

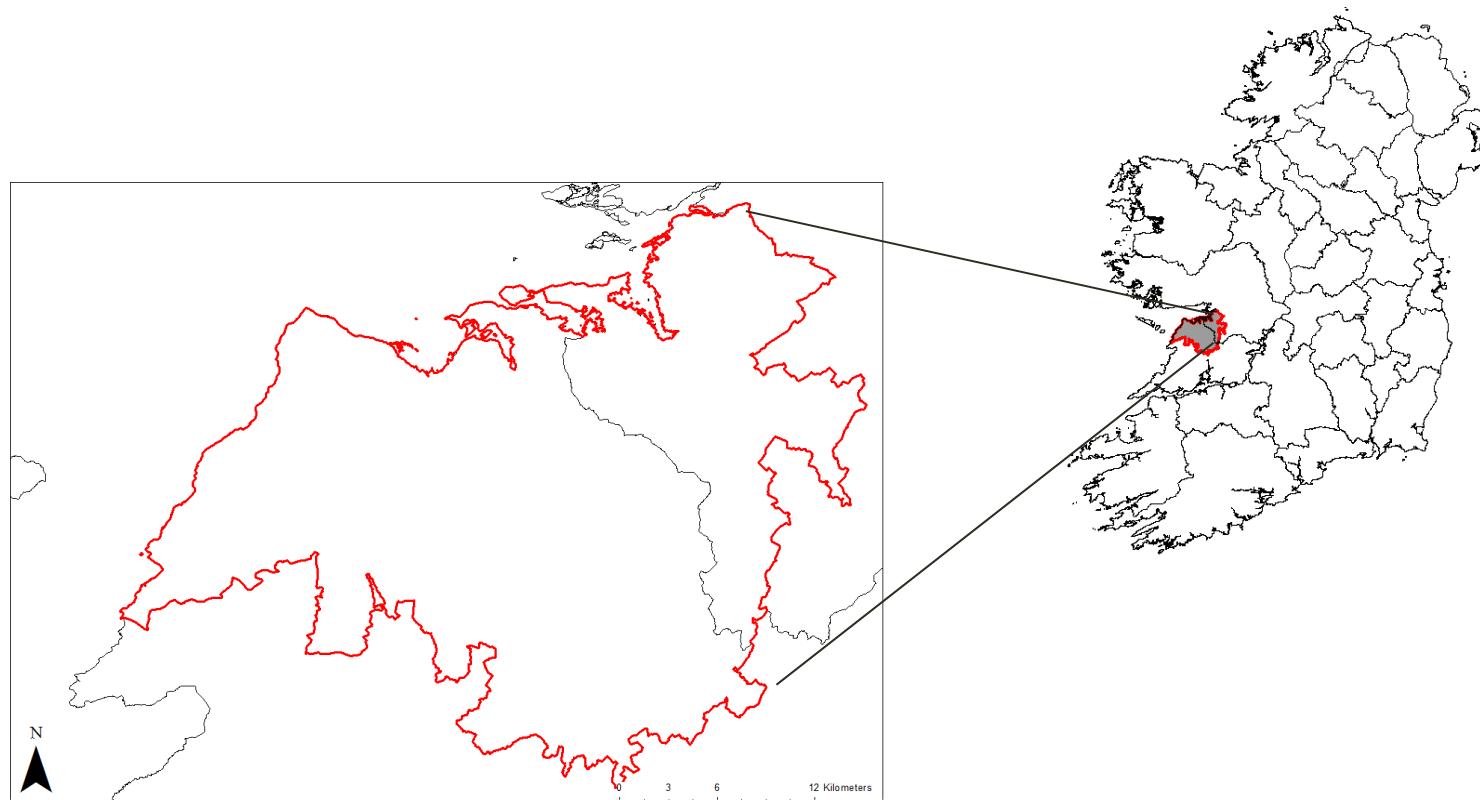


# RESULTS-BASED SCHEMES IN IRELAND: THE BURREN APPROACH AND THE POTENTIAL FOR A WIDER ROLL OUT OF BURREN AND DARTMOOR-TYPE MODELS ELSEWHERE

