

## **AN ANNOTATED CHECKLIST OF *CAREX* L. (SEDGE) SPECIES IN CO. MEATH (H22), IRELAND**

Margaret Norton

*Tinode, Manor Kilbride, Blessington, Co. Wicklow, Ireland.*

e-mail <kilnorbot200@gmail.com>

### **Abstract**

An annotated checklist is provided of the *Carex* L. (Sedge) species in Co. Meath (H22), Ireland. The predominately lowland topography of this county supports a range of habitat types suited to that genus. The first record, relative frequency and known habitats of each taxon within Co. Meath are given.

**Key words:** Ireland, *Carex*, sedges, county, Meath, annotated, checklist.

### **Introduction**

The predominately lowland topography of Co. Meath supports a range of habitat types suited to *Carex* (Sedges). Spanned by many rivers and their catchments, the most extensive of which are the Boyne and Blackwater, it also includes the Boyne Canal and Royal Canal. Marl-rich lakes and fen peats within the kame and kettle topography of northwest Meath, lakeshores in the drumlin belt of north Meath, raised bogs of west Meath, poorly-drained soils in the relatively flat land of southeast Meath and the estuarine saltmarshes of coastal east Meath, all combine to provide a further range of wetland habitat types. The calcareous grasslands in the esker-rich southwest Meath, sand dunes of coastal east Meath, acid grasslands at Bellewstown, dry heathy grounds of Slieve Breagh and Slieve na Calliagh, and broadleaved woodlands scattered through the county, comprise distinct habitat types which support a further suite of *Carex* species associated with dry to moist ground.

The earliest *Carex* records for Co. Meath date from the start of the nineteenth century (Wade, 1804). Many of these are from Curragha Bog, the term ‘bog’ at that time used to indicate marshy ground. While the village of Curragha is located in Co. Meath, the ‘bog’ straddled the Dublin/Meath county boundary. By 1887 it was reported to be ‘all gone except one bog-hole about thirty feet long by ten wide (in summer), and a stream, and some deep ditches into it. All land is reclaimed’ (Hart, 1887). Unfortunately, the historical records from this important site did not specify whether the individual sedge species occurred in the Dublin or Meath section of the ‘bog’. Nonetheless these early *Carex* records are important indicators of a habitat now lost. Likewise, early records from other sites within the county provide a baseline against which the impact of subsequent habitat changes can be measured.

The following checklist employs the taxonomy, nomenclature and sequence adopted by Stace

(2019). Synonyms are given for first records where that used for the published record differs to Stace. The status of species within Ireland follows Jebb (2019). The relative frequency and habitats of each taxon within Co. Meath are given. The interpretation of species occurrence in the county is then formulated in light of the distribution maps for Ireland in *Plant Atlas 2020* (Stroh *et al.*, 2023). In general, only first records are given, with additional records cited for particularly rare or significant taxa. The first record may exist in more than one state: a hitherto unpublished field record, a herbarium specimen, or a published record.

Place names are given according to the Discovery Series maps, scale 1:50000 (Ordnance Survey (of) Ireland 1992-2025). Exceptions include the vernacularly-named town of Enfield [= Innfield], the Mayden/Maiden Tower [= ‘Tower’ beside Lady’s Finger], the Boyne Obelisk [a now-destroyed monument by Obelisk Bridge at Oldbridge], the locally-named Caraguban [an area of limestone cliffs *circa* 2km north of Duleek] and Freehan Lough [= Freekan Lough]. Other exceptions are accompanied by the equivalent place name [in square brackets] as given on the Discovery Series maps. The island of Ireland (incorporating the Republic of Ireland and Northern Ireland) is referred to as Ireland. The term Meath or Co. Meath is applied in the sense of the biological vice county of Meath (H22) formally defined as ‘The administrative county of Meath, together with that part of the urban district of Drogheda which lies on the right (south) bank of the River Boyne’ (Webb, 1980). Recent records are accompanied, when available, by four-figure Irish National Grid references (IGR). In the case of earlier records, place names were often applied in a general sense. For example, records by Praeger from ‘Enfield & near’ or ‘Navan & westwards’ refer to full day excursions, most probably starting at the train station in Enfield or Navan respectively. Such excursions typically consisted of 12-hour days during which an average of 20 to 25 miles [*circa* 32 to 40km] was covered (Praeger, 1901). Thus, it is not possible to allocate accurate grid references to Praeger’s records. The majority of records created during the 1960s were collected on a hectad (10km<sup>2</sup>) basis using the British Grid Extension (BGX), an extrapolation of the British Ordnance Survey National Grid which covered Ireland (Webb, 1954). These have not been converted to IGR as it is not possible to do so with any acceptable degree of accuracy. Each BGX hectad was allocated a name (e.g. Nobber-BGX), though the records apply to the hectad rather than to the named town or village.

