Scottish Wild Beaver Group

Issue 01 - August 2020

Welcome from Louise Ramsay, Chair

Since the last newsletter SWBG has been flourishing, attracting excellent new supporters, voluntary advisors and trustees and making many links with other sympathetic organisations. All have worked exceptionally hard on many fronts, from participation in the Scottish Beaver Forum - SBF (chaired by SNH), to building flow devices and wrapping trees, not to mention an ongoing, and increasingly focused social media campaign.

One of the exciting things about beavers is that they continually attract more advocates, and a key role in the last year has been collaboration with many other organisations that also care deeply about beavers and their reintroduction to Scotland. SWBG has joined the new Scottish Rewilding Alliance and is collaborating with the recently established UK Beaver Trust.

Following the success of our second conference, 'The Beaver, Scotland's Ally', in 2019, SWBG found itself facing the biggest challenge yet. On May 1st, 2019, the Scottish Government finally gave the Eurasian Beaver its long-awaited legal protection in Scotland. But before the cheering had died down, news came in almost immediately that many lethal control licences had been issued to farmers in Strathmore, Strathtay and Strathearn. We worried that far too many beavers were about to get shot (on top of unknown numbers killed in the weeks and months before the protected status was announced).

SWBG accepts lethal control as an option 'of last resort' (when all mitigation options have been explored and SNH have assessed properly that there is no other solution). Through SBF we helped advise on the official beaver mitigation and management schemes and we continue to offer practical (mitigation) help to land managers. But, despite lobbying by SWBG and others, government policy now seems to promote killing as the first line of defence for a farmer experiencing problems. The Scottish Government undertaking in 2019 to train a large number of practitioners to shoot beavers 'well' seemed to take priority over any effort to develop mitigation, and crucially, closed off the option to relocate beavers to other parts of Scotland. This, despite the fact that SNH's own assessment shows over 100,000 ha of suitable beaver habitat across Scotland.

SWBG Trustees worked hard to align our coalition of support ahead of the official announcement of the number of beavers shot under licence in 2019, in preparation for a coordinated campaign for beaver relocation across Scotland. The news was finally announced in May 2020, followed by Mark Ruskell MSP asking some Parliamentary Questions in June. The report, by SNH, of 87 beavers shot under licence, (approximately one fifth of the estimated Scottish population), sent shock waves through Scotland and beyond - among the 'beaver community' worldwide, generating a lot of press and public concern. Additionally, 83 beaver dams were removed under licence, without any requirement for expert assessment in advance, or to explore the possibilities for mitigation first (21 out of 42 licences were issued without a site visit). By contrast, only 15 beavers were trapped from 'problem' sites and relocated, to Knapdale or to various sites in England where projects are using beavers to help reduce the flooding of towns and villages and to rewild waterways.

SWBG trustees, working with Trees for Life helped to prepare the petition to the Scottish Parliament, now shared widely on the internet and gathering signatures. This calls for relocation to be opened up around Scotland in order to reduce licensed killing, as do informed articles published by SWBG and others in journals and various media.

Extinction Rebellion Scotland had the excellent idea for an art action, '87 Beavers: In Memoriam' and SWBG have joined forces to design and promote this project. Once the 87 artworks are all gathered, they will be displayed at the Scottish Parliament and other venues.

Your support is crucial to Scotland's beavers and we thank you for your membership, for following and forwarding social media posts, for signing the petition and for telling people about the wonders of our wetland engineers. With your help we will carry on campaigning until beavers are back in their waterways and understood and appreciated by people across Scotland.

Photograph by Dave Maric

RESTORATION, NOT JUST REINTRODUCTION

AN OPTIMIST'S VIEW OF BEAVER REVIVAL IN SCOTLAND, BY CHRIS CHARLTON

"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect"