Caroline Sullivan &  
Michael Davoren

# THE BURREN

The Burren is a unique karst limestone landscape in the west of Ireland  
It covers around 720km<sup>2</sup>



# GEOLOGY AND HYDROLOGY

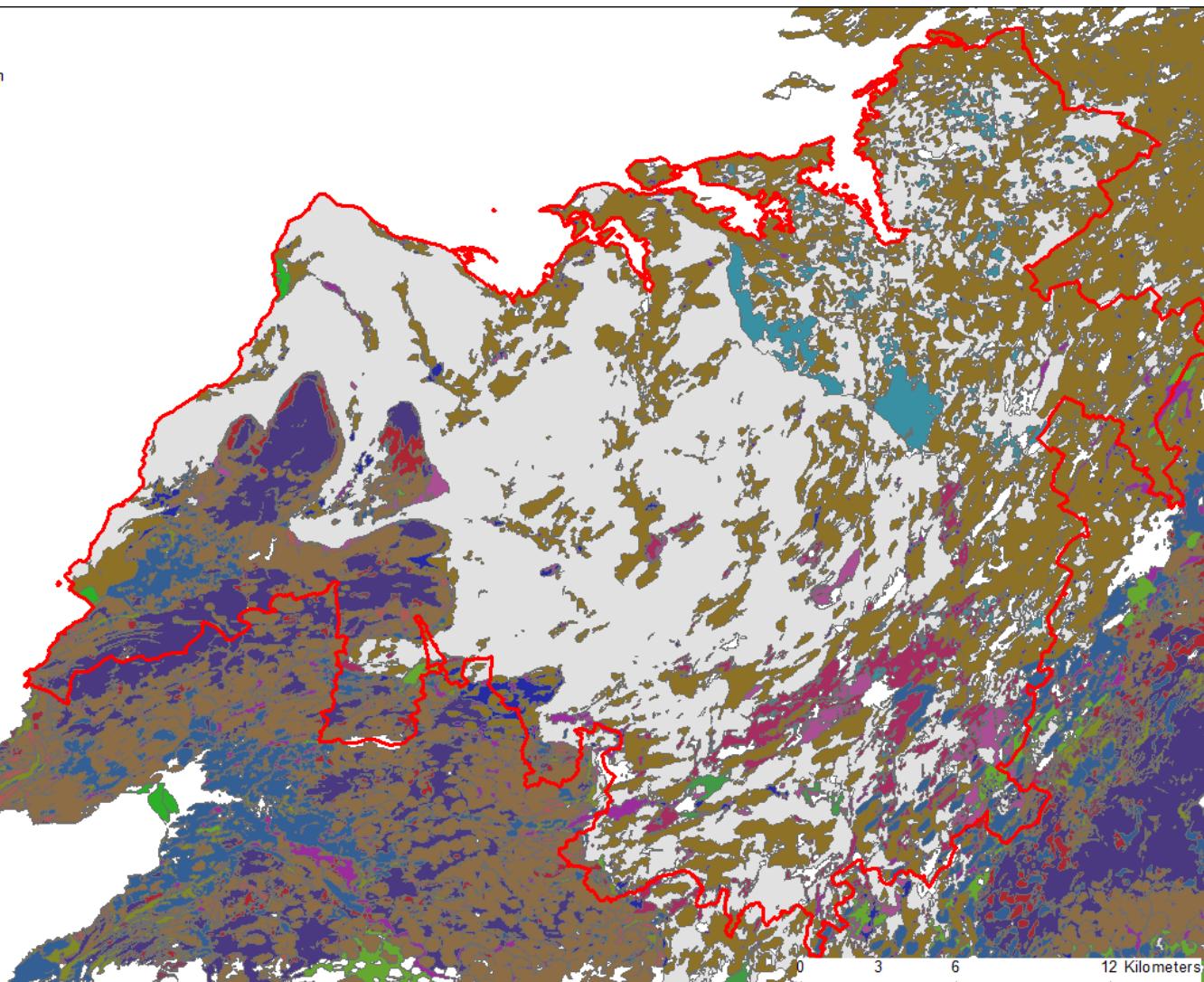
## Legend

 Burren region

## SOIL

AeoUND  
AlluvMIN  
AlluvMRL  
AminDW  
AminPD  
AminPDPT  
AminSP  
AminSPPT  
AminSRPT  
AminSW  
BktPt  
BminDW  
BminPD  
BminPDPT  
BminSP  
BminSRPT  
BminSW  
Cut  
FenPt

N



# GEOLOGY AND HYDROLOGY

There are numerous lakes. These are hydrologically connected to the groundwater body of the lowlands. There are also two surface rivers

There is extensive groundwater-surface water interaction in this area and the turloughs (Annex 1 habitats) in the Burren lowlands appear to be hydrologically linked.

