

# Ethiopian Wolf Conservation Programme

Annual Report



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September 2001



## **Summary**

This annual report, with its summary of the activities of the Ethiopian Wolf Conservation Programme (EWCP), is a testament to the scope, diversity and amount of work that has been done over the past twelve months. Much of the work is ongoing. It is rare that any single campaign will reach its conclusion primarily because of the situation of the Ethiopian wolf today. Nonetheless, I believe that the EWCP team, based in Bale, Woldia, Oxford, Horsham, Edinburgh, London and Addis Ababa have all taken significant steps in these twelve months to increase our understanding of the problems facing the wolves and to resolving and implementing ways of counteracting those threats.

The EWCP has undergone a conceptual change over the past year. This hinges on the expansion of our activities in northern Ethiopia. As such, we are now active throughout all wolf ranges. This has implications for the way we carry out our activities and how they are funded. I perceive that the Born Free Foundation funds, which have been pledged for a five-year period, will be used to cover the Programme's core costs. In contrast, funding for our activities in the field may have to be raised externally. It is my aim that these are done for complete, nation-wide campaigns rather than by region.

Overall, if the recovery of the Bale wolf population - particularly in the Web Valley and Sanetti Plateau - could be an indication of the success of the Programme, we could declare ourselves heading in the right direction. Of course, such claims are not justified as the population may have recovered even in our absence. With a species in the position of the Ethiopian wolf we certainly do not have a 'control' population to measure our success. Nonetheless, I think there is little doubt that we are and will continue to contribute to the conservation of the Ethiopian wolf. Perhaps, more justifiably, we could say that in our absence, they would be more threatened.

## **Acknowledgements**

The Ethiopian Wolf Conservation Programme operates in Ethiopia under agreements with the Government of Ethiopia both at the federal and regional levels. Specifically, the agreements are with the Ethiopian Wildlife Conservation Organisation (EWCO) at a federal level and with the Agricultural Bureaux of the Council of Regional State of Oromiya and the Amhara National Regional Government at a regional level. The Programme counts on the official support of the President of Ethiopia, Dr Negasso Gidada. At a local level, the Programme seeks the support and cooperation of local authorities at the *woreda* and *kebele* levels for field activities in all areas. I am grateful to the above organisations and the people within them that facilitate the work of the EWCP.

The EWCP receives its core funding from the Born Free Foundation in UK. We are grateful for their ongoing support. In addition, the St Louis Zoo's Field Research for Conservation Fund and the Bernd Thies Foundation have provided additional funds for habitat assessment work in northern Ethiopia. We are grateful for the support that Terra Nova have given us through the provision of reduced price Quasars for our teams in the field.

There are numerous individuals that willing contribute time and effort to ensuring that the Programme functions efficiently. Perhaps Giovanni Berti could be singled out for his assistance in the past year.

## **Introduction**

In the period covered by this annual report, June 2000 - June 2001, there have been many changes in the Ethiopian Wolf Conservation Programme (EWCP). My predecessor, Dr Claudio Sillero, left the Ethiopia after some twelve years of work in Ethiopia. I replaced Claudio in June 2000. It has been, therefore, a year since I joined the EWCP. Over this year, the EWCP has consolidated many of its activities and we have been slowly expanding into northern Ethiopia.

My aim over this period and within the forthcoming year is to bring about a perceptual and real change in the EWCP. This is to move from being a Bale-focused programme to one that is nationwide, dealing with relevant conservation issues throughout all wolf ranges. This is largely because recent research has made it increasingly apparent that the northern populations of wolves are the most threatened and demand our attention. This has been most clearly demonstrated in the modelling work by Karen Laurenson and Dan Haydon.

This organisational restructuring will have impacts on the way we carry out our work and in the way we raise funds for the programme. We are fortunate to have the Born Free Foundation funds from which to build.

The activities that the Programme will be involved throughout the country will be related to those that are now well established in Bale, but there may be differences in the degree to which they are prioritised in any given area. This will be driven by local circumstances and determined by our research activities.

Research always has been and always will be the foundation on which we base the implementation of actions.

Despite these organisational changes, our aim remains constant. Our global aim is to assist with the conservation of the Ethiopian wolf and its Afroalpine habitat in order to achieve the minimum population level required ensuring their long-term survival.



## ***Political context***

The EWCP fits into the political context of Ethiopia today and we are ensure good working relationships with our counterpart organisations within the Ethiopian government. Over the past year, we have renewed our agreements with the Ethiopian government at both the federal and regional levels.

### *Agreement with EWCO*

At the federal level, we signed an agreement with the Ethiopian Wildlife Conservation Organisation (EWCO). The duration of the agreement was four years. It will last, therefore, until the end of December 2004. In the procedure to produce the appropriate Memorandum of Understanding and Programme proposal, we had some fruitful discussions that clarified both parties' understanding of and aims for the Programme. The signing of the agreement was more than just a political necessity and gesture. I believe that we now have the firm support of the EWCO in our activities.

One aspect of the agreement was to take on a counterpart. Deresse Dejene has now been assigned to the Programme and already the partnership is proving valuable. Deresse is acting Head of the Conservation Education Unit within EWCO. We will include him, when possible or necessary, in our activities.

### *Agreement with the Amhara region*

A four-year agreement was also signed with the Agricultural Bureau of the Amhara National Regional Government. The Bureau in Bahir Dar followed this rapidly with letters of introduction and authority to all zones within northern Ethiopia that are relevant to our work. The zones, in turn, have informed each *woreda* of the EWCP and its work.

Consequently, our work in the north should move rapidly forward with the support of the people and authorities.

### *Agreement with the Oromiya region*

A four-year agreement was also signed with the Oromiya Agricultural Development Bureau (OADB). While it was originally not foreseen that we might have to do this, I see this as a positive step for our relationship with the organisation that has the mandate to manage the Bale Mountains National Park (BMNP) and whose jurisdiction also includes the Arsi range.

There were initial small delays to the signing of the agreement with the OADB, though this was beyond the control of any person involved. The principal reason for the delay was a significant re-shuffle within the Bureau, with most of the people with whom we had previously dealt being replaced. The agreement was taken forward with the new team within the Bureau and we have established a good relationship since signing the agreement.

The new team includes Mohammednur Abachebsa, the new Deputy Head, Regulatory Division and Tibebe Tadesse, the Head of the Forestry & Wildlife Conservation Department of the OADB. They took over and have made significant steps to establishing a good relationship with all organisations involved in Bale. During this time, they spent some days in and around the BMNP in April this year. They gave over one day to the Programme during which we went to the Sanetti Plateau and had some very fruitful discussions.

I believe that with the OADB, we are and will be making some headway to improve the condition in the park.

### *Relationship with the WWF-DGIS Project*

Over the past year, I have had extensive discussions with the Project Leader, Dr Ermias Bekele, and Project Executant, Ato Abebe, of the WWF-DGIS Project that is focusing on the Herenna and adjacent Mena-Agentu Forests. As a token of the good relationship that I now have with the WWF-DGIS project, they are passing all their planning and concept documents - particularly where it concerns the park - through me for comment. As part of the reciprocity of the relationship, I am copying WWF on all proposals that I am developing for the park. I think that this will help us as Ermias has established excellent relations with many of the authorities involved and, therefore, is well placed to push things of mutual interest.

