

WOLF PRINT

The UK Wolf Conservation Trust

Issue 62 | Autumn/Winter 2017



Africa's Golden Wolf

A shimmering new species emerges

Out in The Cold

Latvia's wolves and lynx struggle for survival

Arctic Encounter

Meeting a wild wolf

NEWS



EVENTS



RESEARCH



MEDIA AND ARTS



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AIMS OF THE UK WOLF CONSERVATION TRUST

- To increase public awareness and knowledge of
wild wolves and their place in the ecosystem.
- To provide opportunities for ethological and other
research that may improve the lives of wolves both
in captivity and in the wild.
- To provide wolf-related education programmes for
young people and adults.
- To raise money to help fund wolf-related
conservation projects around the world.

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Editor's Letter

Julia and Nuka

Wolf Print is blowing hot and cold this issue, or at least profiling the ever-adaptable wolf across the world, from lupines in shimmering desert to those who survive in bone freezing chill. The extremes of climate that facilitated hurricanes and earthquakes this year should always be a reminder that however sophisticated and technologically advanced the world grows, we are still slaves to the mercurial nature of the weather and longer term, the vagaries of climate. Wild animals are particularly vulnerable of course and the wolf only has its body and intelligence for protection. From fur to their feet, a wolf's biology adapts to the temperature and geography of their environment in a fascinating way.

One particular species is certainly 'hot' right now and we are very pleased to be able to support a new project aimed at studying Morocco's golden wolf. This is very significant news in terms of conservation. Once thought to be a jackal, this appropriately named treasure has now been reclassified as a wolf. The scientific project we are supporting aims to investigate any threats or conflicts this 'new' wolf may face and invest in the education needed throughout the local community – a 'golden' opportunity to help it survive and ultimately thrive. Exclusive to Wolf Print, you can read more about this exciting development in depth on pages 14-17. We will continue to update you as the project progresses.

We also have a little piece on another species from a hot clime – an extract

from the Ethiopian Wolf Conservation Programme's (EWCP) report on the beautiful Ethiopian wolf. As species are lost every single day, it's reassuring to see the determination of the EWCP to ensure that this little flame-haired African marvel never fades away. We would urge you to read the report online in its entirety. One of the problems facing the Ethiopian wolf is sarcoptic mange but it's also a problem for Yellowstone's wolves. In this issue we have a fascinating article discussing heat loss in grey wolves suffering from the disease.

We have also covered colder climes, with articles on the wolf situation in Finland and Latvia, plus a short non-fiction story from Alaskan author Seth Kantner.

Closer to home, our update on the Trust's Arctics is a really interesting read. Of course, our trio will never have to cope with the type of temperatures that make the Arctic so tough, but their bodies still have telltale signs of how this large and hardy species is built to adapt the cold. There is also lots of news from the Trust, which never stands still. Our volunteers and staff work incredibly hard, with the love of lupines acting as a powerfully motivating force for all of us.

We at the Trust would like to wish you a wonderful Christmas and sparkling New Year.

Julia Bohanna

Julia Bohanna, Editor



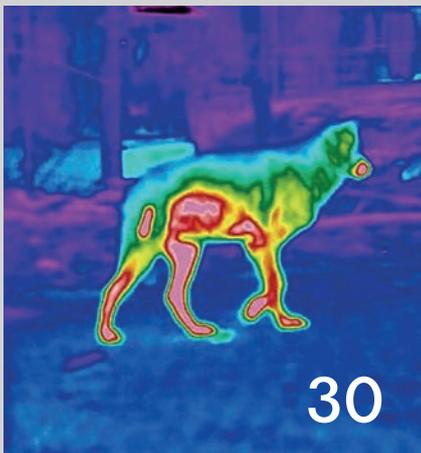
14



20



24



30



Contents

REGULARS

Editor's Letter	2
Wolves of the World Lupine news worldwide	26
Merchandise New and exclusive gifts and souvenirs	36
Making Tracks Book reviews and interviews	31

NEWS FROM THE TRUST

Trust News News and Events	6
Director's Letter	4
Update on the Trust's Wolves	9

FEATURES

Wolves of The Atlas Studying Africa's hidden wolf in the Moroccan Atlas Mountains	14
Wolf Eyes An extract taken from Seth Kanther's Book 'Swallowed by The Great Land'	18
Wolf and Lynx Situation in Latvia	20
Living on The Edge Metapopulation Management to The Rescue	23
The Wolf Situation in Finland Cold Country; Hot Topic!	24
"Rainbow" Wolves Show Heat Loss From Mane	30
Stuck For Christmas Gifts This Year? Why not try one of our gift memberships?	38

EVENTS

All the upcoming events and activities	39
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Conservation – For Richer for Poorer

Throughout Europe the populations of wolf, bear, beaver, grey seals, deer, elk and ibex are doing well, according to a recent report from the Zoological Society of London (ZSL). Together with the World Wide Fund for Nature (WWF), ZSL have assessed the state of the world's mammals, birds, reptiles, amphibians and fish in *The Living Planet Report 2016*.

The report also provides evidence that while wildlife populations are doing badly in poor countries, they are generally thriving in richer countries. Populations of elephants, rhinos, giraffes, lions and many antelopes are falling, but lynx numbers in Europe have quadrupled over the past 50 years. In North Africa, coyotes, wolves, bears and even cougars are growing in numbers and expanding their range and edging into the suburbs.

The impression that prosperity generally helps wildlife is confirmed by the fact that the welfare of wild animals in middle-income countries generally falls between 'thriving' and 'doing badly'. Wildlife populations have in some cases ceased falling and are beginning to show signs of rising, such as with China's giant panda population. India's tiger numbers

have also increased in recent years. In the tropics, large wild animals are increasingly confined to national parks and nature reserves. In Europe and North America even big animals are starting to recolonise areas heavily populated by people. Foxes have moved into British towns and a wolf has been filmed crossing a busy road in the Netherlands. Wolves are within 40 miles of Paris.

In terms of habitats a similar contrast is seen. Rich countries are steadily expanding their forests while poor countries are still chopping them down. All of Europe is getting increasingly thickly wooded from Scandinavia to the Mediterranean, as satellite images confirm. Britain has doubled its woodland cover in a century and is now as forested as it was in the 1750s.





Of course, poaching is a worldwide problem, whether for tusks, horns or meat. Although local people are usually the poachers, it is often carried out to fuel a demanding overseas trade in medicine, skins and trophies. Wealthy hunters will pay a great deal to participate in the very controversial 'canned hunting' trade, where 'bagging a lion' is made easy for them. Social media has fuelled the outrage at the practice, sharing photographs of smiling trophy hunters in khaki, strapped up with weapons, posing with their kills. In Africa in particular, some local poachers have been re-educated and re-trained to help and conserve the animals they once killed. Their knowledge as ex-poachers can be extremely valuable when dealing with current poaching.

The transition from deforestation to reforestation generally seems to happen with wealth. Desperately poor people in the Congo rainforest, catching bushmeat for food, or for a sale for a pittance in a local market, pose a greater threat to monkeys and apes than tycoons on yachts in Monte Carlo. To make the point more fully why wealth and wildlife go hand in hand – we only have to go back to the Stone Age when a few hunter-gatherers armed with no more than bows and arrows wiped out the majority of the large mammal species. In North America 45 of 61 large mammal groups went extinct coincidentally with the arrival of people.

The reason rich people are now able to live alongside wildlife in a way that poor do not is, partly because, once liberated from mere subsistence they can afford to care. Wealth partly decouples the life of human beings from dependence on wild ecosystems. By eating farmed food and moving to cities, we reduce the need to exploit or compete with wildlife.

This is all good news for the wolf whose numbers are steadily increasing in Europe. If Africa had the wealth of Europe the wild dog population would be booming.

A Happy Christmas to you all.

Tsa Palmer



Photograph by Francesca Macilroy

Big Bug Bonanza August 7-13

The BIAZA (British and Irish Association of Zoos and Aquariums) Big Bug Bonanza is held biennially and seeks to draw attention to the invertebrate world in all its amazing diversity. Zoos and Aquariums hold lots of fun activities to raise awareness of the importance of invertebrate life in ecosystems and to elicit positive attitudes to invertebrates by the general public and show people that bugs and creepy crawlies are fascinating creatures.

UKWCT is a member of BIAZA and as such we were more than happy to run an event on August 8 to show our visitors a variety of bugs and also some reptiles which we had on site, lent to us by Quirks Animal Roadshow.

The weather wasn't very kind to us but the visitors had a fascinating time despite that. They were given a tour of the wolves and Pat Melton, a senior handler, gave interesting information about our wolves and their cousins in the wild.

The children, with the help of our wolfkeeper Mike, built a bug hotel under a hedge in the back field watched closely by pygmy goats Billy and Madge. Mike explained which

insects would use the hotel and the benefits to wildlife it would bring.

Everyone then came back to the Education Room where I helped Mike to explain about spiders, scorpions, millipedes, stick insects and tiger snails etc. The children were fascinated by all the new information and asked lots of questions.

A short video was shown showing how invertebrates benefited the ecosystem and that without them we wouldn't be able to survive. Then the visitors were allowed to hold various reptiles and invertebrates - especially Legs, the velvety tarantula. Sheila, the Australian stick insect with her leaf-like legs was a big favourite with the children.

A bearded dragon, snakes, geckos and a beautiful chameleon were just some of the reptiles handled by excited children and even adults. The day ended with very tired but happy children, leaving with some fantastic memories of a day spent with the lesser known members of the animal kingdom. Hopefully all visitors will now have a greater respect for the invertebrates on our planet.

Wendy Brooker

Trust Staff & Volunteers Let Off Some Steam!

On Sunday September 24 the wolves at the Trust observed their human friends getting up to all sorts of unusual behaviour. Every year, Tsa Palmer organises a fun day for the Trust's volunteers as a thank you for all the amazing hard work that they do throughout the year. There was a large hog roast along with trimmings for all those to enjoy. The highlight of the event however, was the entertainment. There was the giant Jenga and Connect Four, along with a surf simulator and sumo suits! Lynn Kent, the Trust's Office Manager, was the first to jump on the surf simulator and held the record for the longest



Photograph by Veda Kavanagh

to stay on with a score of just over two minutes until she was beaten by Louise, one of the work experience students, with two minutes and 30 seconds. It was hilarious to watch but also incredible fun. It seemed that after Lynn, everyone wanted to join in. There was also sibling rivalry between brother and sister Scott and Fran Macilroy as they battled in the sumo suits. Getting into them was not the problem, however trying to stand up once you had been wrestled to the floor was another matter. It really was a great event filled with fun and laughter and just a little bit of silliness.

Francesca Macilroy



Photograph by Tsa Palmer

Painted Dog Conservation UK

The charity, Painted Dog Conservation UK (formerly known as 'War Paint') has been in existence since 2006. They are a small charity with six trustees. Their patrons are Steve Leonard (Vet/TV Presenter) and Brigadier Tom Ogilvie-Graham (former Head of the Army Veterinary Corps). Their aim is to



Photograph by the Painted Dog Conservation UK



Photograph by Tsa Palmer

support painted dog conservation (Zimbabwe) in the field by fund and awareness raising in the UK, with particular relevance to PDC'S education initiative, 'The Children's Bush Camp'.

PDC is able to offer Powerpoint presentation talks about the painted dog (*Lycaon pictus*) and the charity's important work. Their website and Facebook pages are very active and provide regular updates on both local news/events and news from PDC.

The financial support the Trust gives to PDC is by the sale of beaded crafts (animals) and unique 'snare art' (made from actual snares recovered from the bush) at various events throughout the year. The artisans involved are unemployed and attend PDC's Iganyana Art Centre, based in the town of Dete near Hwange National Park. They receive remuneration for each piece made, providing it passes quality control.

Mike Collins, our wolfkeeper, recently invited members of the charity to attend our Wednesday open day. They commented on how meeting the wolves was very special, as was learning from Mike about the life history of our Trust wolves. They also enjoyed meeting both the staff and visitors, who made them feel very much at home.

DONATIONS TO PROJECTS WORLDWIDE FROM THE UKWCT IN 2017

International Wolf Project –
Gavin Bonsen

£5,000

Balkani Wildlife Society –
Elena Tzingarska

£5,000

Chisty Les Biological Station –
Vladimir Bologov

£4,000

Zagreb Veterinary Institute –
Josip Kusak

£5,000

Ethiopian Wolf Project –
Claudio Sillero / Born Free Foundation

£8,000

Iberian Wolf Research Team –
José Vicente López-Bao

£3,000

Red Wolf Coalition –
Neil Hutt

£3,000

Project Grupo Lobo

£2,000

Can-Ovis LGD Research

£3,000

The Golden Wolf Project

£3,000

TOTAL

£41,000

*'We would like to thank Teresa Palmer for continuing to champion *Canis lupus*, which together with painted dogs, have been much maligned and unfairly persecuted over the centuries.'* - Derek Fry, Chairman / Trustee, Painted Dog Conservation UK
www.painteddog.co.uk



Switched on Volunteers From SSEN Return to the Trust

A team from Scottish and Southern Electricity Networks' (SSEN) strategic investment group have once again swapped their plans, schedules, tools and maps for a day to carry out maintenance and DIY tasks at the Trust. The day was made possible due to parent company SSEN's 'Be The Difference' initiative, which gives every employee a day off work to help a local charity, good cause or community group.

