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Annual Report

Prepared by Jorgelina Marino, Eric Bedin
Claudio Sillero-Zubiri and EWCP Team

A letter from our Founder & Director

Wildlife conservation is a global issue as well as a national and local one. The European Union recently published its strategy for wildlife conservation in Africa*. It acknowledges substantial international funding support over the last few decades, but also that Africa has been losing wildlife and wild spaces at an alarming rate in recent years. The problem is 'larger than elephants', as the EU report was titled. Increasing pressure on land and natural resources is leading to habitat loss and the irreversible degradation of entire ecosystems; many communities are exhausting the resources that guarantee their present and future livelihoods. Wildlife conservation is as much about people as it is about saving plants and animals.

In addition to EWCP's key monitoring, disease management, education and awareness components we are increasingly aware of the importance of attaining a more sustainable use of Afroalpine resources. We are promoting conservation practices that deliver value to the farming communities sharing the land with the wolves, and work with regional government agencies equipping and delivering effective protection for a handful of new protected areas. We are invigorated by a new partnership with Fondation Segré to promote biodiversity friendly futures for the people living around Borena Sayint and Arsi Mountains National Parks, and we are also expanding our activities in Simien Mountains National Park thanks to fresh support from the African Wildlife Foundation. We could not keep the work of the EWCP Team going, and also expand our efforts, without the amazing support of the Born Free Foundation in the UK, the Wildlife

Conservation Network in the USA, and many other donors than channel their donations through them.

By firmly establishing the wolves as a flagship for Afroalpine biodiversity, the attention of other important donors from the international community could be drawn to the Ethiopian highlands and its many challenges. For instance the Bale Mountains, home to the largest Ethiopian wolf population - badly battered by rabies and canine distemper in the last couple of years-, are considered a *Key Landscape for Conservation* by the EU report, and should be attracting more support.

We are cautiously hopeful that the conditions are given for politicians and conservationists across Ethiopia to think big and search for new ways and resources to tackle the threats the Afroalpine habitats are facing and limit their devastating effects. Ultimately the wealth of Ethiopia's population is largely dependent on the natural resources of its highlands; safeguarding them must remain a central element in any efforts to reduce poverty and develop the country's infrastructure and services.

Claudio Sillero
Founder and Director

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► Claudio in Bale. © Rory Matthews

* European Commission 2015. LARGER THAN ELEPHANTS. Inputs for an EU strategic approach to wildlife conservation in Africa live link to https://ec.europa.eu/europeaid/larger-elephants-inputs-eu-strategic-approach-wildlife-conservation-africa-synthesis-1_en



Our Vision

To secure viable and ecologically functioning Ethiopian wolf populations and habitats across their present distribution, to extend the species presence to suitable ranges, and to emphasise its role as a flagship for the conservation and sustainable use of the Afroalpine ecosystem and biodiversity, on which present and future generations of Ethiopians also depend.

Executive Summary

The EWCP has expanded on various fronts during the last 12 months, including new personnel, more Wolf Ambassadors, and site-specific projects addressing emergent conservation needs outside EWCP's base in the Bale Mountains. The priority, however, was to sustain a strong presence in Bale, where we weathered one of the most devastating outbreaks of CDV among Ethiopian wolves. Thirty-four wolf carcasses were found between September 2015 and March 2015, and another 31 adult wolves were unaccounted for in 17 focal packs in the Web Valley, Sanetti Plateau and East Morabawa. On average these populations declined in size by 52%, with respect to the previous year. In a positive spin, at least 28 pups outlived the outbreak bringing hopes for a population recovery. Our fight against infectious diseases included the vaccination of over 5,000 domestic dogs, in and around Bale Mountains National Park; the successful completion of an oral wolf vaccination trial; and a pilot of a CDV vaccine for Ethiopian wolves. With our partners in

the federal government, park authorities and NGOs we have drafted an integrated disease control plan which is pending approval. We are working closely with new protected areas in Arsi and South Wollo; we assessed the quality of Mt Choke as a potential reintroduction site; and worked with communities in North Ethiopia to create more sustainable and alternative livelihoods, compatible with Afroalpine conservation, such as helping establish local producers of fuel-saving stoves and honey. Our education programme reached 19 target schools across Ethiopia and many highland communities coexisting with the wolves. We are seeing the fruits of several small-scale conservation projects implemented by Nature Clubs with the support of EWCP. Fulfilling our pledge to help build capacity in Ethiopia's environmental sector we supported the work of 10 researchers, mostly Ethiopian nationals, investigating topics of relevance for Afroalpine conservation. None of all these would have been possible without the generous support of all our donors, to whom we are grateful.

Early explorers in the Bale Mountains

By James Malcolm

“At the top was a treeless plain, terribly cold and bleak”.

This is the first record of the Sanetti plateau that I can find, written by Arnold Hodson, His Majesty’s Consul to Southern Ethiopia, in a trip he made in 1916. He crossed the plateau in driving rain seeing very little. Ethiopia did not have the tradition of National Parks found in East Africa, but were beginning to think about conservation by the mid-1960s. Mountain nyala were the focus of this interest and British naturalist Leslie Brown made two trips (in 1963 for 12 days and in 1966 for 3 months) to look for nyala mainly in Bale. Leslie Brown was an indomitable colonial, always in his khaki shorts, but energetic and a good biologist. However, the rain in Bale began to get him down and he records losing 20 pounds and much of his energy by the time he left. He recorded seeing 38 Ethiopian wolves, with one group of four, and recorded their hunting habits.

Partly as a result of Leslie Brown’s surveys, the Bale Mountains National Park was created in 1971, or at least its boundaries were demarcated on aerial photographs. The Ethiopian wildlife authorities did not have the resources to visit many areas of the park, which remained in parts little more than a line on a map. The first wardens of the Bale Mountains National Park from 1968-1973 were US Peace Corps volunteers. Curt Buer and Bob Waltermire were the most energetic, making extensive treks across the park and recording wolves in all the places we see them today.

For three weeks in 1971 and briefly in 1975 a group of three British biologists, Dereck Yalden, Malcolm Largen and P.A. Morris visited the Bale moorlands. Yalden collected data on giant molehats, Largen collected and described several new amphibians and Morris gathered the first systematic data on the diet and behaviour of the wolves.

I arrived with a friend, Ian Reid, to Ethiopia in time for Christmas 1975, and set off for Bale in a borrowed Land Rover with a 44 gallon drum of petrol in the back, the country being in the throes of a major regime change. We camped on Sanetti as much as possible and I could see wolves forming groups in the late evening.



► Edriss and James reminiscing about the good old days at the EWCP HQ in Dinsho. © Mustafa Dule/EWCP

Since I wanted to see the groups before they dispersed in the morning I got up at 7:00 the first morning, and as I got up I heard the pack have a noisy greeting. So I got up at 6:30 the next morning, but with the same result. After getting up at 5:30 (not recommended on the Sanetti plateau) and again hearing the wolves move off, I realized that I was disturbing them.

All the early records talk about the Simien fox. The German naturalist Eduard Rüppell first recorded the species in the Simien mountains of northern Ethiopia, and some Brit seeing a red-coloured dog-like animal called it a fox. Neither part of the name is very useful. Sadly only a small population survives in the Simien and the animal is much too large to be a true fox. Patti Moehlman, a jackal expert, visited Bale in 1977 and said that the animal was surely a jackal. However, that name did not last very long as genetic evidence suggested that Ethiopian wolves were most closely related to the grey wolf - and Ethiopian wolf always had more cachet than Ethiopian jackal!

Monitoring

Monitor and assess Ethiopian wolf demographic trends with a focus on the Bale Mountains and other selected critical populations, as well as measuring levels of livestock (grazing stock and domestic dogs), persecution and habitat loss affecting wolf status.

The EWCP monitoring team, larger and revitalised

By Edriss Ebu

For more than 20 years a team of EWCP monitors have surveyed restlessly many Ethiopian wolf packs in the Bale Mountains. In the early years I started working as a camp assistant, then as wolf monitor, and today I manage a team of seven wolf monitors, and other 23 staff. The enthusiasm of our monitors, who passionately work to protect the future of the Ethiopian wolf, living symbol of our nation, has never dwindled, not even through hard times. For example, if you are lucky to meet Alo Hussein, our Senior Monitor, you will understand that after spending 25 years observing the wolves, he considers them as part of his family.

This year I was delighted to see a new generation of wolf monitors rising, as enthusiastic and passionate as the previous, following wolves under the rain, in windy, sunny or frozen conditions -all of which can happen in Bale in just one day! Said Nasir and Hamza Mama, both

