

SUMMER 2022

# DIGITAL Deer

The online journal of  
The British Deer Society



Boxing clever • A fine line  
Caught on camera • Thermal spotting







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# DIGITAL Deer

The online journal of the British Deer Society

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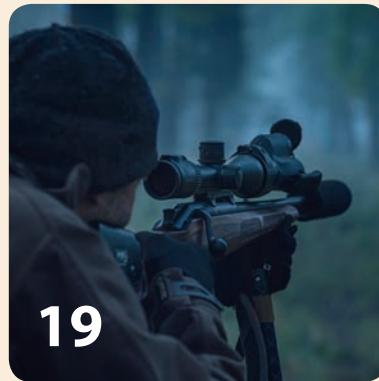
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# Moving Forward – A Strategy for the Future

A charity should have a strong and compelling vision and purpose, resulting in a clear mission with clearly defined social goals, supported by a well-defined business strategy. I am therefore pleased to report that following a very successful Trustee Director strategy day in March 2022, the Trustees made real progress on setting the future strategy of the BDS.

It is important to note that some of the work which the Society presently carries out across the sector is being driven by Government policies, as well as national, regional and local environmental issues, and concerns around the high number of deer across the UK. As a charity that promotes conservation, education, research and management best practice, we can't ignore the many conversations that are taking place around environmental impact, conservation concerns, wild venison and carbon capture, etc. If the BDS is to remain relevant, we must adapt to meet these new challenges and find new ways to work to help us address some or all of these concerns.

Following the March 2022 Strategy Day, the Trustees have revised our charitable outcomes to clearly identify six specific areas

of work. Our main focus will continue to be on the welfare and humane management of the UK wild deer population. To help us set new standards, we will invest in new technology to support our education, training, and science and research teams, to ensure the information we produce and the industry training programmes we deliver are reinforced by leading scientific based evidence and research. We will use our voice to influence policy, continually raising awareness of the problems and solutions around responsible deer management through training, education and technical advice. Finally, we intend to broaden and diversify our membership through targeted campaigns, while remaining a well governed and financially secure charity. Once completed, our future strategy will enable the Society to continue taking the lead on deer management, while providing state of the art solutions and social science projects to improve the deer related research data that will assist us and our key partners.

To deliver on these outcomes, we must begin to address existing issues that may be holding us back. We must make the full use of modern technology and create an

organisation that is forward thinking and diverse. We must also be prepared to discuss and challenge all areas of our work to see if they are still relevant. We also have to accept that in order to carry out this change we must invest in technology and in our people. We need to engage with and influence the public, the media and politicians, and make the BDS's voice so strong that we become a household name. It will be necessary for the Society to develop effective ways to improve our research and collect data, including broadening and diversifying our membership to ensure we can achieve our goals locally, regionally and nationally. For this to be successful, we need our branches' and members' support, all of which will have an important role to play.

I plan to meet with our branches to discuss this new strategy and to hear their thoughts and views. I will be at The Game Fair on **July 29-30** and would welcome the opportunity to meet you. If you're not attending, but would like to input, please contact me by emailing [info@bds.org.uk](mailto:info@bds.org.uk) with your views. I am keen to understand how head office, the training team and I can best support you. I would also be keen to discuss any areas of work you would like to be involved in. We are on a journey of change and would very much like you to input into this work as we travel on the journey together.

Thank you.

*David McAuley*  
Chief Executive Officer

## Moving On



After nearly seven years with the British Deer Society, our Deer Officer, Glyn Ingram, is leaving to take on the role of Head Deer Keeper on an estate on the Hampshire/Sussex border.

Glyn will continue to be an active member of the BDS training team delivering DSC1 and Deer Management Courses whenever possible. I am sure you will join us in wishing him the best of luck in his new position.

# South Grampian DMG asks NatureScot to make full use of powers

South Grampian Deer Management Group has sought partnership working whilst calling upon NatureScot to make full use of available legal powers to ensure effective deer management. The move came after a meeting of the DMG in May at Kilry Hall, Angus.

The Group area, partly situated in the Cairngorms National Park, extends to a total of 42,613 hectares and contains some of Scotland's most dramatic scenery, the northern mountains being designated to

reflect their environmental importance, with the Caenlochan SAC and Glen Callater SSSI at the heart of the area. However, Caenlochan has been associated with years of complex issues and conflict around competing interests with deer and their management.

With the climate and biodiversity emergencies now high on the public agenda, the deer managers in the South Grampian DMG area met with representatives from NatureScot, the Cairngorms National Park Authority (CNPA) and the Association of Deer Management Groups to discuss their role in and contribution to delivering for the public interest through greater collaboration.

South Grampian DMG Chairman Douglas McAdam said: "Red deer numbers in the area from a recent count in March 2022 sit at around 6,974, down nearly 24% from a population of 9,135 in January 2019. This represents the result of sustained culling in the area over the last four years but, for the Group to achieve what is required and deliver for both the public and private interest, more needs to be done and deer numbers will have to be reduced further. However red deer are an iconic Scottish species as well as a valuable food and economic resource and this, as well as their welfare, should always remain an important underlying consideration.

"All estates in the Group area need to play their part and fulfill their deer management obligations and responsibilities. Deer management across a large area, with a highly mobile deer population crossing multiple landholdings will only work if all landholdings cooperate and work collaboratively to manage deer aligned to common objectives."

The Group has formally requested NatureScot to put in place a new Section 7 Agreement that would last for five years and should cover all the relevant landholdings in the area. This would allow the estates, together with NatureScot and CNPA to deliver both private and public objectives. The Group was very clear that if any landholdings do not cooperate in fulfilling their responsibilities then it would expect NatureScot to use the full force of its powers under the Deer Act to make this happen, escalating to the use of Section 8 and Section 10 powers if needed.

"What we are seeing here is a result of the majority of estates in our Group area finally losing patience with those that will not pull their weight and work collaboratively to achieve common deer management goals," said Douglas McAdam.

