

Wolf Print

The UK Wolf Conservation Trust

Issue 43 Summer 2011

The Trust welcomes three new residents...



...but says goodbye to Latea

- **Bulgaria project update**
- **Jim McNeill returns to Ellesmere Island**
- **Canis lupus soupus: the classification of wolves**

■ NEWS ■ EVENTS ■ MEDIA AND ARTS ■ REVIEWS



Editor's Letter

Welcome to the summer edition of Wolf Print. We've had a busy spring at the Trust with many changes, some of which are physical, such as additional fencing and restricted areas ready to quarantine the expected Arctic wolf cubs. The pole barn is finally finished and now just needs the displays installing. This will happen once our newest arrivals – Tala, Tundra and Nuka – have moved out; read on in the director's letter to find out more about them.

I've had the privilege of representing the Trust at two different events over the last few months, Clive Readings (the Trust's wolf keeper) and I attended the ABWAK (Association of British Wild Animal Keepers) conference in March at Port Lympne Wildlife Park (see page 6 for further details). I also had the opportunity to attend the Mammal Society conference at Nottingham University in April where I met up with one of our current research students, Holly Root-Gutteridge, who is conducting PhD research into how we can use wolf howls to track their numbers, movements and lineages. I later had the pleasure of meeting Laetitia Becker who was presenting some research on a comparative study of wolves in protected versus unprotected areas in Russia. Laetitia works and carries out her research at the Russian project the UKWCT has helped to fund over the last five years.

Also included in this edition is an article from 'the iceman', Jim McNeill. We were delighted to have Jim attend our first open day of 2011 in May and speak about his trips to Ellesmere Island, the high Arctic and his encounters with Arctic wolves. We are also lucky enough to have in this edition an article on the fascinating topic of wolf classification from biologist L. David Mech, who has studied and written about wolves for about 50 years.

In all, it's been a busy few months, but having the enjoyment of being part of the team hand-rearing wolf cubs again makes it all worthwhile. Five years ago when I started at the Trust I had the opportunity to help hand-rear Mosi, Mai and Torak which was wonderful, but to now have the chance again... what can I say – it's amazing! I look forward to the arrival of the three Arctic cubs (see page 7) to enhance our lives further.

I really hope you all enjoy this edition of Wolf Print and will continue to follow us and the wolves in the coming years as our new generation of wolves grow and mature.

Vicky Allison-Hughes

Education Officer / Wolf Handler / Wolf Print Editor

Wolf Print



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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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Trust News

Director's Letter

Wolves are always full of surprises: I never imagined that I would be bottle-feeding cubs again this spring, some forty years since I first bottle-fed Quatro, a male Canadian wolf who came from Port Lympne. At ten days old, Quatro lived in a cardboard box in my flat. He went to work with me every day for the first six weeks of his life living under my desk – I had a long-suffering boss! Our present cubs – Nuka, Tala and Tundra – have a spacious barn designed for their upbringing which is fantastic facility.

We never expected Mai would have cubs this spring. Although she was very flirtatious to Motomo while she was in season in February and made advances to him, we never saw anything reciprocated! He obviously waited until cover of darkness to mate with her, when he was least vulnerable. Torak, on the other hand, was very open with his activities with Mosi – showing us the difference in behaviour of socialised wolves.

We first noticed a change in Mai's behaviour in March when she spent large parts of the day digging furiously in the clay earth in the mound in her enclosure. For that period of time she became an orange-coloured wolf as the clay stuck to her face. Motomo became increasingly bold, coming closer to the fence by her side and protective of her. By this time Mai was showing a rotund belly and was definitely eating for two, so we arranged for our vet Julian Slater to come and scan her to check if she was indeed having cubs or whether it was a phantom pregnancy. Mai was very good about letting Julian shave her belly. To our delight the scan in the middle of April confirmed that she was expecting cubs. Julian predicted there would only be a few and that they would be due in early May.

We decided we had to separate Mai from Motomo at the end of April so that the cubs could be born above ground and so that we could help Mai if she needed it, away from Motomo.

Clive Readings, the Trust's wolf keeper, converted a log hut into a den which Mai accepted after digging some earth out for a couple of days. On 2nd May Mai was off her food and we thought the time was near. On 3rd May Clive, myself and Angela Barrow checked Mai in the evening about 9.30pm to find she was starting her contractions. Throughout the birthing Motomo was the other side of the fence near Mai barking and making a huge amount of noise to warn off other wolves or people. This set all the wolves off howling all night and my neighbours

subsequently commented on the unusual amount of howling that night!

Mai's first cub was very slow arriving: we saw its back legs coming out at about 10.00pm and it was eventually born about 10.30pm. It was a traumatic half an hour in which we thought that the cub was unlikely to survive. Mai's behaviour with this cub was extraordinary: when the cub was born Mai licked it and pawed it and then immediately set about digging in the earth and burying it.

We were shocked by Mai's reaction. We were not able to tell yet if it was dead and, as it was Mai's first birth, we were worried she might do this to all the subsequent cubs. We then decided to leave her on her own for a while, as we were concerned we might be upsetting her by our presence.

An anxious 45 minutes passed before we went down to see her again. To our horror on arriving back with her we saw a dead cub in front of her and our worst fears appeared to have been confirmed. However, we then heard a squeaking and realised she had given birth to a live cub and she had just dug up the first one again, presumably to check it wasn't still alive. We were so relieved that she had a live cub and so went to bed. At 5.30am the next morning when I went to see her she had three live cubs and the dead one still beside her. Her instinct that something was wrong with the first cub and so to immediately bury it was amazing. It astonished us all.

May 3rd – albeit 12 years ago – is by amazing coincidence the same date that Lunca, Latea and Alba, our European wolves, were born.

Mai allowed the people she knows and trusts to go within a metre of her and the cubs when entering to check they were all doing ok. Motomo continued to be very unsettled living without Mai and had retreated to living in the tree area. He would come close to Mai on occasion during the day. By day 10 Mai was spending quite a lot of time near the fence so we decided that this was the opportune time to put her back with Motomo and then hand-raise the cubs – crucially before their eyes fully opened. This is so they could become ambassadors for the Wolf Trust. The change in Motomo once Mai was back with her was amazing: he once again became confident to come down to the fence. On the Open Day delighted everyone by posing most of the day by the platform. In fact he was better than Torak, who as usual took himself off to the back of the top enclosures. We had



Tsa with the three new arrivals

installed a camera trap which recorded all the events in the den David Attenborough-style. It was a wonderful achievement.

It was a memorable experience and for that time after the birth of Mai's first cub and her subsequent behaviour in burying it, was undoubtedly the most agonising few hours I have spent watching our wolves.

Since then, Nuka, Tala and Tundra, thanks to the endless enthusiasm of the volunteers who have all taken shifts to cover the night feeds, have come on leaps and bounds and will soon be ready to live outside. My thanks go particularly to Paul Denton who has had the unenviable task of arranging the bottle-feeding rota for this period of six weeks. At the end of June our three Arctic wolves arrive for their quarantine and then at the beginning of 2012 the six cubs will live together. We have been taking lots of video footage of the cubs and will hope to make this together with their later development into a DVD for members to buy.

It has not all been happy news, however. We were devastated to lose Latea so suddenly on 27th May. The only compensation is that Duma and Lunca are now living together. They are old friends and used to live together in a large group of Dakota, Duma Alba Lunca and Latea. Unfortunately in 2001 after the fight in which Dakota's tail was bitten, they had to be separated. Duma will not get to live with the cubs which, considering their endless energy and roughness, she will be relieved about.

When the Arctics arrive we will have European, American and Arctic wolves in one facility. This will indeed be a first in the UK and we look forward to seeing you all either at the Open Days later in the year or on other occasions. We certainly have our hands full!

Tsa Palmer,
Director.

NO SMOKING

As well as Mai's cubs, the Trust has some new babies of the feathered variety on site!



Photo: Jason Siddall

John Denness: 26th April 1943 – 29th January 2011

We were very shocked to hear about the sudden passing of John Denness. He was one of the first volunteers Roger Palmer recruited to the Trust when it all began over 15 years ago. And it quickly became apparent the enormous passion John had for wolves and wildlife in general. He devoted a great deal of time and energy in helping to establish the Trust in its early formation.

At his funeral there was standing room only, which is testament to the high regard his family, friends and former colleagues had for him (John was retired, you know – a statement he jokingly and constantly shared with everyone he spoke to after he retired from work).

The Trust has planted three silver birch, two hornbeam and two maple trees in the holding areas of the wolf enclosures

in memory of John and the work he did. The trees will provide shelter for the wolves and a habitat for local small wildlife.

Our sincere condolences go to John's family.



John with Mosi and Mai by Denise Taylor



ORACLE[®] UK visits UKWCT

Over 60 Oracle UK volunteers literally cried 'wolf!' when they visited the UK Wolf Conservation Trust during Earth Week 2011.

Following a site briefing, volunteers, divided into ten project teams, quickly got to work transforming the site as inquisitive wolves looked on from their enclosures. Tasks undertaken included painting two new kennels and twenty-five picnic benches, re-roofing and repainting the tool shed, feed room floor, education block and shop, building two new wolf enclosures, step construction for the new wolf walk route, putting up the open day marquee, installing secondary fencing in the bottom enclosure holding area, and trimming the perimeter grass around the wolf enclosures.

After stopping briefly for a quick sandwich at lunch the team were soon back on the job seeking to complete all the assigned tasks in time to enjoy a walk with Duma at the end of the day.

This was truly a magnificent effort by all who took part and is very much appreciated by all of us here at the Trust. Thank you.

TV Presenter Gordon Buchanan visits Trust

Scottish wildlife film-maker, Gordon Buchanan, noted for his contributions to *Big Cat Diary*, *Springwatch* and *Natural World* visited the Trust in May to film the introduction for his new programme on wolves commissioned by National Geographic. The programme is due to be aired in 2012. We will announce further details nearer the date.



Trust News

New project supported

We are pleased to tell you about a new project the Trust has started supporting in Nepal, jointly run by Raju Acharya and Yadav Ghimirey from *Friends of Nature* in Kathmandu, Nepal.

The distribution of wolves in Nepal is not certain; there have been different direct observations and sightings in different areas. Currently it is widely recognised that Nepal has an unknown population of wolves (*Canis lupus*) with no baseline information on their status, behaviour, population estimates and range. There is also the possibility that the wolves found in Nepal could be a distinct species of Himalayan wolf (*Canis himalayensis*) rather than being a sub species of the

grey wolf. Even the possibility of both species existing in the country cannot be totally ruled out since not a single study has been dedicated to explore and assess the status or ecology of this rare canid species in the country. It could be concluded from the interaction with people from different parts of Nepal that the poisoning of carcasses as a part of retaliatory actions by villagers has led to a sudden decrease in their number. No concrete conservation initiatives can be efficiently executed as long as we do not have, at least, a crude data on their relative abundance and ecology. Moreover, the relation with humans is also an interesting aspect of the species that has to be documented to get an

idea regarding their current conservation status, threats to them and relevant conservation interventions.

The initial objectives of the study are to:

- Assess the status of grey wolf in the proposed study area
- Identify, document the prevalent threats to the wolves
- Document the ethno-wolf relation in the area

The funding the Trust provided in March 2011 will allow the initial collection of data to hopefully fill in some of the gaps in our knowledge of the wolf in Nepal.

ABWAK (Association of British and Irish Wild Animal Keepers)



ABWAK was started in 1974 and is a membership organisation for those interested in and involved in the keeping and conservation of wild animals. In March this year Clive Readings (UKWCT Wolf Keeper) and I attended the two-day seminar at Port Lympne Wildlife Park. The talks over the two days were varied and very interesting. These covered topics ranging from 'The Role of the Modern Zookeeper' which was a look at how far we have come in our practices and techniques since the first collections of exotic species were held many years

ago, to 'Behavioural management for the Modern Keeper' which was a thought-provoking presentation on enrichment and training.

After a successful first day of presentations and an opportunity to see the wonderful animals at Port Lympne, including a glimpse of the Iberian wolves, we were treated to a delicious three-course meal in the Mansion House. Day two started with a rather cold tour round the 'African Experience'. We arrived back at the park for 9.15am, boarded the safari

trucks and headed off for an exclusive view across the 100-acre paddock which contains over 200 species including their herd of giraffe, which ambled alongside the trucks and were an amazing sight! Back in the warm the talks continued with topics looking at training and behaviour, husbandry, conservation, nutrition and an introduction to ZIMS (a global interactive database to allow easier record-keeping on individual animals).