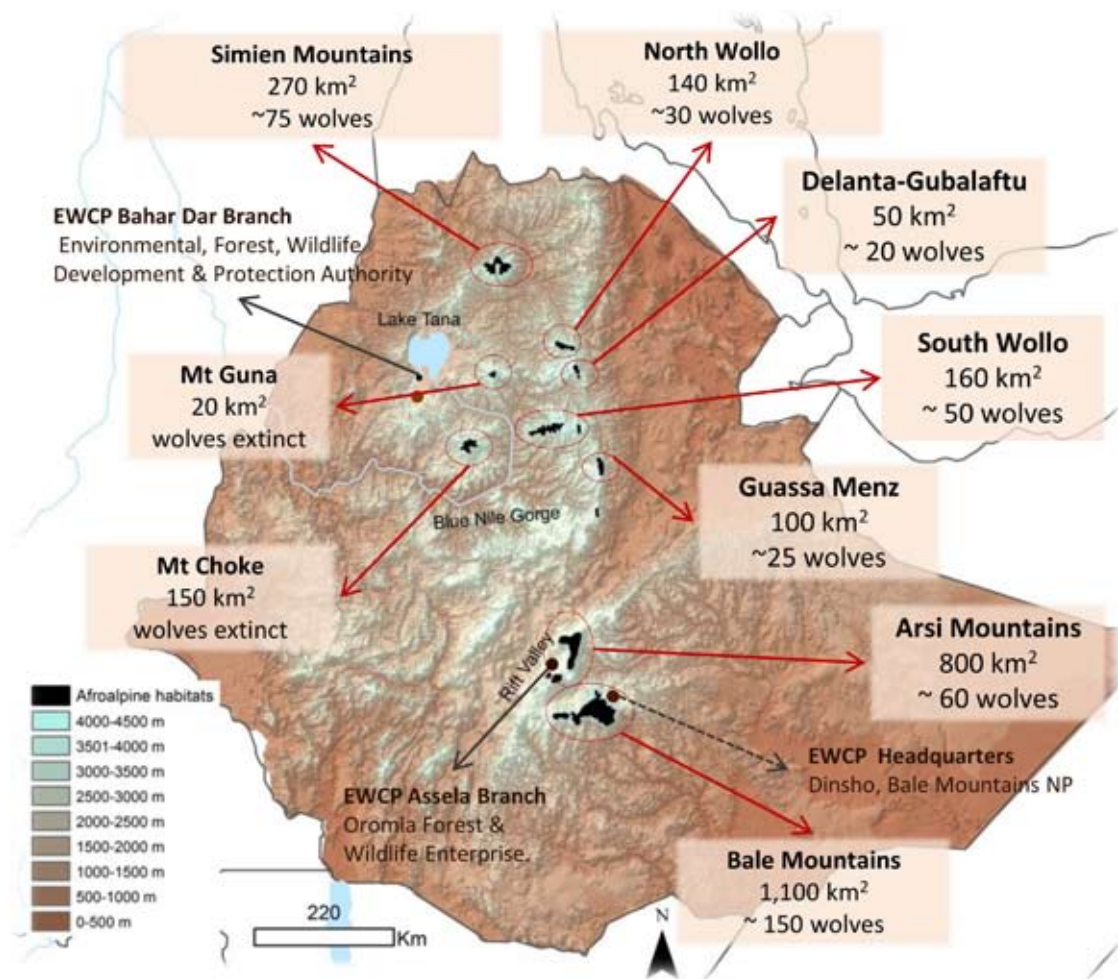
local young men, have joined EWCP as our two new monitors. In the meantime in the Simien Mountains National Park Getachew Assefa, an old friend and colleague, re-joined EWCP. Locally known as the 'wolf man', he will lead two local wolf monitors Andualem Ambachew and Jejaw Mequanenent, recently recruited from around the Simien Mountains.

Elsewhere, our network of Wolf Ambassadors continues to expand. This is an initiative we started in 2013 with great success. With the incorporation of two new Wolf Ambassadors from Borena Sayint Worehimeno National Park in South Wollo, our ambassador network increased from 15 to 17.

► Frozen morning in the Sanetti Plateau at 4,000m. Alo Husein, our Senior Monitor. © Eric Bedin/EWCP

The presence of wolf monitors in the field is critical to our conservation work





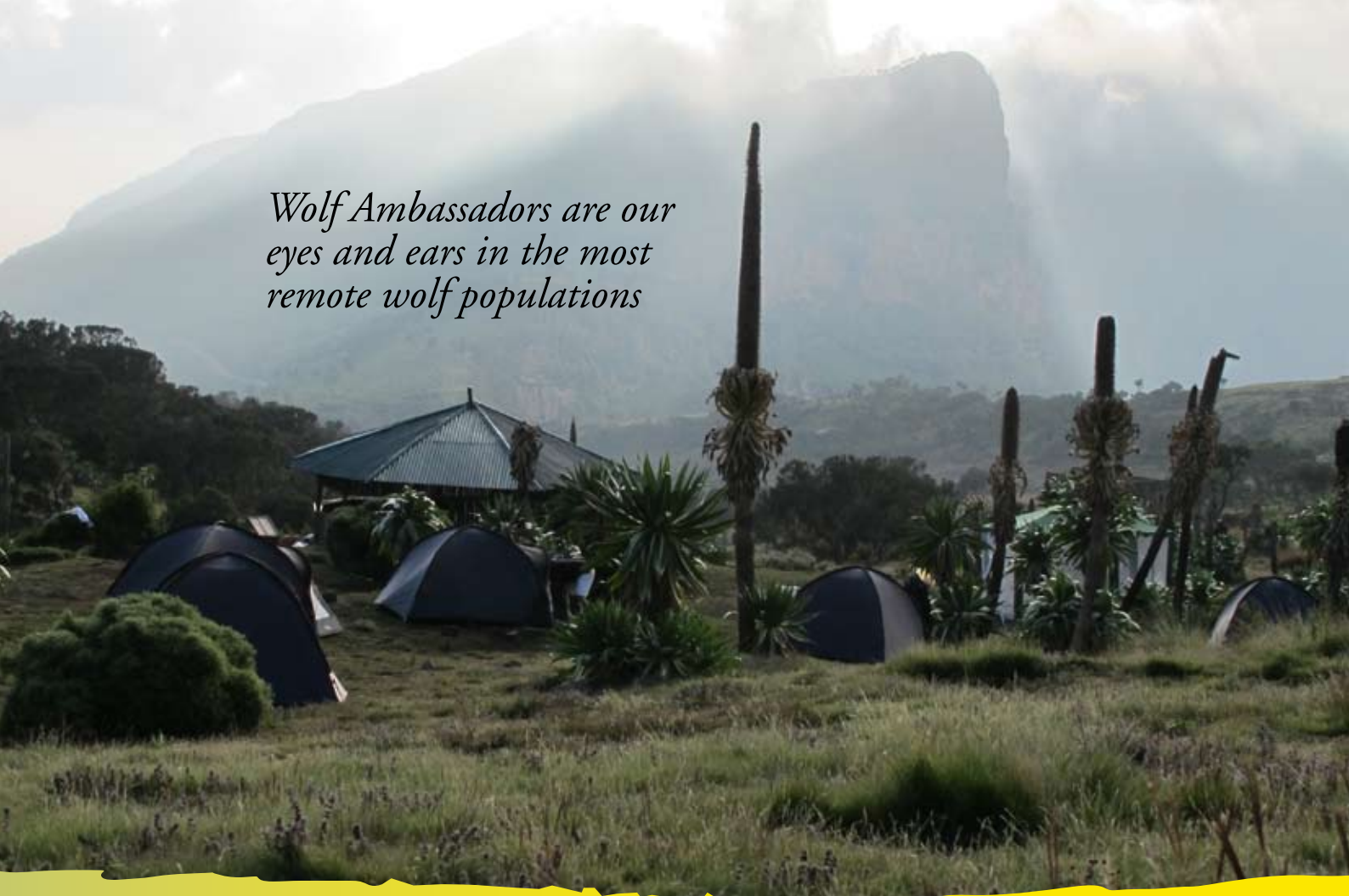
News from our Wolf Ambassadors in North Ethiopia

By Gebeyehu Rskay & Jorgelina Marino

The Wolf Ambassadors gathered again for their annual workshop in Bahir Dar, in the shores of Lake Tana, together with experts from EWCP and the Amhara region. Twelve Wolf Ambassadors came from far and wide for the occasion, to share news and discuss the conservation problems that Ethiopian wolves face in their local areas. These enthusiastic wolf guardians are keeping an eye on at least 20 wolf packs in the Northern Highlands, and becoming more experienced observers of nature.



► Training young wolf monitors over a three-day trek across the Bale Mountains in November 2015. From left to right: Hamza Mama (trainee), Alo Hussein (Senior Monitor), Said Nasir (trainee), and Jorgelina Marino (Science Coordinator). © Lara Palmer



*Wolf Ambassadors are our
eyes and ears in the most
remote wolf populations*

►The wildlife and colossal escarpments of the Simien Mountains attract increasing numbers of tourists. Are wolves coping with the growing disturbance and infrastructure? © Jorgelina Marino/EWCP

Wolf Ambassadors in South Wollo

Belechuma: people have been setting fire to farmland before cultivation; in June 2015 fire escaped into the Chilaga pack territory and, two months later, these wolves could no longer be found.

Haremeda: a commercial grain mill is now attracting many people to this narrow wolf habitat corridor; this is a concern because this population is very fragmented.

Kewa: again, the local county is offering land for commercial sheep farming within wolf habitat; we are lobbying for this to stop. The Wukir pack had a litter of three in April 2015.

Wolf Ambassadors in North Wollo

Delanta-Gubalatu: Chufa Kirtan, with seven wolves, is one of the largest packs in North Ethiopia; Ate Gedel pack was seen with three pups in November 2015. In the mornings, many dogs come with people collecting *charranfe* firewood, disturbing the wolves' foraging behaviour.

Yibar: good news from this remote highland, where a pack was observed breeding in May 2015. There was a rabies outbreak among dogs in November 2015, but did not affect the wolves.

Aboi Gara: the three wolf packs living in this small area, protected by community by-laws, are well known to our Wolf Ambassador, who last year witnessed pups in all of them, between September 2014 and February 2015.

Wolf Ambassadors in the Simien Mountains

Ambaras: four packs use this area of the Simien Mountains National Park, the most visited by tourists; at least one bred last year, in May 2015. Dogs, wolves and jackals come near campsites, looking for food. We continue to promote better waste management practices in the park.

Ras Dejen: away from the beaten track, this area has at least five packs, totalling 23 wolves - eight of them in the Embuayberet pack. More good news: two packs were observed with pups in April 2015.

► In January a tagged female wolf which we know well, left her natal pack and was observed foraging with this large adult male, probably seeking establish a new territory after the CDV outbreak. © Eric Bedin/EWCP



Smallest Ethiopian wolf population risks extinction

By Gebeyehu Rskay

In the northern highlands of Ethiopia wolves survive in small and fragmented mountains. Some populations are protected by community-based initiatives in Abuna Yosef and Aboi Gara, but the small Delanta range, perched over the Rift Valley, receives no protection and faces numerous threats. Sadly, with no more than 20 wolves, this is the next candidate wolf population to become extinct.

