

Flora of Lough Neagh

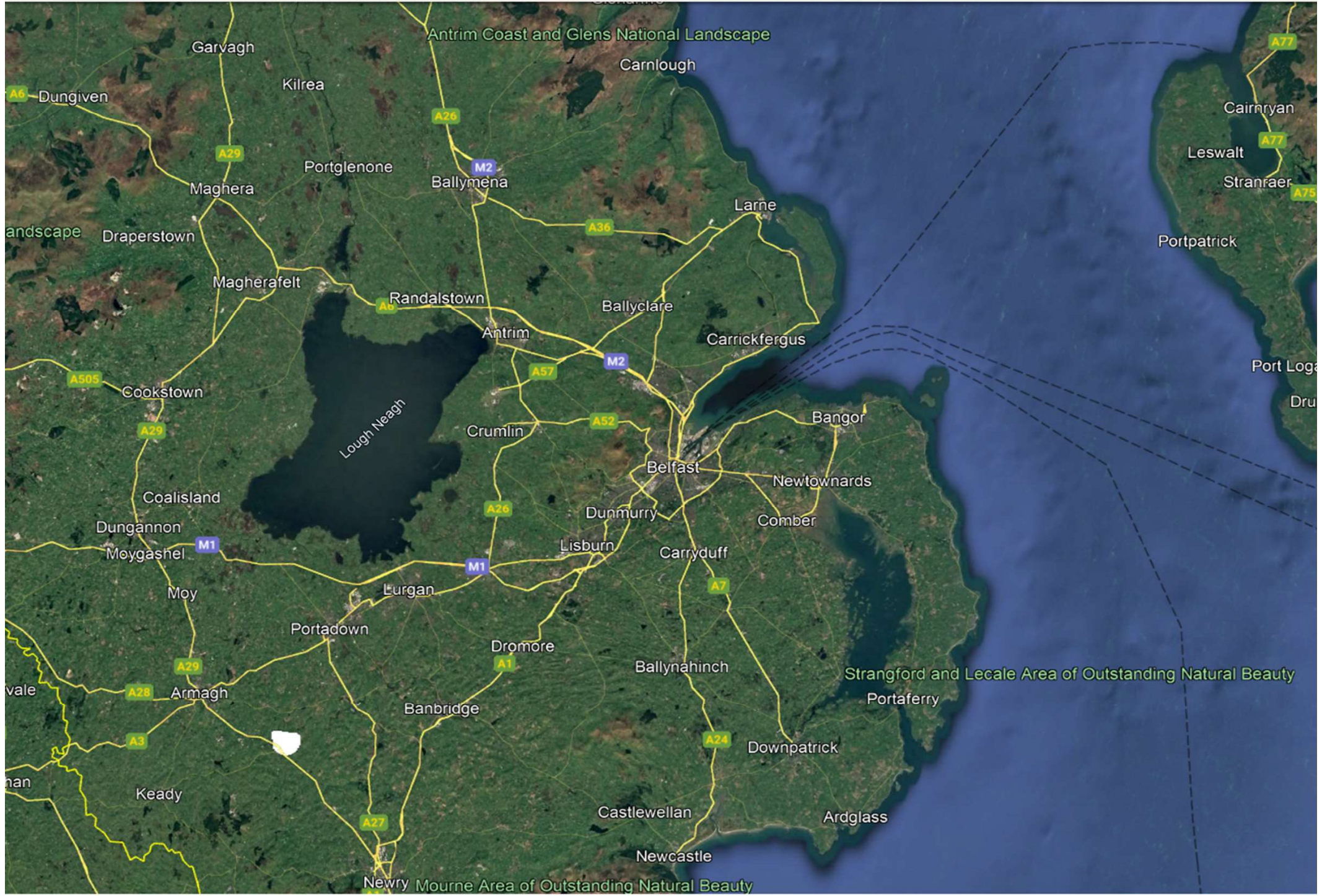
John Faulkner

