

# Creating New Native Woodlands

## Native Woodland Trust

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18.01.2022

- Background on the Native Woodland Trust
- Our work
- New woods
  - Farnaght, Co, Leitrim
  - Laragh, Co. Wicklow
  - Humphreystown, Co. Wicklow
- Woodland restoration & expansion
  - St John's Wood, Co. Roscommon
  - Ardan, Co. Westmeath
- Nurseries & local provenance
- Elm Seed

# Our Work

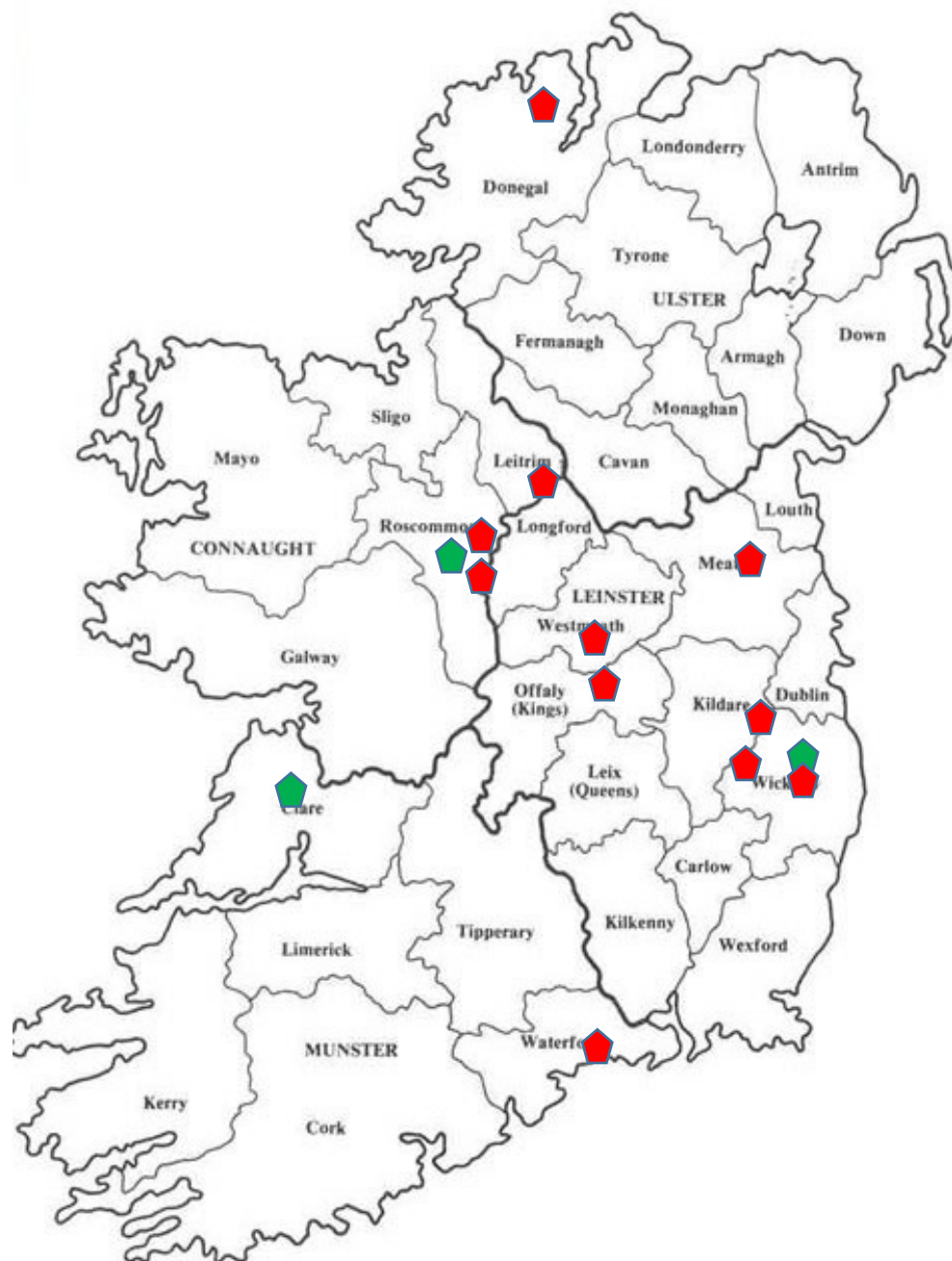


- In existence just over 20 years
- Restricted to 1 reserve and zero staff for first 10 years
- Over the last 10 years, we have:
  - Added 10 new native woodland reserves
  - Built 3 small-scale native tree nurseries
  - Run tree giveaway projects nationwide
    - Tree for Schools, Trees for Secondary Schools, Trees for Communities
    - Will run all of them during 2022
- Ancient Woodland Inventory – now picked up by NPWS tender

# Our Work

## ◆ Woodland Reserves

Toragh, Co. Donegal  
Farnaght Wood, Co. Leitrim  
St. Johns Wood, Co. Roscommon  
Rinnangan, Co. Roscommon  
Ardan Wood, Co. Westmeath  
Camcor Wood, Co. Offaly  
Girley Wood, Co. Meath  
Blessington, Co. Wicklow  
Laragh, Co. Wicklow  
Humphreystown, Co. Wicklow  
Gracedieu, Waterford City



## ◆ Local provenance nurseries

Trooperstown Co. Wicklow  
Rinnangan, Co. Roscommon  
Burren, Co. Clare

# New Woodlands



## A tale of three woods

One that we planted from scratch and it was almost too easy!

One that we're still planting from scratch and everything imaginable goes wrong.

One that was planted before, but which we're now trying to restructure and improve.

# New Woodlands



**Farnaght Wood, Co. Leitrim**

Former agricultural fields

Declined for broadleaved grants as unsuitable (per previous owner).

No chemicals used for 5 years before purchase

No large grazing animals – no grazing pressure on the site – issues limited to Hares

Attempted completely organic approach

- no fertilisers

- no insecticide

- no herbicides

Trees were initially protected using tree guards & mulch mats

Birch / willow planted without protection – Birch remained untouched







# New Woodlands



**Farnaght Wood, Co. Leitrim**

Good tree growth – canopy closed quickly