There is also groundwater-sea water interaction and the water level of turloughs close to the sea can vary according to the tide



# BIODIVERSITY OF THE BURREN

The hydrology and geology of the area have a big influence on the biodiversity of the area

Around 635 (70.5%) of Ireland's 900 native plant species have been found in the Burren uplands

It is an important region for a number of Annex I habitats

These habitats include:

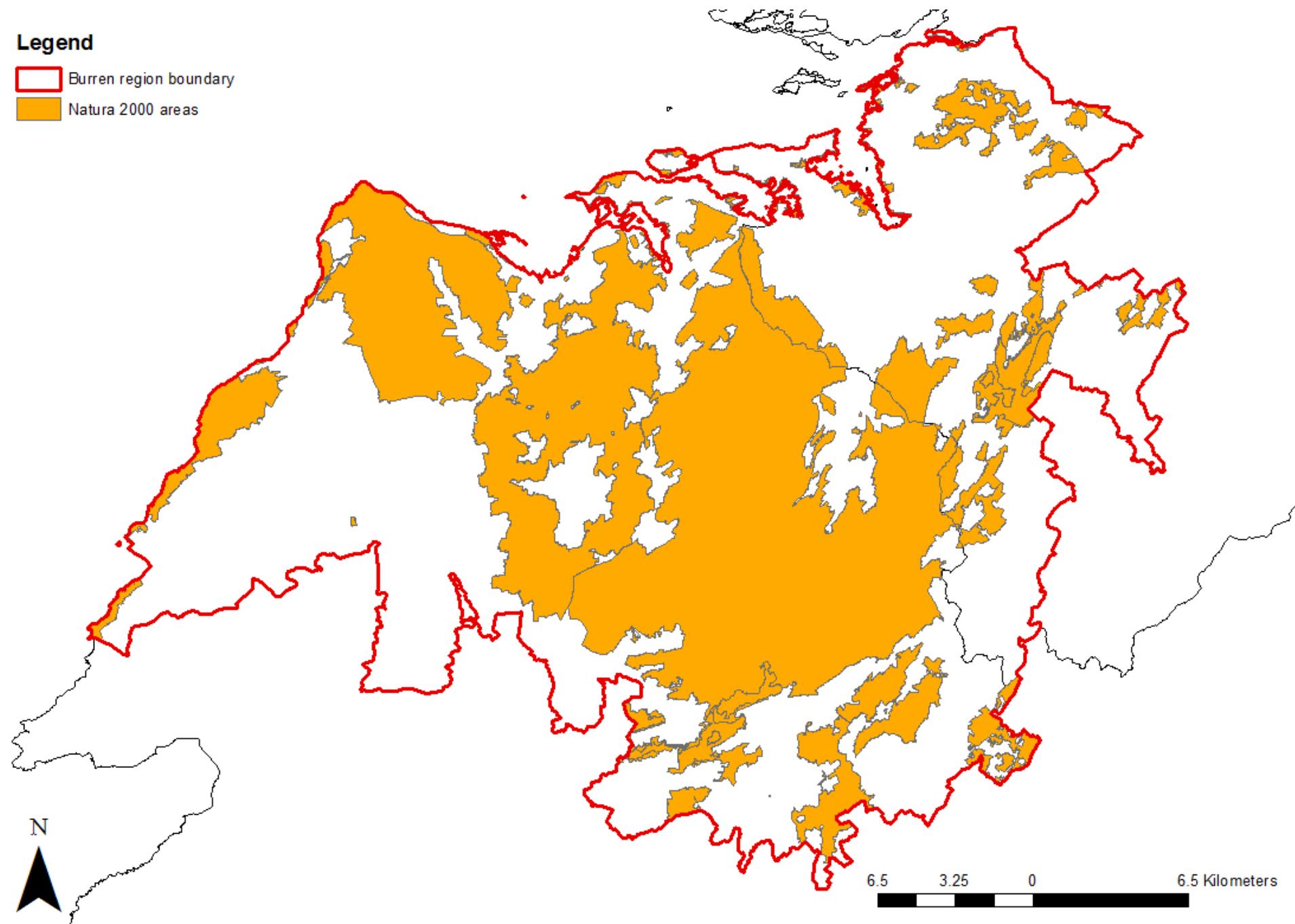
- limestone pavement
- orchid-rich semi-natural dry grassland
- petrifying springs with tufa formations (*Cratoneurion*)
- turloughs and calcareous fens with *Cladium mariscus*.





