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|------------------------|---|
| Scientific name | <i>Fraxinus excelsior</i> – <i>Galium palustre</i> woodland |
| Common name | Ash – Marsh Bedstraw woodland |
| Community code | WL3A |

Vegetation

This highly diverse wet woodland community has a medium-height canopy (mean canopy height = 16.1 m, $n = 54$) largely composed of *Fraxinus excelsior* and *Alnus glutinosa* with some *Salix cinerea* and *Betula pubescens*. *Ilex aquifolium* and *Corylus avellana* are usually found in the understorey while *Crataegus monogyna* is also frequent. The field layer has a large number of constant species including wetland indicators (*Filipendula ulmaria*, *Carex remota*, *Galium palustre* and *Ranunculus repens*) alongside species of drier but moist substrates (*Hedera helix*, *Rubus fruticosus* agg., *Lonicera periclymenum*, *Dryopteris dilatata*, *Athyrium filix-femina*, *Oxalis acetosella*, *Viola riviniana/reichenbachiana*, *Geranium robertianum* and *Circaea lutetiana*). The bryophyte layer is mainly composed of a standard woodland assemblage of *Thuidium tamariscinum*, *Plagiomnium undulatum*, *Kindbergia praelonga*, *Eurhynchium striatum*, *Isoetecium myosuroides* and *Hypnum cupressiforme*, but species that are common on damper soils, such as *Pellia epiphylla*, *Hookeria lucens* and *Calliergonella cuspidata*, are also frequent.

Ecology

These stands most often occur on base-rich, gleyed soils, but sometimes on basin peats or the damper types of well-drained mineral soils and usually have a fairly low organic component (mean organic content = 33.3%, $n = 55$). They are found chiefly in the lowlands on flat ground, in hollows, near rivers, along lakeshores, or on the flushed slopes of hillsides (mean slope = 5.2°, $n = 55$; mean altitude = 68 m, $n = 55$). Soils, which may be waterlogged but are not usually subject to inundation, are of medium fertility in relation to other woodlands.

Sub-communities

No sub-communities have been described for this community.

Similar communities

These stands are close to those of community WL3C in which *Alnus* and *Fraxinus* are also constants. The present community, however, is more species-rich with a greater component of *Salix cinerea* and *Betula pubescens* while *Acer pseudoplatanus* is seldom encountered.

Records and distribution

Number of records (all)

| | |
|-------------------|----|
| Clearly assigned: | 59 |
| Transitional: | 24 |
| Total: | 83 |

Number of records (mapped)

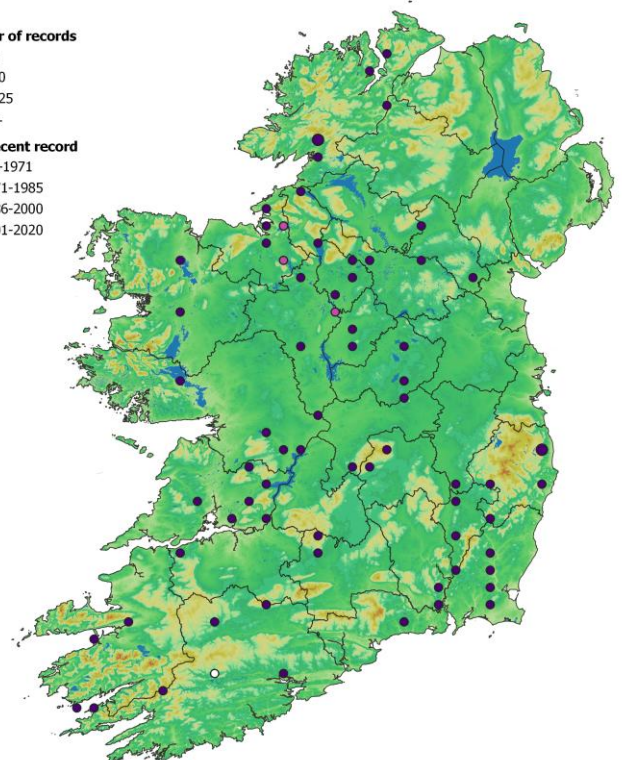
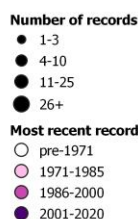
| | |
|------------|----|
| 2001-2020: | 77 |
| 1986-2000: | 3 |
| 1971-1985: | 0 |
| Pre-1971: | 1 |
| Total: | 81 |

Number of hectads (by most recent time period)

| | |
|------------|----|
| 2001-2020: | 66 |
| 1986-2000: | 3 |
| 1971-1985: | 0 |
| Pre-1971: | 1 |
| Total: | 70 |

Number of hectads (records in each time period)

| | |
|------------|----|
| 2001-2020: | 66 |
| 1986-2000: | 3 |
| 1971-1985: | 0 |
| Pre-1971: | 1 |