Located on a small mountain range straddling two administrative regions, attempts to protect this island population are challenged by animosities over access to land. For this reason, in 2013 we started our first Wolf Ambassador initiative there – with three enthusiastic members of local communities. Alerted by the Wolf Ambassadors of cases of illegal encroachment, EWCP has contributed to stop and recover 195 illegally farmed plots from within the wolf range over the past few years. Yet this month, we received fresh reports of encroachment in other parts of the wolf range.

The task ahead appears more urgent than ever. Overgrazing is a growing concern and a new road now traverses the wolf habitat. Worryingly, when I recently studied the behaviour of these wolves, I also discovered that they restrict their foraging time to the early mornings and late afternoons, to avoid the mass movement of people and livestock coming to the Afroalpine pastures to graze or to collect ‘charranfe’ firewood. I was pleasantly surprised when I learned that these wolves supplement

their diet with an unusual prey: the rock hyrax, a prey species many times larger than a typical Murinae rodent, the wolf main prey.

To protect this vulnerable population we are working on various fronts: lobbying for encroachment to stop, promoting community-based protection mechanisms, and minimizing the people’s dependence upon Afroalpine natural resources, for example with our Fuel Saving Initiative (see Habitat Protection section). Every wolf and every population counts!



► Delanta, a small wolf paradise, looks tranquil in the late afternoon, when shepherds and their livestock return to their houses. On the background, the new road traversing the Afroalpine area. © Jorgelina Marino/EWCP

Special section: a new disease outbreak in Bale

Canine distemper outbreak in Bale leaves wolves in a fragile state

By Eric Bedin

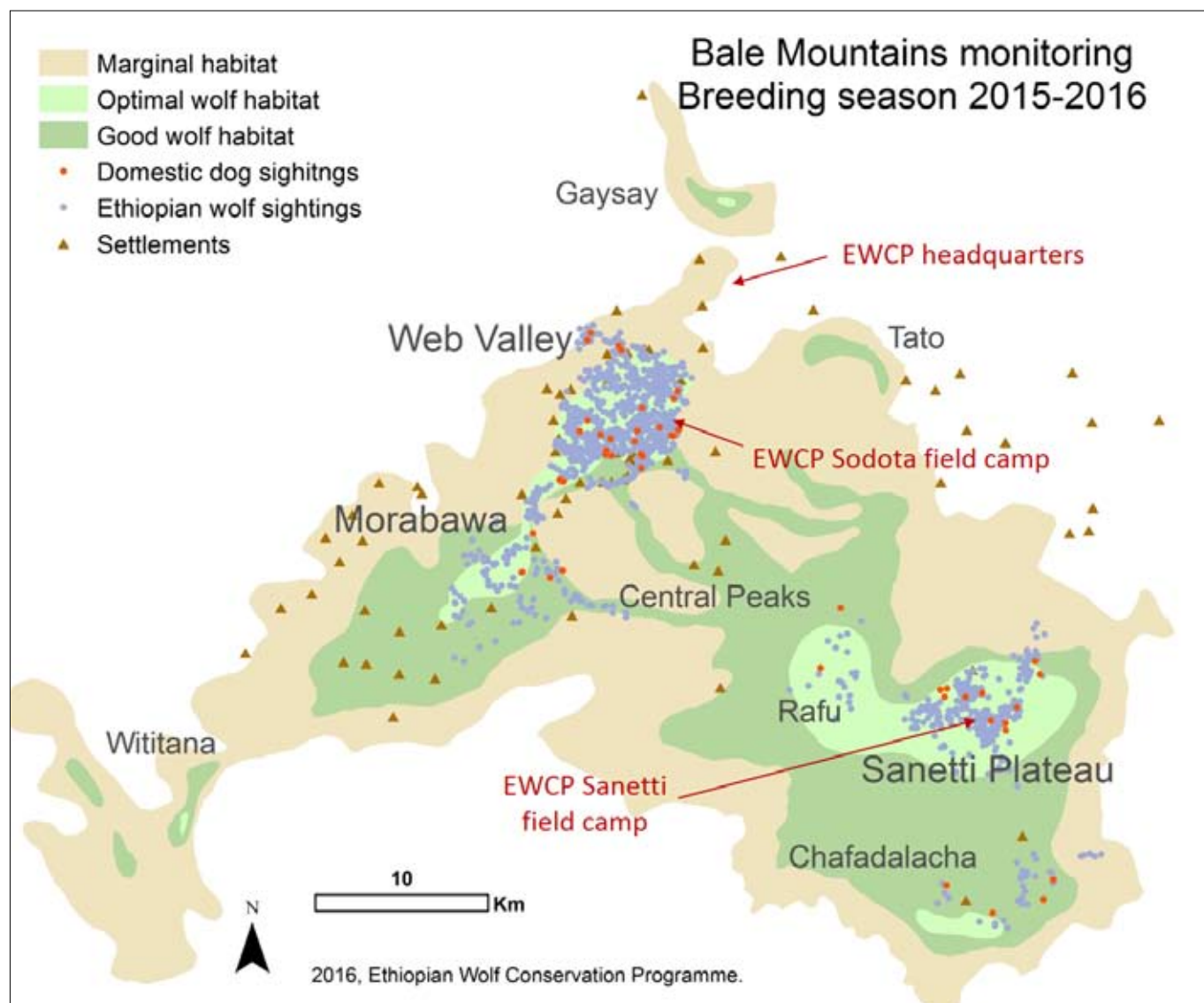
When I started working in Bale in January 2014, Ethiopian wolf numbers were at their peak in three sub-populations monitored by EWCP for more than 20 years. Everybody was happy. I also remember, however, alarm bells ringing, with the certainty that wolves at high density are more vulnerable to disease infection - a pattern observed over and over.

Sadly, our nightmare became true: at the end of the summer rabies spread rapidly among the wolves of the Sanetti Plateau and West Morebawa. Rapid intervention to vaccinate 106 wolves, coordinated with the Bale Mountains National Park and the Ethiopian Wildlife Conservation Authority, helped to contain the outbreak. At the time we estimated that the affected populations had declined by a third, and thought that the worst was behind us, as we optimistically observed many packs producing pups and the population growing.

In September 2015, however, the finding of two wolf carcasses in the Web Valley marked the start of the most dramatic outbreaks of CDV recorded in Bale Mountains. The outbreak reached wolves in Web, East Morebawa and Sanetti, halving their numbers. It was with huge sadness that we recorded the death of many wolves which, few months ago, we had vaccinated against rabies.

Towards the end of the outbreak, permission was given to vaccinate a limited numbers of wolves against CDV, as part of an ongoing trial to test the efficacy of the vaccine on Ethiopian wolves. The results were promising. And the field teams report that an important number of pups are still alive, bringing hopes for a brighter future for the wolves of Bale.

► Map of the Bale Mountains showing the locations of Ethiopian wolves and domestic dogs sighted by the EWCP wolf monitors this year.





► Conducting a wolf *post-mortem* in the Web Valley. From left to right: Gobe Ahmed (EWCP camp guard), Girma Ayalew (EWCA vet officer), Alo Hussein (EWCP Senior Monitor). © Eric Bedin/EWCP