Annotations by Praeger (1896-1900) in his copy for Co. Meath of the *London catalogue of British plants* (Hanbury, 1895) are denoted by RLP-*ms*. Records abstracted from Brunker’s fieldwork diaries (Brunker, 1935-1966) are denoted by JPB-*ms*. Surnames are used for determiners and authors of published works. Initials are used for recorders as follows: BNFC = Belfast Naturalists’ Field Club, BSBI = Botanical Society of Britain and Ireland, CB = Con Breen, C  C = Colm  n    Cr  d  in, DM = David Moore, DMcC = David McClintock, DAW = David A. Webb, DNFC = Dublin Naturalists’ Field Club, DS = Donal Synnott, EFL = Edward F. Linton, FHP = Franklyn H. Perring, HN = Hannah Northridge, IC = Isaac Carroll, JA = John

Adams, JB = John Ball, JSF = John S. Faulkner, KD = Katy Duff, JPB = James P. Brunner, MN = Margaret Norton, MJPS = Mary J. P. Scannell, RLP = Robert L. Praeger, RN = Robert Northridge, SR = Sylvia Reynolds and TCGR = Tim C. G. Rich. Some records are supported by herbarium specimens lodged in **DBN** (National Botanic Gardens of Ireland), **BM** (British (Natural History) Museum) and/or **E** (Royal Botanic Garden Edinburgh). Comments by MN are placed in square brackets [ ], while records which require further consideration are placed in curly brackets { }.

## ANNOTATED CHECKLIST

### *Carex paniculata* L.    **Greater Tussock-sedge**

Native. Localised and uncommon in Meath. Damp to wet, often peaty, slightly base-rich, soils. Scrubby margins of fen peat and cutover raised bogs; fringe vegetation of the Royal Canal; wet scrub; lakeside marshes. Widespread through much of Ireland.

**First record:** Enfield & near (1896; RLP-*ms.*); H22 (Praeger, 1901). {An earlier record from ‘shady watery spots’ at the Bog of Curragha (Wade, 1804) may have referred to Dublin or Meath}

### *Carex diandra* Schrank    **Lesser Tussock-sedge**

Native. Locally common. Calcareous marshes; wet fen peat. Most plentiful in base-rich northwest Meath and esker-rich southeast Meath, the later including margins of the Royal Canal; also present in the drumlin belt of north Meath, particularly in the base-rich eastern half; occasional elsewhere. Widespread in lowland Ireland.

**First record:** as *Carex teretiuscula*, Mathews’ Hill [Mathews’s Hill] (1897; Praeger, 1901).

### *Carex otrubae* Podp.    **False Fox-sedge**

Native. Scattered locations in the southern two-thirds of the county, seldom in any quantity. Heavy damp soils, often with some flushing. By fresh water run-off on the upper fringe of saltmarshes on the rivers Boyne and Nanny; rushy fields; streamsides; margins of raised bogs and fen peat; ditches; occasional in lakeside grasslands and calcareous marshes. Widespread by the coast in Ireland, its inland distribution is predominantly in the southern half of the island, on the northern margin of which lies Meath.

**First record(s):** as *Carex vulpina*, ‘Laytown, Drogheda’ (1874; IC **BM**, det. David); Kilmessan (1896; RLP-*ms.*); H22 (Praeger, 1901).

### *Carex spicata* Huds.    **Spiked Sedge**

Native. A single Meath record. A rare sedge in Ireland which has a scattered distribution.

**First record:** grassy verge by bog at Kildalkey 2009 (MN, conf. Porter) N75.

### *Carex divulsa* Stokes    **Grey Sedge**

Native. Localised and occasional. Grassy habitats, usually on base-rich soils. Roadside and trackway verges; hedgebanks and woodland margins; rough open grassland; waste ground.

Most frequent in the southern third of Ireland, its recorded range has expanded since the 1960s. Two subspecies of *Carex divulsa* are recognised by Stace (2019) within the British Isles, the common ssp. *divulsa* and the much rarer ssp. *leersii*. Applying this taxonomy, only *C. divulsa* ssp. *divulsa* is known to occur in Co. Meath [see note on ssp. *leersii* below]. However, the taxonomic understanding of *C. divulsa* is still evolving. Studies over a wider geographical range have treated ssp. *leersii* at species level as *C. leersii*, and have split ssp. *divulsa* into seven species (Molina *et al.*, 2008). It is possible that future studies of *C. divulsa* in Meath may reveal some of these additional taxa.

**First record:** of *Carex divulsa*: Laytown (1896; Praeger, 1901).

**First record:** of *Carex divulsa* ssp. *divulsa*: W-facing limestone bluff, Caraguban, Duleek (1978; DS **DBN**, det. Chater, 1995); H22 (Jermy *et al.*, 1982).

{A specimen of *C. divulsa* ssp. *leersii* (F.W. Schultz) W. Koch. exists from the ‘roadside near Tara Hill’ (1909; JA **DBN**, det. David, 1980; Scannell and Synnott, 1990). However, this could refer to the Tara Hill in Co. Meath or that in Co. Wexford. Another specimen, annotated ‘leersii?’ from Caraguban, Duleek (1978; DS **DBN**; Scannell and Synnott, 1990) was subsequently re-determined by Chater in 1995 as ssp. *divulsa*}

#### *Carex arenaria* L.     **Sand Sedge**

Native. Locally abundant. Grasslands of fixed dunes; dune trackways; bare sand of foredunes; infill of gravels and sands on the Boyne estuary. Widespread on the coast of Ireland.