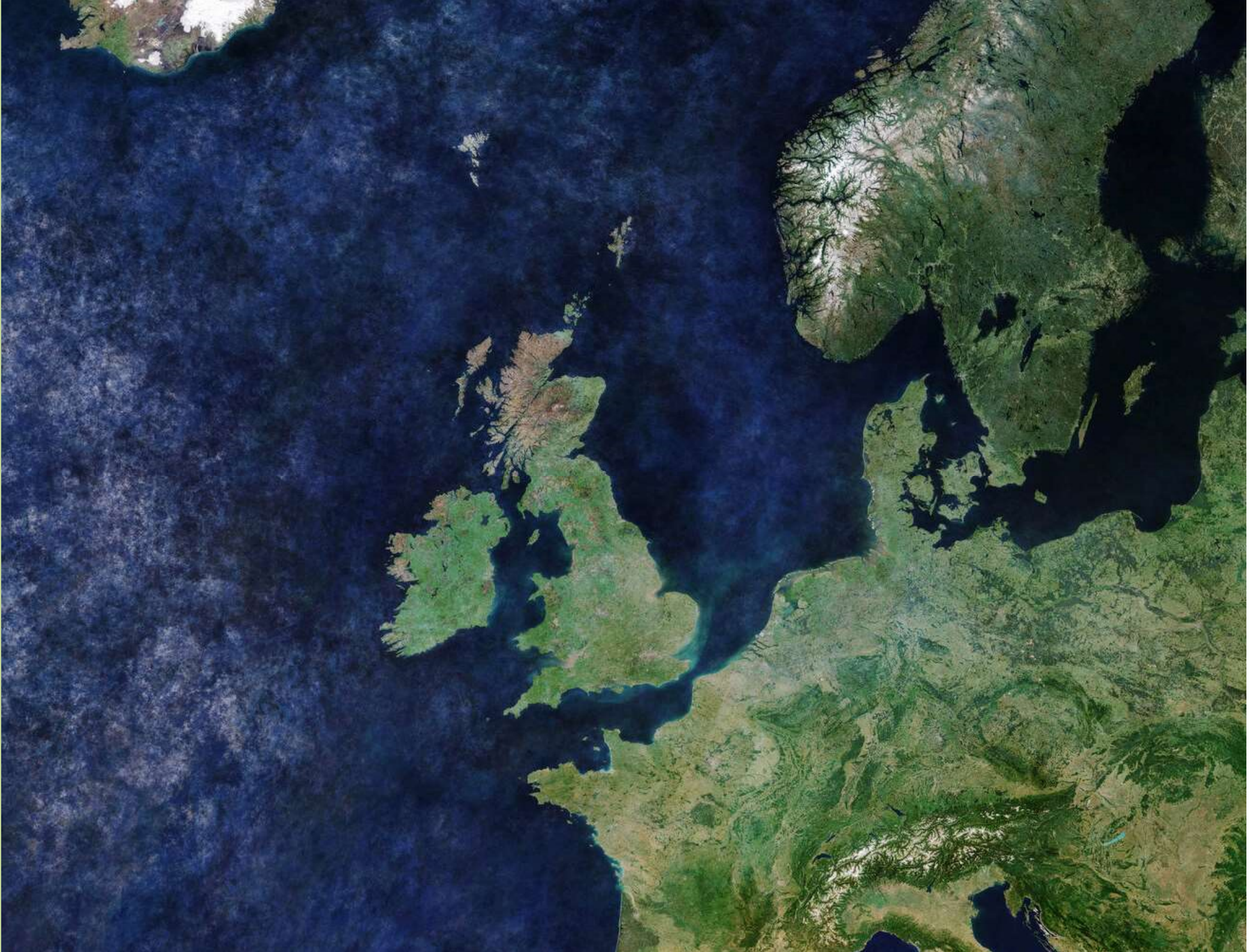
VCR Co. Armagh





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