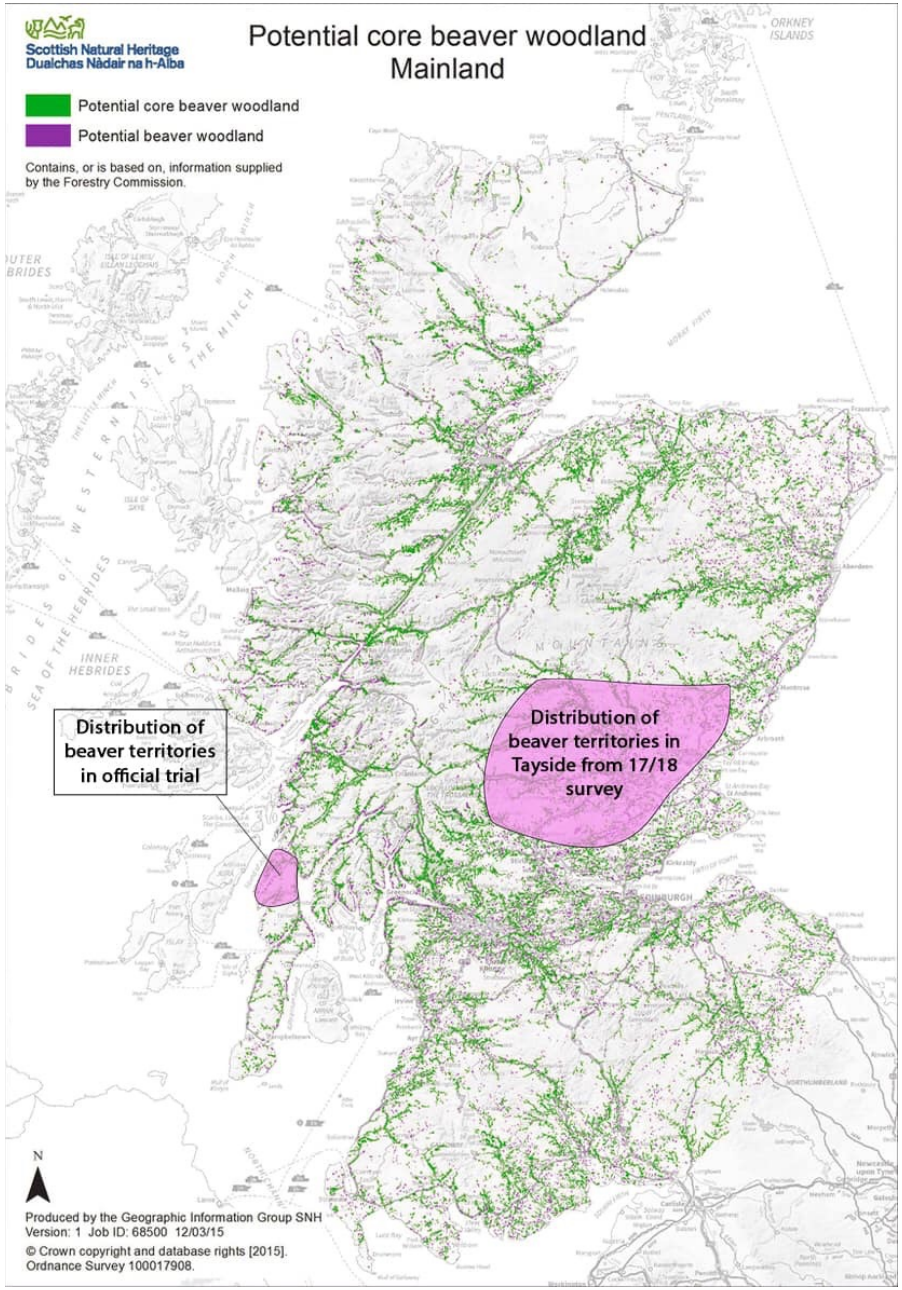
-Aldo Leopold-

With a biodiversity crisis evident across the globe, should we really look towards an early 20th century conservationist and philosopher for inspiration? Maybe so. There is a certain beauty in the idea of a land and community in union for the benefit of all. More than a mere dream, this should be considered our key aspiration in the Anthropocene, the age of the most significant human impact on nature. Nature has been fragmented by human activity. In Scotland, we see mass deforestation and then the plantation of non-native forests, which are separated from our often polluted waterways. These rivers flow through overpopulated cities that depend on unsustainable fisheries and a struggling farming industry, both of which are plagued by flooding and drought caused by climate change and unpredictable weather events.

But, if we take stock and look at the resources we have available, there is cause for optimism. Restoration of a strong beaver population could lead to profitable coexistence between humans and nature.

