

NEW CADDISFLY (TRICHOPTERA) DATA FROM IRELAND INCLUDING RECORDS FOR *HYDROPTILA LOTENSIS* MOSELY, 1930 AND *HYDROPTILA VECTIS* CURTIS, 1834

J. P. O'Connor and M. A. O'Connor

c/o National Museum of Ireland – Natural History, Merrion Street, Dublin 2, Ireland.

e-mail: <joconnor@museum.ie>

Abstract

Since the last review by O'Connor and O'Connor (2018), three species of caddisfly (Trichoptera) have been added to the Irish fauna (*Hydroptila lotensis* Mosely, 1930, *H. vectis* Curtis, 1834 and *Oxyethira mirabilis* Morton, 1904) while *Hydropsyche fulvipes* (Curtis, 1834) was confirmed as an Irish species. Altogether, 156 species are now known from the island. In addition, the first Irish adult of *Tricholeiochiton fagesii* (Guinard, 1879) was found. This species was previously only known in Ireland from larvae. New distributional data for many Irish caddisflies are provided along with updated maps for most of the listed species. New county records are noted.

Key words: Trichoptera, caddisflies, Ireland, new records, distribution, *Hydropsyche fulvipes* (Curtis, 1834), *Hydroptila lotensis* Mosely, 1930, *H. vectis* Curtis, 1834, *Oxyethira mirabilis* Morton, 1904, *Tricholeiochiton fagesii* (Guinard, 1879).

Introduction

Considerable progress has been achieved in mapping the distributions of the Irish caddisflies (Trichoptera) since O'Connor and O'Connor (2018). These new data are presented here. Four figure (1km) Irish grid references are given for each record and these can be easily located on the Discovery series of maps from the Ordnance Survey of Ireland. The shown distributions are mapped as 10km squares on longitude and latitude maps using DMAP with the more significant records indicated by arrows. Unless otherwise stated, specimens were identified by the senior author. The specimens were determined using Edington and Hildrew (1995), Wallace, Wallace and Philipson (2003), Malicky (2004), Barnard and Ross (2012), Waringer and Graf (2011), Salokannel and Mattila (2018) and Neu (2019). Voucher material of the rarer species has been retained in the O'Connor collection.

Since O'Connor and O'Connor (2018), another three species have been added to the Irish list (*Hydroptila lotensis* Mosely, 1930, *H. vectis* Curtis, 1834 and *Oxyethira mirabilis* Morton, 1904) while *Hydropsyche fulvipes* (Curtis, 1834) has been confirmed as an Irish species, bringing the total to 156 species for the island (O'Connor, 2019a, b; O'Connor and O'Connor, 2019; O'Connor, O'Connor and Gammell, 2019). In addition, the first Irish adult of

Tricholeiochiton fagesii (Guinard, 1879) was found. This species was previously only known in Ireland from larvae (O'Connor, 2019a).

“Addendum 2” and “Addendum 3”

“Addendum 2” which added records cited in O'Connor and O'Connor (2018) to the data set “Caddisflies (Trichoptera) of Ireland” <<https://maps.biodiversityireland.ie/Dataset/250>> (O'Connor, 2018) was uploaded by the National Biodiversity Data Centre on 2 August 2019 (O'Connor, 2019c). *Inter alia* that Addendum includes Irish records of *Hagenella clathrata* (Kolenati, 1848) and also some records from John Brophy which are included in the present paper. “Addendum 3” with the other records in this paper, will be sent to the Centre for incorporation into the data set “Caddisflies (Trichoptera) of Ireland” early in 2020.

Distribution data

Unless otherwise stated, the distributional comments are from O'Connor (2015), O'Connor and O'Connor (2016, 2017, 2018).

RHYACOPHILIDAE

***Rhyacophila dorsalis* (Curtis, 1834)**

O'Connor and McNaughton (2019) record *Rhyacophila dorsalis* from Aghalum, Carnlough (D2518) and the Glenarm River (D3014), County Antrim.

CAVAN: Dún na Rí (Dún an Rí) Forest Park (N7997), 1 larva and 1♂ pupa 19 April 2019, collected in a tributary stream of the River Cabra, J. P. O'Connor & M. A. O'Connor.

CORK: Bere Island (V6944), larva 11 June 2016, collected and determined M. Kelly-Quinn (National Biodiversity Data Centre, 2019).

DONEGAL: Glenveagh National Park (C0019), 2♂♂2♀♀ 20-30 May 1998, 1♂ 12 August-2 September 1998, Malaise traps in *Betula*/acidophilous *Quercus* forest with tall-herb open areas along a river; Owencarrow River (C0323), 1♀ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along river, all M. C. D. Speight.

DUBLIN: River Dodder, Rathfarnham (O1328), 2♂♂1♀ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

GALWAY: River Clare, Claregalway Bridge (M3733), 5 larvae 12 July 2011 and Crusheen Bridge (M3932), 2 larvae 12 July 2011, Aquatic Services Unit, University College Cork (RPS, 2012).

KILDARE: River Liffey, upstream of the bridge at Celbridge (N9732), 4 larvae 15 June 2010 and upstream of the bridge at Leixlip (O0035), 2 larvae 15 June 2010, collected and determined J. T. Brophy (Kildare County Council, 2012); River Liffey, Castletown Estate, Celbridge (N9733), 1♂1♀ 23 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: Glasha River, Glasha Crossroads (S2776), 10 larvae 10-11 March 2010; River Goul, Ballybooden (S3677), 4 larvae 10-11 March 2010; River Goul, Foulkscourt North (S2868), 1 larva 10-11 March 2010; River Goul, Foulkscourt South (S2666), 12 larvae, 10-11 March 2010, all collected M. Kelly-Quinn, determined M. Kelly-Quinn & J. R. Baars (EPA, 2011).

LIMERICK: River Maigue, Glenma Townland (R5334), larva late April-early May 2018; River Maigue, Cherrygrove Bridge (R5238), larva late April-early May 2018; River Loobagh, Riversfield Bridge (R6326), larva late April-early May 2018 and Ardpatrik Stream (R6420), larva late April-early May 2018 (all Sweeney, 2018).

MAYO: Ballycroy National Park (F8607), 2♂♂3♀♀ 1-20 August 1997, Malaise trap on unimproved grassland along the Owenduff River, M. C. D. Speight. Cloonlee River, Cloonconra (M2798), 2 larvae, September 2003; River Moy tributary, Rathbaun (G2510), 1 larva September 2003; River Moy tributary, Ardacarha (M2996), 1 larva September 2003 and River Moy, Ummoon (M2799), 1 larva September 2003, all M. J. Costello (Mayo County Council, 2007).

TIPPERARY: River Anner at Thornybridge (S2427), larva 19 August 2014; River Suir at Ballynaraha (S3123), larva 14 June 2014; River Suir at Kilshelin (S2823), larva 15 July 2014 and River Suir at Poulakerry (S2923), larva 19 August 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019). River Suir, Clonmel (S2122), 1♂1♀ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

WATERFORD: Glenary River at Kilmanahan (S1518), larva 5 August 2014 and River Glasha at Glenbridge (S3022), larva 15 July 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WEXFORD: Oaklands (Kelly's) Wood, stream (S7225), 1♂5♀♀ 14-15 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Rhyacophila munda* McLachlan, 1862**

CAVAN: Clodrum (H2804), 1 larva 27 August 2017, stream near old watermill, H. Bothwell, det. H. Feeley from <<http://records.biodiversityireland.ie/api/taxon-record/300236/image>> (National Biodiversity Data Centre, 2019).

MAYO: River Aille, bridge north-west of Claureen (M1280), 10 larvae 19 June 2003, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

TIPPERARY: River Anner at Thornybridge (S2427), larva 19 August 2014 and River Multeen at Ballygriffin (S0040), larva 23 May 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WATERFORD: Glencomeragh stream (S3222), larva 15 July 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

GLOSSOSOMATIDAE

Agapetus fuscipes Curtis, 1834 (Fig. 1)

O'Connor and McNaughton (2019) record *Agapetus fuscipes* from Lough na Trosk, Garron Plateau (D2719), County Antrim.

CORK: Bere Island (V7143), larva 11 June 2016, collected and determined M. Kelly-Quinn (National Biodiversity Data Centre, 2019).

DUBLIN: River Dodder, Rathfarnham (O1328), 3♀♀ 16 June 2019, swept J. P. O'Connor & M. A. O'Connor.

GALWAY: Connemara National Park (L7157), 1♂4♀♀ 20 July-10 August 1994, Malaise trap on *Salix* scrub/bog beside a stream, (L7457), 1♂1♀ 20 July-10 August 1994, Malaise trap on cutover bog and *Salix* scrub near small stream, all M. C. D. Speight; Lissareaghaun Bog (M8519), 1 ♀ 3 June 2016, raised bog, K. G. M. Bond (National Biodiversity Data Centre, 2019).

KERRY: Owengarrif River, Killarney National Park (V9582), 1♂1♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

KILDARE: Pollardstown Fen (N7715), 1♀ 27 June 2002, emergence trap, limnocrone tufa spring, J. A. Good.

This is the second locality for County Kildare (previous Louisa Bridge (N9936)).

KILKENNY: Glasha River, Glasha Crossroads (S2776), 22 larvae 10-11 March 2010; River Goul, Ballinafrase (S3173), 21 larvae 10-11 March 2010; River Goul, Ballybooden (S3677), 157 larvae 10-11 March 2010 and River Goul, Foulks court North (S2868), 126 larvae 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011).

TIPPERARY: stream at Cappa Bridge (S3123), larva 3 May 2014; Cappa stream at Ballynaraha (S3023), larva 3 May 2014 and River Suir at Ballynaraha (S3023), larva 27 July 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WEXFORD: Oaklands (Kelly's) Wood stream (S7225), 1♂1♀ 8 August 2019, swept, J. P. O'Connor & M. A. O'Connor; roadside stream near Oaklands (Kellys) Wood (S7225), 2♀♀ 15 August 2019, swept, M. A. O'Connor.

Agapetus ochripes Curtis, 1834 (Fig. 2)

GALWAY: Connemara National Park (L7457), 1♂ 8-28 June 1994, Malaise trap on cutover bog and *Salix* scrub near small stream, M. C. D. Speight.

This is the second locality for County Galway (previous Dunkellin River/Rahasane Turlough (M4719)).

KERRY: Lough Leane, Killarney (V9486), 2♀♀ 26 June-6 July 1993, Malaise trap on Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 3♀♀ 23 June 2019 and 2♂♂ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 1♂ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

LIMERICK: River Loobagh, Riversfield Bridge (R6326), larva late April-early May 2018 (Sweeney, 2018).

TIPPERARY: River Suir, Clonmel (S2122), 43♂♂21♀♀ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Glossosoma boltoni* Curtis, 1834 New to County Limerick (Fig. 3)**

CORK: Lackendarragh near the River Bride (W7189), 1♀ 31 December 2016, K. G. M. Bond.

The previous latest flight date was the 26 October.

GALWAY: Connemara National Park (L7157), 1♀ 20 July-10 August 1994, Malaise trap on *Salix* scrub/bog beside a stream, (L7457), 1♂ 19 May-8 June 1994, Malaise trap on cutover bog and *Salix* scrub near a small stream, all M. C. D. Speight.

KILDARE: River Liffey, upstream of the bridge at Celbridge (N9732), 5 larvae 21 June 2011, collected and determined J. T. Brophy (Kildare County Council, 2012).

LIMERICK: River Maigue, Creggane Bridge (R5327), larva late April-early May 2018 (Sweeney, 2018).

TIPPERARY: Multeen River at Ballygriffin (S0040), larva 17 July 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019); River Suir, Clonmel (S2122), 1♀ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

WATERFORD: Tramore (S5701), 1♀ 27 May 2017 and 1♂ 17 September 2018, 125w MV Robinson light-trap, T. Bryant.

***Glossosoma conformis* Neboiss, 1963 New to County Wexford (Fig. 4)**

WEXFORD: Maudlins Stream, New Ross (S7328), 4♀♀ 8-9 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

HYDROPTILIDAE

***Agraylea multipunctata* Curtis, 1834**

O'Connor and McNaughton (2019) record *Agraylea multipunctata* from Kilgad (Riversdale) Lake (J1798), County Antrim.

KERRY: Lough Leane, Killarney (V9486), 4♂♂2♀♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

***Hydroptila angulata* Mosely, 1922 New to County Kilkenny (Fig. 5)**

DONEGAL: Glenveagh National Park (C0120), 1♂ 12 August-2 September 1998, Malaise trap in a mature acidophilous *Quercus* forest, M. C. D. Speight.

KERRY: Lough Leane, Killarney (V9486), 6♂♂ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight; Owengarrif River, Killarney National Park (V9582), 1♂ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

KILKENNY: River Nore, Inistioge (S6337), 1♀ 15 August 2019, light trap, J. P. O'Connor & M. A. O'Connor.

MAYO: Ballycroy (Mayo) National Park (F8607), 1♀ 30 May-20 June 1997, Malaise trap on cut-over blanket bog along the Owenduff River, M. C. D. Speight.

This is the second locality for County Mayo (previous Lough Conn (G2105)).

***Hydroptila cornuta* Mosley, 1922**

KERRY: Doolough, Killarney National Park (V9585), 1♂ 6-16 July 1993, 1♂ 25 August-5 September 1993, Malaise traps in old *Betula/Quercus* woods and swamp, strip of *Alnus/Salix* at the edge of the lake, M. C. D. Speight; Lough Leane, Killarney (V9486), 5♂♂ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILKENNY: River Nore, Bennettsbridge (S5549), 1♂ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Hydroptila forcipata* (Eaton, 1873)**

DONEGAL: Glenveagh National Park (C0018), 10♂♂2♀♀ 10-30 June 1998, Malaise trap on blanket bog and cutover bog and 1♂ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog, 1♀ 12 August-2 September 1998, Malaise trap in humid non-calcareous oligotrophic (*Molinia*) montane, unimproved grassland along a river, M. C. D. Speight.

DUBLIN: River Dodder, Rathfarnham (O1328), 7♂♂8♀♀ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor; Dublin Zoo, Phoenix Park (O1235), 1♂ 1-25 July 2019, Rothamsted Insect Survey light-trap per A. Riley.

Previously taken on the river at Clonskeagh (O1730) by J. R. Harris in 1946 and 1947.

KERRY: Lough Leane, Killarney (V9486), 1♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight; Gearnameen near the Gearham River, Killarney National Park (V8882), 1♂ 25 May 2017, Skinner trap, K. G. M. Bond; Owengarrif River, Killarney National Park (V9582), 49♂♂31♀♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 2♂♂2♀♀ 23 June 2019 and 1♂1♀ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 2♀♀ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

TIPPERARY: River Suir, Clonmel (S2122), 1♂1♀ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Hydroptila lotensis* Mosely, 1930 New to County Kilkenny (Fig. 6)**

A species new to Ireland, *Hydroptila lotensis* (2♂♂1♀), was collected by M. A. O'Connor on the River Liffey at the Castletown Estate, Celbridge (N9733), County Kildare, on the 23 June 2019. Subsequently, 3♀♀ were taken at the same site on 30 June 2019 (O'Connor and O'Connor, 2019).

KILKENNY: River Nore, Inistioge (S6337), 2♂♂3♀♀ 15 August 2019, Heath light-trap situated beside a stream entering the river and River Nore, Bennettsbridge (S5549), 3♂♂ 10 August 2019, swept, all J. P. O'Connor & M. A. O'Connor.

The females were identified using Neu (2019).

***Hydroptila martini* Marshall, 1977 (Fig. 7)**

KERRY: Owengarrif River, Killarney National Park (V9582), 1♂2♀♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

This is the third record for County Kerry.

KILDARE: Pollardstown Fen (N7615), 1♂ 27 July 2002, emergence trap, artificial ponds, tufa ledge, (N7716), 2♀♀ 30 June 2003, emergence traps, tufa drains, 2♂♂7♀♀ 30 June 2003, emergence trap *Schoenus* tufa flush, J. A. Good.

Hydroptila martini is previously known from Pollardstown Fen (N7616, N7715).

***Hydroptila pulchricornis* Pictet, 1834**

KERRY: Lough Leane, Killarney (V9486), 128♂♂31♀♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

Previously, *Hydroptila pulchricornis* had only been taken in small numbers in Ireland.

***Hydroptila simulans* Mosely, 1920 New to Counties Donegal, Kildare and Wexford (Fig. 8)**

DONEGAL: Owencarrow River, Glenveagh National Park (C0323), 1♂ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, M. C. D. Speight.

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 1♂ 7 July 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 10♂♂ 10 August 2019, (S5550), 9♂♂ 10 August 2019, swept, all J. P. O'Connor & M. A. O'Connor.

WEXFORD: J. F. Kennedy Park, a stream flowing into the Duck Pond (S7218), 1♂ 30 July 2019, swept, J. P. O'Connor.

***Hydroptila sparsa* Mosely, 1920**

DUBLIN: River Dodder, Rathfarnham (O1328), 1♂ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor; River Liffey, St Catherine's Park (O0235), 3♂♂ 27 September 2018, swept, J. P.

O'Connor & M. A. O'Connor; Dublin Zoo, Phoenix Park (O1235), 2♀♀ 1-25 July 2019, Rothamsted Insect Survey light-trap per A. Riley.

Hydroptila sparsa is new to the River Dodder. The previous latest flight period was the 20 September.

KERRY: Lough Leane, Killarney (V9486), 1♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 7♂♂5♀♀ 23 June 2019 and 1♂ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 25♂♂15♀♀ 10 August 2019, (S5550), 5♂♂1♀ 10 August 2019, swept, all J. P. O'Connor & M. A. O'Connor.

MAYO: Ballycroy National Park (F8607), 1♂ 30 May-20 June 1997, Malaise trap on cutover blanket bog, *Ulex* thickets and pools near the Owenduff River, M. C. D. Speight.

TIPPERARY: River Suir, Clonmel (S2122), 6♂♂5♀♀ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

WEXFORD: River Maudlins, New Ross (S7328), 2♀♀ 8-9 August 2019, Heath light trap, J. P. O'Connor & M. A. O'Connor.

***Hydroptila tineoides* Dalman, 1819 New to County Dublin (Fig. 9)**

DONEGAL: Glenveagh National Park (C0221), 100♂♂15♀♀ 10-30 June 1998, 2♂♂2♀♀ 12 August-2 September 1998, Malaise traps on blanket bog/cut over blanket bog with pools near Lough Veagh (Beagh), (C0120), 1♂ 20-30 May 1998, Malaise trap in mature acidophilous *Quercus* woodland, all M. C. D. Speight.

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 1♀ 27 May-11 June 2019, Rothamsted Insect Survey light-trap, per A. Riley.

There are several lakes in Dublin Zoo.

GALWAY: Connemara National Park (L7457), 1♂ 28 April-19 May 1994, 7♂♂1♀ 19 May-8 June 1994, Malaise traps on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

KERRY: Gearnameen near the Gearham River, Killarney National Park (V8882), 1♀ 25 May 2017, Skinner trap, K. G. M. Bond; Owengarriff River, Killarney National Park (V9582), 5♀♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

***Hydroptila valesiaca* Schmid, 1947**

KILDARE: Pollardstown Fen (N7615), 1♀ 27 June 2002, emergence trap, *Schoenus* tufa flush in Connolly's Field, 4♂♂ 27 July 2002, emergence traps, tufa ledges, artificial ponds, 1♂3♀♀ 30 June 2003, emergence trap, *Schoenus* tufa flush, (N7716), 2♂♂3♀♀, emergence trap, *Schoenus* tufa flush, J. A. Good.

Hydroptila valesiaca was previously known in County Kildare from 1♂ taken at Pollardstown Fen (N7616). The above records extend the known Irish flight period which is now 27 June-27 July, 30 August-11 September.

***Hydroptila vectis* Curtis, 1834 New to County Kildare (Fig. 10)**

Hydroptila vectis was added to the Irish list based on four males taken by Martin Speight in a Malaise Trap in Glenveagh National Park (C0018), County Donegal, in north-west Ireland (O'Connor, 2019a). The species was subsequently discovered to be abundant on the River Dodder (O1328), County Dublin (O'Connor and O'Connor, 2019).

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 1♂ 7 July 2019, (N9833), small stream, 1♂ 25 September 2019, all swept, J. P. O'Connor & M. A. O'Connor.

***Ithytrichia lamellaris* Eaton, 1873**

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 3♂♂1♀ 27 May-11 June 2019, Rothamsted Insect Survey light-trap, per A. Riley.

The adults may have flown from the nearby Viceregal Stream.

KILKENNY: River Nore, Bennettsbridge (S5549), 3♂♂6♀♀ 10 August 2019, (S5550), 1♂ 10 August 2019, all J. P. O'Connor & M. A. O'Connor.

TIPPERARY: River Suir, Clonmel (S2122), 2♂♂6♀♀ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Orthotrichia costalis* (Curtis, 1834) New to County Mayo (Fig. 11)**

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 18♂♂30♀♀ 1-25 July 2019, Rothamsted Insect Survey light-trap per A. Riley.

A female was previously taken at the Glen Pond, Phoenix Park (O0935), County Dublin.

MAYO: Carrigskeewaun near Lough Dooghtry (L7469), 1♀ 26 June 2018, light-trap, K. G. M. Bond.

WATERFORD: Belle Lake (S6605), 1♂1♀ 10 July 2019, light-trap in woodland, A. Walshe.

***Oxyethira falcata* Morton, 1893 (Fig. 12)**

DONEGAL: Glenveagh National Park (C0018), 2♀♀ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog, 5♂♂12 August-2 September 1998, Malaise trap in humid non-calcareous oligotrophic (*Molinia*) montane, unimproved grassland along a river, (C0323), 1♀ 12 August-2 September 1998, Malaise trap in humid, non-calcareous oligotrophic montane unimproved grassland and scattered *Betula/Quercus* along a river, all M. C. D. Speight.

These are the second and third localities in County Donegal and also the first specimens from that county since 1891 (O'Connor and O'Connor, 2018).

GALWAY: Connemara National Park (L7457), 1♂ 28 April-19 May 1994, Malaise trap on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

This is the fourth locality in County Galway.