He added: "Put simply, the majority are tired of bearing the burden because a minority refuse to engage and deliver their responsibilities. National priorities have changed, and deer managers now have to consider the public interest more than ever in addition to their own estate objectives. This is the modern reality. Voluntary deer management is still the answer but, in some cases, it needs a strong backstop that will be used to make collaborative deer management work as it should."



## Stalking Show success

The Stalking Show, which was held for the first time over the weekend of April 9-10 at the Staffordshire County Showground, was a runaway success, with some 8,400 visitors attending across the two days. The first event of its kind, the show was specifically targeted at those with an interest in deer and deer stalking, and the 89 stands covered everything from kit and clothing to rifles, ammunition, lardering equipment, art and taxidermy. Celebrity chefs Rachel Green and Jose Souto performed in the Really Wild Kitchen, while there were also demonstrations of sausage making and the skinning and butchering of a wild boar.

Most of the show was indoors, with the central stand area and side aisles absolutely buzzing with visitors almost

from the moment that the gates opened.

"I am completely blown away by the support and response," organiser David Freer told *Deer* after the event. "It was 18 months in the making and the feedback we've had both from exhibitors and visitors has been fantastic. We've taken the bar to another level."

Fielding questions and providing advice on the BDS stand were members of the Midlands Wales and Marches branch, along with Head of Training Nick Rout, all of whom were kept busy over the two days (see also page 43).

When a new show bursts upon the



scene, it is never certain that it will achieve success in the long run and win its place in the busy show calendar, but the Stalking Show certainly seems to have done that. Already exhibitors are coming forward for next year, and the organisers have booked the Staffordshire showground site for **April 15-16, 2023.**



## HSE Lead Ammunition consultation

The Health and Safety Executive (HSE) has been tasked by the Environment Department DEFRA to consider the risks posed by the use of lead in ammunition and the potential need for further risk management measures beyond those already in place. As a result, the HSE has launched a six-month public consultation on proposed restrictions for lead ammunition in England, Wales and Scotland. As a result of the Northern Ireland Protocol, Northern Ireland is expected to be subject to EU legislation which is already in progress. The survey considers the use of lead and its alternatives for all forms of shooting, although lead-containing propellants and police and military uses are outside of the scope defined by DEFRA. The consultation is open to organisations as well as private individuals.

The British Deer Society recognises that, although there is evidence that lead presents a risk to public health under some circumstances, any further restrictions on its use should be realistic and driven by science. We will be responding to the survey as a Society and encourage our members to do so individually.

Anyone wishing to submit information during the public consultations is asked to do so at <https://consultations.hse.gov.uk/crd-reach/restriction-proposals-004/consultation/intro>

All respondents to the survey are given an opportunity to provide general comments and information relating to the specific questions asked. Basic responses can be provided within the survey, while further more detailed information can be provided in document(s) as attachments at the end of each section.

The public consultation lasts for six months and closes at 23:59 on **6 November, 2022**.

More information can be found at <https://consultations.hse.gov.uk/crd-reach/restriction-proposals-004>

# British venison feeds thousands in Ukraine

Thousands of wild venison meals have been trucked to feed war-torn Ukraine. Following the invasion by Russia in February, The Country Food Trust launched a dedicated appeal to raise funds and send meals to those in need. Their nutritional pouches were perfect for the crisis as they need no refrigeration and can either be eaten cold or can be simply heated in a cooking pot over an open fire. The Trust also successfully completed a bespoke run that included pasta to provide a comprehensive, complete meal. The campaign raised enough funds to provide 25,200 venison ragu and pasta meals.

Pallets were shipped into Ukraine directly as part of OpManna22, the site of departure being the same location used for Operation Manna in 1945, which dropped vital supplies into Holland during its wartime occupation.



The Country Food Trust Chief Executive, SJ Hunt, said: "We are humbled that due to our fabulous supporters, we have been able to fundraise

specifically for Ukraine. This appeal has led us to provide meals in ambient packaging, transported directly into Ukraine, right at the heart of where there is great need. By providing protein rich meals containing British wild venison, we hope that some of the dreadful hunger we have all been watching is eased."



## Request for samples

Research student Dr Darren R Gröcke of Durham University is using stable isotope analysis in order to gain better understanding of modern deer ecology and has called on BDS members to provide bone and keratin samples.

Undertaking work supported by BDS, Dr Gröcke has been generating a stable isotope database (carbon, nitrogen and sulphur) of modern deer. To date he has acquired some 150 deer samples from stalkers around the UK,

but more samples are needed in order to generate a robust spatial map of deer stable isotopes from around the country.

Please send sample material with information below to:

Dr Darren R. Gröcke  
Stable Isotope Biogeochemistry  
Laboratory (SIBL)  
Department of Archaeology  
South Road, Durham  
County Durham, DH1 3LE

The samples required are:

**Deer bone sample** (cubic centimetre sized fragment)

**Deer keratin sample** (fur, hoof – again, a cubic centimetre of material)

All samples must include deer species, date of collection, location co-ordinates and if possible sex, age and cause of death.



# The Game Fair

BDS will be on **Stand J207** fielding a strong contingent throughout the three days of the Game Fair, which takes place at the familiar venue of Ragley Hall, Warwickshire, from **July 29-31**. Attending the BDS stand will be our BDS training team of Nick Rout, Glyn Ingram and Dawn Cope, supported by branch volunteers from the Midlands, Wales and The Marches branch. CEO David McAuley and Trustee Directors will be heading up the team on Friday and Saturday. On Friday afternoon at 2pm we will be presenting the Jim Taylor Page Trophy to Sally Barrell, so if you are at the show, please stop by the stand to offer your support.



Wildlife photographer Mike Roberts will be a guest on the stand

We will have some exciting special show deals for membership and DSC1 training. In addition, award winning wildlife photographer Mike Roberts will be a guest on the stand displaying some spectacular images. CEO of the International Association of Wildlife Photographers and a lifelong deer stalker, Mike recently hung up his rifles in favour of his photography. Utilising the skills learnt over decades of deer stalking, Mike now prefers to shoot his deer with a camera. He has won numerous awards, domestically and internationally with both his rifle and camera, including a world title with the .50BMG rifle at the 2017 World championships in Raton, New Mexico.