### Legend

- Burren region boundary
- Natura 2000 areas



# BIODIVERSITY AND AGRICULTURE

The biodiversity of this area is integrally linked to the management of the farms

Not least because of a system of winter grazing in the Burren uplands

Cattle are outwintered on 'winterages'

Benefitted to flora of those areas as kept scrub under control

Labour intensive practice that young farmers were moving away from



# BIODIVERSITY AND AGRICULTURE

Suckler and beef production is the dominant farm type. Some dairy and sheep farming also occurs

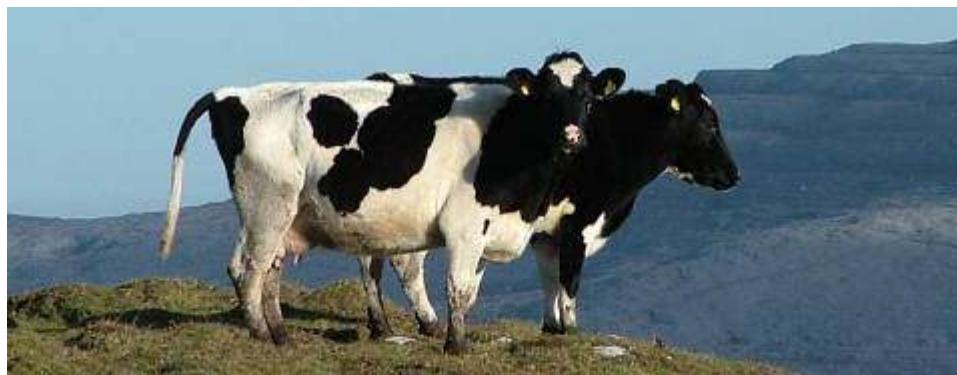
**Suckler Herds**



**Beef Steers**



**Conventional & Organic**



**Dairy Herds**



**Cattle & Sheep**

# BIODIVERSITY AND AGRICULTURE

The grazing regime of the animals is crucial for the persistence of the biodiversity levels

Abandonment and intensification lead to huge losses in the plant diversity of the grasslands with associated losses in pollinators etc

Changes in farm management practices in the 1980's and 90's lead to both scrub encroachment and increased use of fertilisers

This all had an impact on the Burren landscape

# TRADITIONAL AGRI-ENVIRONMENT SCHEMES

In the late 1990s the local farm organisation, the Burren Irish Farmers Association were trying to highlight that the national Agri-Environment Scheme (Rural Environmental Protection Scheme) wasn't working in the area

## Agri-environment: The Rural Environment Protection Scheme



Nutrient management, tidy up farm and yard, stock-proof boundaries...



..and to review the role of agriculture in the Burren and so refine the scheme



## Undergrazing/Abandonment

*HC Report, 2007: Scrub levels currently 15-20%, increasing c. 1% per annum*

## Intensification, specialisation, mechanisation..



# BURRENLIFE

BurrenLIFE was a best-practice and demonstration project funded in 2004

Project was unique at the time with co-funders including the Burren Irish Farmers Association (IFA), the National Parks and Wildlife Service and Teagasc (The Irish Agriculture Advisory body).