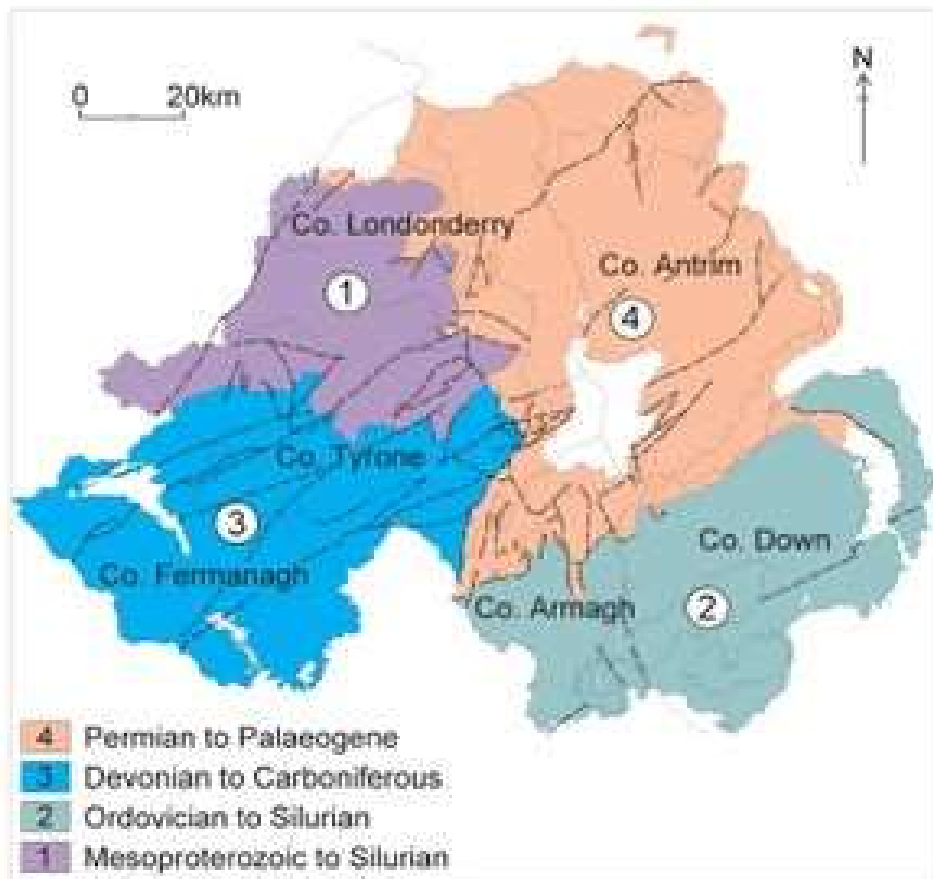
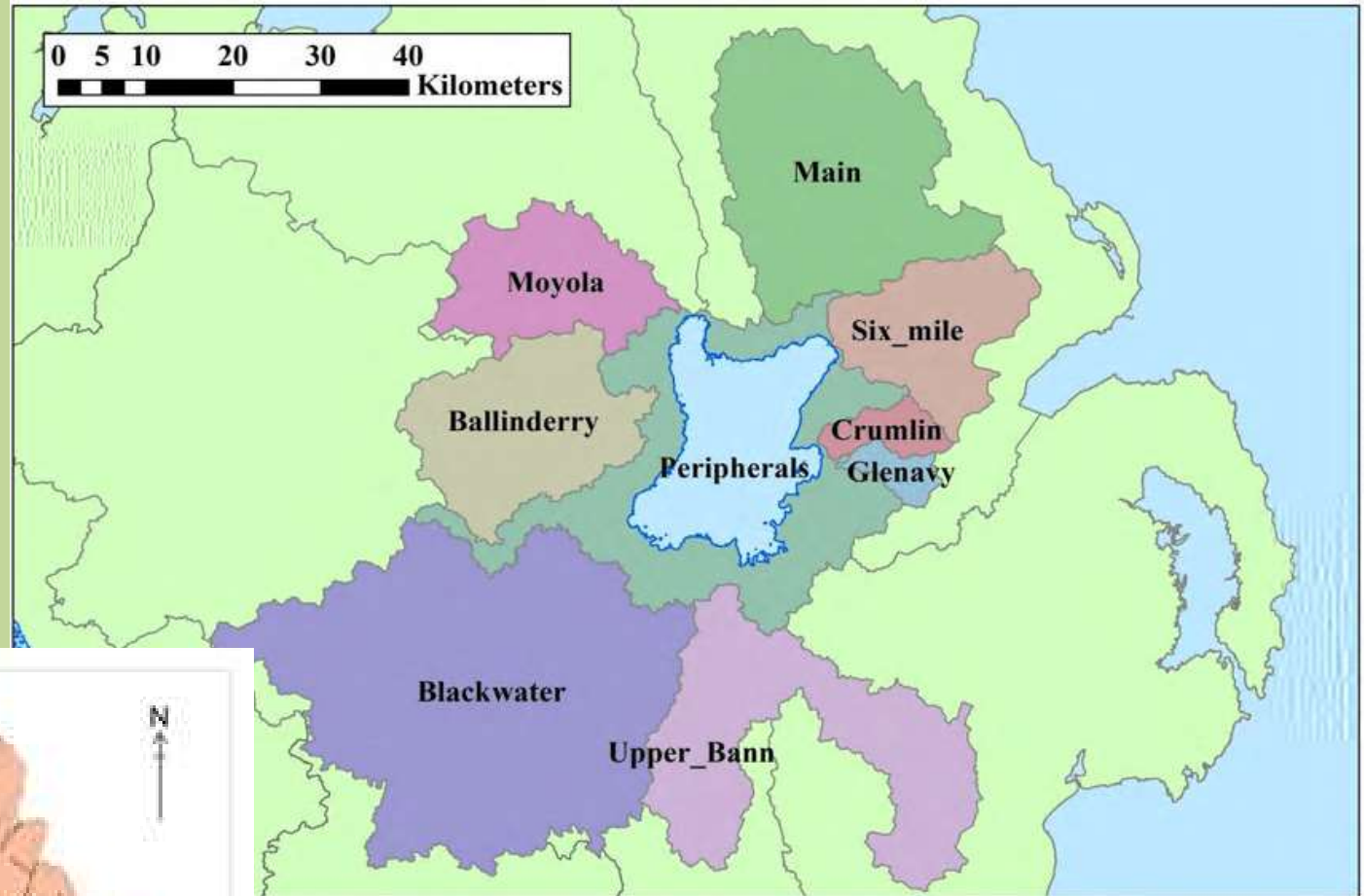


