

FURTHER DISTRIBUTIONAL AND FLIGHT-PERIOD RECORDS FOR IRISH CADDISFLIES (TRICHOPTERA)

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Abstract

New research has extended the distributions and flight-periods of many Irish caddisfly species (Trichoptera). Numerous new county records are included. The known ranges of a large number of species have been greatly increased. The expansion in the range of *Leptocerus tineiformis* is particularly noteworthy.

Key words: Trichoptera, caddisflies, Ireland, distribution, flight-periods.

Introduction

Since the publication of previous information on the distribution of the Irish Trichoptera (O'Connor, 2015; O'Connor and O'Connor, 2016), further progress has been made in studying these insects. *Trichostegia minor* (Curtis, 1834) has been added to the Irish list while *Glossosoma conformis* Neboiss, 1963, *Agraylea sexmaculata* Curtis, 1834, *Hydropsyche contubernalis* McLachlan, 1865, *Agrypnia varia* (Fabricius, 1793), *Apatania muliebris* McLachlan, 1866, *Limnephilus hirsutus* (Pictet, 1834), *Limnephilus ignavus* McLachlan, 1865, *Ceraclea albimacula* (Rambur, 1842) and *Leptocerus tineiformis* Curtis, 1834 have been reported for the first time from Northern Ireland (O'Connor, 2017; O'Connor and McNaughton, 2017a, b; O'Connor, McNaughton, and Langton, 2017; O'Connor and O'Connor, in press). In addition, on 27 June 2017, Martin Gammell of the Galway-Mayo Institute of Technology kindly informed JPOC that a photograph of a putative Irish specimen of *Hagenella clathrata* (Kolenati, 1848) (Phryganeidae) had appeared on Facebook for identification. The adult was photographed by Tina Claffey on 22 May 2016 in wet woodlands beside Abbeylax Bog (S4383), County Laois (Claffey personal communication, 2017) (Fig. 68). A voucher specimen for confirmation of its identity has yet to be collected. Additional discussion concerning this find will be found under the entry for *?Hagenella clathrata* (Kolenati, 1848).

In this paper, further distributional records are presented. In addition, it has been possible to extend the known flight-periods of many species. Numerous new county records are noted. Most of the data are based on specimens taken in 2017 but some older material has also been examined. Unless otherwise stated, specimens were identified by the senior author using the

following keys: Wallace, Wallace and Philipson (2003), Malicky (2004), Barnard and Ross (2012), Waringer and Graf (2011). The Irish counties are shown (Fig. 62).

RHYACOPHILDAE

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

DUBLIN: River Liffey opposite the Strawberry Hall, Strawberry Beds (O0735), ♂ 4 April 2017, M. A. O'Connor.

The above specimen was taken ten days before the earliest published date of 14 April (O'Connor, 2015)

GLOSSOSOMATIDAE

***Agapetus delicatulus* McLachlan, 1884 New to County Laois (Fig. 1)**

LAOIS: stream near Vicarstown (N5803), 2♂♂ 3 August 1986, swept from vegetation beside the stream, J. P. O'Connor.

***Agapetus fuscipes* Curtis, 1834 New to County Laois (Fig. 2)**

LAOIS: stream near Vicarstown (N5803), 2♂♂ 3 August 1986, swept from vegetation beside the stream, J. P. O'Connor.

***Glossosoma conformis* Neboiss, 1963 (Fig. 3)**

Cathal McNaughton discovered *Glossosoma conformis* new to Northern Ireland at two sites on the Glenariff River (D1821, D2020), County Antrim, in July 2017 (O'Connor, McNaughton and Langton, 2017).

HYDROPTILIDAE

***Agraylea sexmaculata* Curtis, 1834 (Figs 4 and 75)**

Agraylea sexmaculata was recently discovered at Lough Tullynagee, County Down (J4763). The species was new to Northern Ireland (O'Connor and O'Connor, in press).

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

DONEGAL: Glenveagh National Park (C0323), 2♀♀ 10-30 July 1998, Malaise trap near *Salix* swamp near the Owencarrow River and Lough Beagh, M. C. D. Speight.

The Donegal record represents a major extension in the Irish range of *Hydroptila angulata*.

***Hydroptila cornuta* Mosley, 1922 New to County Kilkenny (Fig. 6)**

KILKENNY: River Nore, Inistioge (S6337), 3♂♂ 10 August 2017, swept from bankside vegetation, J. P. O'Connor and M. A. O'Connor.

TIPPERARY: River Suir, Carrick-on-Suir (S3921), 5♂♂ 17 August 2017, swept from bankside vegetation, J. P. O'Connor and M. A. O'Connor.

Previously only known in County Tipperary from Gortmore (Lough Derg).

***Hydroptila forcipata* (Eaton, 1873) New to County Derry (Londonderry) (Fig. 7)**

DERRY (LONDONDERRY): White Rocks Bay (C8840), ♂ 28 May 2017, swept at stream which drops down to the beach, Charlie McConaghy, determined by P. H. Langton.

This is the most northerly record in Ireland.

***Hydroptila martini* Marshall, 1977 New to County Laois (Fig. 8)**

KERRY: Blue Pool area, Killarney (V9786), ♀ 30 August 1987, J. P. O'Connor.

There are two males from Killarney in the Natural History Museum, London. These were collected by J. J. F. X. King in July 1887 but no precise locality was given (O'Connor, 2015). The Blue Pool male is the first localised specimen from County Kerry.

LAOIS: Abbeyleix Bog (S4383), 2♀♀ 14 July 2017, swept from beside a stream in wet woodland, M. A. O'Connor.

***Hydroptila simulans* Mosely, 1920 New to County Tipperary (Fig. 9)**

TIPPERARY: River Suir, Carrick-on-Suir (S3921), 2♂♂ 17 August 2017, swept from bankside vegetation, J. P. O'Connor and M. A. O'Connor.

Hydroptila simulans is now known from the three sister rivers of the south-east (the Barrow, Nore and Suir).

***Ithytrichia lamellaris* Eaton, 1873 New to County Laois (Fig. 10)**

LAOIS: Abbeyleix Bog (S4383), 2♀♀ 1 July 2017, light-trap 15w Actinic, Martin Gammell and Caitriona Carlin.

***Orthotrichia angustella* (McLachlan, 1865) (Fig. 11)**

KERRY: Lough Currane near Waterville (V5265), 3♂♂2♀♀ 6 August 1973, J. P. O'Connor.

To-date, this record is the most southern one in Ireland.

PHILOPOTAMIDAE

***Philopotamus montanus* (Donovan, 1813)**

CARLOW: St Mullins (S7238), 8♂♂ 14 August 2017, swept from beside a stream and waterfall, J. P. O'Connor and M. A. O'Connor.

Previously known in County Carlow from a River Slaney record in 1946.

POLYCENTROPIDAE

***Cyrnus trimaculatus* (Curtis, 1834) (Figs 12)**

ANTRIM: Glenarm River, lower river (D3014), 2♂♂ 12 July 2017, C. McNaughton; Lough Fad, Garron Plateau (D2419), ♂ 11 July 2017, C. McNaughton; Lough na Trosk, Garron Plateau (D2719), ♂ 11 July 2017, C. McNaughton.

These are the most northerly records in north-east Ireland.

***Holocentropus dubius* (Rambur, 1842) New to County Waterford (Fig. 13)**

WATERFORD: Ballyscanlan Lough (S5402), ♀ 20 June 2017 and ♂ 2 July 2017, 15w actinic light-trap, T. Bryant; Carrickavrantry Reservoir (S5502), ♀ 26 June 2017, T. Bryant.

These are the first records from south-east Ireland.

***Holocentropus picicornis* (Stephens, 1836) New to County Down (Figs 14 and 74)**

DOWN: Castlewellan Lake (J3336), ♀ 19 June 2017, swept from vegetation beside the lake, J. P. O'Connor and M. A. O'Connor.

This is the first record from north-east Ireland.

WATERFORD: Belle Lake (S6605), 2♂♂ 7 May 2017, landed on a boat on the lake, Alan Walshe.

The Waterford specimens were taken 21 days before the earliest published date of 28 May (O'Connor, 2015)

WEXFORD: Johnstown Castle, Garden Lake (T0116), ♂ 15 August 2017 and Lower Lake (T0216), 2♀♀ 15 August 2017, swept from vegetation beside the lakes, J. P. O'Connor.

***Plectrocnemia geniculata* McLachlan, 1871 (Fig. 15)**

ANTRIM: Ally Lough, Rathlin Island (D15497), ♂ 5 July 2004, collected and determined by P. H. Langton.

This is the most northerly record in Ireland.

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

KERRY: Lough Leane, Golf Course shore, Killarney (V9291), ♀ 20 October 1994, J. P. O'Connor.

The above specimen was taken 20 days after the latest published date of 30 September (O'Connor, 2015).

***Polycentropus irroratus* (Curtis, 1835) New to Counties Carlow and Laois (Fig. 16)**

CARLOW: St Mullins (S7238), ♂ 14 August 2017, swept from beside a stream and waterfall, M. A. O'Connor.

LAOIS: Abbeyleix Bog (S4383), ♀ 14 July 2017, swept from vegetation beside a stream in wet woodland, M. A. O'Connor.

PSYCHOMYIIDAE

***Lype phaeopa* (Stephens, 1836) New to County Down (Fig. 17)**

DOWN: Castlewellan Lake (J3336), 2♂♂♀ 18-19 June 2017, swept from vegetation beside the lake, J. P. O'Connor and M. A. O'Connor.

This is the first record from north-east Ireland.

***Lype reducta* (Hagen, 1868) (Figs 18 and 74)**

WEXFORD: Johnstown Castle, Lower Lake (T0216), ♀ 15 August 2017, swept from vegetation, J. P. O'Connor.

There are few records of adults in Ireland. A female was previously taken at nearby Curracloe.

***Tinodes maclachlani* Kimmins, 1966 New to County Sligo (Fig. 19)**

SLIGO: Knocknarea Glen near Strandhill (G6333), larva 4 March 1985, collected from trickles on a cliff face, J. P. O'Connor.

WEXFORD: Johnstown Castle, stream exiting Garden Lake (T0116), ♂♀ 15 August 2017, J. P. O'Connor.

***Tinodes maculicornis* (Pictet, 1834) New to County Tipperary (Fig. 20)**

TIPPERARY: The Hatchery, Kilmastulla River (R6867), 3♀♀ 13 September 1976, M. A. O'Connor.

***Tinodes waeneri* (Linnaeus, 1758) (Fig. 21)**

ANTRIM: Dall River, Cushendall golf course (D2327), 4♂♂♀ 18 July 2017; Glenarm River, lower river (D3014), 2♂♂ 12 July 2017; Lough Fad, Garron Plateau (D2419), ♂ 11 July 2017; Lough na Trosk, Garron Plateau (D2719), ♂♀ 11 July 2017. All C. McNaughton.

These are the most northerly records in north-east Ireland.

HYDROPSYCHIDAE

***Hydropsyche angustipennis* (Curtis, 1834) (Fig. 22)**

WATERFORD: Knockaderry Reservoir (S4906), 18♂♂ 13 August 2017, the males were swarming behind a tree trunk at the reservoir's outflow, J. P. O'Connor.

There is an old record from near Lismore, County Waterford (King, 1888).

