

ETHIOPIAN WOLF CONSERVATION PROGRAMME

Publisher and Editor: Zegeye Kibret, Bale Mountains National Park, Ethiopia

The Bale Mountains National Park (BMNP)



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The role of The Bale Mountains as a major catchment area for water is of paramount importance. Water is the fundamental resource for all life. Hundreds and thousands of people, their livestock and the environment in the south east of Ethiopia and further in to Somalia are dependent on the water that originates from the Bale massif. The Bale massif plays a crucial role in climate control in the region by attracting large amount of orographic rainfall. Rain fed agriculture absolutely depends on this water. About 44 streams arise in the mountains and join four major rivers the Wabe Shebele, the Web (leading to the Genale and Juba) the Welmel and the Dumal . There are also springs in the low land originating from the Bale Mountains. These rivers and springs are of critical importance and the only sources of perennial water for arid lowlands of the southeast of Ethiopia and the neighbouring Somalia. The people in the lowland areas are completely dependent on good management

of the resources from the highland areas. If the flow in these rivers is altered in any way through deforestation, overgrazing of pastures or over abstraction for irrigation (all of which are occurring currently at least to some extent) the highland - lowland imbalance will result in the loss of perennial water in the lowlands. In particular, these activities will lead to reductions in the critical flow during the dry season. If such situation arises, the dry season range of the people and their domestic livestock will be reduced dramatically as they concentrate about whatever sources of water remain. It is widely recognized such uneven distribution of people leads to rapid degradation of land. The people are, therefore, likely to become increasingly food-aid dependent if the water catchment areas of Bale mountains are insufficiently protected. These incalculable ecological services of BMNP are not recognized, and the link between habitat protection and food security is little understood.

Dear readers,
 Congratulations for being with us and having the 4th EWCP newsletter. It is now a year since you received the first issue. The time went so quickly and you have done priceless activities and accomplished much. This issue will reach you at the beginning of the new Ethiopian academic year after the two months school break and I hope that your usual participation will continue with great inspiration and maximum effort. Though it may sometimes seem invisible, every activity of yours to protect the environment makes a vital contribution in keeping the ecological balance that benefits all life on earth. The world's problems must be tackled with the real understanding of all the factors involved. We must begin to realize that the key to our future lies in understanding nature and particularly the highly complex ecological relationship that exist between us, the earth and the millions of animals and plant species that the earth supports. A view from a space has made us realize that damage has been and is still being done. But with hope and optimism, it is not too late for us to heal the wounds we have inflicted. Please keep reading and take result-oriented actions together with us all; people who care about our environment, resources and heritage. Together we make a difference!

Best wishes and enjoy the new academic Ethiopian year. Good luck!



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Letters

Dear publisher,
 I would like to express my appreciation to all your teaching components of issue three that shows your practical skills to discharge your responsibilities effectively and efficiently.
 Keep in touch!!!
Tamirat Shiferaw Dinsho high school teacher

Dear publisher,
 As a guide of BMNP, I found your newsletter very useful and I appreciate the action column which has great significance for the development of tourism. Reading it has increased my knowledge of the park as it consisted various information. Your newsletter is educating and it has to be encouraged. Please keep it up.
Daniel Tilaye, BMNP tourist guide

Dear publisher,
 Your quarterly publication of EWCP newsletter increase the awareness of the community about EWCP and BMNP. It motivated teachers and students in

my school. Keep going on your great job and we look forward to receive more.
Zimbelachew Dejene Angetu primary school teacher

Dear Z,
 I enjoyed reading the newsletters and I am extremely impressed. It is the result of great efforts and valuable material for the park and the project. Please have a discussion column so that people discuss about the park and its wildlife.
Gedlu Tesera EWCP field assistant

Dear publisher,
 The support you project and you have done for Dinsho primary school is definitely important and it brought positive attitude to the local community. The school has lacked facilities as it was publicly built and the children used to sit on the floor of the classroom. We are all happy. Many thanks to your project and donors for enabling the children to rise up and sit on desks.
Mama Suleyman Dinsho town office

Facts

The Ethiopian wolves are rarer than the giant pandas by far!

Ethiopian Wolves	Pandas
Highland rodents specialist	Bamboo shoots specialist
Area on earth only 3,000 km ²	12,000 km ²
>450 individuals remaining	1,500 individuals
7 populations	25 populations
Declining	Declining
Endangered	Endangered
No captive animals	Captive breeding attempts in more than 10 countries
• Millions of people rely on BMNP far beyond its boundary	
• EWCP was one of the first and is one of the best conservation projects in Ethiopia.	
• Since 1998, 30,000 dogs have been vaccinated and 500 neutered by EWCP in target areas in and around BMNP to reduce the transmission of disease from dogs to wolves.	