The speakers over the two days were knowledgeable and fascinating to listen to. Clive and I were certainly not short on topics to chat about on the drive back to Berkshire. I am very much looking forward to the 2012 symposium at Bristol Zoo.

Vicky Allison-Hughes

WANTED

Wooden shed (approx. 6' x 4') to store chairs next to our new education barn

Flat Screen TV (20"-22") to be wall-mounted for the current education room.

Coming soon to the Trust: *Arctic wolf pups*



It was with great delight I headed to Canada some weeks ago to get my first glimpse of the Arctic wolf cubs who will be coming over to become part of the UK Wolf Conservation Trust's growing family.

We will be importing three beautiful Arctic wolves (*Canis Lupus Hudsonicus*) in midsummer, just as soon as they are old enough to travel. The pups will then be quarantined for six months in our facility at the Wolf Trust. The pups have been hand-reared by Parc Safari in Canada and donated to us to enhance our education programme.

When Arctic wolf pups are born their coats are of a beige colouring which gradually turns white following their first two moults. Becoming pure white is a gradual process and can take up to two years to fully develop.

The pups were born on 8th March at Parc Safari in the middle of the worst snowstorm of the winter. Mum, Roxy, gave birth early in the morning and by the time the staff could shovel enough snow away to get to her, all four pups she had given birth to were very poorly. Sadly, one pup died and the other three had to be taken into intensive care. Roxy then gave birth to one more pup;

this pup has remained with her and is doing very well.

We have named each of the pups from the Labradoran Inuit Language:

Sikko (f) – meaning ice

Pukak (m) – meaning fine snow

Massak (m) – meaning soft snow

Spending 24 hours a day with six-week-old wolf pups is a wonderful experience, but extremely demanding! They are so very inquisitive and run around constantly for approximately two hours then fall fast asleep for another two hours then start all over again! The first three months of their lives is the best time to socialise wolf pups and many hours have been spent playing, walking, feeding and sleeping with them.

Even at the tender age of six weeks the wolf pack hierarchy is forming. In our case the Alpha pair are Sikko and Pukak, who regularly gang up on Massak and boss him around or tell him off when it suits.

Sikko is very much an alpha female and although incredibly loving is extremely vocal when she wants or doesn't want something. I think we have a little 'diva' in the making and having two brothers

probably only adds to her princess-like qualities!

Pukak is a strong character who certainly rules the roost and with Sikko's assistance can just about overcome any obstacle in his way. It didn't take him long to learn how to get round the protective gates that were placed in the house in an effort to contain the mayhem!

Massak is very, very laid back, except when there's a bone around! The other two have to work as a tag team to remove anything he can chew from him. He's also the joker of the pack and I enjoyed many hours laughing at some of his antics.

All three pups are extremely affectionate towards people and love to cuddle up to us when they're tired! Interestingly, all three pups made friends with a six-month-old cat who loved playing with them and joined them at feeding times.

We look forward to introducing these stunning animals to you in the very near future.

Linda Paul
Senior Handler

WolfNews

Update on the Trust Wolves

We are now coasting into the warm summer months, the stressful breeding season has come and gone and the wolves' hormones will soon be at their lowest ebb. Breeding season is always an interesting time to observe the wolves displaying natural behaviours, although it is sometimes a shock for the public – and our new volunteers – to see the normally calm wolves showing their teeth and growling ferociously at each other! This is all perfectly normal and is the way that wild wolves would behave during this time of competing to see who will be the animal to have breeding rights.



Torak (top) and Mosi, by Matt Hoskins

Torak and **Mosi** took full advantage of the time of year and Torak was happy to respond to Mosi's advances, but only on his terms. Mosi was the archetypal 'floozy' and would creep up to her mate,

squeaking madly and licking his face in a very obsequious manner, trying to get him to return her affections. However, Torak rebuffed her with growls and noisy snapping of the teeth until he knew that the time was right. He waited patiently until Mosi was in full season and then mated with her several times over a week or so. This provided an interesting talking point when we had visitors on site and people were delighted to see our wolves behaving in such a natural way. Torak was vasectomised when he was younger so there will be no progeny resulting from the numerous matings.

Torak and Mosi were temporarily retired from public duties during the height of the breeding season so that they could concentrate on what comes naturally. In a highly charged situation it is not fair to expect the wolves to behave politely to humans and it could also be dangerous. Now that this stressful time has finished, Torak and Mosi are back out walking with the public. Torak will not be doing any more meet-and-greets with the public because he has recently shown that he no longer enjoys such close contact with people he does not know. He will be happy to pose for photos, though.

Duma is in her 13th year and is our oldest wolf. This amazing animal is rightly regarded as the Queen of the Wolf Trust by her doting carers and receives all obeisance with regal dignity. After a few health scares last year, and the loss of her sister Dakota, Duma has bounced back and is lively and cheeky with a physical stamina that belies her age. Duma has always loved her role as ambassador and, during the past few months, has fulfilled not only her own duties but also those of the wolves who were temporarily off work due to the time of year. Duma relished this extra work and would run up to the gate of her enclosure when she saw her handlers appear on the yard holding collar and lead.

Duma has lived on her own since losing her sister but has adapted astonishingly well. The only behaviour that has been affected



Duma (above) and Lunca (below) by Jason Siddall

since she has been alone is the speed at which she eats. Wolves are set up to 'competition-feed' and of course Duma has had no competition for the last year.



She still enjoys her food immensely but, rather than gulping it down in about five seconds, she now takes an age to eat it!

We were shocked and sad to lose Latea so suddenly in late May and of course this meant that **Lunca** was now on her own. Lunca is a completely different character to Duma and would not have coped well, so it was decided to see if these two elder stateswomen of the Trust could live together as they had done as a pack about nine years ago. They were taken for walks together and showed no signs of antagonism at all. The next step was to try them in the same enclosure. This happened for increasing periods of time

over several days and all seemed well. There have been a couple of spats over food but this is to be expected, given that Lunca will eat anything in seconds and that Duma has not had to competition-feed for a year! At the time of writing they appear to have settled down well and have started to go on public walks together. A tribute to Latea is on page 13.

The partnership between **Mai** and her new mate, **Motomo**, has proved to be a great success.



Motomo by Panos Savvas

From the beginning, Mai was interested in this new arrival but it took a while before Motomo responded to her friendly advances. In the early days, Motomo was also rather wary of humans on site and would hide behind the mound in the enclosure when people approached. Gradually, his head could be seen peering round the mound, then he would appear and stand at a distance to see what was going on. Now he has grown in confidence enough to come down to the fence line and look at everyone. He is an extremely handsome wolf with strong markings and is much admired by visitors. Mai is the best wolf he could have been paired with; she is friendly, approachable and has no fear of humans. Having been given a very hard time by her sister Mosi last year Mai is much more confident since Motomo's arrival and it is wonderful to see her so happy and settled.

When Motomo arrived, he was only in his third year. Although he was interested in Mai during the breeding season, no one knew for sure whether they had actually mated or not. It was noticed in mid-April that Mai was putting on weight so the vet was called to perform a scan. As our wolves are socialised (with the exception of Motomo), on-site veterinary attention is

not stressful. Mai had handlers that she trusted and allowed the vet to do the scan with no problems. Sure enough, on a blistering hot April day we found out that Mai was in whelp. On 3rd May, the same birthday as the European wolves, Mai gave birth to four cubs. The first was stillborn which was sad, but not unusual in canids of any species. The other three cubs – two females and a male – were born shortly afterwards.

Mai was a very attentive mother and looked after the cubs well. After about six days, she started to leave the den for longer periods and could be seen interacting with Motomo through the fence or sunning herself on the grass. The cubs were removed at ten days old and are being lovingly hand-reared and cared for by our dedicated staff and volunteers. Mai went back to sniff at the den a couple of times but the bond with her mate is stronger than the bond with the cubs, and she was overjoyed to be reunited with Motomo.



Camera trap photo of Mai giving birth

Mai loves to greet her favourite handlers through the fence and will lean against it, asking them to scratch and fuss her and the handlers are only too happy to oblige. On one such occasion, Mai was having her usual people-time when Motomo appeared from the back of the enclosure and stood observing this ritual. He then walked purposefully down to the fence and gently nudged Mai away, taking her back to the rear of the enclosure. He obviously has a sense of ownership! We are grateful and delighted that these two beautiful animals have bonded so well.



Tala, Nuka and Tundra at 15 days by Vicky Allison-Hughes

THE CUBS

Nuka started life as the biggest cub and still maintains that stature. He is also growing in confidence by the day, enjoying short periods of play with his sisters and carers before making it plain that he wants his food. What happens after a good meal? Well, a good sleep of course. He took happily to the bottle and is gradually being weaned onto minced beef and chicken which he enjoys. He started to howl at ten days old; a rather squeaky affair but definitely a howl. Nuka was the first open his eyes and his ears were the first to prick up. He has very attractive markings of black, grey and brown and will probably take after his father in looks.

Tundra was the middling cub in size at birth and seems to be keeping to this regime. She has very similar markings to her brother and it is difficult to tell them apart, unless they are side by side when her smaller size becomes apparent. Tundra has recently started to become very adventurous, pulling towels off chairs and investigating the prickly ends of brooms which seem to fascinate her. Maybe she will take the subordinate role in this pack, testing everything to see if it is safe before her more dominant brother and sister are exposed to 'danger'.

Completely black with a white flash on her chest, **Tala** was the smallest cub at birth. She has rapidly made up for her small size by guzzling her milk and then taking to solids with alacrity. Tala is now only marginally smaller than her sister and is a mischievous, lively and inquisitive little wolf. It always seems to be Tala who is preventing her brother or sister from having a nap by chewing on their ears or legs until they wake up for a game. When she finally tires, Tala will just fall asleep where she is, which could be on top of Nuka or Tundra or, if you are lucky, in your arms.

Angela Barrow

Ice Warrior

Jim McNeill, explorer, film & TV safety adviser and guide, returns to Ellesmere Island.

IT MAY SOUND AN OBVIOUS THING TO SAY, but I consider life to be so short it is very rare for me to want to repeat experiences, but when the BBC Natural History Unit asked me if I was interested in helping them with a sequence filming arctic wolves on Ellesmere Island, in high arctic Canada, I jumped at the chance.

The previous year I had spent seven weeks finding and filming the life and times of a wolf pack in the Bay Fiord region, right in the middle of the island and had some magical "Disney" moments which I was lucky enough to write about in a diary for BBC Online.

It was here that I encountered "Lucy", a fairly independent female adult with all the charisma and cheek of my own border collie, Flash.

We instantly hit it off as she teased and played with me as if we had known each other forever. If I left a piece of rope lying around our encampment to dry, she would pick up the end of it and then look at me to see what my reaction was. If I ignored her and turned away she would drag the rope into my vision and watch and taunt me with it, waiting for me to react. So duly I would take chase and she would trail the rope just out of my reach, watching that I couldn't actually reach the end and more often than not leading me into the nearby river before dropping it. It was great fun and we became so close over time that I felt comforted talking to her and she seemed to spend longer and longer listen to me drone on! I was sorry to leave her when we had completed filming and returned to civilisation. (This was a Fergus Beeley film called "White Wolf, White Falcon", part of the BBC Natural World Series and well worth watching.)

So my wife was not surprised when I was off again, this time for a sequence in a major production called Frozen Planet (due to be shown this year).



The amazing thing about arctic wolves is that so little is really known about their activities in the wild and so it is not difficult to become a relative expert.

One wolf pack has been extensively studied by Dr David Mech and most deductions are based on this very good study of some ten years in length. But just like any single family they can be quite different to their neighbours and I wasn't surprised in the least when the wolves I've witnessed began to react uncharacteristically, according to the research.

On this occasion I was working with Assistant Producer and Director Jeff Wilson who was pretty determined to make his mark and this was his chance.

Our first problem was to find a wolf pack. The second was to locate their den and the third was to do all this in the two weeks we had allocated to do so before calling in the filming crew and all the associated equipment.

Luckily (or so we thought) the series, being a major production, had an appropriately large budget which meant access to a helicopter. This was employed to film spectacular aerial sequences with a special, highly stable camera, which was capable of beaming in really close from a long distance away and recording in glorious high definition. This was exciting. We were going to try and capture the daily happenings of a wolf pack as the alpha female brings her cubs out of the den for the very first time. This was ground-breaking television and I was so proud to be a part of it.