Zsuzsa Suto-Somogyvari was one of the SSEN team who volunteered to help us, and was delighted with the amount of work they managed to do on the day: 'I love animals and am always looking for ways to help charities who look after them. Wolves don't get a lot of recognition and so when I heard about the UK Wolf Conservation Trust being quite close to our offices, I asked some of my colleagues if they'd like to join me in helping, and I was really pleased that so many people said "yes".'

'By helping the Trust with essential work around their site, this meant that the more of the donations they receive from the public can be used to support and care for wolf



breeds rather than paying for tradespeople to come in and do these tasks.'

Our wolfkeeper Mike Collins added: 'We are so grateful to the SSEN team that came, as they built shelves in our chair storage shed, painted doors and barrier fencing. It was amazing how much work the team achieved on this day and this all helped the site look a lot tidier, as during the summer months we get a lot of visitors.'

Francesca Macilroy



Wolfe – so choosing a wolf was ideal. After Paul Hallam and sergeant Jemma Gee visited the Trust in July to meet the wolves, they both thought that Tala's personality matches some of the cadets to a tee. During that visit Tala was presented with her honorary cadet rank and certificate.

Since this article was written the cadets of Beswick Detachment have adopted Massak as their mascot.

She's In The Army Now! Our Tala Joins The Military

Why did the Greater Manchester Army Cadets recently choose to adopt a wolf and Tala in particular as their detachment mascot?

Staff Sergeant Paul Hallam explained that the armed forces have a long history of animal mascots such

as bears, goats and dogs. More specifically, Number Six Quebec Company Belle Vue Detachment is part of the Number Six Quebec Company, named after the Battle Of Quebec which was fought on 13 September 1759. The British commander who led the victory was General James





Photograph by Pam Johns

Updates on Mai and Motomo

Autumn weather was confusing for Mai and Motomo; at the beginning of September it was cold and wet, with an overnight ground frost on a couple of days. The end of September was warm, sunny and in the mid-20s, overnight dipping to a balmy 14!

Both wolves have their favourite spots for lying-in: Motomo likes the top of the mound or an area just beside the rear row of trees. Mai likes the sunny south facing side of the mound or the open grass just behind the mound, where she can observe the Arctics.

In excessively sunny weather the denser vegetation such as nettles and grass around and to the right of the mound grow rapidly, even when strimmed by Mike and his groundworks contractors. Nettles love nitrogen-rich soil provided by wolf urine. Overgrown areas are great places of concealment for the wolves; some days you can't see Mai or Motomo, until either of them hear you – then there's a swaying in the grass and a face appears only a few feet from where you've been standing for the last ten minutes.

With winter coats now fully regrown, there have been the usual colour changes. Mai is even whiter than before – particularly her face and ears.

She retained a fine, bushy tail (unlike her sister Mosi whose tail moulted unevenly). Motomo's tail is also good-looking, the last few inches of his tail have grown lighter with each moult and with a platinum-blond tip. He's retained the 'silverback' stripe from his ears along his back and down to his tail, most prominent if he is curled up with his back to you.

Mai has once again lost her howl – which happened some years back. The precise cause isn't known, but when she opens her mouth all that comes out is a high-pitched squeak or a dull croak. She doesn't appear to be experiencing any discomfort while trying to howl, or difficulty in swallowing. We are all hoping, as before, it will clear up in time.

Both Mai and Motomo continue to enjoy harrasing the Arctics. Motomo often charges backwards and forwards at maximum speed along the full length of the fence while Massak does the same on the other side. If Mai obstructs

his way, Motomo will leap straight over her without breaking stride. Mai and Motomo are adept at being passive-aggressive; they will both carry food and either parade up and down the fence, or carry it to a suitable spot where the Arctics can see it being eaten. Mai will often bury food in the grass tussocks a few feet in from the fence. Food-focused Pukak always falls for this neighbourly wind-up. It all helps provide mental stimulation and enrichment, as do the Halloween stuffed pumpkins made by our weekday work experience students. Though initially nervous of the pumpkins being thrown over the fence into their enclosure, Mai and Motomo can't resist tasty sausages, black pudding or hard-boiled eggs, although less impressed by the biodegradable pumpkin flesh.

Towards winter, we supply both wolves with increased amounts of food and increase the fat content to provide extra warmth. We feed them separately and Mike monitors their daily food intake with a spreadsheet. They are both willing to supplement their diet with any pigeon or pheasant that makes the mistake of landing in the enclosure. Little piles of feathers are quite common. Though strangely, we never seem to find the bodies!

Pete Morgan-Lucas



Update on The Beenhams

Summer has long sped away already here in Beenham and autumn is fully here. As leaves on the surrounding trees turned, the wolves' summer coats took on a decidedly fuzzy look. It only seems like a few days since they shed their old winter coats!

The shortening days and cooler nights prompt the new coat growth and the wolves will soon nearly double in size as the thick soft undercoat comes through. It's amazing stuff as it provides complete insulation, keeping the wolves toasty warm as the temperature plummets over winter. Being the adaptable creatures they are, their coats will protect them from the worst cold, down to -50°C in some parts of the world. Luckily it doesn't get that cold here in Berkshire!

The Beenham pack are now six and a half and fully adult wolves. In the wild they would probably be coming to the end of their lives but here at the Trust they are in their prime. A great way to learn about them is to come on a Wolf

Discovery Day, which involves a small group of people learning how to look after the wolves and also learning how the Trust works to support its projects around the world. Participants get to go into the wolves' enclosure to see how they live, hide food for enrichment and tidy where necessary. Some of the wolves have dug quite complex den structures in their mounds which are fascinating to see. Of course, the wolves aren't in there - they are moved to a side holding area and are always very interested in what is going on in their home. Nuka, in particular, follows everything closely. The day includes a howling session, talks on behaviour and projects and a demonstration of telemetry or wolf tracking by our keeper Mike. Fun for wolves and people alike!

Wednesday visit days and our specialist photo days are also a great way to observe the interactions and behaviour of the Beenhams, particularly as the autumn temperature drops and they are less inclined to lie around sleeping. Nuka in particular seems to know what his job is - to look stunning and provide ample photo opportunities! Tala too, is quite the poseur, often stretching out and looking glamorous in her gorgeous silver and black coat. Tundra reverts to her shy self but can be glimpsed slinking amongst the trees, which gives the impression of a wolf in its wild habitat. She can be enticed out with enrichment treats, such as frozen meaty ice lollies (a delicious mixture of raw eggs, hot dogs and blood) but will always be wary of anything unfamiliar, so staying still and



Nuka, Tala and Tundra by Lee Baker

quiet is the best way to see her. Recent rain over several visit days meant there were a lot of umbrellas on site which the wolves weren't keen on. An umbrella changes the silhouette of a person so the wolves weren't too sure what these strange, enormous headed creatures were. Even a bold wolf like Nuka was startled and it goes to show how much self-preservation is hardwired into these animals. It's easier to run away than confront something so frightening!

The Wednesday visit days have also shown how quickly the wolves solve complex issues. It didn't take long for them to figure out that on a certain day of the week, a bunch of strangers would descend, which meant extra treats and feeding at a particular time. Usually our wolves are fed at different times to prevent them becoming institutionalised and to keep their minds active but on Wednesdays, they are fed regularly at 2pm. Nuka in particular, cottoned onto this very quickly and from 1pm onwards, starts to get very excited, running up and down in the bottom corner of the enclosure from where he can see the door of the food shed and anything interesting that might come out of it. You can set your watch by him! The girls too

will suddenly become very alert although they don't waste energy like Nuka.

On a recent Wednesday, Nuka was working himself into a frenzy, anticipating his lunch when he was presented with a haunch of red deer. Now the wolves are particularly fond of deer but red is last on their list of favourites, after muntjac and roe. Nuka's face when he realised he'd been given his least favoured cut of venison was a picture - like a child who has been promised pizza and presented with broccoli. He was not impressed and took himself off to sulk, much to the amusement of our visitors. He tried to see what his sisters were tucking into but got short shrift from them. So it was back to his own piece of meat which he reluctantly ate. Needless to say, he was very popular with mums and kids that day, as they could all relate to what was going on!

The Beenhams remain very popular as proven by the number of adoptions they receive and the people who come to visit them. May they continue to be the fascinating and affectionate characters that they are.

Nikki Davies



Tundra, Nuka and Tala by Paul Price



Updates on Torak and Mosi

Torak and Mosi look stunning in their thick winter coats. Torak's has autumnal shades and long bushy tail resplendent with toning shades of browns and a brick red tip; a stunningly handsome male. Mosi has retained her mature silvery grey look, with echoes of her old black colouring in places. Her tail is long and thick with silver highlights, appearing to shimmer in the sun.

It seems impossible that Torak and Mosi are nearly 12 years old, especially when they are racing around their enclosure or chasing one another up and down the mound. One afternoon they perpetuated a comedy farce: Mosi stole some of Torak's deer and was about to bury it, when Torak appeared in front of her. She turned and ran the other way but Torak trotted around some bushes to get in front. She ran to the mound, to see Torak coming over the top. Everywhere she went, with the meat dangling from her mouth, Torak got there first. In the end he got bored and sloped off to his favourite tree, leaving her to bury the meat. Luckily, Torak's arthritis hasn't bothered him so

far this winter. When it does, he will be given painkillers to keep him active.

Mosi has spent the year decimating the wild bird population; we often see piles of feathers scattered around. Magpies are favourites, with pigeons a close second. A chilled out Torak watches from his favourite place at the back of the enclosure with an almost indulgent look.

Torak takes his security responsibilities very seriously and does frequent daily perimeter checks of his territory, making paths in all directions and loping along these to save energy when

the grass is long. No-one can walk along the public footpath in the woods without him dashing to the fence to investigate. Dog walkers are used to seeing a wolf watching them. Torak is mellowing in maturity and allows Mosi to nuzzle and lick him very occasionally, although he sometimes gets annoyed, snarls and lopes off. He prefers to relax alone, watching everything that goes on, especially Mosi burying things. She is so predictable with her cache sites! He bides his time, then digs it up and eats it.

Mosi favourite game is to empty her newly filled water bucket with her paws. After three times the handler stops filling it. Game over she trots away and the bucket is filled later on. (There is a water trough too, so they always have water.) The enrichment walks continue to be greatly enjoyed by both wolves and their favourite handlers. Other forms of enrichment include melons and coconuts stuffed with tasty treats and in warmer months, ice lollies made from



Torak by Nikki Davies



Mosi by Bob Breach

raw eggs, meat, pig ears and cheese. Torak will crunch his up whilst Mosi urinates on hers and waits until it has defrosted - if Torak doesn't steal it first! Torak and Mosi roll on the hessian sacks smothered in citronella and eucalyptus oil, to cover themselves in the smells. Straw-filled sacks soaked in perfumes are also favourites - Mosi particularly loves Brut. Meat trails test their tracking skills. It is very important to give intelligent captive animals like wolves a variety of enrichment.

It is a joy to watch how Torak and Mosi interact and to get to know their patterns of behaviour.

Wendy Brooker



Updates on the Arctics

Massak by Mike Collins

As we enter the transition from summer to winter, autumn brings the duration of daylight noticeably shorter and temperatures start to become considerably cooler. The red and golds from the leaves changing colour sets a picturesque background to illuminate the glorious white coats of our three Arctic wolves.

The change in temperature means that our wolves' coats have now started to change to withstand the winter months to come. Towards the end of September, beginning of October, their thick camouflaged seasonal undercoat started regrowing. Their condensed grey and white soft fur produces a warm 'fleece' to prevent their body temperature dropping to a fatally low level. Wild arctic wolves have been known to survive recorded temperatures as low as -68°C. Of course, here in balmy Beenham, Massak, Sikko and Pukak would never experience even close to such low temperatures.

As suggested by their name, Arctic wolves survive in the coldest places on earth, however for them to do this successfully they have evolved several anatomical behavioural and

physiological adaptations. Compared to any other grey wolf sub species, Arctic wolves have proportionally smaller ears, this adaptation reduces the surface area that loses heat. The darker markings around their eyes giving an 'eyeliner' effect that helps to protect from the glare of the white of the snow. A countercurrent heat exchanger mechanism in the paws allows them to remain at a lower temperature than their body's core, as the blood enters their paws it heats up, therefore avoiding heat loss from the extremities. By reducing the heat loss, their paws will never 'stick' to the icy tundra. This physiological adaptation is also seen in bird species such as penguins.

The Arctics also have the fastest growing claws, having evolved to deal with their niche environment. Arctic permafrost, a hard layer of substrate,

is nearly always concrete hard and this helps to file down their claws. However, in captivity, Massak, Sikko and Pukak need a 'helping hand'. To avoid a potentially stressful situation such as trimming their claws, as you would a domestic animal (which incidentally would not provide long lasting results), a new enrichment device has been created. In using one of their natural behaviours as a source, their use of scent, two bucket-sized holes were excavated in various locations within their enclosure. These were filled with concrete and a 50cm chrome tube placed in the centre. This allows for strong scented items to be carefully poured/placed into the tube, whilst ensuring there is not any spillage so that the wolves do not to have any physical contact with the item. This then encourages their natural scent-based behaviour when exploring their habitat.