Animal Page

Breeding in Ethiopian wolves

Continuing from the third newsletter, here is information on the amazing breeding behaviour of Ethiopian wolf.

The breeding season in BMNP concurs with the dry season, roughly between October and March, with most mating instances observed between August and November. Pre mating behavior by the dominant female includes an increase in the frequency of scent marking, play soliciting, food begging towards the dominant male, and aggressive behavior toward lower ranking females.

In BMNP the dominant female of



each pack gives birth once a year between October and December after a gestation period of 60-62 days. Pups are born with their eyes closed and without teeth, in a den dug by the dominant mother. One to seven pups emerge from the den after three weeks. Pups are regularly shifted between dens up to 2.5 km apart. In the Bale Mountains some times a lower ranking female may assist the mother in suckling. Pups live in their underground dens until three weeks old feeding on their mother's milk. Then they start to emerge above the ground.

All the members of the pack bring food to them until the pups are ready to hunt their own food.

Some of these nursing females showed signs of pregnancy and may have lost or deserted their own pups before joining the dominant females den!

Get no flood by keeping forests

Plants save us in many ways but humans don't care

Plants are the most obvious external features of many global ecosystems and form the basis of life on earth. They are the direct source of food for most organisms and act as habitats within which organisms live, grow and reproduce.

They enable people to meet many of their needs- food, fuel, shelter, transport, and ornament, and also provides us with some of our best known and most effective medicines, both locally and internationally. For example the *Hagenia abyssinica* Kosso or Heto, is used for the removal of tapeworm; *Prunus africanus* is used for gonorrhoea.

Different conditions around the world have led to diverse forms of plants and plant cover with some widespread, and others limited in distribution or endemic. For example BMNP is a home to 1600 plant species of which 160 are endemic to Ethiopia and 34 strictly endemic to Bale. And perhaps there are more not discovered yet.

But, BMNP is no exception to the trend of plant loss. Every year plants are cut down for various human needs such as fire and expansion of farm land accelerating the rate of deforestation. This puts into danger the existence of the native animals and of the people who rely on the ecosystem services of the park. If all these ecological pro-

cesses collapse, all the people and animals will suffer

To minimize such losses, several things have to be done. Some of the approaches may include; integrated conservation activities and development projects; participatory approach which involve the local community in conservation activities; environmental education and awareness programmes directed at people from all walks of life and building individual and institutional capacity for a better understanding and management of biodiversity at local, regional, national and international levels. The use of biodiversity in any form is a major responsibility of all of us. When something is taken out something must be put back in for a balance to



The Shaya forest, Bale

be sustained. And given the fragility of our environment, something often has to be put in before anything can be taken out.

Remember the floods killing people and causing much damage this year in Dire Dawa, South Gambela etc. It was the destruction of the plants that made these floods so bad. Plants stop the rain before it reaches the ground and lets the rain water be taken up slowly into the ground. Then the water in the ground will slowly be released giving us rivers that flow slowly all the time. Without the plants, the water lands on the ground and immediately runs off causing the damaging floods. Keep plants, save floods.

Take result oriented and problem solving action now!

EWCP News

A General Management Plan for BMNP is being prepared.

It will help the Park to set its priorities and guide its actions. Experts from many parts of Ethiopia and beyond have taken part in workshops to help prepare the plan. All agree that BMNP is one of the most significant parks in Africa. Despite its incalculable values for biodiversity conservation and benefits from ecosystem services, the park is not yet gazetted.

Vehicle kills wolf

With only about 450 left alive in the world, the Ethiopian wolf *Canis simensis* (formerly called Simien fox or ky kebero), is a beautiful part of Ethiopia's unique wildlife heritage. It is sad to report that a wolf was recently killed by a careless driver on the road running through the Bale Mountains National Park in Oromia Region.

The Bale Mountains National Park was established in 1970 to conserve the mountain nyala *Tragelaphus buxtoni* as well as the Ethiopian wolf. The Bale Mountains still contain the largest surviving populations of both these spectacular animals that only live in Ethiopia. Both species continue to suffer from human encroachment to their habitat, although the mountain dwellers of the area are very tolerant towards both animals.