Good colonisation by some species – birds nests found <1m from ground, due to density of trees

Natural regeneration of trees already taking place

**BUT:**

Poor understorey, despite mix of species

Even aged canopy

Poor colonisation by woodland plants, despite sources in hedgerows onsite

Do we continue to wait or do we intervene?

# New Woodlands

**Laragh, Co. Wicklow**

Upland hillside, adjacent Wicklow National Park.

No trees on site, except a single large Holly and single large Rowan on boundary.

Mineral soil, free draining, but very stony.

Enormous issues with deer and gorse, entire site since surrounded by deer fence.

Additional problems with cutting of fences and trespass of ponies.

Continued no chemical approach.

All trees were protected using tree guards.

Planting also experimented with deer exclosures within the site.







# New Woodlands



**Laragh, Co. Wicklow**

Trees outside exclosures decimated due to deer inside the boundary deer fence.

Survival rate of well-protected trees also lower than sites elsewhere .

Failure of tree guards left thousands of trees exposed to deer.

**BUT**

Deer exclosures worked, good tree survival rates and growth inside these.

Scots pine and Rowan seemed to survive and grow well – which is probably indicative of the woodland type we should expect in this area.

Replanting taking place using improved exclosures & tree guards.

# New Woodlands



**Humphreystown, Co. Wicklow**

Upland location, adjacent to Blessington lakes, but not an exposed site.

Mix of soils, now waterlogged due to damming of River Liffey.

A stream running through site was altered by a previous owner to create ponds and islands.

Planted with pure Ash and pure Oak on different parts of the site circa 1995.

Entire site heavily grazed by trespassing livestock, constant damage from stray sheep in Summer, deliberate placing of Rams during Winter.

Baseline surveys revealed diverse animal and avian fauna, despite the overgrazing problems.







# New Woodlands



**Humphreystown, Co. Wicklow**

Agreement reached with local landowners to keep all livestock out of site.