KERRY: Owengarrif River, Killarney National Park (V9582), 2♀♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

This is the second locality for County Kerry (previous Gap of Dunloe (V8787)).

***Oxyethira flavicornis* (Pictet, 1834)**

DONEGAL: Glenveagh National Park (C0221), 22♂♂3♀♀ 10-30 June 1998, Malaise trap on blanket bog/cut over blanket bog with pools, M. C. D. Speight.

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 1♂ 11-26 May 2019, Rothamsted Insect Survey light-trap, per A. Riley.

There are several lakes in the Zoo.

GALWAY: Connemara National Park (L7457), 9♂♂1♀ 19 May-8 June 1994, 4♂♂ 20 July-10 August 1994, Malaise traps on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

KERRY: Lough Leane, Killarney (V9486), 10♂♂5♀♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

MAYO: Ballycroy (Mayo) National Park (F8607), 1♂ 3♀♀, 1♀ and 5♀♀ all 30 May-20 June 1997, Malaise traps on cut-over blanket bog along the Owenduff River, M. C. D. Speight.

WATERFORD: Ballyscanlan Lough (S5302), 1♀ 6 August 2018, swept, T. Bryant; Carrickavrantry Reservoir (S5502), 2♂♂ 14 May 2019, swept, T. Bryant; Tramore (S5701), 2♀♀ 20 August 2018, 125w MV Robinson light-trap, T. Bryant; Fenor Bog, Fennor (S5201), 2♀♀ 3 July 2019, Heath light-trap, A. Walshe.

The species was previously taken on another section of Ballyscanlan Lough.

***Oxyethira frici* Klapálek, 1891**

DONEGAL: Glenveagh National Park (C0221), 1♂4♀♀ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog with pools near Lough Veagh (Beagh), M. C. D. Speight.

KERRY: Doolough, Killarney National Park (V9585), 1♂ 6-16 July, 1993, Malaise trap in old *Betula/Quercus* woods and swamp strip of *Alnus/Salix* at the edge of the lake and Owengarrif River, Killarney National Park (V9582), 1♀ 1-21 July 1995, Malaise trap on grass near the river, all M. C. D. Speight.

KILDARE: Pollardstown Fen (N7615), 1♀ 27 June 2002, emergence trap, *Schoenus* tufa flush in Connolly's Field, J. A. Good.

This is the second locality from County Kildare (previous River Liffey at Straffan Bridge (N9229)).

***Oxyethira mirabilis* Morton, 1904 Added to the Irish list (Fig. 13)**

Two females of *Oxyethira mirabilis* were collected by Martin Speight in two Malaise traps

on bogland at Ballycroy (Mayo) National Park (F8607), County Mayo, in the west of Ireland. The species was new to Ireland (O'Connor, 2019b).

***Oxyethira sagittifera* Ris, 1897 (Fig. 14)**

DONEGAL: Glenveagh National Park (C0221), 10♂♂66♀♀ 10-30 June 1998, Malaise trap on blanket bog/cut over blanket bog with pools, M. C. D. Speight.

This is the second locality for County Donegal (previous Kilmacrennan [Leannan River] (C1420)).

KERRY: Doolough, Killarney National Park (V9585), 1♂ 6-16 July 1993, Malaise trap in old *Betula/Quercus* woods and swamp strip of *Alnus/Salix* at the edge of the lake, M. C. D. Speight; Lough Leane, Killarney (V9486), 1♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

MAYO: Ballycroy (Mayo) National Park (F8607), 28♂♂83♀♀ 30 May-20 June 1997, 1♂1♀ 1-20 August 1997, Malaise traps on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River, M. C. D. Speight.

This is the second locality for County Mayo (Clare Island (L6985)).

***Oxyethira simplex* Ris, 1897 New to County Mayo (Fig. 15)**

MAYO: Ballycroy (Mayo) National Park (F8607), 11♂♂5♀♀ 30 May-20 June 1997, Malaise trap on cut-over blanket bog along the Owenduff River, 4♀♀ 30 May-20 June 1997, Malaise trap on cutover blanket bog, *Ulex* thickets and pools, 2♀♀ 1-20 August 1997, Malaise trap on unimproved grassland along the Owenduff River, all M. C. D. Speight.

***Oxyethira tristella* Klapálek, 1895 New to County Mayo (Fig. 16)**

MAYO: Ballycroy (Mayo) National Park (F8607), 1♀ 1-20 August 1997, Malaise trap on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River, M. C. D. Speight.

***Tricholeiochiton fagesii* (Guinard, 1879) First Irish adult (Fig. 17)**

A female of *Tricholeiochiton fagesii* was collected by Martin Speight in a Malaise trap in the Ballycroy (Mayo) National Park (F8607), County Mayo. This is the first Irish adult of the species although larvae have been taken at several other localities (O'Connor, 2019a).

PHILOPOTAMIDAE

***Chimarra marginata* (Linnaeus, 1761)**

DONEGAL: Owencarrow River, Glenveagh National Park (C0323), 1♀ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, M. C. D. Speight.

GALWAY: River Beagh (M4600), two adults 22 May 2017, H. Feeley, determined by M. Gammell from a photograph on Twitter.

***Philopotamus montanus* (Donovan, 1813) New to County Limerick**

O'Connor and McNaughton (2019) record *Philopotamus montanus* from a stream from Lough na Tullig, Garron Plateau (D2521) and Glenarm River (D3014), County Antrim.

CORK: Bere Island (V6944, V7153), larvae 11 June 2016, collected and determined M. Kelly-Quinn (National Biodiversity Data Centre, 2019).

KERRY: Owengarrif River, Killarney National Park (V9582), 1♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

LIMERICK: Ballymurragh East (R2330), adult 6 August 2016, on outside of 15W Actinic light-trap, K. G. M. Bond (National Biodiversity Data Centre, 2019).

WATERFORD: Glencomeragh stream (S3222), larva 15 July 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WEXFORD: Edenvale (T0427), 3♂♂ and 1 larva 1 August 2019, small stream and a small waterfall, swept, J. P. O'Connor & M. A. O'Connor; J. F. Kennedy Park, a stream flowing into the Duck Pond (S7218), 2♂♂ 4 August 2019, swept, J. P. O'Connor & M. A. O'Connor, stream (S7119), 1♂ 30 July 2019, swept, J. P. O'Connor; Oaklands (Kelly's) Wood, stream (S7225), 6♂♂6♀♀ 14-15 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Wormaldia occipitalis* (Pictet, 1834)**

DONEGAL: Glenveagh National Park (C0323), 1♂ 12 August-2 September 1998, Malaise trap in humid, non-calcareous oligotrophic montane unimproved grassland and scattered *Betula/Quercus* along a river, M. C. D. Speight.

WATERFORD: Ballyscanlan Lough (S5402), 1♂ 7 August 2018, taken on the north side of Carrickavrantry Lake, T. Bryant; Tramore (S5701), 1♀ 6 August 2018, 125w MV Robinson light-trap, T. Bryant.

WEXFORD: Oaklands (Kelly's) Wood, stream (S7225), 1♂1♀ 3 August 2019, swept, 1♂ 14-15 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

ECNOMIDAE

***Ecnomus tenellus* (Rambur, 1842)**

KERRY: Lough Leane, Killarney (V9486), 12♂♂1♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

POLYCENTROPODIDAE

***Cyrnus flavidus* McLachlan, 1864**

DONEGAL: Owencarrow River, Glenveagh National Park (C0323), 1♂ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, M. C. D. Speight.

***Cyrnus trimaculatus* (Curtis, 1834) New to County Kilkenny (Fig. 18)**

O'Connor and McNaughton (2019) record *Cyrnus trimaculatus* from Glendun River, Knocknacarry (D2332), Lough na Bric (D2519) and Lough Fine (D2620), Garron Plateau, County Antrim.

DONEGAL: Glenveagh National Park (C0018), 1♀ 10-30 June 1998, Malaise trap on blanket bog and cutover bog, 2♂♂4♀♀ 12 August-2 September 1998, Malaise trap in humid non-calcareous oligotrophic (*Molinia*) montane, unimproved grassland along river; Glenveagh National Park (C0120), 1♀ 12 August-2 September 1998, Malaise trap in mature acidophilous *Quercus* forest; Owencarrow River, Glenveagh National Park (C0323), 6♂♂ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, all M. C. D. Speight.

DUBLIN: Bushy Park Lake (O1329), 2♂♂1♀ 21 July 2019, swept, J. P. O'Connor & M. A. O'Connor; River Dodder, Rathfarnham (O1328), 1♂1♀ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

Previously taken at the River Dodder site in 1895.

KERRY: Lough Leane, Killarney (V9486), 3♂♂ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILKENNY: Inistioge (S6337), 1♀ 15 August 2019, Heath light-trap beside a stream entering the River Nore, J. P. O'Connor & M. A. O'Connor.

MAYO: Ballycroy National Park (F8607), 3♂♂5♀♀ 30 May-20 June 1997, Malaise trap on cutover blanket bog, *Ulex* thickets and pools near the Owenduff River, M. C. D. Speight.

***Holocentropus dubius* (Rambur, 1842) (Fig. 19)**

O'Connor and McNaughton (2019) record *Holocentropus dubius* new to County Antrim from Lough Fad, Garron Plateau (D2519).

DONEGAL: Glenveagh National Park (C0221), 11♂♂4♀♀ 10-30 June 1998, Malaise trap on blanket bog/cutover blanket bog with pools, M. C. D. Speight.

***Holocentropus picicornis* (Stephens, 1836)**

DUBLIN: African Plains Pond, Dublin Zoo (O1235), 20 larvae October 2007, collected and determined J. M. Caffrey (Caffrey *et al.*, 2008).

KERRY: Lough Leane, Killarney (V9486), 3♂♂3♀♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILDARE: artificial lake, Castletown Estate, Celbridge (N9833), 11♂♂3♀♀ 23 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

MAYO: Ballycroy (Mayo) National Park (F8607), 20♀♀ 1-20 August 1997, Malaise trap on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River, M. C. D. Speight.

WATERFORD: Carrickavrantry Lake (S5502), 1♂ 27 August 2018, swept, T. Bryant; Tramore (S5701), 1♂ 13 August 2018, 125w MV Robinson light-trap, T. Bryant.

WEXFORD: J. F. Kennedy Park, the Duck Pond (S7218), 1♂ 30 July 2019, swept, J. P. O'Connor, 1♀ 4 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

The species was previously taken at a small road-side water-body near the Park.

***Neureclipsis bimaculata* (Linnaeus, 1758)**

GALWAY: Connemara National Park (L7457), 1♂ 20 July-10 August 1994, Malaise trap on cutover bog and *Salix* scrub near small stream, M. C. D. Speight.

This site is near the outflow from Lough Kylemore.

***Plectrocnemia conspersa* (Curtis, 1834)**

O'Connor and McNaughton (2019) record *Plectrocnemia conspersa* from Dungonnell Dam near Cargan (D1917), Lough Fad, Garron Plateau (D2519) and Lough na Bric, Garron Plateau, County Antrim.

CORK: Bere Island (V6944, V7153), larvae 11 June 2016, collected and determined M. Kelly-Quinn (National Biodiversity Data Centre, 2019).

GALWAY: Connemara National Park (L7457), 1♂4♀♀ 19 May-8 June 1994, 2♂♂1♀ 8-28 June 1994, 2♂♂5♀♀ 20 July-10 August 1994, Malaise traps on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight; River Clare, Claregalway Bridge (M3733), 1 larva 12 July 2011 and Crusheen Bridge (M3932), 2 larvae 12 July 2011, Aquatic Services Unit, University College Cork (RPS, 2012).

KILDARE: Pollardstown Fen (N7715), 1♀ 12 July 2002, 3♀♀ 27 July 2002, emergence traps, limnocene tufa spring, J. A. Good.

This is the third site for County Kildare.

MAYO: Ballycroy (Mayo) National Park (F8607), 50♂♂52♀♀ 30 May-20 June 1997, 1♂3♀♀ 1-20 August 1997, Malaise traps on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River and unimproved grassland along the river, M. C. D. Speight.

***Plectrocnemia geniculata* McLachlan, 1871 New to County Cavan (Fig. 20)**

O'Connor and McNaughton (2019) record *Plectrocnemia geniculata* from Trosk marsh, Garron Plateau (D2719), County Antrim.

CAVAN: Dún na Rí (Dún an Rí) Forest Park (N7997), 4 larvae 19 April 2019, collected in a tributary stream of the River Cabra, J. P. O'Connor & M. A. O'Connor.

KERRY: Owengarrif River, Killarney National Park (V9582), 2♂♂3♀♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

KILDARE: Pollardstown Fen (N7615), 1♀ 27 July 2002, emergence trap at tufa ledge, artificial ponds, 1♀, emergence traps, *Schoenus* calcareous fen in Connolly's Field, 2♂♂, emergence trap 30 June 2003, tufa ledge, drain in *Fraxinus* wood (Springbrook Wood), 1♂ 30

June 2003, emergence trap, *Schoenus* tufa flush; (N7716) 1♂3♀♀ 30 June 2003, emergence trap tufa drain, 3♂♂ 4♀♀ 30 June 2003, emergence trap, *Schoenus* tufa flush, 3♂♂6♀♀ 30 June 2003, emergence trap, tufa ledge in drain, all J. A. Good.

Plectrocnemia geniculata is previously known from other sites (N7715) at Pollardstown Fen. **LIMERICK:** Charleville Stream (R5424), larva late April-early May 2018 and River Camoge, bridge on R516 (R5239), larva late April-early May 2018 (Sweeney, 2018).

Callanan, Baars and Kelly-Quinn (2014) give a grid reference R8256 for *Plectrocnemia geniculata* as being in County Tipperary but the record is in County Limerick.

MAYO: Ballycroy (Mayo) National Park (F8607), 1♂2♀♀ 30 May-20 June 1997, Malaise trap on cut-over blanket bog along the Owenduff River, M. C. D. Speight; River Aille, bridge north-west of Claureen (M1280), 1 larva 19 June 2003, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

These are only the second and third localities for County Mayo (previous Clare Island (L6985)).

WEXFORD: Oaklands (Kelly's) Wood, stream (S7225), 2♂♂5♀♀ 14-15 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Polycentropus flavomaculatus* (Pictet, 1834)**

O'Connor and McNaughton (2019) record *Polycentropus flavomaculatus* from Glenarm River (D3014), Glendun River, Knocknacarry (D2332), Limerick Point, Cushendall (D2427) and Lough na Bric, Garron Plateau (D2519), County Antrim.

DONEGAL: Glenveagh National Park (C0221), 6♀♀ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog with pools near Lough Veagh (Beagh), M. C. D. Speight.

DUBLIN: River Dodder, Rathfarnham (O1328), 4♂♂1♀ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor; River Liffey, St Catherine's Park (O0235), 1♂ 27 September 2018, swept, J. P. O'Connor & M. A. O'Connor.

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 1♂ 30 June 2019, swept J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 1♂ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

LIMERICK: River Mahor, O'Carroll's Bridge (R6837), larva late April-early May 2018 and River Maigue, Drewscourt Bridge (R4825), larva late April-early May 2018 (Sweeney, 2018).

TIPPERARY: River Suir, Clonmel (S2122), 1♂ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

WATERFORD: Carrickavrantry Lake (S5502), 1♂ 13 August 2018, swept, T. Bryant.

***Polycentropus irroratus* (Curtis, 1835) New to County Kilkenny (Fig. 21)**

DONEGAL: Glenveagh National Park (C0120), 11♂♂1♀ 12 August-2 September 1998, Malaise trap in mature acidophilous *Quercus* forest, M. C. D. Speight.

This is the second locality for County Donegal (previous Kilmacrennan district (C1420)).

KERRY: Lough Leane, Killarney (V9486), 1♂ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILKENNY: River Nore, Bennettsbridge (S5549), 5♂♂2♀♀ 10 August 2019, (S5550), 2♂♂ 10 August 2019, swept, all J. P. O'Connor & M. A. O'Connor.

***Polycentropus kingi* McLachlan, 1881 New to County Waterford (Fig. 22)**

DONEGAL: Glenveagh National Park (C0018), 23♂♂6♀♀ 12 August-2 September 1998, Malaise trap in humid non-calcareous oligotrophic (*Molinia*) montane, unimproved grassland along a river, M. C. D. Speight.

MAYO: Ballycroy (Mayo) National Park (F8607), 2♂♂1♀ 1-20 August 1997, Malaise trap on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River, 18♂♂3♀♀ 1-20 August 1997, Malaise trap on unimproved grassland along the Owenduff River, all M. C. D. Speight; Cloonlee River, Cloonconra (M2798), 1 larva September 2003 and River Moy tributary, Ardacarha River (M2996), 6 larvae September 2003, all M. J. Costello (Mayo County Council, 2007).

WATERFORD: Tramore (S5701), 1♀ 20 August 2018, 125w MV Robinson light-trap, T. Bryant.

PSYCHOMYIIDAE

***Lype phaeopa* (Stephens, 1836) New to Counties Carlow and Kildare (Fig. 23)**

O'Connor and McNaughton (2019) record *Lype phaeopa* new to County Antrim from Lough na Trosk, Garron Plateau (D2719).

CARLOW: stream at St Mullins (S7238), 1♂ 28 July 2019, swept, J. P. O'Connor & M. A. O'Connor.

DONEGAL: Owencarrow River, Glenveagh National Park (C0323), 1♀ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, M. C. D. Speight.

This is the third locality in County Donegal.

KERRY: Owengarrif River, Killarney National Park (V9582), 1♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

KILDARE: Pollardstown Fen (N7715) 1♀ 30 June 2003, emergence trap, limnocrene tufa spring, (N7716), 1♀ 30 June 2003, emergence trap, tufa ledge in drain, all J. A. Good; River Liffey, Castletown Estate, Celbridge (N9733), 1♀ 25 September 2019, J. P. O'Connor & M. A. O'Connor.

***Lype reducta* (Hagen, 1868) New to Counties Dublin and Kilkenny (Fig. 24)**

CORK: Fota Wildlife Park (W7871), 1♀ 8-14 July 2019, Rothamsted Insect Survey light-trap per A. Riley.

A male was previously recorded from the Wildlife Park but the grid reference was erroneously given as W7874 in O'Connor (2015).

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 1♀ 1-25 July 2019, Rothamsted Insect Survey light-trap per A. Riley.

KILKENNY: River Nore, Bennettsbridge (S5549), 1♀ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Psychomyia pusilla* (Pictet, 1834)**

O'Connor and McNaughton (2019) record *Psychomyia pusilla* from the Glendun River, Knocknacarry (D2332), County Antrim.

DUBLIN: River Dodder, Rathfarnham (O1328), 20♂♂6♀♀ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

Previously taken on the river at Clonskeagh (O1730) by J. R. Harris in 1946.

KERRY: Lough Leane, Killarney (V9486), 26♂♂8♀♀ 26 June-6 July 1993, Malaise trap on Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILDARE: River Liffey, upstream of the bridge at Celbridge (N9732), 1 larva 21 June 2011, collected and determined J. T. Brophy (Kildare County Council, 2012); River Liffey, Castletown Estate, Celbridge (N9733), 3♂♂3♀♀ 23 June 2019 and 6♂♂5♀♀ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 48♂♂33♀♀ 10 August 2019, (S5550), 5♂♂5♀♀ 10 August 2019, all J. P. O'Connor & M. A. O'Connor.

TIPPERARY: River Suir, Clonmel (S2122), 23♂♂11♀♀ 11 August 2019, J. P. O'Connor & M. A. O'Connor.

***Tinodes maclachlani* Kimmins, 1966 (Fig. 25)**

GALWAY: Connemara National Park (L7157), 1♂ 20 July-10 August 1994, Malaise trap on *Salix* scrub/bog beside a stream, M. C. D. Speight.

This is the second locality for County Galway (previous Maam River (L9653)).

WEXFORD: Edenvale (T0427), 1♀ 1 August 2019, small waterfall, swept, J. P. O'Connor & M. A. O'Connor;

***Tinodes maculicornis* (Pictet, 1834) New to County Dublin (Fig. 26)**

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 1♂ 1-25 July 2019, Rothamsted Insect Survey light-trap per A. Riley.

The specimen may have come from either the nearby alkaline Áras or African Plains ponds.

KILKENNY: a stream tributary of the River Nore, Inistioge (S6337), 1♂ 29 July 2019, swept, J. P. O'Connor.

***Tinodes unicolor* (Pictet, 1834) New to Counties Dublin, Kildare and Kilkenny (Fig. 27)**

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 1♂ 1-25 July 2019, Rothamsted Insect Survey light-trap per A. Riley.

The specimen may have come from the nearby alkaline Viceregal Stream.

KILDARE: stream entering the River Liffey, Castletown Estate, Celbridge (N9833), 1♀ 7 July 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 2♂♂1♀ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

Tinodes unicolor was previously only known from Counties Clare, Donegal and Wicklow.

***Tinodes waeneri* (Linnaeus, 1758)**

O'Connor and McNaughton (2019) record *Tinodes waeneri* from the Glendun River, Knocknacarry (D2332), Lough Galboly, Garron Plateau (D2823) and Loughisland, Garron Plateau (D2519), County Antrim.

CAVAN: Lough Sheelin, Mullaghboy (N4285), 1♀ 16 September 2018, 6w light-trap beside the Inland Fisheries Ireland Headquarters, C. McNaughton.

DONEGAL: Glenveagh National Park (C0221), 1♂3♀♀ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog with pools near Lough Veagh (Beagh), (C0018), 4♂♂5♀♀ 12 August-2 September 1998, Malaise trap in humid non-calcareous oligotrophic (*Molinia*) montane, unimproved grassland along a river, Owencarrow River, Glenveagh National Park (C0323), 1♀ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, (C0019), 1♀ 20-30 May 1998, Malaise trap in mature *Quercus* forest along the river, all M. C. D. Speight.

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 5♂♂1♀ 11-26 May 2019, 21 ♂♂ 27 May-11 June 2019, 3♂♂3♀♀ 12-30 June 2019 and 11♂♂3♀♀ 1-25 July 2019, Rothamsted Insect Survey light-trap, per A. Riley; River Dodder, Rathfarnham (O1328), 10♂♂3♀♀ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

There are several lakes in Dublin Zoo.

