countries for joint measures of protection and control: this again is a novel approach and could produce some valuable results.

Apart from reserves, parks and conservation areas, some wildlife species may require protection from overhunting. the IUCN has graded animals according to the threat to them on a global basis as: (1) endangered, (2) vulnerable, (3) rare, (4) out of danger, (5) indeterminate.* Somalia will have to select the species that come in the various categories. Schedule 1 of the law will list animals not to be hunted (in Somali terms, these would match the IUCN categories 1 and 2, and probably 5). Schedule 2 will contain a list of animals (equated to IUCN category 3) that may be hunted under licence but the number of which will be strictly controlled. Schedule 3 will contain a list of animals that may be hunted under licence: no statutory limits will be set; depending on the number of animals killed or cap-

* Endangered: in danger of extinction; vulnerable: likely to become endangered, being under threat from serious adverse factors; rare: species with small world populations which are not endangered or vulnerable, but at risk; out of danger: formerly in one of the above categories, but now considered relatively secure because effective conservation measures have been taken or the previous threat to their survival has been removed; indeterminate: suspected of being in categories 1 to 3, but insufficient information is available.

tured as established through the licensing reporting system, an area may be closed to hunting or restricting conditions may be attached to licences.

There will be some exceptions: this will apply to animals posing an immediate threat to life or property or considered to be a public danger, and to activities undertaken by wildlife officers for the purposes of research, propagation or survival of species or to prevent undue suffering.

The law contains provisions to ensure that persons authorised to hunt are competent to use firearms, have a knowledge of the boundaries of protected areas and recognise various species of animals; they shall keep records of animals killed and captured, ammunition carried and expended, etc. (for statistical purposes); they may also be required to be accompanied by professional hunters or wildlife officers or licensed guides. All hunters will be bound by restrictions on the use of certain types of weapons and methods of hunting, such as poisoned weapons, explosives, snares, etc., and hunting in the dark.

A most effective way of conserving wildlife is to ensure strict control of possession of, and trade in, animals and trophies. Thus, the ownership of animals listed in Schedule 1 will only be allowed under a rarely given licence: this will probably only apply to animals saved after injury or killed under one of the exceptions contemplated by the law. Commercial trade in animals will require a licence and the statutory keeping and filing of records. A number of provisions cover the keeping of animals in captivity: the necessary licence may be cancelled and the animal confiscated if it is not kept in a satisfactory manner.

It is appreciated in international circles that wildlife conservation and management is a matter for international action, as wildlife is part of a worldwide heritage: consequently funds are made available to countries like Somalia to assist in wildlife projects. The new law makes provision for setting up a special Wildlife Fund controlled by trustees. It is hoped the Fund will attract monies for wildlife conservation projects. The Fund will also receive subventions from the Government and fees from licences and concessions granted in national parks.

The law contains comprehensive powers of enforcement, authorising searches, arrests, seizure of animals and trophies obtained illegally, etc.; the authorised officers will carry firearms, to be used only in certain circumstances.

Despite the sound administrative structure and effective powers provided for by the law, it will not be effective without sufficient trained staff. It is hoped that not only the staff will be recruited, but international or bilateral aid will be obtained to train and equip the Wildlife Service and also to assist it in establishing the administrative structure required for the efficient operation of a reserve and park management service and a wildlife protection service.

No law has ever been written that is perfect - and this law cannot be an exception; but it is hoped that it will provide a sound foundation for the start of a new bright era in wildlife conservation and management in Somalia.

FAMILY EXTENSION COMPONENT OF THE CENTRAL
RANGELANDS RESEARCH & DEVELOPMENT PROJECT
RECOGNIZES THE UNIQUE ROLE OF WOMEN

(by Ambara Hersi Abdi* Head, Family Extension
Unit, Central Rangelands Research & Develop-
ment Project)

The Central Rangelands, located in the regions of Galguduud, Hiran and Mudug, are an area characterized by a very hot climate and limited rainfall (250-300 mm per year). The CRRDP, which started in 1982, is responsible for the development of this area, which is inhabited primarily by pastoralists and agropastoralists. Most of the population are nomads, herding camels, cattle, goats and sheep. Women supply much of the labour for the economic activities in the project zone.

Recognizing the unique role played by women, the CRRDP has established a Family Extension unit to address the special problems that women encounter in their work roles.

Women are involved in most of the key economic activities of the area. They have the principal responsibility for herding sheep and goats, and are often also involved in the herding of cattle. Sheep, goats and cattle are milked by women. Women also play an important role in agricultural activities: they carry out leveling, digging, sowing, weeding, resowing (in spaces left after germination), guarding, harvesting and storing the crops. Women are also responsible for making house furnishings such as thatch, mats, baskets, containers for milk and water (haan, dhiil). They build the nomads' huts and it is also their responsibility to dismantle and reassemble them when moving from place to place.