The wolves also suffer from diseases carried by domestic dogs living in the area and transmitted to

the endangered species. Recently 50 wolves died from the viral infection canine distemper.

Integrated education and community outreach programme

Four organizations have made an agreement to undertake a joint collaborative programme on environmental education, conservation and community outreach. The Bale Mountains National Park, The Ethiopian Wolf Conservation Programme, The Frankfurt Zoological Society and the Movement for Ecological Learning and Community Action (MELCA) Mahiber are the organizations who made this accord and the educators who represent these organizations have made an annual comprehensive plan for the conservation education and community outreach in and around BMNP. The joint programme is called BMEE (Bale Mountains Environmental Education). The editor wishes BMEE every success and anyone who is interested in this work is welcome to contact them.

BMNP recorded as hotspot

The BMNP was established in 1970 and not yet gazetted. However its international, national and regional values are huge. The definite values can be split into two broad categories. The first one is the extent to which human communities, both local and far beyond, are dependent on ecological processes within the

Bale massif and secondly, it is very important area for the conservation of biodiversity. This year it has been recorded as part of one of the world's biodiversity hotspots and we hope it will be recognised as a World Heritage Site. For now it's just lucky! There are international organizations striving to conserve it and seeking your help.

Community based projects in Dinsho

Dinsho is a town situated near the headquarters of the BMNP. Many children join the Dinsho primary school from the villages in and around the park. The school was built by the local people and lacks many facilities and the classrooms are not large enough to hold all the children. 70 to 110 children crowd into a room where most pupils sit on the floor. It is obvious that education is one of the most potent weapons available to any poor society who are dependent on the natural resources to tackle the challenges faced from degradation as a result of over exploitation of natural resources.

EWCP has recognized these problems in the primary school of Dinsho and through a kind donation from the Born Free Global Friends Programme, the school has received desks, books, nursery materials and the construction of girls toilet.

In addition, this September a new classroom is being built for the school by the donation from the Kuoni Foundation.

In another project run by EWCP, a new Sports Stadium is under construction in Dinsho village through a kind donation of Peter Diethelm. This help is greatly appreciated and this support to the poor children in our community makes the conservation of BMNP come alive.



Guest speaker

Deborah Randall

This issue's guest is Deborah Randall who just received her doctorate from Oxford University. She studied the genetic structure of the Ethiopian wolf population in BMNP. Here is her interesting article.

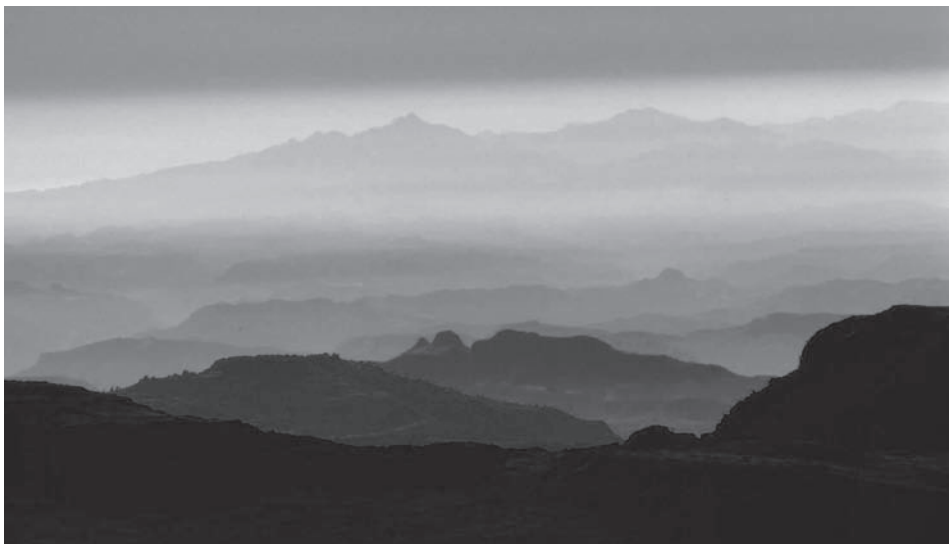
Every organism is made up of many small molecules called genes located on the DNA in our cells and these determine our *genetic design*. Genes affect how we look, how we grow, how we behave, and how we respond to our environment. So, essentially, they are the instructions for our bodies and they are what make one individual different to another individual of the same species (for example humans have different sizes, different eye colours, different hair colours) and they make one species different to another species (e.g. horses, cows, dogs, humans, and Ethiopian wolves are all different because they have different genes and dif-

ferent genetic designs). Genetics is the term used to describe the study of genes and genetic design. There are many ways that genetics is used in science and conservation to help us understand the evolution, behaviour, and long-term survival of species.