As another token of the good relationship, WWF-DGIS agreed to fund, in part, the wild dog survey in the Herenna Forest that Dr Guy Dutton and Claudio Sillero undertook in late 2000/early 2001 (see below).

### *Relationship with the local communities around Bale*

I have now had meetings with the *woreda* councils of Sinana-Dinsho and Goba. These meetings have proved fruitful in getting the authorities' support for the programme. Again, the meetings seemed timely and the authorities responded well. They gave their support to the Programme.

## **Activities**

The EWCP strives to achieve its aim through two broad fields of activity. These are research and implementation. The research forms the foundation to the conservation actions that we undertake. The actions, in turn, embrace a number of fields of activity, including community education, dog vaccination and sterilisation, protected area support and tourism development. When it is possible and when it is perceived that the results will be positive, the local human communities are involved in the Programme's activities.

Overall, this means that our remit is very broad. As long as there is a sound basis, any activity that may positively affect the persistence of the Ethiopian wolf, directly or indirectly, will be considered.

Here I describe the activities of the EWCP over the past year, consider

those that will be ongoing and those that, in the future, we aim to incorporate into the Programme. I consider them in the order, research and implementation. When there has been community involvement, the activities will be mentioned in the appropriate section.

## **Research**

Research remains the foundation on which the EWCP acts. Over the past year, the research activities that have been carried out include: 1) the continuation of monitoring the wolf populations in the Web Valley, Sanetti Plateau and some of the marginal areas in the Bale Mountains, 2) the ongoing data collection, analysis and write up by Jorgelina Marino for her DPhil thesis, and 3) the completion of Karen Laurenson's data for the Bale Rabies Control Project. There is also much to look forward to and hope for: the completion of Jorgelina's thesis, the commencement of a new D.Phil

student, and an MSc student from the University of Addis Ababa to work on domestic dog ecology in the Bale Mountains. In addition, we have grant applications submitted for work on the trophic relationships that include rodents, raptors, wolves and domestic livestock.

#### *Bale Rabies Control Project*

Dr Karen Laurenson's project - the Bale Rabies Control Project - has drawn to a close. This is not only because her funding period has ended, but her agreement with the EWCO has also come to an end. Her contribution to our understanding of the role of domestic dog populations as reservoirs for canid diseases has been and continues to be invaluable.

Karen's work arose from the 1991-1992 epidemics of rabies and canine distemper within the Ethiopian wolf population in Bale. The focus of her work was to understand the epidemiological dynamics of vaccination campaigns in relation to whether campaigns are best targeting towns or rural dog populations. A sub-section of the project was to understand whether such vaccinations provided adequate protection for wild carnivores, including wolves that are sympatric with the dogs. And if so, what level of vaccination coverage was necessary? Furthermore, in direct relation to the diseases that threaten the Ethiopian wolf, her work included modelling, or cost-effectiveness analysis of the best methods of disease protection - particularly whether vaccinating dogs or wolves could prove the better means of protection. Her recent results on this front show that 1) we should be concentrating our domestic dog vaccination efforts on the smaller wolf populations in northern Ethiopia, 2) the Bale wolf population is relatively resilient to disease outbreaks, 3) in terms of economic cost-effectiveness, it would be worth

considering vaccinating wolves at least against rabies.

Despite the resilience to disease in the Bale population, other analyses have shown that the Bale wolves are those most likely to come into contact with canid related diseases for which domestic dogs are the reservoir. This is primarily because of the density of dogs living in and around the wolf range in Bale. Therefore, we shall not consider stopping the present, ongoing vaccination campaign. On the contrary, one of the ongoing aims of the programmes, even in its expanded state, will be to continue to strive to secure the Bale wolf population.

Second, Karen's cost-effectiveness analyses did not extend to a detailed cost-benefit analysis that incorporated the community benefits - both economic and health - that a domestic dog vaccination campaign provides. However, it is likely that an overall mixed strategy may be appropriate, depending on the local circumstances. For example, in an area where dog-wolf interaction rates are high and the local human population lives close to the wolf range, a dog vaccination campaign may be the optimal solution. Bale would certainly fall into this category. In contrast, where the dog-wolf interaction rates were predicted to be low because their ranges were disjunctive, wolf vaccination could prove to be a more cost-effective solution. The Arsi range would fall into this category.

In the short-term, these results mean that we need to carry out a detailed research and development phase for wolf vaccination through the use of oral vaccines. There are various practical steps that need to be taken, including licensing of the drugs in Ethiopia, trying to raise funds for the bait trails and thereafter the trails with the vaccine. We will also

consider the use of oral vaccines for the dog vaccination. Again, with the EWCO and through the Ministry of Agriculture, we need to have the oral vaccines licensed first.

*Landscapes of Ethiopian wolf evolution, population dynamics and territoriality*

This is the work of Jorgelina Marino. She is currently writing up her DPhil thesis in Oxford. During the past year, Lina has concentrated on collating the data from the long-term wolf monitoring work in the Bale Mountains. She focussed in particular on the Web Valley population, where the demographic data is more complete. She has also compiled data from Claudio Sillero's fieldwork on the wolves from 1988 to 1992.

In 1992, a rabies outbreak decimated the population, resulting in the disintegration of 3 out of the 5 packs inhabiting the Web Valley. It was not until 1997 that fieldwork restarted in the Web valley. Since then, demographic monitoring has been conducted every breeding season. The objective of her recent work was to evaluate the population's capacity to recover from such a severe decline. She examined the demographic processes involved in the recovery, investigating the effect of wolves' social structure and spatial organization in the recovery process.

Lina has found that by the year 2000, the population had recovered to pre-rabies levels. The recovery was constrained by the formation of new packs. Therefore, new packs were only formed when existing packs grew large enough to allow the fission to occur. Once the new packs were formed, the rate of population has increased.

*Wolf Monitoring - Bale*

The monitoring of the wolf population in Bale continues to be an important

aspect of the Programme. The long-term data that this monitoring provides will, undoubtedly, prove to be both inherently interesting and a useful tool in the conservation of the species. The aim is to monitor the emergence and survival of pups in as many of the packs as possible, but particularly those in the Web valley and on the Sanetti Plateau. These are the two most important areas for wolves in the country. The size and composition of each pack are also recorded. Finally, the home ranges of the packs in these areas are provided by repeated records of wolves to give a picture of their use of space.

This year was no exception. The first interesting aspect of this year's data was that the breeding took place at least two months later than documented in previous years. The synchrony of breeding was not affected - packs within both the Web Valley and the Sanetti Plateau remained in synchrony - but they were equally affected by the two-month delay. It is possible that the delay, at least in part, could be attributable to the delayed and depressed rains during last year's rainy season.