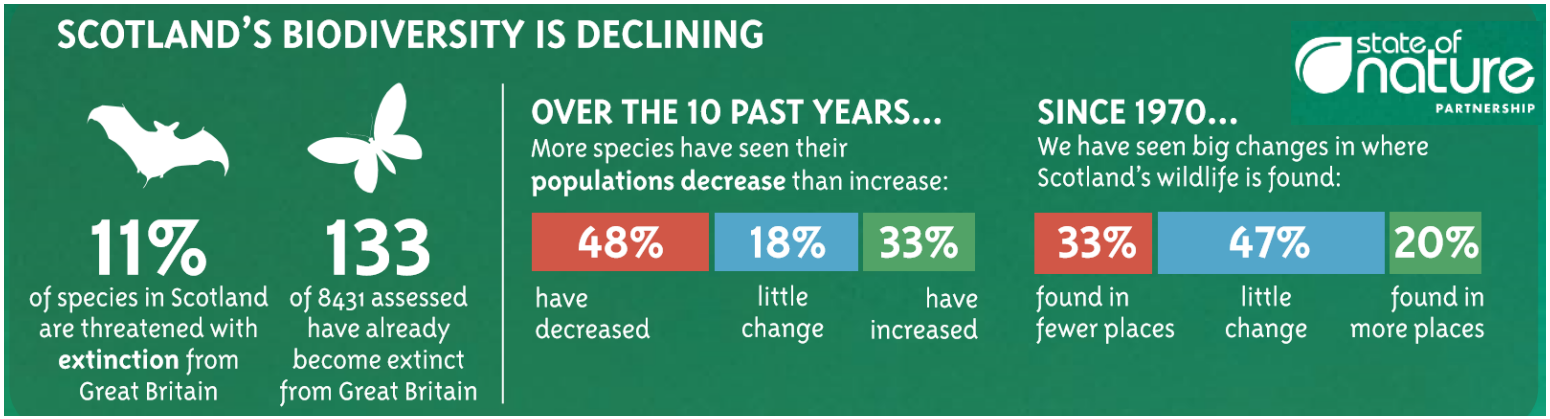
Of course, a strong beaver population requires beavers. However, between May and December of 2019, Scottish Natural Heritage (SNH) granted 45 licences for the lethal control of 87 beavers and the removal of 83 beaver dams throughout Scotland, accounting for the destruction of one fifth of the entire Scottish beaver population. With lethal methods becoming increasingly controversial, translocation has come to dominate discussions about solving the conflict between humans and beavers where problems occur.

In 2015 SNH identified 105,586ha of "potential core beaver woodland", a significant increase on the current population boundaries. However, it is important to note that the landscapes of Scotland have changed dramatically in the last four centuries and prior restoration may be required in some sites before translocation can take place. However beavers will also rapidly create the biodiverse environments they need, and many land managers are crying out for these services.The urgency for change is demonstrated by increasing extreme weather events, such as the fact that Britain has just experienced its fifth wettest winter on record.



And whilst the ethical benefits of non-lethal beaver control are obvious, the restoration of healthy, expanding populations of beavers in Scotland will have real benefits for biodiversity, tackling the climate crisis and bringing substantial economic gains.

Beavers are far more effective in this regard than many give them credit for. Terms like "keystone species" and "ecosystem engineers" are abundant in literature: titles that beavers have more than earned. After all, this species has evolved and adapted alongside every other species of flora and fauna in their semi-aquatic landscape for millions of years. It is apparent in studies within the UK and across Europe that when beavers vanish, humans regularly have to step in to fill their unique niche and halt biodiversity loss. On the other hand, when beavers return to an area, biodiversity improves. To achieve a more stable and profitable co-existence, we have to adapt to biological changes readily and rapidly. Beavers could be the key. After all, who would you trust more than a specialist to get the job done?



For Scotland, in 2019 the State of Nature report showed, beyond doubt, that biodiversity is in decline. In bringing back beavers we would do far more than add just one species to the tally. Beavers are masters at their work and create amazing ecosystems. In terms of habitats alone, the "untidiness" of a beaver ecosystem might seem derelict of life to some, but evidence shows on average around beaver pools you can expect a 33% increase in plant species and 26% more invertebrates. Furthermore, beaver woodlands and all their deadwood support a myriad of fungi and invertebrates, which in turn feeds animals such as woodpeckers and bats. In fact it is now believed that, for a woodland to be classed "healthy" and thriving, we should expect around 8% of the area to be dead wood. If these benefits were not enough, beaver channels allow pathways and lifelines for aquatic species that wouldn't be otherwise available, and flooded meadows can provide a new hope for endangered orchids and mosses.