GALWAY: Connemara National Park (L7457), 1♀ 20 July-10 August 1994, Malaise trap on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

KILKENNY: Pil River, Piltown (S4522), 5 larvae 29 April 2009, collected and determined P. Sweeney (Kilkenny County Council, 2011).

LIMERICK: Barranahown Stream (R7024), larva late April-early May 2018 (Sweeney, 2018).

MAYO: Ballycroy (Mayo) National Park (F8607), 1♂ 30 May-20 June 1997, Malaise trap on cut-over blanket bog along the Owenduff River, 4♀♀ 1-20 August 1997, Malaise trap on unimproved grassland along the Owenduff River, all M. C. D. Speight.

ROSCOMMON: Lough Ree, Rinnagan (N0056), 1♂ 29 September 2018, from rocks on the lake shore, collected and determined J. T. Brophy.

WATERFORD: Carrickavrantry Lake (S5502), 1♂ 4 September 2018, swept, T. Bryant .

HYDROPSYCHIDAE

***Cheumatopsyche lepida* (Pictet, 1834)**

DUBLIN: River Liffey, carpark beside the Angler's Rest (O0935), 1♂1♀ 22 October 2018, dead in a spider's web on a lamp, J. P. O'Connor.

KILDARE: River Liffey, upstream of the bridge at Celbridge (N9732), 10 larvae 15 June 2010 and upstream of the bridge at Leixlip (O0035), 5 larvae 15 June 2010, all collected and determined J. T. Brophy (Kildare County Council, 2012); River Liffey, Castletown Estate, Celbridge (N9733), 32♂♂44♀♀ 23 June 2019 and 12♂♂8♀♀ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor

KILKENNY: River Nore, Bennettsbridge (S5549), 6♂♂4♀♀ 10 August 2019, (S5550), 9♂♂4♀♀ 10 August 2019, all J. P. O'Connor & M. A. O'Connor.

LIMERICK: River Maigue, upstream of Croom (R5140), larva late April-early May 2018 (Sweeney, 2018).

TIPPERARY: River Suir at Ballynarahy (S3123), larva 14 June 2014 and River Suir at Kilshelin (S2823), larva 15 July 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019); River Suir, Clonmel (S2122), 16♂♂7♀♀ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Diplectrona felix* McLachlan, 1878**

GALWAY: Connemara National Park (L7157), 2♂♂ 20 July-10 August 1994, Malaise trap on *Salix* scrub/bog beside a stream, M. C. D. Speight.

KERRY: Owengarriff River, Killarney National Park (V9582), 1♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

WEXFORD: J. F. Kennedy Park, a stream flowing into the Duck Pond (S7218), 3♂♂ 4 August 2019, swept, J. P. O'Connor & M. A. O'Connor; Oaklands (Kelly's) Wood stream (S7225), 3♂♂ 8 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Hydropsyche angustipennis* (Curtis, 1834) New to County Limerick (Fig. 28)**

LIMERICK: River Maigue, Creggane Bridge (R5327), 1 larva late April-early May 2018 (Sweeney, 2018).

MAYO: Cloonlee River, Cloonconra (M2798), 1 larva, September 2003; River Moy, Derrygaury near Foxford (G2603), 86 larvae September 2003 and River Moy, Ummoon (M2799), 1 larva September 2003, all M. J. Costello (Mayo County Council, 2007).

***Hydropsyche fulvipes* (Curtis, 1834) Second Irish record (Figs 29, 65) (Plates 1-2)**

In August 2018, a female adult of *Hydropsyche fulvipes* was collected at a small stream in Edenvale, County Wexford, confirming the presence of the species in Ireland (O'Connor, O'Connor and Gammell, 2019). The stream, a tributary of the River Sow, is short in length (*circa* 0.35km) and flows down a hill through woodland. From studying aerial photographs, it is probably spring fed. The species has now been found in similar habitat elsewhere in County Wexford (see below). Since such streams should be searched for *H. fulvipes* in other parts of Ireland, the Wexford ones are shown.

WEXFORD: stream, Oaklands (Kelly's) Wood (S7225), 1♀ 14-15 August, 2019, Heath light-trap, J. P. O'Connor & M. A. O'Connor.

***Hydropsyche instabilis* (Curtis, 1834) New to Counties Cavan, Down, Kildare and Mayo (Fig. 30)**

CAVAN: Dún na Rí (Dún an Rí) Forest Park (N7997), 16 larvae 19 April 2019, collected in a tributary stream of the River Cabra, J. P. O'Connor & M. A. O'Connor.

DONEGAL: Owencarrow River, Glenveagh National Park (C0323), 1♀ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, M. C. D. Speight; Ballyhallan River near Clonmany (C3646), 6 larvae 14 October 2002, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

These are the second and third localities for County Donegal (previous River Clady (G9684)).

DOWN: RSPB Lagoon, Harbour Estate, Belfast (J3778), 1♂ 2 September 2019, light-trap, P. Thomlinson.

DUBLIN: Owendore River (O0631), larva 2 May 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

KERRY: Owengarrif River, Killarney National Park (V9582), 2♀♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

KILDARE: stream entering the River Liffey, Castletown Estate, Celbridge (N9833), 2♀♀ 7 July 2019, swept, J. P. O'Connor & M. A. O'Connor.

LIMERICK: River Maigue, upstream of Croom (R5140), larva late April-early May 2018 and Ardpatrick Stream (R6420), larva late April-early May 2018 (Sweeney, 2018).

Callanan, Baars and Kelly-Quinn (2014) give a grid reference R8256 for *Hydropsyche instabilis* as being in County Tipperary but the record is in County Limerick.

MAYO: Ballycroy (Mayo) National Park (F8607), 1♀ 1-20 August 1997, Malaise trap on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River, M. C. D. Speight.

TIPPERARY: River Suir at Ballynaraha (S3023), larva 3 May 2014, (S3123), larva 14 June 2014; River Suir upstream of the junction with the Anner River (S2422), larva 5 August 2014 and River Suir at Poulakerry (S2923), larva 19 August 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WATERFORD: Fenor Bog, Fennor (S5201), 1♀ 4 July 2019, Heath light-trap, A. Walshe. River Glasha at Glenbridge (S3022), larva 15 July 2014 and Glencomeragh stream (S3222), larva 15 July 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WEXFORD: marshes beside the Maudlins River (S7328), 1♀ 12-13 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor; Maudlins Stream (S7328), 5♀♀ 8-9 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor; Oaklands (Kelly's) Wood, stream (S7225), 1♀ 14-15 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Hydropsyche pellucidula* (Curtis, 1834)**

DONEGAL: Owencarrow River, Glenveagh National Park (C0323), 2♀♀ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, M. C. D. Speight.

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 1♀ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: Glasha River, Glasha Crossroads (S2776), 2 larvae 10-11 March 2010; River Goul, Ballinafrase (S3173), 145 larvae 10-11 March 2010; River Goul, Ballybooden (S3677), 61 larvae 10-11 March 2010 and River Goul, Foulks court North (S2868), 22 larvae 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011).

LIMERICK: River Maigue, downstream of the confluence with the River Loobagh (R5427), larva late April-early May 2018; River Maigue, west of Dromacommer (R5432), larva late April-early May 2018; River Maigue, Glenma Townland (R5334), larva late April-early May 2018; River Maigue, Cherrygrove Bridge (R5238), larva late April-early May 2018; River Loobagh, Riversfield Bridge (R6326), larva late April-early May 2018; Morning Star River, Gormanstown Bridge (R6632), larva late April-early May 2018; Morning Star River, upstream of Maigue (R5433), larva late April-early May 2018 and River Camoge, Gortacloona Bridge (R6837), larva late April-early May 2018 (Sweeney, 2018).

TIPPERARY: stream at Cappa Bridge (S3123), larva 3 May 2014; River Suir at Ballynaraha (S3023), larva 3 May 2014, (S3123), larva 14 June 2014; River Suir upstream of the junction with the Anner River (S2422), larva 5 August 2014; River Anner at Thornybridge (S2427), larva 19 August 2014 and River Suir at Poulakerry (S2923), larva 19 August 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

***Hydropsyche siltalai* Döhler, 1963**

ANTRIM: Jubilee Farm, near Glynn River, Larne (J3999), 1♀ July 2019, light-trap, P. Thomlinson.

CORK: Bere Island (V6944, V7143), larvae 11 June 2016, collected and determined M. Kelly-Quinn (National Biodiversity Data Centre, 2019).

DONEGAL: Glenveagh National Park (C0018), 1♀ 10-30 June 1998, Malaise trap on blanket bog and cutover bog, M. C. D. Speight.

KILDARE: River Liffey, upstream of the bridge at Celbridge (N9732), 40 larvae 15 June 2010 and upstream of the bridge at Leixlip (O0035), 6 larvae 15 June 2010, all collected and determined J. T. Brophy (Kildare County Council, 2012); River Liffey, Castletown Estate, Celbridge (N9733), 8♂♂3♀♀ 23 June 2019 and 2♂♂ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Goul, Ballinafrase (S3173), 46 larvae 10-11 March 2010; River Goul, Ballybooden (S3677), 328 larvae 10-11 March 2010 and River Goul, Foulks court North (S2868), 6 larvae 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011).

LIMERICK: River Mague, Cherrygrove Bridge (R5238), larva late April-early May 2018; Barranahown Stream (R7024), larva late April-early May 2018; River Camoge, Gortacloona Bridge (R6837), larva late April-early May 2018 and River Camoge, bridge on R516 (R5239), larva late April-early May 2018 (Sweeney, 2018).

MAYO: Ballycroy (Mayo) National Park (F8607), 2♂♂3♀♀ 1-20 August 1997, Malaise trap on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River, 50♂♂50♀♀ 1-20 August 1997, Malaise trap on unimproved grassland along the Owenduff River, all M. C. D. Speight.

TIPPERARY: stream at Cappa Bridge (S3123), larva 3 May 2014; River Suir, New Bridge Golden (S0034), larva 23 May 2014; River Multeen at Ballygriffin (S0040), larva 23 May 2014; River Suir at Ballynaraha (S3023), larva 3 May 2014, larva 27 July 2014; River Suir at Ballycarron bridge (S0034), larva 23 May 2014; River Suir at Kilshelin (S2823), larva 15 July 2014; River Multeen at Ballygriffin (S0040), larva 17 July 2014 and River Suir at Golden (S0138), larva 17 July 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WATERFORD: Belle Lake, pump house (S6605), 1♀ 1 July 2019, Heath light-trap, A. Walshe. Glencomeragh stream (S3222), larva 15 July 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

PHRYGANEIDAE

Agrypnia obsoleta (Hagen, 1864) (Fig. 31)

O'Connor and McNaughton (2019) record *Agrypnia obsoleta* from Lough Galboly (D2823), Lough na Bric (D2519) and Loughisland (D2519), all on the Garron Plateau, County Antrim. **DONEGAL:** Glenveagh National Park (C0221), 1♀ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog with pools near Lough Veagh (Beagh) and Owencarrow River, Glenveagh National Park (C0323), 1♂ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along river, all M. C. D. Speight.

The species was previously only known from two localities in County Donegal.

MAYO: Ballycroy National Park (F8607), 1♀ 1-20 August 1997, Malaise trap on unimproved grassland along the Owenduff River, 2♀♀ 30 May-20 June 1997, Malaise trap on cutover blanket bog, *Ulex* thickets and pools near the Owenduff River, all M. C. D. Speight.

Agrypnia varia (Fabricius, 1793)

ANTRIM: Lowwood, Belfast, near Cave Hill (J3378), 2♂♂ June 2019, light-trap in garden, P. Thomlinson.

The specimens probably came from the nearby ponds on the Milewater.

DONEGAL: Glenveagh National Park (C0221), 8♂♂ 10-30 June 1998 and 1♂ 12 August-2 September 1998, Malaise traps on blanket bog and cut over blanket bog with pools near Lough Veagh (Beagh), M. C. D. Speight.

Phryganea bipunctata Retzius, 1783 (Fig. 32)

DUBLIN: Áras Pond, Phoenix Park (O1235), 3 larvae June 2007, collected and determined J. M. Caffrey (Caffrey *et al.*, 2008).

MAYO: Ballycroy (Mayo) National Park (F8607), 2♀♀ 30 May-20 June 1997, Malaise trap on cut-over blanket bog along the Owenduff River, M. C. D. Speight.

TIPPERARY: River Suir at New Bridge Golden (S0034), larva 23 May 2014 and River Suir at Ballynaraha (S3123), larva 5 July 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

Phryganea grandis Linnaeus, 1758

KERRY: Lough Leane, Killarney (V9486), 2♂♂3♀♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

GOERIDAE

Goera pilosa (Fabricius, 1775)

O'Connor and McNaughton (2019) record *Goera pilosa* from Kilgad (Riversdale) Lake (J1798), County Antrim.

CAVAN: Lough Sheelin, Mullaghboy (N4285), 1♂ 16 September 2018, 6w light-trap beside the Inland Fisheries Ireland Headquarters, C. McNaughton.

DUBLIN: River Dodder, Rathfarnham (O1328), 1♂ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

Previously taken on the river at Clonskeagh (O1730) by J. R. Harris in 1945.

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 1♀ 23 June 2019 and 1♂ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

MAYO: Lough Conn (G1516), 1♀ 13 July 2017, collected and determined J. T. Brophy.

TIPPERARY: River Suir at Ballynaraha (S3023), larva 27 July 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

***Silo nigricornis* (Pictet, 1834) New to County Kilkenny (Fig. 33)**

KERRY: Owengarrif River, Killarney National Park (V9582), 1♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

KILKENNY: River Goul, Ballybooden (S3677), 23 larvae 10-11 March 2010; River Goul, Foulkscourt North (S2868), 4 larvae 10-11 March 2010 and River Goul, Foulkscourt South (S2666), 2 larvae 10-11 March 2010, collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011).

WEXFORD: Oaklands (Kelly's) Wood, stream (S7225), 1♂ 14-15 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Silo pallipes* (Fabricius, 1781)**

O'Connor and McNaughton (2019) record *Silo pallipes* from Trosk stream, Garron Plateau (D2719), County Antrim.

GALWAY: Connemara National Park (L7157), 7♂♂ 20 July-10 August 1994, Malaise trap on *Salix* scrub/bog beside a stream, (L7457), 1♂ 20 July-10 August 1994, Malaise trap on cutover bog and *Salix* scrub near a small stream, all M. C. D. Speight.

MAYO: River Moy tributary, Ardacarha River (M2996), 3 larvae September 2003 and Moy tributary, Rathbaun (G2510), 1 larva September 2003, all M. J. Costello (Mayo County Council, 2007).

WEXFORD: Maudlins Stream, New Ross (S7328), 1♀ 8-9 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

LEPIDOSTOMATIDAE

***Crunoecia irrorata* (Curtis, 1834) New to County Mayo (Fig. 34)**

KILDARE: Pollardstown Fen (N7616), 1♂3♀♀ 30 June 2003, emergence trap, tufa ledge in drain in *Fraxinus* wood, (N7615), 1♂10♀♀ 30 June 2003, emergence trap, tufa ledge in drain in *Fraxinus* wood (Springbrook Wood), J. A. Good.

This is the second locality for County Kildare (previous Louisa Bridge (N9936)).

KILKENNY: stream entering River Nore, Inistioge (S6337), 1♀ 15 August 2019, Heath light trap, J. P. O'Connor & M. A. O'Connor.

The species was previously only known in County Kilkenny from a stream and waterfall near Inistioge (S6437).

MAYO: Clare Island (L6784), larva 11 June 2016, collected and determined S. Atkinson (National Biodiversity Data Centre, 2019).

***Lepidostoma hirtum* (Fabricius, 1775)**

O'Connor and McNaughton (2019) record *Lepidostoma hirtum* from the Glendun River, Knocknacarry (D2332), County Antrim.

DONEGAL: Glenveagh National Park (C0018), 1♀ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog, (C0221), 1♀ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog with pools near Lough Veagh (Beagh), (C0120), 10♂♂4♀♀ 20-30 May 1998, Malaise trap in mature acidophilous *Quercus* and 1♂1♀ 12 August-2 September 1998, Malaise trap in mature acidophilous *Quercus* forest, (C0019), 1♀ 20-30 May 1998, Malaise trap in *Betula*/acidophilous *Quercus* forest with tall-herb open areas along a river; Owencarrow River, Glenveagh National Park (C0323), 1♂ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, all M. C. D. Speight.

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 1♀ 1-25 July 2019, Rothamsted Insect Survey light-trap per A. Riley.

GALWAY: River Clare, Claregalway Bridge (M3733), 12 larvae 12 July 2011 and Crusheeney Bridge (M3932), 7 larvae 12 July 2011, Aquatic Services Unit, University College Cork (RPS, 2012).

KILKENNY: River Goul, Ballinafrase (S3173), 7 larvae 10-11 March 2010 and River Goul, Ballybooden (S3677), 7 larvae 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011); Pil River, Piltown (S4522), 15 larvae 29 April 2009, collected and determined P. Sweeney (Kilkenny County Council, 2011); River Nore, Bennettsbridge (S5549), 5♂♂14♀♀ 10 August 2019, (S5550), 1♂1♀ 10 August 2019, swept, all J. P. O'Connor & M. A. O'Connor.

LIMERICK: Morning Star River, Bruff Bridge (R6235), larva late April-early May 2018 (Sweeney, 2018).

MAYO: Ballycroy National Park (F8607), 1♀ 30 May-20 June 1997, Malaise trap on cutover blanket bog, *Ulex* thickets and pools near the Owenduff River, M. C. D. Speight.

TIPPERARY: River Multeen at Ballygriffin (S0040), larva 23 May 2014; River Suir at Ballynara (S3123), larva 14 June 2014 and River Suir at Kilshelin (S2823), larva 15 July 2014,

all collected and determined W. Bryan (National Biodiversity Data Centre, 2019); River Suir, Clonmel (S2122), 3♂♂ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

WEXFORD: Craywell, New Ross (S7228), 1♀ 16 August 2019, on an outside wall beside a light, J. P. O'Connor & M. A. O'Connor; Oaklands (Kelly's) Wood stream (S7225), 2♀♀ 8 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

LIMNEPHILIDAE

***Drusus annulatus* (Stephens, 1837) New to Counties Donegal, Kilkenny and Mayo (Fig. 35)**

O'Connor and McNaughton (2019) record *Drusus annulatus* from the Glenarm River (D3014), County Antrim.

DONEGAL: Ballyhallan River near Clonmany (C3646), 7 larvae 10 February 2003, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

KILKENNY: Glasha River, Glasha Crossroads (S2776), 14 larvae 10-11 March 2010 and River Goul, Ballybooden (S3677), 6 larvae 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011).

LIMERICK: Ardpatrick Stream (R6420), larva late April-early May 2018; Ballinlyna Stream (R6820), larva late April-early May 2018 and Morning Star River, near Pinker's Cross (R7228), larva late April-early May 2018 (Sweeney, 2018).

Callanan, Baars and Kelly-Quinn (2014) give a grid reference R8256 for *Drusus annulatus* as being in County Tipperary but the record is in County Limerick.

MAYO: Ballycroy National Park (F8607), 1♀ 30 May-20 June 1997, Malaise trap on cutover blanket bog, *Ulex* thickets and pools near the Owenduff River, M. C. D. Speight.

WATERFORD: Glencomeragh stream (S3222), larva 15 July 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

***Ecclisopteryx dalecarlica* Kolenati, 1848 (Fig. 36)**

DONEGAL: Ballyhallan River near Clonmany (C3646), 8 larvae 14 October 2002 and Cronaniv Burn, Bridge upstream of Dunlewy Lough (B9218), 2 larvae 15 October 2002, all collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

The species was previously known in the county from Glenveagh National Park (C0018).

***Chaetopteryx villosa* (Fabricius, 1798) New to County Mayo (Fig. 37)**

O'Connor and McNaughton (2019) record *Chaetopteryx villosa* from a Glenariff stream (D2524).

CAVAN: Woodford River, Drumgart (H3219), 1♂ 13 November 2018, from a nettle (*Urtica*) on the towpath, collected and determined J. T. Brophy.

The species was previously only known from two localities in County Cavan.

MAYO: River Aille, bridge north-west of Clareen (M1280), 10 larvae 19 June 2003 and River Clydagh, north of Castlebar (M1496), 2 larvae 31 October 2002, all collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

***Anabolia nervosa* (Curtis, 1834) New to County Offaly (Fig. 38)**

O'Connor and McNaughton (2019) record *Anabolia nervosa* from Lough Fad, Garron Plateau (D2519) and Lough na Bric, Garron Plateau (D2519), County Antrim.

CAVAN: Lough Sheelin, Mullaghboy (N4285), 1♂ 16 September 2018, 6w light-trap beside the Inland Fisheries Ireland Headquarters, C. McNaughton.

LAOIS: Abbeylax Bog, Abbeylax (S4383), 1♀ 1 July 2017, collected and determined J. T. Brophy.

OFFALY: Lough Boora (N18181), 1♂1♀ 10 October 2018, swept from the lake-side reeds, J. P. O'Connor & M. A. O'Connor.

WICKLOW: Avoca River, Arklow (T2473), 1♂ 26 September 2017, collected and determined J. T. Brophy.

***Glyptotendipes pellucidus* (Retzius, 1783) New to Counties Kildare and Kilkenny (Fig. 39)**

ANTRIM: Lowwood, Belfast, near Cave Hill (J3378), 2♀♀ June 2019, light-trap in garden, P. Thomlinson; Montiagh Moss (J0965), 1♀ July 2019, light-trap on bogland, P. Thomlinson.

CAVAN: Lough Sheelin, Mullaghboy (N4285), 2♂♂ 16 September 2018, 6w light-trap beside the Inland Fisheries Ireland Headquarters, C. McNaughton.

DOWN: Hillsborough Estate (J2457), 1♂ 13-23 May 2019, Rothamsted Insect Survey light-trap per Adrian Riley.