New fences installed and gate locked!

Underplanting of Ash canopy with varied understorey has commenced, Ash canopy left in situ, to see if any individuals are resistant to dieback.

Removal of sheep has made a huge difference – insect life has noticeably, especially butterfly species (Ringlet and Wood Speckled).

Trail cameras have picked up Pine Martens, Stoats & Red Squirrels, plus Jays and Woodpeckers.

BUT

Deer still an issue, as everywhere in Wicklow.

Still no evidence of natural regeneration or colonisation from neighbouring areas, but its early days!

# Woodland Restoration / expansion



## **St. John's Wood / Rinnangan, Co. Roscommon**

Lowland good quality farmland, adjacent St. John's Wood and Lough Ree SAC.

Most of site grazed & cut until acquired by the Trust.

Site includes ruined house and sunken laneways bordered by stone walls, referred to as the "Famine Village".

This latter area appears to have had all grazing excluded and is now naturally reverting to native woodland. It is also some distance from St. John's Wood, so may be regenerating from old field boundaries / hedgerows.

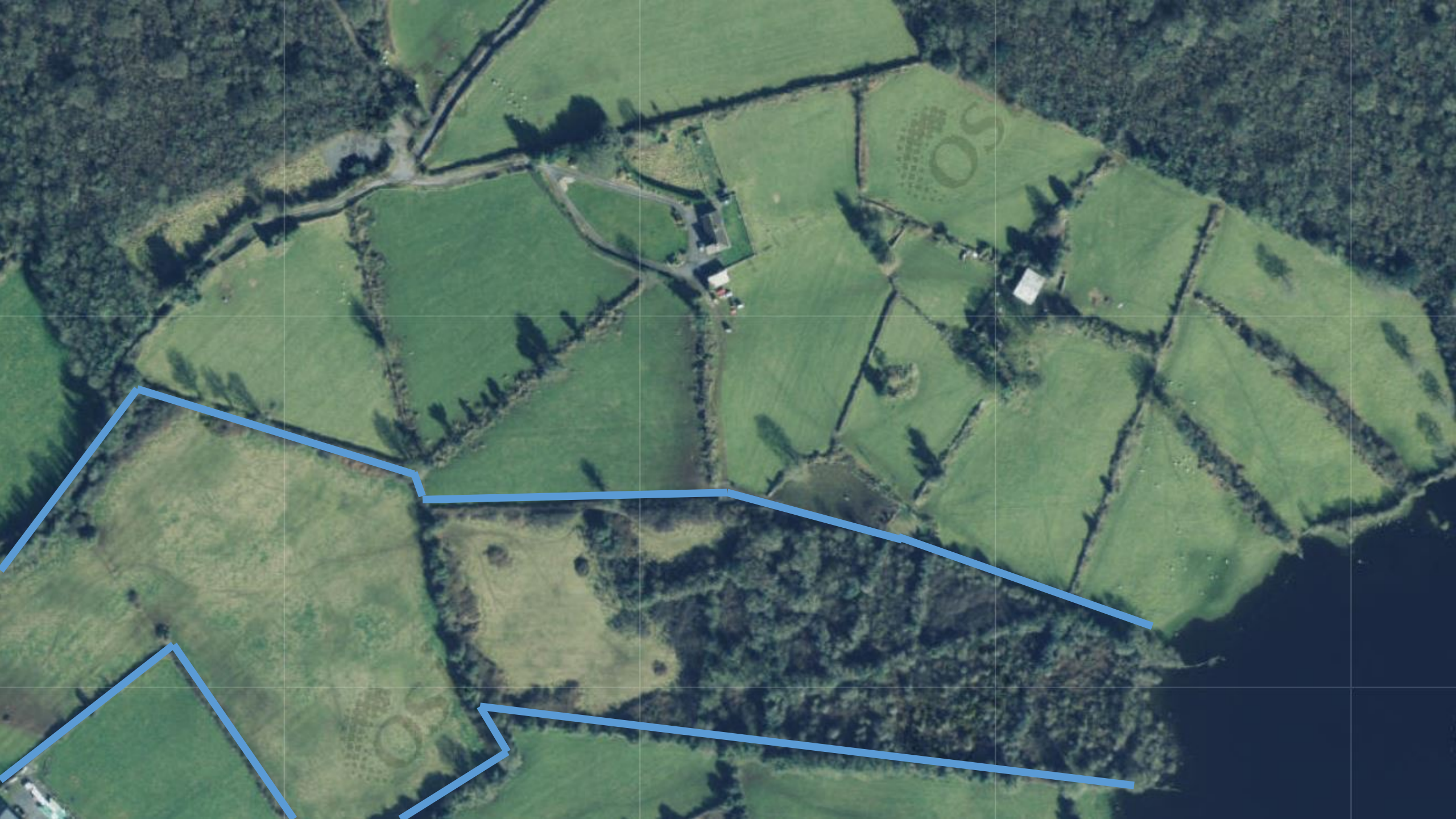
Regenerated area is not restricted to pioneer species, but already includes species such as Irish Whitebeam, Wych Elm, Spindle and Purging Buckthorn.