The Game Fair is Britain's largest outdoor countryside fair and offers something to everyone interested in rural activities and field sports. The main arena will have an outstanding mix of exciting competitions, educational demonstrations



Hundreds of top brands will be on show

and entertainment all weekend, while the Countryside Food and Drink area is one of the best places to sample fabulous food and great wines, spirits beers and other drinks sourced from the British countryside. For the shooting enthusiast, Gunmakers Row offers aisles and aisles of amazing products from literally hundreds of top brands. In addition, Pulsar will be offering visitors the chance to test drive their products with a viewing platform to demonstrate the detection range and image quality of their night vision and thermal optics.

Visit [www.thegamefair.org](http://www.thegamefair.org) for further details and ticket prices.



The Game Fair will be held at Ragley Hall, Warwickshire



# Deer QUERIES

The BDS responds to members' questions about deer

If you have a question regarding deer that you would like the BDS to answer, write to: Deer Queries, BDS, The Walled Garden, Burgate Manor, Fordingbridge, Hampshire SP6 1EF

We live in a rural part of Somerset. About a month ago our small dog chased a roe buck close to our house (I have kept it on the lead since then) but soon afterwards I believe that the same one has started attacking the floor to ceiling glass door of the room where the dog sleeps. This happens in the middle of the night. It does not seem scared by our appearance and we worry that the deer may break the window or injure itself. Is it likely to be dangerous?

Wild deer of all species are generally anxious to avoid humans and dogs and under normal circumstances a wild deer will almost invariably flee if confronted by either. They are certainly not likely to attack, nor will they nurse a grudge against any dog that has chased them in the past, so this behaviour is very unusual.

Of the possible explanations, two stand out. By far the most likely is that this particular one might simply be attacking its own reflection in your window. At this time of year (this enquiry was received in mid-May) roe bucks become highly territorial and aggressive towards others of their kind.

Very often this testosterone-fuelled behaviour is so focused that a buck can be oblivious to distractions, or it may be that your presence in a darkened room behind the glass may simply not be visible to it. If you are able to screen the window attracting its attention, perhaps by placing a suitable piece of garden furniture in front of it, the behaviour may cease, otherwise you may be able to deter the deer from visiting that part of your property. There are some suggestions on the British Deer Society's website in the Information & Advice section under 'Deterring Deer'.

It is also possible, though less likely if you are the only local residents

experiencing problems, that the deer could have been hand reared before being released back into the wild and has lost its natural fear of humans. Of all the deer species captive roe bucks, and especially those that have become more accustomed to humans, can have a particular reputation for aggressive behaviour. If this is the case it would be prudent to be cautious around it as such animals can be extremely unpredictable. If the animal does prove to be habitually aggressive towards humans, regrettably the only practical solution might be to seek the assistance of a local deer manager or a wildlife rescue organisation.

We have large numbers of muntjac where I live but at some times of year their barking seems to be far less frequent. Are there seasonal variations, and do they make other noises?

to warn of the presence of an intruder.

Apart from barking, muntjac may make a variety of other noises though some are only really audible at closer ranges. Courting animals may squeak at each other, especially a submissive doe, and an unwilling doe being pursued by an over-eager buck may whicker. A lost or

hungry fawn makes a piping flute-like squeak, while a distressed one may squeal or bleat to attract its mother. Rutting bucks can grunt, or click when irritated or if threatening another buck. Any animal that has been caught or trapped, for example in a fence or a snare, can make a loud scream.

The muntjac is also known as the 'barking deer' for its fox-like bark which is repeated every four or five seconds, sometimes for very long periods of up to an hour. Barking may take place at any time of day and there do not seem to be any specific peak periods for it.

Studies have suggested that muntjac tend to vocalise more during the spring and summer. In the winter months they can often seem surprisingly silent, even in areas where there are known to be high densities. There appears to be no obvious explanation for such variations although environmental conditions may be a factor as many aspects of the muntjac's behaviour are aseasonal and they breed throughout the year. Does will bark to advertise being in oestrus, while otherwise the barking may be territorial or merely advertising presence. Barking is also used



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# Boxing clever



**Covid sparked a new business model for a venison enterprise. Lucy King went to see for herself**

**M**aking homegrown venison attractive and available to the public has long been a problem in the UK. Thanks, in part, to the Covid-19 pandemic, however, a new business is making this delicious, sustainable meat more accessible than ever before.

Deer Box is an online business that sells wild venison directly to the public, offering delivery of meat boxes across the UK. It was the brainchild of chef, restaurateur and wild food advocate, Mike Robinson, and of Ben Heath, one of his principal deer managers.

The foundations were laid in 2018, when Mike started to manage a small Food Standards Agency (FSA) approved

larder, Owl Barn, in the Cotswolds. "It was part of his business supplying whole deer carcasses to restaurants, with a very small amount of butchery and sales to the public," explains Ben. "When Covid hit, two years later, I was managing a 10,000-acre block of land and sending the deer up to Owl Barn, where they would be skinned and processed. I was already developing a strong interest in butchery and venison cookery, but – at that point – only from butchering a few deer kept back for consumption at home and by friends."

"Then, all of a sudden, lockdown hit. Mike had to finish the cull at the main estate and then shift the deer, but there was nowhere to shift them to because the restaurants were all shut." This could

have been a serious problem, not only for the business, but also for the deer management plan and, consequently, for the welfare of the deer. Fortunately, Mike is accustomed to thinking on his feet. Ben continues: "He called up a couple of his chefs, who obviously weren't working, and they cut up and vac-packed the 20 or so fallow deer, then offered them for sale in a different format: meat boxes." They were snapped up.

Lockdown continued and Mike pondered what to do with the business and how to integrate selling on the meat with deer management and other business commitments in an uncertain climate. Ben had also been thinking and came up with a plan. Covid made the restaurant



trade unreliable, but it also opened up opportunities for selling directly to households, who were more receptive than ever before. Ben says: "I looked at the limited amount of time I had and at the facilities at Owl Barn, and realised they were really just geared up for selling whole carcasses, so I created a new business model to make it work for the first year. I set up a website for sales, and Deer Box started on August 1, 2020.