In terms of household management, the women offer hospitality to guests and visitors whether their husbands are present or not. They can slaughter livestock and can sell it whenever necessary.

The most important job the woman has in every society is caring for children. She is their teacher and shows them the importance of their environment and of what lives in their area, such as wildlife and plants. She avoids destroying the environment, whether animal or plant, because she knows its importance to her family and livestock. She therefore teaches her children to spare valuable wildlife like dikdik, gazelles, etc. because they can resort to using them as food in periods of droughts, when they lose some of their livestock.

The women of Central Somalia know many different types of local plants and how to prepare them tastefully as food. For example, Cyperus rotundus (gocoso) - a kind of grass which sprouts during the first days of the rainy season - is harvested after two and a half months and is cooked either

* Ms Ambara Hersi Abdi is a graduate of the Department of Range Science, Faculty of Agriculture, Somali National University.

mixed with cowpea or on its own: this type of food is known only in the central regions and in some parts of Middle Sha-beelle.

The most important nutritious wild food in pastoral areas is Cordeauxia edulis (yicib), which is a shrub bearing a nutritious nut, and grows mostly in red sand areas (e.g. Mudug and Hiran regions). The women in the central regions know how to harvest yicib and cook the nuts by roasting them.

The most common food in the central regions is the cowpea: the women have their own unique way of preparing it. They roast it and take off the red cover, then cook it for a short time (falfaliir). They also prepare yoghurt from milk by creaming it, and have their own way of conserving meat for the future.

The Family Extension Section of CRRDP has been established to provide services to women in the project area. The female extensionist has designed and carried out project activities related to range ecology, animal husbandry, agriculture, nutrition and handicrafts, thus facilitating women's participation in the CRRDP programs.

"As cultural guardians and the first educators, women value the environment in special ways. Over much of the Third World, they are the main environmental managers, especially in Africa where they account for more than 80 per cent of subsistence food production and make a major contribution to cash cropping."

(from: Restoring women's link with nature, by Joan Davidson, Earthwatch, 1989, as quoted in Environmental Events Record, vol.1 Number 2, March 1990)

11 July 1990 - WORLD POPULATION DAY

We quote below the text circulated by the UN Population Fund explaining the significance of World Population Day, on which occasion a Seminar on Child Spacing was held in Mogadishu.

World population, now 5.3 billion, will reach 6.25 billion by the year 2000. It is increasing by three people every second, by 250,000 every day, and by 90-100 million every year. Population growth in many parts of the world is already exceeding the ability of the earth to sustain it.

Population growth is uneven - over 90% of it will be in the developing countries, those least equipped to sustain these numbers. Cities are growing at twice the overall rate of population growth; 17 of the 20 largest cities are in developing countries.

The connexion between population, resources, and the environment is all too evident: degradation and depletion of land and water resources, deforestation, build-up of greenhouse gases, and damage to the ozone layer.

Gains in health, education and nutrition have been undermined by rapid population growth. Poverty, unemployment and hunger are still widespread.

Action during the coming decade will to a great extent determine the options available for future generations, and whether or not our planet can continue to sustain the pressures placed upon it. Reducing the rate of population growth will help to extend these options.

Investments in human resource development - especially women - are the best way to reduce population growth. Extending women's options through improved access to education, health care and family planning, and through an enhancement in their status and fundamental rights are crucial for lower fertility. Special efforts are also needed to change male attitudes and enlist male support for family planning programmes. Communities, too, must be active in designing and implementing their own family planning programmes appropriate to their needs, priorities and social and cultural values.

Governments are coming to realize that political and financial support for population policies and programmes must be strengthened. The Amsterdam Declaration, adopted by representatives of 79 governments at the International Forum on Population in the Twenty-first Century held last November, shows that international support for population programmes is growing and that population issues are being brought to the forefront of development strategies.

"We must act decisively to slow population growth, attack poverty, protect the environment. The alternative is to hand on to our children a poisoned inheritance."

(Dr. N. Sadik, Executive Director, UN Population Fund)

SOMALI FAUNA AND FLORA: NEW SPECIES IDENTIFIED

A NEW SPECIES OF SHRIKE VERIFIED BY
DNA SEQUENCE DATA FROM THE ONLY
KNOWN LIVE INDIVIDUAL (by Osman Gedow Amir)

In late August 1988 Edmund F.G. Smith, Tse-Tse Entomologist, glimpsed a shrike which he could not identify on the grounds of the Bulo Burte hospital, just south of the town of Bulo Burte (Hiran region). Together with Osman Gedow Amir, researcher attached to the Bird Damage Prevention Project, an unsuccessful attempt was made to mist-net it in late December 1988. It was finally caught by Osman Gedow on 5 January 1989.