Regeneration appears mostly relatively recent – 1995 satellite shows some open areas and scrub.

One section / field appears to be un-improved grassland and reverted to wildflower meadow, which will be retained.









# Woodland Restoration / expansion



## **St. John's Wood, Co. Roscommon**

Due to proximity to a seed source from Ancient Woodland, site will depend heavily on natural regeneration.

Some new boundary hedgerows to be planted along road frontage.

Some individual plots to be planted with stock from St. John's to provide seed source across site.

The further from seed source, the more planting will be undertaken.

Blackthorn suckers to be controlled in limited areas, especially around meadow

New nursery built onsite to provide trees – which will never travel more than a few hundred metres from their source.

# Woodland Restoration / expansion



## **Ardan Wood, Co. Westmeath**

Almost certainly Ancient Woodland, growing on the steep slopes of a glacial Kame.

No pioneer species – which would indicate a lack of disturbance for considerable time.

Narrowly missed being felled on a number of occasions. Previously, planned felling of the entire woodland was delayed due to perception of Tree Week and subsequently forgotten!

Was also avoided by upgrade of M4 motorway.

Described as a “valuable demonstration of the natural climax forest type that the other esker vegetation is approaching”.

Large amounts of deadwood and interesting fungal biodiversity.

Woodland consists of a small strip of only 7 acres.



# Woodland Restoration / expansion



## **Ardan Wood, Co. Wexmeath**

Due to small size and linear shape, Ardan suffers from islandisation and external influences.

Trail cameras have picked up domestic dogs and cats regularly visiting at night.