Aleksandra Maljkovic was recruited for this year's wolf monitoring in Bale. The recruitment process proves an interesting digression. There was no formal advertisement of the position. Instead, the message was put out by "electronic" word-of-mouth. Thus, I sent an email to a number of colleagues expressing our need for a volunteer field assistant. Within a small amount of time, I received over thirty applications from all reaches of the globe. The short-list was interviewed by a panel of Alison Hood, Claudio Sillero and Jorgelina Marino. They selected Aleks. If nothing else, this rather informal process challenges the

formal processes - and the cost they involve - for such positions.

Aleks proved a resourceful and willing assistant. Her report on the monitoring has been completed but I am awaiting its arrival in Ethiopia. Her tasks were not just confined to monitoring the wolf population, but she also provided training for Abiot Lemma and Woldemedhin Zebene who will form the wolf monitoring team for northern Ethiopia.

With the exception of the Fincha pack in the Web Valley, all packs bred this year (Table 1). Pup survival from the time of emergence from their dens (at approximately three weeks) was high. However, the  $\alpha$ -female of the Megity pack - and her pups - disappeared. The monitoring team managed only to find some tufts of her fur with no indication of what may have happened to her.

**Table 1.** The pack composition and number of pups for the packs monitored in the Bale Mountains. The numbers are for the end of the season - thus, April 2001. The total are summaries of the known packs - thus, the packs with incomplete compositions (2 packs) are excluded.

Pack	Total	Males			Females			Unknown sex			Pups	
		AD <sup>1</sup>	SA <sup>2</sup>	JU <sup>3</sup>	AD	SA	JU	AD	SA	JU	EM <sup>4</sup>	SU <sup>5</sup>
Gaysay	<b>7</b>	2	1	1	1	-	1	-	-	-	1	1
Darkeena	<b>13</b>	2	2	2	1	1	1	-	-	-	4	4
Mulamo <sup>7</sup>	<b>14</b>	3	2	-	2	1	1	-	-	-	4	3
Megity	<b>11</b>	2	-	5	1 <sup>6</sup>	1	2	-	-	-	-	-
Kotera	<b>14</b>	3	1	3	1	1	1	-	-	-	5	4
Sodota	<b>9</b>	2	1	3	1	-	1	-	-	-	5	1
Fincha	<b>3</b>	2	-	-	1	-	-	-	-	-	-	-
<i>Total (Web)</i>	<b>64</b>	14	6	13	7	4	6	-	-	-	18	12
G. Guracha	<b>10</b>	2	-	-	1	1	-	-	-	-	6	1
Nyala	<b>12</b>	3	2	1	1	1	2	-	-	-	4	2
BBC <sup>9</sup>	<b>15</b>	4	2	1	2	2	1	-	-	-	3	3
Quarry	<b>10</b>	2	2	1	1	1	-	-	-	-	3	3
Tullu Deemtu	<b>12</b>	2	2	1	1	1	1	-	-	-	4?	4
Koromi <sup>8</sup>	-	1	?	?	1	?	?	?	?	?	?	?
<i>Total (Sanetti)</i>	<b>54</b>	13	8	4	6	6	4	-	-	-	20	14
Taato	<b>11</b>	2	2	-	1	1	-	-	1	-	4?	4
<b>Total</b>	<b>136<sup>10</sup></b>	<b>31</b>	<b>17</b>	<b>18</b>	<b>15</b>	<b>11</b>	<b>11</b>	-	<b>1</b>	-	<b>43</b>	<b>30</b>

Notes 1. AD - Adults, 2. SA - sub-adults, 3. JU - juveniles, 4. EM - emerged, 5. SU - survived to present, 6. The other adult female (the alpha female) died while denning, 7. The Mulamo pack has two hybrid adults, one male, one female, 8. Incomplete composition. 9. The BBC pack was the only pack with two adult females that bred, though the den and pups of the  $\beta$ -female were never found or seen. 10. This total includes the two hybrids.

### *Wolf monitoring - North Ethiopia*

During the first five months that this annual report covers, an EWCP team consisting of Neville Ash and Fekadu Lemma carried out a series of surveys of all but one of the Afroalpine areas in northern Ethiopia. The overarching aim of their surveys was to consolidate the data that Lina and Claudio had collected in their previous expeditions and complete surveying the remaining habitat areas. The result was that the complete distribution of the Ethiopian wolf can now be documented. In addition, Neville and Fekadu went with an eye to the future. They identified potential counterparts and collaborators in the region, the carried out surveys of the attitudes of various groups of people to wildlife and in particular, the wolf, and they established the foundations of a community education programme. Much of the data that they collected was first reported in Ash (2000), but they will be used in Lina's DPhil thesis.

The conclusions of this work include:

- There are at least five isolated populations of Ethiopian wolf in northern Ethiopia
- There are least two areas from where wolves have been recently extirpated
- There is no legislative form of protection for the majority of the areas in northern Ethiopia
- All areas are threatened by human land use pressures
- Persecution should be considered as a threat as there is conflict over loss of livestock to the wolves
- All populations are smaller than 50 wolves and most are approximately 20 wolves
- All the areas are smaller than would be predicted from studying topographic maps
- All populations are intrinsically threatened by their smallness

- Despite their smallness, coupled with their isolation for some period of time, the persistence of the populations is fascinating and is indicative of resilience to such fragmentation and population sizes

Since Neville's departure from Ethiopia in November 2000, we waited some months for the return of Zelealem Tefera to take up the position of the EWCP's North Ethiopia Programme Executant. During the interim, the field assistants, Fekadu Lemma and Woldemedhin Zebene came to Bale to work with the wolf monitoring team to standardise the monitoring techniques that will be used by the team throughout the country.

Zelealem Tefera returned from Britain mid-February 2001 having successfully completed his PhD at the Durrell Institute of Conservation and Ecology at the University of Kent at Canterbury. After spending a couple of weeks off, he formally joined the team on 1 March.

Since then, much of the groundwork has been done to get the work going in the North. The objective is to increase our activities incrementally, as determined primarily by funding constraints. The outline of our activities are as follows:

#### 1. Programme administration

This included establishing contact with the authorities at all levels and securing letters of introduction, support and authority to work in all areas.

#### 2. Relationship with other organisations

There are a number of other organisations that are active in some of the wolf ranges in northern Ethiopia. These include The Environmental Support Project (ESP): Land Use Planning and the Simien

Mountains National Park Integrated Development Project (SMIDP). The ESP is active in the North Wollo highlands. Zelealem participated in a workshop organised by the ESP. At this meeting, he was able to push through that important biodiversity area, including the Afroalpine areas, should be given due consideration during land-use planning activities.

The SMIDP is financed by the Austrian Embassy Development Co-operation. The project has been active for some time. We are in discussion with the SMIDP to assess a role for the EWCP in the Simien Mountains and to ensure that the conservation interests of the Ethiopian wolf are being considered in their activities.

### 3. Habitat assessment

With Wolde and Fekadu as field assistants, Zelealem has started a new phase of habitat assessment in selected habitat areas in northern Ethiopia. The areas are Aboi Gara, Delanta, Abuna Josef and Akista. The same areas will be used for the wolf monitoring (see below).