As previously tested last year, the new enrichment proved to be very successful. Conversely, Mike our keeper has made a few enhanced moderations this time, by increasing the depth of the tube and the excavated hole it maximises their scent ability, along with giving a rough surface to the top layer of concrete for scratching purposes. These enhancements are much to the approval of our Arctic pack. All three particularly relish the scent of diesel, predominantly Sikko. This scent indulgence is also seen when out on enrichment walks, where a tractor has been previously parked in one of the nearby fields, diesel has leaked and you will observe all three happily nose diving into the scent and rolling without a care.

Massak our dominant arctic wolf continues to keep the cheeky Pukak, our lower ranking male, in line with Sikko, keeping herself out of the way of the two brothers. Massak, Sikko and Pukak remain popular with visitors with their huge demeanour. People love to watch them being hand fed through the fence on our Visit Wednesdays at the Trust as they literally do show the true meaning of 'wolfing' their food down, especially Pukak.

Rachel Mortimer

Wolves of the Atlas

Studying Africa's hidden wolf in the Moroccan Atlas Mountains

Centuries of mystery, confusion and debate have surrounded the African golden wolf. First described in the 1800's, it was later misidentified for nearly one hundred years as the Eurasian golden jackal.

The recent use of genetic techniques has been piecing together the puzzle on the identity of these enigmatic canids, culminating with the discovery in 2015 of a new species of wolf that had been hiding in plain sight on the African continent. Our work focuses on understanding and conserving African golden wolves in the unique environment of the Atlas Mountains, where wolves are threatened by human actions.

A forgotten species

The recent discovery of the African golden wolf may be more accurately described as the rediscovery of a forgotten species. Early literature as far back as Aristotle described a wolf-like animal in North and West Africa, and scientific descriptions of the species were first published in 1820 (*Canis anthus*, the "Senegalese jackal") and in 1832 (*Canis lupaster*, the "Egyptian wolf").

Taxonomy in early years, however, was an imprecise science. Over the next hundred years they went by many names from many authors, variably described as a wolf, jackal, fox or

dog. They were first misclassified as the golden jackal, a species found in Europe and Asia with a similar appearance, in 1926. The adoption of this misclassification in a 1939 publication of African Mammals resulted in it becoming widely accepted, and their classification as golden jackals remained generally unquestioned for the next 70 years. Golden jackals were seen as a highly adaptable species with one of the largest distributions of any carnivore spanning across three continents, while the African wolf was largely forgotten.

Revealing the misidentification of "African golden jackals"

The resurrection of the African wolf begins with the sighting of a strange wolf-like animal in Eritrea in the Horn

of Africa in 2002. With incredibly large ears and a long, thin tail, it looked unlike any of the species known to inhabit the area, though locals referred to it as "wolf." The identity of this strange animal is still unknown, but it was suggested to perhaps be an "Egyptian jackal," thought to be the largest golden jackal subspecies.

Genetic research was conducted on Egyptian jackals shortly after, but the results were unexpected and confusing: Egyptian golden jackals were more closely related to grey wolves than golden jackals from Israel. The study was later expanded to include genetic investigations of "large golden jackals" from Ethiopia, published in 2011, and from Senegal, Algeria and Mali in 2012.



Both confirmed these animals were most closely related to grey wolves, rather than golden jackals in Europe and Asia. It was suggested that a cryptic subspecies of grey wolf existed in Africa, distinct and perhaps coexisting with golden jackals, being referred to as *Canis lupus lupaster*, the African wolf.

Subsequent research, published in 2015, intended to verify these results with a larger sample of animals and genetic markers. Surprisingly, however, it revealed that not only are these animals distinct from Eurasian golden jackals, but also from grey wolves. The authors proposed to name this new species the African golden wolf, *Canis anthus*, based on the first name believed to have been given to them. Furthermore, rather than an elusive wolf hiding among jackals, they found no evidence of true golden jackals in Africa; all “golden jackals” sampled across North, East and West Africa were actually golden wolves.

African golden wolves split from their closest relatives, grey wolves and coyotes, an estimated 1.3 million years ago during the early Pleistocene. The ancestor of golden jackals diverged earlier, approximately 1.9 million years ago. At some point they radiated into Africa, with the earliest fossil evidence in Africa from the mid-Pleistocene in Morocco. Their range now includes the north of Africa down to Senegal in the west and Tanzania in the East.

The existence of distinct subspecies has not yet been evaluated, though six subspecies of “African golden jackal” had been described. However, there seems to be at least two main morphotypes of the African golden wolf: a larger northern wolf-like variant and a smaller southern jackal-like variant. The wolf-like northern variant is probably closer to the ancestral form of the species, based on geography, fossil records, and their relation to grey wolves and coyotes.

As golden wolves moved farther south into the African continent, intense competition with large

carnivores in East Africa, including lions, leopards, cheetahs and hyenas, may have caused golden wolves to become smaller to adapt, eventually overlapping in size with side-striped jackals and black-backed jackals that also inhabit East Africa. The size similarity to African golden jackals and resemblance to Eurasian golden jackals contributed to their misidentification. This resemblance is a case of parallel evolution, where distantly-related species facing similar conditions develop similar adaptations: the hot, dry environment of golden jackals and East African golden wolves both favour a slender body and light colouration to reduce sun and heat absorption. This parallelism attests to the success of wolves in adapting to new environments and ecological challenges.

The Atlas Wolves

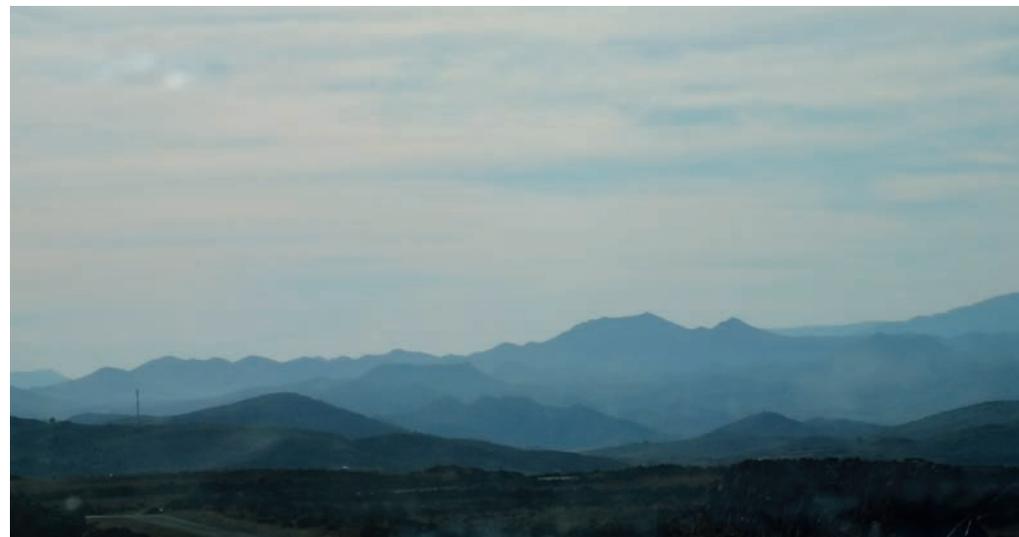
Our work on African golden wolves focuses on the Atlas Mountains of Morocco, concentrating over the next year in the Middle Atlas region. The Atlas Mountains are biodiversity hotspots, home to an extraordinary variety of plants and animals, including many that are unique to the region. The Middle Atlas landscape is covered in a mosaic of towering Atlas cedars and evergreen oak trees where stunning mountain views can be glimpsed through the trees, transitioning into rocky cliff sides and interspersed with lakes and wetlands. The Middle Atlas is sometimes referred to as the “Castle of Water,” as nearly



half the fresh water in Morocco comes from this region.

Here the wolves range in colour from a rich brown to nearly grey, with a grey or grey-black back, a white mouth, neck and stomach, and a black-tipped tail. They overlap in size with local shepherds’ herding dogs and are known locally as *dyb* (Arabic) or *ušen* (Tamazight berber).

The focus of this issue of *Wolf Print* on





“The Middle Atlas Mountains are one of the only places where African golden wolves cope with cold, snowy winters.”

temperature is a fitting introduction for the Atlas wolves, as the Atlas Mountains are the only place where African golden wolves experience cold, snowy winters, which lie in stark contrast to the hot, dry summers. While summer days can reach above 40°C, winter often sees several feet of snow that can last for months, often even blocking the winding mountain roads up to our study areas for several days at a time. This dramatic climate is unlike anywhere else African golden wolves live. Part of our research focuses on how golden wolves adapt their diet, behaviour and ecology to cope with these extreme seasonal variations.

Golden wolves are flexible in their habitat use, found in a variety of environments including grasslands

and savannahs, desert margins, rocky massifs, agricultural areas, woodlands and coastal regions, from sea level to altitudes above 3,000m. However, research so far conducted on golden wolves has been in open habitats. The Atlas forests pose different ecological challenges for golden wolves (and different challenges for us, trying to observe these elusive wolves!).

Elsewhere in their range, golden wolves compete with larger carnivores: lions, hyenas and Ethiopian wolves, to name a few. In the Atlas, however, wolves face little competition. The Barbary lions and Barbary leopards that recently roamed these mountains are now extinct, leaving golden wolves as the sole remaining large predator throughout the Middle Atlas. Understanding the

behaviour of golden wolves when not restricted by larger competitors is interesting from an ecological point of view, but of greater importance is understanding the role wolves therefore play in the Atlas community. Predators are necessary to maintain healthy ecosystems, so as the only large predator, Atlas wolves are likely crucial for maintaining ecosystem stability and diversity. Conserving and understanding Atlas wolves is thus critical for not only their benefit, but for this biodiversity hotspot as a whole.

Under Threat

As a new species, the conservation status of the African golden wolf has not yet been assessed. However, golden wolves appear to be declining across their entire range, and within



A golden wolf carrying what appears to be a sheep. Conflict with shepherds over livestock is the greatest threat to the survival of Atlas golden wolves.

Morocco dramatic declines predict their extinction within decades.

The main cause for their decline in Morocco, like so many wolves, is persecution from humans. Conflict over livestock in a society that is heavily pastoral, no doubt exaggerated by a general fear and dislike of wild predators, continues to cause the death of many Moroccan wolves. There is currently no compensation scheme for the loss of livestock from predators so the occasional depredation of

sheep, goats and poultry is an economic disaster for families that rely on them. Shepherds therefore actively hunt golden wolves by shooting, trapping and poisoning as preventative or retaliatory measures, and golden wolves receive no protection. Sadly, not only are golden wolves killed, but I have seen videos of them being first abused "as punishment for eating livestock".

A large part of our work will therefore focus on reducing human-wolf conflict, using a multi-pronged approach of scientific research, community involvement and outreach and education. By studying factors influencing livestock depredation we hope to develop strategies to alleviate the problem, and by involving the local community in the work and educating on the value of these animals we hope to increase tolerance, thereby preventing the death, abuse and even extinction of wolves in Morocco. We will also investigate other factors that may be contributing the decline of golden wolves and establish baselines for long-term monitoring and conservation efforts.

It is a very exciting time to be involved in the study of golden wolves, as much remains to be understood about the evolution and ecology of this new species. However, conservation efforts are urgently needed to assess the status of golden wolves and address areas where they are known to be under threat, as in the Atlas. With the generous support of the Trust we are about to begin a new field season to address this need. I look forward to updating the Trust on the outcomes of our work and the discoveries we make on the mysterious, beautiful Atlas wolves.

Liz AD Campbell

Campbell is leading the project on African golden wolves in the Moroccan Atlas Mountains. The research is a collaboration between WildCRU, University of Oxford, England and BioDEcos, Cadi Ayyad University, Morocco, with David Macdonald (WildCRU) and Mohammed Znari (BioDEcos). Liz is also Programme Director of the Moroccan Primate Conservation Foundation and works for the International Fund for Animal Welfare, Morocco.

Photographs: Liz AD Campbell/Moroccan Primate Conservation Foundation

References/Further Reading

- Tiwari J & Sillero-Zubiri C (2004) Unidentified canid in the Danakil desert of Eritrea, Horn of Africa. *Canid News* 7:5.
 Rueness EK *et al.* (2011) The cryptic African wolf: *Canis aureus lupaster* is not a golden jackal and is not endemic to Egypt. *PLoS One* 6:e16385.
 Gaubert P *et al.* (2012) Reviving the African wolf *Canis lupus lupaster* in North and West Africa: a mitochondrial lineage ranging more than 6,000 km wide. *PLoS One* 7:e42740.
 Koepfli KP *et al.* (2015) Genome-wide evidence reveals that African and Eurasian golden jackals are distinct species. *Current Biology* 25:2158-2165.
 Viranta S *et al.* (2017) Rediscovering a forgotten canid species. *BMC Zoology* 2:6.

WOLF EYES

An extract taken from Seth Kanther's Book
'Swallowed by The Great Land'

The land is greening up. Out on the country, everything is busy making leaves and berries and babies. I've seen wolves this spring, and there's one out there along the river in the mosquitoes that I keep thinking about, wondering how he's doing.