Aim was to develop a blueprint for the sustainable agricultural management of the Annex I habitats of the Burren

Began with 20 farmers

# DEVELOPED SOLUTIONS TO EXISTING PROBLEMS

Working with the 20 LIFE farmers the project team assessed the barriers to the management that benefitted the biodiversity of the area

Identified key issues

Developed solutions to these

## Developing and implementing best practice for access provision...



## Improving water supply



## Restoring internal walls



## Targeted removal of encroaching scrub



**Herbicide wiping**



**Pulling**



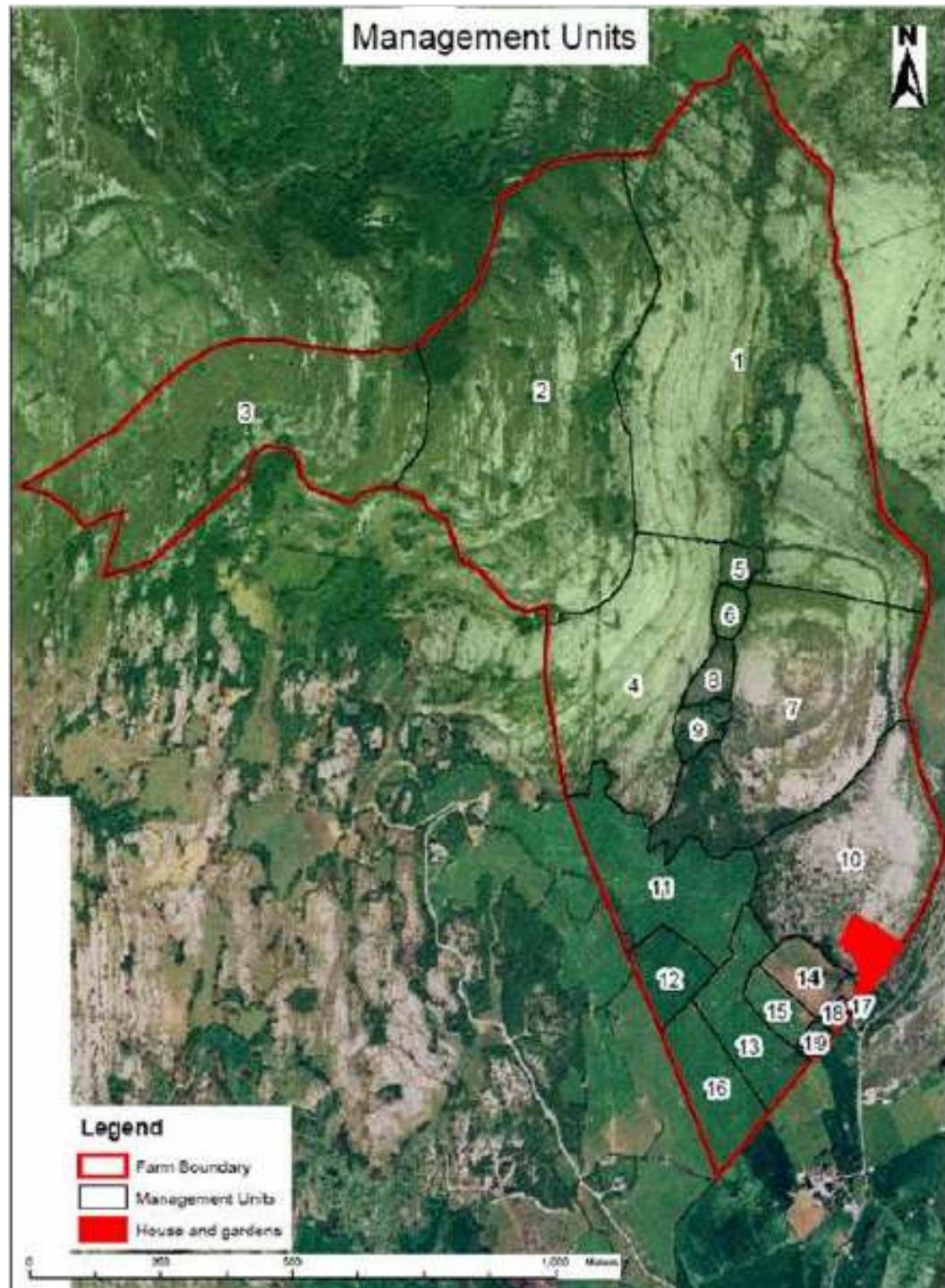
**Brush-cutter**





# Promoting sustainable grazing systems - flexible, not prescriptive (using 'grazing days' per field)





e.g.