"I had a contract butcher at the time, who was suffering in lockdown because his main business was schools and restaurants. I went in and trained his staff how to butcher deer and away we went. We grew gradually through the November and December of the second lockdown. Then, just after Christmas, the press got hold of us. We were everywhere: *Country Life*, *The Times*, *The Telegraph*, *Sainsbury's Magazine*. The business went from doing 10-15 boxes a week to up to a hundred.

"Demand was suddenly so great that the butchers were barely able to cope. Even though we had harvested a lot of deer and had a surplus because the restaurant trade had fallen off a cliff again during the second lockdown, we sold it all. By the end of February, we even had to buy in deer to meet orders, which meant we were also able to help out the game dealers whose business had been struggling. Our projected 800 carcasses became 1,200."

With such rapid growth, it was time to take stock and decide if it was time to expand further, as Ben explains: "The first year was essentially me on my own, with a few contractors. The butchers would send me the meat vac-packed in Deer Box packaging, then I would label and pack it, often at night with help from my children.



In March 2021, I decided it was time to make it much more of a business and began to look for premises.

"At that stage, we were buying muntjac from the Ramsbury Estate, where the brewery and distillery are located, and one of the stalkers mentioned that there was a facility available to rent. I went down and had a chat and soon we had a deal. Now the plant is self-sufficient: deer come in the fur and leave fully dressed and packaged. We have about 400 square metres, two chillers, a large dry ager and three freezers. We also now recycle all our hides through Billing tannery in Norfolk, where they're turned into leather goods." Like the premises, the team has expanded, now including a full-time stalker, a driver-operator and a website salesperson, plus two full time butchers and Ben himself.

One of Deer Box's big selling points is the traceability, sustainability and quality of its meat, plus the fact that it's FSA approved. Naturally, this means clearing

a few regulatory hurdles but, from Ben's point of view, it's more than worth it: "I've had to become an expert in all sorts of things: in HACCP (Hazard Analysis Critical Control Points); in food safety; and in measures, procedures and processes – because when you work under the FSA



Deer Box was the brainchild of Ben Heath and chef, restaurateur and wild food advocate, Mike Robinson (pictured left)

everything has to have a process and has to be fully documented. And there's also been learning about quality, temperature and aging, and how butchering meat in different ways affects the quality and tenderness of the product..."

Ben's self-imposed standards are just as strict: "We still harvest around 60 per cent of what we sell, but have to buy in some. We visit each estate we work with and look at their facilities and how their stalkers operate. Essentially, we've created our own internal assurance scheme. We satisfy ourselves that our hunters are using lead-free ammunition, that the deer are cleanly shot, and that their gralloching, field extraction procedures and then larding process are of the highest standards, not just what's dictated by best practice."

The most recent hurdle cleared was approval to produce bacon, adding wild boar and deer bacon to Deer Box's offering. Not getting stuck in a rut is, for





Ben, one of the secrets to success: "We're permanently trying to create interest and variety. People get bored very quickly, so we strive to offer things you don't get from a normal game dealer. One of our most popular new products is dry aged venison, which goes down a storm. We're also developing some gluten-free, non-allergenic marinades for summer barbecue boxes. Customer service is another top priority, and that includes letting customers know which species they're getting (other than for mince) so they can appreciate the difference in taste between different deer." To keep things seasonal and add further variety, the business is also branching out into rare breed beef, pigs and sheep from carefully selected farms.

Packaging has also been carefully

selected to minimise environmental impact. Other than Styrofoam necessary to protect sausages and koftas, it's all recyclable, from the wool used for insulation to the paper-based tape that keeps the boxes together.

All this has been reflected in a number of awards and nominations, including most recently being shortlisted for the Great British Food Awards 'Best Independent Online Retailer' alongside mainstream heavyweights including Riverford Organics and Abel & Cole.

Always with a view to encouraging interest, Deer Box also offers tours. Earlier this year, the BDS West branch visited the facility at Ramsbury in Wiltshire. "It was the most interesting carcass inspection lesson I've ever had," says branch vice-chair, Emily Johnstone. "With such a large number

of deer hanging in the larder ready to be butchered, it's fascinating to see the differences in fat levels and size between a park deer and a free-roaming beast. The equipment was also incredibly impressive, including the winching systems and the industrial-scale fridges.



"Seeing the butchery and the preparation of different cuts of meat for the restaurant trade and for individual customers was another highlight. It was very much more than a standard 'slab of meat'. Above everything, though, the team was just so friendly and so keen. They're passionate about what they do and that was really evident throughout the tour."



To find out more, order or arrange a tour, visit [www.deerbox.co.uk](http://www.deerbox.co.uk)





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# A fine line

**Graham Downing meets wildlife artist Katie Hargreaves**

It was an artistic career that started almost by accident. Katie Hargreaves had studied both art and biology at school and had done a little portraiture, but in 2016 she decided to paint her boyfriend a picture for his birthday.

"He was a deer manager and passionate about conservation, so I painted a fallow buck for him," says Katie. It was the first animal I'd ever drawn or painted. He thought it was very good and suggested I should try painting some more, so I did, and I built up a bit of a collection.

"He also had good contacts with the Beretta gallery and managed to get me a small stand at a rifle launch. I sold



Katie took her DSC1 in 2021

GRAHAM DOWNING





two charcoals that night, and I realised that this was something people were interested in."

With no previous connection to the field sports world, Katie took a stand at the Game Fair and managed to sell a few more of her pictures there. This inspired her to explore the art world a little more deeply, so she kept practicing and slowly got better. But at that point the visual arts took a back seat: Katie went to drama school in Liverpool.

"I wanted to go down the creative route as an actor. I graduated two years ago, but acting is hard and it doesn't pay. And coming into the real world of acting is very difficult when you're a young, white

female. There are so many of us that it's hard to be different."

So while acting has turned out to be something of a blind avenue, Katie has not entirely given up all thought of an acting career at some point in the future.

"The dream's not dead. For now, I'm putting all my energy into art, but it's something I can come back to. Who knows, in ten years time I might get bored with art," she says.