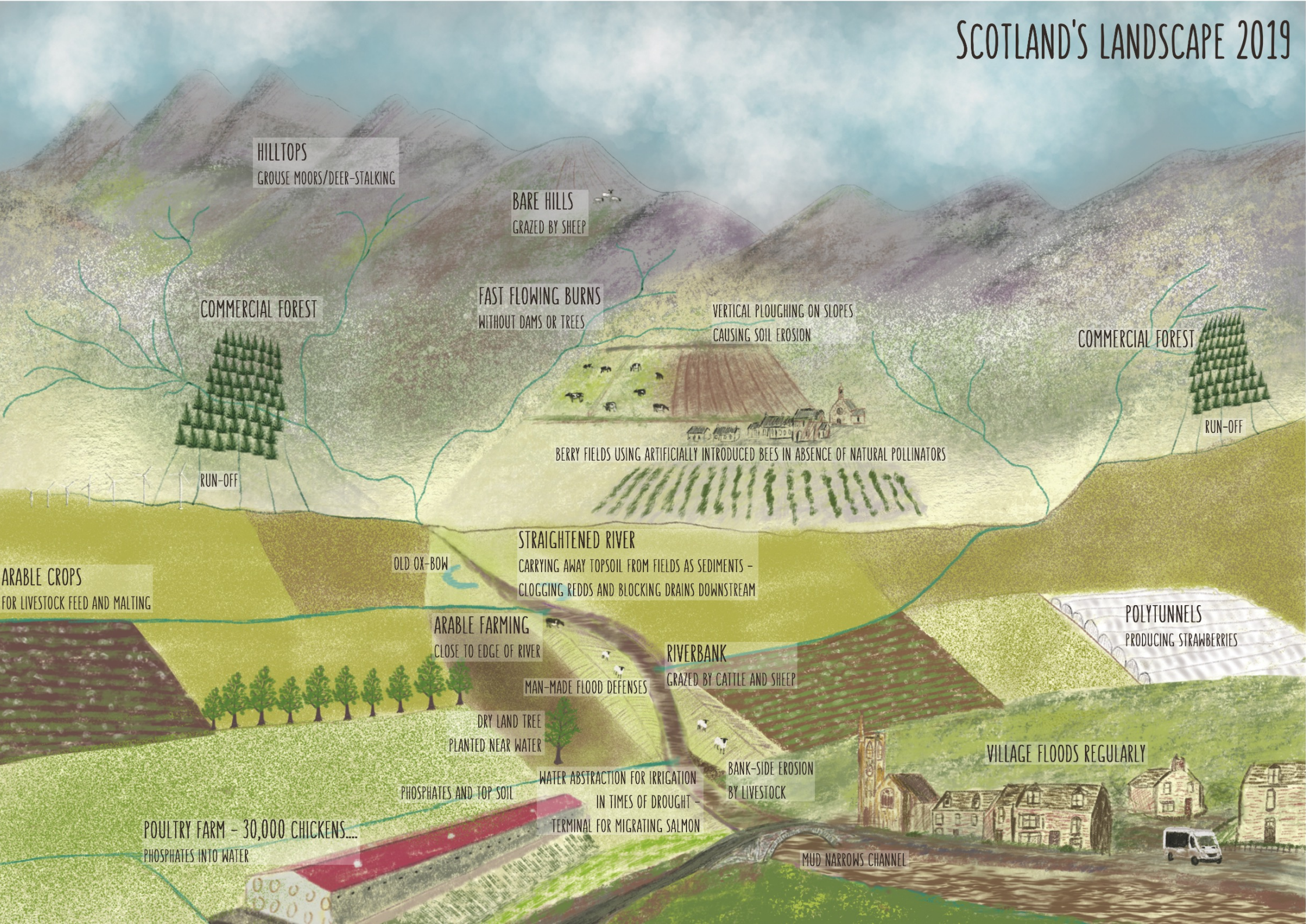
Beyond restoring beauty and tranquillity to natural spaces, beaver meadows can trap up to 14-18 times more carbon than grasslands of a similar nature, helping to slow the rate of human-induced climate change. Moreover, beaver pools can hold back over a million litres of water, along with its sediments and pollutants from upstream. While the UK government is spending billions each year on climate measures and millions on flood defences, can we afford not to accept a little bit of help from a warm blooded friend? After all, the aim of the first beaver reintroductions in Cornwall was to try and prevent flooding in the more downstream towns and cities.