Field 1: 700 GDs (0.10 LU/ha)  
Field 2: 1800 GDs (0.35 LU/ha)  
Field 3: 1400 GDs (0.45 LU/ha)

1,800 GDs equals 32 cows for 2 months, 16 cows for 4 months ...anytime between Sept & April (incl.). Light, late summer grazing also allowed at c.25% of the winter stocking rates.

Grazing at these targets levels minimises feeding costs while keeping the winterage in best conservation *and* agricultural condition: **A double dividend!**

# Sustainable feeding solutions - Relevant, Practical alternatives







## KEY PRINCIPLES OF BURREN SCHEME

**Open to all farmers: targets Natura 2000 sites and undesignated areas of Annex 1 habitat.**

**Programme participation voluntary but competitive**

**Payments calculated on the basis of work done**

**Farmers contribute to the cost of any capital works on their land.**

**Rewards past positive management and incentivises improvement in habitat quality.**



# KEY INNOVATIONS



<u>Per hectare payment</u>	<u>Class 10</u>	<u>Class 9</u>	<u>Class 8</u>	<u>Class 7</u>	<u>Class 6</u>	<u>Class 5</u>	<u>Class 4</u>	<u>Class 3</u>	<u>Less than Class 3</u>
<b>0 – 40 hectares</b>	€100	€90	€80	€70	€60	€50	€40	€30	Nil
<b>40-80 hectares</b>	€50	€45	€40	€35	€30	€25	€20	€15	Nil
<b>80-120 hectares</b>	€25	€22.50	€20	€17.50	€15	€12.5	€10	€7.5	Nil

## **The Impact of all Project Actions are Monitored:**

Agricultural (Bloods, conditions, forage, fodder, etc)

Environmental (Water, soils, ecology, scrub treatments etc)

Socio-economic (Income, costs, time etc)



The future custodians of the Burren...      ...fostering pride & ownership



# PROGRESS

Burren LIFE ran from 2004-2009

Was hugely successful

Won 'best of the best' LIFE projects in 2010

Awarded European Diploma for Protected Areas in 2013

From 20 pilot farmers, a fully fledged Burren Farming for Conservation Scheme was rolled out to 160 farmers in 2010

In 2015 this was expanded again to cater for up to 500 farmers in the region

# PROGRESS

Scheme adaptable

Payments were increased

Ensured compatibility with national agri-environment scheme

Can it be expanded beyond this region?

# BEYOND THE BURREN

The Burren is unique from a landscape point of view

Not unique from a High Nature Value (HNV) point of view

Up to 40% of the farmed land in Ireland is HNV

The majority of these HNV farms are suckler beef, beef steers and sheep farms

Wet grassland and peatland habitats are the dominant semi-natural habitats in these areas