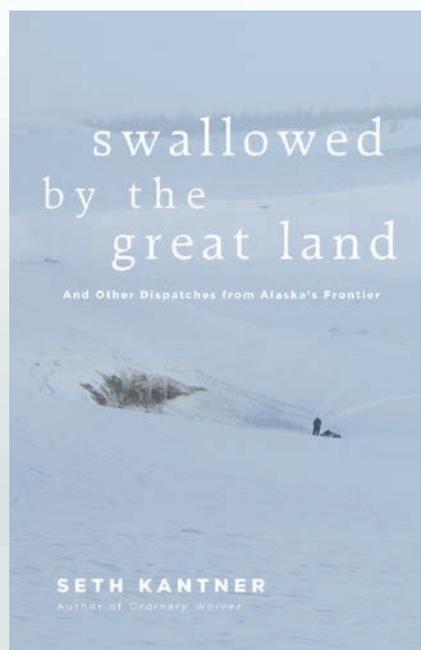
Here at my old igloo, the bugs started getting bad early. We got out mosquito bed-nets to sleep under. After the river ice went out, we boated up to Ambler. Kituq Williams, my friend Alvin's ten-year-old son, returned with us. That first evening, after midnight, after the sun finally slid behind a peak for an hour or so – after we made ice cream and got a caribou because we were out of meat – we strung up netting for him, too. The kids were happy about their personal screen tents and looked like a little prince and princess sleeping under them.

China crawled out early, at noon, and opened a box of Rice Krispies that Stacey had bought for her at the Native Store. Inside was a surprise,

a red plastic step counter, Mickey Mouse big-eared and grinning on the front. She dropped her spoon and ran out barefoot to the food cache, dug in the second box and, sure enough, found a blue one to give to Kituq when he woke up.

It was a hot sunny day with lots to do, but no real time when it needed to be done. The kids played, checking sap buckets, climbing trees, and circling porcupine on the hill. I was surprised how many steps they took in an hour – thousands. (Shucks, I'm probably worse.) They kept bumping the reset to zero, so I taped pistachio shells over the buttons.

They were already back up over two thousand when we spotted caribou crossing. The animals came ashore above our little boat and hit our trail. They appreciated the easy walking and marched up under the windows, then split into two groups and flowed by on both sides of the house. The dog and kids ran after them – the dog using his legs lots, too, but minus a step counter.



Afterward we walked over to the pond to try to sneak on geese. We took the wrong trail, a caribou trail, and somewhere, China lost her step counter.

We got home all sweaty and hot and bug-bitten, but carried on with our original plan, to pack a picnic and motor up the Nuna River. Before we left, I spotted more caribou downriver and a black bear on the willow island.

Up the Nuna, we climbed out on a huge dripping snowdrift. The sky was brilliant blue, the tundra turning green. We continued on. In a side-



slough a brown bear rose up just yards beside us and disappeared into a thicket. In the brush was a drowned moose the bear had recently discovered, and we were glad he had jumped away instead of into our tiny boat.

A few bends farther, we stopped on a rock bar and built a fire. It was hot – seventy or so – and ice still along the eddies. The kids jumped into the freezing water and seemed to bounce right back out. “Come on, try it!” they shouted. “It’s warm!” I waded up to my knees, shivering and grinning at the ice floating just beyond them. “Yeah,” I said. “I see that.”

Afternoon stretched into evening, still bright and relentless sun, and we headed downstream, drifting occasionally, surprising beaver that leaped off the bank as we passed and moose that faded into willows. Near a beaver lodge we found a level bench packed with baby spruce like a Christmas tree farm, then more beaver, one big dry one letting us float a few feet away from it while it stayed on the cutbank.

The kids were having a great time. It was still warm, though I’d finally put a shirt on. No one wanted to get home, though of course China still expected me to find her step counter that night, somewhere on the tundra.

On the main river, to lengthen the journey by a few hundred yards, I cut behind the willow island and motored up the south shore, staying out of the current, heading for home. In the mounds of dirt, something began running right beside us. I thought it was a bear, but no, it was a black wolf! We passed him immediately – unusual for a slow boat against a running wolf. It all happened fast; just twenty feet away, we saw that something was terribly wrong with his left front leg. It was flopping, and then he turned and stared at us.

I don’t know if I’ll forget that wolf’s gaze. He was big, dark, and rangy, with a long powerful face and piercing pale eyes. In his eyes was the most haggard look. That’s the part that cooked into my memory.

He turned into the willows, then came back out and ran on three legs the other way. I howled. He stopped, looked at us – silent now, in the boat – and ran again.

When we got home China was still worried about her step counter. It was 9 p.m., still warm and sunny. I was tired but didn’t take off my hot hip boots, just slung the shotgun over my shoulder; Kituq, China, and I started

across the tundra for the pond. In the tussocks we walked slow, searching. I was sweaty and sun-cooked.

After a hot day of hiding in the shade, the mosquitoes were coming back out, hungry. Kituq moved off ahead. Where the caribou trail hit the shore, he found the red plastic toy. He read the digits. “Almost five thousand,” he said.

“That was just this morning,” I marveled. “Long day for you kids after that.”

I was thinking about the longer days ahead for that wolf. Surely he was aware of each step, with that mangled foreleg. No store-bought step counter for him. I thought about hospitals and health care, and his world, where he didn’t have any of that.

Recently, a few boats had passed; maybe someone had shot at him. A bear might have bitten his wrist. Moose were having babies – he might have gotten stomped by a mom protecting her young. Wolves live tough lives. They kill things and get killed.

It was the look on his face that I’m left with. He knew things had changed; he knew he was big and tough, capable and ruined.

Seth Kanther



Wolf and Lynx Situation in Latvia

Joint complaint letter to the European Commission about wolf and lynx hunting in Latvia. It was supported by nine environmental organisations from Estonia, Lithuania and France/ Switzerland.

Currently 300 wolves (including the whole pack), half of the lupine population, and 50% of the lynx population is killed annually in Latvia. When the Estonian lynx population was at the carrying capacity (until 2011) some 50 breeding females lived in a 50km wide area - subadults who couldn't establish their own territories - moved down to Latvia. Estonian subadults/adults who were breeding/killed in Latvia were later branded as 'Latvian lynx'. One third were kittens.

For 17 consecutive years 43% of the wolf population was killed annually. Latvia possibly retains a population of 200-300 wolves post-hunting season, due to migration from the neighbouring countries of Estonia, Lithuania, and the Pskov region of Russia. In the last two seasons the wolf quota was set at 300 and this did not account for wolves killed by poachers.

The total length of Latvia's shared border with Estonia, Lithuania and Russia is 1200km. To ensure a population of 200-300 wolves after the hunting season harvest of 300, Latvia needs 60-95 breeding pairs. Assuming that half of the territory is covered with forests and the average wolf dispersal distance is approximately 100km, Latvia will regularly receive migrating wolves from 120,000km² of bordering countries. 20 breeding pairs may migrate into Latvia from neighbouring countries; an average litter size of

six pups would result in 120 pups (without compensating for the average pup losses of new litters). Pups from new litters are used to compensate for the excess to Latvia's harvest quotas, and Latvia's officials are then able to claim from the European Commission that they have a sustainable wolf policy and adequate management.

In the 2013-2014 hunting season 70% of wolves were killed in a 50-60 kilometer-wide border zone: 204 from the total harvest of 292 wolves. Ninety-five wolves (33%) were killed along the Lithuanian border, 79

wolves (27%) were killed along the Estonian border, 20 wolves (7%) along the Russian border and ten wolves (3%) along the Belarus border.

In the 2014-2015 season 88% of wolves were killed in a 50-60 kilometer-wide border zone. This accounted for 236 out of the total harvest of 267 wolves. One hundred and twenty-two wolves (46%) were killed along the Lithuanian border, 55 wolves (21%) were killed along the Estonian border, 48 wolves (18%) along the Russian border and 11 wolves (4%) along the Belarus border.

200-300 wolves can be easily secured with 15-30 incoming/breeding pairs from Lithuania, Estonia, and the Pskov region in Russia after the nine month wolf hunting season closes on 31st March. On average, packs have 3-5 dispersing wolves; those 15-30 breeding pairs can be recruited from 12-20 packs along the border in neighbouring countries.

The wolf killing quota in Latvia increased only when populations in Estonia, Lithuania and Russia's Pskov region increased. Prior to that, Latvia's hunters were unable to kill 150 wolves in nine months. Now they kill 250-290 in nine months, but that increase of an additional 100-140 wolves can be 'compensated' by the additional 30



breeding pairs (if three pups per litter survive then $30 \times 3 = 90$; if five pups survive then $30 \times 5 = 150$).

Dr. Janis Ozolins, who is monitoring wolf population in Latvia, cannot scientifically prove that there are no migrating wolves from Estonia, Lithuania and Russia. Dr Ozolins was a key negotiator with the European Commission's officials in 2001 and persuaded them to allow to hunt wolves for nine months and lynx for four months. The large predator monitoring is based on cohort analysis of the killed wolves and lynx. Laboratory and travel costs to collect killed specimens is financed by the hunter fund. His sample of 80-100 wolves is too small to be scientifically robust, particularly in regard to the breeding females subset. His sample size of ten females is too small to be statistically significant.

Public input on wolf management was not allowed when Latvia was admitted to the European Union in 2004. No alternatives to extreme wolf killing were considered. A few officials, including Dr. Ozolins, made the decision unilaterally, and now wolves are hunted with old Soviet-style ferocity. There is no change whatsoever, because during April through mid-July, when hunting is not occurring, pup mortality is at its highest at approximately 50% of the litters.

The European Commission should demand that Latvia's authorities scientifically validate that 200-300 wolves are being maintained only due to the migratory population of wolves from Estonia, Lithuania and Russia. If they cannot provide supporting research that wolf populations are maintained for reasons other than migration, then the European Commission should deny 'favourable status' to Latvia's wolf population. The burden of proof is on Latvia's authorities.

It should be noted that 200-300 wolves are not enough to fulfil ecological functions in a forest ecosystem. The minimal number is 16



wolves per 1000km², amounting to at least 480-640 wolves throughout the whole year.

To put the whole thing in perspective:

- a) In Poland, wolf range is 61,500km² and there are 1276 wolves (2014) or 20.75 wolves per 1000km²
- b) In Germany, wolf range is 12 -13,000km² and there are 250 wolves or 19.2 – 20.8 wolves per 1000km²
- c) In Minnesota (USA), wolf range is 70,000km² and there are 2221 wolves (2015) or 32 wolves per 1000km² while in Latvia, wolf range is 30,000 km² and there are 300 wolves or ten wolves per 1000km².

Regarding sheep depredation and wolf hunting in Latvia – a regional press surveyed revealed:

- a) In 2012 out of 170 depredated sheep, at least 143 were killed by feral dogs;
- b) In 2013 out of 174 depredated sheep, at least 129 were killed by dogs.

In public, officials with the Hunting Department of State Forest Service say that all depredations are caused by wolves so that they can justify the increase in the wolf quota. An important criticism of the existing hunting pressure is the number of animals injured — enough for the proportion (ratio) to be 1:1, that every wolf is either injured or killed by hunters, or both, because 43% of wolves are killed annually. Therefore one killed and one injured animal makes 90% of population.

Furthermore, one should weigh up the issue of the few sheep taken by wolves against the damage to the crops and forestry done by wild ungulates. It is estimated that 5% of total crops and 10% of new trees are destroyed by abundant wild boar (*Sus scrofa*), red deer (*Cervus elaphus*), moose (*Alces alces*), and roe deer (*Capreolus capreolus*) populations. In 2015 moose have destroyed 7,000 hectares of coniferous stands. Costs of regeneration and repellents amount to 8.5 million euros annually. Ungulate-vehicle collisions amount to approximately 700 annually with several people killed.

Lynx hunting

The harvest bag of shot lynxes consisted of $\frac{1}{3}$ of kittens + $\frac{2}{3}$ adult lynx. So if the harvest bag is 180,



then on average 60 kittens and 120 adults were killed. If the number of lynx who reach one year of age is 54, then the number of shot adult lynx is almost two times bigger (~120). Therefore the lynx population should be decreasing (not increasing).

Until 2012 Estonia had lynx density at carrying capacity and it is very likely that young subadults could not establish their own territory there - so they moved south to Latvia where they compensated Latvia's excessive killing rate of lynxes. However, Estonia's roe deer population was severely reduced due to harsh winters in 2009 and 2010. Roe deer is the main prey species for lynx. As a consequence, lynx numbers in Estonia dropped from 103 females with kittens in 2011 to 46 females with kittens in 2013. As a result, fewer lynx now arrive from Estonia and if Latvia's hunters continue to shoot 20-25% of lynx population annually, they will reduce adult lynx numbers in a short time period.

In 2015/2016, a quota of 150 lynxes

was permitted in Latvia, but only 114 lynxes have been killed after four months of the hunting season (4/5 of all lynx are shot in an area which has a shared border with Estonia and this winter snow has been present for at least three months - snow is a necessary precondition for successful lynx hunting as lynx are solitary animals who do not make sounds the way wolves do).