**First record:** seacoast near Bettystown (1849; JB **E**); H22 (Praeger, 1901).

#### *Carex disticha* Huds.     **Brown Sedge**

Native. Locally common. Wet, usually base-rich, soils. Lakeside marshes in the drumlin belt of north Meath, particularly in the base-rich eastern half; lakeside marshes in base-rich northwest Meath; wetlands in esker-rich southwest Meath including those by the Royal Canal; poorly-drained soils in the flat land of southeast Meath; elsewhere in riverside marshes, on fen peat and on reclaimed raised bogs. This sedge is widespread in Ireland.

**First record:** Bective (1896; RLP-*ms.*); H22 (Praeger, 1901).

#### *Carex remota* L.     **Remote Sedge**

Native. Widespread and common. Damp, often winter-wet, shaded ground. Woodlands; sides of hedgerow ditches; shaded riversides; lakeside scrub. Widespread in Ireland.

**First record:** Navan & westward (1896; RLP-*ms.*); H22 (Praeger, 1901). {The earlier undated specimen by Moore (most likely pre-1866; **DBN**) from ‘side of the River Boyne near Drogheda’ did not specify whether collected on the south (Meath H22) or north (Louth H31) riverbank. His record of *Vulpia fasciculata* from ‘Sand-hills on the south side of the Boyne, near Drogheda’ (Moore and More, 1866) indicates that at least some of his botanising was done on the Meath side of the river}

***Carex leporina* L.    Oval Sedge**

Native. Localised and occasional, never in any quantity. Damp, most usually base-poor, soils. Rough grasslands; roadside and trackway verges; woodland margins; heathy ground. Widespread in Ireland, though somewhat more thinly so in the base-rich midlands.

**First record:** as *Carex ovalis*, Slieve Brehg [= Breagh] (1900; RLP-*ms.*); H22 (Praeger, 1901).

***Carex echinata* Murray    Star Sedge**

Native. Locally common, often in quantity. Most usually on base-poor, water-logged, soils. Raised bogs; wet heathy ground; rarely in calcareous marshes and hillside flushes. A widespread sedge through most of Ireland.

**First record:** Enfield & near (1896; RLP-*ms.*); H22 (Praeger, 1901).

***Carex dioica* L.    Dioecious Sedge**

Native. Localised and very rare. Fen peat; a calcareous flush. Of limited distribution through much of Ireland, it is most widely recorded in vice counties to the north and mid-west of the island. A species of rich fens and base-rich wetlands of high nature conservation value.

**First record:** Commons, Duleek, with *Carex hostiana* O0469 (1966; JPB & DNFC; JPB-*ms.*; DS **DBN**; Synnott, 1967).

**Additional records:** Commons, Duleek (1967; DS **DBN**) and (1968; MJPS **DBN**; Synnott, 1969); seepage at Roristown N7655 (1970; CB; Young, 1972); Freehan Lough within the Lough Shesk area (1971; CB **DBN**); Newtown Lake within the Lough Shesk area (1971; CB; Young, 1972) & (1972; CB & BSBI; CB **DBN**; Breen, 1973); fen peat at Ballinrig [now partially drained], with *Pinguicula vulgaris*, *Schoenus nigricans* and *Carex lepidocarpa* N8249 (1989; MN); small calcareous flush on north side of stream-valley at Ardsallagh [subsequently drained for afforestation], with *Eriophorum latifolium*, *S. nigricans* and *C. hostiana* N8962 (1997; CB & PR; CB **DBN**); marsh on fen peat by east shore of Bleach Lough at Baltrasna, a patch of female plants with *P. vulgaris*, *S. nigricans*, *C. hostiana* and *C. lepidocarpa* N5176 (2022; MN).

***Carex canescens* L.    White Sedge**

Native. Localised and rare. Wet, usually peaty, base-poor soils. Lakeside marshes in the northern half of the county; a single location in mid-west Meath. This sedge has a predominantly northern distribution in Ireland, on the southern margin of which the majority of its Meath sites are located.

**First record(s):** as *Carex curta*, bog 4 miles [circa 6.4 km] ENE of Athboy (7 May 1896; RLP-*ms.*); marsh, Navan (7 May 1896; RLP **DBN**, fide Bennett); bog near Navan (1896; Praeger, 1897) [most probably all referring to the same record].

**Additional records:** Lough Shesk area (1971; CB) N66; near Connell's Lough [= Freehan Lough] in the Lough Shesk area (1972; CB & BSBI; Breen, 1973); mossy hummock of acid

peat above fringe of *Equisetum fluviatile* and *Carex rostrata* on east shore of Breakey Lough Little [in shaley western half of drumlin belt of north Meath] N7490 (2022; MN); sparsely in wet grassland by Ervey Lough [in shaley western half of drumlin belt of north Meath], with *C. disticha* and *C. echinata* N7693 (2022; MN).

***Carex hirta* L.    Hairy Sedge**

Native. Widespread and common. Damp grassy habitats. Marshy fields; riverside pastures; rough grasslands on fen peat; lakeside grasslands; damp trackway verges. Widely distributed in Ireland, with the exception of the most acidic areas.

**First record:** Athboy (1847; JB E); H22 (Praeger, 1901).

***Carex lasiocarpa* Ehrh.    Slender Sedge**

Native. Localised and rare. Marshy to swampy ground by lakes and rivers on moderately base-poor soils. Predominantly a species of northwest and mid-west Ireland, the recent Meath records represent some of its few surviving colonies in the east of the island.

