

Rewilding Plans for a Small Farm in Sligo

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Abstract

This article outlines the path to rewilding a farm in Co. Sligo driven by the intersection of art, science, and sustainable agriculture. Inspired by rewilding projects and the ecological research of artists and scientists, we seek to transform a former suckler farm into a thriving, biodiverse ecosystem. With no prior farming experience, we are drawing on expert guidance and government supported initiatives such as the National Parks and Wildlife Service Farm Plan Scheme. Our efforts aim to create species-rich meadows, wooded areas and orchards to enhance biodiversity, and develop a model for sustainable land management. This project blends artistic expression with agricultural science to promote ecological restoration and create a place where wildlife can flourish.



Figure 1: View of Knocknarae from the farm in South Co. Sligo (photo by the author)

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Introduction

“..how can we achieve a paradigm shift away from the past and present situation, in which only either nature or people do well, towards a future in which both are able to survive, and indeed, thrive, together?”

- Eoghan Daltun (2022)

As an artist focused on ecological issues, my work explores the narratives and aesthetics of nature to highlight our connection with the environment. My interest in nature, especially pollinators, along with my research into eco-social artistic practices, has drawn me toward rewilding. Projects by Clodagh Emoe (2018), Lisa Fingleton (2023), and the research of Dr Cathy Fitzgerald (2021) have had a significant impact on my thinking. While my partner Diarmaid, an engineer with master's degrees in biochemical engineering, natural resource economics, and in environmental engineering, brings a wealth of technical knowledge and a pragmatic approach to ecological restoration and project management. In an era where the intersection of art and science is increasingly recognised as a vital avenue for addressing ecological challenges, we found ourselves with a shared vision - the rewilding of agricultural landscapes. Rewilding, a relatively new concept in ecological restoration, offers fresh potential for restoring ecosystems and biodiversity on abandoned or degraded land. We aim to explore how rewilding can change traditional farming into a vibrant ecosystem that supports biodiversity, improves soil health, and builds resilience to climate change. This article aims to summarise our discussions and vision, combining artistic expression with technical research to imagine a better relationship between agriculture and nature. Artistic ecoliteracy and place based/ site specific creative practices have informed our thinking (Fitzgerald, 2008) Through our collaborative efforts, we hope to explore the potential of rewilding as a pathway to ecological restoration. Neither of us have any experience in farming or rewilding, so we plan to connect with experts and support networks where we can find them. Like many others, we are balancing jobs in other areas alongside our farming efforts. We hope this article provides useful information for those considering a similar rewilding endeavor.

Climate change and climate anxiety have been a driving force for both of us, particularly in our late teens and early twenties when the concepts were introduced to us by progressive teachers and lecturers, and by environmental writers and documentarians. We both spent our childhood summers in the countryside (Donegal and Clare), and we were both acutely aware of how increasingly intensive farming had changed the landscape we were intimately familiar with. In our shared memories of trips outside Dublin, we noticed that windscreens would be covered with insects by the end of our journey. Our cars may have become more aerodynamic, somewhat

reducing the number of impacts, but there is no doubt that the number and density of insects throughout the country has reduced dramatically since our youth. Biodiversity loss was happening in real time right in front of our very eyes. Due to these personal observations and anxieties we resolved to try and do something, anything, to help create mini nature reserves where we could. Ten years ago, we rewilded our urban garden. We dug a pond, we planted pollinator-friendly plants extending the flowering season, and we let a number of areas go wild with only 1 – 2 cuts per year.



Figures 2a and 2b: The Rewilded Garden in Rathfarnham (photos by the author)

These efforts have paid off and we have seen noticeable increases in wildlife in our garden. We have observed numerous insects, bees, hoverflies, butterflies and moths, damselfly and dragonfly species and vertebrates such as frogs. Rare species such as the comma, holly blue butterflies and hummingbird hawk moth were also noticed.

And that inspired us to push on. For the past few years, we have been searching for a larger area to rewild. We researched various rewilding projects, including those by Eoghan Daltun (2022) in the Beara Peninsula, and Isabella Tree (2019) in Knepp, Dorset. We also looked into the work carried out by a number of organisations including the National Parks and Wildlife Service and Farming for Nature (O'Rourke et al., 2020). In spring of this year, 2024, we purchased a 33-acre farm in South Sligo.