After telex consultations with the Secretariat of the International Council for Bird Preservation (ICBP) in Cambridge (UK), and in view of the possibility that the bird might well represent a species near extinction, it was decided not to kill it, but to get as much information and type material as possible, and then to keep the bird in captivity.

Contact was made with Mr Jon Fjelds of the Zoological Museum and Mr Peter Arctander of the Institute of Population Biology in Copenhagen (Denmark) about the possibility of genetic diagnosis based on a blood sample. Microcentrifuge tubes containing a total DNA preparation, 3 drops of dry blood, deep-frozen, and 9 feathers in alcohol (2 mantle feathers, 1 medium wing covert, 1 tail feather, 5 ventral feathers) were sent to the Zoological Museum in Copenhagen.

After reviewing the literature, examining the shrike skins in the National History Museum of Kenya and in the British Museum of Natural History, the Zoological Museum in Copenhagen and the Swedish Museum of Natural History, and comparing the bird's DNA with homologous DNA isolated from skins of other most relevant shrikes, we concluded that the bird in question is a new species. To the best of our current knowledge, this is the first time in ornithological history that a bird species is described on the basis of DNA.

We proposed to name the bird Laniarius liberatus (Bulo Burte boubou): the Latin liberatus was chosen to emphasise that the bird is described on the basis of a freed individual; the common name has been chosen for its geographic accuracy and pleasant alliterative quality.

On 16 March 1990 the bird was transferred to the Balcad Nature Reserve, where it was kept in aviary for one week. After several observations on the behaviour of the bird and its response to the new habitat, which indicated that it would survive, it was released on 23 March 1990.

A scientific article with full description of this new species will be published in a German ornithological journal some time in the current year.

A NEW PLANT SPECIES IDENTIFIED
IN BALCAD NATURE RESERVE (by A.M. Dahir)

In October 1988 Mr Ralf Peveling, ornithologist attached to the Somali-German Bird Damage Prevention Project, noticed a shrub, subsequently found to be a new species, in the sand dune area of the Balcad Nature Reserve.

Mr Peveling brought specimens to the National Herbarium of Mogadishu, and photos were taken by Dr Mats Thulin of Uppsala University (Sweden). Fresh specimens were then sent to Kew, to the Tropical Herbarium in Florence (Italy), and to Uppsala University.

Confirmation has been received that this is a new species belonging to the family Meliaceae, genus Turrea. It has been named Turrea pevelingi; the full botanical description accompanied by photographs will appear in Kew Bulletin in 1991.

This shrub, for which a Somali name has not yet been found, grows mostly on sand dunes or light sandy soil, where Dobera glabra and Grewia species are mostly dominant.

Its uses are still unrecorded; so far, it is only known that it is browsed by camels, goats and game.



THE NATIONAL HERBARIUM PRESENTS: ***

Tamarindus indica L.

Family Caesalpinaceae

Somali names: raqay, geed xamar,
timir hindi

Description: large tree, up to 30 m high, with a short bole up to 1 m in diameter. Evergreen extensive crown. Bark grey, strongly fissured and scaly, smooth on branches. Leaves alternate, paripinnate. Flowers yellowish with red stripes in small terminal.



Distribution: originally from Madagascar and south-east Asia. Today it is more or less naturalised in the southern regions of Somalia, particularly along the Shabeelle and the Jubba, but may occasionally be found also in parts of the central and northern regions (not spontaneous, but planted.)

Site requirements: the wide distribution of T. indica shows that it is a very adaptable species. It grows preferably in semi-arid regions with 400 mm of annual rainfall approx. A marked and extended dry season seems necessary for the formation of fruit. Thanks to the deep root system it is storm-resistant, and tolerates fog and saline air in the coastal districts, where it has proved its value for plantations. It is suitable for cultivation in gardens, courtyards or parks, and even as a roadside tree, provided falling fruit does not constitute an accident risk.

*** The most interesting plants in the Nature Reserve are going to be systematically covered, to satisfy the yearning for knowledge of visitors.