Lough Neagh in a Nutshell

- **Lowland setting, shallow**
- **Naturally meso- to eutrophic**
- **High pH**
- **Water source for >40% of NI population**
- **Used for sand extraction, fishing, recreation**
- **Intensively farmed catchment**
- **Catchment popn of ca 0.25 M humans**
- **Now severely hypertrophic**

	<i>Area</i> <i>sq km</i>	<i>Max depth</i> <i>m</i>	<i>Volume</i> <i>cu km</i>	<i>Retention</i> <i>years</i>
<i>L Neagh</i>	390	25	3.5	1.25
<i>L Derg</i>	130	36	1.0	0.15
<i>L Morar</i>	27	310	2.3	6.9

Catchments of inflowing rivers



Geological zones

1. Schists etc
2. Ordovician/Silurian
3. Limestone
4. Basalt and L N clays

Landmarks in flora recording

- **1691 William Sherard**
- **1793 to early 1900s Templeton, Moore, S A Stewart, Corry, Praeger etc**
- ***1888 Stewart & Corry's Flora of the North-east of Ireland***
- **1968-1971 (-1985) John Harron**
- ***1986 Harron's Flora of Lough Neagh (with Brian Rushton)***
- **1988-92 Northern Ireland Lake Survey**
- **Ca 1980 to present McNeills, Riley, Faulkner, N Stewart and others**
- **2000 & 2020 BSBI Atlases**

John Harron's Flora

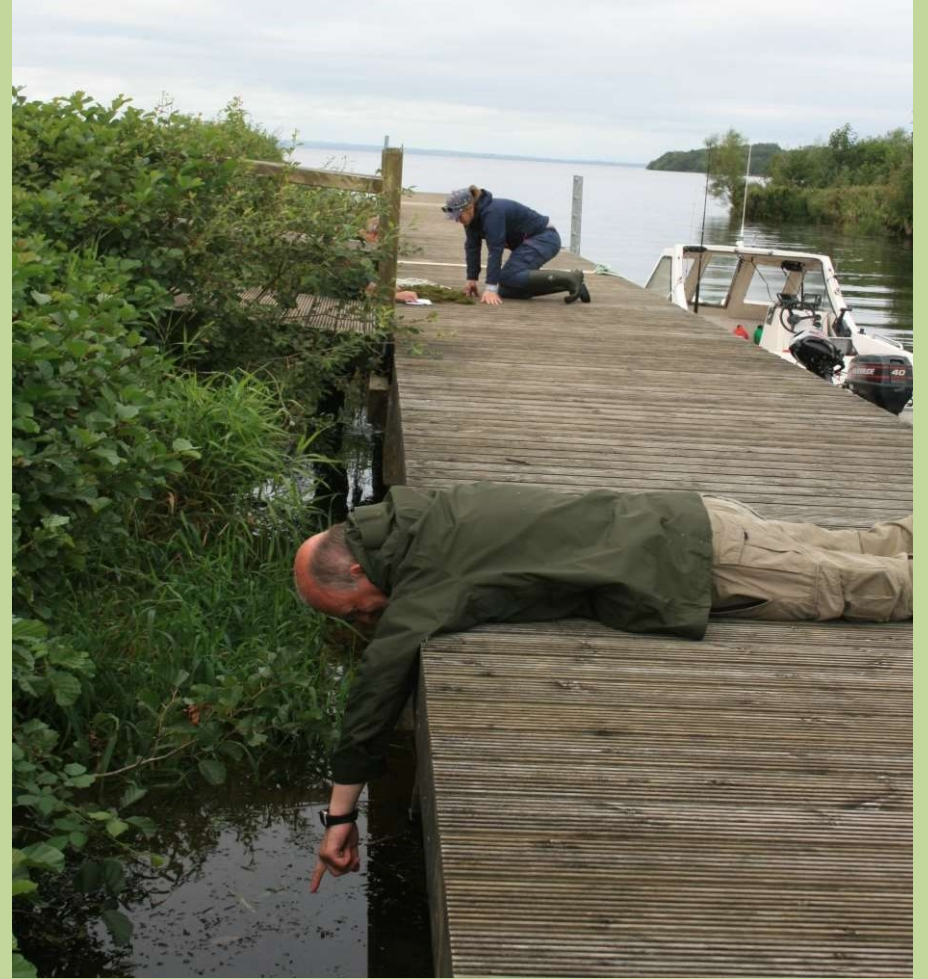
- **b 1944, d 2022**
- **Left school age 15**
- **Steered towards L Neagh by Pat Kertland**
- **Surveyed entire shoreline 1968-71**
- **Also southern bogs, and Loughs Beg, Gullion, Derryadd, Portmore & slow stretches of main rivers**
- **Catchment away from lough edge excluded**
- **Vascular plants only**



