Choosing the plot

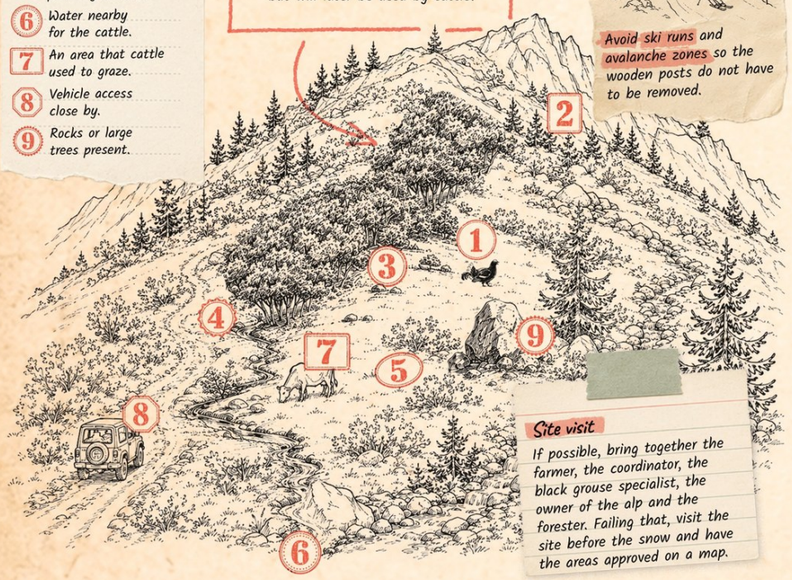
1. Black grouse confirmed present. A lekking area, not a nesting area.
2. Clearings, heath, bilberry and pasture.
3. Some green alder kept as cover.
4. Vegetation still growing under the alder to be cleared.
5. About 30 % of the plot is grassland.
6. Water nearby for the cattle.
7. An area that cattle used to graze.
8. Vehicle access close by.
9. Rocks or large trees present.

A well-chosen plot makes fencing easier, suits grazing by goats and then cattle, and brings the greatest benefit to the black grouse.

Steep slopes are not ruled out: the project targets exactly those areas that are hard to maintain with machinery but will later be used by cattle.



Avoid ski runs and **avalanche zones** so the wooden posts do not have to be removed.



Site visit

If possible, bring together the farmer, the coordinator, the black grouse specialist, the owner of the alp and the forester. Failing that, visit the site before the snow and have the areas approved on a map.

Who does what

Alpine farmer

- Suggests plots that are useful for their cattle, with water nearby.
- Hosts the goats over the summer.
- Checks the goats' health, the water, the current in the wires and the shelter every two days.
- Accepts the risks that come with the project, in particular that of a wolf attack.
- Ideally commits for at least three years by agreement.





Volunteers

- Sign up for both proposed dates and do not cancel at the last minute.
- Help put up the fences and shelters.
- Come back to the same place in autumn and spring if they enjoy the work.
- Ideally form a "team" at the site they like best.



Coordinator

- Finds a farmer willing to take goats for the summer.
- Looks for the goats, the volunteers and the funding.
- Brings the partners together and coordinates them.
- Organises the work days and the project follow-up.
- Writes the annual reports.



Goat keeper

- Provides docile animals.
- Tells the team about their behaviour.
- Makes sure the goats are healthy and has them checked for intestinal worms before the summer; a wormer is given if needed.
- Supplies the recall pellets, the recall calls, and the salt and mineral lick.
- Keeps track of the herd, remotely if they live far away.
- Accepts the risks that come with the project, in particular that of a wolf attack.



Black grouse specialist

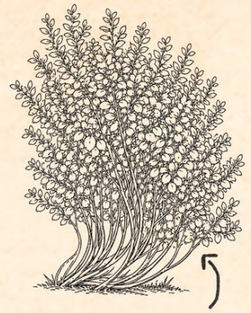
- Confirms that the species is present.
- Confirms that the plot was part of the lekking grounds.
- Avoids nesting areas and areas where the chicks feed.
- Ideally organises monitoring of black grouse leks before, during and after the work.