However, with two Game Fairs, the Scottish Game Fair, the Stalking Show, the British Shooting Show, Northern Shooting Show and a string of local country fairs under her belt, at just 26, Katie has found a niche within the art world which has

proved to be a real commercial success.

Her speciality within that niche is deer.

"I just love deer. My boyfriend introduced me to stalking, we went stalking together about ten times and in 2017 I shot a roebuck. But I also went out quite a few times with my camera instead of a rifle and I actually found that more fun. I really enjoy photographing deer and I'm currently trying to get more into it and take better pictures."

Photography did not stop her interest in stalking. Katie took her DSC1 in 2021, and thoroughly enjoyed an experience in which she could learn in depth about one specific subject. It was like being back at school, but studying a subject with which





original drawings. She has also developed a range of shotgun shooting images which have proven to be very successful, especially her image of male and female shooters creating a heart from their opposing shot patterns, which led her to design a successful range of wedding stationery. It is the bigger shows that she likes the best: there are more people and there is more spending power.

she really felt connected, and about which she seriously wanted to learn.

The experience also built connections with a range of other people within the deer world and led to invitations to accompany stalkers in Sutherland, Skye and around the Western Isles. But home for Katie is in Norfolk, close to the wild heathlands and dark forests of the Breckland.

"I'm fascinated by deer because they're so intelligent. I like roe in particular – they're clean, sly and switched on. They're also very pretty so it's easy to want to draw them, but I think my love of roe has something to do with where I live,

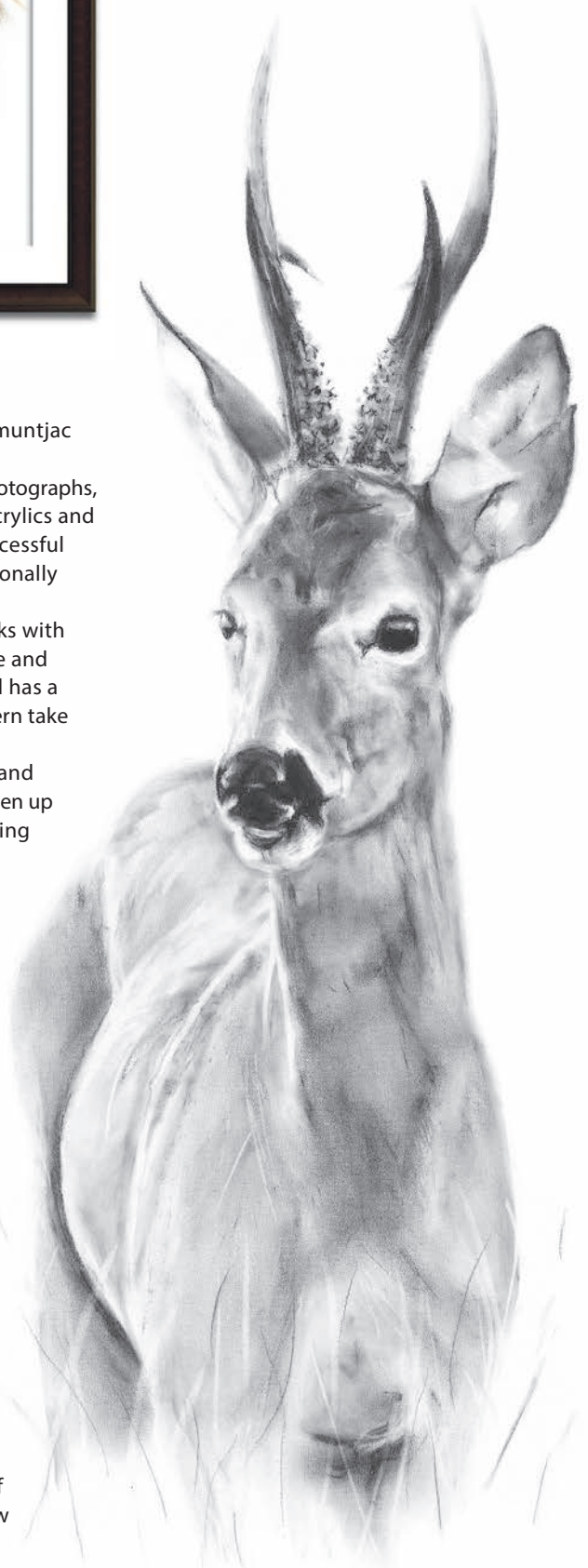
because we see a lot of roe and muntjac here in Norfolk."

Katie draws exclusively from photographs, and though she has worked in acrylics and has dabbled in oils, her most successful pictures are in charcoal or occasionally chalk.

"The aesthetic of charcoal works with people because it's monochrome and minimalist. It goes anywhere and has a modern feel about it – it's a modern take on a traditional subject matter."

But although charcoal is front and centre at present, Katie has not given up entirely on the thought of revisiting painting, which after all is where she started. She is also keen on the idea of branching out from British into African wildlife, while she is travelling to New Zealand later this year to meet a hunting guide, her objective being to take her own wildlife photographs and then to create pictures from them, something which she considers to be a more holistic way of making the artistic connection with wild animals.

For now, Katie's main priority is to grow her already burgeoning business. She works to personal commission, often drawing peoples' dogs. More recently she has developed her online sales, and she attends a lot of country and field sports shows, where she sells a range of prints and cards, along with a few







Katie at work in her Norfolk studio



"I really loved the Stalking Show. It was such a niche event. Sometimes at game fairs you just have lots of ordinary shooters and country people. Whenever I meet a stalker I get really excited and we can share our passion about deer. At the Stalking Show everyone was exactly that kind of person, the kind I wanted to talk to."

And yet, alongside her passion for deer and her close involvement in the world of stalking and deer management, she has a strong personal code of ethics where wildlife is involved.

"I'm a vegan. Well, I'm a vegan 99% of the time because I eat venison that either I've shot myself or that's been shot

by someone I know. I'll eat something that's been killed for conservation, but I won't eat something that's been bred just to be eaten, because I don't think it's necessary. Venison on the other hand is a genuine by-product of countryside management."