Propagation and management: *T. indica* was already cultivated in ancient Egypt. It is striking that almost all trees found in the Sahel originate from natural regeneration, and that applied genetic selection and planned cultivation have so far been absent. Seeds, transported by birds or mammals, germinate well under the shelter of other trees, particularly under the baobab or on termite mounds. The young plants are browsed by livestock. When seeds are taken from fresh ripe pods, the germination percentage is high, while seeds from dried fruit do not germinate well. Germination occurs during the first 7-10 days after sowing. The vegetative propagation of tamarinds has shown some encouraging results. Branch cuttings root rapidly in sandy subsoil; in particular, production is better, and the size and quality of the fruit are superior to those of plants derived from seeds. Vegetatively propagated tamarinds do not attain the same size as seeded trees and smaller trees are easier to harvest. When establishing a pure plantation, spacing should be at least 13x13 m. Young tamarinds must be carefully treated in transplanting operations and must be protected against drying out. Under sufficiently favourable growth conditions the first fruit may be produced between 8-12 years. The tree may remain productive until old age, yielding up to 150 kg per tree. A tamarind may live up to 150, and even 300, years.

Uses: *T. indica* is one of the most widely used trees in Somalia and therefore deserves attention in forestry projects and ethnobotany. The extending crown of the tamarind offers shade, so that it is used as a "rest and consultation tree" in villages. Because of its resistance to storms, it can also be used as wind protection - or as a fire-break, for no grass will grow under it. It is not very compatible with other plants.

Other uses are:

- human consumption: the fruit is edible, both cooked and uncooked (famine food); seed meal and non-alcoholic beverages can be obtained from it.
- timber: fuelwood, charcoal, gum powder, tool handles, boats, furniture, paneling, pestles and mortars.
- Medical: antipyretic, etc. The unripe pods are used as medicine after birth; the sour pulp is used to make a drink for constipation or used in sauces.
- Land use: live fence posts, soil stabilisation, land reclamation, etc.

(A.M. Dahir)



Leaves and flowers
of *T. indica*

FOCUS ON ECOLOGY WORLDWIDE

Environment dominates UN General Assembly and the Global Forum on Environment and Development for Survival

Reportedly the 40th session of the UN General Assembly proved to be 'the greenest ever' with 10 reports issued on the environment and 70 speakers addressing the Economic and Social Development Committee on the agenda for the 1992 UN Conference on the Environment and Development.

In January 1990 the Global Forum on Environment and Development for Survival brought together, in Moscow, 700 spiritual and parliamentary leaders together with scientists, journalists, artists, business and labour leaders from every region on earth. The Forum was opened by the UN Secretary General, who warned his audience that 'unless we awaken to the danger that threatens the Earth, blight will afflict our common home'. Soviet leader Gorbachev in his closing speech stated that 'the time is ripe to set up an international mechanism for technological cooperation in environmental protection'.

From grasses to rainforests

Tropical grasslands have as much to do with stable global climate as do the rainforests, according to a study recently completed by UNEP. The results of this study, which covered the grasslands of five continents, show that tropical grasslands turn far more carbon dioxide into carbohydrates than was suspected, equalling - or even exceeding - the productivity of tropical rainforests.

Noel Laureate Gertrude Elion, M.D., warned that the gradual destruction of the Amazon rainforest (South America) brings about the destruction of a 'gold mine of medical compounds' which, once destroyed, will not come back.

The heir to the British throne, Prince Charles, has called for swift international action to save the world's rainforests, for their destruction would disrupt global ecology and wipe out valuable plant life; he envisaged the possibility of an international agreement on this matter: "The world has already a series of conventions... which protect the marine environment, the ozone layer and the atmosphere... but for our most precious common resource we have nothing."

Climate and the Greenhouse Effect

The IPCC (Intergovernmental Panel on Climate Change, created in 1988 by UNEP and WMO) has produced an interim report which will form the basis for negotiations among governments over the next two years towards formulating an international agreement aimed at protecting the Earth's climate from the adverse change caused by the greenhouse effect.*

At the World Economic Forum held in Davos, Switzerland, an authoritative scientists stated that 'Solving the greenhouse effect is the top item on the world agenda now and in the years and decades to come.' One of the recommendations put forward was to switch

from coal to cleaner fossil fuels, like natural gas, to achieve a 20 percent reduction in world carbon dioxide.

* Editor's note:

The term 'greenhouse effect' has been coined to describe the overheating of the Earth which, if unchecked, will eventually cause polar ice to melt, the seas to rise in level and submerge coastal cities and towns, and areas now still fertile to turn into a desert. Therefore, all countries will have to revise their energy policies: two basic lines of action are (a) to reduce the amount of carbon dioxide released in the atmosphere (which means limiting the use of such fossil fuels as oil, coal, wood, etc.) and to conserve the tropical forests (with 'trap' carbon dioxide).