Photograph by Dave Maric

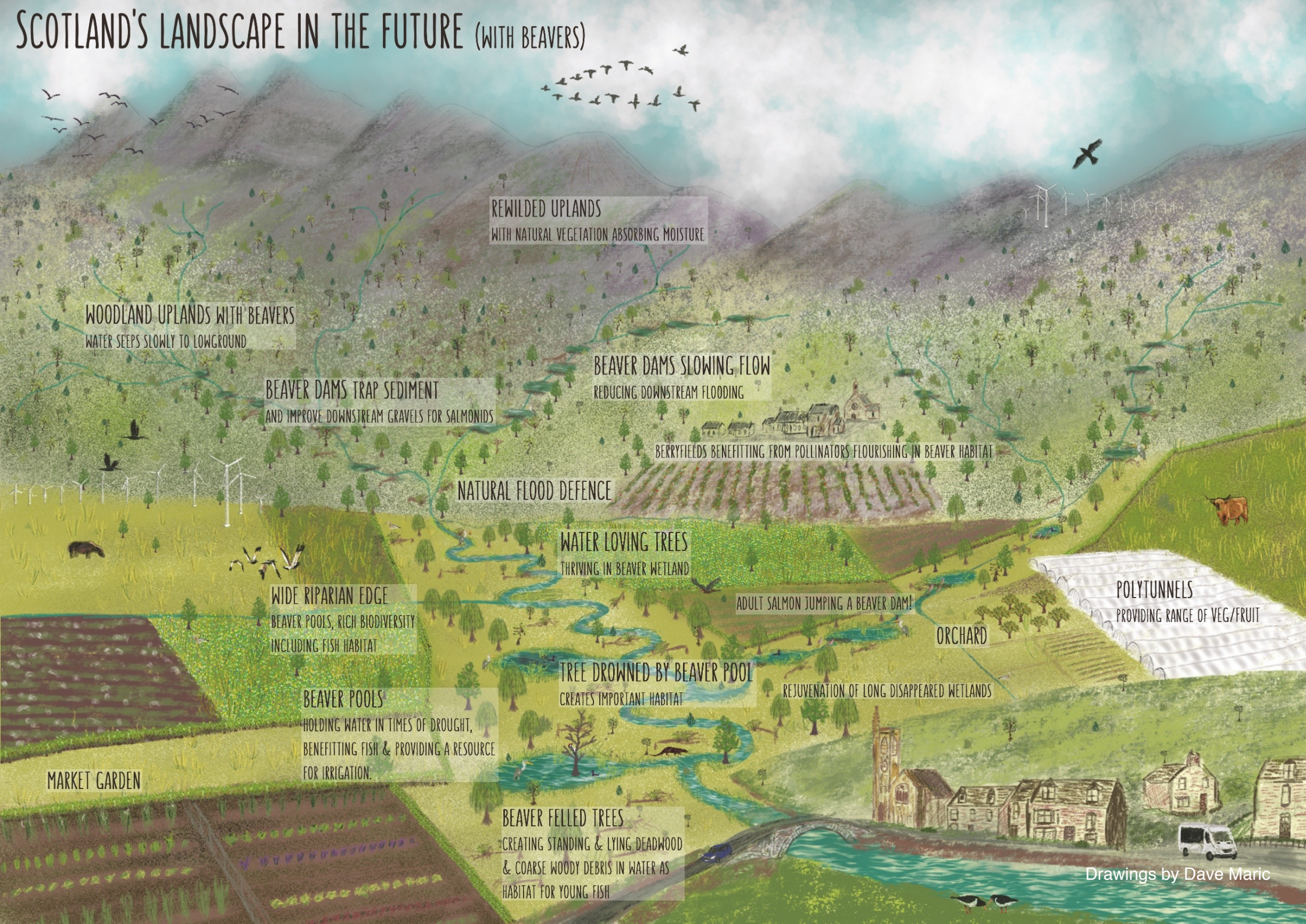
You may think this would lead to issues upstream or, in Scotland's case, uphill. Not necessarily. It has been shown in Norway, where populations of beavers and salmon are far higher than in Scotland, that increased invertebrate life and filtrated water systems created by beaver dams have positive impacts on fish spawning cycles. Thus, not only could beavers provide us with income from beaver-related ecotourism but there are also ample opportunities for the fishing industry to profit. Can you imagine a landscape where the fast flowing burns, surrounded by commercial forests, are transformed into a peaceful symphony of life, with dragonflies whizzing past and water voles scurrying through the dense riparian vegetation? If you're lucky, you may even spot an osprey soaring above. All this is within reach. If our straight-channelled waterways were left to their own devices, natural beaver-created flood defences could be hurdled by adult salmon, and berry fields could be pollinated by insects benefitting from increase plant diversity. Maybe then we could reduce the need for costly and biologically alien fertilisers and pesticides. Beavers could live alongside farmers, given that they require only five metres of space at the edge of watercourses, and in return farmers could gain subsidies for beaver residence and farm a crop less flooded, healthier and more organic.

SWBG welcomes SNH's plan to undertake beaver surveys in the course of 2020, as well as the suggestion that beaver presence could be included as a component in agri-environment schemes, rewarding farmers and land managers for accommodating beavers on their land. Such inclusion will help recognise the key contribution that beaver wetlands can make in tackling biodiversity loss and helping to build climate resilience in our landscapes and communities. This isn't just a reintroduction project from beaver enthusiasts. Backing from supporters such as Trees for Life and the Royal Zoological Society of Scotland shows a shared vision for a more dynamic, profitable Scotland. Such an optimistic view of Scotland as a place to secure the free-living populations of native beavers, with all the benefits they bring to people and nature, may not be so farfetched after all.