Conservation programs for endangered species, such as the Ethiopian wolf, try to maintain high levels of genetic diversity (or many genetic differences) in wildlife populations for two important reasons. First, when populations are very small, close relatives such as mother-son, father-daughter, or brother-sister will breed together more often since there are fewer individuals in the population to choose as breeding partners. Close relatives have more similar genetic designs than non-relatives and when they breed together it is called *inbreeding*. Inbreeding between individuals with similar genetics reduces the overall health of the population and has negative effects on the survival of the species. But when genetic diversity is high in the population, most individuals in the population have different genetic designs and inbreeding is less likely; therefore the population is more likely to remain healthy. Second, genetic diversity is important to make sure wildlife populations can evolve when their environment changes due to natural or human causes. This is because the more diverse the animals in the population are in their genetic design, the more likely some individuals will be able to survive when the environment changes or even when a new disease is introduced. So genetic

diversity is needed for evolution.

A previous study by Dada Gottelli and Claudio Sillero showed that Ethiopian wolves already have low genetic diversity compared to other canid species, such as European grey wolves, jackals, and domestic dogs. This is because Ethiopian wolves live in very small populations. When populations become small, genetic diversity also becomes low. For my PhD research, I studied the genetics of Ethiopian wolves in the Bale Mountains to understand what factors are affecting the level of genetic diversity in the population. With the help of the EWCP monitoring team, I collected faecal samples from Ethiopian wolves to get copies of each animal's DNA and genes. From this I determined the genetic design of each individual in the Web Valley, Sanetti Plateau, and Morebawa and measured the level of genetic diversity in the whole population. One of the most important findings from my research was that outbreaks of disease (such as rabies and CDV), which cause high mortality among wolves, also reduce the level of genetic diversity in the population. Therefore, one of the most important actions that can help keep the level of genetic diversity high in this population is preventing disease outbreaks. Preventing disease is also important for preventing a decline in the number of Ethiopian wolves. Therefore, the work of the EWCP to prevent disease outbreaks, conserve the number of Ethiopian wolves, and protect their genetic diversity is critical and will help the species' long-term survival.



Astonishing landscape of BMNP

A QUOTE TO STICK IN MIND FOREVER!!

"It is not only the area's extraordinary biodiversity that will suffer if the Bale Mountains are degraded but also the lives of many thousands of people who depend on steady supplies of fresh water flowing from the mountains"

Professor James Malcolm
University of Redlands, California the current coordinator of the Ethiopian wolf conservation programme and frequent visitor of BMNP over the last 30 years.

Club page

School and youth clubs remarkable activities

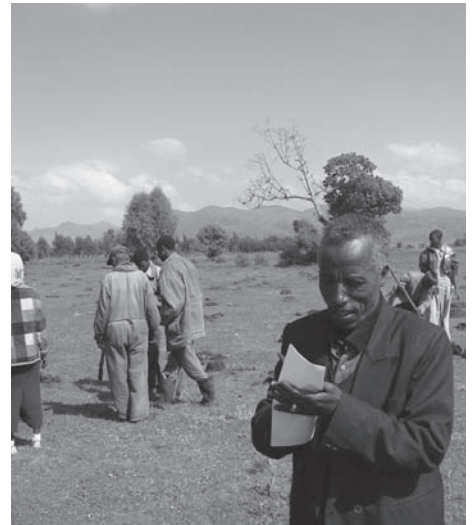
I greatly appreciate the participation and discipline of the participants of the Garamba Dima, Hora Soba, Gofingira, Abakara, Hersho and Dinsho primary schools (especially Dinsho primary school nature club members for their wolf and nyala song and exhibitions well organized by the club head teacher Jeylan Mohammed.) And the youth clubs from Dinsho high school, wolf club, Hersho youth, Dinsho Abdi Boru, Gojera youth and bird club on the annual Wolf Day celebration for 2006 at Dinsho high school. Thank you Ayub and Smile from the Bale Beauty NC for planting in the Tegona Gorge outside Goba and for their presence at the wolf day in Dinsho which shows their commitment and inspiration.

The Agarfa ATVT College NC has celebrated the world environmen-

tal day on June 5 as report from Negash Tamiru head of the club reported.