A long-lasting and widespread distemper outbreak

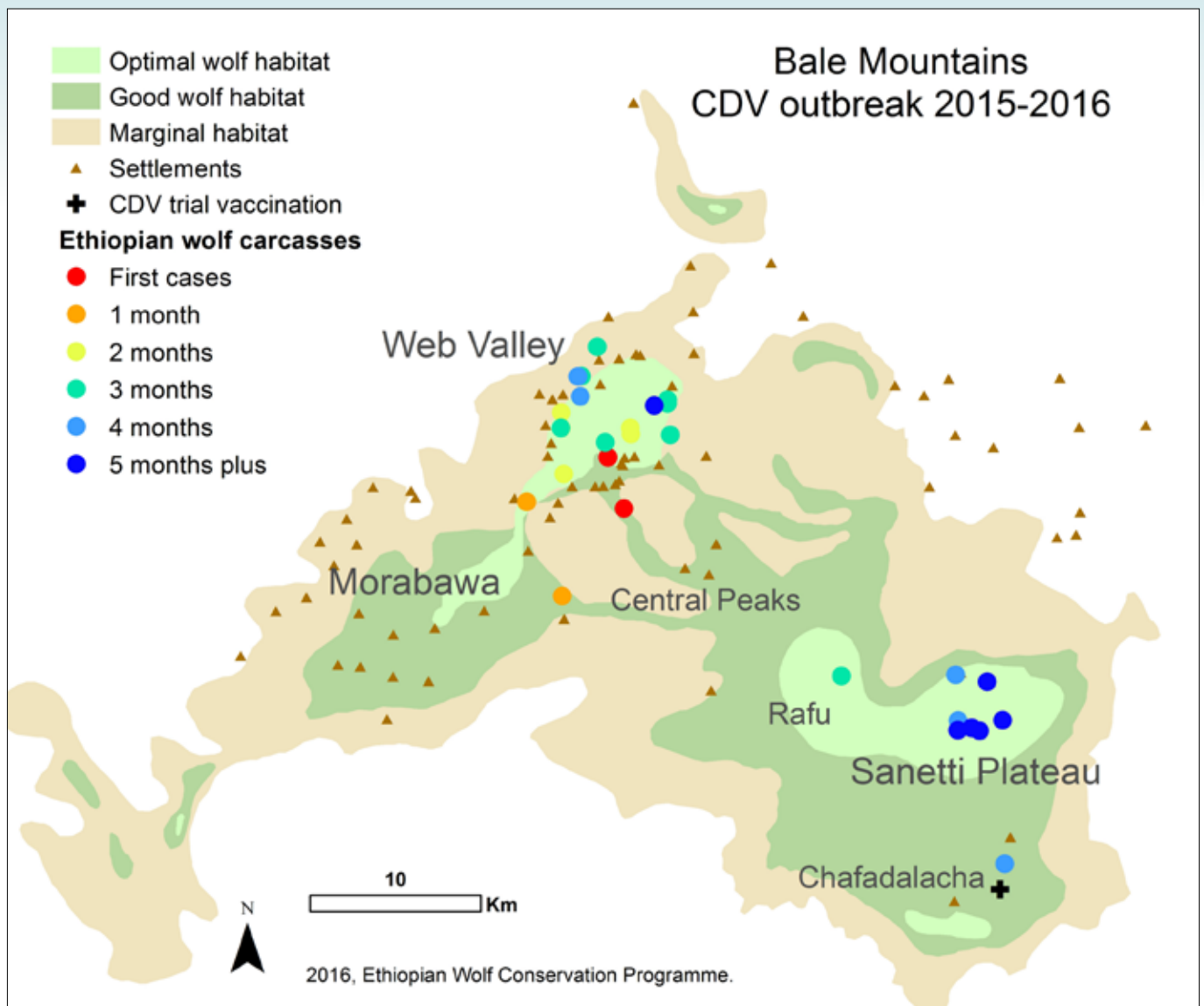
By Eric Bedin and Alo Hussein

In the Bale Mountains, September marks the onset of the wolf breeding season. After a frantic mating period, finely synchronized within each subpopulation, this is the time when wolf monitors look for signs of denning behaviour and pregnancies. This time round their schedule changed dramatically. On 30th September, our guards in Web Valley camp alerted us of a young wolf that had died the previous night. Three days later another carcass was found nearby. Our team conducted detailed post-mortem examinations and collected samples, and by early October the Animal and Plant Health Agency in the UK confirmed canine distemper virus (CDV) as the cause of these two deaths.

From the first death to March we found 34 wolf carcasses, including eight tagged animals, and 17 young wolves born on the previous breeding season. All 14 carcasses that could be sampled and tested were positive for CDV (and negative for rabies), and the timing and location of

the deaths gave us some light into the transmission path (see map). The first casualties were detected in Web Valley (where the disease persisted for nearly six months) and the carcasses found in East Morabawa were from wolves that died around the same time. While it was unclear how the virus reached the Sanetti Plateau three months later (possibly via the Central Peaks) this was the outcome that we had feared the most: after the recent rabies outbreak, any additional mortality could have dramatic consequences for this population. The field team found the last wolf carcass on 23th March, when the epizootic was clearly dying out.

As wolf packs in Bale were recovering from rabies, CDV strikes again



► Map of the Bale Mountains showing wolf carcass locations and the time lapsed between their estimated times of death with regard to the index cases in the Web Valley (shown in red).

Coming to terms with the impact of the last die off: How many wolves are left in Bale?

By Jorgelina Marino and Eric Bedin

EWCP has monitored Ethiopian wolves in the Bale Mountains since 1987 and, as result, this is one of the best known populations of any threatened carnivore in the world. Following standard protocols, and after investing many hours observing selected packs (over 2,380 hours of observations by seven monitors in the last 12 months), we get to know the composition of some 20 *focal* packs in three core populations extremely well. By calculating annual changes in the size of these populations, we build time series that help us visualize long-term trends (see figure). We also follow other 30 *peripheral* packs in Bale, at lower intensity.

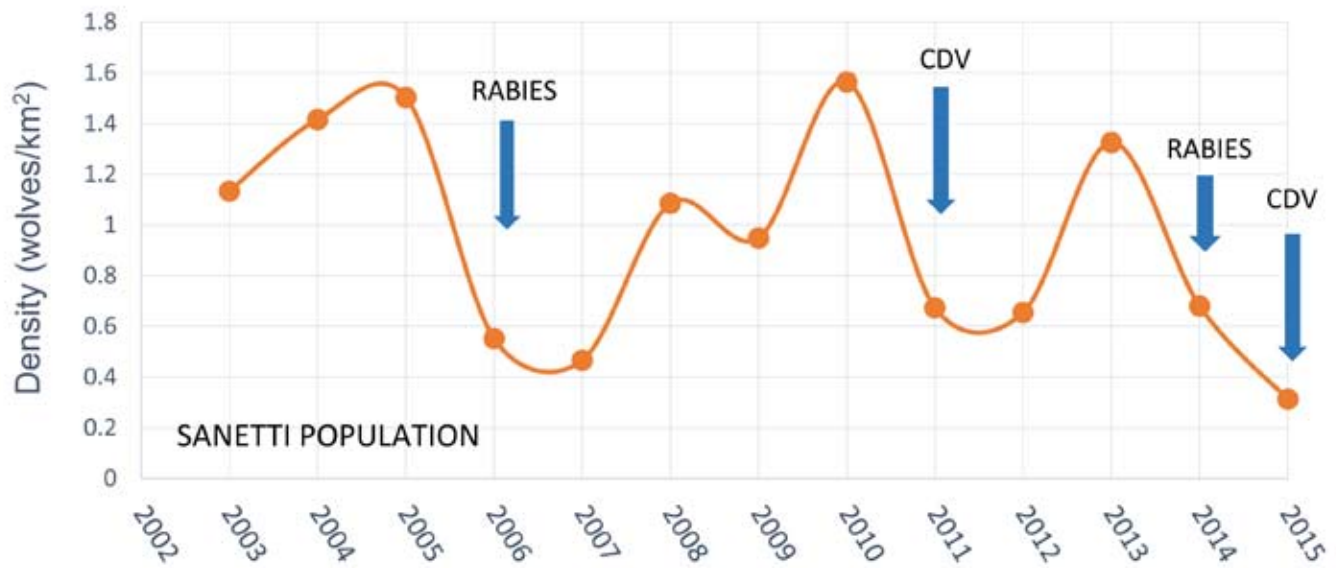
Our monitoring work this year was marked by a devastating outbreak of canine distemper virus (CDV). In the last six months we found 34 wolf carcasses, and an additional 31 adult wolves were unaccounted for in 17 wolf packs from Web, Sanetti and East Morabawa. This mortality represents an average decline of 52% of the adult wolf population across these three sub-populations, in comparison with the number of wolves present in the previous breeding season. Towards the end of the outbreak in March there were 28 pups alive in eight of our focal packs.

This population decline is comparable to that recorded during the CDV outbreaks of 2005 and 2010. In the aftermath of the die off we estimate that there are currently 130 adult wolves in the Bale Mountains (not including the pups born this year). This is about half of a population of 250-300 wolves that would live in Bale in normal circumstances (i.e., *carrying capacity*). Whilst wolf numbers have eventually recovered from similarly severe outbreaks in the past, the wolf population in Bale is currently fragile -any additional mortality at this time could have disproportionate consequences. In order to avoid new epizootics, preventive vaccination of wolves is an urgent priority. We are currently working with the Ethiopian authorities on an integrated disease management plan for Ethiopian wolves to that effect.

Pack Composition after the CDV outbreak

| Web Valley | | | | | | |
|-----------------|------------|-------------|---------------|----------------|------------------|------|
| pack | group size | adult males | adult females | subadult males | subadult females | pups |
| Alando | 4 | 2 | 2 | | | ? |
| Bowman | 3 | 2 | 1 | | | 5 |
| Mckenna | 5 | 3 | 2 | | | 2 |
| Megity | 6 | 2 | 2 | 1 | 1 | |
| Megity 2 | 2 | 1 | 1 | | | |
| Megity 3 | 3 | 1 | 1 | 1 | | 2 |
| Tarura | 7 | 3 | 2 | 1 | 1 | 4 |
| 30 | | | | | | 13 |
| Sanetti Plateau | | | | | | |
| Pack | group size | adult males | adult females | subadult males | subadult females | pups |
| Bagadasa | 4 | 2 | 1 | 1 | | 2 |
| Garba | 5 | 2 | 1 | 2 | | |
| Gurracha | 3 | 1 | 1 | 1 | | 4 |
| Batu | 3 | 1 | 1 | 1 | | 4 |
| BBC | 3 | 1 | 1 | 1 | | |
| BBC2 | 2 | 1 | 1 | | | |
| 17 | | | | | | 10 |
| East Morabawa | | | | | | |
| pack | group size | adult males | adult females | subadult males | subadult females | pups |
| Genale | 3 | 1 | 1 | | 1 | 2 |
| Genale 2 | 2 | 1 | 1 | | 1 | 3 |
| Osole | 1 | | | | | |
| Weshema | 3 | 2 | 1 | | | |
| Fotora | 1 | | | | | |
| Fulbana | 2 | | 1 | 1 | | |
| 12 | | | | | | 5 |

► Composition of Ethiopian wolf packs in three core populations of Bale, towards the end of the CDV outbreak (February-March 2016). *packs likely to go extinct. © Eric Bedin/EWCP



► Time series indicating changes in the size of the Sanetti population (shown as changes in wolf density).

Packs' news: Wolf families that bring hopes of recovery

By Alo Hussein

This was a tough season in Bale. While monitoring we recorded numerous deaths and disappearances among the wolf families that we know so well. Over several months, CDV hit hardly the wolf populations of Morabawa, Sanetti Plateau and Web Valley. But monitoring also revealed good news, which give us hope for the future. For example, at the time of writing this report, no carcass has been located for over two months. Also, no pack went extinct during the outbreak and a breeding pair survived in each family.

We recorded eight packs breeding this year, and a total of 28 pups, some of them now 5-6 months-old. It was with delight that we observed packs successfully rearing their pups, born during the peak of the outbreak -CDV commonly affects young animals first. We are still finding the surviving pups regularly, and all are in good health.