Forester

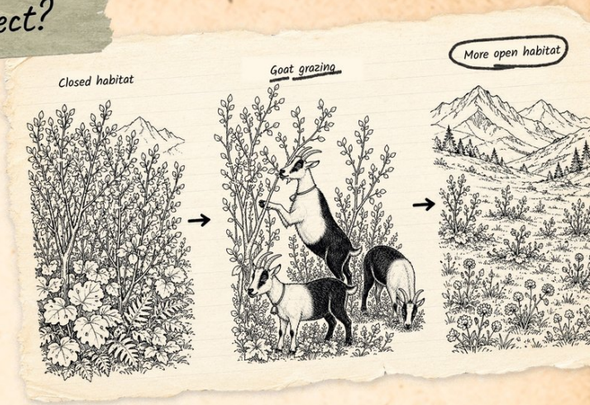
- Confirms that clearing the plot poses no problem.
- Marks the trees and broadleaves to be kept.
- If possible, clears the edge of the plot before the posts go in.

Why this project?



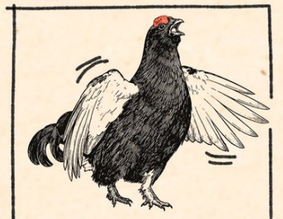
When green alder takes over

On many alps, green alder is gradually spreading over the pastures. As the land closes in, mountain biodiversity declines.



Did you know?

Green alder is known locally as "verne". In symbiosis with a bacterium, this shrub acidifies the soil: only a dozen or so plant species can cope under dense alder scrub.



The black grouse needs a mosaic of landscapes made up of **meadows, heath and clearings.** When green alder becomes too dense, its breeding habitat is threatened: the lekking grounds close in and the habitats the chicks need for feeding become scarce.

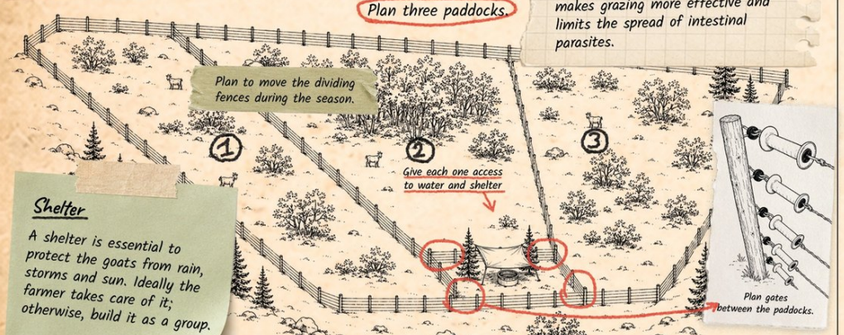


Goats like green alder leaves, then go for the bark of the shrubs, which eventually die back. They also readily eat the regrowth of alders that have been cut.

Planning paddocks, water and shelter

Plan the rotation from the start

Dividing the plot into three paddocks makes grazing more effective and limits the spread of intestinal parasites.



Shelter

A shelter is essential to protect the goats from rain, storms and sun. Ideally the farmer takes care of it; otherwise, build it as a group.



Stop the goats climbing on the tarpaulin

Avoid: a tarpaulin that touches the ground.

Solution: keep its lower edges out of the animals' reach.

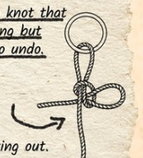
Withstand wind and storms

Avoid: stretching the tarpaulin between several trees exposed to the wind.

Solution: fix it in the green alder so that it can move with the shrubs during storms.

Avoid noises that frighten the goats

- Pull the edges tight to limit the flapping that frightens the goats.
- Tie each support post to the frame with a knot that is strong but easy to undo.



Avoid pools of water

Go for an igloo shape or a tarpaulin with enough slope.

Protect the structure

- Leave no loose ends sticking out.
- Hide or fold back the ends.
- Remove any leaves within reach, or protect the bark of alder branches if they are used in the structure.

Preparing the ground

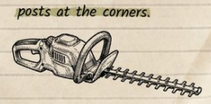
Prepare before fencing

Preparing the ground well makes it much easier to put up fences on a new plot.



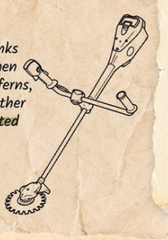
Steps

- Agree on the fence line.
- Mark the perimeter and the dividing lines with biodegradable paint or temporary stakes.
- Clear the edge of the plot.
- Remove the cut branches.
- Clear the strip to a width of 2 metres and remove branches up to a height of 1.70 m.
- Drive in the main wooden posts at the corners.





Cut the alders and trunks that are in the way, then clear perennial weeds, ferns, rhododendrons and heather with a brush cutter fitted with a blade.