DUBLIN: River Dodder, Rathfarnham (O1328), 1♂ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

GALWAY: Connemara National Park (L7457), 1♂1♀ 28 April-19 May 1994, 5♀♀ 19 May-8 June 1994, 5♀♀ 8-28 June 1994, 4♂♂ 20 July-10 August 1994, Malaise traps on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 1♂ 7 July 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: Goresbridge (S6853), adult 21 June 2017, collected and determined T. Moore (National Biodiversity Data Centre, 2019); River Nore, Bennettsbridge (S5549), 1♂ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

MEATH: Lough Brackan near Drumconrath (N8788), 3 larvae 19 April 2019, J. P. O'Connor & M. A. O'Connor.

This is the second locality for County Meath (previous River Tolka, 5km upstream of Dunboyne on a tributary (N9844)).

WEXFORD: Craywell, New Ross (S7228), 1♀ 4-5 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Limnephilus affinis* Curtis, 1834 New to County Antrim (Fig. 40)**

ANTRIM: Lowwood, Belfast (J3378), 1♂ 15 August 2019, light-trap, P. Thomlinson.

CLARE: Ings (R3468), 1♂ 18 September 2017, collected and determined J. T. Brophy.

GALWAY: Connemara National Park (L7457), 1♀ 28 April-19 May 1994, Malaise trap on blanket bog with *Salix* scrub along a small stream, M. C. D. Speight.

OFFALY: Lough Boora (N1818), 1♀ 10 October 2018, swept from lake-side vegetation, J. P. O'Connor & M. A. O'Connor.

WEXFORD: Craywell, New Ross (S7228), 1♀ 31 July-1 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Limnephilus auricula* Curtis, 1834 New to County Down (Fig. 41)**

ANTRIM: Jubilee Farm, near Glynn River, Larne (J3999), 2♂♂ July 2019, light-trap, P. Thomlinson; Lowwood, Belfast, near Cave Hill (J3378), 2♂♂ June 2019, light-trap in garden, P. Thomlinson; Montiaghs Moss (J0965), 1♀ July 2019, light-trap on bogland, P. Thomlinson; North Belfast near Belfast Castle (J3278), 2♂♂ 18 May 2019, P. Thomlinson per P. Campbell, CEDaR.

DONEGAL: Glenveagh National Park (C0221), 1♀ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog with pools near Lough Veagh (Beagh), (C0120) 1♂1♀ 20-30 May 1998, Malaise trap in mature acidophilous *Quercus*, (C0019), 2♀♀ 20-30 May 1998 and 1♀ 12 August-2 September 1998, Malaise trap in *Betula*/acidophilous *Quercus* forest along a river, all M. C. D. Speight; Gortyarn, Carndonagh (C4944), adult 24 April 2019, C. Gilroy, det J. P. O'Connor from <<http://records.biodiversityireland.ie/api/taxon-record/456422/image>> (National Biodiversity Data Centre, 2019).

DOWN: Glencraig (J4381), 1♂ 25 May 2019, Bioblitz, P. Thomlinson per P. Campbell, CEDaR.

GALWAY: Connemara National Park (L7457), 1♂ 28 April-19 May 1994, 1♂1♀ 19 May-8 June 1994, Malaise traps on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

KILKENNY: River Nore, Bennettsbridge (S5549), 1♂1♀ 10 August 2019, (S5550), 1♂ 10 August 2019, swept, all J. P. O'Connor & M. A. O'Connor.

***Limnephilus borealis* (Zetterstedt, 1840) (Plate 3)**

O'Connor and McNaughton (2019) record *Limnephilus borealis* from Lough Fad (D2519), Lough Galboly (D2823), Lough na Bric (D2519) and Loughisland (D2519), County Antrim. The species is now known from six lakes on the Garron Plateau.

***Limnephilus centralis* Curtis, 1834**

GALWAY: Connemara National Park (L7457), 1♂1♀ 28 April-19 May 1994, 1♂2♀♀ 19 May-8 June 1994, Malaise traps on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

***Limnephilus decipiens* (Kolenati, 1848) New to Counties Dublin, Kildare and Laois (Fig. 42)**

DUBLIN: St Brigid's GAA Club, Castleknock (O0937), 1♀ 25 August 2019, on an outside wall beside a light, J. P. O'Connor & M. A. O'Connor.

KILDARE: Pollardstown Fen (N7615), 1♀ 27 July 2002, emergence trap, tufa ledge, artificial ponds, J. A. Good.

LAOIS: Abbeyleix Bog (S4383), adult 16 October 2018, T. Claffey, determined by J. P. O'Connor from a photograph on Twitter <<https://twitter.com/tinaclaffey>> on which the specimen had been misidentified as *Halesus digitatus*. This specimen was also misidentified as *L. binotatus* on the National Biodiversity Data Centre's Recording System <https://records.biodiversityireland.ie/stats/taxon-stats?county=_name=Laois&date_range=2018-01-01%2000:00:00|2018-12-31%2023:59:59>.

WEXFORD: Maudlins Stream, New Ross (S7328), 2♀♀ 8-9 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Limnephilus elegans* Curtis, 1834 New to Counties Galway and Waterford (Fig. 43)**

DONEGAL: Glenveagh National Park (C0018), 1♀ 20-30 May 1998, Malaise trap on blanket bog and cutover blanket bog and 1♀ 10-30 June 1998, Malaise trap on blanket bog and cutover bog; (C0323), 1♂1♀ 20-30 May 1998, Malaise trap in unimproved grassland and scattered *Betula/Quercus* along the Owencarrow River, (C0221), 1♀ 10-30 June 1998, Malaise trap on blanket bog/cutover blanket bog with pools, all M. C. D. Speight.

This is the second locality for County Donegal (previous Dunlewy (B9119)).

GALWAY: Connemara National Park (L7457), 2♂♂ 19 May-8 June 1994, Malaise trap on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

MAYO: Ballycroy (Mayo) National Park (F8607), 1♂2♀♀ 30 May-20 June 1997, Malaise trap on cut-over blanket bog along the Owenduff River, 1♀ 30 May-20 June 1997, Malaise trap on cutover blanket bog, *Ulex* thickets and pools near the Owenduff River, all M. C. D. Speight.

This is the second locality for County Mayo (previous Glenamoy Bog (F9033)).

WATERFORD: Fenor Bog, Fennor (S5201), 1♀ 4 July 2019, Heath light-trap, A. Walshe.

***Limnephilus flavicornis* (Fabricius, 1787) New to Counties Antrim, Kilkenny and Limerick (Fig. 44)**

ANTRIM: Montiaghs Moss (J0965), 1♂ July 2019, light-trap on bogland, P. Thomlinson.

CAVAN: Lough Sheelin, Mullaghboy (N4285), 13♂♂6♀♀ 16 September 2018, 6w light-trap beside the Inland Fisheries Ireland Headquarters, C. McNaughton.

KERRY: Lough Leane, Killarney (V9486), 1♂1♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILKENNY: River Nore, Bennettsbridge (S5549), 1♂ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

LIMERICK Curragh Chase Forest Park R4149, 1♂ 4 October 2016, J. Brophy; Cloghaready Stream (R7637), larva late April-early May 2018 (Sweeney, 2018).

The Curragh Chase Forest Park record arrived too late for inclusion in O'Connor and O'Connor (2016) but it was included in Addendum 1.

WATERFORD: Tramore (S5701), 1♀ 20 August 2018, 125w MV Robinson light-trap, T. Bryant.

WEXFORD: Craywell, New Ross (S7228), 1♀ 31 July-1 August 2019, 1♂ 1-2 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor; Curracloe (T1128), 1♀ 4 August 2019 and 1♂ 5 August 2019, marsh, swept, J. P. O'Connor.

***Limnephilus griseus* (Linnaeus, 1758)**

DONEGAL: Glenveagh National Park (C0019), 1♂ 12 August-2 September 1998, Malaise trap in *Betula*/acidophilous *Quercus* forest with tall-herb open areas along a river, M. C. D. Speight.

GALWAY: Connemara National Park (L7457), 1♂ 28 April-19 May 1994, 1♂1♀ 19 May-8 June 1994, Malaise traps on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

MAYO: Ballycroy (Mayo) National Park (F8607), 1♀ 30 May-20 June 1997, 1♂ 1-20 August 1997, Malaise traps on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River, 2♂♂2♀♀ 1-20 August 1997, Malaise trap on unimproved grassland along the Owenduff River, all M. C. D. Speight.

***Limnephilus hirsutus* (Pictet, 1834)**

O'Connor and McNaughton (2019) record *Limnephilus hirsutus* from Aghalum (D2518), County Antrim.

KILDARE: Pollardstown Fen (N7715), 1♀ 27 July 2002 and 3♂♂1♀ 30 June 2003, emergence traps at limnocrene tufa springs, J. A. Good.

This is the second locality for County Kildare (Louisa Bridge).

WATERFORD: Ballyscanlan Lake (S5402), 1♂ 31 May 2019, 15w actinic light-trap, T. Bryant; Fenor Bog, Fennor (S5201), 3♂♂2♀♀, 4 July 2019, Heath light-trap, A. Walshe.

Previously taken in the Fennor area.

***Limnephilus ignavus* McLachlan, 1865**

WEXFORD: Edenvale (T0427), 1♀ 12 August 2019, swept, M. A. O'Connor; Maudlins Stream, New Ross (S7328), 1♀ 8-9 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

Limnephilus ignavus has been rarely recorded in south-east Ireland. It is of interest therefore that the species has been taken on three separate occasions at Edenvale. J. J. F. X. King found it there in 1902. Subsequently M. P. Gammell took a male on 5 September 2010. The recent female, from there, was swept from the foliage of a tree on a lane running down to the River Sow where there are extensive flowing marshes.

***Limnephilus incisus* Curtis, 1834**

DONEGAL: Owencarrow River, Glenveagh National Park (C0323), 1♂ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along river, M. C. D. Speight.

***Limnephilus lunatus* Curtis, 1834 New to Counties Laois and Limerick (Fig. 45)**

O'Connor and McNaughton (2019) record *Limnephilus lunatus* from Lough Galboly, Garron Plateau (D2823), County Antrim.

CAVAN: Lough Sheelin, Mullaghboy (N4285), 7♂♂ 16 September 2018, 6w light-trap beside the Inland Fisheries Ireland Headquarters, C. McNaughton.

KERRY: Owengarrif River, Killarney National Park (V9582), 1♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

KILKENNY: Glasha River, Glasha Crossroads (S2776), 11 larvae 10-11 March 2010 and River Goul, Foulks court South (S2666), 28 larvae 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011).

LAOIS: Ballacolla (S3781), 1♀ 20 September 2018, on a window of a house, M. Brennan, determined by J. P. O'Connor from a photograph on Twitter.

LIMERICK: Lyragh Stream (R4224), larva late April-early May 2018 and River Mahor, Bridge on R516 (R7235), larva late April-early May 2018 (Sweeney, 2018).

MEATH: Lough Brackan near Drumconrath (N8788), 2 larvae 19 April 2019, J. P. O'Connor & M. A. O'Connor.

TIPPERARY: stream at Cappa Bridge (S3123), larva 3 May 2014; Cappa stream at Ballynaraha (S3023), larva 3 May 2014, (S3123), larva 14 June 2014; River Suir at Ballycarron bridge (S0034), larva 23 May 2014; River Multeen at Ballygriffin (S0040), larva 23 May 2014 and River Suir at Ballynaraha (S3123), larva 14 June 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WEXFORD: Maudlins Stream, New Ross (S7328), 1♀ 8-9 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Limnephilus luridus* Curtis, 1834**

O'Connor and McNaughton (2019) record *Limnephilus luridus* from a road to Lough Beg (H9994) and Trosk marsh, Garron Plateau (D2719), County Antrim.

DONEGAL: Glenveagh National Park (C0019), 1♀ 20-30 May 1998, Malaise trap in mature *Quercus* forest along river, (C0221), 7♂♂10♀♀ 10-30 June 1998, Malaise trap on blanket bog/cutover blanket bog with pools, all M. C. D. Speight.

GALWAY: Connemara National Park (L7457), 25♂♂26♀♀ 28 April-19 May 1994, 7♂♂8♀♀ 19 May-8 June 1994, 3♂♂8♀♀ 8-28 June 1994, 2♂♂5♀♀ 20 July-10 August 1994, Malaise traps on cutover bog and *Salix* scrub near small stream, M. C. D. Speight.

KERRY: Owengarrif River, Killarney National Park (V9582), 3♂♂13♀♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

WATERFORD: Fenor Bog, Fennor (S5201), 1♀ 4 July 2019, Heath light-trap, A. Walshe.

***Limnephilus marmoratus* Curtis, 1834 New to County Kilkenny (Fig. 46)**

DONEGAL: Glenveagh National Park (C0018), 2♀♀ 12 August-2 September 1998, Malaise trap in humid non-calcareous oligotrophic, (*Molinia*) montane, unimproved grassland along river and Owencarrow River, Glenveagh National Park (C0323), 4♀♀ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along river, all M. C. D. Speight.

KERRY: Lough Leane, Killarney (V9486), 2♂♂1♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILKENNY: Glasha River, Glasha Crossroads (S2776), 1 larva 10-11 March 2010, collected M. Kelly-Quinn an determined M. Kelly-Quinn & J. R. Baars (EPA, 2011); River Nore, Bennettsbridge (S5549), 1♂1♀ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

MEATH: Lough Brackan near Drumconrath (N8788), 6 larvae 19 April 2019, J. P. O'Connor & M. A. O'Connor.

WEXFORD: Craywell, New Ross (S7228), 1♂ 31 July-1 August 2019, 1♂ 3-4 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor; Curracloe (T1128), 1♀ 5 August 2019, marsh, J. P. O'Connor.

***Limnephilus nigriceps* (Zetterstedt, 1840) New to Counties Offaly and Waterford (Fig. 47)**

O'Connor and McNaughton (2019) record *Limnephilus nigriceps* from Lough na Bric, Garron Plateau (D2519), County Antrim.

OFFALY: Loch an Dochais, Boora Park (N1819), 15♂♂ 10 October 2018, swept, J. P. O'Connor & M. A. O'Connor; Lough Boora (N1818), 15♂♂ 10 October 2018, swept, J. P. O'Connor & M. A. O'Connor.

WATERFORD: Carrickavrantry Lake (S5502), 1♂ 23 October 2018, swept, T. Bryant.

***Limnephilus pati* O'Connor, 1980 (Fig. 48) (Plate 4)**

O'Connor, Good and Wallace (2019) recorded *Limnephilus pati* from Pollardstown Fen, County Kildare (N7715), based on a single male taken by J. A. Good in an emergence trap at a limnocene tufa spring on 30 June 2003. The species is only known from four other Irish sites in Counties Donegal, Mayo, Tipperary and Westmeath.

***Limnephilus rhombicus* (Linnaeus, 1758) New to County Kerry (Fig. 49)**

KERRY: Owengarrif River, Killarney National Park (V9582), 1♂ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

LIMERICK: Charleville Stream (R5424), larva late April-early May 2018 and Cloghaready Stream (R7637), larva late April-early May 2018 (Sweeney, 2018).

***Limnephilus sparsus* Curtis, 1834**

O'Connor and McNaughton (2019) record *Limnephilus sparsus* from a bog near Lough Beg (H9994), County Antrim.

ANTRIM: Lowwood, Belfast (J3378), 1♂ 15 August 2019, light-trap, P. Thomlinson.

DONEGAL: Glenveagh National Park (C0120), 2♀♀ 20-30 May 1998, Malaise trap in mature acidophilous *Quercus*, (C0019), 4♂♂ 20-30 May 1998 and 1♀ 12 August-2 September 1998, Malaise trap in *Betula*/acidophilous *Quercus* forest with tall-herb open areas along a river, all M. C. D. Speight.

GALWAY: Connemara National Park (L7457), 3♂♂5♀♀ 28 April-19 May 1994, 8♂♂3♀♀ 19 May-8 June 1994, 1♀ 8-28 June 1994, 1♂1♀ 20 July-10 August 1994, Malaise traps on cutover bog and *Salix* scrub near a small stream, all M. C. D. Speight.

KERRY: Owengarrif River, Killarney National Park (V9582), 2♂♂ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

WATERFORD: Fenor Bog, Fennor (S5201), 1♀ 4 July 2019, Heath light-trap, A. Walshe.

***Limnephilus stigma* Curtis, 1834 New to County Mayo (Fig. 50)**

O'Connor and McNaughton (2019) record *Limnephilus stigma* from Loughisland, Garron Plateau (D2519), County Antrim.

MAYO: Ballycroy (Mayo) National Park (F8607), 2♀♀ 1-20 August 1997, Malaise trap on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River, 4♂♂2♀♀ 1-20 August 1997, Malaise trap on improved grassland along the River Owenduff River, all M. C. D. Speight.

***Limnephilus vittatus* (Fabricius, 1798)**

O'Connor and McNaughton (2019) record *Limnephilus vittatus* from Lough Galboly, Garron Plateau (D2823), County Antrim.

***Halesus digitatus* (Schränk, 1781) New to Counties Derry (Londonderry) and Donegal (Fig. 51)**

O'Connor and McNaughton (2019) record *Halesus digitatus* from the Cushendall River (D2327) and Glenariff (D2120), County Antrim.

DERRY (LONDONDERRY): Coleraine Harbour (C8432), 1♂ 11 October 2018, C. McNaughton.

DONEGAL: Ballyhallan River near Clonmany (C3646), 1 larva 4 June 2003, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

TIPPERARY: stream at Cappa Bridge (S3123), larva 3 May 2014; River Multeen at Ballygriffin (S0040), larva 23 May 2014 and larva 17 July 2014 and River Suir at Ballynaraha (S3023), larva 3 May 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

***Halesus radiatus* (Curtis, 1834) New to Counties Kilkenny and Laois (Fig. 52)**

O'Connor and McNaughton (2019) record *Halesus radiatus* from Craigagh Wood, Cushendun (D2232), Lough Fad, Garron Plateau (D2519), Lough na Bric, Garron Plateau (D2519) and Loughisland, Garron Plateau (D2519), County Antrim.

CAVAN: Lough Sheelin, Mullaghboy (N4285), 2♂♂1♀ 16 September 2018, 6w light-trap beside the Inland Fisheries Ireland Headquarters, C. McNaughton.

DONEGAL: Glenveagh National Park (C0018), 6♂♂ 12 August-2 September 1998, Malaise trap in humid non-calcareous oligotrophic (*Molinia*) montane, unimproved grassland along a river and Owencarrow River, Glenveagh National Park (C0323), 1♀ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along river, all M. C. D. Speight.

DUBLIN: River Liffey, (O0935), 1♂ 22 October 2018, dead in a spider's web on a lamp in the carpark beside the Angler's Rest, J. P. O'Connor; River Liffey, Lucan Demesne (O0235), 1♀ 18 November 2018, hiding alive in a crevice in the bark of an oak *Quercus* tree, J. P. O'Connor & M. A. O'Connor; St Brigid's GAA Club, Castleknock (O0937), 1♀ 20 October 2018, freshly killed in a spider's web on a wall lamp, M. A. O'Connor.

This is the latest November date.

KILKENNY: Glasha River, Glasha Crossroads (S2776), 38 larvae 10-11 March 2010; River Goul, Ballinafrase (S3173), 14 larvae 10-11 March 2010; River Goul, Ballybooden (S3677), 20 larvae 10-11 March 2010; River Goul, Foulkscourt North (S2868), 10 larvae 10-11 March 2010 and River Goul, Foulkscourt South (S2666), 6 larvae 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011).

LAOIS: Ballacolla (S3781), adult 10 October 2018, on the front door of a house, M. Brennan, determined by J. P. O'Connor, from a photograph on Twitter.

LIMERICK: River Camoge, Gortacloona Bridge (R6837), larva late April-early May 2018 and River Mahor, O'Carroll's Bridge (R6837), larva late April-early May 2018 (Sweeney, 2018); Tarbert (R0748), adult 5 May 2018, collected and determined G. Hunt (National Biodiversity Data Centre, 2019).

Callanan, Baars and Kelly-Quinn (2014) give a grid reference R8256 for *Halesus radiatus* as being in County Tipperary but the record is in County Limerick.

ROSCOMMON: Lough Ree, Rinnagan (N0056), 1♀ 29 September 2018, taken by hand from *Iris pseudacorus* on the lake shore, collected and determined J. T. Brophy.

TIPPERARY: stream at Cappa Bridge (S3123), larva 3 May 2014; River Multeen at Ballygriffin (S0040), larva 23 May 2014 and Cappa stream at Ballynaraha (S3023), larva 3 May 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WEXFORD: marshes at Maudlins River (S7328), 1♂ 12-13 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Micropterna lateralis* (Stephens, 1837) New to County Cavan (Fig. 53)**

CAVAN: Dún na Rí (Dún an Rí) Forest Park (N7997), 1♂ 19 April 2019, dead in a spider's web on a window on a toilet block in the park, J. P. O'Connor & M. A. O'Connor.

DONEGAL: Glenveagh National Park (C0120), 1♂ 20-30 May 1998, Malaise trap in mature acidophilous *Quercus*, (C0323), 1♂1♀ 20-30 May 1998, Malaise trap in unimproved grassland and scattered *Betula/Quercus* along the Owencarrow River, (C0019), 1♂ 20-30 May 1998, Malaise trap in mature *Quercus* forest along river, all M. C. D. Speight.

GALWAY: Connemara National Park (L7457), 1♂2♀♀ 19 May-8 June 1994, 1♂ 8-28 June 1994, 1♀ 20 July-10 August 1994, Malaise traps on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

WATERFORD: Belle Lake (S6605), 1♂ 10 July 2019, light-trap in woodland, A. Walshe.

***Micropterna sequax* McLachlan, 1875 New to County Kilkenny (Fig. 54)**

O'Connor and McNaughton (2019) record *Micropterna sequax* from a tributary stream of the Glenariff River (D2325), County Antrim.

DONEGAL: Glenveagh National Park (C0120), 1♀ 20-30 May 1998, Malaise trap in mature acidophilous *Quercus*, M. C. D. Speight.

This is the fourth locality in County Donegal.

GALWAY: Connemara National Park (L7457), 1♂ 8-28 June 1994, Malaise trap on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

KILDARE: Pollardstown Fen (N7616), 1♀ 30 June 2003, emergence trap, tufa ledge in drain in *Fraxinus* wood, J. A. Good.