Interestingly, and reassuringly, I found the six adult wolves from the Tarura pack, which had been vaccinated during the pilot CDV vaccination in 2014, feeding restlessly a litter of four! The success of this breeding season can counterbalance the losses from this outbreak, allowing packs to recover faster and to keep their territories.



► All wolves in a pack help raising the pups of the dominant pair. Yet, pups can survive as well both in small as in large packs, bringing hope for the recovery of the wolf families decimated by disease in the last few months. © Nick Jacobsen

Disease killed many wolves, but most families survived, many with pups.

Disease control and prevention

A multi-pronged approach to reduce the threat that diseases pose to the survival of the Ethiopian wolf, with the following objectives: i) assess the prevalence and threat of canid pathogens to wolves, ii) gather information on health status, diseases and causes of mortality; iii) investigate a vaccination scheme to protect Ethiopian wolves; iv) prevent disease transmission from domestic dogs.

Routine dog vaccination continues, with increased efforts

By Muktar Abute

This year we pursued our target to vaccinate thousands of dogs in and around the Bale Mountains National Park. Unlike the situation in large settlements, where people can gather at *rendez-vous* sites for routine dog vaccinations, in Bale we go gate to gate to vaccinate dogs in isolated places bordering Ethiopian wolf habitat. This is an extremely harsh task, but we know that it makes a huge difference to protect the wolves.

Between April 2015 and March 2016 we vaccinated 5,264 dogs against rabies in 46 communities, reaching a coverage of 84%. Dogs living close and within the park were also vaccinated against CDV, after a very successful trial in 2010.

On the face of this year's CDV outbreak among wolves, we organized a second vaccination team to work on the corridors used by seasonal herders to gain access to the park. Over two weeks, this team vaccinated more than 800 dogs in the Hora Soba area.



► Whenever we trap a domestic dog during wolf captures, we take blood samples for laboratory analyses. © Eric Bedin/EWCP

► The Oromo people living in Bale are now very supportive of our dog vaccination campaign –these young shepherds voluntarily brought their dogs to us one cold early morning. © Eric Bedin/EWCP

We focused on dogs entering the Bale Mountains with migratory people during the wet season.



After successful trials, we are ready to go ahead with oral vaccinations

by Claudio Sillero and Eric Bedin

Among threats Ethiopian wolves have to cope with for their survival, rabies is the deadliest, but fortunately probably not anymore a fate. Together with the Ethiopian Wildlife Conservation Authority, EWCP is testing well known tools developed to fight this disease. Rabies is probably one of the better-studied zoonosis, and oral vaccinations have been used worldwide to reduce rabies prevalence in wildlife population. Developed more than 25 years ago, rabies oral vaccines are very safe and effective. They have contributed to eradicate rabies from several countries in Western Europe and in states of USA, and are widely used in some African countries.

In 2011 and again in 2014, authorization was granted for EWCP to test the safety and efficacy of the SAG2 oral vaccine on a total of 4 packs in the Bale Mountains. With the completion of the trial this year, we can confirm what type of bait Ethiopian wolves prefer, the pros and cons of alternative bait delivery methods, and what immune response the vaccines promotes. Of a sample of 21 wolves that had ingested baits, 86% showed an increase of the rabies antibody titres to a level considered sufficient to give protection against the virus in wildlife (≥ 0.20 IU/ml), and 50% reached levels above the universally accepted threshold (≥ 0.5 IU/ml). All wolves which had consumed a bait with vaccine were alive one year later, demonstrating the safety of the vaccine on Ethiopian wolves.

The completion of the oral vaccination trial represents a great achievement for our team, and is of great significance for the conservation of the Ethiopian wolf. Oral vaccinations are a cost-effective option to prevent future outbreaks, by protecting the Ethiopian wolves in a preventive way and without any handling involved. The results have been presented to a panel of veterinarians and conservationists in Addis Ababa in September 2015 and oral vaccination is now under consideration, as an important component of an integrated disease plan to fight the rabies threat on every front.

We are ready to scale up the oral vaccination of wolves against rabies



► An Ethiopian wolf consumes bait containing a rabies oral vaccine sachet. © Chris Gordon/EWCP

Next steps to develop a vaccination strategy against CDV

by Eric Bedin and Claudio Sillero

Five years ago we came to the sad realization that canine distemper virus (CDV) represents as serious a threat to Ethiopian wolves as does rabies, and that the disease can be as lethal. Testing a CDV vaccine on Ethiopian wolves then became a priority and, in 2014, when permission was granted by the federal authority, we ran a small-scale trial using the Nobivac Puppy-DP vaccine. The first results were encouraging, albeit limited to a very small sample size - six wolves were vaccinated in Tarura pack, and they were alive a year later.

Early in 2016, towards the end of the CDV outbreak, we were granted permission to extend the trial to an area of the Sanetti Plateau. In February we captured and vaccinated two wolves, which were recaptured in April (to measure their immune response to the vaccine), when two other wolves were also vaccinated. We are planning to complete the trial as soon as the climatic conditions improve, seeking to demonstrate the efficacy of the vaccine over a larger sample size.

In 2014 we demonstrated the safety of this vaccine in Ethiopian wolves, and this time round we also learnt that the vaccine does not disrupt breeding – a pregnant female vaccinated in February was lactating when she was recaptured in April. Once the full results are known, a strategy to fight against CDV infection will be integrated into the evolving disease management plan for Ethiopian wolves.

Habitat protection

Helping new protected areas to help wolves

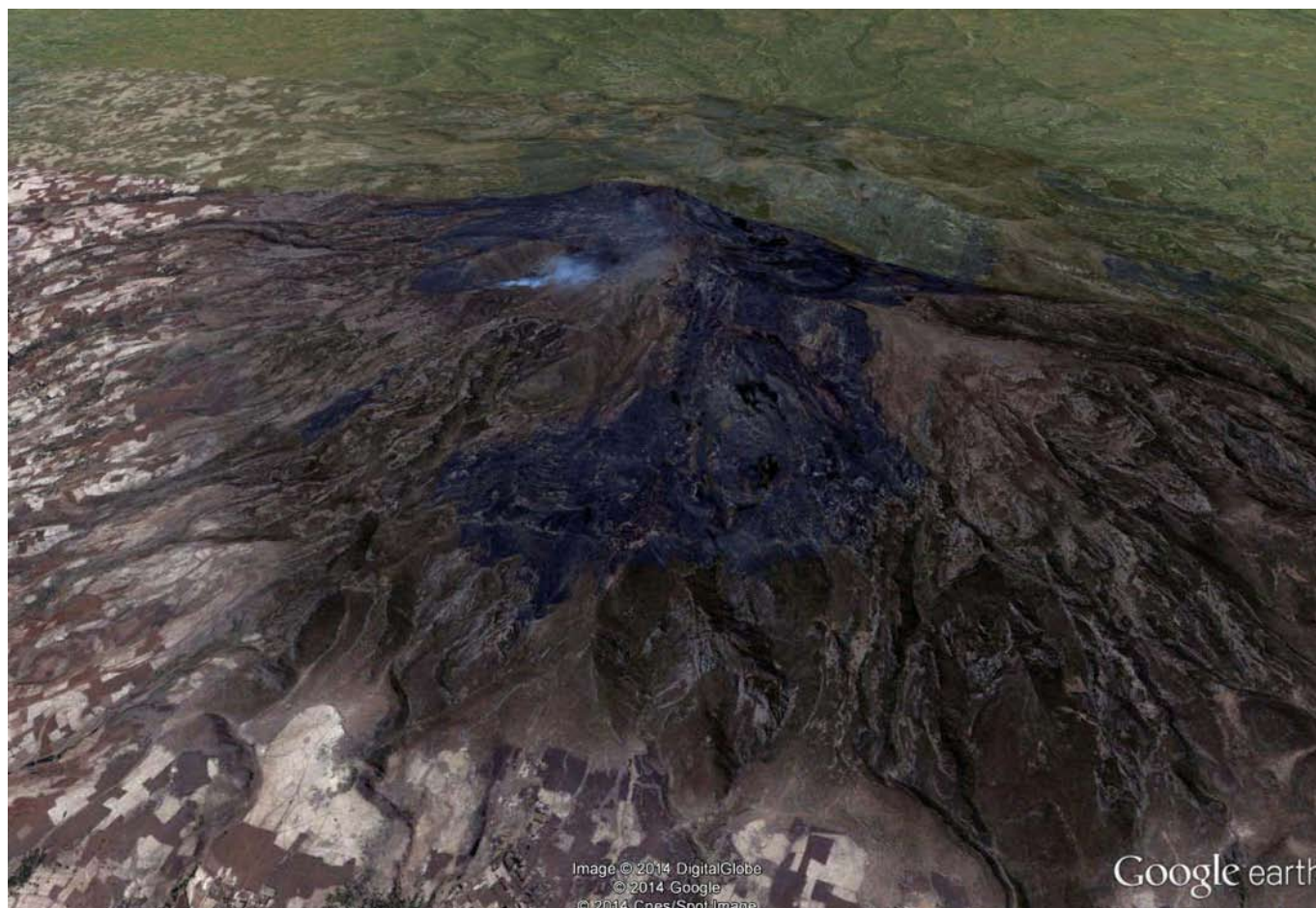
By Jorgelina Marino and Eric Bedin

The last surviving Ethiopian wolves live in six isolated mountain ranges, with no captive populations kept anywhere on earth. Even though half of them live in the Bale Mountains (around 300 in a good year), this population is by no means safe. The CDV outbreak a few months ago was a sad reminder of its fragility. For such a specialized and endangered carnivore, every extant population is equally significant for the species global conservation status. Even more so, since important reservoirs of genetic diversity for the species are found outside the Bale Mountains. For these reasons, the recent creation of new protected areas by regional governments brings hope for Ethiopian wolves in other regions.