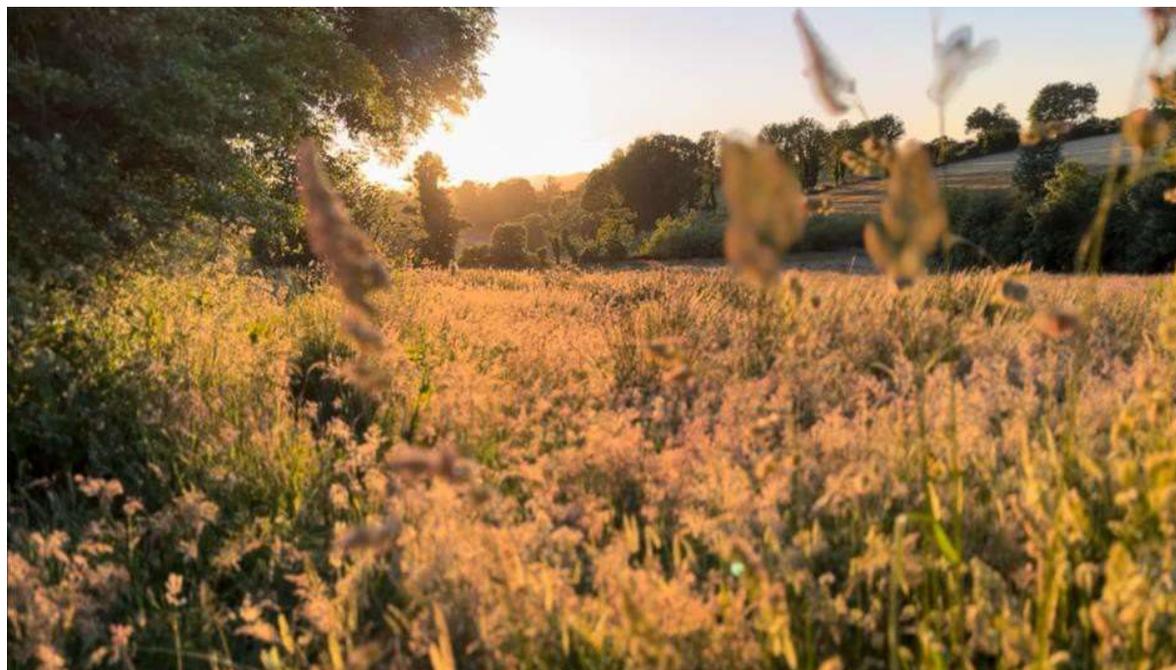


Figure 3: The Farm in Sligo (photo by the author)

The Farm

The land was effectively abandoned and had been untended for over two years. It had previously operated as a suckler farm. It includes a three-bay slatted cow shed, a hay barn, and an old semi-derelict calving house. Additionally, there is a traditional cottage originally built in the late 1800s. It has stunning panoramic views over the rolling countryside with views to the Ox Mountains, Carrowkeel and Knocknarea cairns in Sligo, and Kilronan and Corry Mountains in Leitrim.

The land on the farm can be considered to have two main sections: a lower level of wet grassland, and a more elevated meadow, both of which appear species rich.

The Department of Agriculture, Food and the Marine's Afforestation Scheme

The Afforestation Scheme is a government initiative aimed at increasing forest cover by encouraging landowners to plant trees on their land, Department of Agriculture, Food and the Marine (2023 - 2027). This scheme provides financial incentives,

including grants for establishing new forests and annual premium payments to support the maintenance of these plantations over time. The scheme is designed to enhance environmental sustainability, support biodiversity, and contribute to the rural economy by promoting sustainable forestry practices. By offering long-term financial support, the afforestation scheme plays a crucial role in Ireland's efforts to meet its climate action targets. There are a number of different forest types each with different levels of grant payments and annual premiums. For example, Forest Type 6 – Pure Broadleaves offers an establishment grant payment of €6,744 / ha and an annual premium of €1,037 / ha. A broadleaf forest closely tied in with what we were trying to do. Knowing that Ireland has the lowest area of native woodland cover in Europe at 1.25% (Cross, 2012, p.7), we wanted to play a small part in rectifying this and provide an ecologically rich area for wildlife to thrive.