**First record:** as *Carex filiformis*, bog between Navan and Drogheda (DM; Moore and More, 1866) [possibly referring to the ‘bog by the railway between Navan and Drogheda’ [= Thomastown Bog?] where Moore recorded *Cladium mariscus* (*ibid.*).]

**Additional records:** about and below Navan (Praeger, 1934); path by River Boyne west of Beauparc (1957; DMcC; Wallace, 1960); Lough Shesk N6167 and nearby Connell’s Lough [= Freehan Lough] N6267 (CÓC; Ó Críodáin, 1988); transitional mire at Ardmaghbreague N7588/N7688 (2019; KD).

***Carex acutiformis* Ehrh.    Lesser Pond-sedge**

Native. Widespread and occasional, often in quantity. Nutrient-rich, most usually base-rich, wet habitats. Riverbanks and floodplains of the River Boyne; banks of, and marshy fields by, the Royal Canal; lakeside marshes in the base-rich eastern half of the drumlin belt of north Meath; elsewhere occasional by rivers and lakes, rank vegetation on fen peat, scrub on cutover raised bog and wet woodland. Noted in Meath as ‘widespread, not common’ by Praeger (1901). Within Ireland, it is most widely distributed in the base-rich midlands, with scattered sites elsewhere.

**First record(s):** as *Carex paludosa*, Bective (27 June 1896; RLP-*ms.*; RLP DBN, fide Bennett); reedy margins of the Boyne at Bective (27 June 1896; DNFC; Anon., 1896). [Praeger led the 1896 DNFC excursion to Bective.]

***Carex acutiformis* x *C. acuta* = *C. x subgracilis* Druce**

A hybrid between two native species. A single site in Meath, as yet unreported from elsewhere in Ireland (Stroh *et al.*, 2023). Although present with its *Carex acutiformis* parent at its Meath site, the second parent *C. acuta* was not detected. In Britain, the two species often share habitat, but the flowering period for *C. acuta* precedes that of *C. acutiformis*, and the hybrid is relatively infrequent (Foley and Porter, 2015). The potential for hybridisation in

Ireland is further complicated by the limited distribution of its *C. acuta* parent, which species does however occur at several locations in Co. Meath.

**First Irish record:** two large stands (each *circa* 20m x 25m) on marly peat at southeast corner of Creeve Lough, between the reedbed of *Phragmites australis* and the winter flood line, with *Carex acutiformis* N5774 (2018; MN, conf. Porter; Norton, 2020).

***Carex riparia* Curtis    Greater Pond-sedge**

Native. Localised and occasional. Base-rich, often brackish, marshy ground on margins of still and slow-flowing waterbodies, including rivers, lakesides and canals. Most frequent in the coastal region of east Meath including the tidal sections of the rivers Boyne and Nanny, mouth of the Delvin River, a winter-wet hollow in sand dunes south of South Bull at Mornington, marshy ground at Mosney and previously at Bettystown; also frequent by inter-drumlin lakes in the base-rich eastern half of north Meath including Ballyhoe, Balrath, Corstown, Mandistown, Mentrim, Moynagh and Newcastle loughs; scattered sites elsewhere include margins of the Upper Boyne [= above Navan], a tributary of the Athboy River, the rivers Deel and Rye Water, and the Boyne Canal. A scattered distribution in Ireland where it is most frequent towards the southeast and east coasts, and on the Shannon estuary.

**First record:** Coonen Hill [N of Dardistown Bridge] (1895; Praeger, 1901); H22 ‘frequent in the extreme east’ [of Meath] (Praeger, 1901). {It is unclear whether the earlier record from Drogheda (1889; EFL **BM**) referred to the south (Meath H22) or north (Louth H31) bank of the River Boyne}

***Carex pseudocyperus* L.    Cyperus Sedge**

Native. Localised and very rare, with no recent records. Praeger’s records from Meath may all refer to a single site given that Ferns Lock [Lock at Ferrans] is located *circa* 7km to the E/ENE of Enfield, and both Ferns Lock and Enfield were visited during his itinerary named ‘Enfield’ on 4 July 1896 (RLP-*ms.*). Alternatively, the curation of two specimens (RLP **DBN**) with differently described locations, and the use of the term ‘bog-drains’ in the plural (Praeger, 1897), suggest it may have been present in more than one ditch/drain between Ferns Lock and Enfield. Widespread within the Shannon basin in Ireland, with only scattered sites elsewhere.

**First record(s):** Enfield (4 July 1896; RLP-*ms.*); bog ditch, Ferns Lock (July 1896; RLP **DBN**); wet drain, east of Enfield (4 July 1896; RLP **DBN**); bog-drains by canal three miles [*circa* 4.8 km] ENE of Enfield, close to the Kildare boundary (1896; Praeger, 1897); near Enfield (1896; Praeger, 1901). {Curragha [Dublin/Meath] (Wade, 1804)}

***Carex rostrata* Stokes    Bottle Sedge**

Native. Widespread and common, often abundant. Shallow water and permanently wet soils. Lake margins and ponds; fringe vegetation of the Royal Canal, less frequently by the Boyne Canal; riparian vegetation of slow-flowing rivers; marshes and swampy ground; ditches; wet patches of fen and raised bog peat. A widespread sedge in Ireland.