To date, all the areas have been visited and the habitat assessment is ongoing. Part of this is trapping rodents to assess their diversity and density. The preliminary results from this trapping exercise have been alarming. The density of rodents is extremely low. The low rainfall recorded in the areas may, in part, be responsible for this. The team is to assess other areas in South Wollo and Menz to determine whether these patterns are widespread. If so, there are direct consequences for the wolves as their main prey items are the rodents. Such a low rodent density has two predicted outcomes for the wolves: 1) the breeding of the wolves will be depressed and 2) the wolves will take more livestock, which will fuel conflict with and thereafter persecution by the local human communities.

### 4. Wolf monitoring

While visiting the selected areas in northern Ethiopia, the team is making efforts to collect data on the wolf populations. These data will initially be used to determine the number of wolf packs in each area. Once this has been determined, the pack composition will be established. During the breeding season, data on mating observations will be collected. Once the wolves den with the pups, the number that emerge from the dens and the number that survival to become sub-adults will be recorded. Over time, these data will allow analysis of the home ranges of each of the packs.

### 5. Dog vaccination

To date, there has been no dog vaccination in northern Ethiopia. This is primarily because of funding constraints within the Programme. However, it is our aim and intention to raise sufficient funds to start a dog vaccination campaign in this region. This is all the more pertinent because of the results of Karen Laurenson and Dan Haydon's modelling work in the predicted effects of disease on population persistence. In addition, we have recent reports of outbreaks of rabies in the vicinity of Delanta.

### 6. Community education

Aside for the preliminary work that Neville Ash and Fekadu Lemma carried out, the community education campaign in northern Ethiopia is yet to start in earnest. Again, this is primarily because of funding constraints. However, it is hope that we will be successful in raising funds for this within the next six months.

The aim will be to carry out a detailed assessment of the attitudes of the local human communities (more pertinent now than ever with the drought and the possibility of wolves taking higher numbers of livestock). This will allow us to

design the education campaign effectively to counter the negative attitudes if they are found.

#### 7. Other information from northern Ethiopia

Interestingly, we have had a report from the Simien Mountains National Park. They carried out a count of the Ethiopian wolf population within and without the park. They counted 14 within and 27 outside of the park.

#### *Genetics work*

Because of a lack of samples, the genetics work has not been going ahead. However, Dada Gotelli at the Institute of Zoology at the Zoological Society of London has been processing some of the skin samples that have been collected over the past few years. She will be looking at the degree of genetic diversity among and within populations. In addition, with the activities starting in northern Ethiopia in earnest, it is hoped that we shall have many more samples in the near future. All future work will use faecal samples, as opposed to skin samples. Fresh faecal samples will be collected in the field and transported to Britain to be analysed by Dada. It is hoped that this genetical work will determine 1) the level of inbreeding in the sampled populations and 2) the level of genetic diversity among the populations. Such work will significantly add to our understanding of the need for metapopulation management.

#### *Expeditions*

In addition to the above described ongoing research work, a number of expeditions were sent out. The expeditions were conducted on an *ad hoc* basis to examine occasional reports that we received.

##### 1. Arsi range

We received a report from a consultant working for the GTZ-IFMP project in Adaba-Dodola that there

had been a crash in the Arsi population of wolves as a result of the widespread burning of the Erica heathland. A team from Bale, including Aleks Maljkovic, Alo Hussein, and Fekadu Lemma visited the area for a period of ten days in January 2001.

The results of the expedition were as follows:

- a. People are planting crops higher and higher and there are now crops straddling the spine of the range.
- b. There have been some massive fires in the Erica and there are very few signs of rodents in any of the areas.
- c. They saw only four wolves (3 in Galama, 1 adult male, 2 juveniles, 5-6 months old; 1 in Boroluku, adult unsexed) in ten days in the field.
- d. In their estimation there was very little optimal habitat, just in the valley bottoms at the northern end of the Galama range.
- e. There have been episodes of disease, thought to be rabies and distemper within the last eighteen months.
- f. A guesstimate from Aleks and Alo is that in Galama there cannot be more than forty - fifty wolves.
- g. There was only one, very small area with reasonable rodent densities.

##### 2. Hararge

We received a further report from the Agricultural Bureau in the Hararge region that there are wolves in at least one of the montane areas. Again, a team from Bale was sent to investigate the reports. The team included Aleks Maljkovic, Alo Hussein, Deresse Dejene from EWCO and Edriss Ebu. The highest peak in the area, Gara Mulata, was the focus of the expedition. The need for such an

expedition was heightened when a lecturer from the University in Harar sent a report to EWCO saying that he had photographed a dead wolf within the last three months.

The results were, however, disappointing. The lecturer's photograph turned out to be of a common jackal. The habitat in the area, with little exception, has been turned into forest plantations, heavily grazed fields or agriculture. People also generally agreed that the last mountain nyala from the area disappeared two years ago.

#### *Wild dog survey*

From 21 December 2000 to 5 January 2001, the EWCP conducted a questionnaire survey of the African wild dog (*Lycaon pictus*) population in the Harena Forest and adjacent Mena-Angetu National Forest Priority Area. The survey was carried out by Dr Guy Dutson, Zegeye Kibret and counterparts from the Agricultural and Administrative Bureaux from Goba, Delo Mena and Angetu. The survey received financial support from the WWF-DGIS project and the Liacone Fund. These funds were kept apart from EWCP funds and accounted for independently.

The conclusion was that there may be only one pack of wild dogs in this area. They are threatened by increasing human encroachment and habitat loss. Some recommendations were made at the completion of the survey, both in support of the WWF sustainable forest-use project, and specific large-carnivore education and awareness programmes.

#### *Future research work*

##### 1. Community ecology

In May, Simon Thirgood and I submitted an application for a small grant from the Natural Environment Research Council (NERC). The proposal is to examine the larger

ecological interactions between two trophic levels of animals including the raptors and wolves as predators, and the rodents and domestic livestock. The project, therefore, will be underpinned by an examination of the factors that regulate the rodent community - thus, whether it is predation by raptors and wolves, or competition within the guild of rodents and the domestic livestock. The outcome of the proposal is expected imminently.

The project has implications for the conservation of the wolves. If rodent populations are regulated by predation, then at some point the food supply (i.e., the rodents) for the wolves and raptors will become limiting for them. As the biomass of raptors is greater than wolves, this, in turn, implies that the wolves may be limited by competition with the raptors. Conversely, if the rodent populations are being limited by competition with the domestic livestock (and presumably by the wild herbivores before they were displaced by domestic livestock), then management of domestic livestock densities to alleviate the competitive pressures - thus, favouring the wolves - may be necessary.

##### 2. Wolf vaccination

Karen Laurenson's analyses show that inoculating wolves against rabies may be more cost effective than vaccinating domestic dogs. (Notably, her analyses do not include a complete cost-benefit analysis of the dog vaccination, which would incorporate the local human health and economic benefits - by reducing the mortality of livestock to rabies - that result from vaccinating dogs). Therefore, we are preparing proposals for submission for the research and development for wolf vaccination. The research and development would include the following steps:

1. Choosing the appropriate oral vaccines to use..
2. Licensing the vaccines in Ethiopia through the EWCO and the Ministry of Agriculture.
3. Choosing a trial population - possibly a wolf population in the Bale mountains that use the marginal habitats
4. Choosing and testing the baits that could be used to administer the oral vaccine.
5. Testing the vaccine on the selected population with a thorough follow-up to ensure that there are no negative effects and that adequate coverage is achieved.