Restoring black grouse breeding habitat with goats

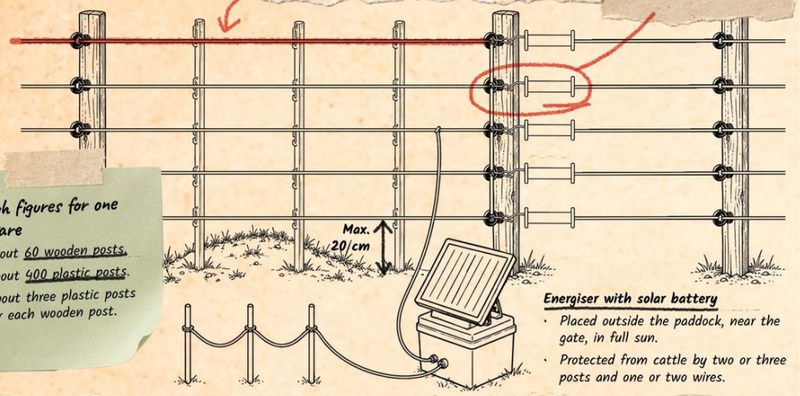


Toolbox for preserving biodiversity and alpine pastures



A.A.T.T.
ASSOCIATION ALPINE TETRAO TETRIX

Putting up the fences



Run the top wire ③

The top wire between the wooden posts shows the fence line and helps place the plastic posts correctly.

Gate

- Gate built into the fence.
- Handles pulled tight.
- Metal hook or wire.

Rough figures for one hectare

- About 60 wooden posts.
- About 400 plastic posts.
- About three plastic posts for each wooden post.

Energiser with solar battery

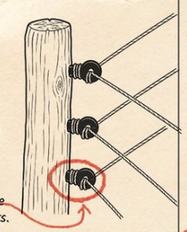
- Placed outside the paddock, near the gate, in full sun.
- Protected from cattle by two or three posts and one or two wires.

Set the wooden posts ①

- At corners and changes of direction.
- About every ten metres.
- Below bumps and at the bottom of dips.
- Closer together on steep slopes.
- Two posts close together on flat ground to make the gate.

Add the plastic posts ④

- Use these posts to keep the lowest wire no more than 20 cm above the ground.
- About one post every three to five metres, depending on the slope and how uneven the ground is.



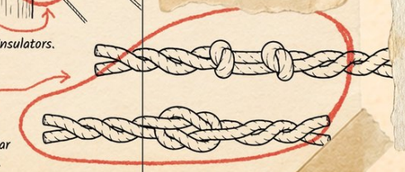
Fit the insulators ②



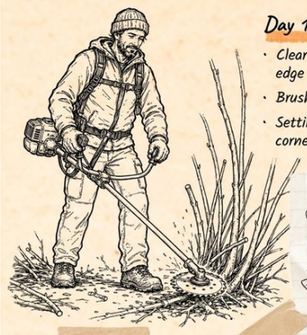
- Plan for four to five electric wires.
- Place the lowest wire no more than 20 cm above the ground.
- Adjust the insulators in dips and on bumps to keep this height.
- Add an extra insulator at the bottom where the terrain requires it.

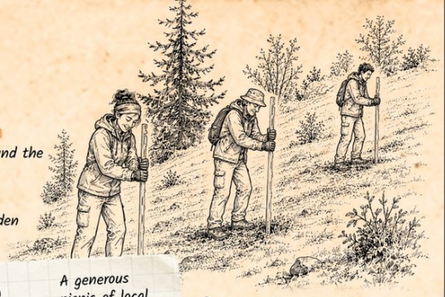
Fit the wires and connections ⑤

- Wrap the wire at least twice around the insulators, and four times at the corners.
- Pull the wires tight and secure them at the insulators.
- Use good-quality electric wire with enough metal strands.
- Tie reliable knots to avoid current loss.
- Connect the wires to each other near the solar battery and the gate, then every 200 metres.



Organising the work days





Day 1 – Preparation

- Clearing the strip around the edge of the plot.
- Brush clearing.
- Setting the main wooden corner posts.



A generous picnic of local produce can make all the difference in keeping volunteers coming back!

Day 2 – Group installation

- Setting the remaining posts.
- Fitting the insulators and wires.
- Installing the gate and the battery.
- Helping to build the shelter.
- Overall check of the installation.

Protection against wolves

In Switzerland, a four-wire fence currently meets the requirements for compensation after a wolf attack. It does not, however, guarantee that no predation will occur. Depending on the goats, 5 or even 6 wires are needed to stop them escaping!