**First record:** as *Carex rostrata*, Bective (1896; RLP-ms.); as *C. ampullacea*, H22 (Praeger, 1901).

***Carex rostrata* x *C. vesicaria* = *C. x involuta* (Bab.) Syme**

A hybrid between two native species. Plentiful at its single known location in Meath. Accompanied by its *Carex rostrata* parent, its second parent *C. vesicaria* was not evident at the site despite occurring elsewhere in the county. While usually accompanied by both parents in Britain and Ireland, it can also exist in the absence of *C. vesicaria* (Foley and Porter, 2015). This hybrid has a very limited distribution in Ireland, one of its few sites occurring on the north shore of Ballyhoe Lough in Co. Monaghan (FitzGerald, 2022, 2024), the south shore of which lake is in Co. Meath where the hybrid may yet be discovered.

**First record:** an extensive stand in the drawdown zone of the winter-flooded but summer-dry ground at Garrynabولية in base-rich northwest Meath, with several stands of *Carex rostrata*, the wetland dominated by *Equisetum fluviatile* and *Menyanthes trifoliata* N5474 (2018; MN, conf. Porter; Norton, 2020).

***Carex vesicaria* L. Bladder-sedge**

Native. Localised and uncommon, sometimes plentiful. Permanently wet, usually base-rich, habitats. Swampy marshes and wet scrub by the inter-drumlin lakes of north Meath including Ballyhoe, Ervey, Newcastle and Whitewood loughs; calcareous marshes in esker-rich southwest Meath at Ballynabarny and Galtrim; previously in riverside marshes on the Upper Boyne [= above Navan], not recorded there since the Boyne Arterial Drainage Scheme of 1969-1986. Much of its distribution in Ireland coincides with the northern drumlin belt which stretches from Strangford Lough in Co. Down to Clew Bay in Co. Mayo, and with the region of drumlins in Co. Clare. The majority of its Meath sites are located on the southern fringe of the northern drumlin belt.

**First record:** Nobber-BGX-04/84 [which includes Whitewood Lough] (1962; DAW); H22 (Jermy *et al.*, 1982). {Bog of Curragha [Dublin/Meath] (Wade, 1804)}

***Carex pendula* Huds. Pendulous Sedge**

Native in Ireland (Jebb, 2019), but more usually as a neophyte in Meath. Localised, seldom plentiful. Damp, often shaded, ground. Possibly native on riversides and by woodland trackways; a neophyte, most probably as a garden escape/discard, in disused quarries and waste grounds, and on roadside verges near habitation. Widespread in Ireland.

**First record:** in woods of Headfort Castle [= Headfort House, Kells] (1912; BNFC; Anon., 1912).

***Carex sylvatica* Huds. Wood-sedge**

Native. Widespread and occasional. Moist, at least slightly base-rich, partially shaded ground. Broadleaved and mixed woodlands, especially by trackways; occasional in felled woodland and amongst isolated clumps of trees. Sufficiently widespread in Ireland that its sites



were not listed by Praeger (1901), it is still one of the most frequent sedges.

**First record:** H22 (Praeger, 1901).

*Carex strigosa* Huds.    **Thin-spiked Wood-sedge**

Native. Localised and rare, with only two recorded locations in Co. Meath. Moist base-rich soils of deciduous woodlands, where it occurs on a shaded streamside, an area of seepage, and on trackway margins. This woodland sedge has a very localised distribution in Ireland.

**First record:** woods on grounds of Ross House, Lough Sheelin [an area of limestone bedrock] (1938; RLP & DNFC; JPB-*ms.*; Allen, 1938). {Curragha [Dublin/Meath] (Wade, 1804)}

**Additional records:** sparsely by trackway in broadleaved section of woodland north of carpark at Summerhill Demesne, with *Equisetum telmateia* nearby [which species is associated with seepage] N8447 (1990; MN); still at Summerhill Demesne, extending for *circa* 10m by shaded stream north of carpark N8447 (2022; MN); several large patches on grassy trackway margins west of carpark at Summerhill Demesne, with *Carex sylvatica* N8447 (2024; MN).

*Carex flacca* Schreb.    **Glaucous Sedge**

Native. Widespread and very common, often plentiful. Base-rich grasslands, most usually on free-draining soils. Open vegetation above marly lake shores; drier sections of calcareous marshes; fixed dunes; esker ridges; disused quarries of limestone-derived gravels and sands, and of limestone rock; roadside cuttings and banks; verges of lime-chipped trackways and railway ballast. The most widespread of the sedges in Ireland.

**First record:** as *Carex flacca*, Bective (1896; RLP-*ms.*); as *C. glauca*, H22 (Praeger, 1901).

*Carex panicea* L.    **Carnation Sedge**

Native. Widespread and occasional, seldom in any quantity. Damp to wet, often base-rich, grassy habitats. Calcareous marshes; fen peat and reclaimed raised bogs; marshy grasslands by rivers and lakes; hillside flushes; heathy ground. Widespread in Ireland.

**First record:** Enfield & near (1896; RLP-*ms.*); H22 (Praeger, 1901).

*Carex laevigata* Sm.    **Smooth-stalked Sedge**

Native. Localised and very rare, its three Meath sites occur in the northern half of the county. Moist, generally base-poor, soils. Predominantly an upland plant of acid ground in Ireland, and hence absent from much of the base-rich midlands, its Meath sites are situated on the southern margin of its northern range.