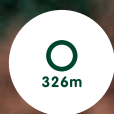
Maybe her personal label as the 'vegan hunter' chimes with Katie's modernist outlook, but it certainly marks her out as someone who has given a lot of thought both to the wildlife that she draws and how it is managed in the real world. And her undoubted success suggests that it has received a sympathetic hearing from many within the world of deer.







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# Swarovski's tM35 reviewed

**Simon Gibson field-tests Swarovski's new combined thermal observation spotting device and riflescope clip-on**

In October 2021, Swarovski Optic announced the tM 35, its first and long-awaited foray into the fast-growing thermal imaging market (*Deer*, Winter 2021-2). After an eight-month wait, shipments have now arrived in the UK. The new tM 35 functions as an observation monocular and a clip-on device to add thermal functionality to the company's renowned optical rifle scopes.

Upon opening the box, what immediately strikes you is the compact design of the tM 35. The unit is 170mm in length, 54mm in width and 80mm in height, including the battery housing. It weighs in at 495g. The tM35 is supplied with a quality field bag, wrist and neck straps, a compact charge unit, battery, a winged eye cap, lens caps and cables.

The rechargeable Li-Ion 3000 mAh Battery is inserted into the top of the unit and provides seven hours of operation. There is a button on the left-hand side to switch on the device. During the two

sec start-up time, a splash screen of the Swarovski logo is displayed, the ambient light conditions are analysed, and the intelligent control automatically adjusts the screen of the tM 35 to one of 32 brightness levels. The unit is dimmed at night to avoid dazzling when viewing in dark light conditions.

Two key components of thermal imagers are the thermal sensor and the screen display. When the tM35 was launched, some observed that the Uncooled VOx microbolometer with 320x256 sensor resolution and 12(µm) pixel size was less than some other high-end products. However, the AMOLED display screen with 2560x2048 pixel resolution is market leading. When the thermal unit is attached to the scope, and the optical zoom on the scope is used rather than a

standard digital zoom, the image quality is excellent. The scope is optically zooming in on the high-resolution screen. When using an optical zoom in front of a lower resolution display screen, the image quality is compromised regardless of the thermal sensor's resolution. Swarovski engineers have managed to get the sensor to screen display equilibrium just right.

For those who have used other thermal devices, the pure simplicity of the tM 35 is apparent. There are no complex menus. There is a simple menu bar which appears for 5 sec when any button is pressed. One of the three buttons on the top of the tM 35 changes the mode from Black Hot to White Hot. The other two buttons manually adjust brightness levels if a user wishes to fine-tune the intelligent control setting. The tM 35 also has a memory function in the day, twilight, and night range. If your selected brightness level in one of the three ranges differs from the default setting, the tM 35 will save this custom brightness setting and apply it when the device is next activated or switched on.

The tMA thermal monocular adaptor (purchased separately) easily converts the handheld device to a clip-on scope device. The tM 35 attaches to the adaptor with a screw thread. The thermal unit and adaptor attach to the scope by placing the conical-shaped sleeve over the front of the scope and securing it with a tensioning lever. The process takes a few seconds and can be undertaken in darkness. The adaptor sleeve includes protection to prevent scratching the scope casing.

As a thermal monocular, the tM 35 fits nicely in the hand and is small enough to fit into a jacket pocket. In observation mode, the unit operates in 4x digital multiplication. The image quality is



The tM35 comes into its own on the front of a scope



satisfactory but not the best in class. The tM 35 comes into its own on the front of a scope. In tests, the thermal provided excellent target resolution at up to 10x optical zoom on a Swarovski Z8i 2.3-18x56 scope complemented by an illuminated 4A-300i reticle.

Attaching a device to an optical hunting scope can affect the point of impact. Would attaching the tM35 to a quality scope affect the point of impact? A trip to the range was the only way to settle Swarovski's claim of a 100% reliable point of impact.

The first test at the range was to check zero at 100m with the Z8i scope on a 6.5 Creedmoor rifle. A 3 shot group produced a sub-0.5 inch group. The tM35 was attached to the scope and a 3 shot group fired at the same target with an added heat source. Despite a more challenging target, the results were highly impressive. The three-shot group produced a 0.6-inch group. The tM 35 did not affect the original point of impact. It is worth noting some manufacturers' units require elevation and windage adjustments to realign zero.

The tM35 utilises SWAROLIGHT technology which automatically switches the device off when in a 'non-shooting' position, therefore saving battery life. Once in the shooting position, the unit is reactivated in 2 seconds.

Swarovski has developed a product delivering a well-engineered, no-nonsense solution for those who seek a thermal solution for daylight, low-light or night shooting. There are no video recording features, live streaming, Wi-Fi, range finding, or ballistic calculators, all beguiling features contributing to the continuing thermal arms race. The designers have consciously created a practical solution that is easy to deploy and works right out of the box. Attaching the device to your scopes without concerns regarding the point of impact will be a significant selling point for the tM 35.

As you would expect from an Austrian manufactured product, the build quality is excellent. The tM 35 is compatible with SWAROVSKI OPTIK rifle scopes from the Z8i, Z6i, Z5(i), and Z3 series.

The tMA adaptors to attach the tM 35 to a range of scopes are available in the following objective lens diameters: 24, 36, 42, 44, 50, 52, 56.

RRP Swarovski tM 35 – £3,980.00  
RRP tM adaptors – £182.00 each

For more information visit:  
[www.swarovskioptik.com](http://www.swarovskioptik.com)

#### SPECIFICATION

10.9x8.7m/100m field of view  
100% field of view with eyeglasses  
21mm exit pupil distance  
(4x magnification)  
1 x optical magnification  
4 x digital magnification  
35mm/f1.1 objective lens

#### SIZE & WEIGHT

170mm length  
54mm width  
80mm height  
495g weight  
M44 x 0.75 connection thread

#### ENVIRONMENT & CONDITIONS

-15 to +50°C functional temperature  
-30 to +70°C storage temperature  
IP68IP protection class

DIGITAL 60Hz refresh rate

#### AMOLED screen type

2560x2048 screen resolution (pixels)  
Uncooled VOx microbolometer  
sensor type  
320x256 sensor resolution (pixels)  
12 pixel size (µm)  
2 sec start-up time