As it happened, the helicopter was of little use in finding the wolf pack because although we did locate signs of wolves being present, we didn't actually locate any. Having been on several mountain rescue teams I knew that searching for anything from the air was a very difficult task and the chances of scaring the wolves off was pretty high.

It felt great, though, being dropped into an area on my own to walk across a mountain ridge seeking evidence of denning activity. On one such occasion I noticed a tiny movement in my peripheral vision over to my left and, adrenaline pumping away, slowly and silently I went to ground, lying across the soft boggy and muddy hillocks which make up the arctic spring terrain as it dries out to an almost concrete hard surface. There it was again, movement. Within two hundred metres now... I dared not breathe and my heart was pounding. Seconds later an arctic fox came running up to within one metre of me with her head bobbing up and down as if to say: "Well then have you got any food?" "I've got cubs to feed, you know. "I can't hang around here if you haven't. "I've got to get on....." And just as quickly as she arrived, she had moved on to find something far more important than me.

In what seemed like no time at all we had used up ten of the fourteen days we had and we had not managed to find either our wolves or our den. The pressure was on and poor Jeff was really feeling it, with constant phone calls coming from and going back to various senior producers at BBC HQ in Bristol.

We very nearly pulled the plug and returned home but instead decided to have one last search. This time I suggested we landed in a valley in the heart of a range of mountains called the Sawtooth Mountains, primarily because it had all the characteristic rocky outcrops either side of a large sweeping valley which would support a den.

We packed the Twin Otter aircraft full of fuel, camping gear, all-terrain vehicles and everything to sustain us in such a remote location for two whole months and left knowing that this was our last chance; our last four days.

Since 2007 I've been "wolf finding" for various BBC film crews and have gained a bit of a reputation for doing so based upon



my record of success. Nice as this is, between you and me, the task of finding a wolf pack is pretty easy as long as you have a basic understanding of their behaviour and an inkling of what type of terrain they might den in.

My previous experience had led me to believe that although wolf territories are huge (in the region of 1000 square kilometres) if you set down and wait they will eventually find you and this is what we were hoping for.

Thanks to Troy, my favourite bush pilot, we landed smoothly in a vast desert-like valley and unloaded the aircraft and said our poignant goodbyes to Troy and his co-pilot.

Sure enough, within twenty minutes of the plane departing a large alpha male appeared behind me as I was positioning the camp site. We were absolutely delighted! And even more so when we saw another male appear behind the first.

Having satisfied themselves that we were no threat the wolves carried on down the valley in a purposeful fashion. We dropped everything and prepared to follow in hot pursuit, hoping that they would lead us to their den site.

We couldn't believe our luck when it transpired that their den was within eyesight of our camp, just over a kilometre away and perfectly positioned for us to observe.

Jeff immediately set to, keeping a constant vigil with the telescope and it was only two



hours later when we observed six cubs playing with each other just outside the cave which they had made their den.

The filming was on and we immediately mobilised the rest of the crew in the UK who took an agonising five days to reach us.

The rest, as the saying goes, is history, with superb sequences of wolf behaviour being filmed for the very first time by award-winning BBC cameraman, Mark Smith.

I shall not give the story away as I would rather you see the finished programme, but suffice to say that although I didn't befriend another Lucy, I was highly entertained by the hapless and hopeless antics of a wolf I called Alfred who turned out to be a useless but wholly loveable bozo of an uncle to the cubs who would regularly give him the complete run-around!

Postscript: just two weeks ago another producer called me from BBC NHU to ask about the feasibility of following a wolf pack for a whole year. It seems the story might continue...

All photos © Jim McNeill

Meet Nuka, Tundra and Tala...

...The Trust's newest residents



Nuka (left), Tundra (centre) and Tala (right) at 4 weeks by Danny Kirby Hunter



*Above: snuggled up with Mai at 10 days old by Vicky Allison-Hughes
Below: Nuka by Lara Palmer*



*Above: Nuka at 3 weeks by Vicky Allison-Hughes
Below: Tala by Danny Kirby Hunter*





Latea

3rd May 1999 –
27th May 2011

It is with a heavy heart that I have to inform you of the death of Latea, one of our European wolves. It came a somewhat of a shock to find that she had left us without warning; Latea had appeared fit and healthy in the days before her death, living happily with her sister Lunca.

I was incredibly lucky to be accepted by the European wolf pack at a fairly late stage. They were around three years old by the time I joined the UKWCT and as they were fully fledged adult wolves they were less than accepting when it came to new people being admitted to their pack. In fact, some handlers who had been around them from a young age were being kicked out of their gang on a regular basis. We used to joke that we were convinced they had a list on the inside of their kennel and they were ticking people off one by one!

Latea began life as the lower-ranking of the females and often used to get bested by her brother and sister, but don't feel sorry for her as she was always the trouble maker. Alba and Lunca would be basking in the afternoon sun and you could see the look on Latea's face change to one of mischief as she'd bound

towards them, trample on them and run off at top speed. She almost had a grin on her face, until of course, they caught up with her and all hell would break loose!

Despite being a trouble maker, Latea could be a very gentle, affectionate wolf with those she considered as part of her group and loved nothing more than relaxing after a walk, lazing in the sun having one of us slaves tickle her tummy. If you dared stop before she had finished with you, you'd get a paw thumped on your arm which was her not so gentle reminder to carry on. Over the last year she had enjoyed being back in work and meeting her adoring public; she frequently amused visitors to the Trust, whether she was hogging all the pumpkins at the kids Halloween wolf walks or demolishing an enrichment feeder (usually in the rough shape of a deer) during the adult wolf keeper days.

Latea, whilst we can take small comfort that you passed away peacefully in your sleep without suffering, your

mischievous unpredictability and zest for life will be sorely missed by all who knew you and had the pleasure of meeting you. I will be eternally grateful that you allowed me to be part of your gang for the last nine years and have many treasured memories from our time together.

Latea, we will never forget you. Rest in peace x.

By Alex Simmons (Senior Handler)





Life and behaviour of wolves:

wolves and climate change

Pete Haswell

It is well known that the earth is currently warming. Whether this is natural or accelerated by our actions is debatable. Regardless of the cause, global warming results in climatic change which in turn requires species to adapt to these new conditions.

Changes in precipitation, temperature and other weather patterns will change the conditions of specialised ecosystems altering features such as soil moisture levels, humidity, river flow and drainage, rising sea levels, etc. Species that cannot adapt may have to migrate to find more suitable conditions or may even become extinct. Particular stress will be placed upon those organisms that have become so specialised that they are incapable of adapting to change. Seasonal patterns of animal and insect activity will also need to adapt to those new patterns found in vegetation. Change in vegetation composition will determine the species that will remain or move from a particular habitat. Community structure is likely to shift and be upset, potentially becoming unstable. Change in climate may bring new diseases or invasive species to areas which have not experienced them before; this may be highly detrimental for an ecosystem unprepared for such threats.

Wolves are highly adaptable. This is evident from their vast

distribution across a range of habitats and climatic conditions throughout the northern hemisphere. Even so, they are likely to face many problems and adapt in different ways to climate change depending on the scenario. They are likely to shift their ranges and migrate with prey populations. Prey populations will migrate to areas containing suitable vegetation, habitat and climate conditions. Suitable habitat is in short supply for wild ungulates as it is, migrating to available habitat may be problematic with corridors between them blocked or containing risks such as busy roads. Movement into populated areas may cause conflicts with people. Prey populations may move into agricultural areas and be culled leaving little prey for wolves, which may also be culled if present near populated areas.

The decline in prey numbers or movement of prey out of an area may cause wolves to switch prey and target other abundant prey sources that move into the area. They may also prey on species previously less profitable than their preferred prey. An obvious worry is that these wolves switch to domestic livestock and the management issues this would bring. This problem recently occurred in Siberia due to a low abundance of wild prey; a combination of conditions, mainly anthropogenic, caused the decline in wild prey. Factors that caused this switch include habitat destruction and fragmentation as well as illegal game poaching of wild ungulates. The consequential management decisions were unfortunately not in favour of

wolves. Scenarios such as this could see temporary extinction of wolves from a region until conditions improve and the species can repopulate the area. Of course issues with genetic diversity, population connectivity and the availability of founder populations to repopulate an area where wolves have been lost all become crucial for wolf survival in the face of climate change.

Wolves of different regions are likely to experience many subtle and some more obvious changes due to climate change. Adaptions in behavioural patterns, dietary habits, physiological or phenotypic characteristics, social structure and behaviour amongst other factors are all possible. Differences between Grey Wolf (*Canis lupus*) subspecies give a good indication to the adaptability and range of conditions they can survive in. As a whole the grey wolf population and range distribution should remain relatively stable although wolf survival is of course greatly dependent upon the role played by man. The management of wolves in different regions will have to become flexible and adapt to situations as they evolve.

Apex predators like wolves exert considerable influence on the structure and function of the ecosystems they inhabit. Climate based alterations in wolf activity; range shifts and behaviour are likely to impact upon other species and the ecosystems they inhabit. Prey switching is likely to alter population dynamics within the food chain, taking pressure off one area and placing it upon

another, this could lead to changes in vegetation or prey species composition and abundance. Changes in wolf territory size and prey utilisation could have impacts for other predators as well as scavengers. It is well published that through predation wolves elicit many trophic cascades which are beneficial to a range of species including us; they also help to regulate many ecosystem processes, a function which may be lost or altered due to climate change.

Recent investigation has shown that wolves act as buffers to the impact of climate change, particularly in ecosystems with winter snow cover. Wolves help provide stability giving ecosystems more time to adapt to changes in climate. Studies have shown that the presence of wolves can help mitigate changes in winter snow cover that may otherwise result in detrimental changes for vegetation and scavenger species in their absence.

Fluctuations in the North Atlantic Oscillation (NAO) lead to fluctuations in winter snowfall in Isle Royale. The NAO is influenced by climatic factors and is likely to be altered with climate change. In over forty years of study it was found that during periods of increased winter snow, wolves hunted in larger packs and consequently the number of moose killed per day tripled in comparison to less snowy years when they hunted in smaller packs. Following increased predation by wolves, moose abundance declined allowing a release from heavy browsing consequently increasing growth of fir and other vegetation. Wolf control of grazers may be pivotal for the prevention of overbrowsing of vegetation especially where climate change impacts winter snowfall. If vegetation is more accessible and ungulate mortality is decreased with



Russian wolf by Vladimir Bologov

a lack of snowy winters, consequences could be disastrous and ecosystem stability compromised without the presence of wolves. They may also help to mitigate overgrazing by invasive species likely to be a problem with new climatic conditions.

In Yellowstone National Park winter conditions and reintroduced grey wolves together determine the availability of winter carrion on which numerous scavenger species depend for survival and reproductive success. During fifty five years of weather analysis winters have been found to be getting shorter due to decreased snowfall and an increased number of days with the temperature above freezing. Deep snow leads to an increase in metabolic activity and reduced access to forage causing ungulates to weaken and die. In the absence of wolves, early snow thaw and shorter winters lead to a substantial decrease in late winter ungulate mortality

and thus carrion availability causing food bottlenecks for scavengers. By narrowing the window of time over which carrion is available, thereby creating a temporary resource pulse, climate change is likely to favour

scavengers that can quickly track food sources over great distances such as ravens and birds of prey rather than species such as foxes, coyotes and bears. Wolves mitigate the effects of shorter and milder winters by providing carrion throughout the winter period through predation; this allows scavengers more time to adapt to climatic and environmental change providing an easier transition that is more likely to be successful.

It becomes clear that climate change is to have many implications to wolf activity and behaviour, the ecosystems they inhabit and species they interact with. Wolves can help provide stability to their ecosystems and give species a chance to adapt to the new situations climate change will bring. They will face numerous challenges because of climate change; many of these will be especially exacerbated by increased conflicts and the impacts of man upon the species. Wolves are highly adaptable and capable of surviving in a range of environmental conditions; however, human factors are likely to play a key role in wolf survival and adaptation to climate change, greatly impacting ecosystems which rely on top carnivores to maintain balance.

Pete Haswell, BSc Hons Environmental Science (Biodiversity and Conservation).

Pete is currently assisting with educational work at the Trust, is collaborating with Josip Kusak on a project the UKWCT supports and hopes to soon begin a doctorate of biology.

Left: Mexican wolves by Tony Norton



The scientific classification of wolves: *Canis lupus* *soupus*

L. David Mech

Gray Wolf, timber wolf, red wolf, eastern wolf, brush wolf, arctic wolf, Mexican wolf, maned wolf, Ethiopian wolf, etc., etc. How many kinds of wolves are there? And what are the differences? This is a really good question, and the answer is getting more complicated all the time.