***Hydropsyche contubernalis* McLachlan, 1865 (Fig. 23)**

Discovered in Coleraine (C8530), County Derry (Londonderry) by Peter Langton (O'Connor, McNaughton and Langton, 2017).

***Hydropsyche instabilis* (Curtis, 1834) (Fig. 24)**

ANTRIM: Clogh River (D1314), ♀ 21 June 2017; Glenariff River (D2122), ♂ 20 June 2017, (D2020), 3♂♂2♀♀ 6 July 2017; River Dall (D2327), ♀ 23 September 2017. All C. McNaughton.

These are the first adult records from north-east Ireland.

PHRYGANEIDAE

***Agrypnia obsoleta* (Hagen, 1864) New to County Antrim (Figs 25 and 69)**

ANTRIM: Manor House, Rathlin Island (D1451), ♂ 11 August 2007, collected and determined

by P. H. Langton; Lough na Trosk, Garron Plateau (D2719), light-trap 3♂♂ 1 August 2017, C. McNaughton.

***Agrypnia varia* (Fabricius, 1793) (Fig. 26)**

In July 2017, Cathal McNaughton discovered *Agrypnia varia* new to Northern Ireland at Lough Fine on the Garron Plateau (D2520), County Antrim (O'Connor, McNaughton and Langton, 2017).

[?Hagenella clathrata (Kolenati, 1848) requiring confirmation (Figs 27 and 68)

LAOIS: photographed in wet woodlands beside Abbeyleix Bog (S4383), adult 22 May 2016, T. Claffey.

Despite the photograph showing that the Abbeyleix specimen has testaceous legs, very characteristic of *Hagenella clathrata*, the slim possibility exists that the individual could be the widely distributed European *Oligostomis reticulata* (Linnaeus, 1761) although this species is reported to have pitchy-black legs (McLachlan, 1874-1884). However, if this is a reliable means of separation for photographed specimens, then there are clearly misidentified specimens of *Hagenella clathrata* under the name *Oligostomis reticulata* on Google images. Examination of the genitalia of a collected Irish specimen will resolve this problem.]

***Phryganea bipunctata* Retzius, 1783 New to Derry (Londonderry) (Fig. 28)**

DERRY (LONDONDERRY): Binevenagh Lake (C6930), ♂ 18 May 2000, collected and determined by P. H. Langton.

The Binevenagh record is the most northerly one in Northern Ireland.

WATERFORD: Belle Lake (S6605), ♂ 7 May 2017, landed on a boat on the lake, A. Walshe.

The Waterford specimen was taken five days before the earliest published date of 12 May (O'Connor, 2015). In County Waterford, *Phryganea bipunctata* was previously only known from a larva taken in the Annestown River Valley Reserve (O'Connor, 2015).

***Phryganea grandis* Linnaeus, 1758 New to County Waterford (Fig. 29)**

WATERFORD: Ballyscanlan Lough (S5402), ♀ 20 June 2017 and ♂ 6 July 2017, 15w actinic light-trap, T. Bryant.

These are the first records from south-east Ireland.

***Trichostegia minor* (Curtis, 1834) (Fig. 30)**

Trichostegia minor was confirmed as an Irish species based on adults taken on 17 July 2016 at Mullaghboy, Lough Sheelin (N4285), County Cavan (O'Connor and McNaughton, 2017a).

GOERIDAE

***Goera pilosa* (Fabricius, 1775) New to County Down (Fig. 31)**

DOWN: Castlewellan Lake (J3336), 8♂♂ 18-19 June 2017, swept from vegetation beside the lake, J. P. O'Connor and M. A. O'Connor.

This is the first record from north-east Ireland.

WATERFORD: Belle Lake (S6605), 2♂♂2♀♀ 3 August 2016, Heath portable light-trap, J. P. O'Connor and M. A. O'Connor.

This is the first record for south Waterford.

***Silo nigricornis* (Pictet, 1834) New to County Laois (Fig. 32)**

LAOIS: stream near Vicarstown (N5803), ♂ 3 August 1986, J. P. O'Connor.

The Laois occurrence is from a large area with no previous records.

APATANIIDAE

***Apatania muliebris* McLachlan, 1866 (Fig. 33)**

A female of the parthenogenetic *Apatania muliebris* McLachlan, 1866 was taken in 2016 in a Malaise trap in a woodland area west of Toomebridge, Lough Neagh, County Derry (Londonderry) (H9790) (O'Connor, 2017). This is the most northerly Irish record.

LIMNEPHILIDAE

***Drusus annulatus* (Stephens, 1837) (Fig. 34)**

WATERFORD: Keiloge River, Carbally Church (S6401), ♂ 21 October 2016, netted by stream, T. Bryant.

The above specimen was taken 17 days after the latest published date of 4 October (O'Connor, 2015).

***Anabolia nervosa* (Curtis, 1834) New to County Limerick (Fig. 35)**

LIMERICK: Curragh Chase Forest Park (R4149), 2♂♂ 3-4 October 2016, J. Brophy.

***Glyptotaelius pellucidus* (Retzius, 1783) New to County Down (Figs 36 and 75)**

ANTRIM: Martinstown [Clogh River] (D1314), 2♀♀ 21 June 2017, C. McNaughton.

This is the most northerly Irish record.

DOWN: Lough Tullynagee (J4763), ♂ 18-19 June 2017, Heath portable light-trap in a garden overlooking the lake, J. P. O'Connor and M. A. O'Connor.

***Limnephilus affinis* Curtis, 1834**

KERRY: Lough Leane, Golf Course shore, Killarney (V9291), ♀ 20 October 1994, J. P. O'Connor.

The above specimen was taken 6 days after the latest published date of 14 October (O'Connor, 2015).

***Limnephilus auricula* Curtis, 1834 New to County Antrim (Fig. 37)**

ANTRIM: upper reaches of Glenariff River (D2020), ♀ 6 July 2017, C. McNaughton.

This Antrim record is the most northerly occurrence in north-east Ireland.

KERRY: Lough Leane, Golf Course shore, Killarney (V9291), ♀ 20 October 1994, J. P. O'Connor.

This Kerry specimen was taken eight days after the latest published date of 12 October (O'Connor, 2015).

***Limnephilus centralis* Curtis, 1834 New to County Antrim (Fig. 38)**

ANTRIM: Parkmore, tributary of Glenariff River (D1821), ♂ 8 July 2017, C. McNaughton.

There are few records of this species from Northern Ireland and this Antrim one is the most northerly occurrence in north-east Ireland.

***Limnephilus decipiens* (Kolenati, 1848) New to County Tipperary (Fig. 39)**

There were few records of Irish adults in O'Connor (2015). Since then, the following specimens have been collected.

CAVAN: Mullaghboy, Lough Sheelin (N4285), ♀ 21 May 2017, light-trap, C. McNaughton.

The Cavan specimen was taken 75 days before the earliest published date of 4 August (O'Connor, 2015).

GALWAY: Lough Corrib, Hurney's Point (M2531), 2♀♀ 25 September 2003, light-trap, K. G. M. Bond; near Castle Demense, Saint Joseph's Road, Portumna (M8404), ♀ 26 October 2016, J. Brophy.

TIPPERARY: Kilgarvan Quay, Ballinderry (R8297), *Phragmites* in Lough Derg, ♂ 27 October 2016, J. Brophy.

The Tipperary specimen was taken 25 days after the latest published date of 2 October (O'Connor, 2015).

WATERFORD: Belle Lake (S6604), ♀ 14 June 2017, on a boat on the lake, A. Walshe (O'Connor and Walshe, in press).

This was the first record from south-east Ireland.

***Limnephilus hirsutus* (Pictet, 1834) New to County Cavan (Fig. 40)**

CAVAN: Boyher (N4285), light-trap ♂ 28 July 2017, field near Lough Sheelin, C. McNaughton.

Limnephilus hirsutus is a seepage specialist and its somewhat immature habitats force the adults to disperse widely and consequently to be light-trapped. Adults were also recently discovered at Lough na Trosk (D2719), Garron Plateau, County Antrim. The species was new to Northern Ireland (O'Connor and McNaughton, 2017b).

***Limnephilus ignavus* McLachlan, 1865 (Fig. 41)**

Limnephilus ignavus was recently discovered at Lough na Trosk (D2719), Garron Plateau, County Antrim. The species was new to Northern Ireland (O'Connor and McNaughton, 2017b). It is a local species on the island but the known records show that *L. ignavus* is widely distributed.

***Limnephilus incisus* Curtis, 1834 New to County Kerry (Fig. 42)**

KERRY: River Laune exit from the Lower Lake, Killarney (V8991), swept from a flooded area beside the exit, ♂ 26 August 1987, J. P. O'Connor.

This is the first record from south-west Ireland and represents a major expansion in the known range of the species.

***Limnephilus lunatus* Curtis, 1834 (Fig. 43)**

TIPPERARY: River Suir, Carrick-on-Suir (S3921), ♀ 17 August 2017, swept from riverside vegetation, J. P. O'Connor, and M. A. O'Connor.

Although this common species has already been recorded from County Tipperary, the River Suir record occurred in a large area with no other reported occurrences.

***Limnephilus luridus* Curtis, 1834 (Fig. 44)**

ANTRIM: Parkmore, tributary of Glenariff River (D1821), 2♂♂ 3 July 2017 and ♂ 15 July 2017; Parkmore shooting range, source of Glenariff River tributary (D1819), ♂2♀♀ 5 July 2017; Garron Plateau (D2520), ♂ 11 July 2017, all C. McNaughton.

***Limnephilus nigriceps* (Zetterstedt, 1840) (Fig. 45)**

Limnephilus nigriceps was recently discovered at Lough na Trosk (D2719), Garron Plateau, County Antrim (O'Connor and McNaughton, 2017b).

***Limnephilus rhombicus* (Linnaeus, 1758) New to County Waterford (Fig. 46)**

WATERFORD: Tramore (S5701), ♂ 5 July 2017 and ♂ 9 July 2017, 125w MV Robinson light-trap, T. Bryant.

***Limnephilus sparsus* Curtis, 1834 (Fig. 47)**

ANTRIM: Breen Bridge (Inver Burn) (D3411), ♂ 16 June 2017, C. McNaughton; Parkmore (D1921), ♀ 14 June 2017, C. McNaughton.

This is the most northerly record of this common species in north-east Ireland.

***Limnephilus vittatus* (Fabricius, 1798) (Fig. 48)**

Limnephilus vittatus was recently discovered at Lough na Trosk (D2719), Garron Plateau, County Antrim (O'Connor and McNaughton, 2017b).

***Halesus radiatus* (Curtis, 1834) New to County Derry (Londonderry) (Fig. 49)**

DERRY (LONDONDERRY): Coleraine (C8530), ♂ 27 April 1998, collected and determined by P. H. Langton.

This is the first Irish record from April and also the most northerly one.

***Micropterna lateralis* (Stephens, 1837) (Fig. 50)**

ANTRIM: Dungonnell Dam near Cargan (D1917), the Ballysallagh Water exits this dam, ♀ 18 June 2017, C. McNaughton; Parkmore, tributary of Glenariff River (D1821), ♂ 15 July 2017, C. McNaughton.

These records are the most northerly occurrences in north-east Ireland.

***Micropterna sequax* McLachlan, 1875 New to County Offaly (Fig. 51)**

ANTRIM: Breen Bridge (Inver Burn) (D3411), ♂ 16 June 2017, C. McNaughton; Cushendall (D2428), 3♂♂ 7 July 2017, C. McNaughton.