**First record:** near College Cross Roads [= heathy area] N8190 (1988; TCGR, CB & BSBI); H22 (Rich and Woodruff, 1990).

**Additional records:** sparsely at two locations on gley soils within the broadleaved section of mixed woodlands at Littlewood [north of Slane] N9775 (2013 & 2014; MN); a patch of several plants on unshaded acid peat by east shore of Breakey Lough Little [in shaley western half of the drumlin belt], with *Juncus bulbosus*, *Isolepis setacea*, and *Carex demissa* N7490 (2022; MN).

***Carex binervis* Sm.    Green-ribbed Sedge**

Native. Localised and rare in Meath, with all sites located in the northern half of the county. Base-poor soils of open, usually lightly grazed, heathy habitats. Infertile acidic soils of the Slievebeag series (Finch *et al.*, 1983) at Slieve Breagh and at Slieve na Calliagh; heathy ground above White Lough, near College Cross Roads and at Stranaboll [Lough Shesk area]; acid grassland at Bellewstown. Widespread in Ireland, though less so in the base-rich midlands on the margin of which lies Co. Meath.

**First record:** Oldcastle & Loughcrew [the latter beside Slieve na Calliagh] (1896; RLP-*ms.*); H22 (Praeger, 1901).

***Carex distans* L.    Distant Sedge**

Native. Localised and uncommon, never plentiful. Upper saltmarshes and brackish ground by tidal sections of the rivers Boyne and Nanny. A widespread coastal species in Ireland.

**First record:** Mornington & Mayden Tower (1896; RLP-*ms.*); H22 (Praeger, 1901).

***Carex extensa* Gooden.    Long-bracted Sedge**

Native. Localised and uncommon, seldom in any quantity. Uppermost section of saltmarshes on the rivers Boyne and Nanny, including margins of brackish ponds and edges of freshwater irrigation. Widespread on the coast of Ireland, though less extensive on the east coast which includes Co. Meath.

**First record:** Mornington & Mayden Tower (1896; RLP-*ms.*); Mornington (1896; Praeger, 1901). {The earlier record from the mouth of the Boyne near Drogheda (DM; Moore and More, 1866) did not specify whether on the south (Meath H22) or north (Louth H31) bank of the river. See account of *Carex remota*.}

***Carex hostiana* DC.    Tawny Sedge**

Native. Localised and uncommon. Damp base-rich grasslands. Fen peat at Lough Naneagh, Lough Bleach and Newtown Lough; fen peat by the Trim esker at Blackcut and on thin fen peat at Duleek Commons; calcareous marshes by embankment of Royal Canal at Ballynabarny and in the esker-rich area of Kilcarty; small calcareous flush at Ardsallagh; by the Upper Boyne [above Navan] in seepage at Roristown. Widespread through much of Ireland, particularly in the west, now very rare in most of east Ireland.

**First record(s):** as *Carex fulva*  $\beta$  *hornschuchiana*, heathy ground, Enfield (1896; RLP **DBN**) [not listed from Meath by Praeger (1901)]; frequent over several acres at southwest corner of the Commons, Duleek O0469 [published as new to Meath] (1966; Synnott, 1967).

***Carex flava* group**

The *Carex flava* group, applying the taxonomy adopted by Stace (2019), is represented in Co. Meath by *C. lepidocarpa*, *C. demissa* and *C. viridula*. The taxonomic treatment of the group, in particular the ranking of taxa, varies greatly between authors and is still evolving. In recent

years the main taxa have alternatively been treated at species level (Clapham *et al.*, 1952, 1962, 1987; Stace 2010, 2019) and at subspecies level (Stace, 1991, 1997; Sell and Murrell, 1996; Jermy *et al.*, 2007). Records which do not differentiate between the taxa, either at species or subspecies level, and which lack voucher specimens, are most securely assigned to the *C. flava* group.

**First record:** as *Carex flava* [group], Enfield & near (1896; RLP-*ms.*); H22 (Praeger, 1901). {Curragha [Dublin/Meath] (Baily, 1833)}

***Carex lepidocarpa* Tausch    Long-stalked Yellow-sedge**

Native. Locally common, most usually in base-rich wetlands. Calcareous marshes of esker-rich southwest Meath including marshes by the Royal Canal; lakeside marshes of base-rich northwest Meath; elsewhere on fen peat and by calcareous flushes; previously in riverside marshes of the Upper Boyne [= above Navan], not recorded there since the Boyne Arterial Drainage Scheme of 1969-1986. Widespread through much of Ireland, though avoiding the more base-poor areas.

**First record:** Drumone-BGX-04/63 (1957; FHP & DAW); H22 (Perring and Walters, 1962).

***Carex demissa* Hornem.    Common Yellow-sedge**

Native. Localised and occasional. Wet open habitats, on less base-rich substrates than *Carex lepidocarpa*. Margins of raised bog and wet peat of cutover bogs; lakeside marshes. Possibly under-recorded in Co. Meath where the distinguishing features between this species and *C. lepidocarpa* are not always clearcut. Widespread through most of Ireland.