The research and development phase will require the efforts of a full-time researcher, certainly to the level of an MSc, if not a PhD.

### 3. Domestic dog ecology

A joint EWCP - University of Addis Ababa MSc student will start in the next few months to examine the ecology of the domestic dogs in Bale. The student will focus on the dogs in the Web Valley where densities are highest. The focus of the study will be to determine 1) whether competition between wolves and dogs can occur, primarily through assessing the diet of the dogs - and thus, what proportion of their diet is comprised by rodents, 2) the rate and nature of dog-dog and wolf-dog interactions, and 3) the use of space by the dogs, including seasonal variation in their density. The student is expected to start fieldwork sometime in October.

### 4. Behavioural ecology

In March this year, a DPhil position to work on the behavioural ecology of the Ethiopian wolf was advertised in the NewScientist. In addition, the advert was passed onto Tesfaye Hundessa, the General Manager of the EWCO, Dr Ermias Bekele, the Project Leader of the WWF-DGIS project and

Prof Afework Bekele from the Department of Biology at the University of Addis Ababa in a hope to encourage applicants from Ethiopia. We had a large response to the advertisement, with over 70 applicants from nine countries. The competition was high and therefore the selection process difficult. It was made all the more difficult as the top six candidates were not in Britain and not available for interview. After long and careful consideration, Lucy Tallents was selected for the position. She is expected to start her six-month probation period in October. During this period, Lucy will have to demonstrate that she has the ability to set up, execute and write-up a robust field study on the wolves.

Her project will extend Claudio Sillero's work on the behavioural ecology of the wolf. In particular, she will examine the factors that affect pup survival. The parameters that will be recorded to assess this will include variation in population size, magnitude and type of human pressures, domestic dog densities, habitat size and characteristics including rodent densities. A key feature of the work will be how pack structure and relatedness affect pup survival. The parameters within the packs that will be assessed include the number of female helpers, the number of overall helpers. The relatedness of the helpers (and those animals within the pack, if any, that do not help) will be determined.

If possible, her work will include other populations of Ethiopian wolves to test the models described by Claudio and to determine the pack dynamics that might facilitate persistence of the small and isolated packs.

## Implementation

### *Education*

The education campaign has been active in Bale. Up to last year, the education campaign focused primarily on the children in the region around Dinsho. As such, the EWCP Bale Education Officer, Zegeye Kibret, visited schools in the area, giving presentations to the school children.

However, it was perceived that there was a need to work with the adult population as well as the children. As such (and partly because his health problems have made it more difficult for him to work as a dog catcher with the vet team and because of the general respect that he commands among the local communities), Kassim Biftu has been working with Zegeye to learn the messages that we need to put across to the local communities. Together, they have made a determined effort to be present at all meetings of local authorities or associations. At such occasions and when working with the school children, they speak to the people and work through leaflets that have been prepared and translated into Afan Oromo (the language of the Oromo people).

The themes of the education campaign are to teach the local communities about 1) the threats of rabies to the wolves, themselves and their domestic livestock and the need for dog control, 2) the wolves and their habitats, and 3) general wildlife and ecosystem conservation.

The mobility of the education team has been increased with Zegeye learning and getting his motorbike licence. Kassim is now beginning to learn through Zegeye. Given that the motorbike was donated to the Programme for this purpose, this is a satisfying development.

As some measure of the success of the campaign over the past year, we have reached over 6,800 people in the past year. Of these, over 3,600 were children within schools and over 3,200 were adults.

The Wolf Day remains an important event in the EWCP's calendar. This year, Wolf Day took place on 25 March. Unfortunately, it was an extremely rainy day, but despite this there was a large amount of enthusiasm. The list of events was expanded from previous years and included a 5,000m race, a horserace and a horse competition that were open to the public. Unlike previous years, we were fully supported by the local *woreda* and the local police. The Dinsho Primary School won the girls' volleyball while Gofingera Primary School won the boys' football.

Zegeye Kibret, the EWCP Education Officer, has also successfully established school links between three schools in Dinsho with three schools in Horsham in the vicinity of the Born Free Foundation's office there.

### *Domestic dog vaccination*

Over the past few years, the vaccination programme of dogs in and around the Bale Mountains has been very successful. As a measure of the success, only 6.9% of dogs that could have been vaccinated in the area from Gojera to Morobawa have not been<sup>1</sup>. Thus, we are reaching a large proportion of the dogs in critical areas. It is also notable that there have been no reported cases of rabies or canine distemper within the target populations of dogs, as well as the wolves, in the last twelve months.

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<sup>1</sup> This is calculated from (the number of dogs unvaccinated – the number of new dogs)/(the total number of dogs vaccinated – the number of new dogs).

There are two areas for development with the dog vaccination campaign:

#### 1. Northern Ethiopia

It is imperative that we start a dog vaccination campaign that is country-wide including the populations in northern Ethiopia. Once funds have been secured for the vaccination campaign, the most susceptible populations will be targeted.

#### 2. Use of oral vaccines

As also mentioned above, we will consider using the oral route for dog vaccination in the future. It is thought that this may be easier than using the intramuscular route as there will be no need to handle the animals. However, there will be a research and development phase before the use of oral vaccines becomes our accepted method of dog vaccination as we first need to determine its efficacy.

#### *Domestic dog sterilisation*

The dog sterilisation campaign has two aims: 1) to reduce the dog density by sterilising the females, and 2) to reduce the risk of dog-wolf hybridisation by sterilising the males. In contrast to the vaccination campaign in Bale, the sterilisation campaign has yet to attain the coverage that we would like achieve despite managing to castrate some 298 male and spay 92 female dogs. However, it will be at least another year before the campaign will have its desired effect of the dog population. Therefore, we will carry out a sterilisation season during the rains this year when the dog densities are highest in the mountains.

Following the sterilisation season, we will carry out a survey, similar to that of last year, to assess the success of the campaign. Last year's survey showed that 47.7% of the dog population that could have been sterilised remain not sterilised. Of

these, the female:male ratio is 112:273.

To achieve the goals of the sterilisation campaign, a very high proportion of the females need to be sterilised and all male dogs need to be sterilised. In addition, the sterilisation (and vaccination) team focuses on the dogs that have owners. Therefore, feral or stray dogs are not included in either the assessment exercise or targeted by the team despite the fact that these may be the dogs that may be having higher contact rates with the wolves.

Over the past twelve months, the sterilisation team received further training from Dr Guy Dutton. He spent two weeks working with the team in the Karari area close to Dinsho. He worked primarily with Leta Edea, the EWCP Bale Veterinary Officer, Abdul Jabir from the veterinarian clinic in Robe and Dr Kifle from the EWCO Research and Veterinary Unit.