The Cushendall record is the most northerly occurrence in north-east Ireland of this widely distributed species.

KERRY: Lough Leane, Killarney (V9291), larva 10 April 1973, on exposed rocky lake shore, J. P. O'Connor

The last record from Killarney was in 1887 (O'Connor, 2015).

OFFALY: Silver River, Cadamstown (N2307), ♂ 22 August 2016, J. Brophy.

***Potamophylax cingulatus* (Stephens, 1837) New to County Antrim (Fig. 52)**

ANTRIM: Ballycastle (D1240), ♂ 15 June 2017, C. McNaughton; upper reaches of Glenariff River (D2020), ♂ 6 July 2017, C. McNaughton.

These Antrim records are the most northerly occurrences in north-east Ireland. The Ballycastle one is the first June record.

GALWAY: Lough Kip River, Oguil, Moycullen (M2231), 6 larvae 21 May 2016, collected and determined M. Gammell (record from the National Biodiversity Data Centre).

This was the first record from County Galway.

***Potamophylax latipennis* (Curtis, 1834) New to County Antrim (Fig. 53)**

ANTRIM: Parkmore, tributary of Glenariff River (D1821), ♂ 3 July 2017, C. McNaughton; upper reaches of Glenariff River (D2020), ♂ 6 July 2017, C. McNaughton.

These Antrim records are the most northerly occurrences in north-east Ireland.

WATERFORD: Ballyscanlan Lough (S5402), ♂ 27 October 2016, 15w actinic light-trap, T. Bryant.

The Waterford specimen was taken 14 days after the latest published date of 13 October (O'Connor, 2015).

***Stenophylax permistus* McLachlan, 1895 (Fig. 54)**

ANTRIM: Breen Bridge (Inver Burn) (D3411), ♂ 16 June 2017, C. McNaughton.

This is the most northerly record in north-east Ireland.

BERAEIDAE

***Beraea maurus* (Curtis, 1834) New to County Sligo (Fig. 55)**

SLIGO: Knocknarea Glen near Strandhill (G6333), larva 4 March 1985, in trickles on a cliff face, J. P. O'Connor.

WEXFORD: J. F. Kennedy Park (S7219), ♂2♀♀ 25 July 2016, swept from the vegetation beside a small stream, J. P. O'Connor.

ODONTOCERIDAE

Odontocerum albicorne (Scopoli, 1763) New to County Kilkenny (Fig. 56)

KILKENNY: The Coum River (S6337), where it enters the River Nore, Inistioge, ♂ 10 August 2017, swept from vegetation beside this fast-flowing river, J. P. O'Connor, and M. A. O'Connor.

LEPTOCERIDAE

Athripsodes aterrimus (Stephens, 1836) (Figs 57, 70 and 71)

ANTRIM: Lough Fad, Garron Plateau (D2419), ♂ 11 July 2017, C. McNaughton; Lough na Trosk, Garron Plateau (D2719), 2♂♂♀ 11 July 2017, C. McNaughton.

The Antrim records are the most northerly occurrence in north-east Ireland.

DUBLIN: Wavin Lake (Knock Pond), Balrothery (O1960), 9♂♂3♀♀ 25 May 2017, J. P. O'Connor, M. A. O'Connor and Helen O'Connor.

The Wavin Lake specimens were taken 9 days before the earliest published date of 3 June (O'Connor, 2015).

Ceraclea albimacula (Rambur, 1842) (Fig. 58)

Ceraclea albimacula was recently discovered at Lough na Trosk (D2719), Garron Plateau, County Antrim. The species was new to Northern Ireland (O'Connor and McNaughton, 2017b).

Ceraclea dissimilis (Stephens, 1836) (Fig. 59)

TIPPERARY: River Suir, Carrick-on-Suir, ♂2♀♀ 17 August 2017, swept from riverside vegetation, J. P. O'Connor, and M. A. O'Connor.

Previously only known in the County Tipperary from a larva taken in a dredge in 1972 on the River Shannon at Killaloe.

Leptocerus tineiformis Curtis, 1834 New to Counties Dublin and Wexford (Figs 60, 70, 71, 72, 73 and 75)

DUBLIN: Wavin Lake (Knock Pond), Balrothery (O1960), ♂3♀♀ 20 July 2017, J. P. O'Connor and M. A. O'Connor.

The specimens were swept off vegetation at Wavin Lake but near an adjoining smaller weedy pond from which they may have originated. The two water bodies are separated by a narrow causeway but connected by a pipe. Wavin Lake covers an area of approximately 10 hectares. The lake is quite shallow with an average depth of *circa* 2m, with a couple of 3.5m holes.

WEXFORD: Johnstown Castle, Castle Lake (T0216), 2♂♂7♀♀ 12 August 2017 and Garden Lake (T0116), ♀ 15 August 2017, swept from vegetation, J. P. O'Connor. The adults were very common on the Castle Lake, swarming at the lake-edge in the sunshine.

Leptocerus tineiformis was also recently discovered at Lough Tullynagee (J4763) and a nearby lake in County Down. The species was new to Northern Ireland (O'Connor and

O'Connor, in press). All three recent records are indicated (Fig. 60). Previously only known from a larva and a female, this caddisfly appears to be extending its range in Ireland.

***Mystacides azurea* (Linnaeus, 1761) (Fig. 61)**

ANTRIM: Lough Fad, Garron Plateau (D2419), ♂ 11 July 2017, C. McNaughton.

This record is the most northerly occurrence in north-east Ireland.

KERRY: Lough Leane, Golf Course shore, Killarney (V9291), 30♂♂ 20 October 1994, J. P. O'Connor.

The above specimen was taken nine days after the latest published date of 11 October (O'Connor, 2015).

***Mystacides longicornis* (Linnaeus, 1758) (Figs 62, 70 and 71)**

ANTRIM: Garron Plateau (D2520), ♂ 11 July 2017, C. McNaughton.

This record is the most northerly occurrence in north-east Ireland.

DUBLIN: Wavin Lake (Knock Pond), Balrothery (O1960), 17♂♂2♀♀ 11 May 2017 and 20♂♂3♀♀ 25 May 2017, thousands of adults were swarming on the lake, J. P. O'Connor, M. A. O'Connor and Helen O'Connor. Hundreds of adults were subsequently trapped in a Heath portable light-trap on 31 August-1 September 2017.

The 11 May specimens at Wavin Lake were taken 25 days before the earliest published date of 5 June (O'Connor, 2015).

***Oecetis furva* (Rambur, 1842) New to County Antrim (Fig. 63)**

ANTRIM: Lough Fad, Garron Plateau (D2419), ♂ 11 July 2017, C. McNaughton.

This record is the most northerly occurrence in north-east Ireland.

***Oecetis lacustris* (Pictet, 1834) New to County Antrim (Figs 64, 72, 73, 74 and 76)**

ANTRIM: Lough Fad, Garron Plateau (D2419), ♂ 11 July 2017, C. McNaughton; Lough Fine, Garron Plateau (D2520), ♂ 11 July 2017, C. McNaughton.

These records are the most northerly occurrences in north-east Ireland.

WEXFORD: Oaklands Lake (S7125), ♂ 7 August 2017, swept 4♀♀ 7-8 August 2017 and 2♂♂7♀♀ 17-18 August 2017, Heath portable light-traps, J. P. O'Connor and M. A. O'Connor.

This is the second Wexford record of *Oecetis lacustris*. The species was previously taken at the small lakes in the Johnstown Castle estate (King and Halbert, 1910). The artificial Oaklands Lake was created in Kelly's Wood, New Ross, during 1998 and 1999.

***Oecetis ochracea* (Curtis, 1825) New to Counties Antrim, Down, Dublin and Waterford (Figs 65, 70, 71, 75 and 76)**

ANTRIM: Lough Fine, Garron Plateau (D2520), 4♂♂ 11 July 2017, C. McNaughton.

The Antrim record is the most northerly occurrence in north-east Ireland.

DOWN: Lough Tullynagee (J4763), ♂ 18-19 June 2017, Heath portable light-trap, J. P. O'Connor and M. A. O'Connor.

DUBLIN: Wavin Lake (Knock Pond), Balrothery (O1960), 4♂♂ 31 August–1 September 2017, Heath portable light-trap, J. P. O'Connor and M. A. O'Connor.

This is the first record for the east of Ireland. *Mystacides longicornis* was the only other caddisfly trapped and hundreds of specimens were taken (see above for other records of this species at Wavin Lake).

WATERFORD: Knockaderry Reservoir, ♀ 13 August 2017, swept from vegetation overhanging the outflow stream, J. P. O'Connor.

This is the first record from south-east Ireland.

***Triaenodes bicolor* (Curtis, 1834) New to County Antrim (Figs 66, 70 and 71)**

ANTRIM: Ushet Lough, Rathlin Island (D1548), ♂ 5 July 2004, collected and determined P. H. Langton.

This is the most northerly record in Ireland.

DUBLIN: Wavin Lake (Knock Pond), Balrothery (O1960), ♂ 25 May 2017, J. P. O'Connor, M. A. O'Connor and Helen O'Connor.

The Dublin specimen was taken 25 days before the earliest published date of 19 June (O'Connor, 2015). In County Dublin, the species has only previously been reported from two sites on the River Liffey.

Acknowledgements

The authors are very grateful to Ken Bond, John Brophy, Tony Bryant, Caitriona Carlin, Martin Gammell, Peter Langton, Charlie McConaghy, Cathal McNaughton, Colin Plant, Martin Speight and Alan Walshe for providing specimens and/or records; Helen O'Connor for her help with field-work at Wavin Lake and for her photograph; Peter Barnard for his help in identifying a problematic female of *Limnephilus decipiens*; Ciaran McDonald and the Committee of the Gormanston and District Anglers for enabling access to Wavin Lake; Michael and Adrian Browne for permission to collect at Oaklands Lake; Tina Claffey for the photograph of ?*Hagenella clathrata* and for information on her discovery; Oliver Dixon for his photograph of Lough Tullynagee (geograph.org.uk); Cathal McNaughton for his photographs of various species; Kevin O'Connor for the photographs of the Johnstown Castle lakes; Alan Morton for supplying the relevant software programme used for preparing the maps with DMAP. JPOC wishes to thank Martin Gammell for informing him of the photograph of ?*Hagenella clathrata* on Facebook.