EWCP is actively and increasingly involved with these budding conservation initiatives. The recently-created Arsi Mountains National Park, in the Oromia region,

encompasses some 800km² of suitable habitat, and harbours approximately 50 wolves. Up north, the Amhara region formalized this year the extension of the Borena-Sayint Worehimen National Park, that now includes all Afroalpine habitat in South Wollo – some 100km² protecting 40 wolves.

Over the past year we intensified our education, research and monitoring work in these areas but, with “not enough eggs for so many baskets”, funds and personnel could not be stretched any further. It was thus with great relief that EWCP recently secured a three-year grant from the Fondation Segré to help realize the conservation potential of these two protected areas, which presently count with limited funds and expertise to safeguard Ethiopia’s unique Afroalpine wildlife.



► In the new Arsi Mountains National Park extensive, and increasingly frequent, fires threaten the Afroalpine ecosystem. This satellite image from Google Earth illustrates the effects of fires in Mt Kaka in 2014. © Google Earth

Is there hope for Ethiopian wolf reintroductions? Assessing Mt Choke's potential

By Jorgelina Marino

With a global population of fewer than 500 wolves restricted to six isolated mountain enclaves, the Ethiopian wolf is at least three times rarer than the giant panda!, albeit considerably less well known, in part because they are not kept in zoos or bred in captivity anywhere. For any threatened species in this situation, meta-population management becomes an integral part of a conservation strategy to protect the species from further decline and eventual extinction.

A first step in that direction is to assess the condition of any unoccupied areas of suitable habitat where the species was previously present, to ponder their potential as reintroduction sites. With that objective in mind, I visited the Mount Choke with a team of EWCP experts. Existing evidence indicates that Ethiopian wolves went extinct in Mt Choke some 70-100 years ago (at least two wolves were shot there by Lord Walter Rothschild at the turn of the 20th Century). Surrounded by the impressive Blue Nile Gorge, a strong barrier for dispersal, wolves never recolonized the area from Gondar populations.

For four days we surveyed these beautiful mountains, looking at infinite layers of mountain chains, spreading into to horizon. We returned with a ton of data and mixed feelings... This is what we learnt:

1. Is the area big enough to sustain a wolf population? Yes, there are nearly 150km² of Afroalpine habitat left, as much or more than in areas with well-established wolf populations.
2. Are there enough rodents, the main wolf prey? Worryingly, the density of small rats was low, but instead the common mole rat *Tachyoryctes splendens* (or East African mole rat) was surprisingly common in very short, overgrazed meadows.
3. Are there other potential competitors? We encountered golden jackals (or African wolves) at day time (and at night using camera traps), living a 'wolf' life style – a pattern across other areas of Ethiopia with extinct wolf populations. When abundant, wolves keep jackals at bay; at lower density they sometimes engage on aggressive interactions. This raises an important research question that will be very relevant for any future wolf reintroductions.



► The high altitude swamps of Mt Choke are the heart of the Blue Nile watershed. The larger ones, like this one, are still healthy, but many other are dying from overgrazing and habitat degradation. © Jorgelina Marino/EWCP

We posed the question: could wolves be reintroduced in Mt Choke?



► A golden jackal (or is it an African wolf?) caught in a camera trap in Mt Choke. These mid size predators are a potential competitor for Ethiopian wolves; they take over Afroalpine habitats where wolves have gone extinct. © Eric Bedin/EWCP

Disseminating successful stories to reduce pressure upon natural resources

By Fekadu Lema

The main threats to the survival of the Ethiopian wolf are the loss and degradation of their Afroalpine habitat. Relying nearly exclusively on rodents for food, the wolves will struggle to cope if rodent populations decline as a result of unsustainable land uses. One of these threats is the extraction of *Erica* and “charranfe” bushes, the sole sources of firewood for the communities living high up in the mountains. Our studies indicate that extraction of firewood is changing the structure of vegetation, impacting on soils and rodent populations, and many of those places are now becoming sub-optimal for wolves. Considering the small size of all Afroalpine relicts, these are seriously bad news for the smaller wolf populations subsisting in tiny enclaves.

In 2014 EWCP started a new outreach scheme, supporting the establishment of local producers of fuel-saving stoves in two Afroalpine areas of North Ethiopia: Mt Guna and Delanta. Fuel saving stoves consume around half of the firewood required by traditional cooking methods, reducing smoke emissions and its impacts on human health, and potentially release time for women and children, typically in charge of collecting firewood, to do other more meaningful and rewarding activities.

The initial success of this scheme resulted from active collaborations with energy experts from local

governments and with the local communities, intensive marketing and a system of local subsidies. Last year we decided to expand our impact by reaching more communities and getting more stove producers near critical wolf habitat. After securing additional funding, we continued our work in Mt Guna and Delanta, and expanded to Mt Choke – three areas where natural resources in communal Afroalpine land are at high demand. As of March 2016 the producers in Mt Guna and Delanta have made 162 fuel-saving stoves and sold 113; the two new producers in Mt Choke had a combined production of 64 stoves, and sales were taking off (11 stoves). With fresh funding, we will expand the scheme to the Borena Sayint Worehimeno National Park, harbouring an important wolf population.

Among the new activities starting is the promotion of honey production around wolf habitat, for which we are providing training, bee hives and other equipment. The honey produced from *Erica* flowers is highly valued locally and commercialized. We expect that interest on these bee hives will grow and result in effective protection of patches of *Erica* moorland and forests, as we have observed in other areas that traditional produce honey. By protecting the *Erica* vegetation we are protecting the whole Afroalpine ecosystem, including the Ethiopian wolves and their prey, and important ecosystem functions such as soil and water retention.



► People at local market observe fuel-saving stoves at work, specifically designed to cook ‘enjira’, a staple food in Ethiopia. © Fekadu Lema/EWCP



► Women carrying ‘charranfe’ firewood from Afroalpine area in South Wollo © Eric Bedin/EWCP

Education and awareness

Nature Clubs, local models for environmental conservation

By Fekadu Lema and Habtamu Mulugeta



Across Ethiopia, four full-time Education Officers work with 19 'target' schools nearby wolf habitat. We help these schools to impart environmental education and, with the Ethiopian wolf as a flagship, we use diverse tools to teach and discuss the benefits that the Afroalpine ecosystem bring to people and wildlife (such as books, leaflets, a teacher's manual, art contests, photos, videos and games).

Seeking a closer connection between students and nature, we worked closely with each school's Nature Club over the past two years, to help them implement practical, small-scale conservation projects in or around the school compound. Each Nature Club selected a project that suited their school, and EWCP provided support, training and equipment. Some projects involved planting native trees, eucalyptus, highland apple trees, or 'guassa' tussock gardens. Growing these plants contributes to stop erosion, generates alternative incomes, and/or reduce pressure upon natural sources of firewood and grass from wolf habitat.

These projects are setting examples for other students and for the community at large, of the benefits of

environmental conservation. For example, in 2014 the school near Aboi Gara, in North Wollo, received 200 eucalyptus seedling (70 have survived) and 10 highland apple seedlings (all alive to date), two hoes, two spades and two water cans. When eucalyptus trunks become pole-size, they will be sold locally for the benefit of the Nature Club.

The school in Amba Rass, in the Simien Mountains, grew and harvested 'guassa' grasses, which the school sold to buy poles to fence the crop. In many places, motivated teachers and students also visit households near the schools to talk about conservation and how protecting the environment can help their families too.

► Children herding sheep and goats in Afroalpine habitat read a leaflet about wildlife, diseases and conservation. They mingle with Ethiopian wolves every day and are an important part of the conservation puzzle. © Jorgelina Marino/EWCP

School children celebrate the environment

By Mustafa Dule and Fekadu Lema

Education is key for conservation. Every year, EWCP invests in environmental education around wolf habitats and delivers awareness about Afroalpine wildlife to thousands of students. Throughout the year we visit schools and work with directors, teachers and Nature Clubs, but outdoor activities still are the children's favourites and are likely to have a bigger impact.

This year, for the second time, we organized a two-day trip for children from the Arsi Mountains to visit the majestic Sanetti Plateau in Bale. An experienced wolf monitor was waiting for us in the campsite at 4,000m above sea level, to show them the packs living in our camp's doorsteps. For many of them, this was the first time they saw an Ethiopian wolf. What an event!

The traditional Wolf Day was organized this year in the three geographic areas where EWCP works: Bale, Arsi and North Ethiopia. During that day, children from local schools and people from the communities get together to celebrate the Ethiopian



► Discussing Afroalpine conservation with the local community © Fekadu Lema/EWCP

wolves living in their areas. This is an important occasion for local populations, stakeholders and conservationists to gather. The day is marked by quizzes, poems, conservation discussions, games and sport competitions, in a festive atmosphere. This year a Wolf Day took place in the Simien Mountains for the first time. Simien is home to the northernmost population of Ethiopian wolves and is where the species was first described by science. With the motto “Let us conserve the Ethiopian wolf”, the day was colourfully celebrated in Debark, with the attendance of over 3,000 people, including city residents, students and teachers from schools bordering the National Park, elders, and representatives from local and regional governments.

Capacity Building and Research

EWCP relies on strong science to inform and develop conservation actions towards the completion of its main objective: to assess, address and counteract threats to the survival of Ethiopian wolves and their Afroalpine ecosystem. EWCP is committed to building capacity in Ethiopia in the ecology and biodiversity conservation field, both within our organisation and the Ethiopian conservation community in general.

News from team members and collaborators conducting research in Ethiopia, on aspects of biology, sociology and ecology relevant for Afroalpine conservation. Their results, and the information they gather, are helping EWCP to assess and plan its activities.

Girma Eshete is close to finish his PhD at Leiden University in the Netherlands, in collaboration with the University of Oxford and EWCP. He has completed his field work and is now writing up in Leiden. Last year Girma studied the diet of Ethiopian wolves in the new extension of the Borena Sayint National Park. For the next three years Girma will work as Project Leader there, overseeing expanding programme activities.