### Map of High Nature Value farmland in the Republic of Ireland

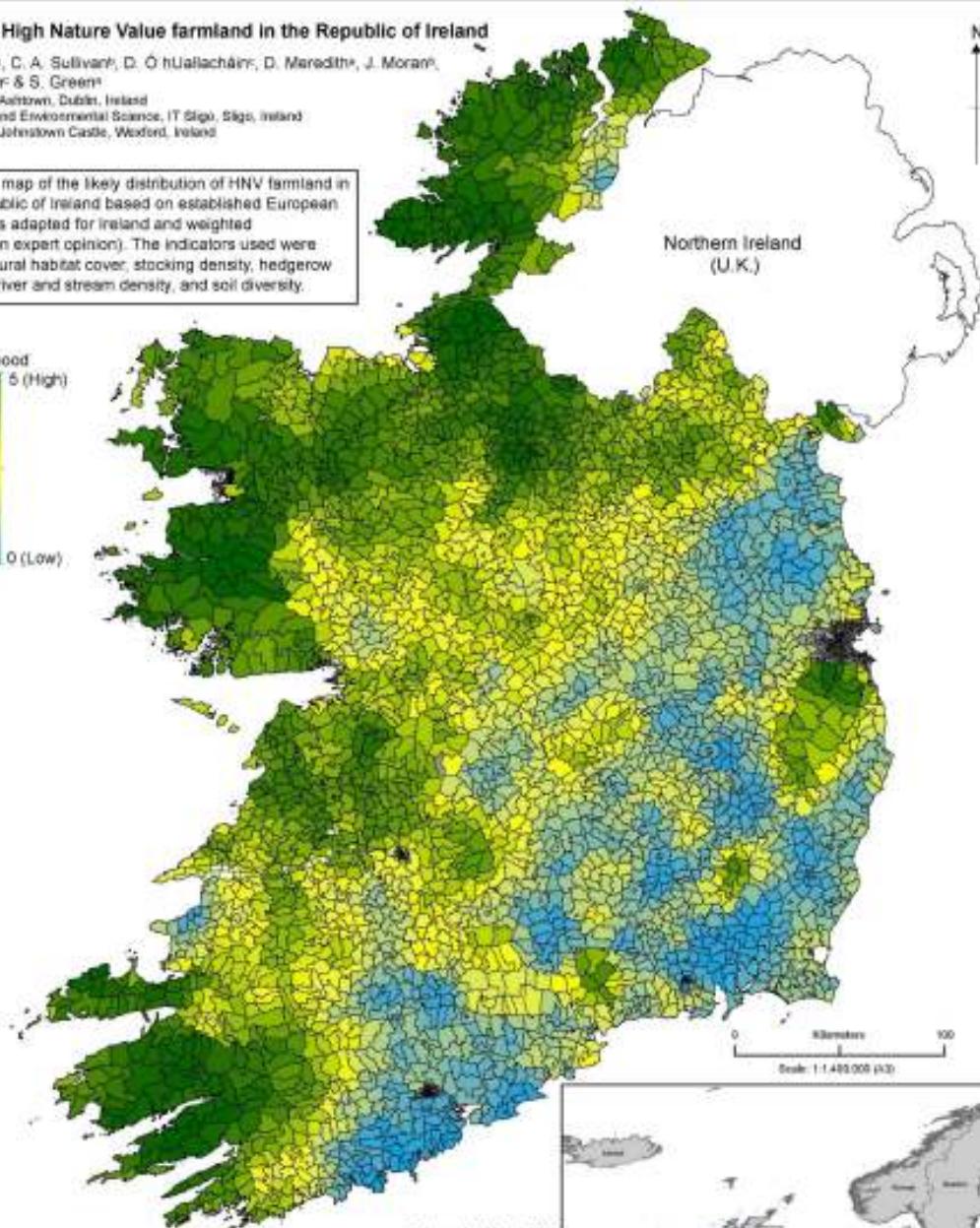
S. Malin<sup>a</sup>, C. A. Sullivan<sup>b</sup>, D. Ó hUallacháin<sup>b</sup>, D. Meredith<sup>b</sup>, J. Moran<sup>b</sup>,  
J. A. Finn<sup>b</sup> & S. Green<sup>a</sup>  
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<sup>b</sup>Ecology and Environmental Science, IT Sligo, Sligo, Ireland  
<sup>c</sup>Teagasc, Johnstown Castle, Wexford, Ireland

This is a map of the likely distribution of HNV farmland in the Republic of Ireland based on established European indicators adapted for Ireland and weighted (based on expert opinion). The indicators used were semi-natural habitat cover, stocking density, hedgerow density, river and stream density, and soil diversity.

HNV  
Likelihood

5 (High)

0 (Low)



Map Co-ordinates based on:

Projection: Transverse Mercator

Coordinate System: TM65\_Irish\_Grid

Datum: D\_TM65

Likelihood of HNV farmland occurrence at electoral district (ED) scale. A dark green colour (indicating a score of 5) shows EDs with a very high likelihood of HNV farmland occurrence, a blue colour (indicating a score of 0) shows EDs with a very low likelihood of HNV farmland occurrence. A grey colour EDs indicate urban areas.



# BEYOND THE BURREN

Can we apply the Burren Scheme elsewhere?