Previously known from Pollardstown Fen (N7715).

KILKENNY: Glasha River, Glasha Crossroads (S2776), 1 larva 10-11 March 2010 and River Goul, Foulks court South (S2666), 7 larvae 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011); small stream, Thomastown (S5842), 2 larvae 10 August 2019, J. P. O'Connor & M. A. O'Connor.

***Potamophylax cingulatus* (Stephens, 1837) New to Counties Kilkenny and Mayo (Fig. 55)**

O'Connor and McNaughton (2019) record *Potamophylax cingulatus* from Lough na Trosk, Garron Plateau (D2719), County Antrim.

CAVAN: Dún na Rí (Dún an Rí) Forest Park (N7997), 12 larvae 19 April 2019, collected in a tributary stream of the River Cabra, J. P. O'Connor & M. A. O'Connor.

This is the second locality for County Cavan (previous Barora River (N6894)).

DONEGAL: Glenveagh National Park (C0019), 1♀ 20-30 May 1998, Malaise trap in mature *Quercus* forest along a river, M. C. D. Speight.

GALWAY: Connemara National Park (L7157), 3♀♀ 20 July-10 August 1994, Malaise trap on *Salix* scrub/bog beside a stream, M. C. D. Speight. The specimens were identified using Salokannel and Mattila (2018).

This is the second locality for County Galway (previous Lough Kip River (M2231)).

KILKENNY: Glasha River, Glasha Crossroads (S2776), 1 larva 10-11 March 2010, collected M. Kelly-Quinn, determined M. Kelly-Quinn & J. R. Baars (EPA, 2011).

MAYO: River Aille, bridge north-west of Claureen (M1280), 21 larvae 31 October 2002, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

WEXFORD: Maudlins Stream, New Ross (S7328), 1♂ 8-9 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor; Oaklands (Kelly's) Wood, stream (S7225), 2♂♂2♀♀ 14-15 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

***Potamophylax latipennis* (Curtis, 1834) New to County Kilkenny (Fig. 56)**

CAVAN: Lough Sheelin, Mullaghboy (N4285), 3♂♂ 16 September 2018, 6w light-trap beside the Inland Fisheries Ireland Headquarters, C. McNaughton.

CORK: Bere Island (V6944, V7153), larvae 11 June 2016, collected and determined M. Kelly-Quinn (National Biodiversity Data Centre, 2019).

DONEGAL: Glenveagh National Park (C0019), 1♂ 20-30 May 1998, Malaise trap in mature *Quercus* forest along a river, M. C. D. Speight.

GALWAY: River Clare, Crusheen Bridge (M3932), 8 larvae 12 July 2011, Aquatic Services Unit, University College Cork (RPS, 2012).

KILKENNY: River Goul, Ballinafrase (S3173), 9 larvae 10-11 March 2010; River Goul, Foulks court North (S2868), 6 larvae 10-11 March 2010 and River Goul, Foulks court South (S2666), 1 larva 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011); Pil River, Piltown (S4522), 2 larvae 29 April 2009, collected and determined P. Sweeney (Kilkenny County Council, 2011).

LIMERICK: River Maigue, Drews court Bridge (R4825), larva late April-early May 2018; River Maigue, Glenma Townland (R5334), larva late April-early May 2018; Lyragh Stream (R4224), larva late April-early May 2018; River Loobagh, Riversfield Bridge (R6326), larva late April-early May 2018 and River Mahor, Bridge on R516 (R7235), larva late April-early May 2018 (Sweeney, 2018).

Callanan, Baars and Kelly-Quinn (2014) give a grid reference R8256 for *Potamophylax latipennis* as being in County Tipperary but the record is in County Limerick.

***Stenophylax permistus* McLachlan, 1895 (Fig. 57)**

CAVAN: Lough Sheelin, Mullaghboy (N4285), 1♀ 16 September 2018, 6w light-trap beside the Inland Fisheries Ireland Headquarters, C. McNaughton.

GALWAY: Connemara National Park (L7457), 1♂1♀ 28 April-19 May 1994, Malaise trap on cutover bog and *Salix* scrub near a small stream, M. C. D. Speight.

MAYO: Ballycroy National Park (F8607), 1♀ 1-20 August 1997, Malaise trap on unimproved grassland along the Owenduff River, M. C. D. Speight.

Both the Galway and Mayo records are in the far west of the two counties.

WATERFORD: Ballyscanlan Lake (S5402), 1♂ 19 March 2019, 1♂1♀ 20 March 2019, 1♀ 21 March 2019, 15w actinic light-trap, T. Bryant; Tramore (S5701) 1♂ 22 March 2019, 125w MV Robinson light-trap, T. Bryant.

These Waterford records are the earliest ones for Irish adults. The known flight period is now 19 March-27 October.

SERICOSTOMATIDAE

***Sericostoma personatum* (Spence, 1826)**

O'Connor and McNaughton (2019) record *Sericostoma personatum* from Lough na Trosk, Garron Plateau (D2719), County Antrim.

CAVAN: Dún na Rí (Dún an Rí) Forest Park (N7997), 1 larva 19 April 2019, collected in a tributary stream of the River Cabra, J. P. O'Connor & M. A. O'Connor.

CORK: Bere Island (V7143, V7443), larvae 11 June 2016, collected and determined M. Kelly-Quinn (National Biodiversity Data Centre, 2019).

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 1♀ 1-25 July 2019, Rothamsted Insect Survey light-trap per A. Riley.

GALWAY: Connemara National Park (L7157), 1♀ 20 July-10 August 1994, Malaise trap on *Salix* scrub/bog beside a stream, M. C. D. Speight; River Clare, Claregalway Bridge (M3733), 3 larvae 12 July 2011 and Crusheeney Bridge (M3932), 5 larvae 12 July 2011, Aquatic Services Unit, University College Cork (RPS, 2012).

KILDARE: Pollardstown Fen (N7615), 1♂ 30 June 2003, emergence trap, tufa ledge in drain in *Fraxinus* wood (Springbrook Wood), J. A. Good; Johnstown [River Morell] (N9121), 1♂ 22 July 2019, H. Feeley <<https://twitter.com/riverflyflint>>.

KILKENNY: Glasha River, Glasha Crossroads (S2776), 2 larvae 10-11 March 2010; River Goul, Ballybooden (S3677), 16 larvae 10-11 March 2010; River Goul, Foulkscourt North (S2868), 13 larvae 10-11 March 2010 and River Goul, Foulkscourt South (S2666), 12 larvae 10-11 March 2010, all collected M. Kelly-Quinn and determined M. Kelly-Quinn & J. R. Baars (EPA, 2011); River Nore, Bennettsbridge (S5549), 3♂♂ 10 August 2019, (S5550), 2♂♂1♀ 10

August 2019, swept, all J. P. O'Connor & M. A. O'Connor; small stream, Thomastown (S5842), 1 larva 10 August 2019, J. P. O'Connor & M. A. O'Connor.

LIMERICK: Charleville Stream (R5424), larva late April-early May 2018; River Loobagh, Riversfield Bridge (R6326), larva late April-early May 2018; Ballinlyna Stream (R6820), larva late April-early May 2018 and River Mahor, Bridge on R516 (R7235), larva late April-early May 2018 (Sweeney, 2018).

MAYO: Cloonlee River, Cloonconra (M2798), 15 larvae September 2003, M. J. Costello (Mayo County Council, 2007).

TIPPERARY: Cappa stream at Ballynaraha (S3123), larva 14 June 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019); Parteen Reservoir (R6767), 1♂1♀ in cop., 2012, P. Foss, determined by J. P. O'Connor from a photograph on <<http://www.fossenvironmentalconsulting.com/wildlife-photography/fauna-invertebrates---flies/caddisflies-mating.html>>; River Suir at Ballynaraha (S3023), larva 3 May 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019); River Suir, near Cahir (S0424), 1♂ 15 June 2017, collected and determined L. Doherty <<https://www.alamy.com/stock-image-caddisfly-sericostoma-personatum-male-on-bramble-leaf-near-river-suir-167018525.html>>; stream at Cappa Bridge (S3123), larva May 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WATERFORD: Glencomeragh stream (S3222), larva 15 July 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019).

WEXFORD: Oaklands (Kelly's) Wood, stream (S7225), 1♂ 14-15 August 2019, light-trap, J. P. O'Connor & M. A. O'Connor.

BERAEIDAE

***Berea maurus* (Curtis, 1834) New to Counties Carlow and Donegal (Fig. 58)**

O'Connor and McNaughton (2019) record *Berea maurus* from Lough na Trosk, Garron Plateau (D2719), County Antrim.

CARLOW: St Mullins (S7237), 1♀ 2 July 2011, swept from marshy ground near the River Barrow, J. P. O'Connor.

DONEGAL: Ballyhallan River near Clonmany (C3646), 1 larva 14 October 2002, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

KERRY: Owengarrif River, Killarney National Park (V9582), 2♀♀ 1-21 July 1995, Malaise trap on grass near the river, M. C. D. Speight.

KILDARE: Pollardstown Fen (N7615, N7616, N7716), the species was abundant (♂♂♀♀) in Malaise and emergence traps at *Schoenus* tufa flushes and tufa drains on 27 June 2002, 30 June 2003 and 28 July 2003, all J. A. Good.

Berea maurus is previously known in County Kildare from other sites (N7715) at Pollardstown Fen.

WEXFORD: J. F. Kennedy Park, a stream flowing into the Duck Pond (S7218), 1♂ 30 July 2019, swept, J. P. O'Connor.

***Beraea pullata* (Curtis, 1834)**

DUBLIN: River Dodder, Rathfarnham (O1328), 1♀ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

The species is new to the river's catchment.

KILDARE: Pollardstown Fen (N7715), 1♂ 27 June 2002 and 1♀ 15 June 2003, emergence traps, limnocene tufa springs, (N7615), 1♀ 27 June 2002, Malaise trap, *Schoenus* tufa flush, 5♂♂3♀♀ 30 June 2003, emergence trap, *Schoenus* calcareous fen, 1♂ 27 June 2002, emergence trap, *Schoenus* tufa flush, 2♂♂1♀ 30 June 2003, emergence trap, *Schoenus* tufa flush, 1♀ 28 July 2003, emergence trap, *Schoenus* tufa flush, all J. A. Good.

Beraea pullata is previously known in County Kildare from 1♀ at Pollardstown Fen (N7716).

WATERFORD: Belle Lake (S6605), 1♂ 10 July 2019, light-trap in woodland, A. Walshe.

***Beraeodes minutus* (Linnaeus, 1761) New to Counties Clare, Galway and Sligo (Fig. 59)**

CLARE: River Gourn, south of Sixmilebridge (R4864), 4 larvae 23 October 2002, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

GALWAY: Duniry River, south-west of of Duniry (M7209), 30 larvae 7 November 2002, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

SLIGO: Owengarve River, south-east of Curry (G5503), 1 larva 30 October 2002, collected and determined C. Bradley (Kelly-Quinn *et al.*, 2019).

ODONTOCERIDAE

***Odontocerum albicorne* (Scopoli, 1763) New to County Galway (Fig. 60)**

CORK: Bere Island (V7443), larva 11 June 2016, collected and determined M. Kelly-Quinn (National Biodiversity Data Centre, 2019).

GALWAY: Lough Corrib near Oughterard (M0748), adult 22 August 2016 and Lough Kip River, Oguil, Moycullen (M2231), 3 larvae 21 May 2016, kick sample, all collected and determined M. Gammell (National Biodiversity Data Centre, 2019).

WEXFORD: River Lask, Craanford (T0860), larva 6 April 2019, collected and determined H. B. Feeley <<https://twitter.com/HBFeeley/status/1114640399157682181>>.

LEPTOCERIDAE

Athripsodes albifrons (Linnaeus, 1758)

CORK: Gearagh (W3371), adult 23 August 2014, L. van der Noll, confirmed by J. P. O'Connor from a photograph on Flickr < <https://www.flickr.com/photos/leonvdm/15476507091/in/photolist-pzB9na-dw76x5-ffcCB8-28oRF1M-M9mPVH>>.

DUBLIN: River Dodder, Rathfarnham (O1328), 1♀ 21 July 2019, swept, J. P. O'Connor & M. A. O'Connor.

J. R. Harris took an adult on the river at nearby Templeogue in August 1947.

KILDARE: River Liffey, upstream of a bridge at Celbridge (N9732), 2 larvae 21 June 2011, collected and determined J. T. Brophy (Kildare County Council, 2012); River Liffey, Castletown Estate, Celbridge (N9733), 1♂ 7 July 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 5♂♂8♀♀ 10 August 2019, (S5550), 3♂♂ 10 August 2019, all J. P. O'Connor & M. A. O'Connor.

LIMERICK: River Camoge, south-west of Herbertstown (R6740), larva late April-early May 2018 (Sweeney, 2018).

TIPPERARY: River Suir at Ballynarah (S3023), larva 27 July 2014, collected and determined W. Bryan (National Biodiversity Data Centre, 2019); River Suir, Clonmel (S2122), 5♂♂8♀♀ 11 August 2019, J. P. O'Connor & M. A. O'Connor.

WEXFORD: Edenvale (T0427), 1♀ 12 August 2019, beaten from a tree near the River Sow, J. P. O'Connor & M. A. O'Connor.

Athripsodes aterrimus (Stephens, 1836)

O'Connor and McNaughton (2019) record *Athripsodes aterrimus* from Kilgad (Riversdale) Lake (J1798) and Lough na Bric, Garron Plateau (D2519), County Antrim.

KILDARE: artificial lake, Castletown Estate, Celbridge (N9833), 1♂ 23 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

WATERFORD: Carrickavrantry Lake (S5502), 1♂ 27 August 2018, swept, T. Bryant.

Athripsodes cinereus (Curtis, 1834)

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 1♀ 23 June 2019 and 2♂♂2♀♀ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 13♂♂18♀♀ 10 August 2019, (S5550), 1♂1♀ 10 August 2019, all J. P. O'Connor & M. A. O'Connor.

LIMERICK: River Maigue, upstream of Croom (R5140), larva late April-early May 2018 and River Camoge, south-west of Herbertstown (R6740), larva late April-early May 2018 (Sweeney, 2018).

TIPPERARY: River Suir at Mantlehill (S0240), larva 17 July 2014; River Suir at Kilshelin (S2823), larva 15 July 2014 and River Suir at Ballynaraha (S3023), larva 27 July 2014, all collected and determined W. Bryan (National Biodiversity Data Centre, 2019); River Suir, Clonmel (S2122), 24♂♂39♀♀ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Ceraclea albimacula* (Rambur, 1842) New to County Tipperary (Fig. 61)**

KILDARE: River Liffey, upstream of the bridge at Celbridge (N9732), 1 larva 15 June 2010, collected and determined J. T. Brophy (Kildare County Council, 2012).

KILKENNY: River Nore, Bennettsbridge (S5549), 1♂1♀ 10 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

TIPPERARY: River Suir, Clonmel (S2122), 1♂ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Ceraclea dissimilis* (Stephens, 1836)**

DONEGAL: Glenveagh National Park (C0221), 1♀ 10-30 June 1998, Malaise trap on blanket bog/cut-over blanket bog with pools, M. C. D. Speight.

KERRY: Lough Leane, Killarney (V9486), 3♂♂6♀♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

KILKENNY: River Nore, Bennettsbridge (S5549), 7♂♂7♀♀ 10 August 2019, (S5550), 2♀♀ 10 August 2019, swept, all J. P. O'Connor & M. A. O'Connor.

WEXFORD: Craywell, New Ross (S7228), 1♂ 30-31 July 2019, light-trap, 1♀ 31 July 2019, on an outside wall beside a light, J. P. O'Connor & M. A. O'Connor; River Slaney, Enniscorthy (S9739), 1♀ 6 August, 2019, swept, J. P. O'Connor & M. A. O'Connor.

***Ceraclea fulva* (Rambur, 1842) (Fig. 62)**

Recorded as new to County Antrim from Lough na Trosk, Garron Plateau (D2719) by O'Connor and McNaughton (2019).

KERRY: Doolough, Muckross Peninsula (V9585), Killarney National Park, 1♀ 16-26 June 1993, 1♂1♀ 26 July-5 August 1993, 1♀ 5-14 September 1993, Malaise traps in old *Betula/Quercus* woods and swamp *Alnus/Salix* strip at the edge of the lake, M. C. D. Speight.

The species were previously only known at Doolough from larvae.

***Ceraclea nigronervosa* (Retzius, 1783) (Fig. 63)**

Recorded as new to County Antrim from Lough na Bric, Garron Plateau (D2519) by O'Connor and McNaughton (2019).

SLIGO: Lough Talt (G4014), larvae September 2010, anon, confirmed J. P. O'Connor from a photograph of a larva in RPS (2018).

This is the second locality for County Sligo (Lough Arrow (G7711) in 1909).

***Ceraclea senilis* (Burmeister, 1839)**

ANTRIM: Lowwood, Belfast, near Cave Hill (J3378), 1 ♀ June 2019, light-trap in garden, P. Thomlinson.

The specimen probably came from one of the nearby ponds on the Milewater.

***Leptocerus tineiformis* Curtis, 1834**

WEXFORD: Lower Lake, Johnstown Castle (T0216), 16 ♂♂ 23 ♀♀ 8 August 2019, J. P. O'Connor & M. A. O'Connor.

Leptocerus tineiformis was recorded from the other two lakes in Johnstown Castle on previous visits. However, this is the first time the species has been taken at the Lower Lake, Wexford's largest water-body. Thousands of adults occurred there.

***Mystacides azurea* (Linnaeus, 1761)**

O'Connor and McNaughton (2019) record *Mystacides azurea* from Loughisland, Garron Plateau (D2519), County Antrim.

DONEGAL: Glenveagh National Park (C0221) 4 ♂♂ 2 ♀♀ 12 August-2 September 1998, Malaise trap on blanket bog and cut over blanket bog with pools near Lough Veagh (Beagh), (C0018), 1 ♀ 12 August-2 September 1998, Malaise trap in humid non-calcareous oligotrophic (*Molinia*) montane, unimproved grassland along river, M. C. D. Speight.

DUBLIN: River Dodder, Rathfarnham (O1328), 2 ♂♂ 3 ♀♀ 16 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 2 ♂♂ 23 June 2019 and 1 ♂ 30 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

KILKENNY: River Nore, Bennettsbridge (S5549), 1 ♂ 1 ♀ 10 August 2019, (S5550), 1 ♀ 10 August 2019, swept, all J. P. O'Connor & M. A. O'Connor.

MAYO: Ballycroy (Mayo) National Park (F8607), 1 ♀ 1-20 August 1997, Malaise trap on cutover blanket bog with *Ulex* thickets and pools near the Owenduff River, M. C. D. Speight.

TIPPERARY: River Suir, Clonmel (S2122), 3 ♂♂ 1 ♀ 11 August 2019, swept, J. P. O'Connor & M. A. O'Connor.

WATERFORD: Tramore (S5701), 1 ♀ 7 August 2018 and 1 ♀ 11 August 2018, 125w MV Robinson light-trap, T. Bryant.

***Mystacides longicornis* (Linnaeus, 1758)**

O'Connor and McNaughton (2019) record *Mystacides longicornis* from Kilgad (Riversdale) Lake (J1798), Lough na Bric, Garron Plateau (D2519) and a pale yellow wing form lecking on a rocky beach with brackish pools at Limerick Point, Cushendall (D2427), County Antrim.

CAVAN: Lough Sheelin, Walker's Bay (N4486), 1 ♂ 15 September 2018, collected on the shore, C. McNaughton.

DUBLIN: Dublin Zoo, Phoenix Park (O1235), 2♀♀ 1-25 July 2019, Rothamsted Insect Survey light-trap per A. Riley; Áras Pond, Phoenix Park (O1235), 3 larvae June 2007 and People's Garden Pond, Phoenix Park (O1334), 2 larvae June 2007, collected and determined J. M. Caffrey (Caffrey *et al.*, 2008).

KILDARE: artificial lake, Castletown Estate, Celbridge (N9833), 1♂1♀ 23 June 2019, swept, J. P. O'Connor & M. A. O'Connor.

WATERFORD: Carrickavrantry Reservoir (S5502), 1♂ 23 May 2019, swept, a few "lekking", T. Bryant.

***Oecetis furva* (Rambur, 1842)**

DONEGAL: Owencarrow River, Glenveagh National Park (C0323), 1♂ 12 August-2 September 1998, Malaise trap on *Salix* swamp and grassland along the river, M. C. D. Speight.

***Oecetis lacustris* (Pictet, 1834) New to County Waterford (Fig. 64)**

ANTRIM: Lough Fadden, Garron Plateau (D1842), 2♂♂1♀, 22 July 2019, C. McNaughton.

KERRY: Lough Leane, Killarney (V9486), 4♀♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

WATERFORD: Fenor Bog, Fennor (S5201), 1♀ 4 July 2019, A. Walshe.

***Oecetis notata* (Rambur, 1842) New to County Kildare**

KILDARE: River Liffey, Castletown Estate, Celbridge (N9733), 1♀ 30 June 2019, 15♂♂7♀♀ 7 July 2019, swept, J. P. O'Connor & M. A. O'Connor.

Previously taken on the River Liffey at Lucan, County Dublin (O0235) by J. J. F. X. King in August 1888. There has been a resurgence of *Oecetis notata* in Britain and this may also be happening in Ireland (Wallace and O'Connor, in press).

***Oecetis ochracea* (Curtis, 1825)**

O'Connor and McNaughton (2019) record *Oecetis ochracea* from Lough Fad, Garron Plateau (D2519) and Lough na Bric, Garron Plateau (D2519), County Antrim.

***Oecetis testacea* (Curtis, 1834)**

DONEGAL: Glenveagh National Park (C0019), 1♂ 12 August-2 September 1998, Malaise trap in *Betula*/acidophilous *Quercus* forest with tall-herb open areas along a river, (C0120), 2♂♂ 12 August-2 September 1998, Malaise trap in mature acidophilous *Quercus* forest, all M. C. D. Speight.