#### BATTERY

Li-Ion 3000 mAh battery  
7 hours battery operating time during  
normal/maximum operation

## Book REVIEW

### Gardens of Earthly Delight – The History of Deer Parks

By John Fletcher

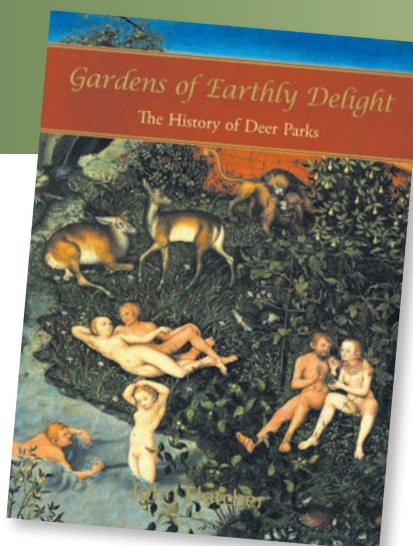
Published by Windgather Press,  
an imprint of Oxbow Books.

Price: £29.95

A distant glimpse of an historic house standing in rolling green acres, with fallow deer dozing in the dappled shade of the parkland oaks: it is perhaps the most quintessential of English scenes. And as John Fletcher explains in his masterful work on its history, first released in 2011 but now republished, it is in England that we have had the closest connection and the deepest affinity with the deer park.

John takes us on a tour from the earliest stages of man's interaction with deer, through the Classical period when the Romans arguably established the earliest deer parks in these islands, via the middle and far east to the medieval and renaissance parks and their association with status. He explains why and how deer were emparked for hunting, and examines the symbolism of venison as an elite gift from landowners.

But this book is about far more than simply the parks themselves. A leading vet and deer farmer himself, the author explains how park deer were captured, managed, fed and handled, along with the practices and techniques employed in hunting them,



from pursuit 'at force' with packs of hounds to 'bow and stable' and thence onwards to the use of firearms. We learn about the duties of the Parker and gain insight into the landscape features which were employed to enclose and contain them such as the ha-ha, which permitted the invisible transition

between park and garden. So many of these features are still visible in the British countryside if we only care to look, and this book shows us how we may identify their true origins when we encounter them.

This is both an important academic contribution to our knowledge about the deer park, and a delightful read for anyone fascinated by our association with deer.

GD



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Roe were detected more than any other single species

# Caught on Camera

**Elisa Fuentes-Montemayor, Matt Guy, Kirsty Park and Kevin Watts** used camera traps to quantify the effect of deer on natural regeneration of woodland, its vegetation structure and biodiversity

Woodland expansion is widely regarded as a key part of the solution to counteract climate change and tackle the biodiversity crisis. This is because woodlands and trees can sequester carbon from the atmosphere and also provide habitats for many wildlife species. Tree planting has therefore made its way to the forefront of the current environmental agenda globally. For example, international initiatives such as the UN's Decade on Ecosystem Restoration 2021-2030 recognise tree cover expansion as a key priority for landscape restoration. In the UK, tree planting schemes have been in place for more than a century and have helped increase woodland cover from a historic low of 5% at the beginning of the 20th century to a current figure of 13% (although much of this consists of commercial production forests which are often of lower value to biodiversity than semi-natural woodlands).<sup>1,2</sup> Tree planting is expected to continue at an accelerated rate in the decades

to come, with the UK Government pledging to plant an additional 30,000 ha of trees per year up to 2050 and the Scottish Government having a current target 12,000 ha of trees planted per year, increasing to 18,000 ha by 2024/5. But despite large-scale tree planting having been common in the British countryside for decades, we surprisingly still know relatively little about how woodland creation sites, particularly native woodlands, develop over time and how valuable they are for biodiversity.

Woodland development can be influenced by many factors including environmental stress such as drought and

natural disturbances such as windthrow.<sup>3</sup> Additionally, herbivores like deer can drastically alter woodland structure and development through browsing seedlings, limiting tree recruitment and disrupting natural regeneration.<sup>4</sup> Natural regeneration – the establishment of trees from seeds germinated in-situ – is a key process underlying the long-term continuity of woodland ecosystems: the woodland needs to 'recruit' new trees to eventually replace older ones that die off. Natural regeneration also facilitates woodland adaptation to climate change because trees that grow from local seeds are likely

to be well adapted to local conditions. Furthermore, natural regeneration increases woodland structural heterogeneity; in other words, there is more structural variability if there are small young trees in addition to larger older ones. Variation in tree size has been identified as one of the main drivers influencing the diversity and abundance of many species groups in woodland creation sites, such as bats, small mammals and invertebrates.<sup>5, 6, 7</sup> Therefore, changes in woodland



Red deer accounted for less than 1% of total detections



structure as a result of deer herbivory can also cascade to other woodland species and influence the biodiversity value of planted woodlands.

Grazing and/or browsing pressure can be disproportionately important drivers of woodland dynamics during early stages of woodland development, when young trees have not yet reached a sufficient height to escape ungulate herbivory damage that might increase tree mortality rates.<sup>8</sup> Herbivory pressure can continue to be a major determinant of vegetation structure in later development stages, when natural regeneration is expected to take place once canopy gaps naturally begin to open, allowing more light into the understorey. A recent study using remote-sensed data to quantify the structural complexity of woodland creation sites indicated an apparent lack of natural regeneration affecting the understorey layer, probably driven by excessive herbivory pressure.<sup>9</sup> However, vegetation structural changes driven by plant-herbivore interactions are unlikely to be evident in the short term, particularly in temperate woodlands where successional rates and habitat development are slow. It can thus be very challenging to study woodland ecosystems over sufficiently long temporal scales at which these processes take place. Previous work suggests that it can take decades and even centuries to detect meaningful changes in woodland structure.<sup>10</sup>

### Learning from the past

The Woodland Creation and Ecological Networks project (WrEN: [www.wren-project.com](http://www.wren-project.com)) was designed to overcome some of the challenges of investigating the ecological consequences of woodland creation over sufficiently long temporal