Lough shore vegetation

- **Open water communities - where sheltered**
- **Beaches – sandy or stony**
- **Bedrock - rare**
- **Emergent plants**
- **Fen and reedswamp – much reduced**
- **Grassland – species-rich where managed non-intensively**
- **Woodland – where ungrazed**
- **Bog – set back from shore**
- **Artificial structures**





**A selection of
common native
plants
on L. Neagh**



Common alien plants on L Neagh

Monkey-flower <1888

Himalayan Balsam 1937

Giant Hogweed 1971

Red-osier Dogwood

Willows (Almond, Crack, Osier, Purple,
White & hybrids)



Rare native species

Marsh Pea



Irish Ladies' Tresses



Greater Spearwort



Other scarce species

- Pennyroyal Main site outside Burren
- Cowbane Midland lime-rich lakes
- Skullcap Scattered in Ireland
- Lesser Bulrush Rare & mainly northern
- Wood Club-rush Mainly in north-east

Extinct on L. Neagh



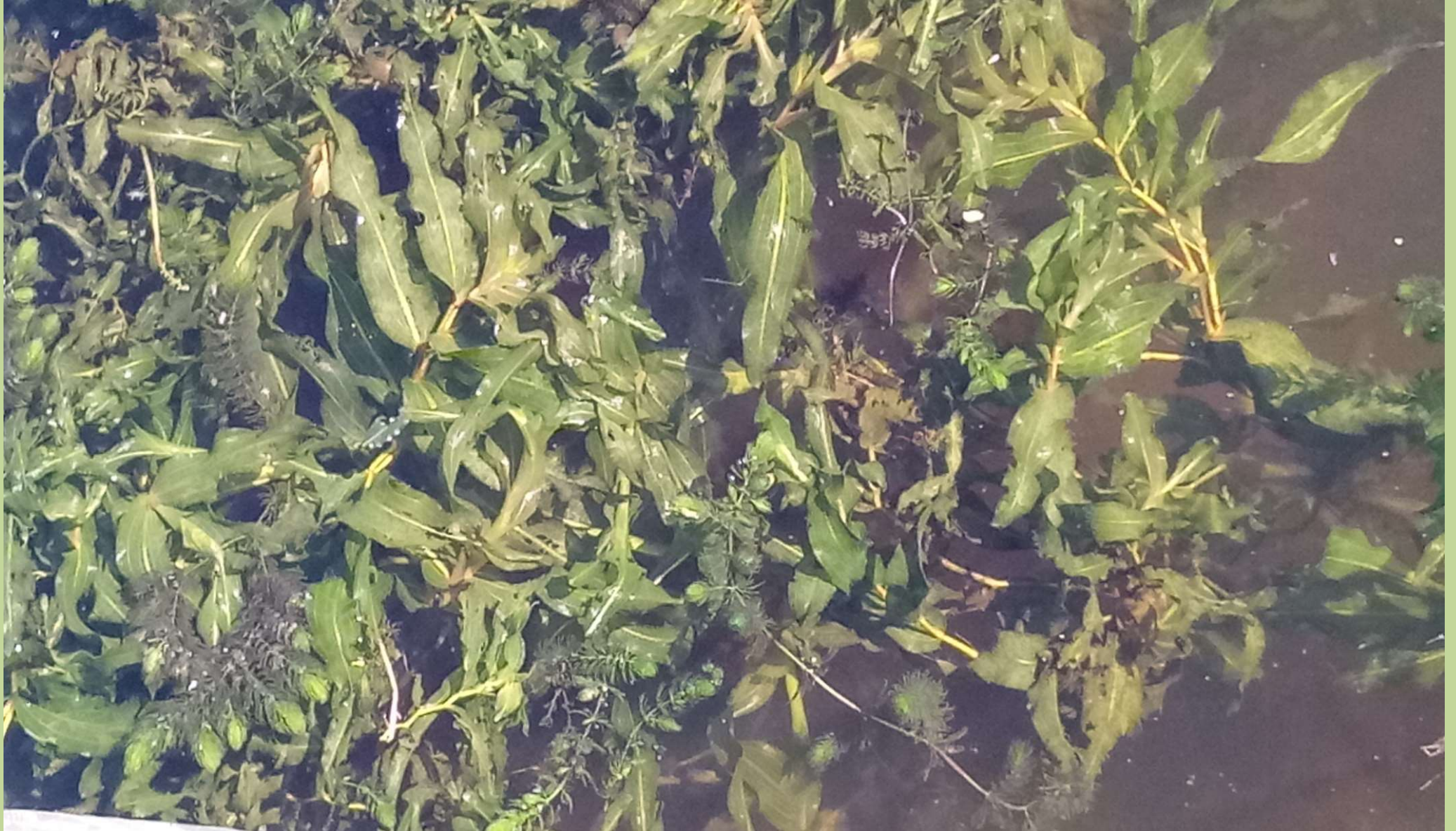
- **Great Fen-sedge 1837**
- **Marsh Fern 1864**
- **Buxbaum's Sedge 1891**
- **Northern Bedstraw 1982?**
- **Narrow Small-reed 1983**
- **Holy Grass 1987-99**
- **(aquatic spp – coming later)**



Aquatic plants

- **35 species** of submerged and floating aquatics recorded
- Records divided into 3 periods
- **to 1986:** includes Harron's Flora (1957)