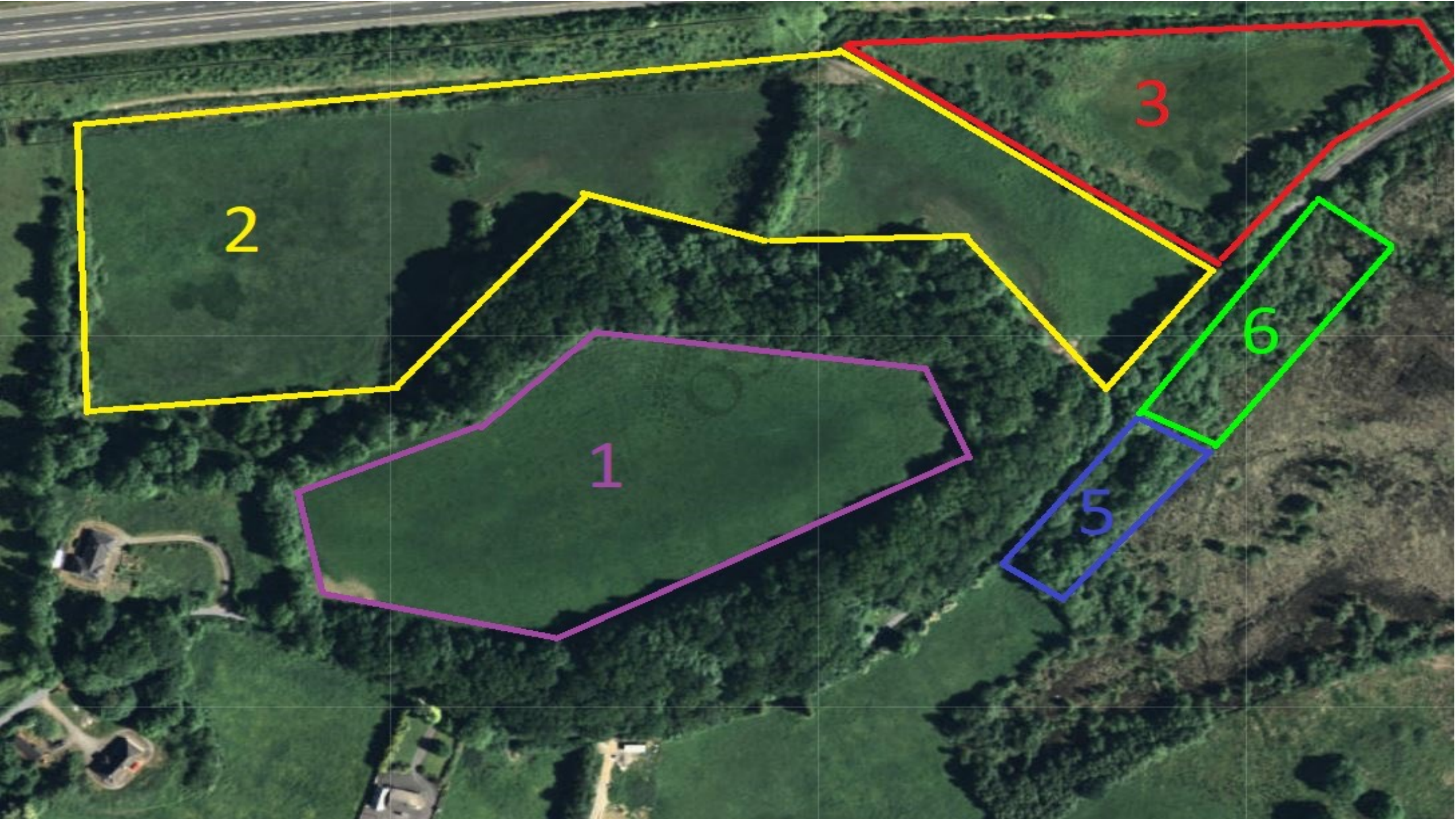
Extremely large and old badger sett has been wiped out by badger culling contractors.

Boundary trees have been cut, escaped cattle have frequently entered the woodland in the past.

No prospects for regeneration.

Woodland species show no sign of recolonising emerging woodland on neighbouring land.





2

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# Nurseries & Local Provenance

It is crucially important to us that the trees we plant are of local provenance – not just native to the country as a whole.

Local nurseries have been set up to supply our own stock of trees from our own selected sources.

We select trees appropriate to the site, from the closest ancient woodland or native source.

It is slow – but a few years difference at the start will still be reflected centuries from now.



# Wych Elm & Resistant Trees

One component noticeably missing from our woods is Elm

Wych Elm is very rarely planted in any schemes, due to its susceptibility to disease and lack of availability.

We chose very large trees, as being more likely to have been exposed to disease and not overlooked by the Elm bark beetles which are the vector for the disease.