Scotland's landscape 2019



SCOTLAND'S LANDSCAPE IN THE FUTURE (WITH BEAVERS)



BEAVER BITES

Scottish Wild Beaver Group (SWBG) have been busy, both before and during lockdown, holding monthly meetings and continuing to advocate for the beavers and an ecological future in Scotland.

On 6th July 2019, SWBG held its second conference 'The Beaver: Scotland's Ally'; an informative, lively and emotive day attended which included discussions on beavers and Atlantic salmon, the return of beavers and the benefits they bring, including to a productively farmed landscape, reflections and thoughts on the future of beavers in Scotland, experiences and recommendations on the mitigation of beavers, results of the 5 year River Otter Beaver Trial, hydrology of wetlands and what can be done to prepare for arrival by natural means into the Cairngorms National Park. In case you didn't get there, all seven talks, the opening address and panel discussion are now available to watch online on Youtube or via the SWBG website.

"If you give the river 20 metres breathing space, you will have solved 95% of beaver problems".
In October 2019, 11 representatives of UK nature organisations attended a five day course, led by legendary beaver ecologist Gerhard Schwab, in Bavaria, where beavers and humans exist in much closer proximity and far higher densities than in Scotland. SWBG's James Nairne wrote up the experience in a straight-to-the-point and humbling report called Beaver in Bavaria: Lessons for Scotland. available to read here or on the SWBG website.

Following a parliamentary questions in which Mark Ruskell, Green MSP asked for the (then 3 months late) kill figures of beavers to be published, Scottish Natural Heritage (SNH) published their Beaver Licensing Summary for 2019 on 27th May, 2020. He put his question on behalf of the Scottish Rewilding Alliance, of which SWBG is part. SNH's report confirms that between 1 May and 31 December 2019, 87 protected beavers were killed under government licence. This figure represents roughly one fifth of Scotland's entire beaver population of around 430 animals, and severely undermines the Scottish Government's commitment to tackle biodiversity loss and protect nature.

On 17th June, 2020 the Scottish Government, backed by Scottish Conservatives, rejected the Scottish Green's bid to amend the Animals and Wildlife bill and stop the killing of beavers in Tayside until their favourable conservation status could be assured. The Scottish Government continues to insist that the system for licensing farmers to shoot them is working.
SWBG will continue working to secure a future for beavers and their wetlands throughout Scotland. Our parliamentary petition is now live and we would urge you to add your support, here.

For those wishing to READ FURTHER the following articles have been instrumental to us and might be of interest:

Trees for Life on translocation versus culling

Duncan Pepper on beavers and angling

Scotland: The Big Picture's photo story on making beavers mainstream, developed in partnership with SWBG

Photograph by Dave Maric

In March 2020, XR The Blue Wave invited SWBG to speak up for beavers at their Glasgow event. Louise Ramsay gave an impassioned talk in the five minute slot allocated, about the role beavers can play in mitigating flooding caused by our rapidly changing climate, restoring biodiversity and sequestering carbon in their wetlands.

Sustainably produced and organic SWBG merchandise is now available to purchase on the SWBG website. All money goes to the continued work of SWBG, which is run entirely by volunteers.

Bamff Wildland, Perthshire, have launched their Wildland website, designed by Dave Maric. It is a brilliant and beautiful source of information on the rewilding project underway there and the ways in which you can experience the extraordinary work of the beavers firsthand.

Covid-19 restrictions have meant that our Wetlands of Opportunity presentations, about the benefits that beavers bring, are suspended at present. When we are able to resume we would welcome interest from anyone wishing to deliver the presentation in their communities and educational spaces. Allies of the beaver can soon look forward to seeing an animation by Finlay Green of 'Cut the Mustard', produced for SWBG, which demonstrates how humans and beavers can harmoniously co-exist.

Look out for SWBG posters coming soon, highlighting the change we want to see from the 2030 beaver strategy, including translocation and government payments for doing public goods.

Photograph by Beatrice Searle

Tree felling by beavers creates complex habitats which bring many ecological benefits but it can be undesirable and occasionally hazardous. In such cases, either of the two methods below will effectively prevent beaver browsing without negatively impacting the beavers themselves. Covid-19 restrictions mean that, for the time being, we can not conduct site visits but, if you own or manage land in Scotland that is affected by beaver activity and need advice, we would encourage you to contact SWBG or you can try these harmless methods yourself.