In conjunction with a forestry co-op, we made an application to this scheme. The formal afforestation application (similar to planning permission), land preparation, sapling sourcing and planting, deer exclusion fencing, and maintenance would all be carried out by the forestry co-op. The establishment grant would cover these costs, while the annual premium would come to us. However, our application was rejected due to the land's proximity to a marked, albeit abandoned, curlew nest site. Curlews are a ground nesting bird. We were to learn that 3,300-5,500 pairs are estimated to have bred in the Republic of Ireland in the late 1980's, but by 2017 it is estimated that no more than 150 pairs remain (O'Donoghue et al., 2019, as cited in Harrison et al., 2023), representing a decline of 96% in the breeding population. This factor was significant as our primary goal was to improve the ecological outlook for local wildlife.



Figure 4: Curlew (photo by Kathryn Finney) Birdwatch Ireland

The National Parks and Wildlife Service Plan Scheme

We subsequently made contact with the National Parks and Wildlife Service who manage the curlew nesting sites. After a site visit, they enrolled us in their Farm Plan scheme, the National Parks & Wildlife Service (NPWS) Farm Plan Scheme (Department of Culture, Heritage and the Gaeltacht, 2020). This scheme also offers establishment grants and annual premiums. It should be noted however that the annual premiums on offer are significantly less than the afforestation scheme and require significantly more work, both in terms of land management and in terms of the application process. The maximum available premium with the Farm Plan Scheme is €450/ha, and this is reduced by a certain penalty percentage (from 0 – 100%) depending on the quality of the ecosystem created. While the premium associated with the forestry scheme is €1,037/ha with no penalties applied. The guidance and support documentation are not nearly as developed as the Afforestation Scheme.

The NPWS have assigned an Agri-Environmental Consultant to assist us, and their support has been invaluable.

Initial Meeting with the Agri-Environmental Consultant

An assessment was conducted by the Agri-Environmental Consultant on the current ecological condition of the farm. This evaluation considered several factors, including flora species diversity, the presence of invasive species, soil type, and soil fertility levels. Together we developed a farm plan suitable to the location.

The land on the farm can be considered to have two main sections: a lower level of wet grassland, and a more elevated meadow. The wet grasslands are species-rich, with a variety of plants including common spotted orchids and marsh marigolds, but they exhibit poor structural quality and there are large areas of thatch, i.e., matted dead grass. In contrast, the elevated meadows show high nutrient levels and are also affected by heavy rush and creeping buttercup colonisation. There are some established hedgerows containing a variety of species such as willow, crabapple, hawthorn, sycamore and ash. Our goal is to restore the land and hedgerows to its pre-intense-cultivation state.

We presented a concept plan to bring the farm back into “light” productive use, focusing on sustainable and ecologically supportive agricultural practices that respect the farm's environmental context. In consultation with and on the recommendation of the agri-environmental consultant, we proposed that half of the farm be restored, supported and managed as species-rich grassland for breeding waders, while the other half will be species-rich meadow, and hedgerows will be restored in this portion.

We have also proposed to include a small fruit orchard, woodland grove, and kitchen and ornamental gardens.

Without support for this plan, the farm will most likely be rented out for standard intensive farming practices with little consideration for its potential ecological and biodiversity benefits. For the purpose of this article, we will focus on the plan to restore the species-rich grassland and meadow as these may be more interesting to others interested in doing the same.

Species- Rich Grassland for Breeding Waders

Species-rich grasslands play a critical role in supporting breeding waders, which are a group of ground-nesting birds including species such as the curlew, lapwing, and snipe. These grasslands are characterised by a high diversity of plant species, which in turn supports a rich invertebrate fauna, providing essential food resources for wader chicks and adults. The diversity of species-rich grasslands, with a mix of sward heights and plant types, creates suitable nesting and foraging habitats for these birds.

The ideal conditions for breeding waders in species-rich grasslands include a mosaic of short and tall vegetation. Short swards provide feeding areas where waders can access soil-dwelling invertebrates, while taller vegetation offers cover and nesting sites. Maintaining these conditions requires specific management practices such as grazing, mowing and removal of cut material, which will prevent the dominance of overly competitive plant species while promoting biodiversity.