Mexican grey wolf © Gary Kramer

LET US START by going back a few years to the way science looked at wolves more traditionally – before the days of the new field of molecular genetics. Molecular genetics examines the actual DNA of animals and tries to classify them according to genetic similarities.

Before the advent of molecular genetics, scientists classified wolves (and other animals) based on their physical traits (morphology). With wolves, it was primarily coat colour and skull measurements. These characteristics of course, basically reflect the animal's genetics, but only indirectly.

One major problem with this older approach is that there is a certain amount of judgment in assessing physical

characteristics. Thus some classification scientists (taxonomists) were "splitters" and others "lumpers". Splitters tend to separate groups more finely, whereas lumpers tended to lump smaller groups into larger clusters. However, there was no objective basis for determining which approach might be correct or more informative.

Scientists who classified wolves in North America were splitters. Old World scientists had pretty well recognized that there were eight geographically-distinct races, or subspecies, of wolves in Europe and Asia. However, North American scientists split New World wolves into 24 subspecies. This is how there came to be so many common names for North American wolves, for example, the eastern timber wolf, the arctic wolf, the Mexican wolf, the great plains wolf, etc. Scientifically, the subspecies or races have three parts to their name (Example: *Canis lupus baileyi*, the Mexican wolf), but all the subspecies are of the same basic gray wolf species, *C. lupus*.

However, wolves are great travellers. Ear-tagged or radio-tagged wolves have dispersed from the natal packs in the range of one subspecies across the ranges of two or three other races. The current record is a wolf in Finland that travelled a straight-line distance of 655 miles, or 1,092 kilometres. This potential to travel calls into question

the existence of so many subspecies with small ranges.

Thus it made good biological sense when in 1995 the eminent canid taxonomist, Ron Nowak, published a reclassification of North American wolves. He lumped the 24 originally recognised subspecies of North American wolves into five. In reality, whether one recognises 24, five or three

North American races of wolves, a wolf is a wolf is a wolf. Science has not

demonstrated any basic behavioural differences among any of these races, nor has any scientist even proposed that such behavioural differences exist among wolf races.

So far I have only been discussing the gray wolf, *Canis lupus*, which is the most widespread wolf worldwide. The other type of North American wolf that has traditionally been recognised is the red wolf, *Canis rufus*, of the south-eastern United States. Scientists still disagree about the true identity of the red wolf.

Some think the red wolf is a cross between the gray wolf and a coyote (*Canis latrans* – also called the "brush wolf" in some places). Others have proposed that the red wolf is just another race of gray wolf, while still others believe the red wolf is a valid entity of its own.

From a worldwide perspective, we must also consider both the maned wolf and Ethiopian wolf (left). The maned wolf (*Chrysocyon brachyurus*) of South America is not really a

Wolves are great travellers



Ethiopian wolf © Martin Harvey

wolf; it is still a member of the Canidae, or dog family, but it is not part of the wolf branch of that family, despite its common name. The Ethiopian wolf (*Canis simensis*), on the other hand, may actually be a wolf. Traditionally scientists thought the animal was a jackal (similar to a coyote), but recent genetic study seems to indicate it is a wolf. Some scientists, however, still think it is a type of jackal.

So much for the less complex aspects of wolf taxonomy. The complications have arisen because of the relatively new field of molecular genetics. Molecular-genetic studies are a powerful and valuable tool to add incisive information about the relatedness of one group of wolves to others. Mere appearances can be deceiving as the similarities between fish and whales attest. Molecular-genetics studies, however, examine the actual DNA of animals and thus potentially reveal their true genetic relatedness. These genetic studies use chemicals to amplify the DNA found in blood, hair, skin and even intestinal cells that slough off in faeces. A special, high-tech machine then presents a sort of photo of parts of DNA that can be examined.

Problems with the molecular-genetics approach arise,

however, from several sources. First the field is relatively new and thus still being tested by the usual scientific processes like replication, competing interpretation and the continuing addition of new information. In addition, the issue of subjectivity or personal interpretation of the data is still a problem. Relatedness itself or other multiple individuals arising from the same egg and sperm, every individual is genetically unique.

Every wolf pack is genetically distinct on a larger scale, and every wolf population is distinct on a still larger scale, etc. Thus where does one draw a line to group genetically similar entities as special enough to call them different?

Furthermore, how much weight should be given to results of various genetic tests relative to physical traits such as skull measurements that have a genetic basis but whose genetics have not been examined? For example, with one genetic test, some 38 percent of 88 Minnesota wolves tested have a kind of DNA the same as, or similar to, that of coyotes. This particular type of DNA has nothing to do with any physical or behavioural trait. Wolves with this coyote-like DNA mate with those having wolf DNA and form

packs like all the other wolves in the population. They look and act like all the other wolves. Are the wolves with the two types of DNA the same species? What if other genetic tests show they differ, but the animals show no physical or behavioural differences and can freely interbreed? What if the two types also inhabit different but overlapping areas? The last is precisely the case with the proposed new species of wolf called the eastern wolf (*Canis lycaon*). This wolf lives from far south-eastern Canada west to southwest Ontario, northern Minnesota and Manitoba and is currently referred to as the "eastern wolf." In northern Minnesota and adjacent Ontario, those wolves live closely and mate with wolves whose DNA (on this particular test) is the same as those in Alaska and northwest Canada. However, the eastern wolf has been proposed as a separate species. Not only that, but also some of the genetic tests indicate that the eastern wolf evolved in North America, along with the coyote, whereas the gray wolf evolved in Asia. Furthermore, the eastern wolf genetics examined were identical to those of the red wolf.

Every wolf pack is genetically distinct

So is the eastern wolf the same as the red wolf? If so, does the red wolf

cross with the gray wolf in Minnesota? That's what this reasoning and those tests imply. There is a hitch, however. The hitch is that the red wolf does not look like the Minnesota wolves, and skulls of red wolves can be distinguished from those of eastern wolves and of Minnesota wolves.

If all this seems confusing, that's because it is. And adding to this confusion is the fact that both the red wolf and the eastern wolf can and do hybridize with coyotes, but there's no record of the gray wolf of western Canada and Alaska

interbreeding with coyotes. (The experiment has never been tried in captivity.) The much larger size of the eastern coyote compared to all other coyotes is a reflexion of these interactions. Also the fact that the eastern wolf and red wolf can hybridize with coyotes may be further evidence the three evolved together in North America or at least are closely related.

Recently geneticists in India discovered that three genetically distinct populations of wolves lived adjacent to each other with no physical barriers and no apparent



Red wolf © Greg Koch, USFWS

interbreeding. The geneticists proposed that two of these types be considered new species. However, the scientists presented no data or claim that these animals differed physically or behaviourally. Before the scientific community accepts new species designations, it usually requires additional research and information.

What does all this mean in terms of understanding basic wolf biology and behaviour? Actually not much. The aphorism "a wolf is a wolf is a wolf" is highly appropriate in this regard to anyone except the taxonomist.

Regardless of what they are called or what differences the current genetic testing shows, wolves throughout the world are pretty much the same in basic appearance and behaviour. The strong implication here is that when it comes to the great majority of the wolf genome that codes for basic wolf appearance and behaviour – the DNA that has not been tested – gray wolves are

essentially all the same. As to the races or subspecies of gray wolves, or

the proposed new species, time and much more study will tell. Meanwhile, the classification of wolves to most members of the public will remain a mystery and an enigma probably best embodied in the not-so-scientific name, *Canis lupus soupus*.

L. David Mech is a senior research scientist for the U.S. Geological Survey and founder and vice chair of the International Wolf Centre. He has studied wolves for 50 years and published several books and many articles on them. He is also a member of the International Wolf Advisory Committee.

Wolves throughout the world are pretty much the same

Balkani Wildlife Society:

Wolf Study and Conservation Project

Vlahi is the village which became emblematic for large carnivore conservation in Bulgaria. It was near Vlahi that the first wolf was radio-collared in Bulgaria and this provided essential data about the life of wolves. Here in the village a unique education centre about large carnivores was built. This is the home of our ambassador wolves and bear, which play the role of a bridge between humans and the large carnivore wild world.

I get up, drink a quick coffee and walk to the wolf enclosure to meet our wolves Vucho and Bayto. While walking I am thinking: "... So much to do ... What to start with today..." Wolf study and conservation is a very complex and complicated issue. Everyone who has touched this topic knows this very well. And if you want to work in wolf conservation you have to comprise many different tasks and activities:

- Studies (in a country where almost no studies are done for this species)
- Public education (in a country where "Little Red Riding Hood" is almost the only "education tool" about the wolf);
- Mitigation of conflict between local people and wolves
- Lobbying to improve species legal status (in a country where it is considered as a pest), etc.

How to cope with all that? I think the only answer is: with a great deal of stubbornness!

OUR MAIN PRIORITIES

In order to enable the important wolf studies and conservation issues to progress we have certain priorities that correspond to the unique situation and needs in our country.

The main priorities of our team have always been focused on: gathering more quality and up-to-date scientific information about the wolf in this country; working to improve the legal status of this species in Bulgaria by initiating the development of a Wolf Management Plan; helping to improve the conditions for co-existence between humans and large carnivores by implementing adequate activities for minimizing of conflicts (preventative measures against wolf predation on livestock); and providing information and education to the public about the wolf and the other large carnivores in this country (brown bear, lynx and golden jackal), through the Large Carnivore Education Centre we built up in the Pirin Mountains.

The field work

The field analysis and collection of data we have been doing since the mid-1990s are directed to data collection about wolf biology and ecology, species status and population trends in Bulgaria.



Brown bear caught on night-vision camera

We have been collecting our field data mainly from two areas, although some of our data comes from all over the country. For instance, we try to collect tissue samples from the wolves killed by hunters from many different parts of the country.

Kraishte is the area in which we started our work in 1997. It is located in mid-west Bulgaria, reaching the border line with Serbia. Kraishte is a low mountainous area, consisting of several small mountains, with many villages spread in the valleys between the mountains, or on the mountain slopes. Most of the villages are small, with mainly old people living there.

Elena Tsingarska

The Pirin Mountains have the second highest mountain in Bulgaria (Vihren, 2914 m). It is located in south-west Bulgaria, south of Rila Mountains. Pirin is a National Park, declared by UNESCO as a World Natural Heritage Site. It is very attractive to tourists; therefore, infrastructure for mass tourism has been developed in some parts of the mountain. However, West Pirin is still quite "wild". It is one of the best-preserved parts of this mountain. It is still the least visited by tourists, which is good for the wildlife and for our field work. This fact also gives opportunities for development of the area in a sustainable way, building local economy focused on eco-tourism and organic production.

Field analysis on the wolf in Pirin Mountains.

During the last few years, besides all the field methods we use, we focused on trapping and radio-collaring of wolves, as this is one of the most advanced methods for wildlife research. We started using other field methods too. At the end of 2009 the team was able to purchase wildlife camera-traps. Since then we have been working quite intensively with them as well.

Until now our team has equipped three wolves with radio-collars, all in Pirin Mountains. By tracking those wolves we collected very interesting information about home ranges of their packs, locations of den sites, wolf seasonal and circadian activity, migrations of young individuals, and much more.

In January 2010, we started work with the camera-traps. The goal of this work was to enrich and complete the field data we have been collecting about wolves in the study areas. We were choosing trails used by wolves and setting the cameras there.

Until the end of 2010 our team collected more than 120 wolf tissue samples for DNA analysis. The purpose is to analyze the genetic purity of wolves in Bulgaria, as well as some other genetic aspects. The samples were sent to Dr. Malgorzata Pilot from the Polish Academy of Sciences. Their team is making these analyses for us for free and we are very grateful to them for

this. These analyses are very important for our work and for the future decisions taken concerning the wolf management and conservation in the country, because they concern the species genetic purity. Our intention is to continue intensive studies on this.

IMPROVEMENT OF THE WOLF'S LEGAL STATUS

In 2008 our team initiated the development of a Wolf Management Plan for Bulgaria by involving all interested groups in the process. We have already had eight workshops on which the management plan has been developed. The working group includes representatives from official institutions responsible for management and conservation of the species, scientists, conservationists, livestock breeders, etc.

My hope, as a coordinator of the process, was that we would complete the draft of the plan for those eight workshops. However, the most controversial issue raised long discussion, which was still not resolved. This is the issue about the wolf protection season. All the groups involved have to achieve agreement on this topic. There is agreement that a protection period is necessary for ethical and biological reasons. The question which still needs to be resolved is where in the country this protection will be applied and in which period exactly. After achieving consensus on that, we can make the final step of shaping the Plan.