**First record:** east margin of Ballivor Bog-BGX-04/61 (1955; DAW); H22 (Perring and Walters, 1962).

***Carex viridula* Michx.    Small-fruited Yellow-sedge**

Native. Localised and uncommon. Drawdown zones of marl-rich lakes in northwest Meath. These include the large linear Lough Bane and White Lough, and the smaller Lough Glass North, which were created when water occupied areas of eroded limestone between crag-and-tail features (Meehan, 2012). This, the least frequently recorded of the *Carex flava* group in the county, is abundant on the exposed marl of those lake shores. Elsewhere in Ireland it is of limited distribution, with the majority of post-2000 records from the mid-west of the island.

**First record:** as *Carex serotina*, H22 (Perring and Walters, 1962).

**Additional records:** plentiful on exposed marl of drawdown zone at Lough Glass North N5371 (2018; MN & SR, det. Porter); exposed marl on southeast shore at White Lough N5172 (2004; MN, det. Porter) and N5173 (2022; MN); marl-rich drawdown zone on northeast shore at Lough Bane N5571 (2004; MN); abundant on both north and northeast shores at Lough Bane N5471 and N5571 respectively (2022; MN).

***Carex pallescens* L.    Pale Sedge**

Native. Localised and rare. Damp grasslands and woodland margins, usually on base-poor

soils. Its Meath sites are in the northern half of the county, on the southern fringe of its predominately northern distribution in Ireland.

**First record:** single plant on margin of woodland clearing at Littlewood N9775 (2013; MN; Norton, 2021). {Curragha Bog [Dublin/Meath] (Wade, 1804)}

**Additional records:** damp grassland above calcareous marsh, with some *Calluna vulgaris* nearby, at Oldtully 2021 (MN) N5681; several clumps by trackway through damp willow and alder scrub on southwest shore of Breakey Lough N7390 (2022; MN).

***Carex caryophylla* Latourr. Spring-sedge**

Native. Localised and occasional, seldom plentiful. Base-rich, often mossy, well-drained banks. Most frequent in esker-rich southwest Meath, base-rich northwest Meath, and coastal east Meath. Esker ridges; short calcareous grasslands on slopes; sand dunes; a limestone outcrop. Of widespread, though somewhat limited, distribution in Ireland, it is not recorded from many of its former sites since 2000 (Stroh *et al.*, 2023).

**First record:** as *Carex verna*, Drogheda to Boyne Obelisk (1896; RLP-*ms.*); H22 (Praeger, 1901). {Bog of Curragha (Wade, 1804) and Curragha (Baily, 1833) [both Dublin/Meath]}

***Carex pilulifera* L. Pill Sedge**

Native. Localised and uncommon, seldom in any quantity. Base-poor, usually acidic, soils. Cutover raised bogs at Ballivor, Baskinagh Upper, Bogstown, Coolronan, and Jamestown; heathy ground/acid grassland at Bellewstown, Slieve Breagh, near Slieve na Calliagh and in the Lough Shesk area; on a leached area of esker ridge at Baltrasna. Widespread through much of Ireland, though more limited in the base-rich midlands which border on Co. Meath.

**First record:** Enfield & near (1896; RLP-*ms.*); H22 (*ITB*).

***Carex limosa* L. Bog-sedge**

Native. Localised and rare. Wet, humus-rich, peaty substrates. Despite the name ‘Bog-sedge’, this species in Co. Meath occurs on the margins of shallow fen pools transitioning to bog rather than fully developed bog peat. The majority of sites are in the base-rich area of northwest Meath. These include the marshy lakeside peatlands by the loughs Shesk, Freehan and Newtown; the fen peat near Lough Naneagh; peaty ground to the north of Lough Bane; and an area near Lough Crewe. Elsewhere in the county, there are Praeger records from ENE of Athboy, south of Navan, and raised bogs in Co. Meath near Carbury in Co. Kildare. A species of predominantly western distribution in Ireland due to its association with blanket bogs, it is much less frequent in the very different habitat type of the midlands which border on Co. Meath.

**First record(s):** bog 4 miles [*circa* 6.4km] ENE of Athboy (5 July 1896; RLP-*ms.*); bog hole, bog south of Navan [= ENE of Athboy] (5 July 1896; RLP **DBN**, fide Bennett); bog between Athboy and Navan (1896; Praeger, 1897; Praeger, 1901) [possibly all referring to the same site]. {Curragha Bog [Dublin/Meath] (Wade, 1804)}

***Carex aquatilis* Wahlenb.    Water Sedge**

Native in Ireland. Not recorded in Meath since the 1930s, its continued presence in the county has yet to be confirmed. Its two known sites are within the Boyne catchment. The first is by the River Blackwater in Co. Meath near the Cavan boundary. This is downriver of its stations in Co. Cavan where it was ‘abundant in the River Blackwater between Lough Ramor and the Meath boundary’ (1896; Praeger, 1897) and where it was more recently recorded on the River Blackwater near the outflow from Lough Ramor N6383 (1968; MJPS **DBN**; Reilly, 2001) and (2016; RN & HN). However, the Co. Meath section of the river below O’Daly’s Bridge now supports little riparian flora since the Boyne Arterial Drainage Scheme of 1969-1986. The adjoining land is no longer liable to flooding, though previously indicated as such on the first edition of the Six-inch County Series maps (1833-1846). The second recorded Meath site, below the confluence of the rivers Blackwater and Boyne at Navan, was not directly affected by the drainage scheme. The riparian vegetation there still includes *Carex acuta*, a species formerly confused with *C. aquatilis* (Preston & Croft, 1997). Unfortunately, there are no traceable voucher specimens of *C. aquatilis* from either of its Meath sites. A very rare sedge in Ireland.