We will restore the area by cutting and removing the existing two-years' growth of grass sward. We found one contractor who is willing to cut, rake and bale without twine or plastic, and relocate these loose bales towards the boundaries of the fields they were cut from. This was considered the best restoration option. In time these loose bales will rot down and the resulting compost will be used in the kitchen and ornamental gardens, and in the orchards.

Grass will be mowed from the centre of each field, working outwards. This will allow wildlife to safely make their way to another area. All hedge rows will be trimmed and reduced in height to ≤ 1.8 metres. A number of trees within this zone and within the hedgerows of this zone will be required to be cut down as they can act as perches for the predators of wading birds, their eggs and chicks.

A "scrape", i.e., a shallow pond, will be cut into the largest field. This will be 25 metres long x 8 metres (max) wide x 0.8 metres deep (max). This will provide several benefits that support breeding waders. These shallow depressions in the ground, typically filled

with water seasonally, create a variety of microhabitats that are crucial for the survival and reproduction of wading birds.



Figure 5: Ragged Robin in one of the lower fields (photo by the author)

Species Rich Meadow

Species-rich meadows are highly diverse grassland ecosystems characterised by a wide variety of plant species. These meadows are crucial for biodiversity, supporting a wide range of native flora and fauna. The high plant diversity ensures a stable and resilient ecosystem capable of withstanding environmental changes and stresses. These meadows support a wide array of pollinators, including bees, butterflies, and hoverflies, which are vital for the pollination of many crops and wild plants. Additionally, the varied plant structure and composition provide habitats for a multitude of invertebrates, birds, and small mammals, contributing to complex food webs and ecological interactions.

The conservation of species-rich meadows requires careful management practices that mimic traditional agricultural methods. Periodic cutting or grazing prevents the encroachment of woody plants and maintains the open structure of the meadow. We intend to acquire a small herd of five dexter or highland cattle to facilitate grazing on the land. Originating from indigenous Irish and Scottish cattle breeds, these animals are characterized by their small stature and hardy constitution, rendering them the most ecologically sensitive grazers. Restoration of degraded meadows involves managing the land to promote natural regeneration processes. Monitoring and adaptive management are essential to ensure the long-term health and biodiversity of species-rich meadows. Avoiding the use of chemical fertilizers and pesticides preserves the natural plant and insect communities.

The Next Steps

We are currently awaiting funding approval while the ecologist works on the plan for our farm. Each NPWS Farm Plan is unique and requires detailed, site-specific actions. The ecologist seems to be overwhelmed with the number of plans he is responsible for. Inevitably, this has led to delays which have been exacerbated by bureaucracy. The application for the NPWS Farm Plan scheme requires extensive documentation and it appears that the scheme is significantly under-resourced.

As autumn approaches, we are eager to undertake an initial cut of the grass to mitigate thatch accumulation. According to the ecologist there is a large and viable seed bank within the soil already waiting to emerge, so no additional wildflower seeding is required. All that is needed is light and space for the existing seeds to grow. We are excited to witness the emergence of additional wildflower species, particularly following our recent discovery of Devil's Bit Scabious at the margins of one of the back fields. This native wildflower is the singular food source of the caterpillars of the rare and protected Marsh Fritillary butterfly (Butterfly Conservation UK, 2020).

Coming from urban backgrounds, our agriculture and rewilding journey is proving to be a significant challenge but also a fascinating and rewarding learning experience. We have been enrolled in An Teagasc's Green Cert Agriculture and Farming course, and we hope that this will further enhance our understanding and capabilities in this sector.

Conclusion

Our rewilding project and sustainable land management reflects a broader, emerging shift in how people are rethinking the relationship between agriculture and nature. Despite the challenges we face (i.e., limited experience, bureaucratic hurdles, and the complexities of navigating government schemes), we remain committed to this process. By collaborating with environmental consultants and participating in programmes like the NPWS Farm Plan, we are working to turn this vision into reality. We hope this project will contribute to the growing body of rewilding efforts, inspiring others to explore how small-scale interventions can help rebuild ecosystems and create a more sustainable future.

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