#### *Support for protected areas*

At present, the Programme's support for protected areas is focused on the Bale Mountains National Park (BMNP) alone. As mentioned above, we are assessing our role in the Simien Mountains National Park. In addition, we are developing a proposal that all other wolf ranges be assigned some level of legislative protection.

#### 1. Bale Mountains National Park

The Programme continues to work closely with and support the Bale Mountains National Park. This ranges from maintenance of the infrastructure to seeking means to ensure the long-term management of the park.

In the past year, the EWCP has repaired all the water appliances around the area of the park HQ. This has gone a long way to solving the water supply problems that were

faced in the area. It was found that most of the appliances had faulty outlets and that there were many broken and leaky pipes. A plumber from Goba was hired for two days to repair all the problems.

The Programme continues to maintain all the signs around the area of the park HQ. In addition, we will be repainting all the park signs along the park boundaries including at the park HQ, Chochora, Shisha, on the Sanetti Plateau, on the Herenna escarpment and in the Gaysay valley.

We have also drawn up a new set of regulations for the park with the OADB. These regulations are now displayed in the Lodge at Dinsho and at the park office.

There are a number of proposals that are pending. These include the secondment of an advisor to the park. The proposal is that the EWCP will give a contract to an expatriate expert in Afroalpine protected area management. S/he will be seconded to work with the park Warden. The remit of the advisor will be:

- Advising and assisting with the management of the BMNP
- Assisting with securing the short-, medium- and long-term funding for the park
- Increasing the capacity of the park staff by providing training *in situ*
- Assisting with the development of community conservation proposals for the region.
- Assisting with tourism development in the BMNP

This position would be financed through funds raised (i.e., core BFF funds would not be used to finance this position). Applications for funding have been submitted to various small donor organisations in Addis Ababa.

Finally, I have approached the donor community in Addis Ababa to assess whether there is any interest to finance a project for the rehabilitation and long-term management of the park. The project focuses on two mechanisms operating through a one-off grant. The first is for immediate infrastructure development and capital expenses related to the extension of present staffing levels. The second requires the establishment up of an endowment trust fund, the interest from which would ensure funds for the management of the park by the relevant governmental organisation (at present, the Agricultural Development Bureau of the Regional State of Oromiya) in perpetuity. In the proposal, the alternatives to such a scheme were examined: first, whether the Ethiopian Government would subsidise the park, and/or, second, the probability that the park could become a self-sustaining organisation on funds generated from tourism. The conclusion is that the alternatives would not reliably achieve the sustainability required. Consequently, the establishment of a trust fund using monies from the donor community is the only mechanism by which the Bale Mountains National Park will continue to persist.

I have had a number of positive responses to my initial enquiries. The next steps have to come from the Oromiya Agricultural Development Bureau. They need to seek approval for the proposal from the internal Oromiya and federal Ministries for Development and Cooperation.

## 2. Wolf Range Protected Areas

At present, I am developing a proposal for the establishment of a protected area status for all wolf range in Ethiopia. This will be developed with EWCO and with the regional governments. The proposal

is being developed with the present levels of protected area legislation to assess whether there is a status that will be appropriate for the areas. It will be proposed that the areas remain multi-use - therefore, the local communities will continue to use the areas for traditional uses but on a sustainable level.

It is likely that once a concept document has been agreed to, there will be a series of steps to be taken before the areas can be gazetted. These would include surveying and describing the areas, ratification by the local communities, and regional and federal authorities.

#### *Tourism promotion - Bale*

We are involved in a number of tourism promoting activities in the BMNP. The success of these schemes will be assessed and, if positive, we will consider strategies to extend similar schemes to other Afroalpine areas.

##### 1. Trout fishing

We successfully lobbied the OADB to re-open the trout fishing in the two rivers around Dinsho. These are the Web and Danka rivers. In the few months that the fishing has been open, there has been a great deal of interest from residents of Addis Ababa and a substantial amount of revenue has been generated. At present, the revenue is awaiting disbursement, but I have suggested to the OADB that the funds be given to the development of electricity in Dinsho.

Taha Adam remains the sole fishing guide in the area and has recently received support from the local authorities in his attempts to try to prevent poaching in the rivers. If and when the revenues (or part of it) is shared with the local community, it is expected that the support will be strengthened.

##### 2. Lodge privatisation

I also submitted a proposal suggesting that the management and operation of the tourist lodge at the Bale Mountains National Park HQ, Dinsho. It has been observed and reported that the lodge is not being managed optimally, with poor infrastructure and facility maintenance and development. The water supply is sporadic and inadequate, the kitchen facilities lacking. These are among the complaints that are frequently heard from visitors to the lodge. At present, the tourist lodge is managed by the OADB. The principal problem with this is they do not have the experience in hospitality and facilities management nor sufficient capital to invest in the Lodge to improve its services.

As such, it was proposed to the OADB that the lodge be managed and operated on contract to an organisation with extensive experience in hospitality and facilities management. There would be a real economic incentive for such an organisation to invest in the Lodge.

This proposal was submitted to the OADB late last year. While the initial response was positive, the OADB has decided not to pursue this path as they see that it is not in their interests to do so.

##### 3. Mountain huts

There is an essential need for an infrastructure for tourism within the BMNP. The EWCP is helping with the construction of five mountain huts in various places in the park. Our role has specifically been to develop the proposal, seek funding and carry out the construction work. The sites will be carefully selected in picturesque areas where resources such as water are available. The sites will also be in line with the 1986 Management Plan for the Bale Mountains National Park.

There is a further aim for the mountain huts to join the network of mountain huts already in place in the Dodola-Ababa region that were built by the GTZ-IFMP project. As such, the GTZ-IFMP has agreed to cover the costs of building the two huts that most directly link in with their network. These will be the huts in Sodota and Morobawa.

At the site of each of the mountain huts, a *tukul* will be constructed. These will be outposts for the park scouts. This will, therefore facilitate the network of accommodation - non-existent to date - for routine scout patrolling of the park.

The following sites have been proposed for the other three huts:

- The Sanetti Plateau. This is an area of high Ethiopian wolf density. It is also close to Tullu Deemtu, the highest peak of the Bale massif. The area has numerous lakes and hence attracts large numbers of Palaearctic migrant birds.
- Garba Guracha. This would be an alternative site to that on the Sanetti Plateau.
- Worgona valley. This is a picturesque valley that is frequented by wattled cranes. It has some *horas*, which are of interest to visitors.
- Kara Deema. This hut is situated in the remote area above the Herenna escarpment, above the larva flows and west of the Sanetti Plateau.
- Central peaks. Among the highest peaks in the Bale massif, this hut is remote and in some of the wildest areas of the park.

#### 4. Promotion of BMNP

The EWCP team, situated at the BMNP HQ and, specifically, within the Museum, is in an ideal situation to interact with visitors to the park. Whenever we can, we do our utmost to promote the park. This has

including Philip Briggs, the author of the Brandt Guide to Ethiopia. We hope that he will put an even more positive slant on Bale - perhaps as a result of our discussions - on the third and next edition.