KERRY: Lough Leane, Killarney (V9486), 5♀♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

***Triaenodes bicolor* (Curtis, 1834)**

DUBLIN: Áras Pond, Phoenix Park (O1235), 3 larvae June 2007, collected and determined J. M. Caffrey (Caffrey *et al.*, 2008).

KERRY: Lough Leane, Killarney (V9486), 5♂♂4♀♀ 26 June-6 July 1993, Malaise trap on the Muckross Peninsula beside a reed bed at the edge of the lake, M. C. D. Speight.

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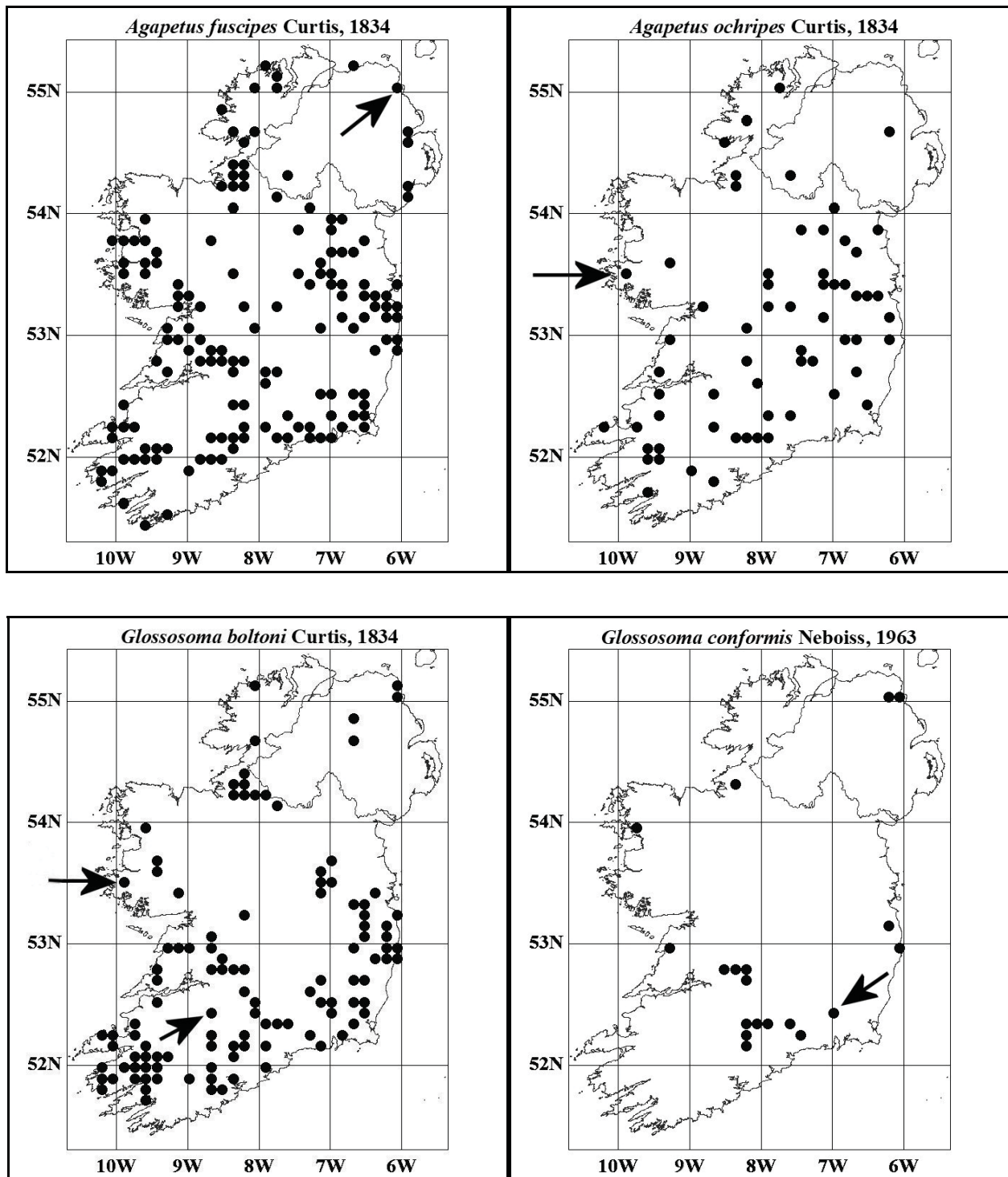
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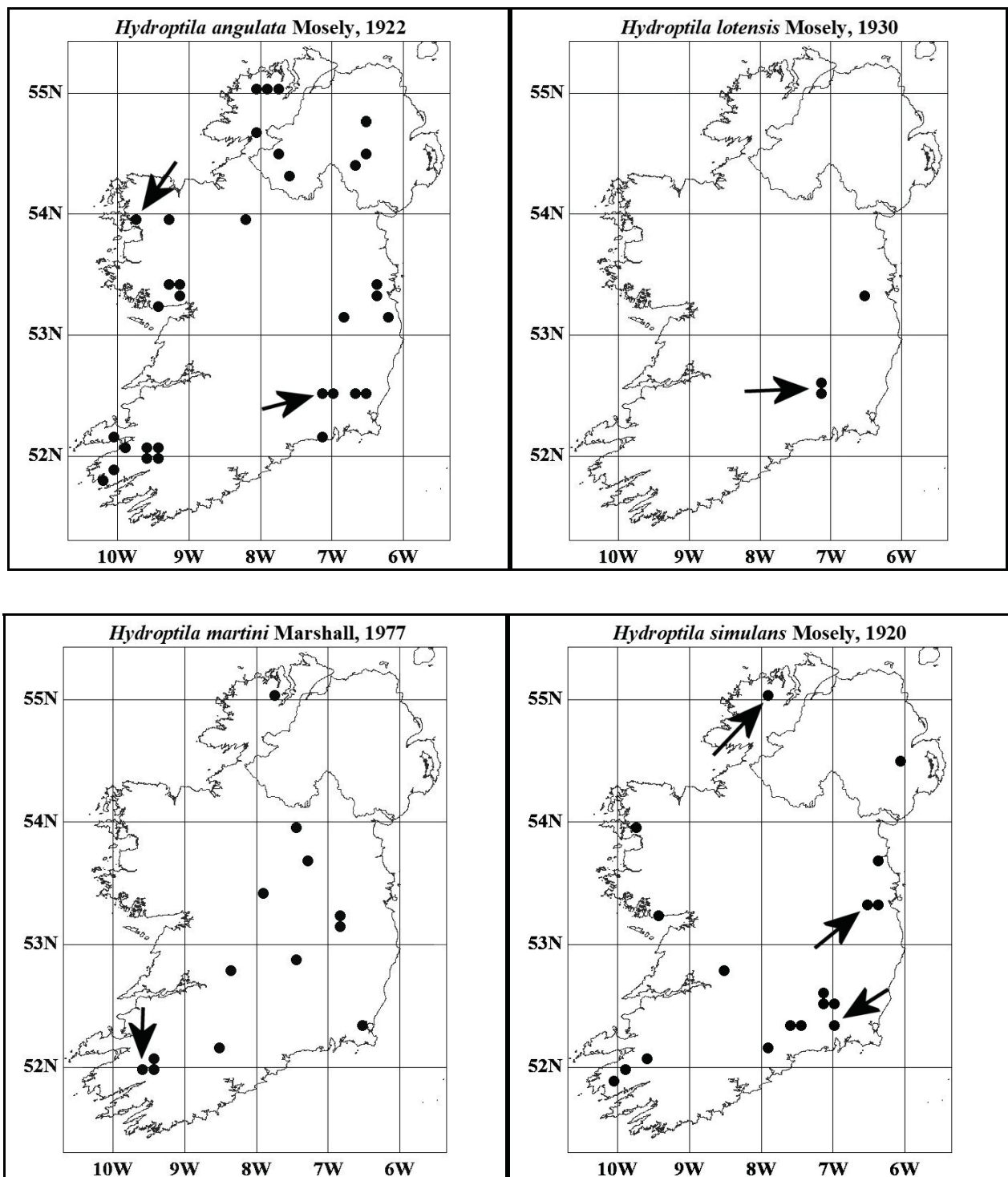
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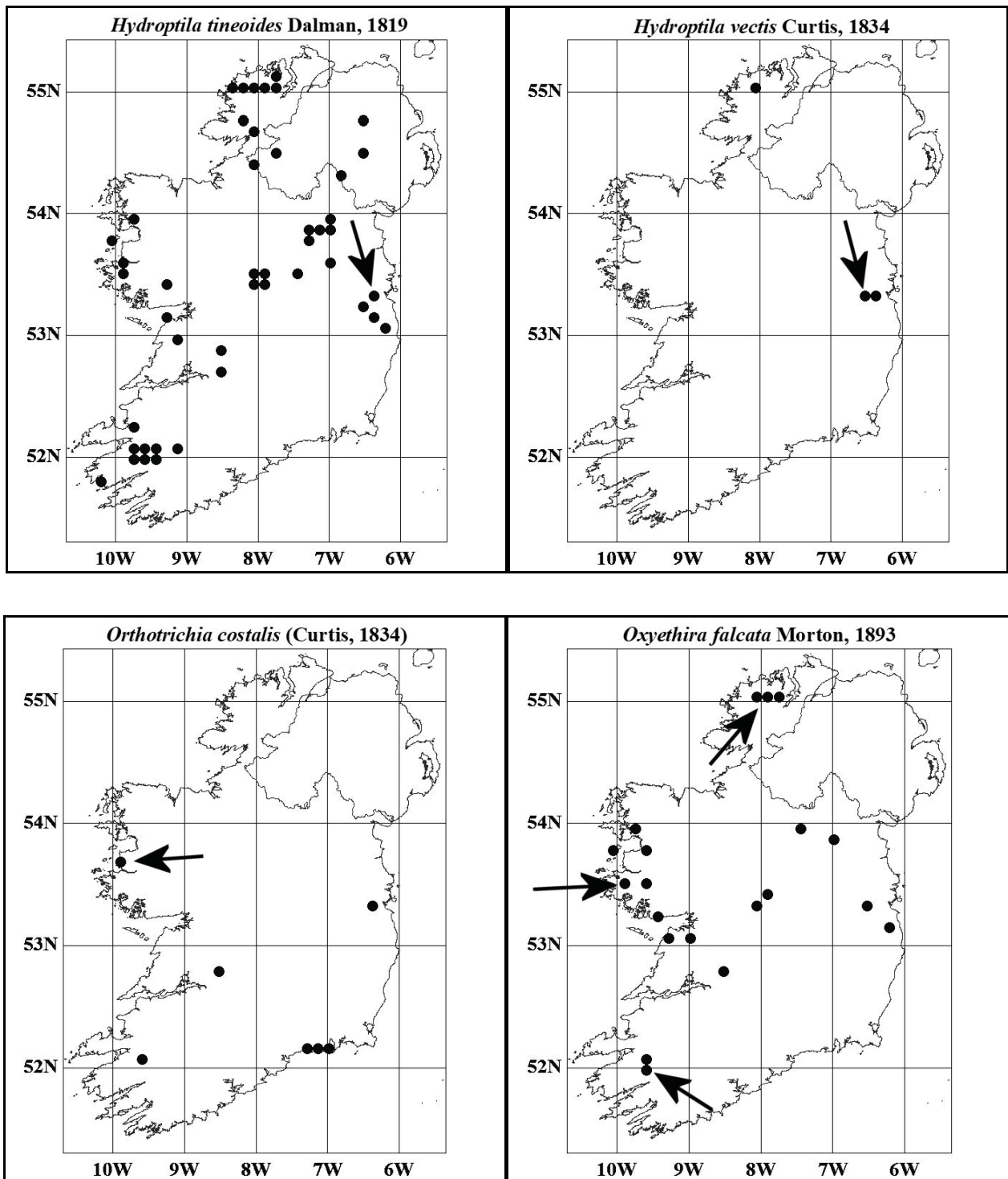
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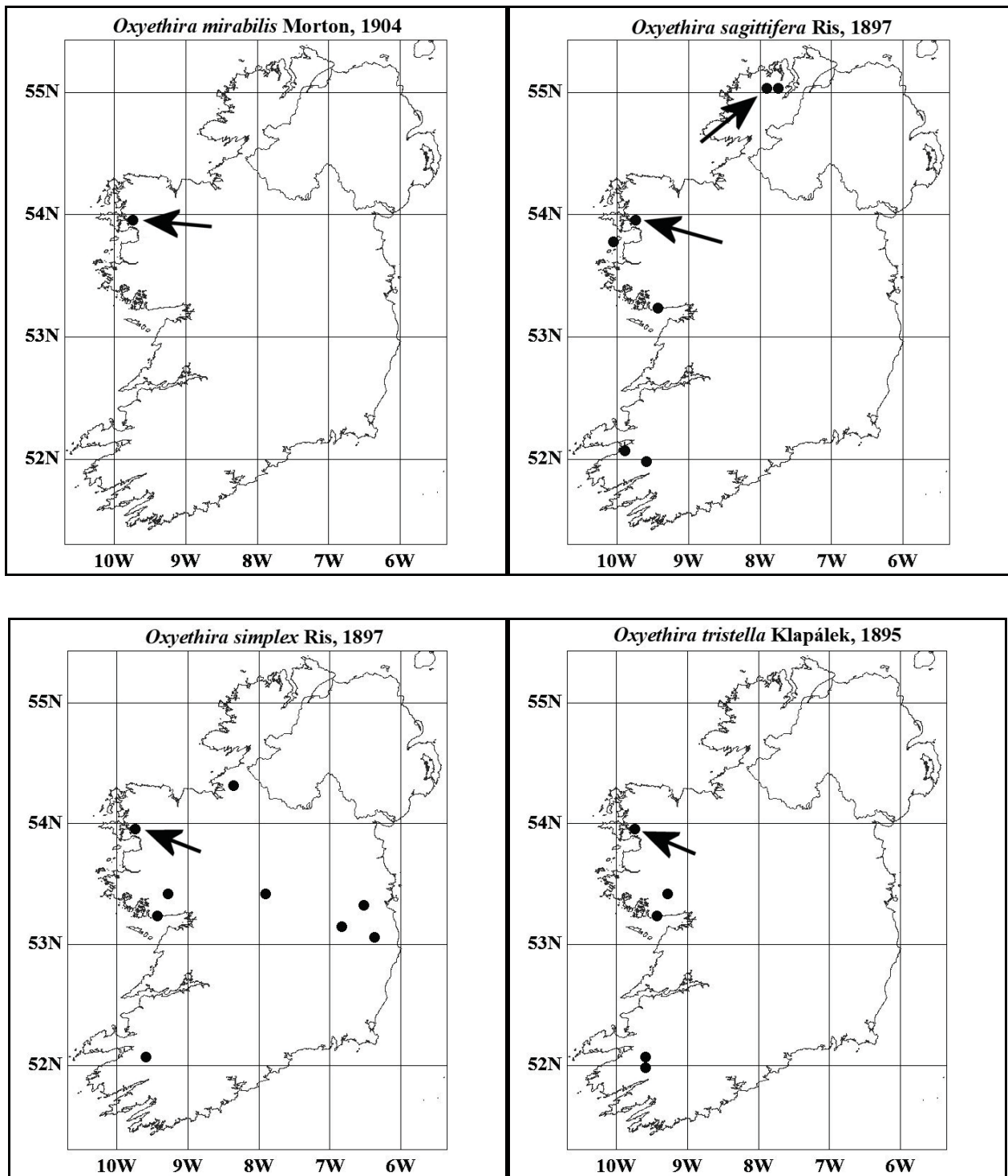
FIGURES 1-4. The known Irish distributions of *Agapetus fuscipes* Curtis, 1834, *Agapetus ochripes* Curtis, 1834, *Glossosoma boltoni* Curtis, 1834 and *Glossosoma conformis* Neboiss, 1963. The notable records are indicated by arrows.



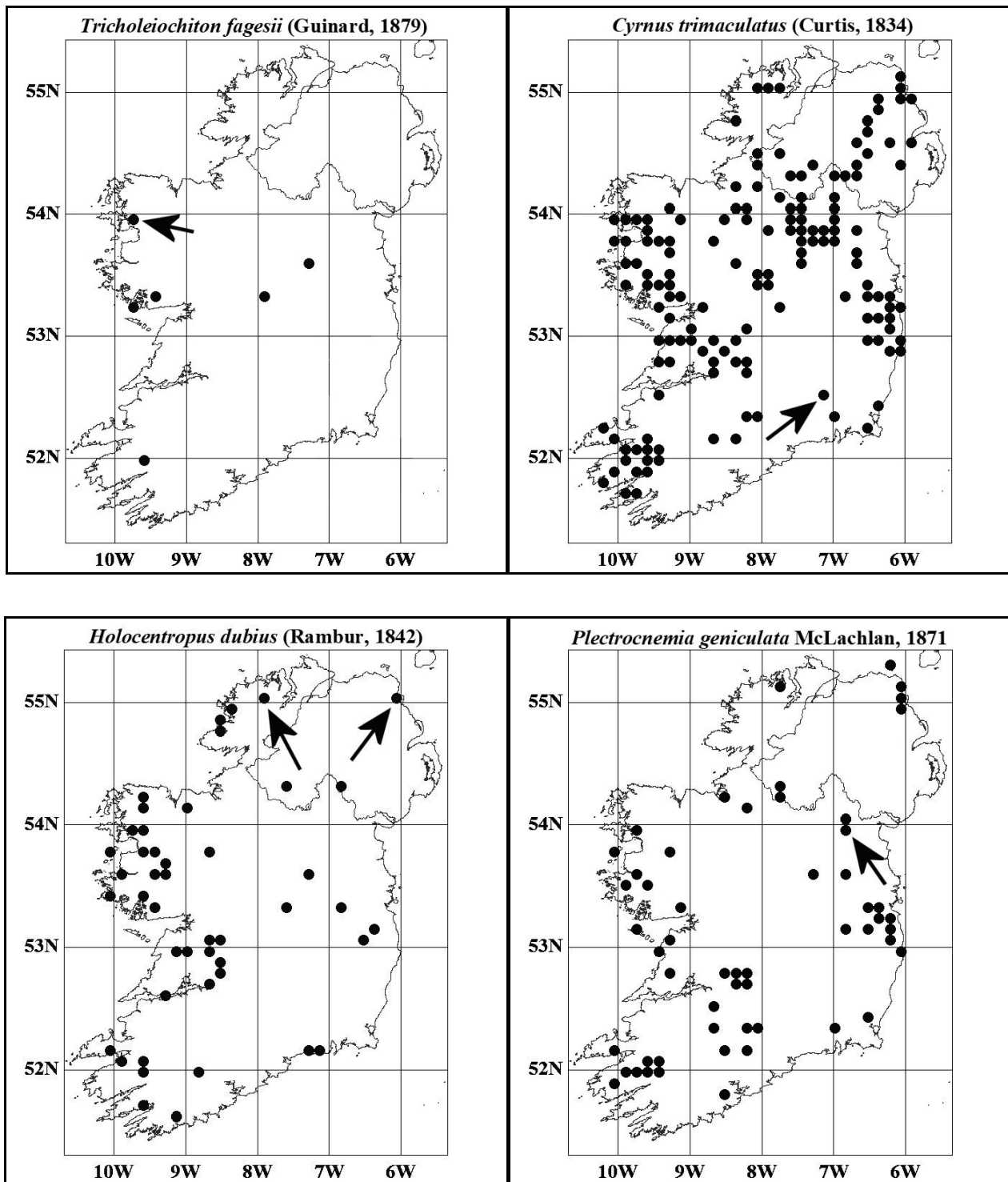
FIGURES 5-8. The known Irish distributions of *Hydroptila angulata* Mosely, 1922, *Hydroptila lotensis* Mosely, 1930, *Hydroptila martini* Marshall, 1977 and *Hydroptila simulans* Mosely, 1920. The notable records are indicated by arrows.



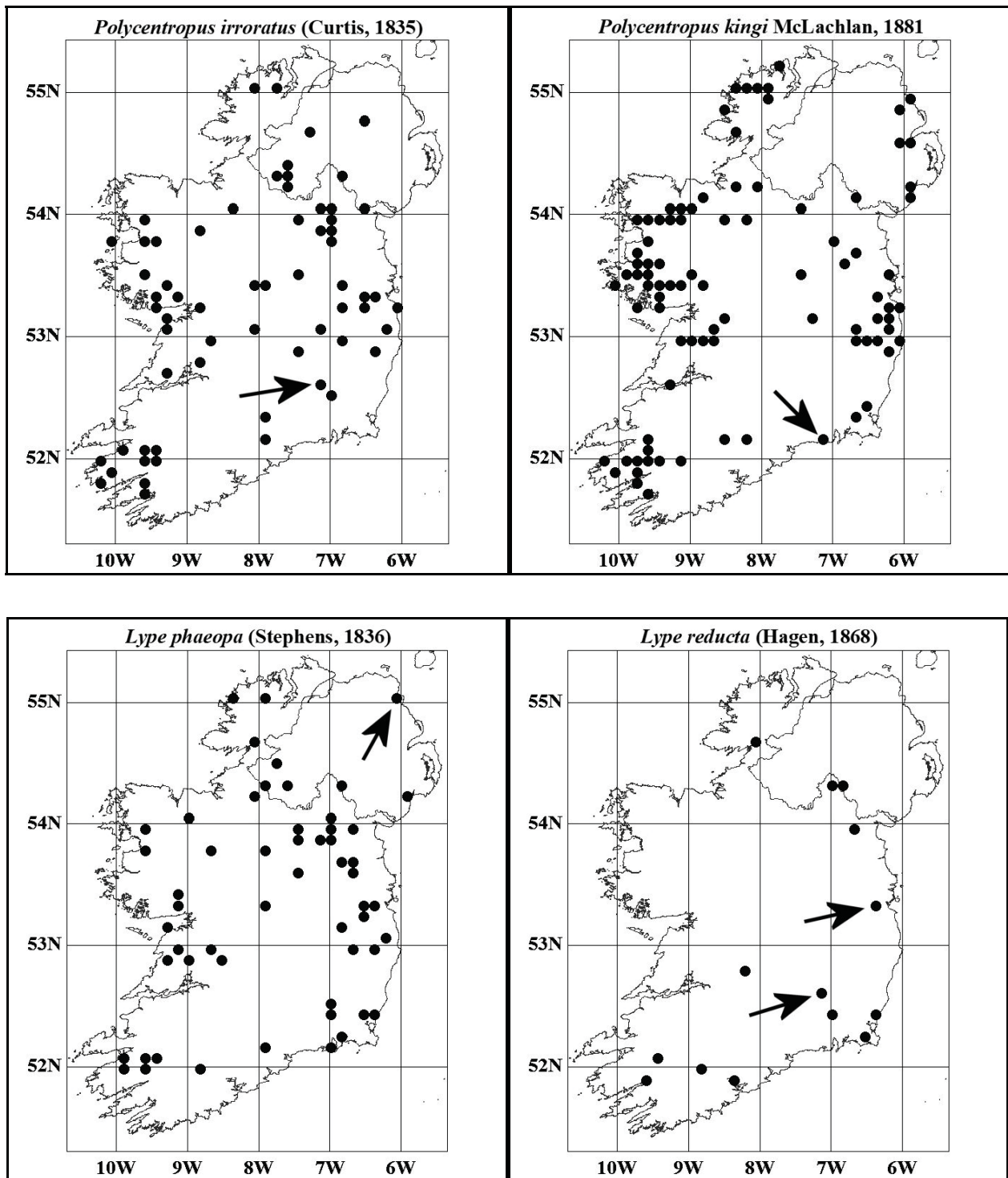
FIGURES 9-12. The known Irish distributions of *Hydroptila tineoides* Dalman, 1819, *Hydroptila vectis* Curtis, 1834, *Orthotrichia costalis* (Curtis, 1834) and *Oxyethira falcata* Morton, 1893. The notable records are indicated by arrows.