Bounty system

There is another important issue we have been discussing at our workshops. In Bulgaria, a bounty system to hunters for killed wolves has existed for many years. During the discussions we reached consensus that this practice should be suspended for a priority species (according to the Habitat Directive). The group decided that it would be good to continue supporting hunters to some extent but only if they deliver the body of a killed wolf for scientific analysis. It was important to maintain the mechanism for delivery of wolf bodies, in order to be able to collect the valuable scientific information.

However, in May 2010 the Executive Forestry Agency (which was the responsible state institution for securing and allocating the funds for the bounties), stopped paying it with the excuse that there is no money for that in the budget. Thus things were changed before the actual operation of the management plan. The problem in this case is that no money

will be paid for killed wolves at all and all the information (DNA samples, measurements, stomach analysis, etc. etc.) which can be taken from dead wolves is lost.

We will need to find ways to solve this situation, because this is a big loss for further wolf studies and conservation in this country.

PUBLIC EDUCATION ABOUT LARGE CARNIVORES

The Large Carnivore Education Centre Our team made good progress with the LC centre too. Until mid-2010, we managed to complete part of it. The first level exhibition hall has been built to a more complete stage. We still need to finish the exhibition, but now there is more information and education materials for the visitors.

We completed the café and the souvenir shop and they are up and running now. Media are interested in the centre and we get articles or even TV productions about it. This helps to increase our popularity.

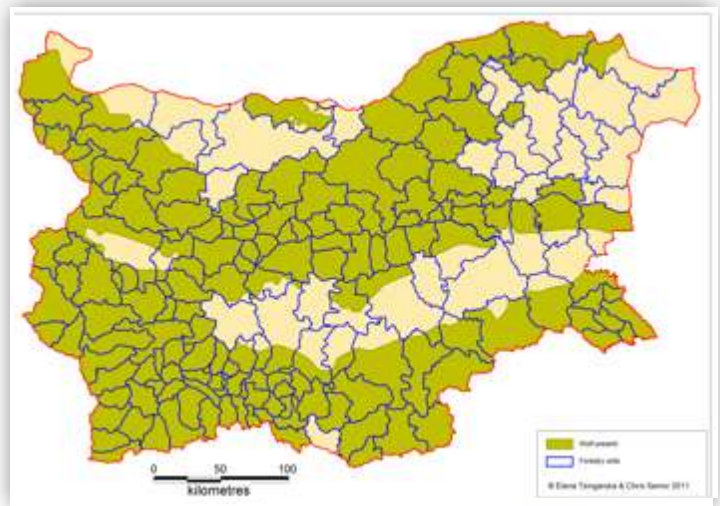
The Bulgarian National TV produced a ten-minute documentary about the centre, which was broadcast in August. As a result, the centre became even more popular and we got more visitors for the rest of the summer and autumn.

The German h1-TV is also preparing a documentary about the LC centre, which will be thirty minutes long.

Visitors to the centre

This year school groups and individual visitors were more than in previous years. New schools, mainly from West Bulgarian towns, visited Vlahi and the LC Centre; we organized full day education programmes for them.

At the moment we are preparing one and two day education programmes for schools and for other visitors with the purpose to include the LC centre in the list of destinations offered by some travel agencies for alternative tourism (for



Wolf distribution in Bulgaria (data from 2011)

Data collected from forestry units and analysed by the author
Computer work to produce this map was done by Chris Senior

instance the above two agencies, which were represented at the conference).

LC Centre Website

Our team was planning for a long time to make a website of the LC centre. However, due to lack of funds and time, we had to postpone it. In 2010, thanks to our friend Chris Senior from England, we got the website done free of charge: www.visitcarnivorebg.org. Now it is up to us to fill the space in the website with useful and interesting information.

ACKNOWLEDGEMENTS

Our work would have been impossible without the support of our partners and friends: EURONATURE, the UK Wolf Conservation Trust, DBU, the Anglian Wolf Society, Frankfurt Zoological Society, Bernd Thies Foundation, ALERTIS, Education4Conservation Society and ENEA (Germany). All the above organisations trusted us and provided us with the financial means and partner support to realise the aims of the wolf conservation in Bulgaria.

We would like to express our special thanks to our partners!

Elena Tsingarska

Elena Tsingarska, MSc, is a biology graduate working for the last 15 years mainly with large carnivores. Elena leads a Wolf Study and Conservation Program in Bulgaria she began in 1995; conducts field studies on wolves; has initiated and is building up a Large Carnivore Education Centre; and has initiated and is coordinating the process of developing a Wolf Management Plan for Bulgaria.

The Wolves of Transylvania

Alan E. Sparks



© B&C Promberger. A captive Eurasian wolf near Zarnesti, Romania

Like elsewhere, wolves in Romania help maintain the diverse composition and dynamics of the ecosystem. But also like elsewhere the long-term prospects for large predators depend on human values.

SITTING ON RIGID BENCHES in the stark, cold classroom, bundled in winter coats and hats, the small group of sixth graders listens attentively as Simona Buretea describes ways to publicise the presentation they will give to the village next week. The meagre heat from a wood stove is lost in the immensity of the large, whitewashed classroom. Hanging crookedly on the wall is a tattered map of the world, depicting nations that haven't existed for half a century.

Through the tall windows, which rattle and sing as gusts of wind seek entry through the loose fittings and cracked panes, can be seen the spectacular panoramic view that graces this small Transylvanian mountain village of Pestera. Farmhouses are scattered on rolling hillsides or perched precariously along the spines of ridges, seeming to hang in the thin, invisible air that blows cold from the snow-capped peaks beyond. As the students walk to school, which is an hour-and-a-half journey for some, their hearts quicken from more than just the exertion and the beauty of the scenery... for they hear stories.

It is a thawing spring day in 2003. Simona is the public awareness officer for the Carpathian Large Carnivore Project (CLCP), a non-governmental organisation that conducted research in Romania on the behaviour and ecology of wolves, bears and lynx from 1993 until 2003 to help conserve the unique natural heritage of the region. She has commissioned the students to investigate stories going

around the village about wolf attacks on people. No computer or Internet is available to aid this task – the children must query their relatives and friends, discovering who told whom what, trying to trace the stories back to the sources.

The 27,000 square miles of forest carpeting the Carpathian Mountains of Romania, which cradle the Transylvania plateau like a giant arm, contain the most significant populations of large carnivores in all of Europe west of Russia. Around 2,500 wolves live in Romania (over 15 percent of Europe's wolf population, excluding Russia), and about 5,000 European brown bears and 1,800 Eurasian lynx live there as well, even though, with 22 million people residing in a little more than the same area, Romania is about four times more densely populated than Minnesota.

It is commonly believed in Romania that wolves are dangerous to humans. The fear is rooted in wolf-attack stories that circulate until they become unverifiable folklore. An investigation of 41 such stories in the last half century confirmed that eight were based on factual events, but in every case the wolf was either rabid or injured, or trapped or cornered and defending itself from attack. There were no serious injuries to humans.

At their presentation the students of Pestera report their results to a rather boisterous and sceptical audience: none of the wolf-attack stories could be verified.

Historically, however, there are significantly more official reports of wolf attacks in Eurasia than in North America, possibly due to millennia of wolves being habituated to the proximity of humans – including the scavenging of human corpses left during frequent wars. But some researchers believe most cases involved rabid or captive wolves, or wolves defending themselves.

The wolves of Romania are "Eurasian wolves," a subspecies of grey wolf, *Canis lupus lupus*, which prior to the 20th century ranged over most of the vast supercontinent – from Western Europe and Scandinavia eastward through Russia, Central Asia, southern Siberia, Mongolia, the northern Himalayas, and China – but now reduced in extent due to human persecution and loss of habitat, especially in the west. The Eurasian wolf is believed to descend from canids that migrated from the North American continent across the Bering Strait when it was land or ice, possibly in multiple waves beginning at least two million years ago. After evolving into wolves, some migrated back to North America, possibly also in multiple waves.

THE WOLF'S ANCESTRY

The modern grey wolf subspecies of northern and central North America probably descend from a relatively recent wave, as they and Eurasian wolves are more closely related to each other than to smaller wolves inhabiting the southern fringes of wolf range on each continent. As in North America, the average size of wolves in Eurasia varies geographically, generally increasing toward the north. The Romanian wolf is of intermediate size, most adults weighing between 75 to 130 lbs. Average pack size (around five) and territory sizes (between 80 and 300 sq km) tend to be smaller than typical of most wolf populations in north-western North America.

After World War II nearly 5,000 wolves lived in Romania, ranging over most of the country. Livestock depredation was excessive, so the Communist government sought to reduce predators via hunting, trapping, and the use of poisons and bounties. By 1967 the wolf population had fallen to about 1,550 although, like coyotes in America, jackals began to invade lowland areas where wolves had been eradicated. Then the new dictator, Nicolae Ceausescu, an avid bear hunter, instituted rigorous measures aimed at promoting his

quarry, including banning poisons and firearms and protecting habitat.

Wolves and their wild prey benefited, and their numbers began to rebound. When the Communist regime fell in 1989 the protections ceased, and the large predators soon faced the same pressures that had decimated their numbers in most of the rest of Europe. Conforming to European biodiversity and conservation goals, Romania restored protection to wolves in 1996, although limited hunting is allowed, and enforcement is problematic.

Today the carnivores of Romania are relatively tolerated despite Romania's being a developing country (average per capita net earnings about \$3,300 per year in 2008; lower in rural areas) with an economy significantly dependent on livestock. Agriculture accounts for about 12 percent of the economy, employs about 30 percent of the labour force and in the Carpathians still sets the rhythm for an ancient way of life. Rolling slowly along the country roads are horse-drawn carts carrying towering loads of hay or bundles of sticks for firewood, or groups of peasants to work the fields. Cows, horses, goats and sheep are still herded through the main streets of villages and towns, frustrating the drivers of cars rushing to meet their appointments in the hectic pace of the "new economy," which is just beginning to challenge the ancient rhythms.

But whether marching to old rhythms or new, it is the attitudes formed over centuries of coexistence and conflict with livestock that still dominate the feelings about wolves in Romania. Wolves and bears take about 1.2 percent of the five million sheep that graze the mountain pastures during late spring and summer. This loss is a significant burden to people so dependent on livestock (compensation is not provided). Antipathy towards wolves results, but a campaign to eradicate every last wolf never occurred in Romania. Wolves that attack livestock may be legally killed if evidence is provided, and some are illegally shot, snared or poisoned. However, the primary defence against predators is the use of large, aggressive shepherd dogs. Portable electric fences have also been shown to be very effective, although they are beyond the means of most shepherds.

While wolves will prey on vulnerable livestock, and occasionally on dogs and small animals such as hares and rodents, the primary diet of most wolves most of the time in Romania consists of the three


wild ungulate species: roe deer (*Capreolus capreolus*), red deer (*Cervus elaphus*) and wild boar (*Sus scrofa*). There is no evidence suggesting wolves in Romania are limiting wild ungulates at depressed levels (although recent heavy poaching may be); nevertheless wolves can be perceived as competing with human hunting (a source of much-needed foreign revenue).

MANAGING WOLVES

Romania is divided into over 2,200 game areas managed to maintain game populations at levels determined according to environmental and social conditions. Hunting quotas are set per area, and when predation of wild ungulates or livestock is considered too high, wolves are also targeted. Yet managers do allow significant numbers of wolves in the areas, consistent with national conservation goals, and many hunters in Romania accept this, both because they value predators as game and because they believe predation improves the health and trophy quality of other game species.

Like elsewhere, wolves in Romania help maintain the diverse composition and dynamics of the ecosystem. But also like elsewhere the long-term prospects for large predators depend on human values. Viable wolf range in Romania is essentially saturated. Around 30 percent of wolf mortality is caused by intra-specific strife, about 300 wolves a year are legally shot (the total hunting/lethal-control quota for 2009–10 was 466), an unknown number poached, and there have been proposals to allow landowners to kill wolves regardless of whether they are actively depredating on domestic animals. Nevertheless, while there has been a modest decline recently (probably due to increases in livestock and poaching of wild ungulates), the wolf population has been relatively stable over the past dozen years, and it is the destruction of suitable habitat that is the greatest threat now facing wolves in Romania.