As monitoring is lagging two years behind the actual situation on the ground, and if Latvia will not reduce the hunting bag/quota, then it seems that Latvia will go Estonia's way when lynx numbers dropped from 103 females with kittens in 2011 to 46 females with kittens in 2013 — as there are no more incoming subadults from Estonia in significant numbers. No sheep were killed by lynx in Latvia.

'The Baltic lynx population' is reality only on a paper (for the EC bureaucrats) as there is no mating and therefore genetic connectivity among Estonia's and Lithuania's lynxes.

Lynx harvest bag in Estonia:

2008/2009 - 150 lynx
 2009/2010 - 184
 2010/2011 - 181
 2011/2012 - 100
 2012/2013 - 87
 2013/2014 - 16
 2014/2015 - 2
 2015/2016 - 18

Lynx harvest bag in Latvia:

2008/2009 - 117
 2009/2010 - 141
 2010/2011 - 133
 2011/2012 - 149
 2012/2013 - 150
 2013/2014 - 147
 2014/2015 - 172
 2015/2016 - 114
 2016/2017 - 125

The number of breeding females in Estonia:

2008/2009 - 128
 2009/2010 - 126
 2010/2011 - 111
 2011/2012 - 103
 2012/2013 - 72
 2013/2014 - 46
 2014/2015 - 61
 2015/2016 - 64

*This information was sent to Wolf Print by **Mick Vilkins** from NGO Latvijas Vilki (Latvian wolves) which tries to reduce extreme wolf and lynx hunting in Latvia. We are hoping to get some more information from **Samantha Howlett**, a member of research institute in Latvia who participates in wolf and lynx monitoring in Latvia. The monitoring team's action/conservation plans will be available in English at the end of this year, so it will be interesting to have an update in our next issue.*

Photographs by Velga Vitola



Photograph by Lorenz Foscher



Living on The Edge

Metapopulation Management to The Rescue

The loss and fragmentation of habitat for wildlife is threatening biodiversity worldwide, as species that once roamed widely are now restricted to small and increasingly isolated fragments.

This is the case of the Ethiopian wolf, a canid specialised to life in the highlands of Ethiopia, now trapped in islands of Afroalpine habitats in a sea of agriculture fields.



Photograph by Lorenz Foscher

The last remaining Ethiopian wolves are restricted to six small populations, isolated from each other in terms of dispersal. As a result, areas from where wolves went extinct are not being naturally recolonised, and all remnant populations remain small and at high risk of extinction.

To ensure the long-term survival of threatened carnivores, conservation agencies adapt to these challenges by managing animals as part of a metapopulation, implementing translocations and reintroductions within the species historical range, aiming to boost numbers, establish new populations and/or ensure genetic viability. African carnivores populations actively managed include those of lions and African wild dogs.

The National Action Plan for Ethiopian Wolf Conservation, with backing from governments, experts and international organisations including IUCN, also identified the need for metapopulation management for the species in 2011. When last year wolves in Delanta were reduced to just two or three survivors, there is a sense of urgency to move forward along this conservation road.

As wolf numbers and their habitats continue to shrink, and in the absence of captive populations either in-country or abroad, conservation translocations provide a promising opportunity to rescue small populations following disease outbreaks and to increase the range and number of populations. This can be achieved without resorting to captive breeding, and with the advantage of bringing extra protection to Afroalpine enclaves where translocations will occur.

EWCP is taking the lead to implement the first necessary steps stated in the National Action Plan. We are seeking to raise awareness, institutional support and funding to achieve three main objectives:

- a) a long-term vision for wolf survival through conservation translocations
- b) readiness to rescue confiscated or injured wolves
- c) agreed plan to recover the range of the Bale wolf population in Gaysay grasslands via translocation. By adding to current conservation efforts a metapopulation management approach we can increase demographic resilience and move a step or two away from the perilous edge of extinction.

'The last Ethiopian wolves survive in six isolated mountain ranges, with no captive wolves anywhere on earth. Conservation translocations might be the only way to ensure their long-term survival.' Jorgelina Marino

To read more and/or support this beautiful endangered creature, please visit www.ethiopianwolf.org

(An extract from the Ethiopian Wolf Conservation Programme. The full report can be read here: <http://www.ethiopianwolf.org/resources/EWCP%20Annual%20Report%20%20April%202017.pdf>)

My presentation was titled 'wolves seen from researcher's eyes'. I played with the words and started with this picture where I'm seen in a wolf's eyes!

Photograph by Laetitia Becker

The Wolf Situation in Finland

Cold Country; Hot Topic!

March 5, Lieksa, a region of North Karelia, Finland. -5° with a clear and sunny sky. I've been asked to come and speak about wolves, as a scientific specialist. But here, in the Finnish countryside, the wolf is a hot topic!

The Finnish wolf population was important until the 1880s, after which it was hunted until it almost became extinct. In recent decades, the population is more or less stable at around 150 individuals (estimation for winter 2017: 150-180 from the National Resources Institute Finland (Luke). Wolves are established

throughout the country, with the highest densities in central east and south west.

In Finland there are three other large predators. According to Luke, the estimations for 2016 are about 2500 lynxes, 1800 bears and 250-300 wolverines.

I can already feel the tension in the room. It's winter outside, but I'm boiling. What will happen? Do they have tomatoes and eggs to throw at me? I asked a Finnish friend. He said: 'Don't worry! In Finland when a lady is speaking no one can be really nasty.'

Still, I'm nervous...

Negative attitudes towards wolves are created for different reasons:

- Wolves cause damage on domestic animals: reindeer in the northern regions (351 in 2013), sheep in the south (68 in 2014, 155 in 2015). However, the figures are extremely low compared to other European countries. 32 dogs were killed in 2016 but the media spotlights the attacks on hunting dogs so repeatedly, it falsely appears to be a HUGE problem in Finland. Dogs are usually attacked when they run freely in the forest while hunting.
- Wolves coming close to human settlements cause fear and feelings of insecurity in local people. They consider that feeding wolves for photo tourism, the protection status of the species and the possible hybridisation with dogs, results in wolves no longer fearing humans.
- Finally, in this strong traditional hunting country, wolves are seen as competition for human resources, especially moose.

I knew what to expect and prepared my speech appropriately, beginning my presentation with general figures and facts about wolf biology and behaviour. These are realistic figures, because all too often you can read exaggerated facts, even on educational websites. Misinformation just generates fear.

I use scientific facts to support each point I make. I present a graph

It's almost impossible to see a wolf in the Karelian boreal forest. You have more chance waiting in hides baited for photo-tourism, although they are controversial.

Photograph by Vladimir Bologov

from a Russian study (Korablev, the craniological laboratory of the Central Forest Reserve) showing that hunters and wolves do not kill the same categories of individuals in moose population. I give the conclusion of Linnell & al's (2002) study that '...the wolves are among the least dangerous species'.

I assure the audience that I understand how local people feel, that I am one of them. I remind them about all the work done by the authorities to involve local people, as it is the best way to cohabitate. Communication about the wolf population is really good in Finland. The authorities trust their people (for example, showing the average position of collared wolves so that hunters avoid the place with their dogs). The last wolf management plan of 2015 really tried to take the needs of the locals into consideration.

Close to the end of my presentation, I can see that not everyone is convinced. Hunters can be stubborn. This year, they are doubly frustrated, as they couldn't hunt moose in the region because the population was

too small, and they couldn't hunt wolves as in previous years.

I finish with my own personal view of the wolf. There is a saying that says you're a lucky person if you see a wolf. I saw one this year, and I'm very happy about that! I also heard them howling, twice. Every time, I had goosebumps from emotion. That's something everyone should experience in their life!

Humans are not born to hate wolves. It is all about information and education. My 6-year-old son had a wolf as an imaginary friend for years. And my 4-year-old favourite fluffy toy is... a wolf!

Laetitia Becker

Laetitia Becker completed a PhD on the experimental release of wolves in Russia in 2011. Since then, she has conducted various studies on ecology and behaviour of wolves and bears in Russia and since 2015, in Finland too. www.lupuslaetus.org

Moose in swamp. Moose are the main prey of wolves in Finland, and the main hunting resource of humans.

Photograph by Vladimir Bologov



When in Rome...

Cubs Spotted in Close Proximity to The Italian Capital

Two wolves have been recently spotted in a nature reserve close to Rome, their very distinct presence captured with hidden cameras.

They are in fact fully grown cubs, so there are likely to be more in the pack, probably two more adults. Appropriately, the male adult has been nicknamed Romulus by researchers. In the mythic Italian tale, Romulus and Remus were saved from a death sentence handed out by King Amulius. They were then suckled by a she-wolf and fed by a woodpecker, later becoming the founders of Rome.

Alessia De Lorenzis, a professor of natural sciences working for the Oasi LIPU Castel di Guido nature reserve at the heart of the story, (www.lipu.it), spoke to Wolf Print and told us: *'The birth of these pups represents an extraordinary event that makes us proud and that fills us with joy. We will do anything that we can to look after them, and we will try our best to pass on to the local communities our same enthusiasm and love for the*

wolves. This event is a memorable one, and we would like the whole Roman community to understand and appreciate its importance'.

Professor de Lorenzis believes that the pack probably travelled from the area around Lake Bracciano, north of Rome. Wolves have always been in this area, even when they were persecuted and hunted to near extinction. The animals appear to be surviving well on wild boar, so should not be a threat to livestock.

By the 1970s, there were only approximately 100 or so individual wolves remaining in Italy. The species was given protected status in 1971 and there are now approximately 1,500-2,000 free-roaming wolves in Italy. There has been a strong population in the Alps and subsequently problems with wolves travelling across the border into France and killing sheep. Wolves have also moved north through the Jura and Vosges mountains, even being seen in the countryside near Paris, which has caused consternation and controversy with farmers.

Wolf Print will be watching with great interest how this Roman story develops.



Hunting Quota Increased on Prince of Wales Island, Alaska

On Prince of Wales Island in Ketchikan in Alaska, a growing wolf population has prompted a larger allowance for hunting wolves on the island this year. It is estimated that there are 231 wolves on the island and surrounding islands. Last year the hunting quota was 11 wolves but this year, beginning on December 1, it will be 46, 20% of the population.



Red Wolf Cubs

In the last issue of Wolf Print, we reported on the birth of six red wolf cubs at the Museum of Life and Science in North Carolina, the first for nearly twenty years. Four of the six cubs survived and the pack of two adults and four cubs will now be transferred to the Wolf Conservation Center in South Salem, New York. They will be moving to a spacious one acre home, giving them more space to explore and enjoy their new family. A new breeding pair will come to the Museum of Life and Science in their place and hopefully further increase the population of endangered red wolves still further.

The red wolf is unique to the United States and not found anywhere else in the world. After being listed as endangered in 1973, 14 wolves were removed from the wild in 1980 and a captive breeding programme established. The Red Wolf Species Survival Plan is designed to oversee the management of the endangered red wolves in captivity. We wish this latest family a safe journey and a bright new future.

Photograph of red wolf cubs by Museum of Life and Science <https://www.lifeandscience.org>

Member of The Diamond Pack Killed in New Mexico

In August this year, the US Department of Agriculture killed a female endangered Mexican wolf in Albuquerque, New Mexico.

This was in response to complaints about cattle deaths near the Arizona-Mexico border. The wolf was a member of the Diamond Pack and her role in the killings was indicated by GPS and telemetry tracking, although it is likely that other members of the pack also carried out attacks on livestock.

Last year it was recorded that there were only 113 wolves in Arizona and New Mexico as the numbers had at last been growing since the species was placed on the endangered list in 1998.