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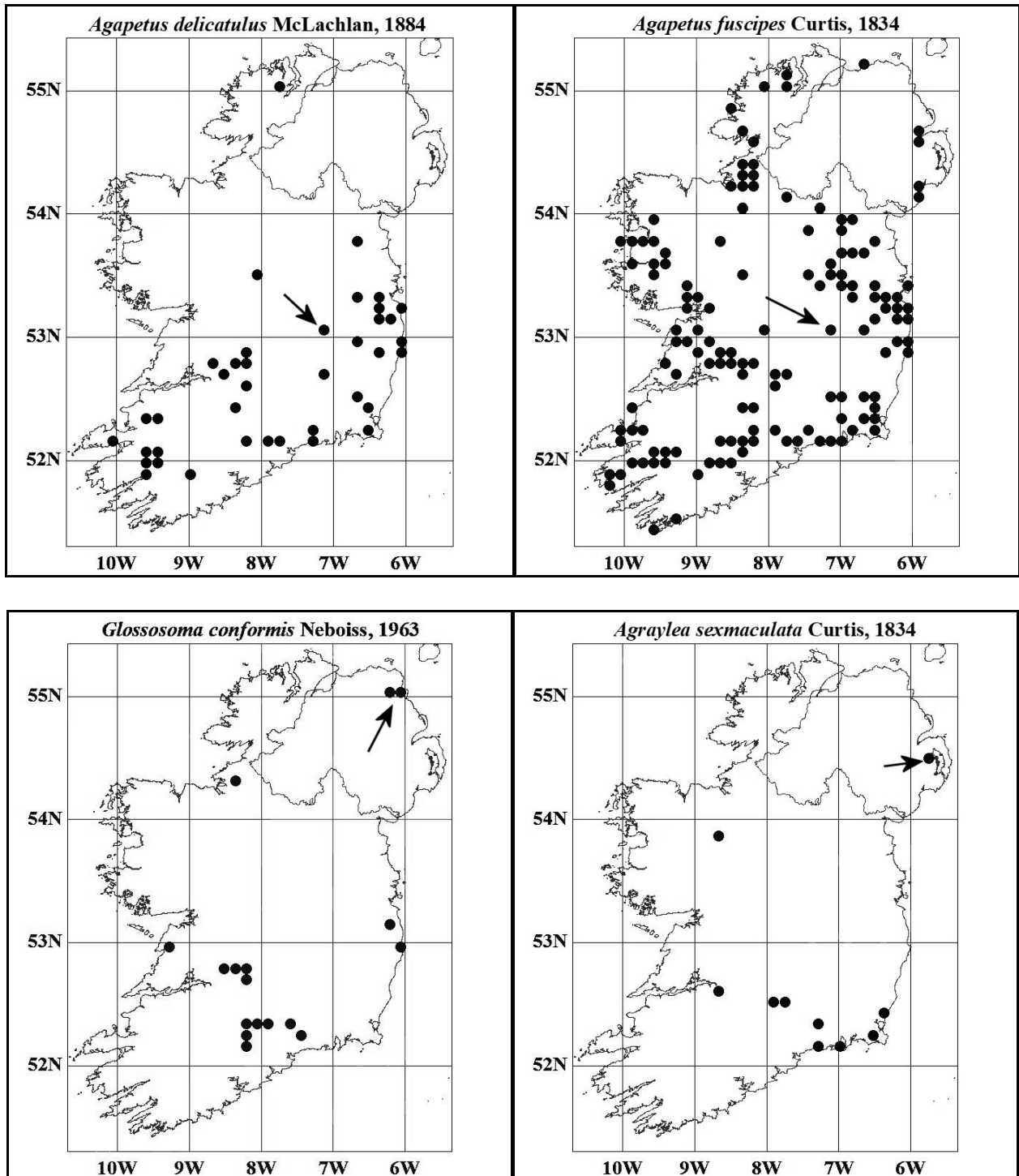
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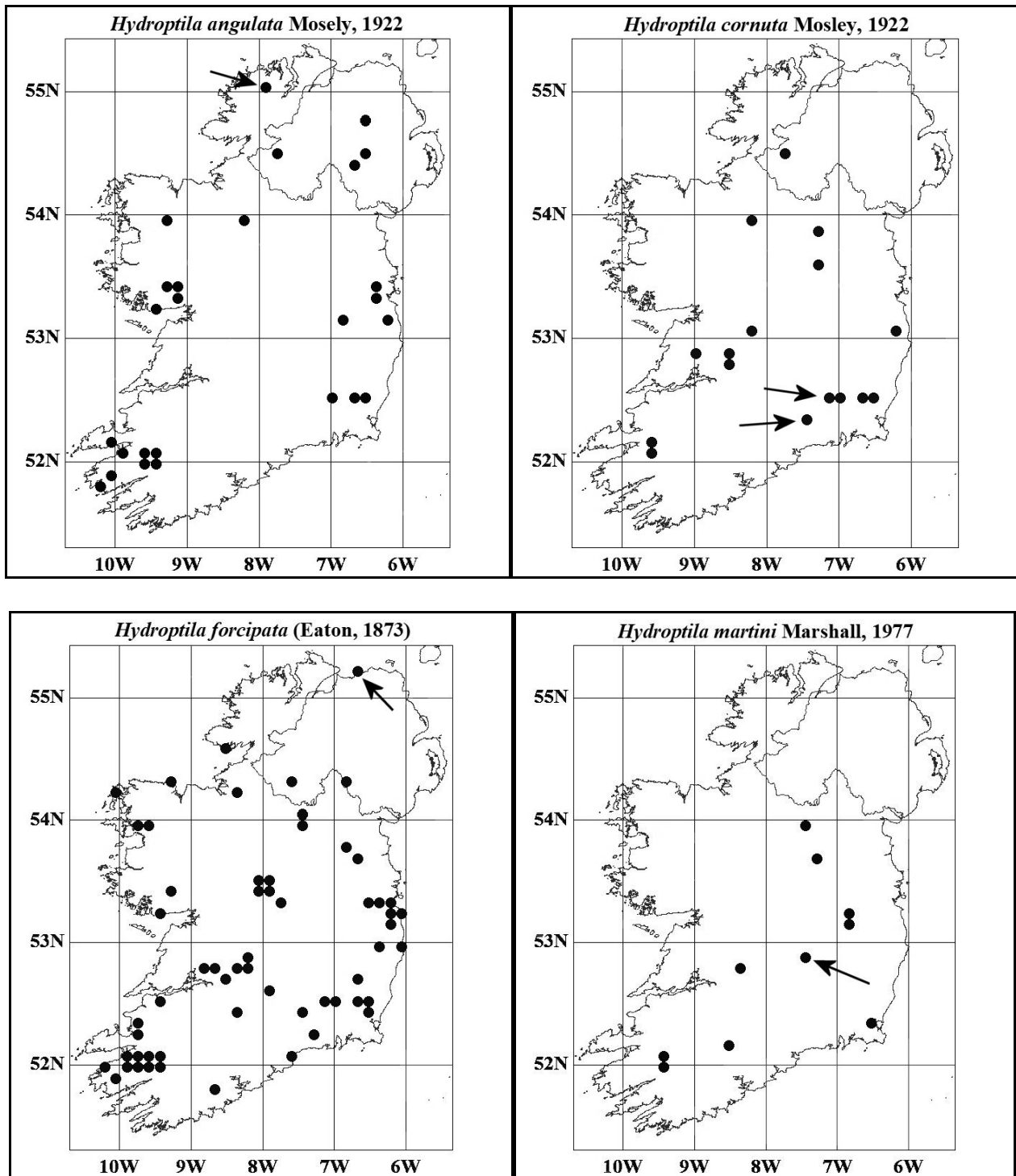
Note added in press

Additional distributional records for Northern Ireland, which arrived too late for inclusion in this paper, will be found in O'Connor, J. P. and McNaughton, C. (2017) Some new distributional records of caddisflies (Trichoptera) from Northern Ireland. *Bulletin of the Irish Biogeographical Society* **41**: 103-111. This paper reports on *inter alia* the discovery of two bog specialists near water-bodies on the Garron Plateau, County Antrim i.e. *Limnephilus coenosus* Curtis (Lough Garve (D2117) and Lough na Tullig (D2420)) and *Limnephilus elegans* Curtis (near Dungannon reservoir (D2018)).

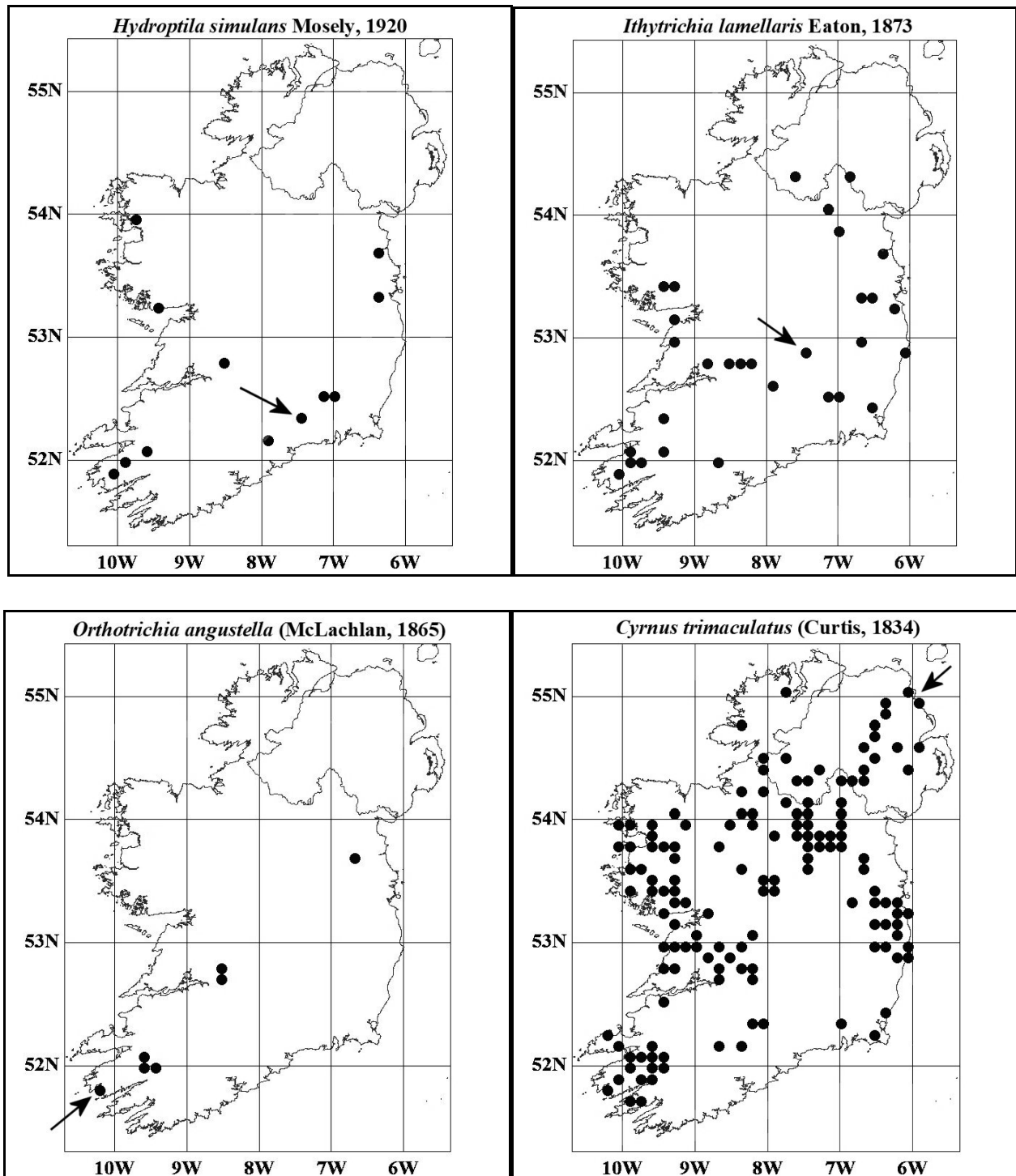
FIGURES 1-4. The known Irish distributions of *Agapetus delicatulus* McLachlan, 1884, *Agapetus fuscipes* Curtis, 1834, *Glossosoma conformis* Neboiss, 1963 and *Agraylea sexmaculata* Curtis, 1834. Notable range extensions are indicated by arrows.