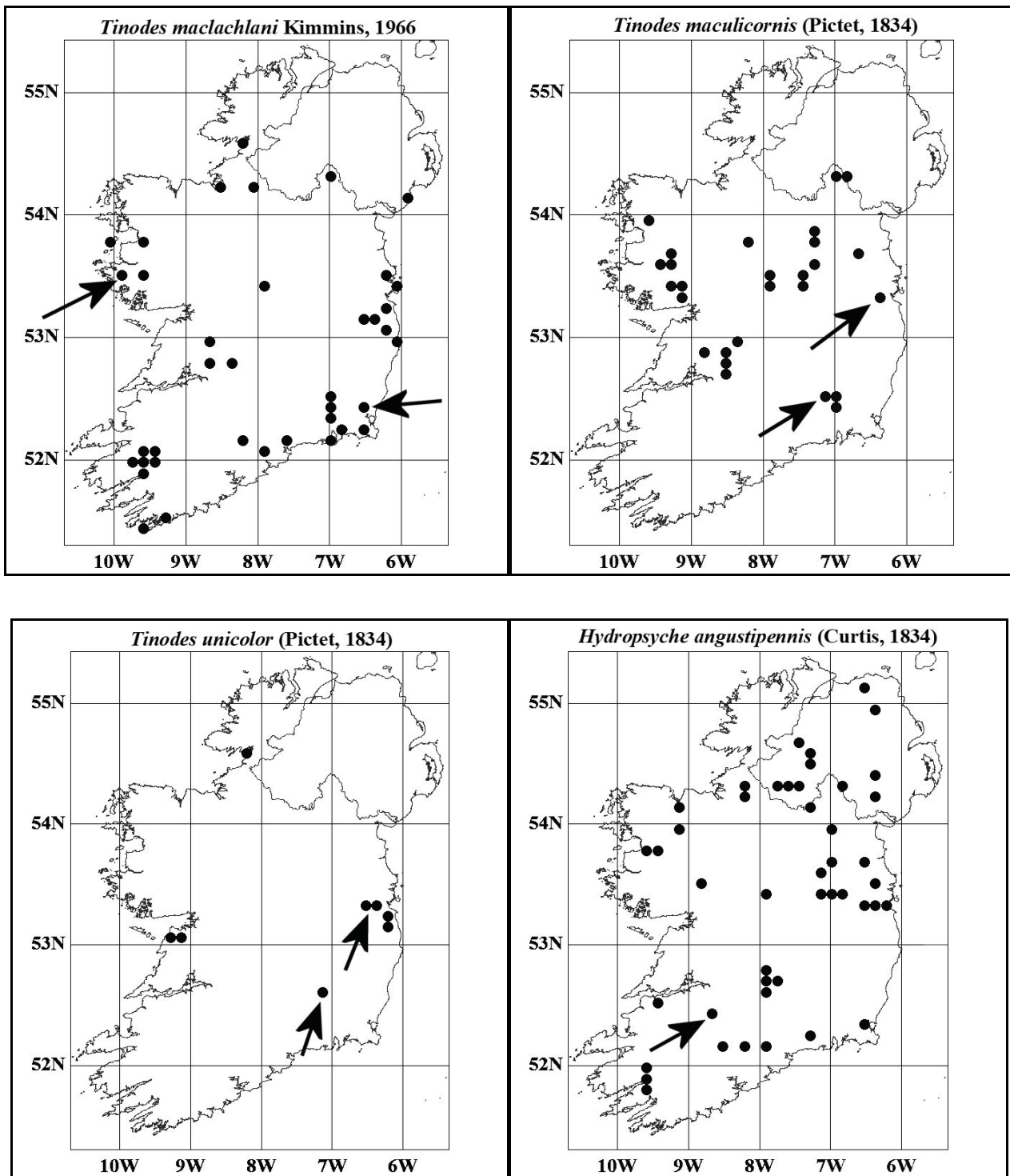
FIGURES 13-16. The known Irish distributions of *Oxyethira mirabilis* Morton, 1904, *Oxyethira sagittifera* Ris, 1897, *Oxyethira simplex* Ris, 1897 and *Oxyethira tristella* Klapálek, 1895. The notable records are indicated by arrows.



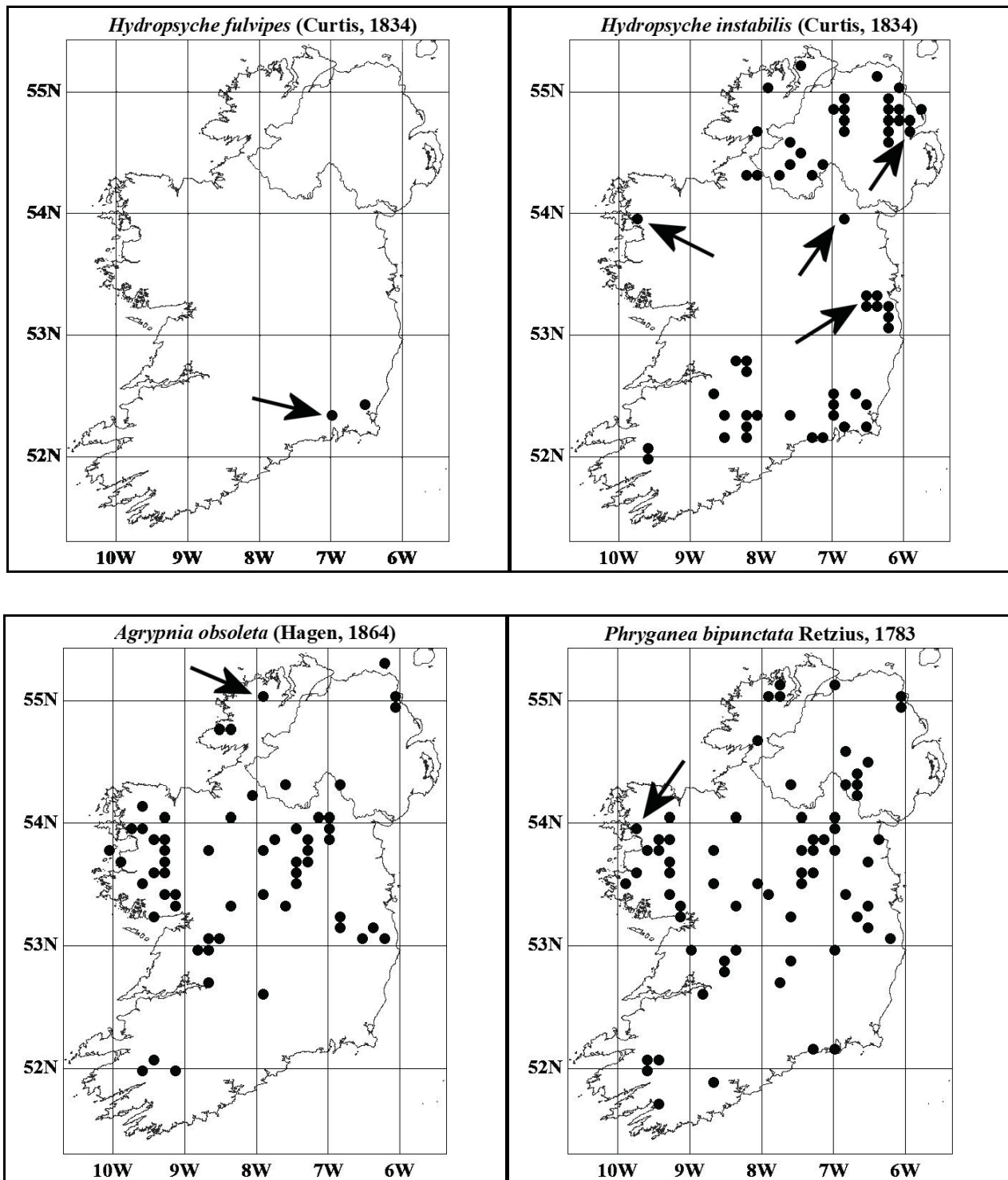
FIGURES 17-20. The known Irish distributions of *Tricholeiochiton fagesii* (Guinard, 1879), *Cynus trimaculatus* (Curtis, 1834), *Holocentropus dubius* (Rambur, 1842) and *Plectrocnemia geniculata* McLachlan, 1871. The notable records are indicated by arrows.



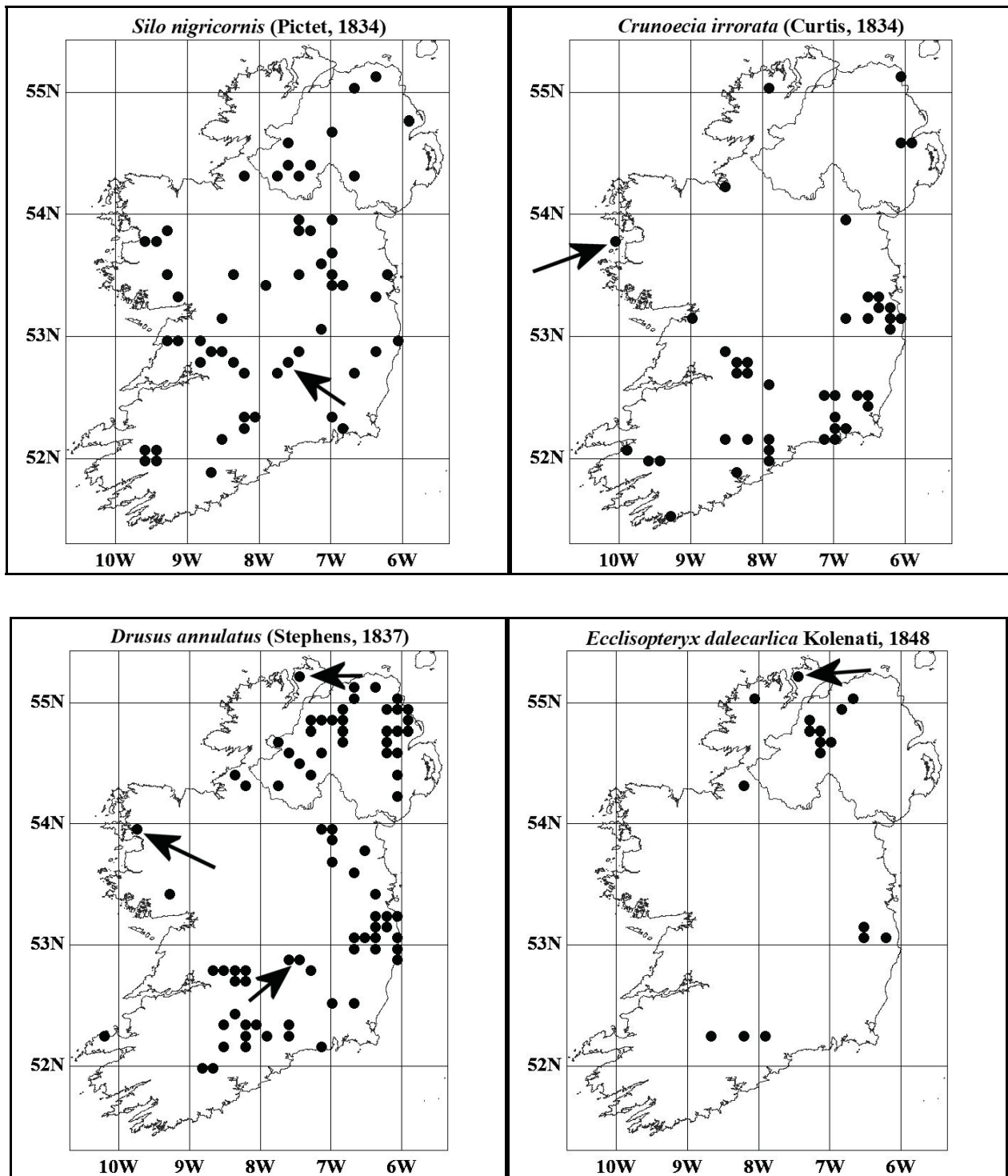
FIGURES 21-24. The known Irish distributions of *Polycentropus irroratus* (Curtis, 1835), *Polycentropus kingi* McLachlan, 1881, *Lype phaeopa* (Stephens, 1836) and *Lype reducta* (Hagen, 1868). The notable records are indicated by arrows.



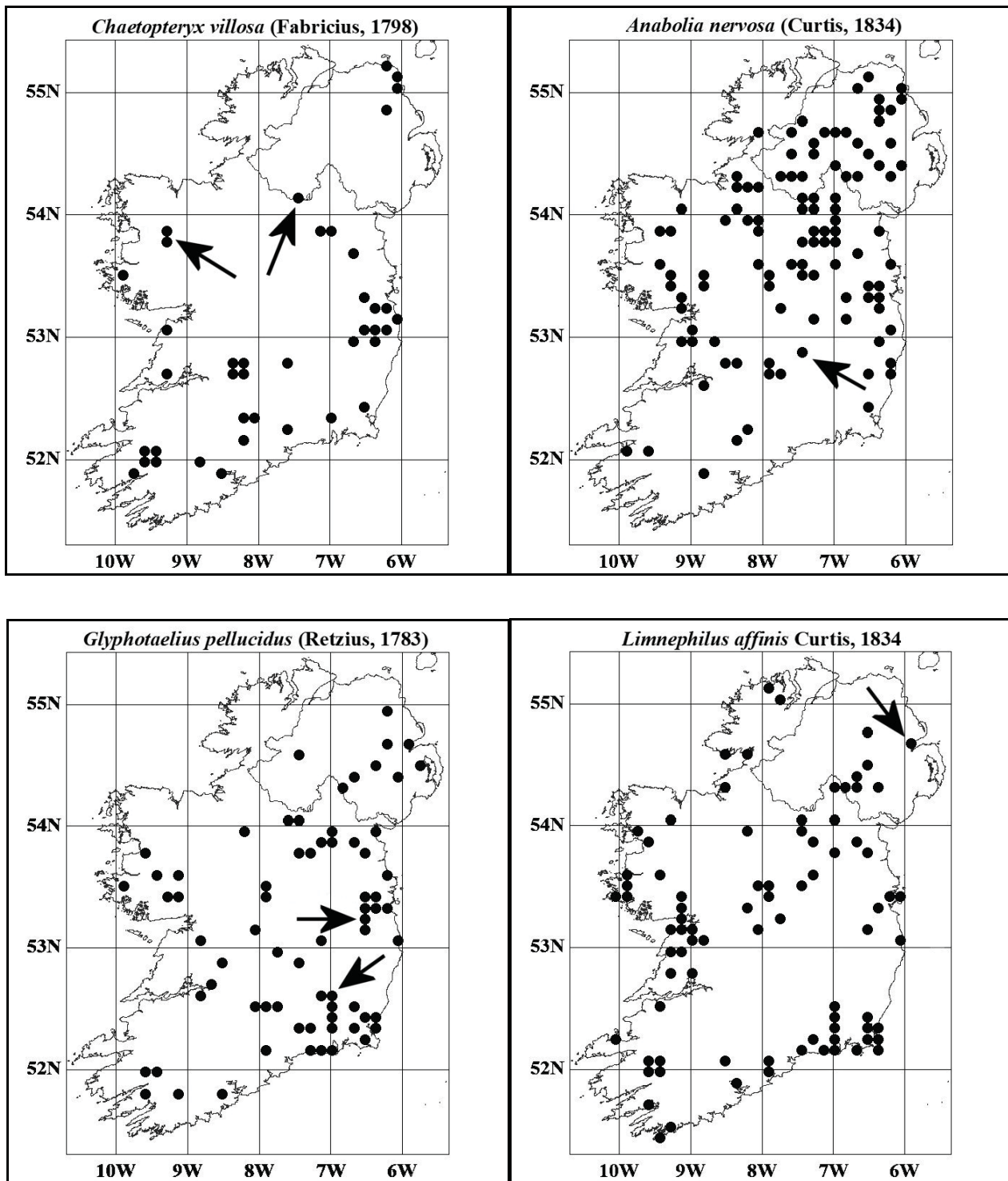
FIGURES 25-28. The known Irish distributions of *Tinodes maclachlani* Kimmins, 1966, *Tinodes maculicornis* (Pictet, 1834), *Tinodes unicolor* (Pictet, 1834) and *Hydropsyche angustipennis* (Curtis, 1834). The notable records are indicated by arrows.



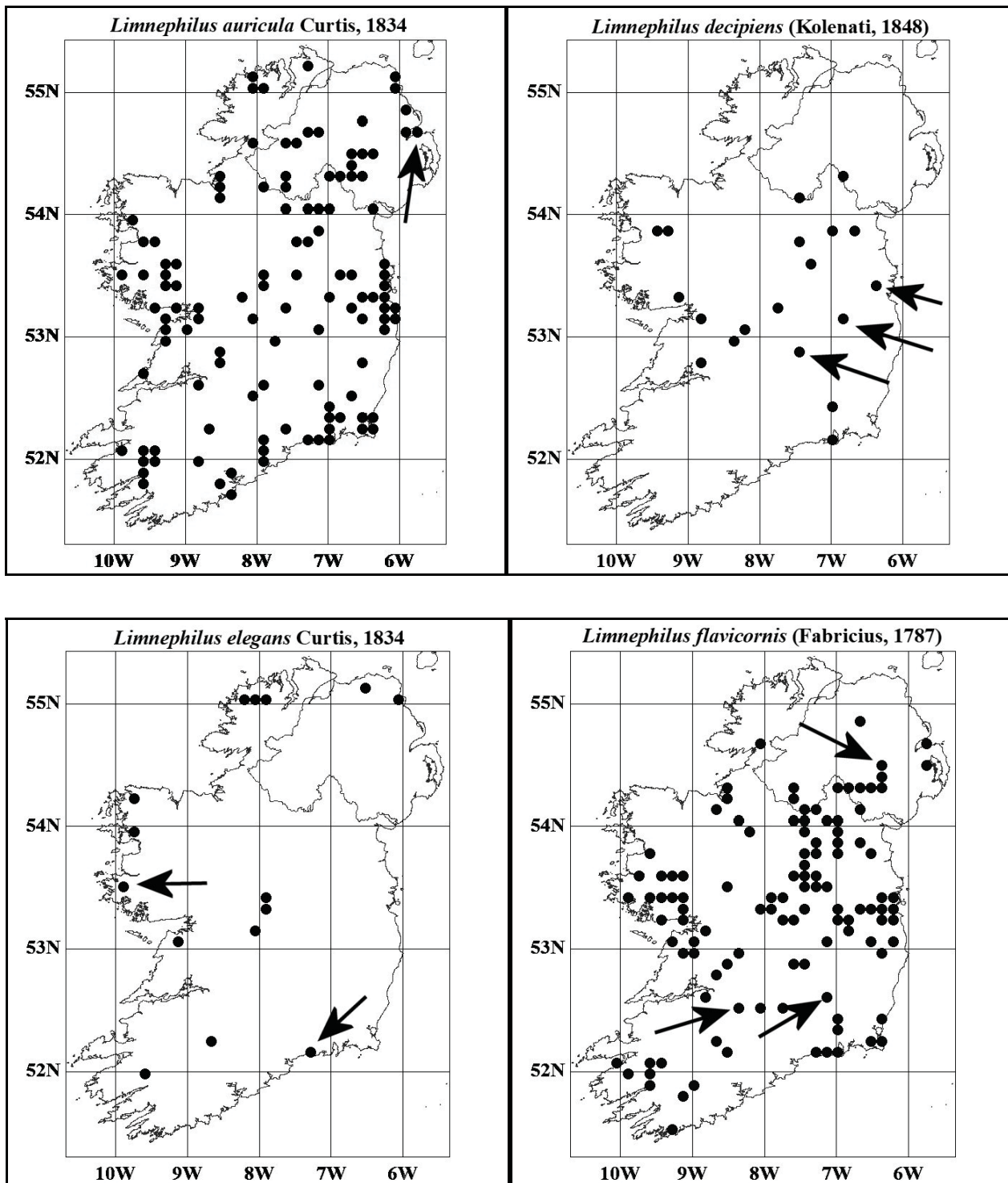
FIGURES 29-32. The known Irish distributions of *Hydropsyche fulvipes* (Curtis, 1834), *Hydropsyche instabilis* (Curtis, 1834), *Agrypnia obsoleta* (Hagen, 1864) and *Phryganea bipunctata* Retzius, 1783. The notable records are indicated by arrows.