Ranchers were very positive about the lethal outcome, stating that the US Fish and Wildlife Service (USFWS) were finally 'making a good decision.' However, environmentalists say that a cow that died of natural causes (possibly from eating twine) and whose carcass was not removed, was the reason why the Diamond Pack were originally attracted to the cattle. They believed that the original 'attack' was actually scavenging, a process that caused them to later prey on the live cattle. Others have blamed the Trump administration, ruthlessly killing an endangered species while prioritising

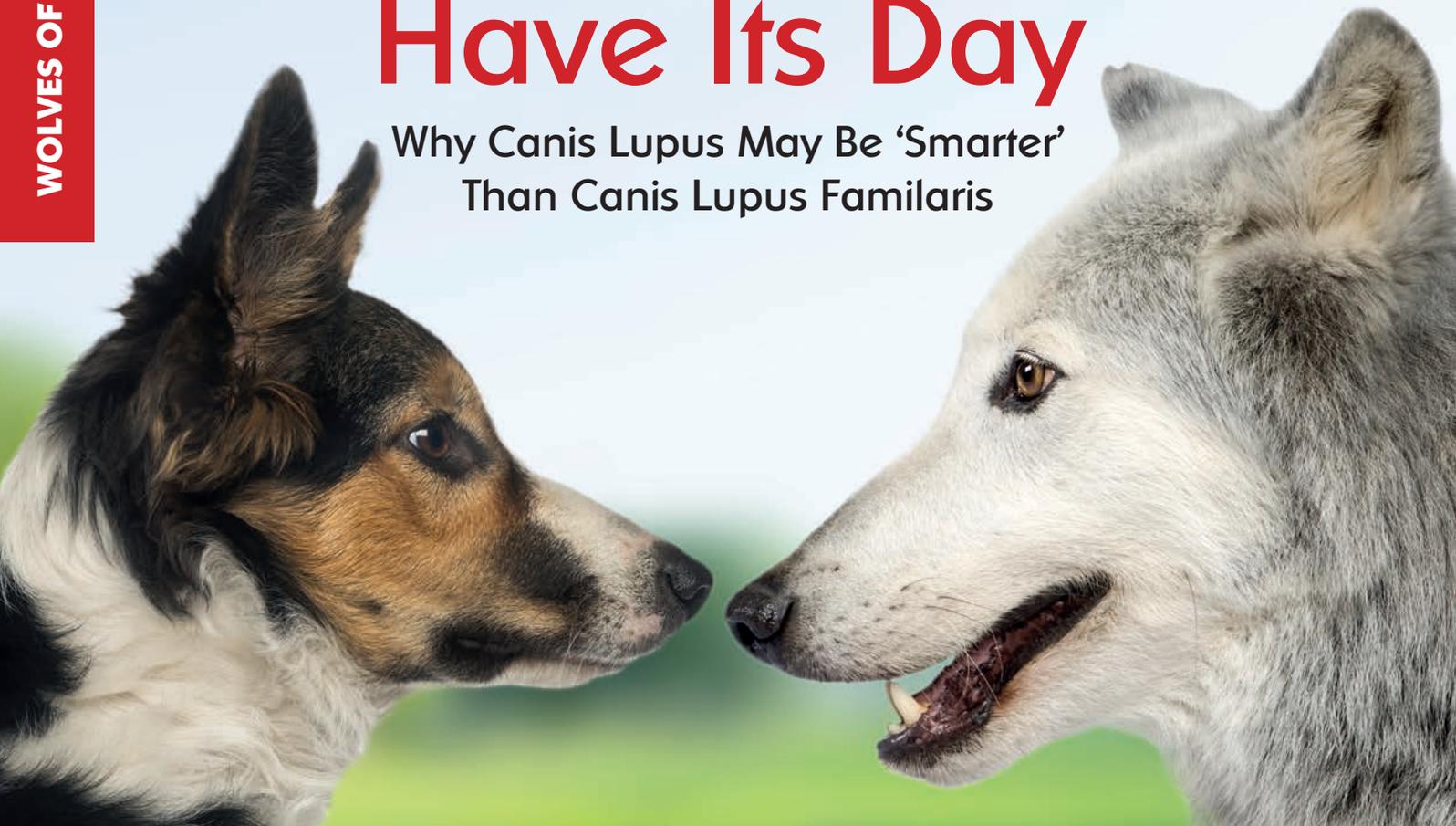
the livestock industry. Patrick Bray, executive vice president for the Arizona Cattle Growers' Association, said that no rancher needed to remove a cow's carcass, which is beneficial for the environment. He added: 'Wolves are natural predators – live or dead they are going to prey on things. They didn't kill a wolf because it was preying on dead animals, they killed it for preying on live livestock.'

The courts have set a deadline for the end of November for a new management plan to be finalised, so it is yet to be seen how the situation can be settled to suit everyone.



Every Wolf Must Have Its Day

Why Canis Lupus May Be 'Smarter' Than Canis Lupus Familiaris



The Wolf Science Center in Vienna published a study in September demonstrating that wolves may be smarter than dogs in certain respects.

Using a dozen socialised wolves and 14 dogs, a team of researchers led by Holland's Radboud University's Michelle Lampe, offered the animals two containers, one with food and one without. Wolves showed that they understood cause and effect, successfully interpreting communicative signals such as pointing or the researchers looking at the container with the food, for example. The food was wrapped tightly in clingfilm – so smell was not a factor.

As an example, in the first experiment a researcher showed the box, looking the animal in the eye, and tried to open it. In the second one, the man demonstrated interest in the box, but

did not look at the animals...

However, the one thing the dogs and wolves had in common was that they both failed to respond or find the food if there was no eye contact.

Interestingly, Michelle Lampe observed: 'It cannot be excluded however, that the differences can be explained by the fact that wolves are more persistent to explore objects than dogs. Dogs are conditioned to receive food from us, whereas wolves have to find food themselves in nature.'

The wolves seemed able to understand eye-to-eye contact and the fact that they were so responsive to

communicative cues, researchers say, may have 'facilitated domestication.'

Juliane Bräuer, one of the authors of the study, questioned the assumption that dogs understood human signals better than wolves. 'In nature, wolves have to rely on their own observations and ingenuity, and dogs fed by humans do not need it...At the same time, the ability to communicate with humans may be found in wolves and dogs, and domestication did not play a big role in its development.'

More information on the work/research carried out by Wolf Science Center in Vienna here: <http://www.wolfscience.at>

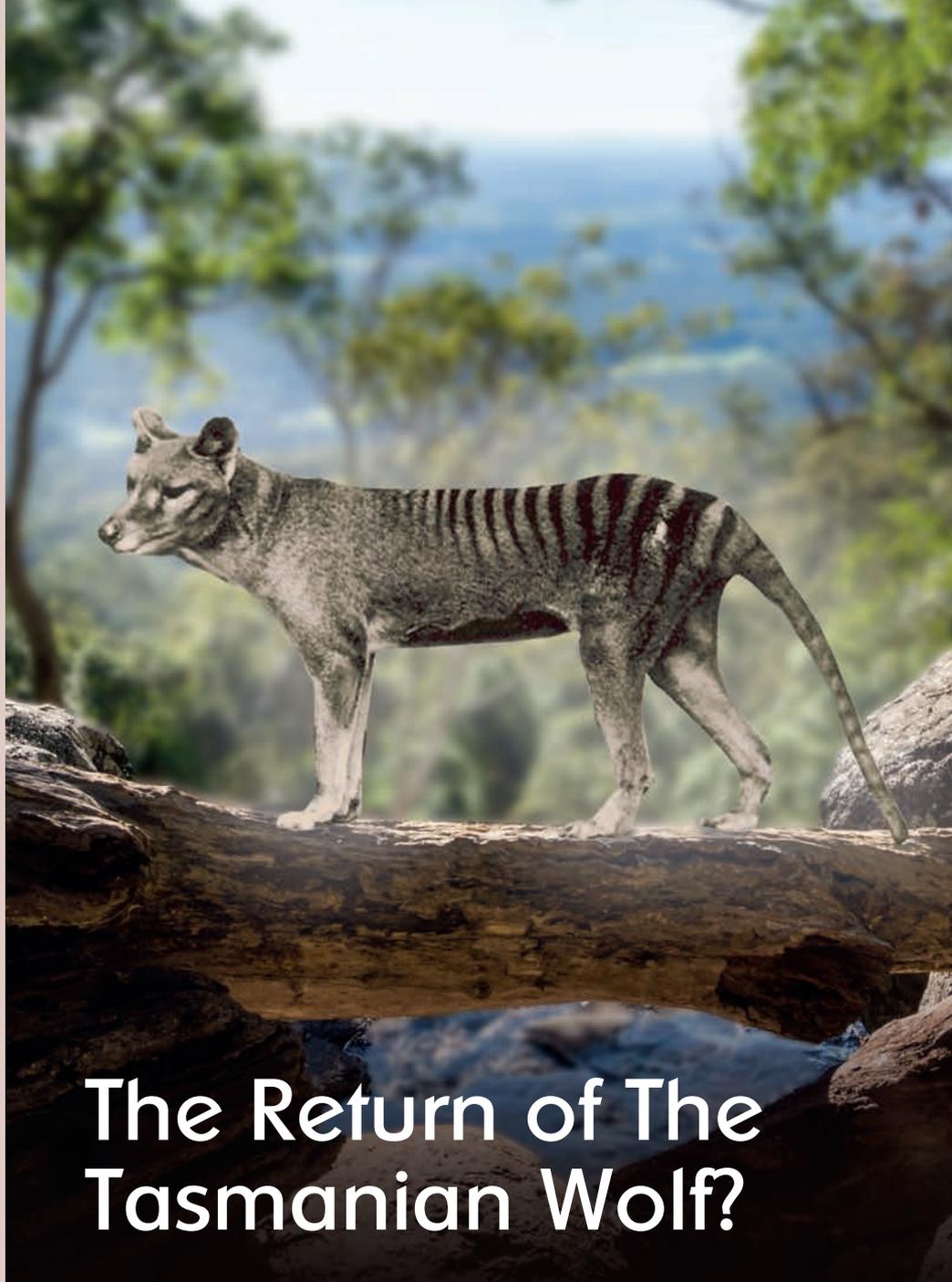
Reprieve For The Remaining Members of The Smackout Pack

Although the Washington Department of Fish and Wildlife has already culled two members of the Smackout Pack living in northeastern Washington back in July, they have announced that they will leave the rest of the pack alone for now. There have been no attacks on livestock for two months. Both wolves and cattle will continue to be monitored and according to the official 2011 wolf plan, culling will only recommence if four or more cattle deaths occur in ten months, or three in a month.



Three New Species Added to India's Chhatbir Zoo

Chhatbir Zoo in Zirakpur, India, has seven new members of their 1,250-strong zoological family, which includes the Indian wolf, Royal snake and Chukar partridge. The new animals were unveiled to visitors in early October after three wolves were swapped for swamp deer with the zoo in Jaipur. The Indian wolf (*Canis lupus pallipes*) is a subspecies of the grey wolf, found in the Indian subcontinent. The species is shorthaired, smaller and slighter in build than the grey wolf.



The Return of The Tasmanian Wolf?

It's certainly a romantic idea, but three men in Australia have recently claimed to have captured the long lost Tasmanian wolf or thylacine on camera, as it was walking through a forest.

The last thylacine, often called a Tasmanian tiger because of the stripes on its body, died in Hobart Zoo in 1936. The new footage has been released on the 81st anniversary of its death. Adrian Richardson, George Booth and his son Greg are adamant that the footage shows the animal, although conservationists say it is more likely to be a spotted quoll, a related species native to Tasmania. The trio have refused to give the exact location of the animal, as they do not want it to be disturbed. They are not the first to claim that the thylacine is still around but as yet, no absolute proof of its existence has been proven. Previous sightings in Northern Queensland have had a certain amount of credibility, but search for the creature has become somewhat of a mystical quest worthy of the X Files, with many followers believing that it really is still 'out there'.

“Rainbow” Wolves Show Heat Loss From Mange

This time, it's temperature that can regulate wolves.

A collaborative study by the U.S. Geological Survey using thermal imaging cameras has tested how sarcoptic mange affects heat loss in Yellowstone's wolves. The results were as surprising as they were colourful.

Caused by the mite *Sarcoptes scabiei*, sarcoptic mange is highly contagious and causes severe itching, skin lesions and hair loss. Another weapon in the anti-wolf arsenal, it was introduced to the Northern Rockies by state vets in the early 1900s to eradicate the local population. Although initially free of the disease, as of 2015 one in ten of the known Yellowstone packs carries mange, which can lead to hypothermia, starvation and malnutrition. Given that wolves suffering mange are already under

stress, remote infrared cameras and camera traps were seen as a less intrusive way of studying them.

For their control group, the authors took four healthy adult wolves – two male and two female – from the Grizzly & Wolf Discovery Center in Montana and shaved patches of fur most commonly affected by mange such as the legs, shoulders and hindquarters. With a combination of photography, thermal imaging, motion-triggered cameras and a weather station, the team recorded both captive and wild wolves during the winter of 2012-2013 and compared behaviour, hair and heat loss. The severity of mange was categorised by hair loss, so Type I indicated 1-5% loss, Type II 6-50% loss, and Type III, more than 50% loss.

Unsurprisingly, wolves suffering Type II or III were twice as likely to die as their healthy companions; severe mange could cause a staggering heat loss of 1240-2850 calories at night, up to 80% of a wolf's average needs. According to the lead author, USGS ecologist Paul Cross, the wolves would need an extra 2-4 pounds of elk meat per day to compensate. This is where the size of the pack can make all the difference.

The mortality rate of mangy wolves dropped if they belonged to a larger pack with only a few infected members, as food would be more accessible. At the same time, this could increase the spread of mange, because mites can be transmitted by skin-to-skin contact or sharing food sources. Recovering from mange once is no guarantee against re-infection, and unfortunately, if there is enough humidity, sarcoptic mites can survive outside their hosts for a short time.

Interestingly, the team found that wind speed, not temperature, had a greater effect on wolves' heat loss, and younger animals seemed to be most commonly affected.

Ongoing treatment like dips or oral medication are needed to cure mange, but this is not practical for wild animals, particularly ones who live and travel in groups. However, with time and a healthy immune system, wolves can recover and re-grow their fur. Why some Yellowstone wolves are at higher risk, or have more severe or prolonged mange is not yet known and is still being investigated.