Typical team:

- One coordinator who explains and hands out the tasks.
- About 15 volunteers to create a new 1-hectare paddock.
- At least 4 people who know how to drive in wooden posts.
- After that, about 8 people can be enough to put the fence up each year.
- Plan for experienced people for each type of task: it saves a lot of time.
- The rest of the team sets the plastic posts, guided by someone who has done it before.
- To unroll the wires: two people per reel, one unrolling the wire under tension, the other fixing it to the insulators.
- If enough people are available, one person follows behind to clip the wires onto the plastic posts.

End of season: taking down

Plan to take down the wires and plastic posts, then store the equipment. A team of 4 to 6 people is enough.

Store the plastic posts with the hooks facing the ground and the wire reels under trees, sheltered from the snow.

Safety

- Match tasks to each person's physical fitness.
- Put someone in charge of the first-aid kit, the cordless drill, etc.
- Postpone the work day in heavy rain or dangerous weather.
- Always plan a back-up date.

Finding the goats

Docile animals for a successful project

Not all goats are suited to this kind of grazing. A few criteria make the project much more likely to succeed.

Peacock goat · Nera versarca · Grisons Striped · Valais Blackneck · Capra grigia

What we look for

- Suckler goats kept for meat rather than milk.
- Docile animals used to electric fences with four or five wires.
- A goat keeper willing to help with monitoring, by phone if they live far away.
- Droppings analysed, then wormer given as recommended.
- Rare old breeds are encouraged, especially those recognised by ProSpecieRara.



Green alder can turn milk yellowish, without affecting its taste or quality.



Old breeds are hardy and therefore particularly suited to areas taken over by green alder.



A fair exchange

- The ideal partnership is between a goat keeper looking for summer grazing and an alpine farmer who has areas to clear.
- The project takes place on a suitable area.
- The goat keeper provides docile goats.
- They bring the recall pellets, the recall calls, the salt and mineral lick, and their knowledge of the herd.
- The commitment runs for at least three years, given the investment needed for the fences.

Another option

Goats destined for slaughter can also be used. They get a few extra months of mountain grazing before the end of their working life.

Hosting and monitoring the herd

Regular monitoring is essential

It helps spot problems quickly, keep an eye on the herd's health and make sure the fence is working properly.

Every 2–3 days

- Check the general condition and health of the herd.
- Check the amount and condition of the water and shelter.



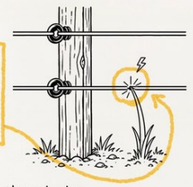


Keeping the goats on the plot day and night maximises the effect of grazing and the impact on the green alder.

Every 2 weeks

- Check the whole fence.
- Check that every wire is live.

- Cut back growth when it touches the wire 20 cm above ground.



A goat that gets through the fence twice must be removed from the herd. Otherwise it may lead the other animals out of the paddock.



Do not bring them cut branches: browsing the green alder in the paddock encourages them to strip its bark as well.

Making recall easier

Shaking the pellets while calling the goats makes them want to come back to the person looking after them. This habit makes it easier to move the herd and to bring animals back if they escape.



The field kit

For repairing the installations

- Cord.
- Electric wire.
- Insulators.
- Wire cutters.
- Screwdriver.
- Nails and screws.
- Pocket knife and/or cutter.
- Garden hand saw.
- Secateurs.
- Fence tester.



Check the equipment and the weather forecast. Working in the rain puts volunteers off... Always plan a back-up date.

For working safely

- Gloves.
- First-aid kit.
- Plenty of water: a small bottle and a large reserve.
- Waterproof clothing.
- Mountain clothing: warm and light.
- Cap and/or hat.
- Sun cream.
- Good shoes with gaiters, or boots.

Results & benefits



A project with many benefits

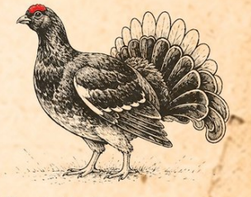
Goat grazing restores habitats that suit the black grouse while making the most of pastures and of mountain farmers' know-how.

For mountain farming

- Areas taken over by green alder opened up again.
- Land no longer available to cattle put back to use.
- Recognition of how demanding mountain farmers' work is, and of their way of life.
- Promotion of their local produce.

For biodiversity

- More open and varied habitats.
- Refuge areas maintained.
- Good for insects, arachnids and various plant species.
- Natural dynamics supported.



For the black grouse

- More areas suitable for breeding.
- Lekking grounds opened up again.
- More habitats where the chicks can feed.

For old breeds

- A role for hardy goats.
- Support for breeds recognised by ProSpecieRara.

Many thanks to our funders

Fondation Gelbert

ERNST GÖHNER STIFTUNG

FONDATION HOFFMANN

NATURE & DECOUVERTES

Vontobel Stiftung

Association Alpine Tetrao Tetrix

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