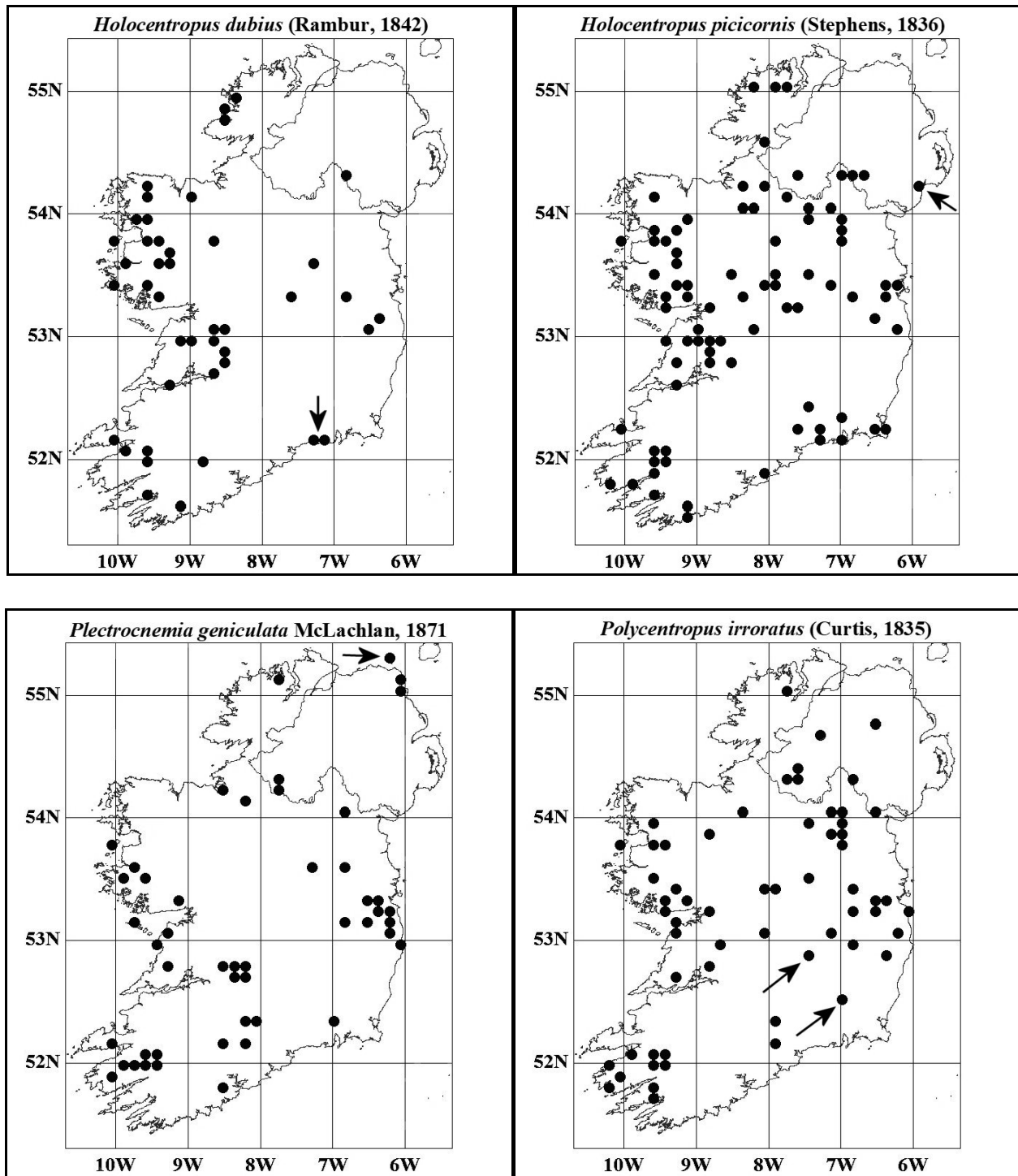
FIGURES 5-8. The known Irish distributions of *Hydroptila angulata* Mosely, 1922, *Hydroptila cornuta* Mosley, 1922, *Hydroptila forcipata* (Eaton, 1873) and *Hydroptila martini* Marshall, 1977. Notable range extensions are indicated by arrows.



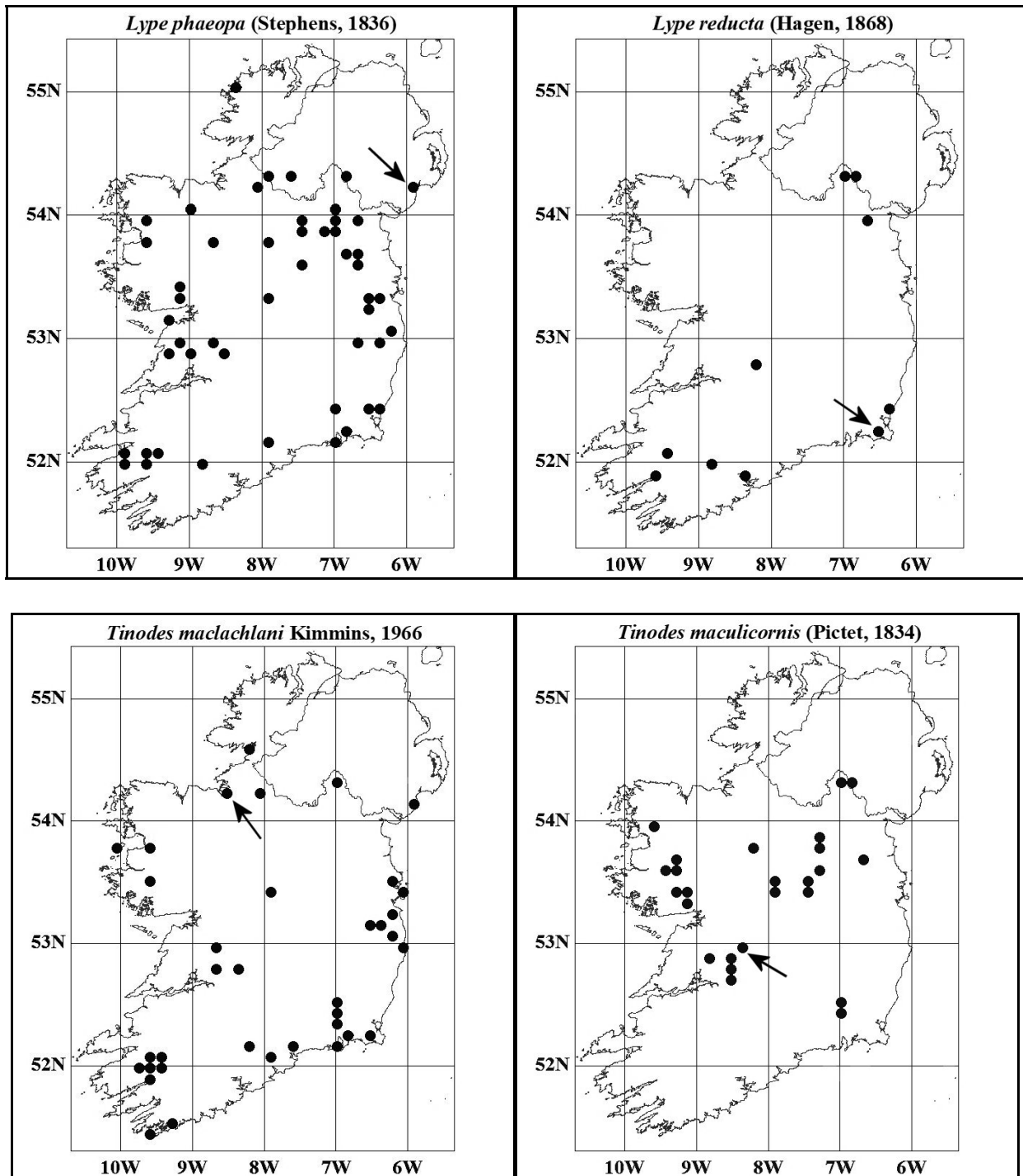
FIGURES 9-12. The known Irish distributions of *Hydroptila simulans* Mosely, 1920, *Ithytrichia lamellaris* Eaton, 1873, *Orthotrichia angustella* (McLachlan, 1865) and *Cyrnus trimaculatus* (Curtis, 1834). Notable range extensions are indicated by arrows.



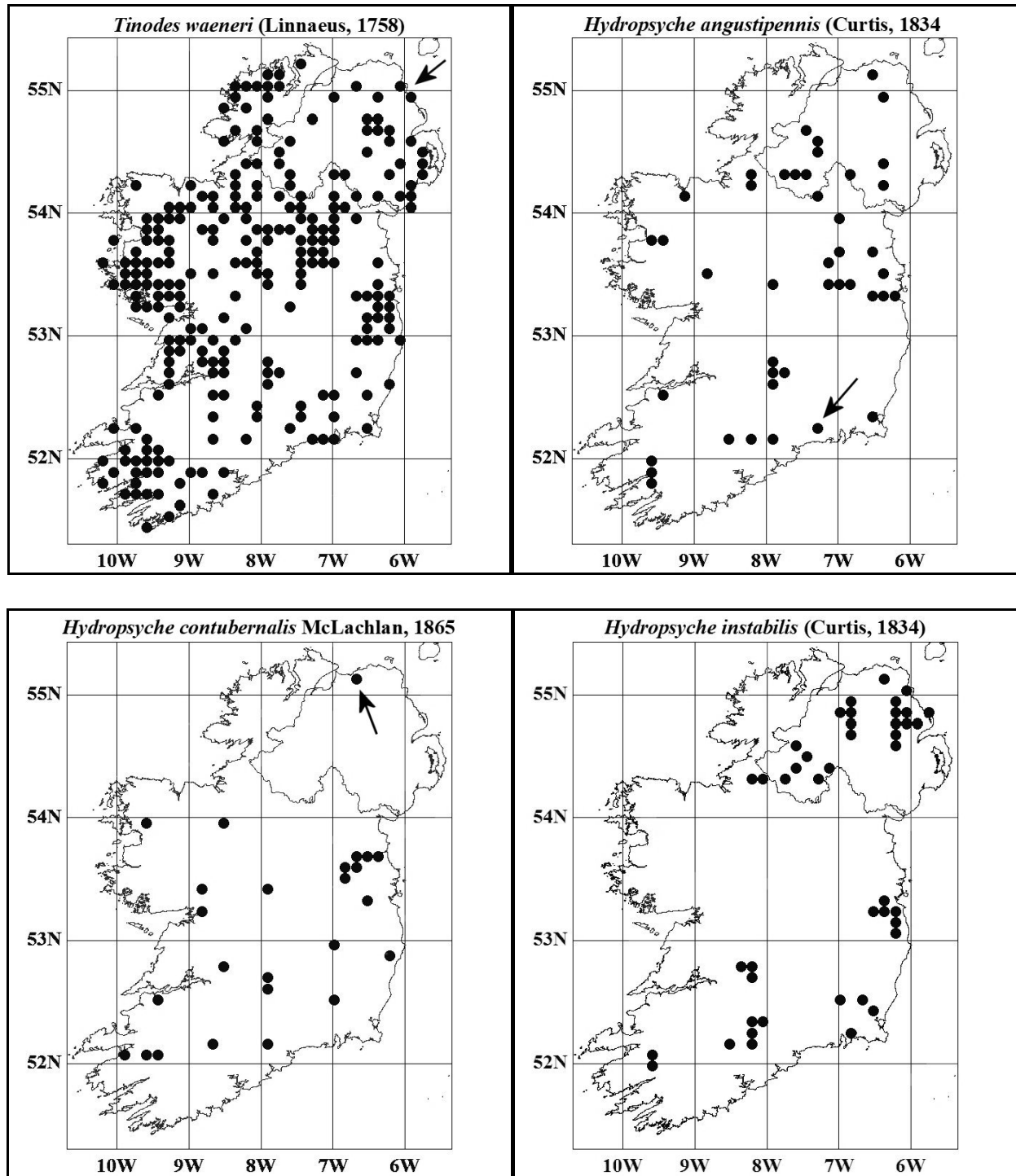
FIGURES 13-16. The known Irish distributions of *Holocentropus dubius* (Rambur, 1842), *Holocentropus picicornis* (Stephens, 1836), *Plectrocnemia geniculata* McLachlan, 1871 and *Polycentropus irroratus* (Curtis, 1835). Notable range extensions are indicated by arrows.