Jessica Jacobs

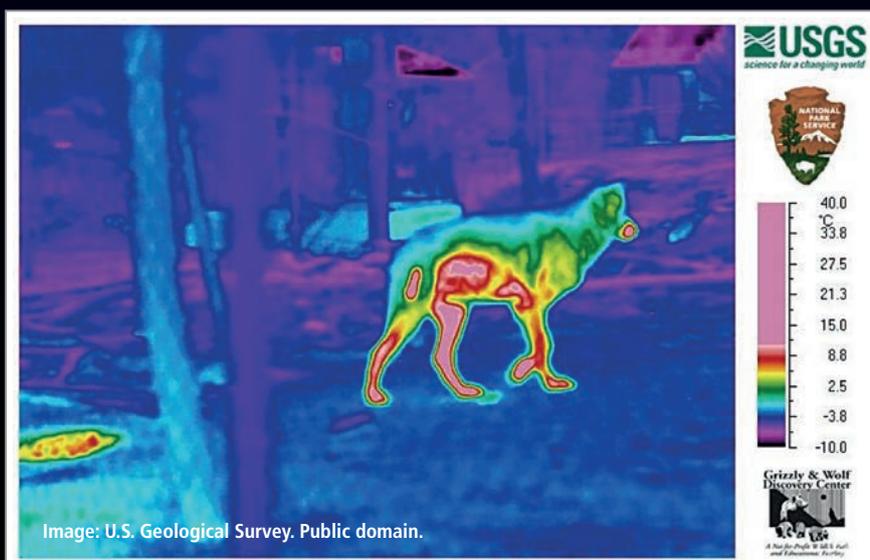


Image: U.S. Geological Survey. Public domain.

Sources: Cross, P.C. et al. 2016. "Energetic Costs of Mange in Wolves Estimated from Infrared Thermography." *Ecology* 97(8): 1938-1948. French, B. 2015. "Study: Wolves in Big Packs More Likely to Survive Mange." *Casper Star Tribune*. http://trib.com/lifestyles/recreation/study-wolves-in-big-packs-more-likely-to-survive-mange/article_37d11712-a45c-56f8-bec6-d829aba4b8a5.html. Live Science. 2010. "Psychedelic Images to Aid Study of Wolves with Mange." <https://www.livescience.com/10910-psychedelic-images-aid-study-wolves-mange.html>. The Northeast Wildlife Disease Cooperative. N.d. "Mange and Mites." http://www.state.nj.us/dep/fgw/pd/mange_factsheet.pdf. PetMD.com. N.d. "Sarcoptic Mange in Dogs." http://www.petmd.com/dog/conditions/skin/c_dg_sarcoptic_mange?page=2. Trolle, M. 2013. "Wolves with Mange can Heal Themselves." *ScienceNordic*. <http://scienordic.com/wolves-mange-can-heal-themselves>. USGS. 2016. "Study Shows Cold and Windy Nights Physically Drain Mangy Wolves." <https://www.usgs.gov/news/study-shows-cold-and-windy-nights-physically-drain-mangy-wolves>. USGS. N.d. "Effects of Sarcoptic Mange on Gray Wolves in Yellowstone National Park." https://www.usgs.gov/centers/norrock/science/effects-sarcoptic-mange-gray-wolves-yellowstone-national-park?qt-science_center_objects=1#qt-science_center_objects. Yellowstone Wolf: Project Citizen Science. N.d. "Recent Research: The Dynamics and Impacts of Sarcoptic Mange on Yellowstone's Wolves." http://www.yellowstonewolf.org/mange_in_yellowstone_wolves.php



The Wolf

A True Story of Survival and Obsession in the West

By Nate Blakeslee
Published by Oneworld Publications
Hardcover 320pp
RRP **£20.00** ISBN-13: 978-1101902783

The reintroduction of wolves into Yellowstone in 1995 was a controversial and highly political decision that pitted rancher and hunter against environmentalist and wildlife supporter. *The Wolf* follows the life of one particular iconic wolf that became known as 0-Six. How she became an alpha, how her family grew. It also describes those who reintroduced the wolves, those who observe them and even the hunters who believe there is no place for them in their part of the world. As a Montana rancher once said to me: 'There's a reason we got rid of wolves, the reason hasn't changed.'

Author Nate Blakeslee has been given unprecedented access to the notes of two pivotal Yellowstone people: field biologist Rick McIntyre and Laurie Lyman, a retired teacher and wolf advocate who generously shares her daily experiences with wolf lovers worldwide. *The Wolf* is a beautifully descriptive account of the reintroduction, how the wolves flourished in the early years and then later struggled. It shows the beauty, harshness and cruelty of the wilderness that is Yellowstone.

Wolf 0-Six, the focus of this book, was admired, respected and loved for her strength. She held her pack together with an iron will, and yet could still play like a puppy with her cubs. She was a phenomenal hunter, described as the best in the pack. When she partnered with her mate and his brother (755 and 754), their hunting abilities were questionable. They were nicknamed Beavis and Butthead by the wolf watchers, but as 0-Six taught them, they watched her and learned how to hunt and provide for their family. The book describes her return to Lamar Valley, the valley where her grandparents 21 and 42 led the Druid Pack. It paints the picture of their lives, giving insights into the people who watched them.



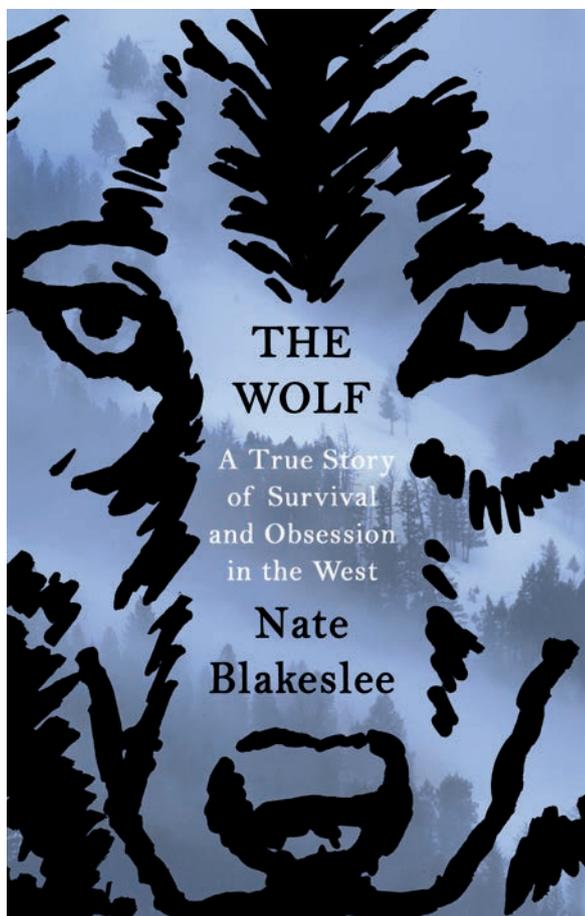
Nate Blakeslee

To gain balance, Nate visited the hunters, to understand their viewpoint and their reasons for not wanting the predator returned to its ancestral lands. He talked to the hunter who killed 0-Six; his name was never made public but his deed even made UK news. The hunter had no regrets and would do the same again if the opportunity presented itself.

The story flows from his pen with some writer's licence, which is what makes it his own. I enjoyed reading it although I shed some tears at some of the painful memories it invoked. I watched 0-Six for many years, enjoying her mature and become an alpha. I miss her still and feel sad that thousands of people could have enjoyed and been thrilled at seeing her, but have been denied the privilege because one person wanted a pelt.

The only thing missing are photos of the stunning wolves whose lives have been shared. Nate Blakeslee has done 0-Six justice because he listened to those who knew her the best.

Sian Jones, the straight-talking retired UK police officer mentioned in the book who broke down and sobbed on hearing the news that 0-Six had been killed.





What's in a name? Putting the wolves into Wolverhampton

30 wolf sculptures are being placed around Wolverhampton in a bold, bright public art project. Wolves in Wolves is being organised by Outside Centre and Enjoy Wolverhampton.

Designers are being partnered with sponsors to create artwork to decorate the wolves. For example, pupils at Moreton School in Old Fallings Lane have been working on designs for the Mayoral wolf, and the students are also decorating the Clinical Commissioning Group (CCG) wolf, while Head of Art, Jody Williams, will be decorating one for Yoo Recruit. There are numerous other artists, including University of Wolverhampton students and

Highfields School pupils.

There are also numerous sponsors, which currently include Marston's, Wolves FC, Talent Match, Grand Theatre, WV Active, University of Wolverhampton, Movecorp, NCP, Hilton Main Construction, Learn Play Foundation, City of Wolverhampton College, Arena Theatre, Mander Centre, Wolverhampton Homes, and Wolves Speedway.

City of Wolverhampton Council Director of Governance, Kevin O'Keefe, said: 'The idea was put forward by business support officer, Manor Singh, as part of the council's 100:100 scheme, which encourages



staff to suggest ways the council can improve.

'Manor's inspiration arose from travelling in Europe, where he saw a similar event being staged in Dublin some years ago. Manor was born and brought up in Park Village and was delighted his idea was picked to raise the profile of his home city.

'Wolves in Wolves is a great opportunity to showcase the City of Wolverhampton to visitors.'

This exhibition has now finished and the exhibits are to be auctioned off for charity.



The Last Wolf The Hidden Springs of Englishness

By Robert Winder
Published by Little Brown Book Group
Hardcover 480pp
RRP **£20.00**
ISBN-13: 978-140870779

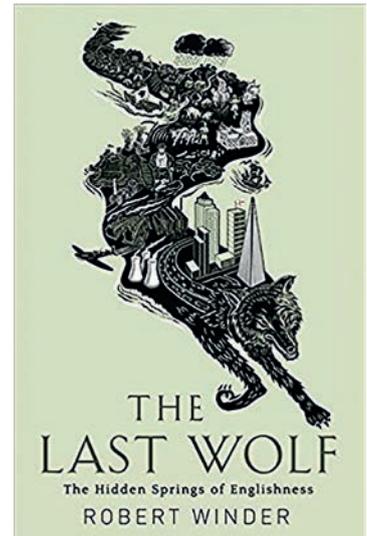
Robert Winder's hugely ambitious book is a provocative and intriguing look at what has made England what it is, by its climate and geography. As the United Kingdom turns away from its European neighbours and begins to look increasingly disunited at home, it is becoming necessary to ask, what does England have that is singular and its own?

'It is often assumed that the national identity must be a matter of values and ideas. But in Robert Winder's brilliantly written account it is a land built on a lucky set of natural ingredients: the island setting that made it maritime; the rain that fed the grass that nourished the sheep that provided the wool, and the wheat fields that provided its cakes and ale. Then came the seams of iron and coal that made it an industrial giant.'

He starts by telling us that in 1281 Edward I commissioned a Shropshire knight called Peter Corbet to eradicate England's wolves. By 1290, by hunting wolves with a pack of hounds roaming the forests of Middle England, this was achieved.

The implications of this eradication were profound: without the wolf the countryside was a tamed terrain and large scale sheep farming was possible. Sheep produced wool, wool produced wealth and wealth produced power. Thus England was made.

Unlike Germany and France, England was subsequently able to become a gigantic sheep farm, followed by profitable beef, milk and other agricultural industries. For Winder, geography is destiny – by geography we mean not just England's geology,



climate, vegetation and the surrounding seas, but also the determination of thousands of resourceful individuals down the centuries to use these natural resources to their advantage, such as hunting wolves to extinction.

Winder explores what seems to be every geographical and cultured byway through 700 years of history. He plays down the idea that our very insularity has shaped us as a nation. He notes that the English have long had a contradictory penchant for things we can't possibly grow here such as sugar, coffee, tea, chocolate - not to mention opium.

Winder is at his best when tracing how one thing became another. His excellent description of the rise of Lancashire's enormous cotton industry triggers a discussion of the slave trade and English morality (or hypocrisy) in general. Describing the rigours of coal-mining and the chasm that emerge between 'those who got their hands dirty and those who banked the profits' leads him to muse on divisions of class, wealth and occupation that have long persisted in English society.

In summary, Robert Winder's conclusion in his lively look at what made the English who and what they are is 'that the key thing is not the people but the place'. According to Winder the episode of the wolf's disappearance more than anything else marks the birth of Englishness.

Tsa Palmer



The Wolves of Currumpaw

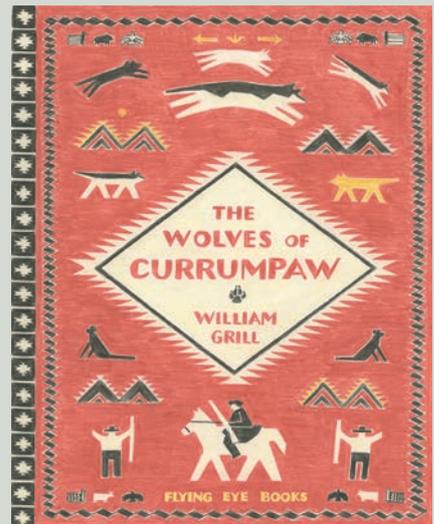
By William Grill
Published by Flying Eye Books
Hardcover 80pp
RRP £14.99 ISBN: 978-1-909263-83-3

William Grill was inspired to write *The Wolves of Currumpaw* after reading the 1904 short story by conservationist and illustrator Ernest Thompson Seton, from his collection *Wild Animals I have Known*. It is the story of Lobo, an 'outlaw wolf' who made his presence known in New Mexico in the 1890s. Lobo had a Rasputin-like ability to survive attempts to eradicate him and was therefore nicknamed 'The King of Currumpaw'.