Kassaye Wami, completed his MSc thesis at Wondo Genet Forestry and Natural Resource College, from Ethiopian Wildlife Conservation Authority. He studied farmers’ perceptions and the strategies they use to adapt to climate change in around the Bale Mountains National Park.

Gebeyehu Rskay will soon submit his MSc thesis at Bahir Dar University, for which he investigated the behavioural responses of Ethiopian wolves living in



► Girma Eshete assessing wolf habitat in Borena Sayint National Park. © Antenah Girma/EWCP

close contact with humans, livestock and their dogs in Delanta. From his results he derived recommendations to enhance conservation and management practices there. He was been selected to attend a Postgraduate Diploma in International Wildlife Conservation Practice at the University of Oxford in 2016. Congratulations Gebeyehu! Gebeyehu is EWCP's North Ethiopia Monitoring Officer.

Anteneh Tesfaye Mengesha, MSc student, Wildlife and Ecotourism Management, University of Bahir Dar, and EWCP's counterpart in Amhara region. Anteneh is currently in the field, studying management systems of natural resources in various kebeles (peasant associations) within the newly expanded Borena-Sayint National Park. This information will be useful for the development of a management plan for the park.

Muktar Abute is a student at the Veterinary Faculty, Debre Zeit University and EWCP's Vet Officer in Bale. For his research project he is studying the wider impacts of EWCP's domestic dog vaccinations in Bale, including health effects on humans and livestock. He is analysing reports of rabies incidents in six peasant associations surrounding the Bale Mountains. His preliminary results are showing how humans benefit from Ethiopian wolf conservation. Muktar will graduate in June 2016.

Tariku Mekonnen Gutema, a PhD student at Centre for Ecological and Evolutionary Synthesis, in Oslo University, in collaboration with the University of Oxford and EWCP. He carries out research study on the behavioral ecology of recently discovered African wolf (*Canis anthus lapuster*), previously a cryptic species mistaken with golden jackals, and its exploitative and interference competition with the Ethiopian wolf. The study is based on focal watches of 13 VHF collared African wolves and on the study of on human-carnivore conflicts over livestock predation. The outcome will help develop conservation strategies for African wolves in the Ethiopian highlands.

Addishiwot Fekadu, BSc student from Addis Ababa University, completed her master thesis looking at the impact of livestock grazing on rodents in the Bale Mountains National Park, Ethiopia, in and around exclosures set up nearly a decade ago by Frankfurt Zoological Society and EWCP as part of a long-term ecological study.

Ryan Burke, DPhil student at the University of Oxford, in collaboration with EWCP. He is investigating Afroalpine mammalian community to understand their composition and intactness affect ecosystem processes. He just completed fine-scale natural experiments, broad-scale mammal censusing, and



► Image taken by a drone as part of Bryan Burke's study. Note the clear distinction between various vegetation types. © Bryan Burke

biogeochemical sampling in various areas across the Amhara Region. One of his objectives is discerning the interacting effects of Ethiopia's native and domestic herbivores upon soil nutrient cycling and erosion. To study a high resolution heterogeneity in land cover types he uses drone aerial photography.

Laura Perry, a BSc student at the University of Oxford, in collaboration with EWCP. Laura completed a field project on the interactions between free-ranging dogs and Ethiopian wolves in the Web Valley of Bale Mountains. Male dogs travel further outside the villages, and also exhibit greater connectivity between villages than females. Males are also responsible for direct conflict with wolves, suggesting that management interventions such as vaccination and restrain, are particularly important for male dogs.



► Laura Perry followed dogs using wolf habitat in Bale to study their behaviour. © Laura Perry

Derbe Deksis, is a new MSc student of Zoology at Addis Ababa University. Derbe works for the Ethiopian Wildlife Conservation Authority, and is sponsored by EWCP. For his thesis he will study how the wolves' rodents prey is affected by various management interventions in the Simien Mountains National Park.



Diagnosis and prevention of canid diseases

In order to react swiftly to reports of disease in wild and domestic animals in Ethiopian wolf range the EWCP relies wholeheartedly in two partner organizations that have provided amazing support to date. We are extremely grateful for their technical support and provision of diagnostic services at no cost.



The Ethiopian Public Health Institute (EPHI) conducts research on nutrition, traditional medicines, and medical practices as well as on the causes and spread of diseases. Taking over the responsibility from the former Pasteur Institute, EPHI provides referral medical laboratory services relating to the causes, prevention and diagnosis of rabies and other major diseases of public health importance. Dr Asefa Deressa, Senior Researcher at EPHI, and his team test all samples collected by EWCP for rabies in their modern facilities.



Animal &
Plant Health
Agency

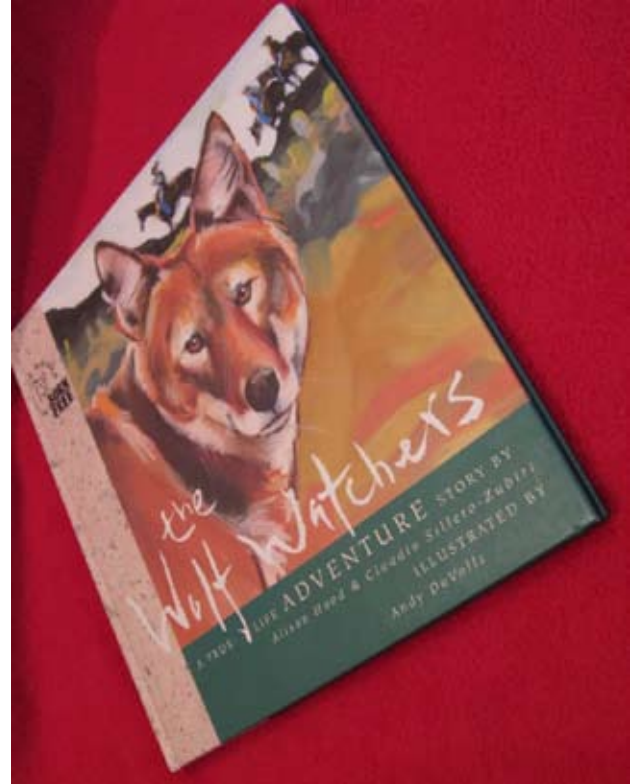
Duplicate samples are also shipped to the *Animal & Plant Health Agency (APHA)* in the UK. APHA carries out research on various animal and wildlife diseases including bovine TB, zoonotic and wildlife viruses such as rabies and vector-borne diseases. APHA also acts as an international reference laboratory for a wide range of animal diseases including rabies and canine distemper virus, providing veterinary and scientific consultancy to countries across the world offering confirmatory testing, technical training and standardisation of diagnostic methods. EWCP works closely with Dr Tony Fooks' team at APHA, who assist us with rabies and CDV diagnostics and collaborate in related research.

Our Team

We welcome back ‘wolf man’ *Getachew Assefa*, an old friend that has taken up a position as Project Leader in Simien Mountains. He will have been joined by two new wolf monitors *Andualem Ambachew* and *Jejaw Mequanenent*.

Two very special friends that have been supporting EWCP and liaising with two key partners have moved on. *Alison Hood*, Programmes Director at the Born Free Foundation has left the organisation. She was involved with Born Free from its very early days and was instrumental in rescuing many animals from zoos and circuses, providing life care for them in several animal sanctuaries. Alison awarded the first grant to EWCP in 1996, and worked closely with us since. Her involvement with Ethiopian wildlife led to the establishment of Born Free Foundation Ethiopia in 2009 and the creation of the Ensessakotteh, a Wildlife Rescue, Conservation and Education Centre in Holeta, outside Addis Ababa. Alison wrote a wonderful children book “*The Wolf Watchers*” depicting the wolves and our work

Kelly Wilson has been EWCP project manager at the Wildlife Conservation Network in San Francisco for the last few years, and visited Ethiopia twice in that role. With her charm and amazing ability to engage with people Kelly has been a great asset for EWCP, and ably looked after the EWCP team during our annual visits to the WCN Wildlife Expo. Kelly has now taken the role of Director of Donor engagement at WCN, and Veleta Allen will be looking after EWCP from now on.



Karen Laurenson, a veterinarian and ecologist from Scotland with a particular interest in the epidemiology of wildlife diseases, first came to Ethiopia in 1994, intrigued by our reports that rabies was posing a serious threat to Ethiopian wolves in Bale. With Claudio Sillero they founded the EWCP in 1996, and they have been working closely since. Karen has been a key player in the African programme of the Frankfurt Zoological Society and has been a formidable champion for Ethiopian wolves. After several years living in Ethiopia with daughters Pippa and Katie, where she was an adviser to the Ethiopian Wildlife Conservation Authority, Karen has now moved to Zambia, from where she oversees several FZS projects including in Ethiopia. She continues to serve in the Advisory Board of EWCP. Thank you Karen, we won't let you get away from the wolves!

News

Camera-trapping survey in the Hareenna Forest

The Hareenna Forest in the southern slopes of the Bale Mountains National Park is an important enclave of biological diversity, with many endemic plant and animal species, currently under heavy pressure from encroachment and deforestation. Hareenna has resident populations of lions and leopards, and is visited regularly by African wild dogs (quite an unusual habitat for a cursorial species better known from more open habitats). In collaboration with WildlifeAct, Frankfurt Zoological Society and BMNP we are surveying these forests using camera-traps, to produce an inventory of its carnivore populations, assess other key wildlife species, and also to develop a better understanding of the human pressures threatening their future.