Planting indigenous seedlings near Dinsho by the state farm group teacher Zimbelachew Dejene was encouraging. Some of the participants who were aware of plastic pollution collected and burnt all the tubes of the seedlings.

All were great! And we environmentalists and conservationists are getting bigger! Lets go on !!!



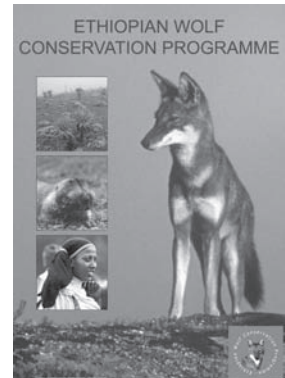
Plantation in Dinsho by the community



Youth in Adaba vaccinating dogs



At the annual Wolf Day the EWCP, at least 3000 people from around Dinsho join the celebration.



Action Competition

- Win this color poster
- Food chain competition
- Food chain show the relationship of living things in which one is eating the other. Example plants -mole rat- wolf
- This issue competition is to make as many food chains as you can in your area. The correct and the biggest list will be the winner of the competition. Please also think of breaking the food chains you list and explain the consequences that will occur. Here your club head teacher can help. Good luck!

Paarkii gaarren Baale



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Bu'aan inni qabu

Paarkiin gaarreren Baalee jalqaba irratti kunuunsa bineensota marartuu biyya keenya qofa keessatti argaman Gadamsa baddaa fi jeedala fardaa kunuunsuuf bu'uorafamee ture. Haata'u malee dabalataan bu'aa bal'aa fi guddaa ta'e qaba. Barreeffama kana irratti bu'aa isaa akka armaan gadiitti tuqame dubbisuun hubachuu ni dandeechu.

Paarkiin Gaarren Baale :-

- Ardii Afrikaa keessaa lafa baddaa diilalaa'aa guddicha fi bal'inna 1000km² hanguu of keessatti hammata.
- Biyyatti keessatti sadarkaa lamaffa kan qabate bosona ho'aa fi bosona dumessaa isa qofa ta'e bosona Harannaa qaba.
- Sababa hariiroo baddaa

diilalaa'aa fi bosona Harannaa wajjin uumaniin madda laggeen 44 ta'an maddisiisuun ummatniifi beeladootni miliyoonaan lakkawaman hanga Somaaliyaatti ni tajaajila.

- Wirtuu bineensota marartuu biyya keenya fi Baale qofa keessatti argamani dha.
- Buna diinagdeetti jijjiramuu danda'u bosona Harannaa keessatti argamu qaba.
- Hoomaa guddaa Gadamsa baddaa fi Jeedala fardaa ardii irraa 50% ol ta'an of keessaa qaba.
- Tuqaa guddichi ardii irratti argamu hundi isaa Paarkii keessatti qofa argamu.
- Sanyii harma hoosiftoota biyyatti keessatti galmaa'an keessa 26% qaba.
- Jireenya simbirrootaatiif biyyattii keessaa iddoo mijaa'aa isa guddaa yammuu ta'u akaakuu simbi-

rootaa biyyattii keessatti galmaa'an keessa 6.1% of keessaa qaba.

Paarkiin gaarren Baalee bu'aa kanaa fi fan biroo kan hangana hin jedhamne ni qaba. Yoo inni bade immoo bu'aan tuqaman hundi ni badu sanaan booda immoo nu huundinuu rakkoo guddaa irra geenya. Kanaafuu hundi keenyaa eegumsaa fi kunuunsa isaa irratti hirmaachuuf haa kaanu. Dabalataaf Paarkii daaw'achuun baay'ee baradhaa. Ammaaf asitti xummuuruun maxxansaa itti anutti wal haa agarru.

Isin wajjiin malee eegumsa isaa galmaan hin geenyu!!

Maxxansaa darban irraa maal fa'a baratan? Nu barreessaa.....

Do you know about EWCP?



The mission of EWCP is to conserve the Ethiopian wolf and its afro-alpine habitat by addressing the most urgent threats to its long-term survival.

The programme promotes sustainable solutions for the conservation of Ethiopian wolves by addressing particular aspects of the most serious threats affecting their populations.

The work is centered on capacity building, monitoring the wolves, the use of Afro-alpine resources, disease prevention and control, community education, habitat protection support, and population management.



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**SAGANTAA EEGUMSA JEEDALA FARDAA
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