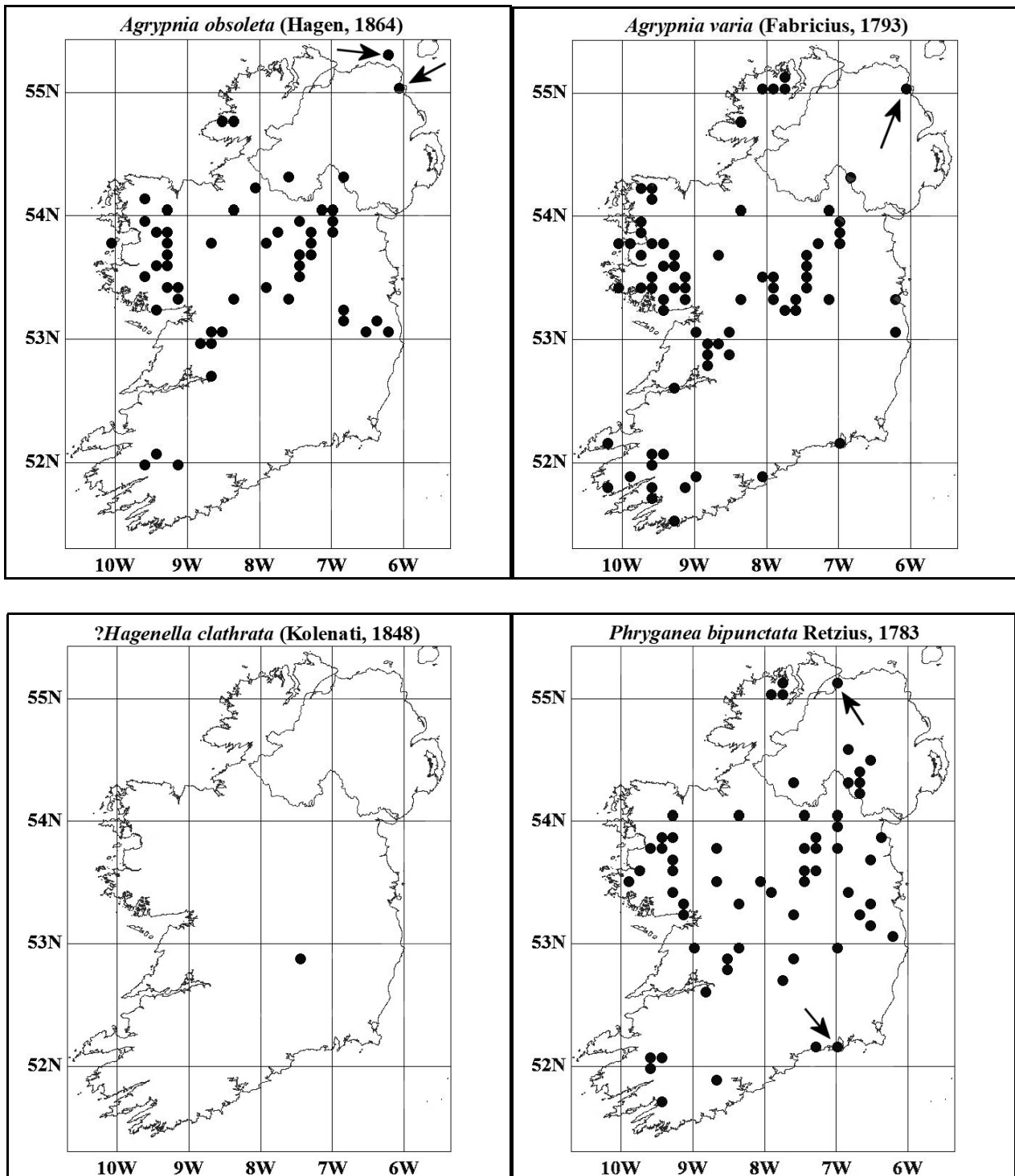
FIGURES 17-20. The known Irish distributions of *Lype phaeopa* (Stephens, 1836), *Lype reducta* (Hagen, 1868), *Tinodes maclachlani* Kimmins, 1966 and *Tinodes maculicornis* (Pictet, 1834). Notable range extensions are indicated by arrows.



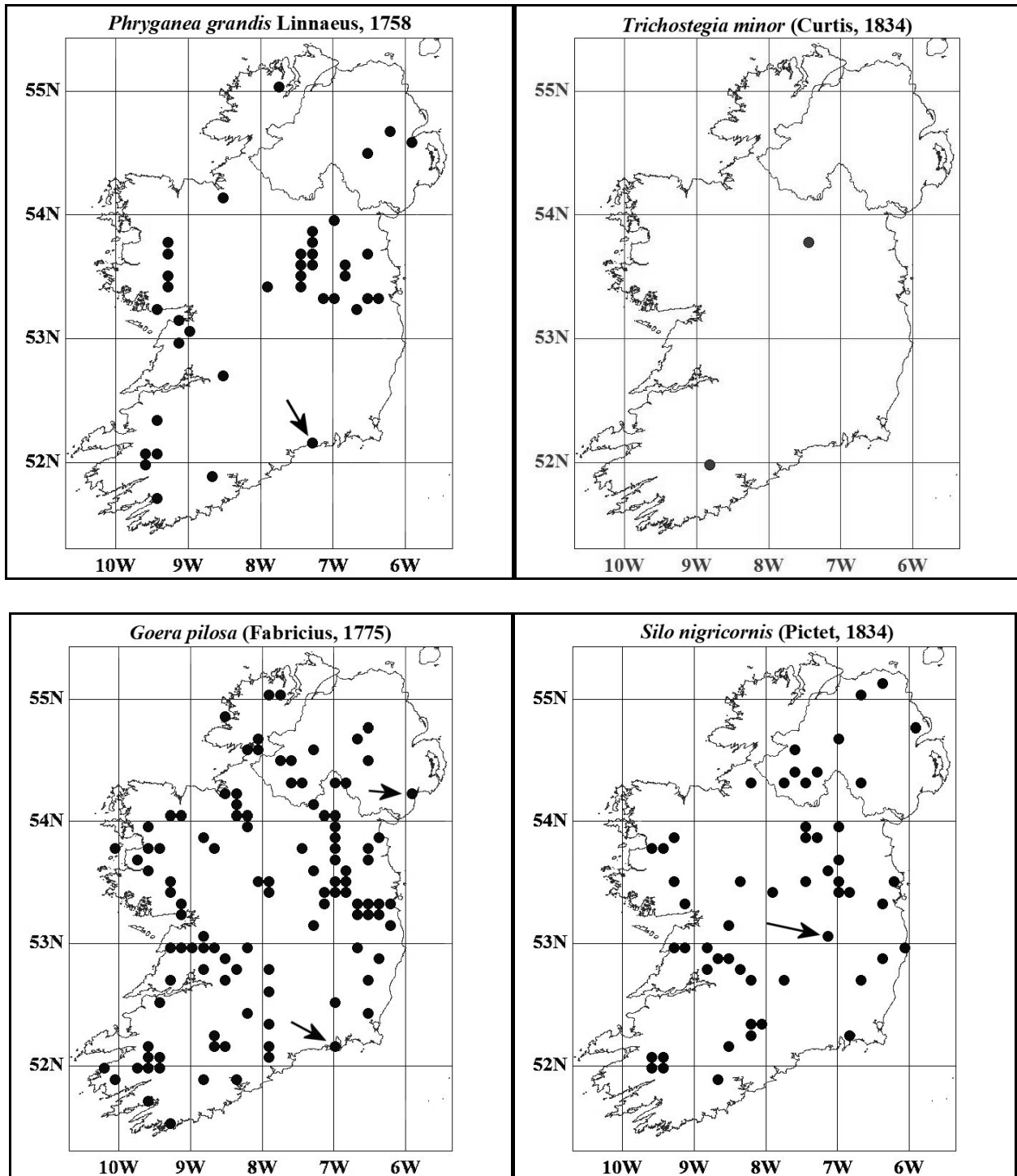
FIGURES 21-24. The known Irish distributions of *Tinodes waeneri* (Linnaeus, 1758), *Hydropsyche angustipennis* (Curtis, 1834), *Hydropsyche contubernalis* McLachlan, 1865 and *Hydropsyche instabilis* (Curtis, 1834). Notable range extensions are indicated by arrows.



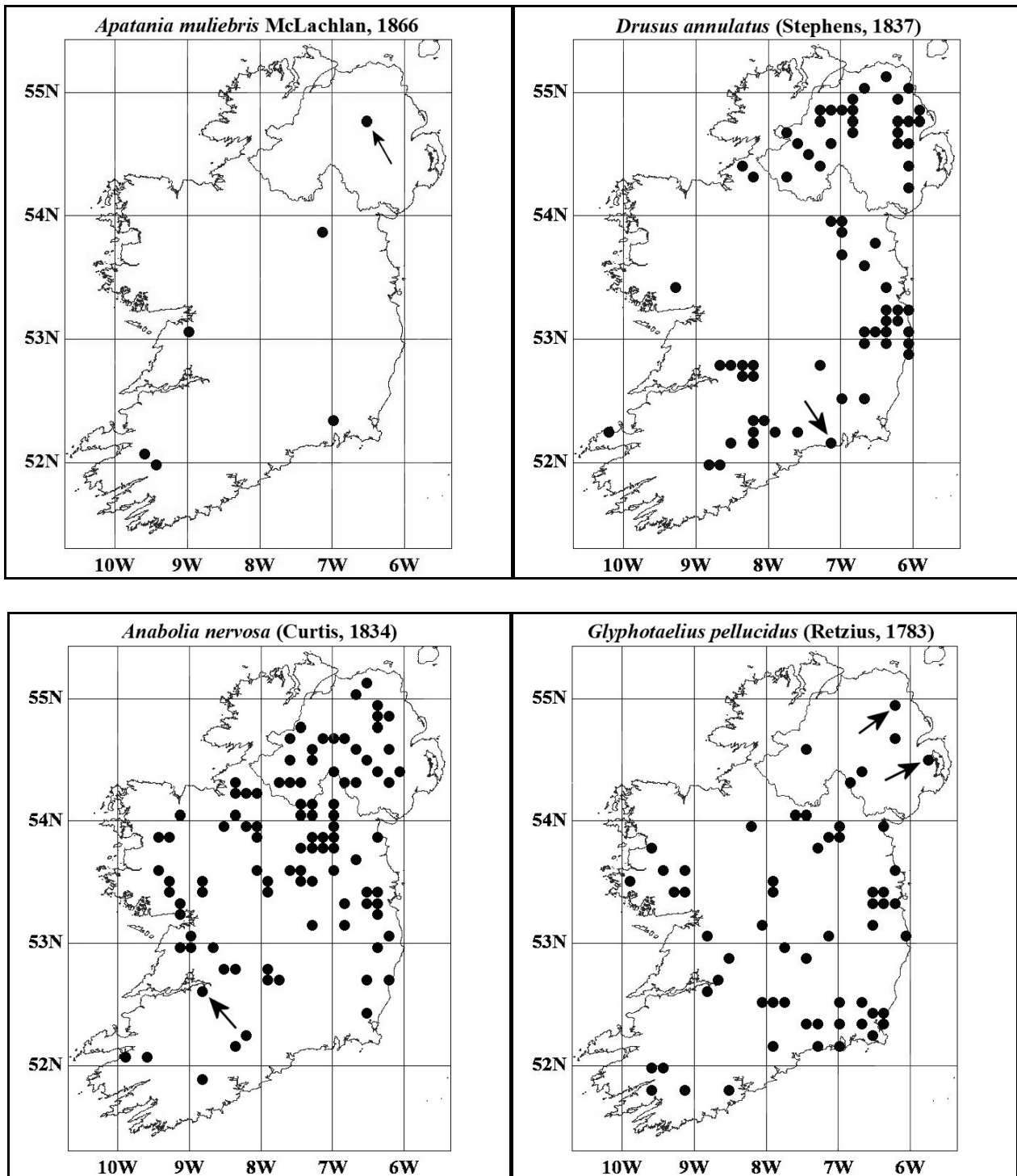
FIGURES 25-28. The known Irish distributions of *Agrypnia obsoleta* (Hagen, 1864), *Agrypnia varia* (Fabricius, 1793), ?*Hagenella clathrata* (Kolenati, 1848) and *Phryganea bipunctata* Retzius, 1783. Notable range extensions are indicated by arrows.