Lost lions of Ethiopia. An expedition to Alataash National Park

WildCRU lion conservation biologist Dr Hans Bauer, who has lived in Ethiopia for many years, specialises in the highly endangered lion populations of West, Central and the Horn of Africa. With support from our partner the Born Free Foundation in late November Hans led an expedition to the 2,666km² Alataash National Park on the west of Ethiopia. With Dinder National Park in neighbouring Sudan they form the Alataash-Dinder Transboundary Ecosystem. Accompanied by EWCP Gebeyehu Rskay and several scouts they searched for spoor, used loudspeaker call-ups, and deployed camera-traps. Wonderfully, they secured the first picture of these lions confirmed by science. They also confirmed through interviews with local people that they see their lion signs regularly, but at low density. This is such welcome news – lion biologists tend to spend too much time recording areas from which lions have disappeared, so it is a joy to fill in a piece of the map with positive news.



Fondation Segré supports biodiversity friendly futures

EWCP has joined forces with Fondation Segré to work in Borena Sayint and Arsi Mountains, two of Ethiopia's newest National Parks home to critical populations of Ethiopian wolves. From April 2016 and for the next three years EWCP will develop strong foundations for the conservation of these Afroalpine refuges, building the parks' capacity to enforce regulations to minimize environmental threats and promoting biodiversity friendly futures for local communities, which traditionally depend on Afroalpine resources to subsist. Girma Eshete, a scientist that has worked with EWCP for several years, will be the Project Leader in Borena Sayint.



FONDATION SEGRÉ

African Wildlife Foundation

We are delighted with the award of a second Species Protection Grant from AWF, aimed to secure the survival of Ethiopian wolves in the Simien Mountains. As a result we have recruited Getachew Assefa as Project Leader as well as two new Wolf Monitors to expand our efforts to protect this iconic population of Ethiopian wolves. At the northern extreme of its distribution, and around Ethiopia's highest peak (Ras Dajen at 4,550m asl), Simien is where the species was formally described, and from where it got its scientific name *Canis simensis*.



► Ghostly night-time image of the lioness caught on a camera trap in Alataash National Park. @ Hans Bauer/WildCRU

Bale Visitor Centre

Half hidden in the *Hagenia-Juniper* forest of Dinsho Hill, a magnificent two storey structure is slowly shaping up. Built of timber and mud walls by Ethiopian artists Meskerem Assegued and Elias Sime the centre has themed Nyala and Wolf rooms, supported by wooden sculptures. The centre should be completed by late 2016 and will house displays depicting the Afroalpine ecosystem, the water cycle, the northern forests and grasslands, the Hareenna forest and the people of Bale. The centre will offer an introduction to visitors and an important educational resource to local schools and people.

► Door arch carved out of dead *Hagenia* trees.
© Jorgelina Marino/EWCP



► © Meri Bautch



Wolf Artwork

Ethiopian wolves are simply beautiful, and attract photographers and film makers from all over the world. They are also the object of some delightful artwork, such as this watercolour by Meri Bautch from Monterrey, California. And a card designed by Bonnie Rinier.



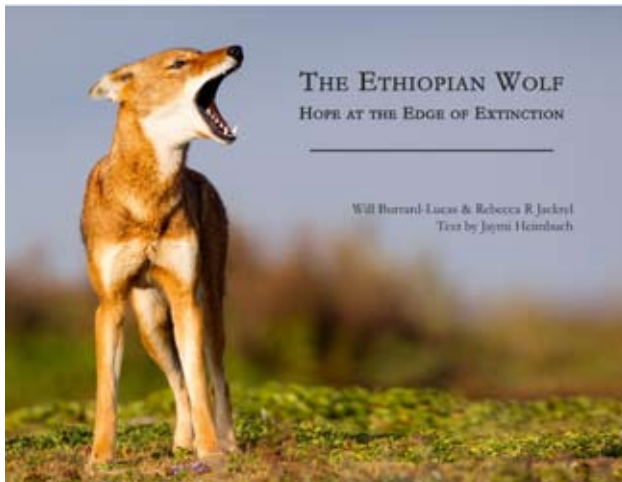
► © Bonnie Rinier

"One Health"

The One Health Initiative www.onehealthinitiative.com is a global effort that explores efforts to address the links between animal health, human health, and our environment. The work that EWCP does to combat rabies through dog vaccination is a good example of this holistic approach to health.

EWCP has joined the One Health Partnership to combat rabies in Ethiopia. Led by Dr Wondwossen A. Gebreyes at College of Veterinary Medicine at Ohio State University the RIGHT Partnership (Rabies and Infections of Global Health in the Tropics) brings together the Ethiopian Public Health Institute (EPHI), the University of Gondar and the US Center for Disease Control and Prevention (CDC). RIGHT is currently implementing a One Health model project for the prevention and control of rabies in North Gondar.





The Ethiopian wolf: Hope at the edge of extinction

By Will Burrard-Lucas and Rebecca R Jackrel,
text by Jaymi Heimbuch

This collection of stunning photographs, accompanied by an insightful text, is a suitable tribute from the late Rebecca Jackrel to the animals and landscape she so loved.

Published by Lobelia Press it is a partnership between the photographers and the Ethiopian Wolf Conservation Programme, with all profits from every book sold donated to EWCP. Lobelia Press has also donated several dozen books to be distributed in Ethiopia among supporters, schools, senior government officers and tourist lodges to promote our work.

Order now! www.ethiopianwolfproject.com/book

The Ethiopian Wolf: Hope at the Edge of Extinction (Lobelia Press. Hardcover, 152 pages).

Recent Publications (2014 - 2016)

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Popular Articles

Wildlife World (PTES). Spring 2016. Ethiopia update. Pp 12-15. Written by Jorgelina Marino.

Wolf Print (UKWCT). Spring/Summer 2016. Guardians of the Roof of Africa: The Ethiopian Wolf Conservation Programme. Pp 20-23. Written by Lara and Jonathan Palmer.

For a complete list of publications see www.ethiopianwolf.org/publications.shtml

Project Administration

The Ethiopian Wolf Conservation Programme (EWCP) is a partnership between the University of Oxford's Wildlife Conservation Research Unit (WildCRU) and the Born Free Foundation, which provides an ideal platform from which to address wildlife conservation. The EWCP operates under the auspices of the IUCN SSC Canid Specialist Group, and additionally collaborates with the University of Addis Ababa, Bahir Dar, Debre Zeit, Gonder, and Wondo Genet in Ethiopia, and Universities of Glasgow, Leiden, South Bohemia and the Zoological Society of London, among others.

EWCP operates in Ethiopia under Memoranda of Understanding agreements between the WildCRU and the Ethiopian Wildlife Conservation Authority (EWCA) at a federal level, and the Oromia Forest and Wildlife Enterprise (OFWE) and Amhara Culture, Tourism and Parks Development Bureau at a regional level. In addition, EWCP works closely with the Frankfurt Zoological Society (FZS) and the Born Free Foundation Ethiopia (BFFE). EWCP has long established and excellent working relationships with all these organisations. In addition, the Programme seeks the support and cooperation of local authorities for all field activities in all areas.

EWCP has been chiefly funded by the Born Free Foundation since its inception in 1995, with generous donations from the Wildlife Conservation Network (WCN) since 2002 and ongoing logistic support from FZS.

Lifetime Donations

Our Donors

EWCP is deeply grateful for the support it has received over the programme's life time. We are thankful for every gift, since each contributes to the future of the Ethiopian wolf.

Here we list our major donors since the Programme began:

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Why Choose EWCP

The Ethiopian Wolf Conservation Programme is a WildCRU (University of Oxford) endeavour to help protect these endangered wolves and the Afroalpine habitats they inhabit. It works under an agreement with Ethiopia's Wildlife Conservation Authority and Regional Governments, with the aegis of the IUCN/SSC Canid Specialist Group.

Ethiopian wolves are only found in a handful of scattered mountains in Ethiopia are threatened by loss of highland habitats, disease and persecution. The most threatened carnivore in Africa, and the world's rarest canid, these long-legged charismatic animals need your help.

Informed by sound research, the Ethiopian Wolf Conservation Programme targets the greatest threats to the survival of Ethiopian wolves and their Afroalpine habitat. We promote this charismatic species as a flagship, thereby protecting many of the Ethiopia's highland endemics and natural resources.

If you or your organisation is interested in helping to fund our activities contact us. You can donate to EWCP specifically through the following organisations:

Contact Us

Ethiopian Wolf Conservation Programme

PO Box 215, Robe, Bale, Ethiopia

Tel: +251 221 190923

info@ethiopianwolf.org

www.ethiopianwolf.org

www.facebook.com/ewolves

Wildlife Conservation Research Unit

Tubney House, Tubney OX13 5QL, UK

Tel: +44 1865 611113

www.wildcru.org

How to Donate

In the United States

Online or cheque donations (tax deductible) may be sent via:

www.wildnet.org/donate?id=12

Wildlife Conservation Network / EWCP

209 Mississippi Street

San Francisco, CA 94107 USA

Tel: +1 415 202 6380

donate@wildnet.org

Tax Exempt ID #30-0108469

Please specify the donation is for 'Ethiopian wolves' in the 'Designation' field.

In the United Kingdom

Online or cheque donations may be sent via:

<http://www.bornfree.org.uk/give/>

The Born Free Foundation

Broadlands Business Campus

Langhurstwood Road

Horsham RH12 4QP, UK

Tel: +44 1403 240170

www.bornfree.org.uk/give/

Reg. Charity No 1070906. If you give through the Gift Aid Scheme we receive an extra amount deducted from your taxes at no extra cost to you (UK tax payers only).

We can also receive donations via Paypal

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Pay to canids@zoo.ox.ac.uk

No donation is too small!





The EWCP Team

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Hussein Abdulmanan, Sanetti Guard, Bale

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Ibrahim Nure, Sanetti Guard, Bale

Bahmud Haji Tamam, Sanetti Guard, Bale

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► Fekadu Lema, North Ethiopia Programme Manager, exploring Erica forest patch in Mt Choke. © Eric Bedin/EWCP



► Adult male in the Bale Mountains



► EWCP Wolf Ambassadors in Delanta-Gubalaftu.
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