Photograph by Beatrice Searle

SWBG TALKS WITH SOPHIE RAMSAY AT PERTHSHIRE REWILDING PROJECT, BAMFF WILDLAND.

Sophie, the beaver demonstration project at Bamff was the first of its kind in the UK. What is the population of beavers at Bamff now and how are they doing?

At Bamff we have three families of beavers. A family unit usually consists of parents, last years's kits and this year's kits. They usually have about 2 kits, so three families should mean around 18. The first two beavers arrived in 2002, and the population was later supplemented by new arrivals. They are flourishing!

What was the landscape like when they arrived and how did they get to work to change it?

Bamff is a farm with elements of an 18th century planned landscape. There were quite extensive narrow, steep sided drainage ditches created in the 18th and 19th century, to extend farmland onto what were naturally wetlands. These drained into existing burns that run off the estate. We had already begun to re-wet one area and planted a lot of willow and alder to create a wet wood. A Victorian boating pond was gradually drying up. The beavers have created dozens of dams all the way along the former drainage ditches, making many tiers of pools, which they constantly mend and augment. The wet wood has become much wetter, with a complex network of dams and canals, and far fewer vertical trees. In this area, they built a long sinuous dam

of around 100m, probably the longest in the UK. They mended the barrage on the boating pond, and have dammed the overflow at multiple points, maintaining the pond, and it has raised the water table so as to re-create another wetland behind.

What was the state of the beaver dams last (very wet!) winter and what has been going on in the pools during these very hot summer days?

Last winter, we - and various visitors - were very impressed with how the dams held, and how the beavers maintained them. Although there was significantly more overflow than usual, none of them breached, and the amount of water leaving Bamff was surprisingly small. This was a time when Alyth (three miles downstream) was on the verge of flooding (it did flood quite badly in 2015, and the local population were, unsurprisingly, very nervous), but the Bamff dams will have done their bit to help slow the peak flow. At the time of writing, we're in a bit of a colder, wetter spell. But we have recently emerged from a drought of many weeks. The dams still had plenty of water, ensuring habitat for so many species, including frogs and toads, whose breeding season it was. There is an abundance of aquatic plants, many insects, birds, trout, and water mammals besides beavers, like otter and water vole.

What have you experienced in the way of flooding, erosion or tree damage since the beavers arrived?

I think most of this is a matter of perspective. We haven't had any extensive flooding, but we have seen the gradual but fairly large scale re-establishment of wetlands. We haven't seen any erosion. 'Damage' is rather a loaded term. Beavers will take down a considerable number of trees, within a few metres from water. If you are particularly attached to a tree, then this can be upsetting. If you wrap the trees, they can be protected but because of our general ethos of letting nature take its course, we tend to leave trees unwrapped except for the odd one or two. We find that there can be a moment in the late autumn/winter, when it looks like they may have 'gone too far', but the magical thing is that trees that have evolved in parallel with beavers will usually coppice or sucker. What looked absolutely dead will suddenly burst into life in spring, with new green shoots coming out at all angles. The landscape they create is much bushier and provides more cover for many species than a traditional forest. If your are used to a more traditional human landscape, it can be challenging, but most visitors have this moment when the penny drops and they realise how utterly beautiful it is, just on different terms. We

have also noticed in some areas, that natural regeneration has greatly improved since the arrival of beavers. We speculate that this could be the result of the way that beaver landscapes hold the water table steady, preventing roots from drying out and allowing the mycorrhizal network to flourish, which in turn helps trees to grow. I like to think of all this as a useful emotional lesson in letting go of your instinct to control, and allowing something else, more wonderful, to happen.