Recipe for an ecologically sound future

A vegetarian meal in every pot, a solar heater on every roof and a bicycle in every garage are imperatives for an ecologically safe future, according to a Washington-based research group - the World-watch Institute. The Institute holds the view that a world dedicated to recycling, food and energy efficiency and slow population growth* must be built within 40 years if modern civilisation is to survive.

* See article on World Population Day, next page.

Nine ways to help save our planet recommended *

- | | |
|-------------------------|---------------------------|
| 1. Discourage packaging | 5. Penalise pollution |
| 2. Avoid poisons | 6. Save energy |
| 3. Set standards | 7. Recycle waste |
| 4. Eat local | 8. Research raw materials |
| 9. Plant trees | |

* If our readers express interest, this item could be the subject of discussion at one of the SES monthly scientific meetings.

(Adapted from Environmental Events Record,
vol.1 Number 2, March 1990 - a UNEP
publication)

```

=====
"                               "
"           Visit                "
"   SOMALIA'S WILDLIFE HERITAGE  "
"   An Exhibition on the Wildlife "
"   of Somalia and its conservation "
"                               "
"           at                    "
"   THE NATIONAL MUSEUM          "
"                               "
"   open 8:00 a.m. tp 12:00 noon  "
"   Saturdays to Thursdays     "
=====

```

SES NEWS IN BRIEF

AWARDS

The National Honour Diploma Award has been recently instituted.

Mr John LEEFE will be the first to receive the Award for his activities on behalf of the protection and conservation of the Somali flora and fauna.

The President of the Republic has also assigned the same Award to Dr John SALE for his excellent work in the field of wildlife conservation.

SES extends its warmest congratulations to these two outstanding members of the Society.

A VOTE OF THANKS

- . to Life Members Dr and Mrs Schels, who announced they are preparing a publication on Bird Watching in Southern Somalia;
- . to Mr and Mrs Lavoyer who will design and print cards depicting Somali birds.

LIFE MEMBERSHIPS

A staunch friend and supporter of SES, Mr Jeremy Varcoe, former British Ambassador to Somalia and at present High Commissioner in Lagos, Nigeria, has joined the growing number of SES Life Members. SES is very pleased to maintain the ties of friendship with Mr Varcoe, who has always encouraged the Society's endeavours.

Ms Andrea Jost of GTZ Somalia has also become a Life Member, on the eve of her departure from the country. SES would like to take this opportunity to thank Ms Jost - until recently a member of the Management Committee - for her active, intelligent and generous participation in SES activities. It is also hoped she may become the SES Representative in Germany. SES extends its warmest wishes of success for Ms Jost's future activities.

BEST WISHES TO TIM DODMAN

Many of our members have known personally the two British volunteers, Yvonne Guinan and Tim Dodman, who for over one year worked with admirable dedication in the Balcad Nature Reserve.

Tim is now in Papa Westray (the northernmost of the Orkney Islands, off the east coast of Scotland) for studies: "For my thesis I am looking at arctic terns. There is a large breeding colony on Papa Westray (about 6,000 birds), which last year managed to produce just one fledgeling! As this is (sometimes) the largest colony in Europe it is important to find out what is going on. It involves a lot of watching intensively, from hide, about 4 hours at a time, weighing eggs and chicks, monitoring nest attendance, feeding, etc., and also looking at predators. There is already predation by gulls and skias, but the terns (especially the chicks) may also be being eaten by rats and feral cats. I have equipment to radio-track rats if I can catch

them in the live traps. It is all very interesting and pretty intensive. Papay (as the island is known locally) is not a place for foresters, though - the searing wind allows little planted vegetation to grow except grass, potatoes and rhubarb!"

We warmly wish him success and look forward to further news about his enterprise.

DR DIANE PACKER - OUR LINK BETWEEN SES
AND THE GWENT WILDLIFE TRUST

You have all admired the artistic postcards produced for SES by Dr Diane Packer. Dr Packer is also bringing SES and Somali wildlife to the attention of nature lovers in Britain.

Turn to page 20 for her article on the Balcad Nature Reserve.

AN SES/ AWF PROJECT

In March 1990 Ms Deborah Snelson, Asst. Director, African Ops., African Wildlife Foundation in Nairobi, visited Somalia to meet some of the Wildlife officials at the National Range Agency and contact the Somali Ecological Society.

Ms Snelson discussed with Mr A.M. Dahir, Conservation Officer and member of the Management Committee of SES, how the Foundation can assist the Society. Mr Dahir illustrated the future plans of SES. The discussion resulted in the identification of a small scale project designed to promote public awareness of SES and its environmental conservation efforts. This project, which SES will run in collaboration with the African Wildlife Foundation, is expected to be endowed with funds to the extent of USD 5,000 to be made available by IDA, Washington, through AWF.