#### 5. Guides association

The Nyala Guides Association in Dinsho has been consolidated. The association has now secured the support of the park and local authorities. We continue to work with the guides and have produced a set of standardised prices for trekking in the mountains to prevent the ugly scenes of haggling that was previously characteristic of a visitor's trip to Dinsho.

We have also provided the guides with ID-cards.

#### 6. Guidebook and leaflets

I am in the process of putting together an updated and, hopefully, much improved Guidebook for the BMNP. I am also working on producing leaflets and trekking maps of the park. This promotional material will then be available for visitors in Addis Ababa.

Funds have been secured from the GTZ-IFMP project in Adaba-Dodola for the publication of this promotional material.

#### *Ethiopian Wolf Conservation Committee*

The first meeting of the Ethiopian Wolf Conservation Committee (EWCC) took place in the offices of the EWCO in Addis Ababa on 9 April 2001.

The following people attended the meeting:

Dr Karen Laurenson, Bale Rabies Control Project  
 Tesfaye Hundessa, General Manager, EWCO  
 Dr Fekadu Shiferaw, EWCO  
 Dr Kifle, EWCO

Deresse Dejene, EWCO  
 Tesfaye Hundessa, EWCO  
 Hana Kifle, Warden, BMNP  
 Tibebe Tadesse, OADB  
 Dr Zelealem Tefera, EWCP  
 Edriss Ebu, EWCP  
 Dr Stuart Williams, EWCP

Absentees included:

Dr Claudio Sillero, WildCRU  
 Jorgelina Marino, WildCRU  
 Alison Hood, Bornfree  
 Berhanu Gebre, Warden, SMNP  
 Mohammed Ibrahim, Amhara  
 Agricultural Bureau

Following introductory talks by myself, Karen and Zelealem, the discussions were under way. These covered the following topics:

- 1) The role, scope, membership and frequency of meeting of the EWCC
- 2) The prospect of potential wolf vaccination against rabies
- 3) The management options for wolf-dog hybrids
- 4) The options and impediments to handling wolves

One thing that emerged from the meeting was that, potentially, it was a good forum for moving administrative matters forward rapidly, particularly if all the authorities at the federal and regional levels were adequately represented. At this meeting, both EWCO and OADB were represented but neither the Amhara Regional Government nor the Simien Mountains National Park was represented because they were unable to attend. It is hoped that this will change in the future.

### **Other activities and news**

In the larger perspective, there was an interesting piece of news over the previous twelve months that related directly to the Ethiopian wolf. It was announced on Ethiopian radio that a man was caught in Gondar, probably Simien, with an Ethiopian wolf skin. He was given a two-year jail sentence. It is difficult to comment

on the justice of the sentence without more information on how he arrived to have the skin, but the story indicates that some of our education efforts may be paying off with the local authorities.

### *“Ambulance service”*

Given that we have the only functioning vehicles in Dinsho, the local community has resorted to us on a number of occasions in the past year when someone's life has been threatened by a medical emergency. Many of these were women in labour who were in need of an emergency caesarean. This may be considered as some measure of the acceptance of the EWCP within the local communities - and has certainly helped of late when we, in turn, are in need of some leverage with the local authorities.

### *Infrastructure development*

There have been a few infrastructure developments at our base in the Bale Mountains. First, we have constructed a new house for visiting researchers that the Research Buildings at the park HQ and will ease previous conflicts with the park over accommodation. This will probably be used by Lucy Tallents when she arrives in Ethiopia. Second, the Research Buildings themselves were extended to accommodate my family and I. Finally, with the permission of the *kebele* we constructed a horse enclosure for the Programme's horses. The new horse enclosure was constructed to resolve an ongoing problem with our and the park's horses. Up to then, the programme's horses had been kept within the park's horse enclosure. This has led to a number of problems: first, the park's horses were badly kept and consequently suffered from various diseases. The diseases were increasingly transmitted to our horses. Second, as our horses are in a far better state than the park's

horses (and indeed most other horses in the region), the park scouts have been regularly using our horses when they go to the field, particularly to Gaysay. This has been without our permission and due care was not given to the horses, which often led to saddle sores rendering them unusable for our own work in the field. Third, the park horse enclosure

is small and this results in aggression among the park's horses. Recently, this aggression has been turning towards our horses and adds to sores and ailments suffered. Finally, the enclosure conditions are appalling, particularly during the rainy season. Horses develop foot sores as a result of being stood in a waterlogged, muddy and manure filled enclosure.

## **Appendix I: Publications**

### **Scientific publications and reports**

Ash, N.J. 2000. *Report on the work of the Ethiopian Wolf Conservation Programme in Amhara Region, 2000*. EWCP, Bale, Ethiopia.

Ash, N.J. 2001. Expansion of Ethiopian wolf conservation to Northern Ethiopia. *Canid News* 4 [online]. URL: [http://www.canids.org/canidnews/4/ash\\_ethiopian\\_wolf.htm](http://www.canids.org/canidnews/4/ash_ethiopian_wolf.htm)

Sillero-Zubiri, C., 2000. Ethiopian wolf (*Canis simensis*). Pp. 95-100. In: *Endangered animals: a reference guide to conflicting issues* (Reading R.P. and B. Miller, Eds.). Greenwood Press, Westport, CT, USA.

Sillero-Zubiri, C., and K. Laurenson. 2001. Interactions between carnivores and local communities: Conflict or co-existence? In: *Proceedings of a Carnivore Conservation Symposia*, (Gittleman J., R.K. Wayne, J. Fuchs, D.W. Macdonald, Eds.) Zoological Society of London, UK.

Marino, J. K. Laurenson and C. Sillero-Zubiri 1999. Distribution of the Ethiopian wolf (*Canis simensis*): population status and habitat analysis. Ethiopian Wolf Conservation Programme. Report to the National Geographic Society, xx pp.

Sillero-Zubiri, C., J.R. Malcolm, S. Williams, J. Marino, Z. Tefera, K. Laurenson, D. Gottelli, A. Hood, D.W. Macdonald, D. Wildt and S. Ellis. 2000. Ethiopian wolf conservation strategy workshop. IUCN/SSC Canid Specialist Group and Conservation Breeding Specialist Group, 61 pp.

Malcolm, J.R. and Sillero-Zubiri, C., 2001. Recent records of African wild dogs (*Lycan pictus*) from Ethiopia. *Canid News* 4 [online] URL: [http://www.canids.org/canidnews/4/ethiopian\\_wild\\_dog.htm](http://www.canids.org/canidnews/4/ethiopian_wild_dog.htm)

Stephens, P.A., d'Sa, C.A., Sillero-Zubiri, C., & Leader-Williams, N. (2001) Impact of livestock and settlement on the large mammalian wildlife of Bale Mountains National Park, southern Ethiopia. *Biological Conservation* 100, 307-322.

### **Conference talks and presentations**

Marino, J & Malcolm, J. 2000 *The Ethiopian Wolf (Canis simensis): An Endangered African Canid*. Carnivores 2000, Denver, USA.