For such a densely populated country, the amount of undeveloped land is remarkable. People primarily dwell in cities, towns and villages, and suburban sprawl is rare. The forests, however, are permeated by access roads for logging, hunting and livestock, and many wolves live close to humans. In the late 1990s a radio-collared wolf ranging the forests adjacent to the large city of Brasov was discovered routinely entering the city at night with her pack to raid a trash dump



© Alan E. Sparks. Clouds enshroud Carpathian Mountain peaks near the village of Poienile de Sub Munte in the Maramures region of northern Romania.

The 27,000 square miles of forest carpeting the Carpathian Mountains of Romania, which cradle the Transylvania plateau like a giant arm, contain the most significant populations of large carnivores in all of Europe west of Russia.

for food; most people never aware of their presence. Since opening to the West, the natural beauty of the Romanian Carpathians is attracting new residents and tourists, leading to increased development of infrastructure, roads and summer homes.

In southeast Transylvania lies the ex-factory town of Zarnesti, which is at the centre of recent efforts to realise economic benefits from the presence of wolves and other wildlife. To tap the lucrative eco-tourism market, a tour-guide training program and businesses such as guesthouses, horseback riding and mountain-bike rentals have been established. While a small beginning, the local revenue generated by tourists attracted to the region's natural heritage – and especially the elusive large carnivores – already exceeds the costs of depredation and livestock protection. Consequently, local attitudes toward wolves have turned more positive. However, as long as people bearing the costs aren't always the ones realising benefits, controversy will remain about the merits of this equation.

The case of the real Transylvanian wolves, as opposed to those so horrifically depicted in mythic images, demonstrates an ancient, yet evolving, coexistence between people and wolves even under difficult economic circumstances rife with potential conflict. While the presence of wolves in Romania presents challenges, economic benefits are being realised and conflicts resolved through increased understanding of wolf behaviour and awareness of the needs of the people who share the remarkable landscape.

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Alan E. Sparks has lived and travelled extensively in Central and Eastern Europe, writing, teaching English, and working on wildlife research and ecotourism projects; he is the author of *Dreaming of Wolves: Adventures in the Carpathian Mountains of Transylvania*.

wolves of the world

news from
around the
world



nibbles

■ Trapping ban review

The state Game Commission is reviewing a temporary ban on trapping in parts of southwestern New Mexico where Mexican grey wolves have been reintroduced. The trapping ban on public lands was ordered in 2010 by then Gov. Bill Richardson while researchers study what risk traps and snares pose to wolves. The commission also is to hear an update on rules governing the allocation of antelope-hunting permits to private landowners in New Mexico. <http://tiny.cc/8n10j>

■ Citizens' group asks Fish and Game to hold off on wolf removal program

A citizens' volunteer group in Anchorage wants the state Department of Fish and Game to hold off on culling wolves that roam a popular state park. Gary Gustafson, Chair of the Advisory board, says that the public has had little or no notice of a draft plan to eliminate all wolves in the area. Gustafson says that the Ship Creek wolf pack is a separate pack from one that roams near Joint Base Elmendorf, Richardson, that has recently been blamed for attacks on dogs and threats to humans. Burch said officials will continue to monitor the situation, and that researchers will study tissue and bone samples from the wolves to determine their dietary habits. <http://tiny.cc/lwjzx>

Controversial Swedish wolf hunt ends – one escapes

Sweden's controversial wolf hunt, which has sparked widespread criticism from environmentalists and legal action from the European Commission, ended with hunters failing to cull one of the 20 animals in the quota. "The hunt is now over in all regions," Anneli Nivren of the Swedish Environmental Protection Agency told AFP, adding one wolf had escaped the hunters. This year's hunt started on January 15th and ended February 15th, during which time hunters were permitted to shoot 20 wolves across six regions.

But by an hour after sundown when the hunting season ended, only 19 animals had been culled. "It's too bad. We would have have gladly taken it," the head of the hunters' association in the central Swedish region of Vaestmanland told the TT news agency late Tuesday. Sweden argues the hunt, which was reopened last year after a 46-year hiatus, allows it to strengthen the gene pool of its largely inbred wolf population, insisting it will import wolves from Finland and Russia to replace the killed animals.

The hunt also enjoys support in rural Sweden, where the small wolf

stock has grown over the past three decades and sheep and reindeer have increasingly come under attack. The Swedish parliament decided in 2009 to keep wolf numbers at 210 animals, spread out in 20 packs, with 20 new pups per year.

In January, the European Commission launched legal action against Sweden for allowing the hunt of a protected species. It decided to open a formal infringement procedure, which could lead to a case before the European Court of Justice, which can impose hefty fines on EU states that violate the bloc's rules. According to the Commission, some 6,700 hunters took part in this year's hunt. The hunt is also controversial in Sweden. Earlier this month, protestors marched through central Stockholm carrying 20 coffins to symbolise the number of wolves in this year's hunting quota, and nearly 8,000 people sent letters to Brussels to protest the hunt through a Swedish environmental group's website.

<http://tiny.cc/dlekx>

Thermal imagery sheds light on wolf disease

Psychedelically colored wolves depicted by thermal imaging will shed light on how mange affects the survival, reproduction and social behavior of wolves in Yellowstone National Park. About a quarter of the wolf packs in the park are afflicted with sarcoptic mange, a highly contagious canine skin disease caused by mites that burrow into the skin causing infections, hair loss, severe irritation and an insatiable desire to scratch.

The resulting hair loss and depressed vigor of the wolves leaves them vulnerable to hypothermia, malnutrition and dehydration, which can eventually lead to death, said Paul Cross, a US Geological Survey disease ecologist, who leads the project along with Doug Smith of Yellowstone National Park. To help understand the role of mange in the lives of gray wolves, as well as why some wolves recover and others don't, Cross, along with wolf biologists from the National Park Service, need to understand the costs and extent of infection. Remote cameras will help the team determine the extent of the infection across packs in Yellowstone National Park, and how it changes from one year to the next.

"Thermal imagery of wolves allows us to not only document the extent of hair loss caused by mange, but also to determine the actual loss of heat, and energy, associated with the different

stages of infection," said Cross. "A great side benefit is that this is a noninvasive way to study the disease and its effects. We don't have to capture wild wolves to do this." The researchers tested and perfected the thermal imagery process with the help of resident wolves at the Grizzly and Wolf Discovery Center. Biologists shaved off small patches of fur from several wolves to emulate hair loss from mange, and then assessed the amount of heat loss that would occur in the later stages of mange infection. They also compared this with normal hair-covered areas and recorded still and video thermal images.

The resulting images (see example below), admits Cross, are unusual and captivating. But they also reveal red-colored "hot spots" that give off more heat, meaning the afflicted wolf has to get the energy lost through heat by eating more calories. To see them visit: <http://tiny.cc/2cclq>.

Scientists began using the thermal imagery on wild wolves in February. Remotely triggered thermal-imagery cameras are set at locations that wolves frequent and the resulting images

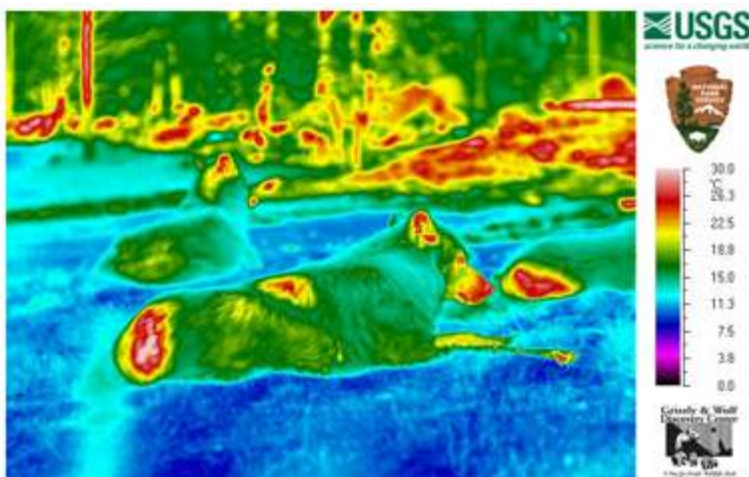


© Jimmy Jones Photography

uploaded to computers weekly for Cross and his colleagues to examine. Though remote thermal imaging has been used to diagnose veterinary diseases, Cross believes this is the first time it has been used to study the effects of a disease in a wildlife species. Sarcoptic mange was introduced into the Northern Rockies in 1909 by state wildlife veterinarians in an attempt to help eradicate local wolf and coyote populations. Scientists believe the troublesome mite that causes the disease persisted among coyotes and foxes after wolves were exterminated. Since their reintroduction into the Greater Yellowstone Ecosystem in 1995-96, wolves appeared to be free of mange until 2002.

The research is being conducted by the USGS Northern Rocky Mountain Science Center in collaboration with the National Park Service, Yellowstone National Park and the Grizzly and Wolf Discovery Center in West Yellowstone, Mont.

<http://tiny.cc/6xej0>



Left: The sun begins to warm the wolves in this thermal image of captive wolves at the Grizzly and Wolf Discovery Center in West Yellowstone. USGS scientists are examining thermal imagery of wolves as one step in assessing impacts of sarcoptic mange on the survival, reproduction and social behavior of this species in Yellowstone National Park. All research animals are handled by following the specific requirements of USGS Animal Care and Use policies.

© US Geological Society

New African wolf discovered

Scientists studying genetic evidence have discovered a new species of wolf living in Africa.

Researchers have proved that the mysterious animal, known as the 'Egyptian jackal' and often confused with the golden jackal, is not a sub-species of jackal but a grey wolf. The discovery, by a team from Oxford University's Wildlife Conservation Research Unit (WildCRU), the University of Oslo, and Addis Ababa University, shows that grey wolves reached Africa around three million years ago before spreading throughout the northern hemisphere. The new wolf is a relative of the Holarctic grey wolf, the Indian wolf and the Himalayan wolf. Professor David Macdonald, an author of the paper and Director of Oxford University's WildCRU, said: 'A wolf in Africa is not only important conservation news, but raises fascinating biological questions about how the new African wolf evolved and lived alongside not only the real golden jackals but also the vanishing rare Ethiopian wolf, which is a very different species with which the new discovery should not be confused.'

Professor Claudio Sillero, also of the WildCRU and Chair of the IUCN's Canid

Specialist Group, who has worked in Ethiopia for more than two decades, said: 'This discovery contributes to our understanding of the biogeography of Afroalpine fauna, an assemblage of species with African and Eurasian ancestry which evolved in the relative isolation of the highlands of the Horn of Africa. Rare Ethiopian wolves are themselves a recent immigrant to Africa, and split-off from the grey wolf complex even earlier than the newly discovered African wolf.' Dr Eli Rueness of the University of Oslo, the first author of the paper, said: 'We could hardly believe our own eyes when we found wolf DNA that did not match anything in GenBank.' Professor Nils Chr. Stenseth, an author of the paper and the Chair of the Centre for Ecological and Evolutionary Synthesis (CEES) said: 'this study shows the strengths of modern genetic techniques: old puzzles may be solved.' The team also found genetically very similar specimens to this new wolf in the highlands of Ethiopia, 2,500 km from Egypt, suggesting that the new species is not just found in Egypt.



Wolf in Danakil depression, Eritrea, from video by Jugal Tiwar

Professor Afework Bekele at Addis Ababa University added: 'This shows how genetic techniques may expose hidden biodiversity in a relatively unexplored country like Ethiopia.' Golden jackals are regarded by the International Union for Conservation of Nature as not threatened – a "species of least concern" – but the newly discovered African wolf may be much rarer. The team believes it is a priority for both conservation and science to discover its whereabouts and numbers.

Professor Sillero said: 'It seems as if the Egyptian jackal is urgently set for a name-change, and its unique status as the only member of the grey wolf complex in Africa suggests that it should be re-named 'the African wolf'.'

<http://tiny.cc/gqt2c>

One wolf responsible for more than half of Isle Royale pack's genes

More than half the wolf genes on Lake Superior's Isle Royale can be traced to one wolf - known to researchers as the Old Gray Guy - that crossed the ice to the island in 1997. That's one of the findings of scientists who used new genetic testing as part of their annual study of wolves and moose on the Michigan-owned island off Minnesota's north shore. It's the first confirmed influx of new wolf blood into the island's wolf population since wolves first came to the island about 60 years ago. And so far, there's proof of only the one new wolf. The researchers from Michigan Technological University, along with others from Arizona State, examined

wolf feces collected for 12 years and found DNA genetic tracers not found in previous wolves. From that they concluded that a lone male wolf came to the island in 1997 over ice from Ontario. "Before this discovery, the Isle Royale wolf population had been considered completely isolated since it was founded in the late 1940s," said John Vucetich, lead researcher in the island's long-running predator-prey study. "We've been stockpiling scat for 12 years and finally got enough money to analyze it."