This is a visually striking book, the cover reminiscent of an old copy of Rudyard Kipling's *Just So Stories*, with the inner illustrations inspired by Fauvist painters like Saul Steinberg and Eric Ravilious.

Grill's tale confronts the reality of a problem wolf, who leads an equally problem pack. There are plenty of twists and turns, with wolf hunter Seton using his knowledge of wolves to facilitate an outcome, hot on the trail of Lobo and his pack. There is a lot of sadness in *The Wolves of Currumpaw* but it is worth reading to the end, where Seton has an Aldo Leopold moment that changes his life.

This would be a superb book for a switched on, conservationist-minded older child, although it might upset a child of a more sensitive nature. There are important lessons to be learnt



here and it would certainly prompt someone to delve more into wolves, the fascinating Seton and other conservationists.

The Wolves of Currumpaw has enormous beauty and great soul. A book to treasure.

Julia Bohanna

Pup and Pokey

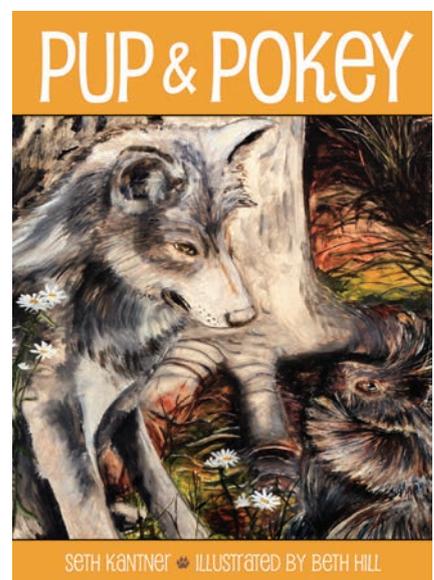
By Seth Kantner
Published by Snowy Owl Books (University of Alaska Press)
Paperback 44pp
RRP £14.95 ISBN: 978-1-60223-241-9

Beautifully illustrated by artist Beth Hill and superbly penned by Seth Kantner, this unusual relationship between a porcupine and a wolf is a tale of family and friendship. Kantner writes poetically, with the authentic Alaskan voice of someone who lives it daily, can paint the landscape with visually rich prose: 'On the top of one of the miniature spruce a shorebird with bony yellow legs shrieked ceaselessly...' This story would be perfect for the actorly fireside narrator, with a fat moon adding theatre in the sky.

The story is certainly a good one, with depth and meaning. Pup and Pokey have to learn to deal with controlling their bodies and the potential 'weapons' they possess, such as claws,

spikes and teeth. They eventually face danger from a trapper who could end both their lives with weapons of his own, not to mention the trapper's devilish dog, Bonehead. The trapper is shown with realism, not as a monster but as another species existing in harsh terrain. The wolf and porcupine are young and inexperienced in a world of potential predators and enemies. They must therefore learn to help each another, absorb the lessons of survival that will make them thrive. The trapper has seen the world, but he can still be surprised. Forming allies and using initiative has never been so important...

Seth Kantner is a commercial fisherman, writer and wildlife



photographer, born and raised in northern Alaska. He is the author of *Ordinary Wolves*, *Shopping for Porcupine* and *Swallowed by The Great Land*.

<http://sethkantner.com>

Julia Bohanna



Wolf Conflicts

A Sociological Study (Interspecies Encounters)

By Ketil Skogen, Olve Krange & Helene Figari

Published by Berghahn

Hardcover 226pp

RRP £76.50 ISBN-13: 978-1785334207

Across Northern Europe and North America, wolf populations have been making a comeback and appear to be thriving, which is great news for biologists and conservationists. It is important to remember that wherever large carnivores are present (bears, wolverines, lynx and wolves) there is likely to be conflict with co-existing communities.

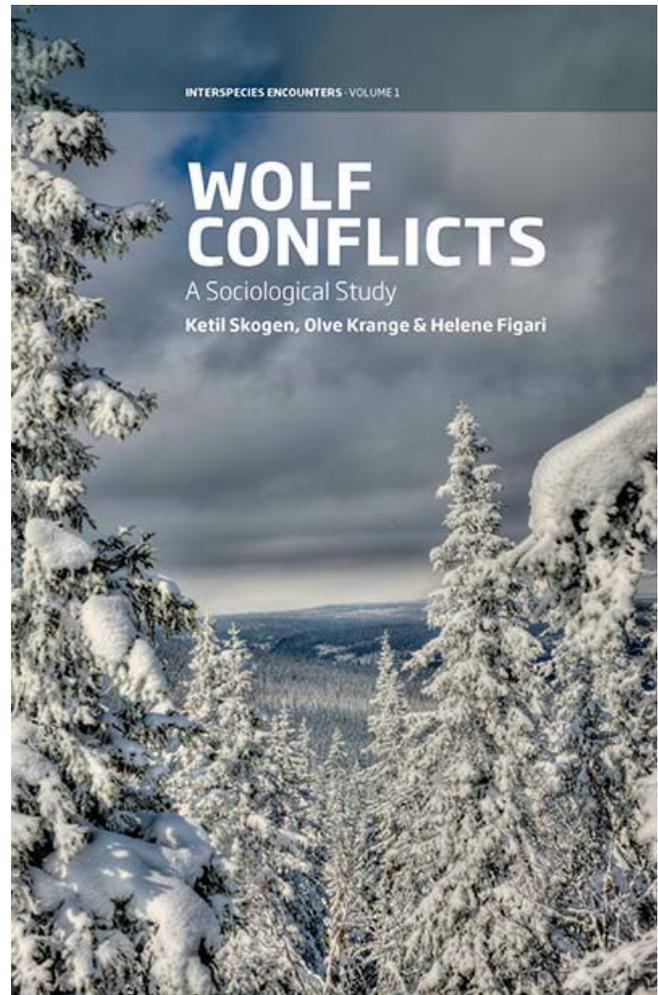
Tensions inevitably arise when pro-wolf and anti-wolf groups discuss the issues of wolf management programmes. Particularly with social media, it is easy to get caught up in arguments and quickly judge those who are anti-wolf, forgetting communities/individuals heavily affected by wolves such as landowners, farmers and hunters. These people often feel that their views, concerns for their livelihood and way of life are in jeopardy.

This book chronicles fifteen years of research and case studies conducted across Norway and focuses on the all too frequent unheard voices of landowners, farmers and hunters. Reading about the concerns and the conflicts that they have to face helps the reader understand how it affects them.

Wolf Conflicts expresses the idea that conflicts the local communities face are often *about* people's attitudes to each other about wolves rather than *with* wolves. It is beautifully detailed, classifying *what* the wolf represents, such as the pure wolf, the wild wolf, the social wolf, the threatened or threatening wolf and the dangerous wolf. It also demonstrates how views can differ among individual groups.

The book discusses the rumours of wolves being reintroduced into the wild secretly by the government, and finally the opinions and responses from communities regarding the management of large carnivores.

I do highly recommend this book, although the first few chapters are long and heavy going for the average reader, and personally took me back to my university study. *Wolf Conflicts* is the result of 'fifteen years of sociological research on the conflicts of wolves in Norway', rather than a behavioural wolf study. Humans are the real subject matter and it may take a little while to acclimatise to the terminology used. However, it is a rewarding book, providing great insights into a community who feel that the media often portray them as the enemy or even 'backwards'. This often has an impact and limits hunters'



ability to get their opinions heard. The media often focuses on the most extreme individuals in a much larger group.

It's clear that individuals can have a detrimental effect on a whole community. For example Kjell Vidar, who works in the private service sector, discusses his workmate's daughter and the Koppang wolf cull: '*She doesn't dare to admit that she comes from Koppang. She really can't do that, (...) She was really shocked when these newspaper pieces about Koppang [and a wolf culling] appeared. When it finally came out that she was from Koppang, she was harassed [by the other students].'* He also referred to the fact that hunters are often seen as 'some barbaric morons who take our rifles to bed and such things'.

This truly is a fascinating, compelling and highly engaging book.

Francesca Macilroy

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Why not try one of our gift memberships?



Christmas ONLY special offer

Adopt a Wolf membership - comes with a special cuddly wolf toy £40

If you'd like to support the Trust, why not adopt one of our wolves? Adoptions cost £40 per wolf per year and the adoption pack includes a beautiful 10" x 8" photograph of your adopted wolf, three copies of Wolf Print magazine, a Certificate of Adoption and a biography of your wolf. In addition, we'll send a small vial of moulted fur from your adopted wolf. You'll also receive a voucher for a free admission to visit on a 'Wednesday Open Day' so that you can come and see your adopted wolf.



Junior membership - £20

Open to children aged between 6 and 12, this includes: one Junior ticket to come to visit on one of our 'Wednesday Open Days' during membership year, advanced notification of events and 20% discount on children's events run by the Trust, Wolf Chronicle newsletter three times a year, welcome pack, including 10" x 8" colour wolf photograph, fun fact sheet, membership certificate, wolf information sheets, UKWCT car sticker and a free gift.



Magazine membership £14 UK, £17 EU, £26 ROTW

Three issues of our informative magazine on wolf conservation worldwide along with book reviews, merchandise, interviews and of course updates on our ten resident wolves.

Gift Vouchers

Gift vouchers available in denominations of £20, £10, & £5 which can go towards any event, merchandise or membership. Please note that all gift vouchers will need to be redeemed over the phone on 0118 971 3330 and are valid for 12 months from date of purchase.

FOR MORE INFORMATION GO TO OUR WEBSITE WWW.UKWCT.ORG.UK



UKWCT Wolf Centre

'Visit Wednesdays'

Visit **Wednesdays** give you the opportunity to come and see the Trust without pre-booking, unlike our other events. You will be able to observe our ten very charismatic wolves – from our three Arctics with their amazing white coats, to our enigmatic black Canadian wolves – and have a guided tour with one of our knowledgeable volunteers. There will be fantastic photographic views of the wolves in their large, natural-looking enclosures and you'll have access to the raised photographic platform on site. Hear them howling during the day and watch them being fed at 2pm. We have picnic areas for warmer days, a gift shop for you to browse for books and souvenirs, and plenty of free parking. Please note that we will be closed on Wednesday December 27th.

Wednesdays – Open from 11am to 4pm

ADMISSION: Adults – £8; Members Children (age 3-11) & OAPs – £5; Children under 3 – FREE. Tickets on the gate only. Sorry, no dogs on site.

Wolf Discovery Day

Spend the whole day studying in-depth wolf behaviour close up by observing and getting involved with the welfare of our ten resident wolves. Learn about wolf pack structure, our wolves' personalities and take close-up photos.

You will have the opportunity to:

- Listen to a presentation about wolf behaviour
- Learn personal information about our ten resident wolves
- Have the opportunity to hand feed the wolves
- Take part in our enrichment programme for the wolves, which differs daily, and observe the behaviours shown. Learn how we keep our wolves healthy and happy
- Have a tour inside one of our enclosures whilst the wolves are in a different holding area and learn about the habitat in which we keep our wolves
- Undertake wolf tracking and learn how to use our telemetry equipment with our Wolfkeeper Mike, who has tracked wolves in the wild
- Have a howling session to encourage the wolves to howl back
- Watch a wrap-up presentation about the projects we support. Learn what needs to happen for wolves and humans to coexist in the future
- Take close-up photos throughout the day

Make sure to bring your own lunch, tea and coffee will be provided.

Check website for future dates – 10am to 4pm
£90 Per person. Age 18+ – BOOKING ESSENTIAL.





Photography Day

Each of the four wolf packs can be photographed from an adjoining enclosure where there are specially made holes for cameras, giving great results. These charismatic animals look their best in the winter months. Expert handlers will encourage the wolves to stand in the best position in their natural-looking enclosures. You will also be able to use our raised photography platform. During the day the handlers will give a tour of the Trust, where you will see all of our wolves and learn about each individual.

Refreshments available but no lunch included, so please bring your own.

**Check website for future dates
10.30am to 3pm**

£80 per person (no wolf walk included).
Suitable for all abilities.
Age 18+ – BOOKING ESSENTIAL



Howl Nights

Feel your backbone tingle and your ears vibrate with the sound of the wolves howling. The evening starts with a presentation on wolf communication; you will then go on a tour of the Trust and have the opportunity to let out a howl and see if the wolves respond! (Don't forget to dress up warmly for an evening under the stars). The event usually finishes from around 9 to 9.30pm.

**Check website for future dates
7pm to 9.30pm**

£10 per person.
Age 8+ – BOOKING ESSENTIAL

Children's Christmas Cracker Event

This is a really fun activity that all the children and wolves enjoy. The children fill empty toilet rolls with an assortment of wolf friendly treats, such as black pudding, sausages, cheese, fish and hot dogs. The cardboard rolls are then wrapped in festive Christmas wrapping paper to make crackers. The wolves are moved into their side enclosures where they eagerly watch the children put the crackers on the Christmas trees in their main enclosures.

Once the children have left the enclosures the wolves are let back in to devour the treats. It is an ideal opportunity to take lots of photographs and also to watch and learn about the different wolf behaviour.

21st December, 10:30am – 12:30pm
£10 per person. £8 Junior members.
Recommended age 6-12 years – BOOKING ESSENTIAL