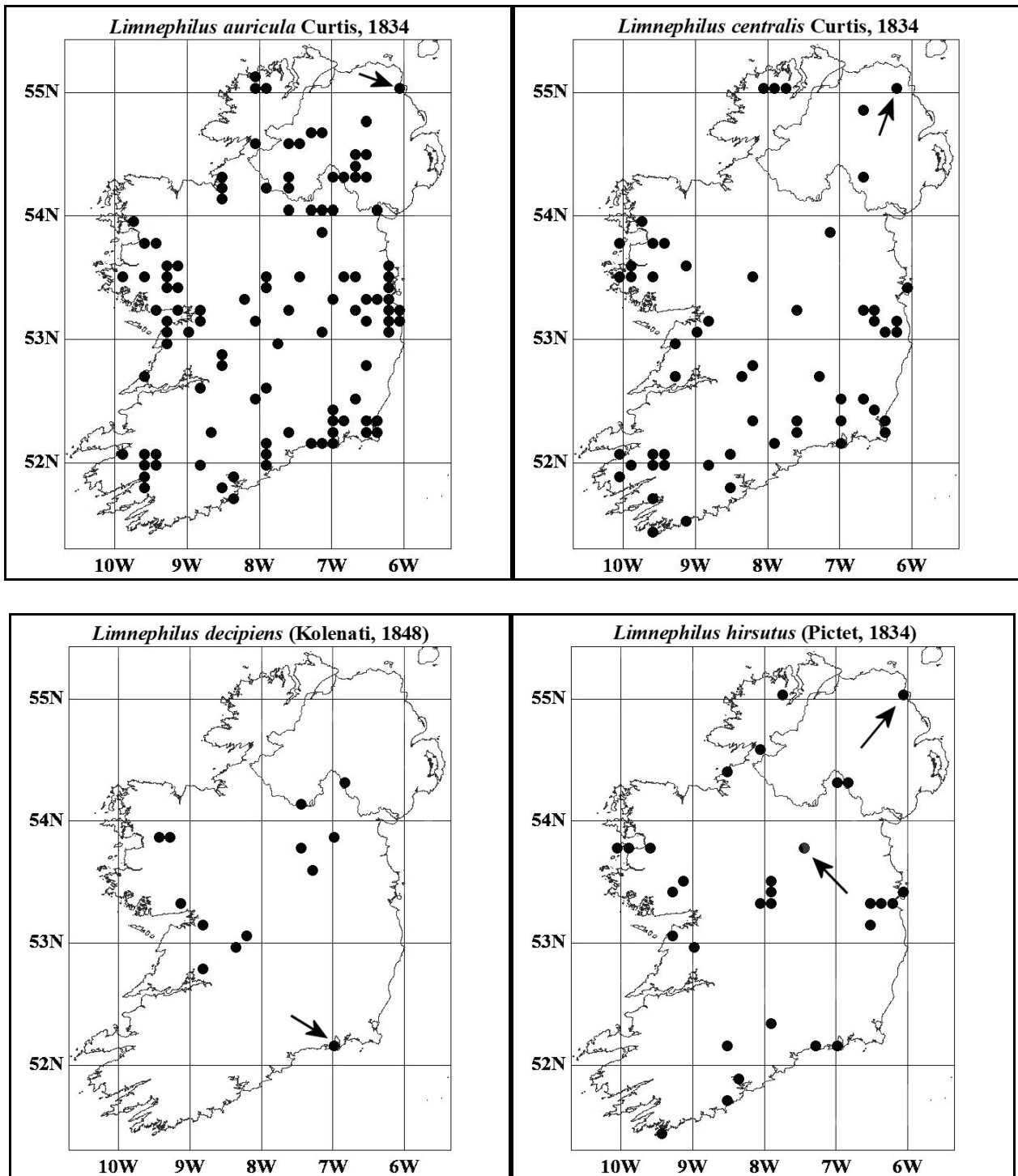
FIGURES 29-32. The known Irish distributions of *Phryganea grandis* Linnaeus, 1758, *Trichostegia minor* (Curtis, 1834), *Goera pilosa* (Fabricius, 1775) and *Silo nigricornis* (Pictet, 1834). Notable range extensions are indicated by arrows.



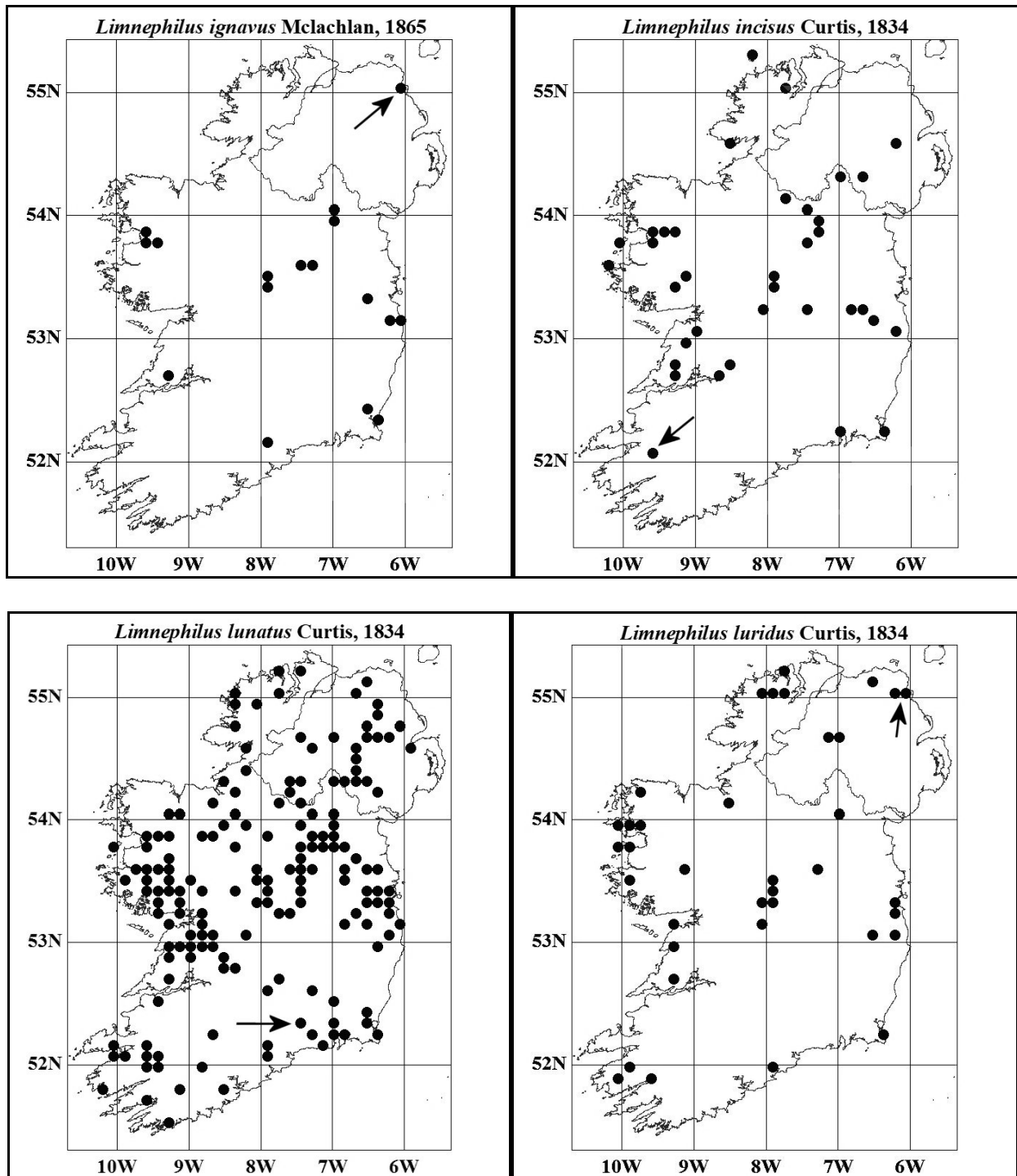
FIGURES 33-36. The known Irish distributions of *Apatania muliebris* McLachlan, 1866, *Drusus annulatus* (Stephens, 1837), *Anabolia nervosa* (Curtis, 1834) and *Glyphotaelius pellucidus* (Retzius, 1783). Notable range extensions are indicated by arrows.