The Old Gray Guy was bigger than others on the island and quickly became the alpha male of one pack. He died in 2006, but not before fathering 34

offspring with 22 grand-pups and counting. Scientists say 56 percent of all wolf genes on the island trace back to the one male. "His crossing came just as the moose population crashed and the wolves had less food, but the wolves still had a little population increase" Vucetich said, "so there may have been some benefit from his presence that we can't see just counting their numbers. But we do know that his fitness and his health were so much better than other Isle Royale male wolves, we know he became a dominant factor in the population."

<http://tiny.cc/k0msd>

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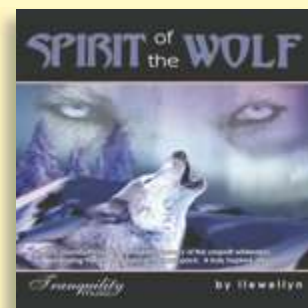


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Making Tracks

wolves in the media and the arts

WOLFER

A Memoir

By Carter Niemeyer

Paperback, 374pp, 21.6 x 14cm, RRP £14.45
ISBN 978-0615409481

'If I put it off any longer, I'd be killing a den full of puppies, with bare hands or indirectly by starvation if their parents were dead.'

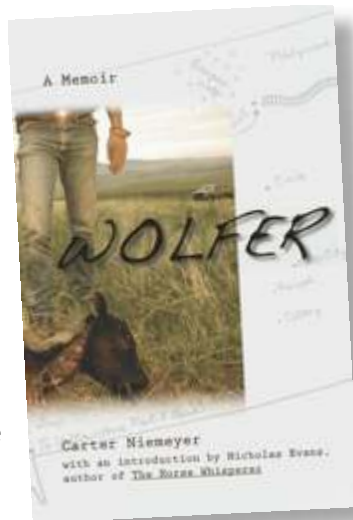
This visceral account confronts the reader on page four of *Wolfer*. They are blunt words, but honestly stated. It refers to a family of controversial wolves called the Whitehawk Pack, who in 2002 were thought to have killed two calves and a sheep on the Baker family ranch.

Alabaster, the snowy matriarch of the Whitehawk Pack, begins and ends *Wolfer* in a tragic and appropriately circular way. To most of us who are passionate about the species, reading about their fate will cause some emotional pain. Even anger. Many of us already know the outcome.

But this is the reality of what happened, what is happening still as man and wolf thrash out their differences. Wolves will die and they are dying as we read this. All of us with lupine interests should read *Wolfer*, to understand the complexity of that troubled relationship. In the words of Nicholas Evans, author of *The Horse Whisperer*, Niemeyer *'stands between warring groups, the furious ranchers and outraged environmentalists, mediating, doing what he has to do, often with a heavy heart.'*

It does help enormously that the book is well written, colourful and spiced with humour. He makes us curious at each turn to see what happens. It also lacks the machismo that could have so easily

defined it. Instead, in neat, precisely detailed and logical prose that lacks sentiment or excuse, we first meet a young boy who began by trapping gophers and selling their feet for profit in Iowa. He adores his father and wants ultimately to please him, make him proud. Throughout the chronicle of this life, we are given insights into the nature of trapping and killing animals. Stinky bait. Stinky carcasses. Giving a sick porcupine (alliteratively and lovingly-named Pucker P Pine) an enema. If it came with an olfactory scratchcard, reading it would be unbearable.



Niemeyer was always a boy who wanted to learn about animals, not simply kill them. He observed early on that no two animals look the same, that to know their habits was to be one step ahead. Attention to detail would almost be his mantra. Older, he would work with the biologist Dick Bishop, putting up nest boxes, doing his own research. That research would

include a rabies study of raccoons. Later still he would make a fine profit skinning foxes and coyotes. He is clearly a complex individual, an uncommon person as he has once been described. Or in his own words, from a recent interview:

'I've been a predator specialist all my life, and I've worked with eagles, bears, lions, wolves. I enjoy all of them. I enjoy coyotes. I've hunted coyotes, but I've spent many more hours just watching them and enjoying them.'

The young boy proudly swinging a bag of gopher feet evolves into a man working for United States Department of Agriculture's Animal Damage Control (ADC). Eventually, he is employed as a professional wolf trapper and, if it is required, a wolf killer.



Niemeyer's interest in animals extended to the academic – over the years he attained a bachelor's and master's degree from Iowa State University. This is reflected well in the book – he has been keeping professional diaries since 1973 and therefore writes with intricate care. Initially such qualifications would make the ranchers he visited suspicious and hostile. He had to prove that he was truly one of them, or at least that he understood their lives. But one biting observation he made is truly relevant to the ongoing conflict between farmers and large predators:

'If things got bad, they just call Uncle Sam. It's still how things work.'

When Carter finally began working as wolf specialist, trapper and district supervisor for ADC in Montana, he did indeed encounter the problems of a compensation culture among ranchers. Previous trappers had been keen to maybe kick a dead animal with their foot and say 'Yep... looks like a wolf did it.' That was if they actually got out of the truck at all. Then the box for killed by a wolf or probably killed by a wolf could be ticked and the farmer receive his government payment. It was the system – a corrupt system with much collusion from both sides. After all, this is a book as much about the wily power and territorial greed of the human race as it is about animals.

Niemeyer, in a career of nearly three decades, brought a level of science and reason to his industry. Such methods did not always make him popular. There was, as he saw it, a haphazard attitude toward predator control. A 'just kill' mentality. He felt that it was pointless to kill indiscriminately in the hope that the problem would eventually go away.

In the wild landscape of Wolfer, emotive language like 'varmints' and 'critters' scatter people's vocabulary and is used to cuss unwanted wildlife. Professional farmers object to certain animals encroaching onto their land, despoiling their businesses. Worst of all has always been the larger carnivores such as wolves and bears, the former demonised in legend and life for centuries as an evil skulking beast. This is the land of excitable fireside story telling, where creatures can have reputations and therefore names. Like the ultimate fishermen's tales, their crimes are often magnified to mythical proportions. There is Theodore for example, the huge dog-killing raccoon:

'Its feet were the size of a child's... it killed nearly every dog that went after it.'



But of course there are animals that are truly killing and have to be dealt with swiftly, such as the Phantom Bear – a radio-collared sheep-guzzling grizzly who was elusive and clever. The policy was generally to relocate, not kill – but there were times when there appeared to be no other solution.

Niemeyer observes repeatedly that when superstition, hysteria and hatred combine, the reality of crisp, logical science is rarely welcomed. But he continues with his reasonable approach, keeping to a routine that works for him or adapting when it is needed:

'...some of the best trapping was at sunrise..' (in relation to eagles)

Or when badly-designed traps are clearly injuring the wolves, Niemeyer adapts to

darting from a helicopter, which causes less damage.

Wolfer does indeed serve as an interesting historical account of early trapping methods, which had generally adopted a poorly-organised approach to animal control. Incompetence even extended to large mistakes being made, such as the radio collaring of a dog. In particular, the number and nature of poisons used is one highly disturbing element. For example, in our modern and conservation-minded times, putting out poisoned horsemeat for coyotes seems to lack intelligence or compassion. Anything feeding from the carcass would suffer an agonising death and toxic chemicals released unchecked in the eco-system. Thankfully, poisons such as strychnine were banned in 1973.

A more methodical approach was evidently required and Niemeyer tried more of a precise approach – although sometimes the unpredictability of all things wild forced him to act on the spot, in unconventional ways.

It is always important to try and see other points of view when reading Wolfer, even if it may upset our sensibilities. For example, the majestic golden eagle was generally not regarded for its aesthetics by many of the Montana farmers who were reportedly losing lambs to the species. Initially, the birds were trapped, tagged

and relocated, but this was found to be quite impractical, as well as injuring a number of the caught birds. Carter came up with an ingenious solution, which I will not reveal. But it does demonstrate that sometimes deterrent can be as effective as killing or relocating.



The politics and pitfalls of being in Animal Damage Control are evident from the documented visits to his rancher

clients. It is here that his experience of skinning animals often played a vital role in giving an open and visual 'whodunnit.' Once the hide was removed from a calf or sheep, it was easier to ascertain if there were talons or teeth involved or, in the case of many, it had been a natural death. Too often the wolf was blamed and Niemeyer had to argue the case against. Large predators, as most conservationists know, leave distinct signatures on a carcass. Anti-wolf hysteria often made people unreasonable and it was Niemeyer's responsibility to be calm, truthful and accurate.

'Keep an open mind and look for signs of predation like trauma, haemorrhage and bite wounds.'

The most pertinent section of the book – to we wolf conservationists in particular – covers the time Niemeyer was instrumental in advising on the reintroduction of the wolf from Canada to Yellowstone in 1994. He was responsible for capturing the wolves that would populate the park. We learn about the strength of those advocating for the wolf at the time, the way the media manipulated events:

'...stories of blood-thirsty, lone predators wandering from ranch to ranch, killing everything... they (the newspapers) wrote about it for weeks, stirring people up and stoking bitter divisions between ranchers and pro-wolf groups.'

I will be honest: I found this book difficult at times. It made me cry and at times I had to walk away from it. But I was angry with the situations, not with the man. Ultimately, it made me more passionate about canis lupus and aware that to some, wolf will always be a four-letter word. In the words of Niemeyer:

'When we ran out of places to move them, we killed them. It was that simple. And it's still that way.'

As a historical account it is a strong book, an important book. One that deserves our time. It will make you think and elicit the strongest of emotions. Probably, it will make you love and want to protect the wolf just that much deeper.

Julia Bohanna, 2011

Wolfer is available from www.ukwolf.org



Animal Magic

Julia Bohanna interviews animal sculptor Sally Matthews

Sally Matthews studied at Loughborough College from 1981 to 1982, following this with a degree course in the Department of Sculpture (1983 to 1986), from which she graduated with first-class honours. Sally has used both domestic and wild animals throughout her work.

'I always love drawing wolves but in a way dread it too as they have a knowing look and I feel I am intruding and stealing something from them by looking at them and using their image.'

What influence did animals play in your early life? Did you have a passion or obsession for any one animal?

My father was a vet and growing up we always had animals around us. My mum and dad bred Welsh mountain ponies and other animals, so family holidays consisted of shows and sales in Wales and visits to the hill pony herds such as the Revel and the Epynt. It was their constant discussion about the conformation, eye setting and movement etc. of a particular animal that

cultivated my eye for detail and scale, as well as my interest in each individual animal as a sentient being.

Do you first visit the site where the work is intended to be displayed?

Usually when I begin a project, the first thing I do is visit the site or gallery. It is very important for me that the sculpture works with the place. Visiting the Vestfold forest in Fossnes, Norway, I found an amazing place on the path leading to the highest view point – an outcrop of rocks where I could imagine wolves would gather. While I was there I worked out and measured the footprint of each wolf on the craggy rocks, so I could make them to fit the lie of the land.

How do you begin a project? Studies, photographs, sketches or preliminary models?

When I start work on a project I do masses of sketches from life until I understand the animal in my head. I can then make the sculpture mainly without reference, though I do look back at sketches or photographs if I am unsure of something. In a strange way this allows the sculpture to make itself. If the metal armature has an interesting turn of the neck I will leave it rather than force it into a pre-prescribed position. It is very important to get the first

fine armature lines right. They are like a drawing in space that inspires the muscle and character of the animal.

How collaborative is your work? Is it left entirely to you for interpretation? If the latter, was this something that was built up as your reputation and experience developed?

I tend only to take on commissions that allow me to choose the subject. However, in the case of the donkeys for Weston Super Mare and the wolves for Norway – the commissioners had chosen the subject and it was appropriate for my work. It is mainly the site that dictates the animal, how many and what the materials are that are used. There are times, such as residencies, where the importance of the project is having the artist work within a place for a certain length of time, when I can make sculptures in the landscape with ephemeral materials – as with the wolves at Arte Sella. During the 'Gathering' project, documenting hill farming in Northumberland with photographer Kate Bellis, I was able to make a cow of cow muck and some sheep with the hill grass, peat and thistledown. The exhibition of the project toured in city galleries – so some of the smells and texture of the environment were with the animal sculptures.

Do you mostly fabricate or cast? Can you explain briefly how your specific method works?