The proposed public awareness programme will focus on wildlife conservation. Training materials will be provided and SES members will take part in the programme so as to spread among the Somali people the concept of conservation in a more professional manner.

COLLABORATION BETWEEN SES AND WCI
ENVISAGED

In early February 1990 Dr. Patricia Moehlman of Wildlife Conservation International (WCI) came to Somalia to visit the Wild Ass habitat in the north-eastern regions, where CRDP/World Bank are planning to establish wildlife conservation sites.

Dr Moehlman also called on the Conservation Officer in his office at the National Herbarium: many issues were discussed and the possibility of future collaboration between WCI and SES envisaged.

VISITORS TO THE BALCAD NATURE RESERVE,
JANUARY-MAY 1990

More than 800 Somalis and expatriates visited the Balcad Nature Reserve in January-May 1990.

MAINTAINING THE SOMALIA CONNECTION

In the last newsletter were articles by Dr Talib Ali and Dr H Schels on the work of the Somali Ecological Society. Maintaining those links is Dr Dianne Packer's account of her summer visit to Somalia.

During my visit to Mogadishu this summer, I was invited by the Society to participate in two management meetings and discovered that conservation management in Somalia and Wales encompass similar problems. High on the list of priorities is the maintenance of reserve fences, essential at the Balcad Reserve to keep the local goats, sheep and cattle off the reserve. Flora and fauna species lists, tree management and maintenance of a



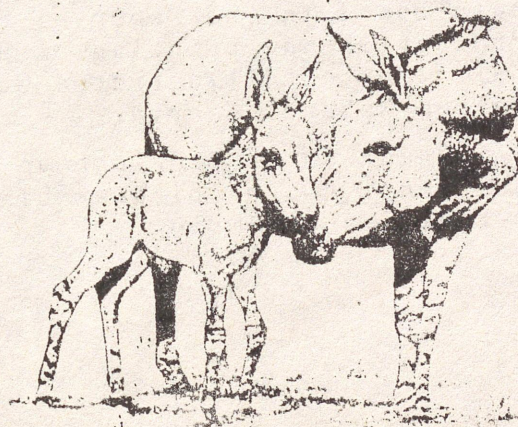
Lesser Kudu Illus: D Packer

nature trail are other essential tasks, but fortunately in Wales we are not faced with the problem of removing from the reserve several large colonies of wild bees which are prone to attack en masse anything that moves! However problems are eventually overcome and the shrubs and trees are beginning to re-establish themselves and the forested area is slowly increasing. As with all conservation bodies the Society faces the never ending problem of obtaining sufficient funding to cover its work.

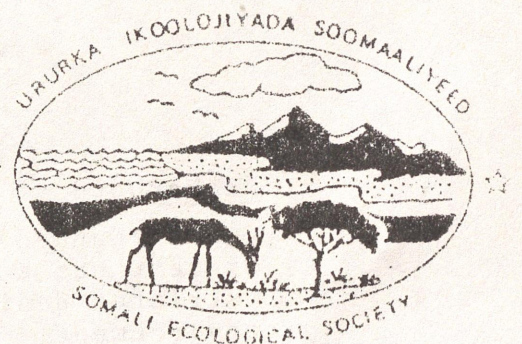
On a lovely day in August we were able to visit the reserve and spent the entire day 'on safari'. Although August is the middle of "winter" for Somalia the sun blazed down and the fig, tamarind

and mango trees along the river banks provided welcome shade. Armed with guide books for the animals and birds in the reserve the children were still astounded to discover that what at first they thought to have been an exceptionally large butterfly was instead the beautiful black and yellow black headed oriole. Indeed the colourful butterflies on the reserve were well matched by the brilliant kingfishers, superb starlings and the paradise flycatcher.

Following the reserves nature trail we quickly found the tracks of various large animals. The reserve supports lesser kudu and dik dik but the animals remained concealed in the lush foliage. Highly conspicuous however were the gigantic brown millipedes which were to be seen dangling from branches or lay curled up beside the path. The lair of the resident warthogs was unmistakable, but we were somewhat unsure of our identification of the monkeys in the canopy above, finally deciding on the blue monkey and another small group of baboons. Along the banks of the river the tracks of hippos were to be seen but both the hippos and the local crocodiles were well out of sight probably sheltering from the heat of the day. Undoubtedly had we been able to stay through the dusk we would have seen many more reserve residents but very sleepy children worn out by their safari necessitated our return to Mogadishu



Somali Wild Ass Gumburi



On August 29th I was invited to give a talk on the work of the Gwent Wildlife Trust to the Society. Well over 70 people from the Ministry of Livestock, Forestry and Range, the University, U.N. staff and the British

Ambassador and his wife attended. There was a great deal of interest in our work here and all expressed their hope of continuing contact between the Gwent Trust and Somalia.