Photograph by Dave Maric

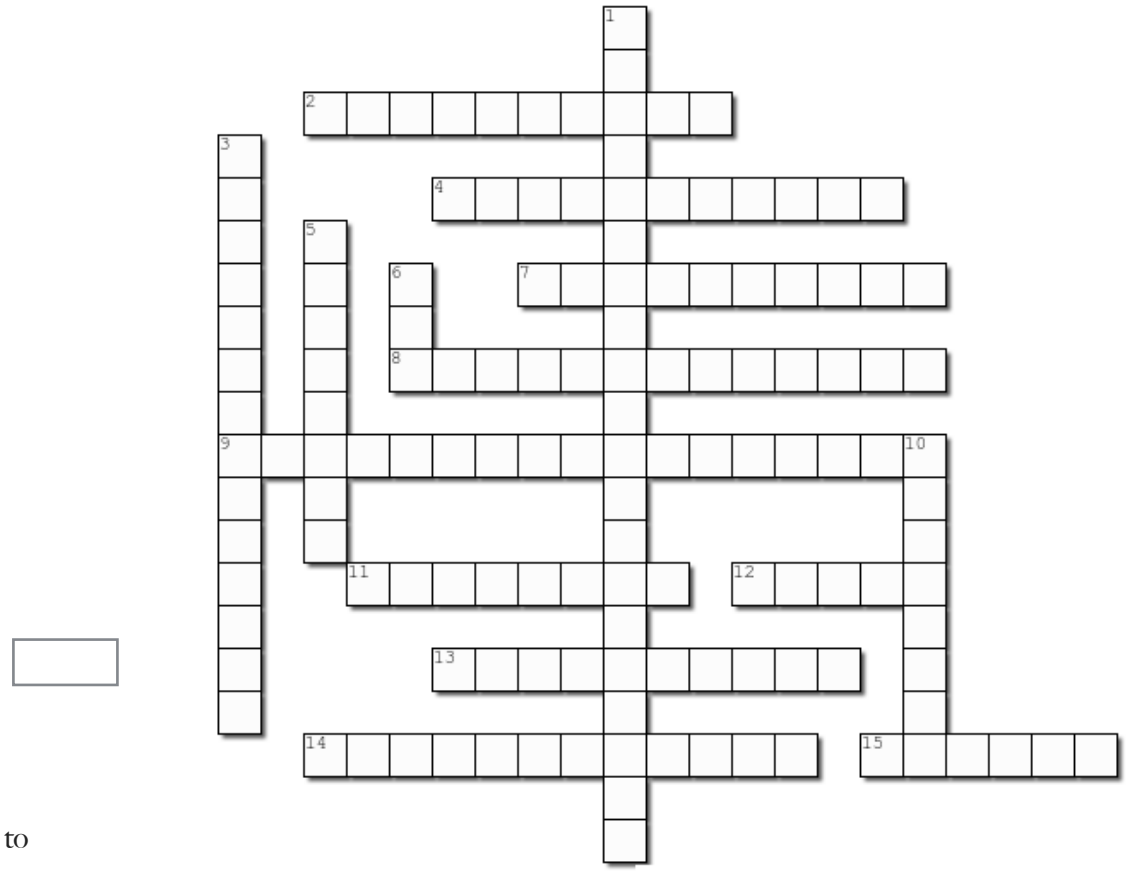
Something to gnaw on...

Five anagrams relating to possible conflicts arising in beaver management. (Answers below*)

1. dino golf
2. gate remade
3. bakers onion
4. a camper god
5. firing his moat

*There is ample evidence that beavers are hugely beneficial to other wetland biodiversity and ecosystems overall. We believe that all perceived fears or problems can be managed or mitigated efficiently to benefit beavers and humans.

1. Flooding 2. Tree damage 3. Bank erosion 4. Crop damage 5. Fish Migration



Created using the Crossword Maker on TheTeachersCorner.net

Horizontal

2. A positive economic impact from beavers being in a certain area can be through (10)
4. It is a common misconception that beavers eat fish, however this is false as beavers are fully (11)
7. A major reason behind the lack of spread of beavers in Scotland can be down to habitats being (10)
8. Beavers have been moved from areas in Scotland to all over the UK. This process is called (13)
9. Due to a beavers positive impact in a given area for biodiversity they can be classified as (9,8)
11. (5,3) is the large river in which many Perthshire rivers flow into and that beavers have started to inhabit
12. The area in which a beaver sleeps and raises its young is called a (5) and is often made from branches and mud
13. Strategies used to avoid conflict between beavers and humans or other species
14. The variety and abundance of plant and animal life within a given area or habitat
15. Beavers excavate (6) to safely expand their feeding areas as they offer a quick getaway if disturbed by a predator

Vertical

1. According to the IUCN beaver populations have went from extinct to (10,10) in the UK
3. A (6,8) is a flow device used to help regulate water levels which are often raised by beaver dams
5. The name for the continuously growing teeth that need to be ground down through gnawing to prevent health problems (8)
6. The offspring of a beaver (3)
10. Beavers are semi-aquatic mammals that belong to the order (8)


Photograph by Dave Maric

DO YOU SHARE OUR VISION?

Scottish Wild Beaver Group is a registered charity working to secure a future for beavers and their wetlands in Scotland. You can make a donation as small as £5 if you wish, or become a member for only £15 per annum and be the first to know about upcoming events, receive regular email updates about our work. Every donation helps us continue to hold educational events, create informative content, support affected land managers and influence national policy. If you would like to be more hands on, as a member you can join one of our work teams and/or participate in our AGM. You can also follow us on Facebook, Twitter and Instagram.