Synoptic table (n = 58)

| Species | Frequency (from I-V) | Cover min (med) max | Species | Frequency (from I-V) | Cover min (med) max |
|--|-------------------------|------------------------|--------------------------------------|-------------------------|------------------------|
| <i>Fraxinus excelsior</i> | V | +-(6)-9 | <i>Geranium robertianum</i> | IV | +-(2)-4 |
| <i>Hedera helix</i> | V | 1-(3)-7 | <i>Galium palustre</i> | IV | +-(2)-3 |
| <i>Thuidium tamariscinum</i> | V | +-(4)-8 | <i>Circaea lutetiana</i> | IV | +-(2)-5 |
| <i>Filipendula ulmaria</i> | V | 1-(3)-8 | <i>Geum urbanum</i> | IV | +-(2)-5 |
| <i>Rubus fruticosus</i> agg. | V | +-(3)-8 | <i>Betula pubescens</i> | IV | +-(4)-8 |
| <i>Alnus glutinosa</i> | V | 3-(6)-9 | <i>Corylus avellana</i> | IV | 1-(5)-8 |
| <i>Dryopteris dilatata</i> | V | +-(3)-4 | <i>Chrysosplenium oppositifolium</i> | III | 1-(2)-5 |
| <i>Plagiomnium undulatum</i> | V | +-(2)-5 | <i>Crataegus monogyna</i> | III | +-(3)-5 |
| <i>Kindbergia praelonga</i> | V | +-(2)-5 | <i>Pellia epiphylla</i> | III | +-(1)-5 |
| <i>Viola riviniana/reichenbachiana</i> | V | +-(2)-4 | <i>Calliergonella cuspidata</i> | III | +-(3)-5 |
| <i>Carex remota</i> | IV | 2-(5)-9 | <i>Lysimachia nemorum</i> | III | +-(2)-5 |
| <i>Eurhynchium striatum</i> | IV | +-(3)-6 | <i>Blechnum spicant</i> | III | +-(2)-5 |
| <i>Athyrium filix-femina</i> | IV | +-(2)-5 | <i>Veronica montana</i> | III | +-(2)-3 |
| <i>Lonicera periclymenum</i> | IV | 1-(2)-5 | <i>Hookeria lucens</i> | III | +-(1)-2 |
| <i>Oxalis acetosella</i> | IV | 1-(3)-5 | <i>Juncus effusus</i> | III | +-(2)-7 |
| <i>Ranunculus repens</i> | IV | +-(2)-5 | <i>Metzgeria furcata</i> | III | +-(+)-2 |
| <i>Salix cinerea</i> | IV | 3-(4)-8 | <i>Ajuga reptans</i> | III | +-(2)-5 |
| <i>Hypnum cupressiforme</i> | IV | +-(2)-4 | <i>Deschampsia cespitosa</i> | III | +-(3)-6 |
| <i>Ilex aquifolium</i> | IV | +-(4)-7 | <i>Frullania dilatata</i> | III | +-(+)-3 |
| <i>Isoetes macrospora</i> | IV | 1-(2)-4 | <i>Ulota bruchii/crispa</i> | III | +-(+)-2 |

Affinities

GHI: WN4 Wet pedunculate oak-ash woodland / WN6 Wet willow-alder-ash woodland

ZM: HA02A *Alnion incanae* Pawłowski et al. 1928

EUNIS: G1.2132 West European tall herb ash-alder woods

NVC: W7 *Alnus glutinosa-Fraxinus excelsior-Lysimachia nemorum* woodland (47.3%)

Annex I:91E0 Residual alluvial forests*

Proxy environmental data

Light: 5.3 Reaction: 5.8 Wetness: 6.6 Fertility: 5.3 Salinity: 0.0

Conservation value

This is on average an exceptionally species-rich woodland community (total species/100 m² = 50.6, n = 58) with a diverse bryophyte flora (bryophyte species/100 m² = 16.4, n = 58). Stands along rivers, streams and lakes which are subject to periodic inundation qualify as EU HD Annex I habitat 91E0 Residual alluvial forests*, as may stands which are spring-fed or flush-fed.

Management

The main threats to these woodlands include changes to hydrological regimes, overgrazing by livestock (usually cattle), woodland clearance and invasion by non-native species.

Key references

Perrin, P.M., Martin, J.R., Barron, S.J., O'Neill, F.H., McNutt, K.E., Delaney, A. (2008) National Survey of Native Woodlands 2003-2008. (unpublished). National Parks and Wildlife Service, Dublin.

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Synopsis author(s): P.M. Perrin



Photo 1. WL3A *Fraxinus excelsior* – *Galium palustre* woodland, Carrowroe, Roscommon
(M. Clancy/S. O'Donoghue, April 2005)



Photo 2. WL3A *Fraxinus excelsior* – *Galium palustre* woodland, Mountain Wood, Sligo (F. O'Neill/P. Perrin, June 2006)