

FLORA and VEGETATION HISTORY OF IRELAND

ICE AGES. There have been 2 recent Ice ages in Ireland, the Munsterian (200,000-130,000 years ago) and the Middletonian (75,000-10,000 years ago). During the Munsterian the whole of Ireland was, at times, under ice. Between these cold periods vegetation returned to Ireland, as did a fauna including Woolly Mammoths, Reindeer, Hyenas, Bears, Wolves and the Giant Deer.

Boulder Clay (till), DRUMLINS, ESKERS (eiscers).

10,000 years ago the climate warmed and vegetation returned. Initially Ireland was joined to Wales and Scotland by land-bridges, but as sea level rose these were cut off c. 7,500 years ago.

Pollen diagrams: Preservation of pollen in peat bogs provides a vegetational history.

FLORA OF IRELAND IN RELATION TO EUROPE

The Littletonian Plant Steeple Chase.

D.A. Webb, *The Flora of Ireland in its European Context*. J. Life Sciences, RDS 4 (1983) 143-160.

Vascular plant floras:	France	4,500
	Britain	1,172
	Belgium	1,140
	Ireland	815

Theory of Island Biogeography: Smaller islands have smaller floras relative to their size.

ABSENCES: 375 vascular plant species found in Britain are absent from Ireland.
Of these: 74 are confined to SE England: Dry hot summers.
38 avoid the mountainous NW: wetter, acidic soils. (*Campanula glomerata*)
45 are Highland species. (*Primula scotica*)
32 are rare plants in Britain.
leaving: 186 species absent from Ireland for no particular reason except that they
possibly arrived at the Irish Sea less than 7,500 years ago. (*Adoxa moschatellina*)

PRESENCES:

Much of the flora is a subset of the European flora, but there are 4 important elements in the Irish flora:

- 42 **Atlantic** or sub-Atlantic species (*Erica spp.*, *Saxifraga spathularis*, *Ulex europaeus*)
- 25 **Atlantic-Mediterranean** species. (*Arbutus unedo*)
- 16 **Arctic-Alpine** species (*Dryas octopetala*)
- 8 **Arctic** (*Arctostaphylos uva-ursi*).

THE BURREN: A remarkable area of limestone pavement. A unique combination of plant species. Including Arctic-Alpines, Alpines and Mediterranean species. At first these habitats seem totally different. The West coast of Ireland is in fact a combination of double negatives:
Alpines must have cool, damp summers, NEVER drying out.
Mediterranean plants must have warm winters NEVER frosted.

Whilst Ireland lacks 186 British species, it has 16 species NOT found in Britain but which are found on Continental Europe or in North America:

Mediterranean species: *Neotinea intacta* (Isle of Man, Spain); *Simethis planifolia* (Kerry Lily, France, Spain); *Arbutus unedo* (Strawberry tree).

Atlantic species: *Daboecia cantabrica* (St. Dabeoc's heath); *Erica erigena* (Irish heath); *Erica mackiana* (Mackay's heath); *Saxifraga hirsuta* (Kidney saxifrage), *Saxifraga spathularis* (St. Patrick's cabbage).

American species: *Hypericum canadense* (Canadian St. John's wort); *Sisyrinchium bermudiana* (Blue-eyed Grass), *Spiranthes romanzoffiana* (Irish Lady's Tresses).

Alpines: *Arenaria ciliata*; *Minuartia recurva*; *Euphrasia salisburgensis*; *Pinguicula grandiflora*.

Unexplained: *Inula salicina* (Irish fleabane) - otherwise continental Europe only.