Our summer in Somalia left us with many enjoyable memories and we hope to maintain our contacts with the Society and look forward to a return trip in 1990.

Dianne Packer

Editor's Note

During one of her trips Dr. Packer narrowly escaped serious injury when she was gored by a semi-tame oryx. We understand from Dr Packer that although the animal did not have a name before, it certainly did after!

ABOUT S.E.S.

Background

Founded in 1983, the Somali Ecological Society at present has a membership of over 390 nationals and expatriates dedicated to the conservation of the Somali environment.

The Society is a non-profit organization. Essentially a volunteer group, to date only Reserve Guards and the Reserve Warden receive payment for their work.

Conservation efforts so far have focused upon identifying and preserving remnant vegetation and wildlife habitats which represent natural ecotypes indigenous to Somalia.

Achievements to date

The Balcad Nature Reserve is the first site which the Somali Ecological Society has supported to achieve reserve status (7 August 1985). Establishment of the Reserve has been carried out with considerable assistance from the Somali Government's National Range Agency (Ministry of Livestock, Forestry and Range). The objectives of the Balcad Nature Reserve are: protection of the remaining forest; encouragement of the recovery of the ecosystem; establishment of facilities for the study of wildlife and forest ecology; and provision of education and training opportunities.

The accomplishments of the Reserve to date include:

- . fencing of the riverine forest to protect it from further damage by grazing and woodcutting;
- . hiring of Guards to protect the Reserve;
- . construction of Guards' huts;
- . organization of a 'nature trail' through the forest and printing of a Nature Trail Guide;
- . Selection of a campground, where a fire-pit has been built for cooking at group meetings;
- . Compilation by researchers of lists of plants and animals found in the Reserve;
- . Production and printing of an attractive and scientifically correct illustrated Guide to the Birds of the Balcad Nature Reserve.

Hundreds of people have visited the Reserve for educational tours, birdwatching, picnics, boat tours on the river, and camping.

C h a r g e s

	<u>Admittance</u> (per day)	<u>Camping</u> (per night)	<u>Guest Room</u> (per night)
<u>SES Members</u>			
Somali	free	100	200
Expatriate	free	400	600
Somali student	free	50	100
Expatriate student	free	200	300
<u>Non-members</u>			
Somali	50	200	400
Expatriate	400	600	800
Somali student	free	100	100
Expatriate student	200	300	400
<u>Children under 10</u> (must be accompanied by supervising adult)	free	free	100

- . Payments (and any donations) into the Donations Box at the Guard's Hut.
- . Members should show their membership cards.
- . Please enter your name and address, as well as your SES status (member or non-Member) in the Visitors' Book on each visit.

APPEAL

to members, prospective members, & nature lovers
in general

Several residents as well as expatriates leaving Somalia at the end of their tour of duty have decided to become LIFE MEMBERS. We would like to encourage other members/prospective members to follow their example: support to ecological activities is beneficial wherever it is given, for it helps spread the message of conservation and protection of man's natural heritage.
(MORE DETAILS UNDER MEMBERSHIP FEES)

SES MEMBERSHIP FEES

Patron/Institution	Sh.So. 85,000	USD 50
Supporter (Expat.)	" 20,000	" 15
Family (Expat.)	" 40,000	" 25
Ordinary	" 500	
Student	" 200	

LIFE MEMBERSHIP

Local	" 75,000	
Expatriate		" 100

Note: because of devaluation, the fees payable in Somali currency had to be revised upwards.

The Newsletter, which members receive free of charge, has also become more expensive to print. Therefore, starting in 1991, ordinary membership will be Sh.So.1,000 and student membership Sh.So.500.

Please remember that all memberships expire on 31st December each year.

FRIENDS OF SES

John Leefe, SES CO-founder and SES Representative in the UK, has started a "Friends of SES" group in Britain and has raised funds in memberships and donations.

We thank John and all SES Friends in Britain for their interest and support.

A facsimile of the application form (at the end of the Newsletter) gives the amount of the fee and the address of Mr Leefe.

If any expatriate members returning to their home country would like to maintain contact with SES and become SES Representatives in their respective countries and start a similar group, please contact the Management Committee of SES.