I mainly fabricate my work as casting is expensive. I always start a sculpture with a steel armature and then build up with chicken wire, stuffing it with hay to get an idea of the shapes I am making. I then add found natural objects like roots and stone to define important parts such as the shoulder blade, hip bone and feet. I then add the surface with materials such as peat, cow muck or sheep's wool. When I am making something that is to be cast I usually work in plaster as it is strong and I can add grasses for texture. Plaster is quick to dry and has a momentum of its own when you lay it on the sculpture. When I work in steel I just start with the same sort of armature and just build up with pieces of metal.

The bronze wolves are astonishing. How did you come to choose the materials for the wolf? How did you research the anatomy, the character of the animal?

The commissioning group in Norway lead by Grethe Mayer Iversen wanted the wolves to be bronze. I think this was for longevity and they had also seen some bronze wolves of mine at the Cass Foundation. The commissioners got together and were inspired by their love of the Vestfold forest. The community raised money to commission

twelve sculptures along a path laid out by landscape architect Rainer Strange. They called the project Sti for Oye. I made the wolves with plaster incorporating pieces of wood and pine needles, etc. that would be in their natural surroundings. The wolves were cast at Castle Fine Arts in Wales and the casting is so fine that you can see some of the details of the pine needles. I chose the patina colouring of the wolves to make the work less like a bronze and more delicate and ephemeral looking.

I have made wolves before in Grizedale forest and at Arte Sella in Italy. They are a mysterious and guilt-provoking animal. I have drawn and measured them at Wolf Watch UK, at Wuppertal Zoo in Germany and in Bialowieza, Poland – while making some European Bison. I always love drawing wolves but in a way dread it too as they have a knowing look and I feel I am intruding and stealing something from them by looking at them and using their image.

To me – and it is solely my interpretation – there seems to be a melancholy to the Norwegian models. Was this intended? Did the persecution of the wolf as a species affect you?

Rarely are my animal sculptures full of movement and energy. I prefer to depict the quieter moments when the animals are going about their lives without us. When I make a sculpture of an animal I try not to place any human thoughts within it. I would rather celebrate its otherness and let people be moved by that to think of their own relationship with the animal.

There have been some problems in the past with wolves and hunting in Scandinavia – we have documented them fully over the years in Wolf Print. Did you encounter any hostility and negativity during the project?

I didn't encounter any hostility during the project. The commissioners and I were aware of this aspect. The commissioners were determined to have wolves along the path 'the southernmost wolves in Norway' and were prepared to answer any hostility or negativity. There hasn't been any controversy over them that I know of – I suppose people like the idea of wolves as a myth or abstract being – my wolves pose no threat. I had hoped that my 'abstract' wolves would bite people's conscience.



What were you trying to convey with the wolves?

I hope these bronze wolves will make the viewer's heart leap instinctively as an encounter with a real wolf would: to remind people that this is not just our land; that we share it with wild and independent animals. Seeing such amazing animals that are glimpses of a past when we weren't so totally in control is a truly humbling experience. They are our evolutionary companions. Are they the more frightening

or is our ruthless persecution of them and our inability and unwillingness to live alongside them what we should be frightened of?

Were there any particular logistical problems with crafting the wolves?

The rocks that the wolves stand on are incredibly hard and it took me (and some kind help) ages to drill the holes for the pegs to go into.

How long did they take?

I should keep a diary as people always ask me this. I work in quite short bursts of energy over a fairly long time. I usually put aside a month for each animal. However, with the casting a lot of the work is done at the foundry after I have finished. I think they were three months at the foundry.

You have done a wide range of animals. Are there other species you wish to attempt?

I like doing animals that I know and that are part of my life and then there are animals like wolves that lure you in because of their spirit. I tend to let life pull me along and I have had some amazing opportunities.

Out of all the animals you have made, is there one to which you formed a special bond?


Wild boar and wolves have always been a part of my work among other animals that have inspired me, and the animals that are around me every day. When I see a certain sheep in a field of sheep – it's not that it's the best looking or the most interesting looking – it just has something about it that says draw me. Maybe it's a stray bit of wool hanging or the placing of its feet or its defiant look. I recently asked a farmer if I could draw and photograph a particular Welsh Ram in his flock – 'oh that one' was his reply, 'don't go in the field without me.'

Do you dream sculpture?

I don't dream sculpture but sometimes when I close my eyes and I have been working intently on an animal, I see it.

Thank you, Sally.

Sally's website can be found at www.sallymatthews.co.uk/text.htm



Hunter

Aimee Topham

Aimee is a first year student studying Creative Writing at the University of Winchester. This piece was written for a competition held at the university, where all entrants were inspired by their Creativity Visit to the Trust in Beenham, November 2010. 'Hunter' was the winning piece.

Runners up were Robyn Brasier (A Wolf Story) and Kane Holborn (Nock Wolf).

Judges were students on module group CW1106.

STOP. Freeze this moment in time. Frame it in your head like a photograph, to be forever cherished. Remember the snow, that white blanket of icy feathers that clings to your eyelashes and hair. Remember the light, the sun trapped behind muscles of grey cloud and yet still bravely trying to illuminate the ground upon which we slip and slide. Remember the wind, that biting, pinching, lashing aggressor, attempting to wear you down into submission. It shrieks at you; it screams that you don't belong here. 'You are not strong enough to take on the forces of nature and emerge unscathed!' The gale whistles and whips your huddled-into coat, buffeting against your body. You do not move, despite the assault. Your eyes are locked on the figure at the top of the slope. Their eyes – each a small bead of fire – burn into your own, holding you prisoner while they search your soul. Neither of you blink. You are awed by the power

exuded by this creature of such majesty, such grace and quiet assurance. Remember the connection you feel. Remember the sense of kinship. Remember the loneliness, the pride, and the sense of being persecuted for an old prejudice. You are the same. You are hunters, trying to make sense of a changing world, and fighting for a way to survive. The wolf blinks. You understand. He is acknowledging you as a brother, one faced by the same trials as he. He will not harm you; you can see that he has recently killed. A faint trace of blood on the muzzle: red stained ice flakes cling gently to the ends of his fur. He does not notice. He does not care. He stares still. Patient, silently observing, the wolf waits. Forever is a long time. You are willing to wait too. The snowflakes begin to fall again, only to be gently whisked away in a waltz with the wind. As they pass you, they

grasp onto your hair and settle there in quiet contentment. A whisper amongst the trees on the slope reminds you that you are alone. This calm wolf, with his bright yellow eyes, is the only living creature around. The wind brushes blusher on your cheeks, staining them red. The prospect of shelter is bleak; the trees are sparse and young, and there are only fields. Grey-white, deep red and brown; you long to bury your frozen hands deep into the wolf's glorious fur coat and curl up against the warm body to sleep. You wonder if this wolf has a mate, or cubs, to whom such a privilege belongs. Wolves are sociable creatures, you remember, so it is unlikely that he is alone. The crunch of snow under gentle paws applauds your suspicion. The wolf breaks away from your gaze and turns to look behind him at his mate. A parting glance sends sorrow, empathy and courage to you, as your body fills with the warmth of his gaze. You are left alone, hunter.

Forthcoming events at the UK Wolf Conservation Trust

Wolf Awareness Week – 15th to 21st October 2011

Saturday 15th

Predator-to-Pet Workshop

(more details on p32)

Wolf Awareness Week is a time to dispel those misconceptions about wolves and to teach the important role that these predators play in maintaining healthy ecosystems. Planning has started in earnest at the UK Wolf Conservation Trust with many different activities already in the programme:

Sunday 16th – The UKWCT Seminar

We are delighted to announce that the first confirmed speaker is Carter Niemeyer, author of the award-winning book 'Wolfer'. Read a review of 'Wolfer' on page 26.

Thursday 20th

Open Day

We are open for you to pop in and have a look around, so why not come and see us and take the opportunity to snap some photos of our wolves?



Monday 17th – Student Seminar

We are hosting our first Student Seminar for both college and university students hoping to learn a bit more about wolves and conservation.

Thursday 20th

Pastel Workshop with Jane Absalom Willow Workshop with Caroline Gregson



Wednesday 19th – Schools Day

This is an opportunity for our local schools to pop down to the Trust and see the wolves.

We will also have Caroline Gregson, willow sculptor, coming to create a companion to 'Willow', our wolf she created last year.

Friday 21st – **Howl and Hoot Night**

Join us for a talk on wolf communication, a howl with the wolves and meet some of our feathered friends.

FULL BOOKING DETAILS AND COSTS WILL BE AVAILABLE ONLINE OR THROUGH THE OFFICE FROM AUGUST.

Children's Wolf Walks

Thursday, 28th July and Wednesday 10th August
11am-1pm

Take a walk with the UKWCT wolves.

This event includes a short talk and tour of the centre.

£13 per person, 6 years + Booking essential; limited parent spaces.



Children's Wolfy Picnics

Wednesday 3rd August and Wednesday 24th August, 11am-1pm

Take a walk with the wolves then spend the afternoon making some special treats for the wolves.

£15 per person, 6 years + Booking essential; limited parent spaces

Children's Wolf Keeper Days

Thursday 4th August and Wednesday 17th August, 10am-3pm

- Come dressed to get mucky and see what the wolves and their keepers get up to during the day.
- Take over the job of the Wolf Keeper looking after the wolves. Don't be fooled - it's hard work but lots of fun.
- Spaces are limited to make the day really special, so please book early. **£30 per person. 10 years +**

Further details at www.ukwolf.org or to book call 0118 971 3330

Forthcoming events at the UK Wolf Conservation Trust

UKWCT Wolf Centre Open Days

Bank Holiday Monday 29th August and World Animal Day, Sunday 2nd October, both from 11am to 5pm



- Look around the Trust
- Watch the cubs playing
- Photography sessions from the platform
- Ask the experts about living with wolves
- Listen to the wolves howling
- Other animal exhibits
- Children's activities inc. face-painting
- Nature trail
- Pond dipping
- Birds of prey flying demonstration
- Bouncy castle
- Hug a husky
- Refreshments
- Picnic tables available
- Booking not required
- **Sorry: no dogs on site**



WOLF CENTRE OPEN DAY

Monday 29th August

Adults and non-members: **£7**

Members, children (3-11), senior citizens: **£5**

WORLD ANIMAL DAY Sunday 2nd October – including additional exhibits and activities (see website)

Family ticket (2 adults & 2 children up to age 12) – **Advanced: £18, On the day: £25.**

Adult ticket – **Advanced: £8, On the day: £10.**

Member, child (3-11) or senior citizen ticket – **Advanced: £3, On the day: £5. Child under 3 – FREE.**



Predator to Pet Workshops

Saturdays 2nd July and 15th October at 10am

Join us for an exciting and fast-moving workshop developed in association with Wolf Park of Indiana. You will:

- examine the genetic evidence of the relationship between dogs and wolves
- look at domestication vs socialisation
- learn about the taxonomy of canids
- walk with ambassador wolves, seeing firsthand the ancestor of today's dogs
- receive a gift as a memento of the day

This hands-on workshop will chart the domestication of dogs from their wild roots to the present day... and much more besides.

A walk with an ambassador wolf is included, allowing you to see first-hand the wild ancestor of today's dogs. You'll also receive a gift as a memento of the day.

£50 per person
- places limited -
booking essential

Wolf Keeper Experience Days

Thursdays 8th, 15th, 22nd and 29th September – 10am to 4pm.

If you - or someone you know - is a wolf lover, then this is a unique experience: during the day you will see behind the scenes at the Wolf Trust and shadow the keeper in tasks such as cleaning out the wolf enclosures, preparing and giving medication and get involved in our wolf enrichment programme. There is a maximum of 6 people on the day.

All participants will also have a walk with a wolf, meet the cubs and receive a souvenir certificate at the end of the day.

Please bring your own packed lunch. Tea, coffee & squash available.

£100 per person, age 16 or over. Booking Essential.

You are advised to have an up-to-date tetanus immunisation.

Friday Night is Howl Night!



15th July at 7.00pm
23rd September & 18th November at 6.30pm

If you've ever dreamed of standing near a wolf and hearing it howl, this is a once in a lifetime opportunity to feel your backbone tingle and your ears vibrate with the sound. The evening will start with a presentation on wolf communication; you will then go on a tour of the centre and have the opportunity to let out a howl and see if the wolves respond! You will also see them feeding.

Night is the best time to see the wolves as they are at their most active.

(Don't forget to dress up warmly for an evening under the stars).

Cost £10 per person - Booking required

Further details at www.ukwolf.org or to book call 0118 971 3330