- **1987-1999:** includes NILS and EHS habitat surveys (2755)
- **2000 on** (1060)
- No. records of each species as % of total no. records in the period

Long-stalked Pondweed & Rigid Hornwort



Duckweeds & Water Fern



Canadian & Nuttall's Pondweeds



Stable species

	-1986	1987-99	2000+
Lesser Duckweed	8.8	11.9	12.8
Fat Duckweed	1.4	1.6	1.3
Greater Duckweed	9.1	13.1	10.0
Yellow Water-lily	2.2	2.5	4.0
Broad-leaved Pondweed	5.1	4.9	4.2
Perfoliate Pondweed	4.2	6.8	5.9
Shining Pondweed	2.5	3.0	2.3
Spiked Water-milfoil	6.3	6.1	6.5
Horned Pondweed	4.5	7.8	3.1

Increasing species

	-1986	1987-99	2000+
Nuttall's Pondweed	0.5	1.5	6.4
Least Duckweed	0	0	7.3
Water Fern	0.1	3.2	6.2
Rigid Hornwort	0	1.4	6.4

Decreasing species

	-1986	1987-99	2000+
Frogbit	3.2	0.6	0.7
Various-lvd Pdwd	3.4	0.3	0.3
Curled Pondweed	4.2	3.3	2.0
Small Pondweed	3.6	3.0	1.2
Alternate W-milfoil	2.2	0.4	0.2
Needle Spike-rush	5.0	0.8	0.5

Extinct Species

	-1986	1987-99	2000+
Shoreweed	1.4	0.5 (1997)	0
Quillwort	0.7 (1955)	0	0
Water Lobelia	1.4 (1939)	0	0
Awlwort ?	1.0 ()	0	0
6-stamened Waterwort	0.3 (1939)	0	0
Pillwort	1.1 (1950)	0	0

Factors promoting floristic change

- Lowering of water level
- Less variation in water level
- Nutrient content of water
- Altered management of riparian habitat
- Adventive species
- Climatic change