Unlikely, as the Burren Scheme caters for dry species-rich grasslands and heaths over limestone soils while the majority of HNV in Ireland is dominated by wet grassland and peatland habitats

Can we apply the Burren Scheme principles elsewhere?

Yes, the process and principles applied in the Burren region can be adapted and implemented elsewhere. Simply need a scorecard for upland habitats for example

The Department of Agriculture recently implemented Measure 16 of the Rural Development Plan; European Innovation Partnerships

Recently awarded a tender for a results-based type scheme to address the decline of the Hen Harrier across Ireland

This project will apply the Burren principles adapted for upland areas dominated by wet grassland and peatland habitats

# BEYOND THE BURREN

The Department of Agriculture ran an open call for projects that would address any of the Rural Development Plan biodiversity targets.

Closing date was end Jan 2017

Expected up to 20 applications nationally

Received over 100 applications

Huge interest from local communities to work toward addressing local issues

Include islands groups and upland habitat groups from the north, west and east of the country

# BEYOND THE BURREN

Adapting measures or processes that have worked elsewhere will be important if these are to succeed

Management of common land is an issue throughout Ireland

Solutions to this issue would be very valuable

Dartmoor Farming Futures

The Pontbren Project, Wales

(<https://www.woodlandtrust.org.uk/publications/2013/02/the-pontbren-project/>)

RBAPS pilot projects in England, Romania, Ireland and Spain

([www.rbaps.eu](http://www.rbaps.eu), <https://www.gov.uk/government/publications/results-based-agri-environment-payment-scheme-rbaps-pilot-study-in-England>, <http://www.fundatia-adept.org/?content=rbaps>, <http://www.yorkshiredales.org.uk/living-and-working/other-services/press-office/news/recent/wensleydale-farmers-pioneer-new-agri-environment-payment-scheme>)

# BEYOND THE BURREN

Working with local communities to work through a ‘Burren’ process could lead to 100’s of successful local innovation partnerships throughout Europe

Benefiting biodiversity, associated ecosystem services and the rural communities

But it's all a process

**Partnership building – a long term process**



Our Approach – Burren Pro... [burrenprogramme.com/the-programme/our-approach/](http://burrenprogramme.com/the-programme/our-approach/)

## Burren PROGRAMME

The Burren The Programme Impact Resources News Contact

Burren Programme has pioneered a novel 'hybrid' approach to farming and conservation which sees farmers paid for both work undertaken and, most importantly, for the delivery of defined environmental objectives. The following principles are central to how Burren Programme goes about meeting its objectives of conserving the heritage, environment and communities of the Burren.

- Burren Programme is farmer-led. Farmers nominate and co-fund conservation actions on their own farms and are generally free to manage the land as they see fit (within the law). We minimise the bureaucratic burden (e.g. via a simple farm plan and support for securing permissions) so that farmers can concentrate on what they do best – farming!
- Burren Programme is results-based. Simply put, we reward those farmers who deliver the highest environmental benefits. Conservation becomes as much a product for the farmer as the livestock produced.
- Burren Programme is flexible and adaptable. Farmers are given the freedom to deliver the required outputs using their own skills, experiences and resources, as best fits their own farms and circumstances. This flexibility means that Burren Programme is capable of responding to the different needs and situations which invariably arise, from farm to farm, and from year to year.
- Burren Programme is local and practical, focusing on works which address real needs in the Burren and which will yield real agricultural and environmental benefits.

Within Burren Programme, farmers are helped to prepare their own simple farm plan (most only 3 pages and very visual) each year by their trained advisor and the Burren team. The plan is tailored to suit the needs of the individual farm and outlines the two payment categories:

**1. Payment for Actions**

The annual farm plan contains a list of actions (jobs) which are

**2. Payment for Results**

Every eligible field of species-rich Burren grassland and heath

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 Burren  
Programme  
March 7 at 1:14am

19 farms in Wensleydale, in the UK, are taking part in the three-year "Payment by Results" project. Farmers are being paid for producing species-rich meadows and/or good quality habitat for breeding waders such as curlew, snipe, lapwing and redshank. For more information on other Results Based Schemes, here in Ireland and Spain visit

14:55  
09/03/2017