**First record:** in the River Blackwater, near the Cavan boundary (1896; Praeger, 1897). [Most probably the same record as ‘River Blackwater near Daly’s bridge’ (1896; Praeger, 1901)]

**Additional record(s):** by the Boyne below Navan, in quantity (1937; RLP & DNFC; Allen, 1937); abundant by the Boyne a mile and more [ $\geq$  *circa* 1.6km] below Navan (1934-1938; DNFC; Praeger, 1939) [most probably referring to the 1937 record].

***Carex acuta* L.    Slender Tufted-sedge**

Native. Localised and uncommon. By the River Boyne from above Navan to above Oldbridge; lakeshore at Whitewood Lough. Of limited and possibly declining distribution in Ireland. Although *Carex acuta* may have been over-recorded in some parts of Ireland due to confusion with other similar species (Faulkner, 2024), plants from the Boyne (1984 & 2005; MN) and Whitewood Lough (2018; MN) were confirmed by Porter, its occurrence by those two waterbodies further confirmed in 2019 during fieldwork by Faulkner.

**First record:** by River Boyne, Beauparc (1895; RLP **DBN**, fide Bennett; Praeger, 1897). {The earlier record from the Boyne, near Drogheda (DM; Moore and More, 1866) did not specify the south (Meath H22) or north (Louth H31) riverbank, although assigned to H22 by Praeger (1901). See account of *Carex remota*.}

***Carex acuta* x *C. elata* = *C. x prolixa* Fr.**

A hybrid between two native species. Known from a single location in Co. Meath, this taxon is as yet unrecorded elsewhere in Ireland (Stroh *et al.*, 2023). Its site at Whitewood Lough lies within the Kingscourt Rift Valley, a deep suture in the landscape bisecting the drumlin belt of north Meath, in which valley the lake formed when water was impounded by glacial deposits (Meehan, 2012). The hybrid, first recorded by MN and confirmed by Porter, occurred on the

lake margin with both parents. The *Carex acuta* parent, a plant of limited distribution in Ireland, was plentiful. The *C. elata* parent, although present, was often difficult to distinguish in its pure form. The hybrid, previously synthesized by Faulkner (1972, 1973), was confirmed by him during a 2019 visit to the site. He too recorded both parents in what had the appearance of a hybrid swarm (Faulkner, 2019 pers. comm.). In nature, the flowering season of *C. elata* precedes that of *C. acuta* (Foley and Porter, 2015). This, together with the different habitat preferences of the parent species (*C. elata* preferring more base-rich sites than *C. acuta*), may contribute to the scarcity of the hybrid in both Britain and Ireland.

**First Irish record:** scattered, as loose tussocks, by the water's edge on west shore of Whitewood Lough, with both parents N7988 (2018; MN, det. Porter; Norton, 2020).

**Additional records:** west shore of Whitewood Lough N7988 (2019; JSF); still at Whitewood Lough N7988 (2022; MN).

*Carex nigra* (L.) Reichard    **Common Sedge**

Native. Widespread and very common. Base-rich and base-poor wet soils. Habitats include riverside and lakeside marshes; fens and fenny grasslands; raised bogs and wet heathy ground; calcareous marshes and flushes; wet grasslands; wet hollows of sand dunes. A widespread sedge in Ireland.

**First record:** as *Carex goodenowii*, Enfield, ditch (1896; RLP-*ms.*; RLP **DBN**); H22 (Praeger, 1901).

*Carex nigra* x *C. elata* = *C. x turfosa* Fr.

A hybrid between two native species. A single known location in Co. Meath at Ballyhoe Lough. Also recorded in Co. Monaghan from the north shore of that lake (FitzGerald, 2022, 2024). Uncommon, though possible under-recorded in Ireland, its distribution is largely governed by the presence of *Carex elata*, the rarer parent.

**First record:** sward just above the shoreline on west shore of east lake at Ballyhoe Lough, with both parents (2022; MN, conf. Porter) N8495.

*Carex elata* All.    **Tufted-sedge**

Native. Localised and occasional. Emergent vegetation of base-rich water. Most frequent by lakes in the base-rich eastern half of the drumlin belt of north Meath including those at Ballyhoe, Balrath, Corstown, Mandistown, Mentrym, Newcastle and Whitewood; lime-rich Lough Sheelin in northwest Meath; previously from the Lower Boyne. Its Meath sites are on the eastern margin of its predominantly lakeshore distribution in Ireland.

**First record** as *Carex stricta*, on the Beauparc banks of the Boyne (1893; DNFC; Anon., 1893). {Bog of Curragha [Dublin/Meath] (Wade, 1804)}

*Carex pulicaris* L.    **Flea Sedge**

Native. Localised and occasional. Damp grasslands of fen peat; hummocks in calcareous

marshes; occasional on dry calcareous grasslands and on flushed heathy ground. Widely, though not evenly, distributed in Ireland.

**First record:** Enfield & near (1896; RLP-*ms.*); H22 (Praeger, 1901). {Curragha [Dublin/Meath] (Baily, 1833)}

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**FIGURE 1.** The counties of Ireland. The location of County Meath is indicated by an arrow.