Data includes 20 mammal species

scales. WrEN is a partnership project co-led by the University of Stirling and Forest Research in collaboration with academics, policy makers and practitioners interested in ecological restoration. WrEN uses a 'natural experiment' approach to study the long-term effects (up to 160 years) of woodland creation on biodiversity and ecosystem functioning.<sup>11</sup> Rather than carrying out direct experimental manipulation of sites, WrEN focuses on landscapes where historical land-use change has occurred as a result of past woodland planting, and we combine this with a systematic (experimental) site-selection protocol. For this, the WrEN project makes use of historical woodland creation that has occurred in the UK over the past 150 years, which has inadvertently produced test landscapes containing woodland patches of varying age, size and degree of connectivity. In addition, because the UK has very good historical land-cover maps, which are now available in digital format, we can usually estimate to within a few decades when a patch of woodland became established. Being able to identify, and date, woodland patches that have been created at various points in the past in a variety of configurations gives us the starting point for our woodland creation 'experiment'. This semi-experimental set up enables us to investigate which attributes of newly created woodlands and the landscapes around them are associated with successful colonisation and establishment of a wide range of woodland species.

The WrEN study sites are located in central Scotland and central England; two regions of the UK which are dominated by agricultural land and which represent fairly typical lowland landscapes in these countries. We systematically selected over 100 broadleaved woodland patches created over the past 160 years on former

agricultural land, ranging in age from 11 to 160 years old at time of initial survey; in size from 0.5 to 30 ha; and in degree of connectivity. Since 2013, we have been conducting wildlife surveys at these sites and have recorded more than 2,000 species so far, encompassing vascular plants, lichens and bryophytes, invertebrates, small mammals, bats and birds. Work is still ongoing, and in 2020 we began a camera trapping campaign, with support from the British Deer Society, to gather information on mammals that use these sites, including of course deer.

### A spy in the woods

Camera trapping is a major surveying tool in animal ecology and conservation studies which can be used to estimate animal densities in a wide range of habitats, including woodlands.<sup>12</sup> It is a minimally invasive visual means of surveying multiple wildlife species at once, substantially reducing survey effort in comparison to other methods.<sup>13</sup> Camera traps work by detecting movement and changes in heat; once the camera is triggered, it takes a picture and stores it on an SD card. We used Browning Spec Ops Advantage cameras which have a detection range up to 20m. We deployed one camera per site, attached to a tree at about 0.5m from the ground and aiming at a clear area, free of branches obstructing visibility and/or waving vegetation which can falsely trigger the camera, in a fairly representative location within each woodland. Every four weeks we revisited each site to check the camera to download images and replace batteries, and to move the camera to a different location within the same woodland to capture spatial variability within the area. All sites were surveyed over summer (June to October) and winter (November to February) and we ensured that woodlands of different characteristics



Cameras were attached to trees at 0.5m above ground level, covering a clear area





Deer were detected at nearly all sites

were evenly surveyed throughout the duration of the field seasons, avoiding any seasonal or spatial bias.

We have now surveyed 53 Scottish sites for approximately 250 days each, including summer and winter sessions, for a total of nearly 13,000 'survey days' (i.e. the number of days when a camera was active at a site). As a result, we have a dataset of 29,000 images and 43,500 animal detections. These include 20 mammal species such as roe and red deer, foxes, badgers, pine martens, stoats, rabbits, brown hares, grey and red squirrels and hedgehogs, as well as smaller animals such as wood mice and even bats; passerine birds, buzzards and owls were also commonly caught on camera. Our target group, deer, were detected at nearly all sites, with roe detected at 96% of sites (51/53) and representing 26% of detections (7,500 out of 29,000 images, the largest number of any single species); red deer were detected at 28% of sites (15/53), but much less commonly (only 150 detections, less than 1% of the total). We have not estimated absolute deer abundance or density, but are instead using 'number of days when deer were detected' as a metric of relative habitat use by deer; in other words, we can tell which sites are used more intensively than others, and we can then relate this to woodland characteristics.

Our camera trapping campaign continues, and data collection will commence in 35 WrEN sites in central England this summer. By the end of this field season, we expect to have data for nearly 90 woodland creation sites. The next step will be to utilise existing data from the WrEN project on woodland characteristics to assess how local (e.g. patch size and age) and landscape-level attributes (e.g. amount of woodland in the surrounding areas) influence patterns of woodland use by deer. For example, initial exploration of our data suggests that deer utilise younger woodlands more frequently

than mature ones. As part of a related project funded by the Woodland Trust, this summer we will also be collecting data on the impacts of deer herbivory on natural regeneration and tree recruitment success. We will be counting seedlings, saplings and juvenile trees, the latter being over 150cm and assumed to have reached a sufficient height to escape ungulate herbivory.<sup>8</sup> We will also be quantifying browsing damage (e.g. proportion of browsed versus intact stems) which is likely to influence tree height and recruitment success. This will enable us to formally quantify relationships between habitat use by deer (e.g. number of deer detections), herbivory damage (e.g. % browsed stems) and natural regeneration (e.g. seedling density). We will also utilise existing datasets from the WrEN project on the occurrence and abundance of other species groups to assess potential cascading effects of deer on woodland biodiversity.

### Resilient woodlands

The impacts of large herbivores on woodland ecosystems and the causal links between herbivore abundance, herbivory damage and natural regeneration have rarely been studied in the context of woodland creation. Our WrEN 'natural experiment' combined with our network of cameras that have been 'spying' on deer and other animals in woodland creation sites will enable us to improve our understanding of deer ecology and plant-herbivore interactions. For instance, we will be able to identify woodland characteristics associated with high deer densities and attributes of woodland creation sites that make them either resilient or vulnerable to high levels of deer herbivory. We need more and better woodlands to mitigate climate change and biodiversity loss. A better understanding of how deer and trees can co-exist and thrive is crucial to achieve that goal and restore our landscapes.



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**Dr Matt Guy** – Spatial Scientist at Forest Research

**Prof Kirsty Park** – Professor of Conservation Ecology at the University of Stirling

**Prof Kevin Watts** – Senior Landscape Ecologist at Forest Research and Honorary Professor at the University of Stirling

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