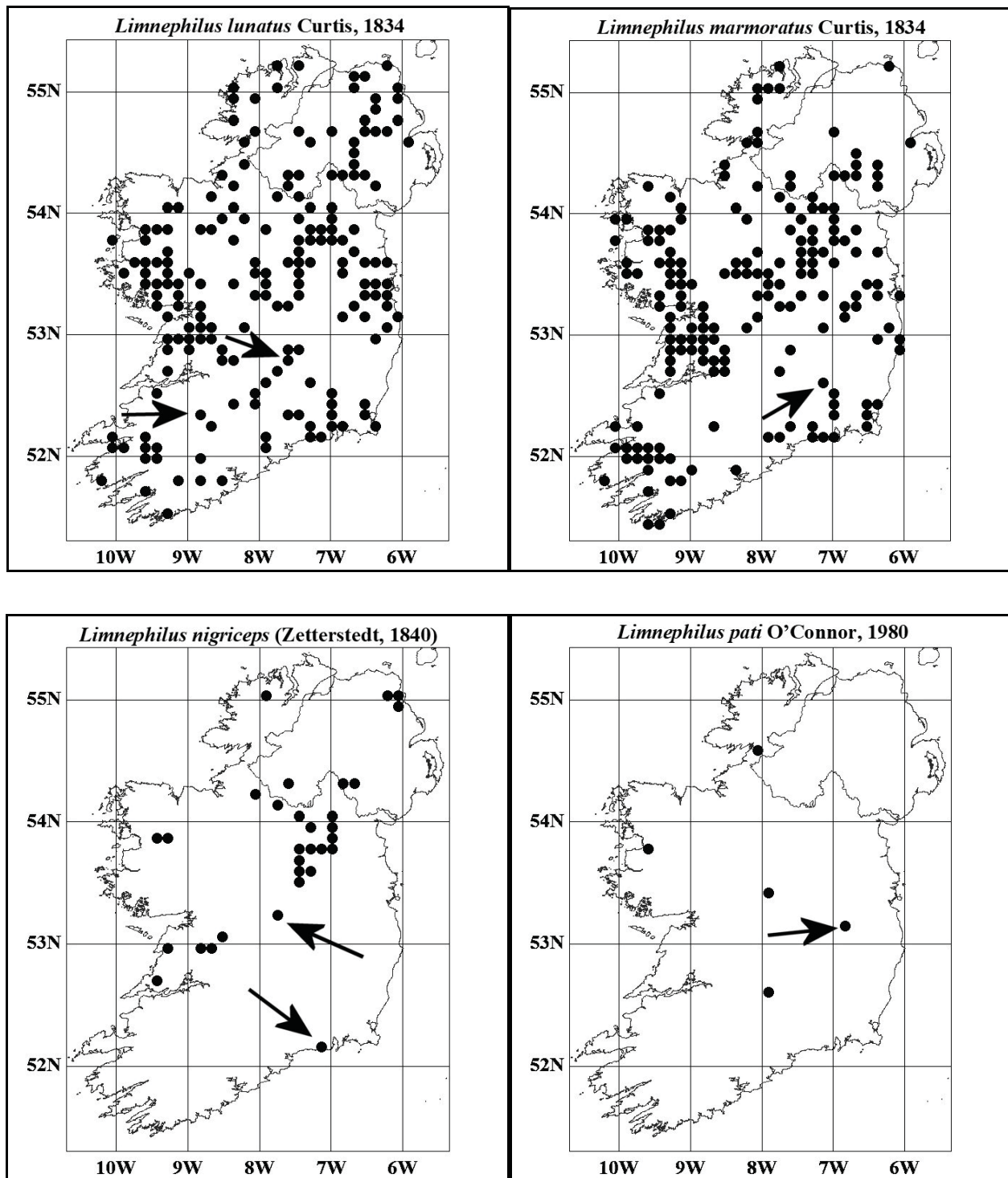
FIGURES 33-36. The known Irish distributions of *Silo nigricornis* (Pictet, 1834), *Crunoecia irrorata* (Curtis, 1834), *Drusus annulatus* (Stephens, 1837) and *Ecclisopteryx dalecarlica* Kolenati, 1848. The notable records are indicated by arrows.



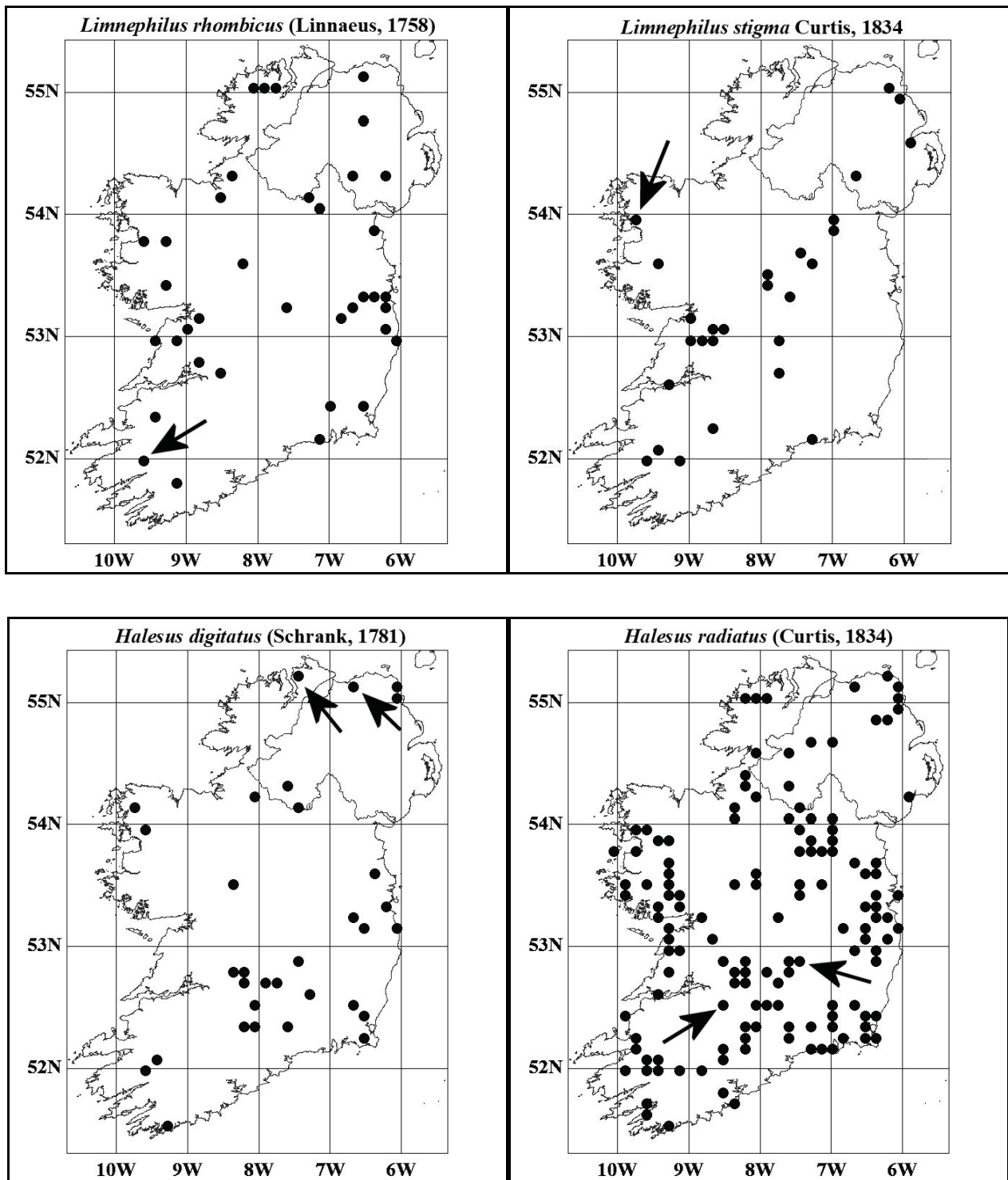
FIGURES 37-40. The known Irish distributions of *Chaetopteryx villosa* (Fabricius, 1798), *Anabolia nervosa* (Curtis, 1834), *Glyphotaelius pellucidus* (Retzius, 1783) and *Limnephilus affinis* Curtis, 1834. The notable records are indicated by arrows.



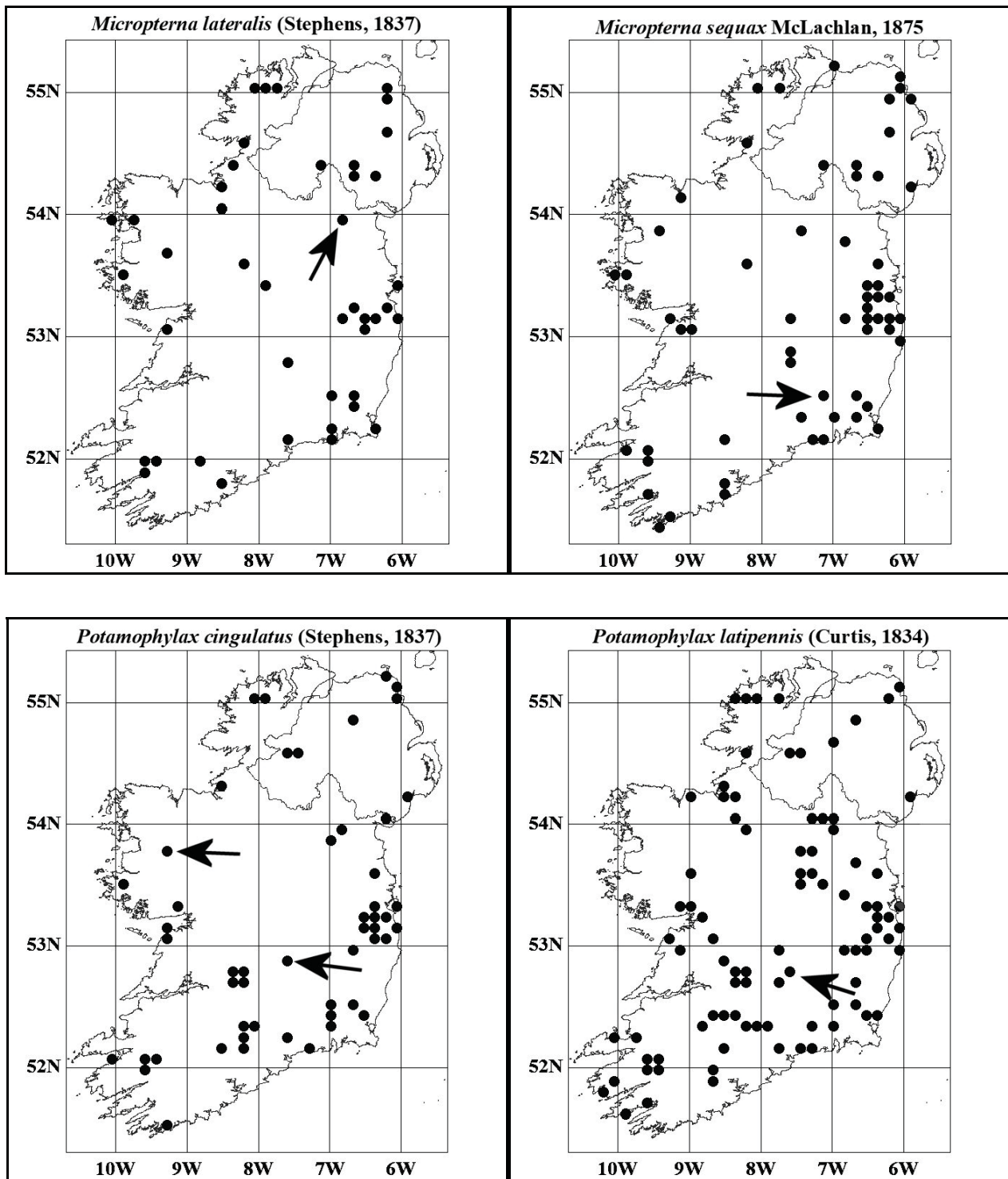
FIGURES 41-44. The known Irish distributions of *Limnephilus auricula* Curtis, 1834, *Limnephilus decipiens* (Kolenati, 1848), *Limnephilus elegans* Curtis, 1834 and *Limnephilus flavicornis* (Fabricius, 1787). The notable records are indicated by arrows.



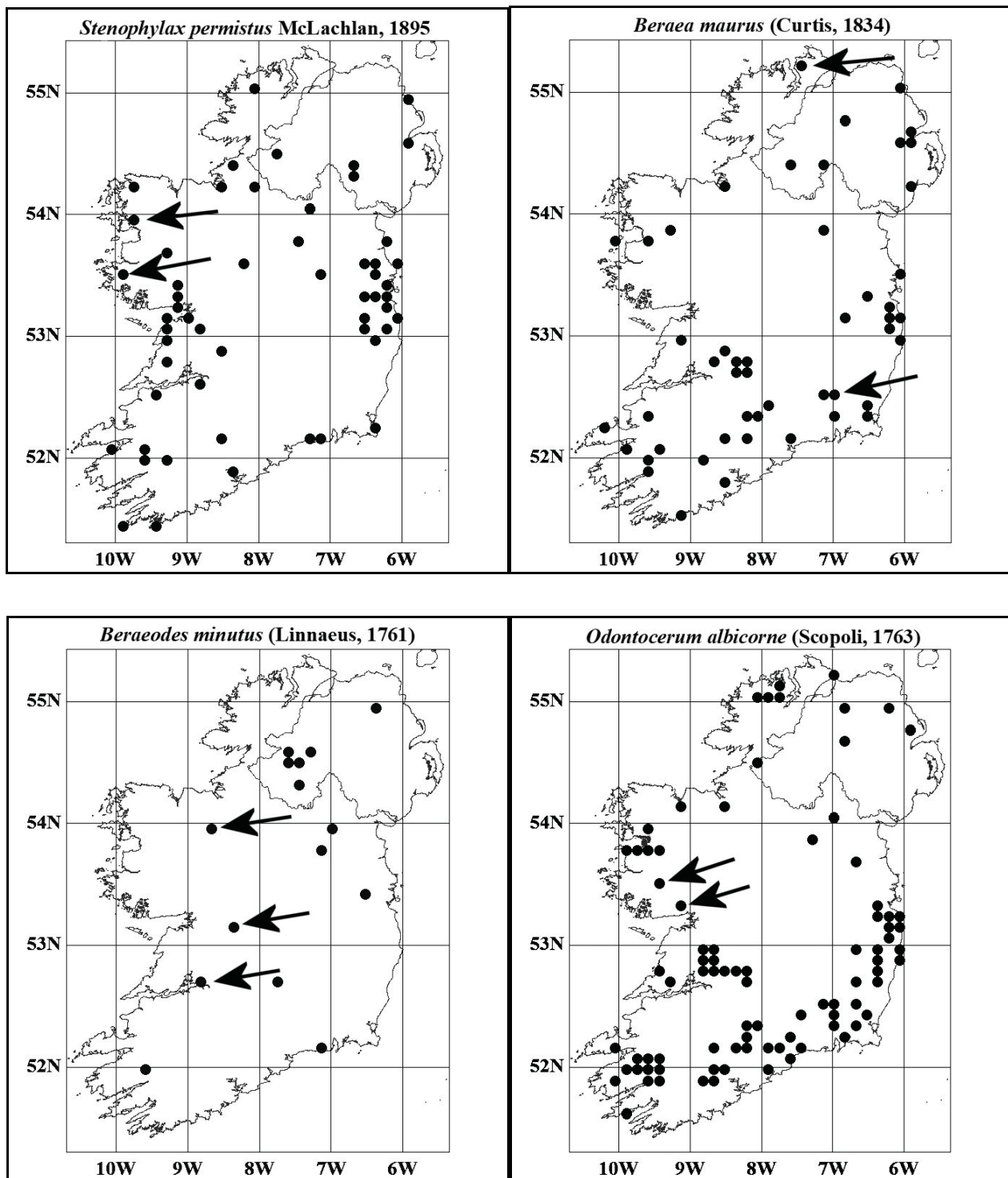
FIGURES 45-48. The known Irish distributions of *Limnephilus lunatus* Curtis, 1834, *Limnephilus marmoratus* Curtis, 1834, *Limnephilus nigriceps* (Zetterstedt, 1840) and *Limnephilus pati* O'Connor, 1980. The notable records are indicated by arrows.



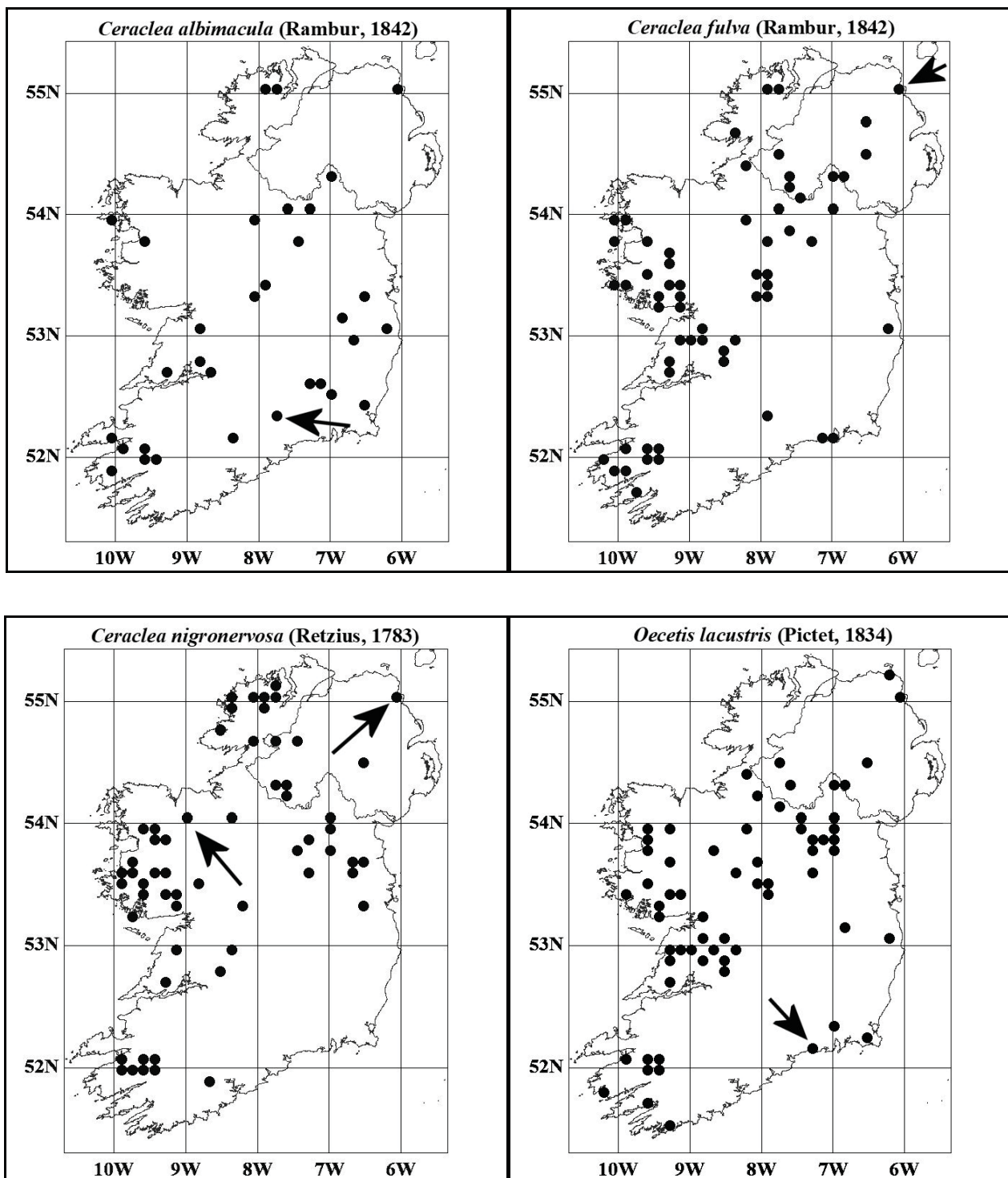
FIGURES 49-52. The known Irish distributions of *Limnephilus rhombicus* (Linnaeus, 1758), *Limnephilus stigma* Curtis, 1834, *Halesus digitatus* (Schränk, 1781) and *Halesus radiatus* (Curtis, 1834). The notable records are indicated by arrows.



FIGURES 53-56. The known Irish distributions of *Micropterna lateralis* (Stephens, 1837), *Micropterna sequax* McLachlan, 1875, *Potamophylax cingulatus* (Stephens, 1837) and *Potamophylax latipennis* (Curtis, 1834). The notable records are indicated by arrows.



FIGURES 57-60. The known Irish distributions of *Stenophylax permistus* McLachlan, 1895, *Beraea maurus* (Curtis, 1834), *Beraeodes minutus* (Linnaeus, 1761) and *Odontocerum albicorne* (Scopoli, 1763). The notable records are indicated by arrows.



FIGURES 61-64. The known Irish distributions of *Ceraclea albimacula* (Rambur, 1842), *Ceraclea fulva* (Rambur, 1842), *Ceraclea nigronevosa* (Retzius, 1783) and *Oecetis lacustris* (Pictet, 1834). The notable records are indicated by arrows.



FIGURE 65. The stream where *Hydropsyche fulvipes* was collected at Edenvale, County Wexford, based on the 25 inch map (1883-1913) from the Ordnance Survey Ireland. The stream and the Sow River are in blue, the woodland in green and the paths in grey. The site of capture is indicated by an arrow.



PLATE 1. An aerial photograph of the woodland containing the stream at Edenvale, County Wexford, 2018. The gap in the woodland shown in Fig. 65 has become overgrown. Photograph © National Biodiversity Data Centre, Waterford.



PLATE 2. The stream in Oaklands (Kelly's) Wood, County Wexford where the second Irish specimen of *Hydropsyche fulvipes* was trapped. Photograph © M. A. O'Connor



PLATE 3. Galboly Lough, Garron Plateau, County Antrim, one of the new sites for *Limnephilus borealis*. Photograph © Cathal McNaughton.



PLATE 4. Pollardstown Fen, County Kildare where *Limnephilus pati* was found. Photograph © Catherine O'Connell, Irish Peatland Conservation Council <www.ipcc.ie>.