Williams, S.D. 2001 *The Ethiopian Wolf Conservation Programme – Anatomy of a Conservation Programme*. Talk to the Ethiopian Wildlife & Natural History Society, 4 April 2001.

Sillero-Zubiri, C., and Z. Teferra February 2000. A flagship species for Ethiopian Afroalpine conservation: the endemic ky kebero or Ethiopian wolf. Paper to the International Ethiopian 2000 Biodiversity Conference. Addis Ababa, Ethiopia.

Marino, J, D. Switzer, K. Laurenson, and C. Sillero-Zubiri. February 2000. Conservation status and distribution of a rare endemic: the Ethiopian wolf. Paper to the International Ethiopian 2000 Biodiversity Conference. Addis Ababa, Ethiopia.

Laurenson, K, Haydon, D., Cleaveland, C., Marino, J., and C. Sillero-Zubiri. September 2000. Protecting the Ethiopian wolf from disease: cost-effectiveness of Ethiopian wolf and dog vaccination. Paper to the Oxford 2000 New challenges in tropical medicine and parasitology,

Oxford, UK.

### Popular publications featuring EWCP

EWCP Website:

[http://www.wildcru.org/endangered\\_species/carnivores/ethiopianwolf/ewcp/ewcp\\_index.htm](http://www.wildcru.org/endangered_species/carnivores/ethiopianwolf/ewcp/ewcp_index.htm)

Hood, Alison Spring 2000 Keeping the wolf in the spotlight. *Wildlife Times News – Updates*.

Sillero-Zubiri, C. Summer 2000 Letter from Ethiopia. *Wildlife Times*, 20-21.

Hood, Alison Spring 2001 News from Ethiopia. *Wildlife Times*, 27.

Williams, S.D. Spring 2001 My Wild Life. *Wildlife Times*, 12

Hood, Alison Spring 2000 Specialist Meet in Ethiopia to Chart the Future for the Imperilled Ethiopian Wolf. *Wolf Campaign Project Update*.

Switzer, D. Autumn 2000 News from Ethiopia. *Wolf Campaign Project Update*

Hood, Alison Spring 2001 Ethiopia: it's not just about wolves. *Wolf Campaign Project Update*

Hood, Alison July 2000 Wolf Fact Sheet

Bouwman, H. 2000 Africa's ten most endangered mammals. *Africa Environment & Wildlife* **8 (10)** 78 - 89

Sillero-Zubiri, C. 2000 Letter from Ethiopia. *Africa Environment & Wildlife* **8 (8)** 46-47

## Summary of submitted proposals and their outcomes

Topic	Submitted to	Result
BMNP: rehabilitation and long-term management	Donor community, Addis Ababa	Positive responses; now dependent on submission of proposal by OADB
BMNP: Advisor (funding)	Donor community, Addis Ababa	Pending
BMNP: Advisor (concept)	OADB	Pending
Trout fishing, Bale	OADB	Successfully re-opened
Dinsho Lodge management	OADB	Proposal not accepted
BMNP Promotional material (funding)	GTZ-IFMP	Application for funds accepted
BMNP, mountain hut construction (funding)	GTZ-IFMP	Application for funds accepted (conditional on letter from OADB)
BMNP regulations	OADB	Regulations and amendments accepted
Ecological interactions study (rodent regulation)	NERC & NGS	Pending
North Ethiopia Habitat Assessment (funding)	St Louis Zoo FRC Program	Successful
North Ethiopia Habitat Assessment (funding)	Bernd Thies Foundation	Successful
North Ethiopia Habitat Assessment (funding)	Chicago Zoological Society Endowment Fund	Pending
EWCP to be Honorary Scouts of BMNP	OADB	Accepted
Agreements and Memoranda of Understanding	EWCO, OADB, and Amhara Agricultural Bureau	Accepted and signed until December 2004
MSc study on Bale dog ecology	University of Addis Ababa	Accepted
Proposal that sub-HQ be built in Rira and not Katcha	OADB, BMNP, WWF-DGIS	Pending
Vaccination work	Turner Foundation	To be submitted

## **Appendix II: Financial Report**

The core activities of the Programme are solely funded by the Born Free Foundation, UK. In addition to their funding, we have received funds to cover additional habitat assessment and rodent trapping work in northern Ethiopia (St Louis Zoo FRC Program and Bernd Thies Foundation). The GTZ-IFMP has pledged funds to contribute to our tourism development proposals in the BMNP. We also received a substantial discount off the costs of buying Terra Nova's excellent Quasar tents for our fieldworkers. The summary of our financial situation covers funding received from the BFF only; funds from other sources have yet to be transferred for use in Ethiopia.

Summary of expenditure, June 2000 - June 2001

	Accounts code	Ethiopian birr	Pounds sterling
Salary & per diems (overseas)	HV00	193169.30	6,993.37
Consumables	J1F0	42,952.13	960.75
Administration	J200	26,824.16	5656.68
Capital & infrastructure	J7**	65,721.25	130.39
UK Travel	M2D0	-	184.99
Vehicle expenses	M400	99,803.89	51.38
Conference	NKL0	309.05	-
Travel overseas	NLD0	36,063.73	7,295.26
Contingency	N700	-	-
<b>Totals</b>		<b>465,126.51</b>	<b>21,272.8</b>

Note: The above expenditure covers funds disbursed by SDW alone. Hence, it does not include costs paid by EWCP funds in Oxford.

## **Programme staff**

### **Contact**

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### **Programme Personnel**

Stuart Williams, PhD                      Programme Co-ordinator

#### *South Ethiopia (Bale & Arsi)*

Edriss Ebu	Field Officer
Zegeye Kibret	Education Officer
Aleksandra Maljkovic	Field Assistant (Oct 2000 - April 2001)
Alo Hussein	Field Assistant
Kassim Biftu	Field Assistant
Leta Edea	Vet Officer
Temame Mohammed	Vet Assistant
Wegayu Worku	Research Buildings & Museum Keeper
Mustafa Bule	Storekeeper & Research Building Guard
Hussein	Kotera Camp Guard
Abubaker Hassan	Horse keeper
Abubaker Hussein	Web camp horse guard
Hailu Ayela	Research Buildings Assistant

#### *North Ethiopia (Gondar, Wollo & Shoa)*

Zealelem Tefera, PhD	North Ethiopia Programme Executant
Woldemedhin Zebene	Field Assistant
Abiot Lemma	Field Assistant
To be identified	Ethiopian Wolf Range Officers

#### *Part-time staff*

Contracted builders, carpenters, manual workers in all infrastructure development  
Contracted staff for veterinary, scout and eco-tourist guide training

#### *Associated persons*

Claudio Sillero, PhD	Programme Honorary Adviser
Karen Laurenson, PhD	Bale Rabies Control Project, Wildlife Epidemiologist
Alison Hood	Born Free Foundation
Dr Fekadu Shiferaw	EWCO Research Team Leader
Jorgelina Marino	Ecologist
Dada Gotelli	Geneticist
David Macdonald, PhD	WildCRU, Head of Unit
Deresse Dejene	EWCO Programme Counterpart