PUBLICATIONS AVAILABLE FROM SES

	<u>Members</u>	<u>Non-members</u>
	Sh.So.	Sh.So.
1. Birds of Balcad Nature Reserve	4000	6000
2. BNR Bird Checklist	300	600
3. Checklist of Birds of the Somali Dem. Republic	450	800
4. BNR Reserve Trail Guide	500	1000
5. BNR Mammal Guide	800	1500
6. Checklist of Mammals of the Somali Dem. Republic	500	1000
7. SES Newsletters: No.1	-	500
No.2	-	500
No.3	-	500
No.4	-	1500
8. Bird Migration Poster	500	1000
9. Postcards, depicting four endangered species	200 ea.	200 ea.
10. Somali/English-English/Somali Dictionary, pocket size (limited number available)	6000	8000

They are available from: A.M. Dahir (National Herbarium, NRA)
R. Todaro (Rectorate, Somal National University)
Mrs Briata (Hotel Croce del Sud)

PUBLICATIONS NOW AVAILABLE FROM THE NAT. HERBARIUM

(Apply to A.M. Dahir National Herbarium, NRA)

- A Key to Somali Grasses, by T. Cope (Sh.So.4000)
- A Glossary of Botanical Terms in English and Somali, by the National Herbarium (Sh.So. 1000)

THE SOMALI ECOLOGICAL SOCIETY - HOW TO BECOME INVOLVED

1. Monthly Scientific Meetings

Talks and discussions covering a wide range of topics related to Somalia's environment.

Environmental films.

Open to everyone. Free of charge. Refreshments.

Held on the LAST TUESDAY of every month at the National Range Agency. LOOK OUT FOR POSTERS!

2. Membership

Membership forms are available from:

(i) Balcad Nature Reserve - Balcad Field Centre.

(ii) in Mogadishu: - A.M. Dahir (Nat. Herbarium, NRA)
 - Dr. Mohamed Abdirahman (Animal Health Dept., Ministry of Livestock)
 - R. Todaro (Rectorate, Somali Nat. University at Km 7)
 - Ali Haji (Safeway Travel Savoy Centre, tel. 21599, Telex 3736)

Members receive: (on production of membership card)

- Free entrance to Balcad Nature Reserve and reduced rates for overnight stay.
- Reduction on some publications.
- Society's Newsletter.
- The satisfaction of supporting nature conservation, which must be seen in a world-wide framework.

3. Balcad Flora and Fauna Reserve

Open daily all year round for visits,
 guided walks,
 overnight stays.

Please use contact addresses for further information.

4. Further involvement

SES welcomes any form of participation in its activities - e.g. research, technical expertise, managerial advice, organisation of fund-raising events. Members may wish to be considered for the Management Committee. SES is always in need of people to help with fund-raising and writing proposals: we need contributors for the Newsletters (articles, lay-out, design, graphics, production, distribution). You may even be interested in putting out a publication of your own for SES.

5. Contact

- members of the Management Committee at monthly meetings or in their offices;
- Ali Haji Abdi of Safeway Travel (see 2 above).

21

APPLICATION FOR MEMBERSHIP OF THE UK FRIENDS OF THE
SOMALI ECOLOGICAL SOCIETY

Name..... Title.....

Address.....

.....

.....

Tel No.....

I enclose:

£

Annual Membership Subscription 5.00

Donation

Total _____

I am also interested in obtaining copies, as indicated, of the following publications of the SES.

Serial No	No of copies	Title
1	Balcad Nature Reserve: Nature Trail Guide
2	A Guide to the Mammals of the Balcad Nature Reserve by Nigel Varty
3	A Checklist of the Birds of the Balcad Nature Reserve
4	An Illustrated Guide to the Birds of the Balcad Nature Reserve by Christa Schels, illustrated by Nicholette Lavoyer
5	Background, Bye-laws, and Constitution of the Somali Ecological Society.

Signed.....

Date.....

Note: The first four publications will be supplied as photocopies, whereas the Bird Guide is being printed. Prices will be determined to cover costs, including postage, and to provide a contribution towards the Society's funds.

Subscriptions and donations should be made payable to: SOMALI ECOLOGICAL SOCIETY and sent to: John D. Leefe OBE, UK Representative SES, The Spinney, Clipsham Road, Stretton, M Oakham, Leics LE15 7QS
Tel no: Castle Bytham (0780 81) 618

BALCAD NATURE RESERVE

...AND HOW TO GET THERE

Balcad Nature Reserve is only 35km out of Mogadishu, on the main northern highway towards Balcad and Jowhar (tarmac road). It is about a 30-40 minute drive, or visitors may use the Balcad bus which leaves regularly from above the Sinai market in Mogadishu.