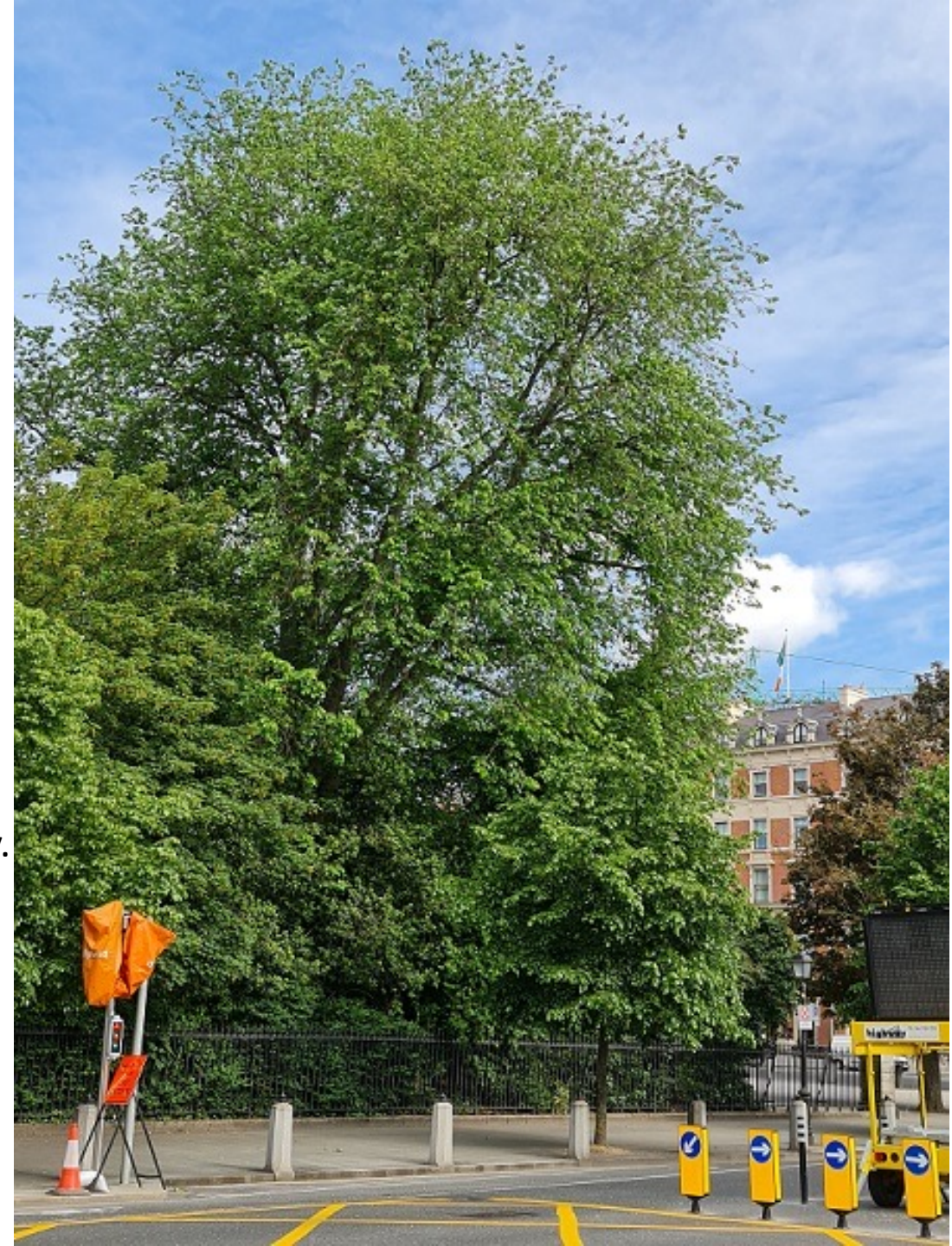
Some large trees were surrounded by dead and dying Elms, showing that they continued to resist the disease, although the reason remains unknown.

Seeds were collected from a number of large trees across the country.

Seed collection took place over the course of several weeks, with seemingly unripe seed and fallen seed all planted.

Viability and growth rates were extremely variable.

Received wisdom was overturned in a number of areas.



# Wych Elm & Resistant Trees

Lessons Learned:

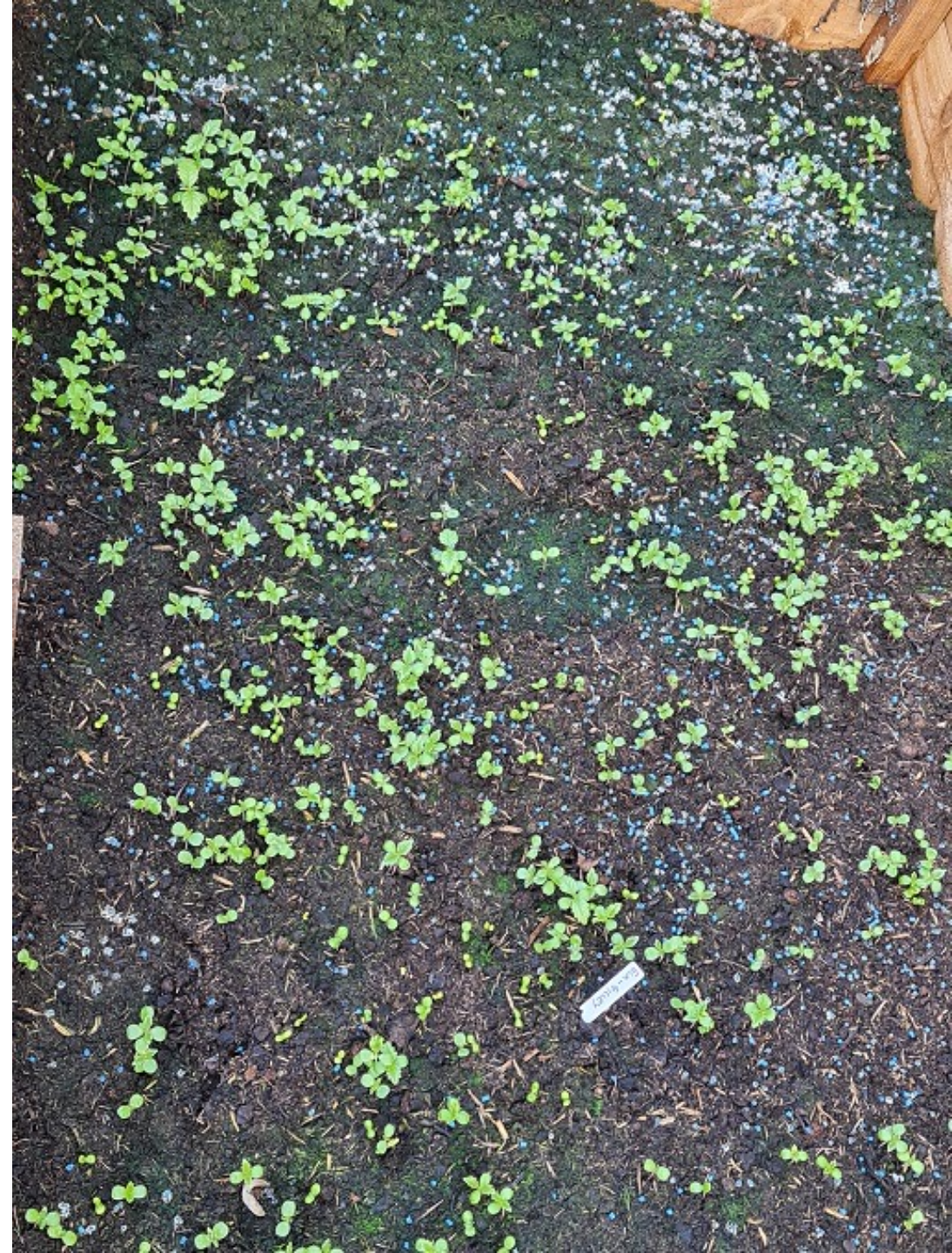
Seed, certainly in some instances, remains viable for a considerable period of time

Seedlings are susceptible to slug damage – the only native tree species with which we have experienced this.

Despite being grown in a polytunnel, the Elms also suffered from infestations of moth larvae.



Nettle Tap moth appeared to be one of the main culprits.



# Wych Elm & Resistant Trees

## Lessons Learned:

Growth rates were phenomenal.

In only 2 months, from setting the seed in June, some individuals were over 60cm / 2 feet tall.

By the onset of dormancy in October, some plants achieved growth of over 1.2 metres or 4 feet.

Seeds sourced from some individuals had very high germination rates, regardless of the timing of seed collection.

Others showed very poor germination rates and very poor growth rates.

This project will continue over the next several years, to include further studies of mechanisms of resistance and field trials of our nursery stock to see if resistance is passed to the next generation.







# People