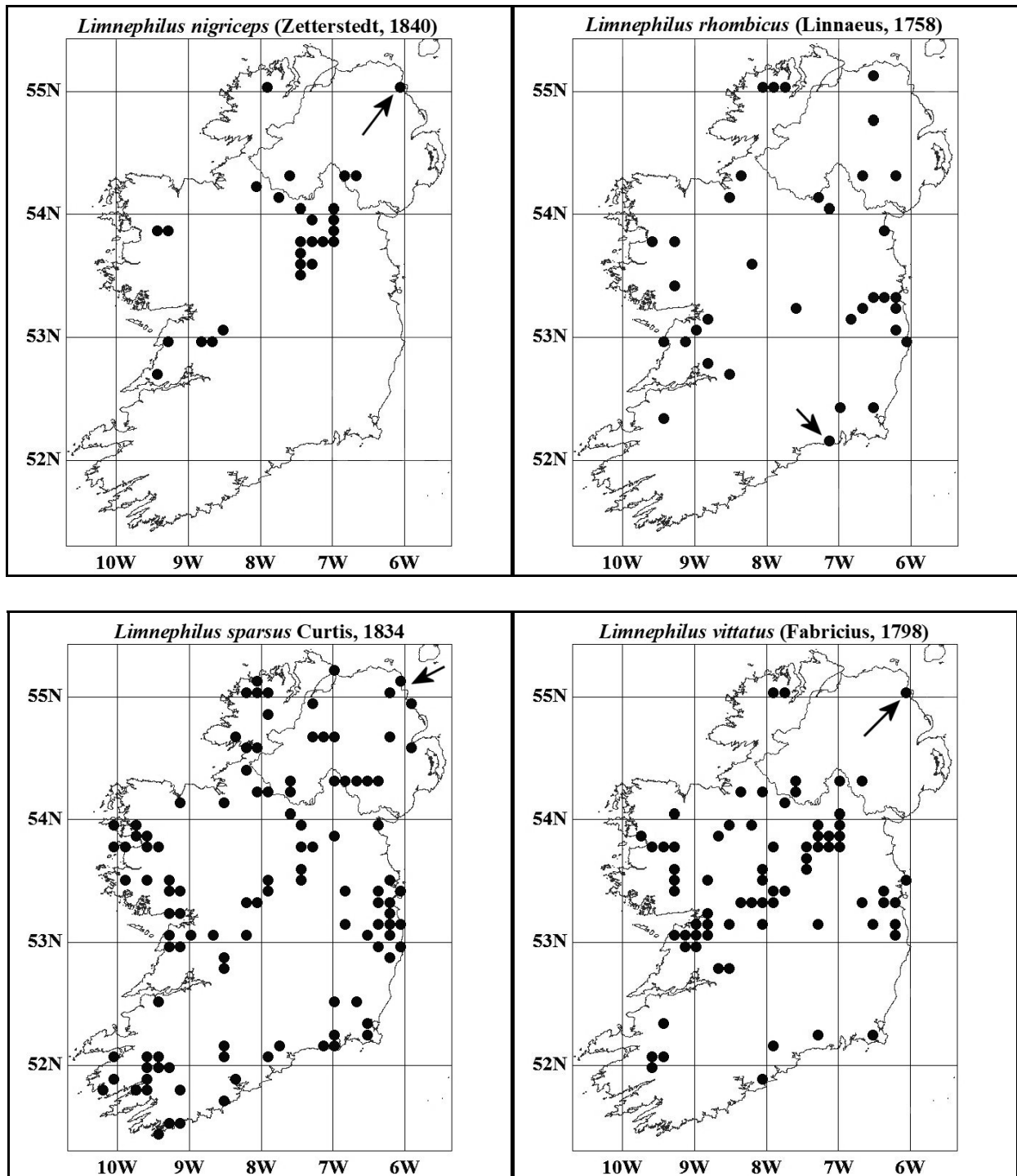
FIGURES 37-40. The known Irish distributions of *Limnephilus auricula* Curtis, 1834, *Limnephilus centralis* Curtis, 1834, *Limnephilus decipiens* (Kolenati, 1848) and *Limnephilus hirsutus* (Pictet, 1834). Notable range extensions are indicated by arrows.



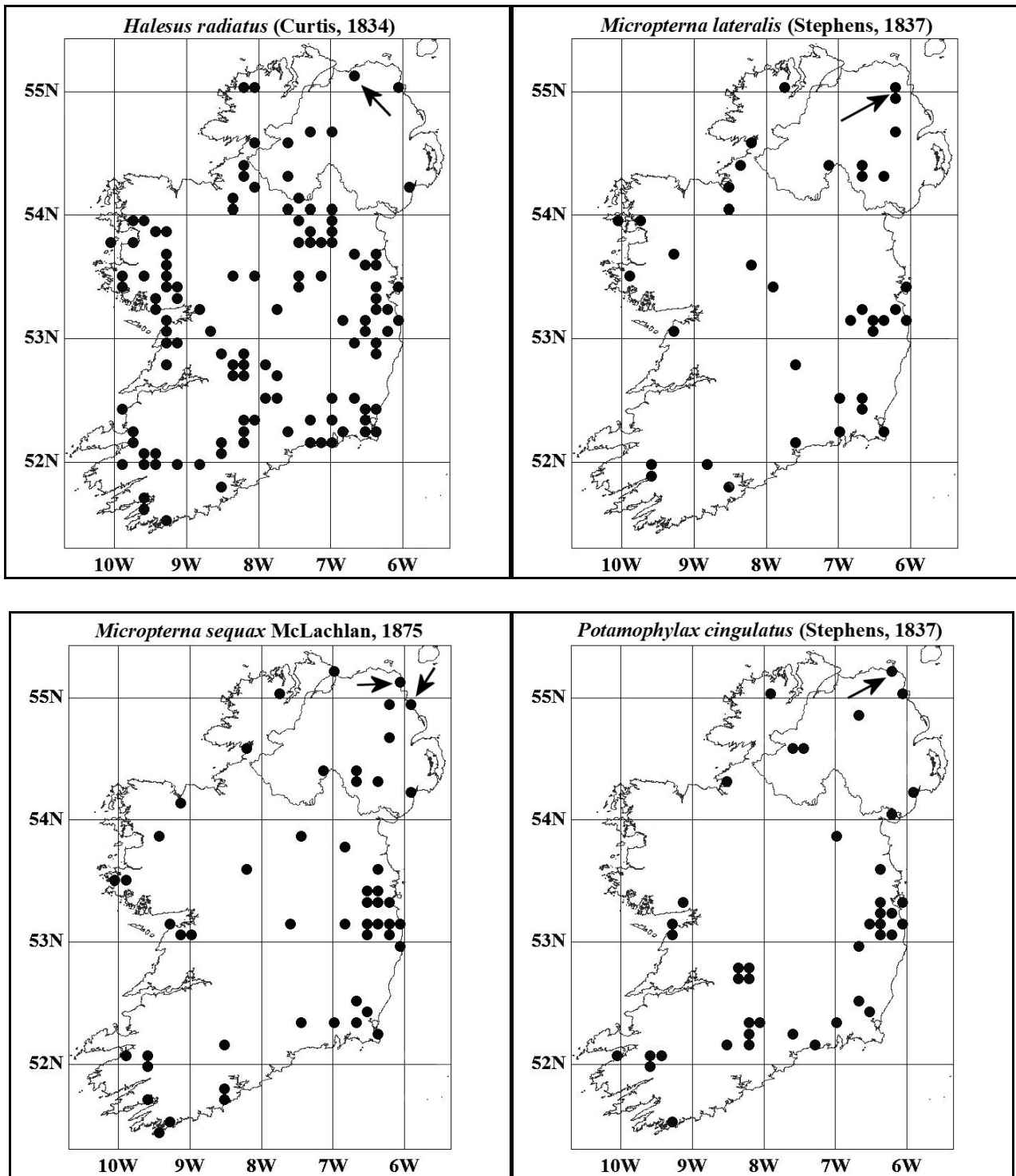
FIGURES 41-44. The known Irish distributions of *Limnephilus ignavus* McLachlan, 1865, *Limnephilus incisus* Curtis, 1834, *Limnephilus lunatus* Curtis, 1834 and *Limnephilus luridus* Curtis, 1834. Notable range extensions are indicated by arrows.



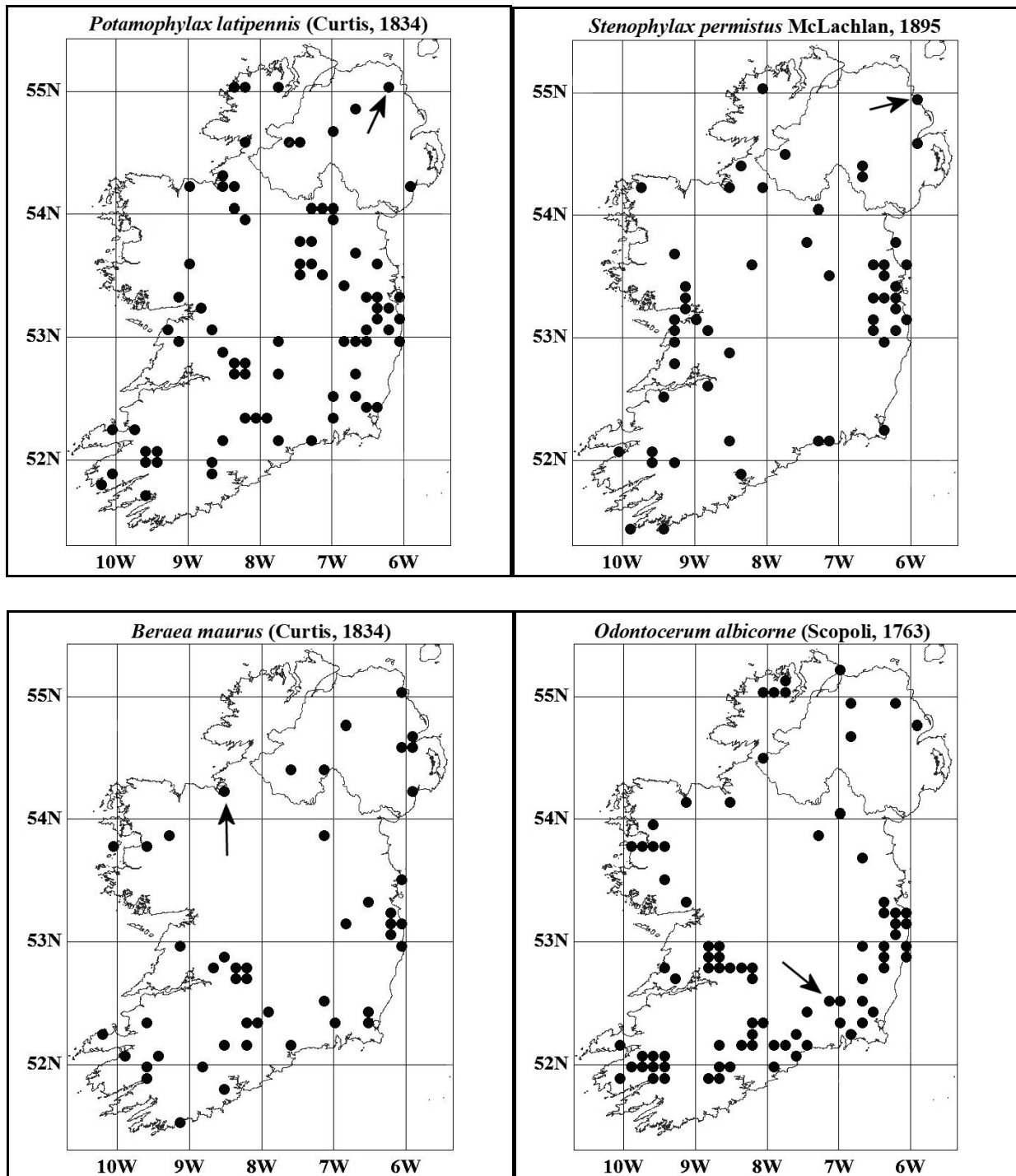
FIGURES 45-48. The known Irish distributions of *Limnephilus nigriceps* (Zetterstedt, 1840), *Limnephilus rhombicus* (Linnaeus, 1758), *Limnephilus sparsus* Curtis, 1834 and *Limnephilus vittatus* (Fabricius, 1798). Notable range extensions are indicated by arrows.



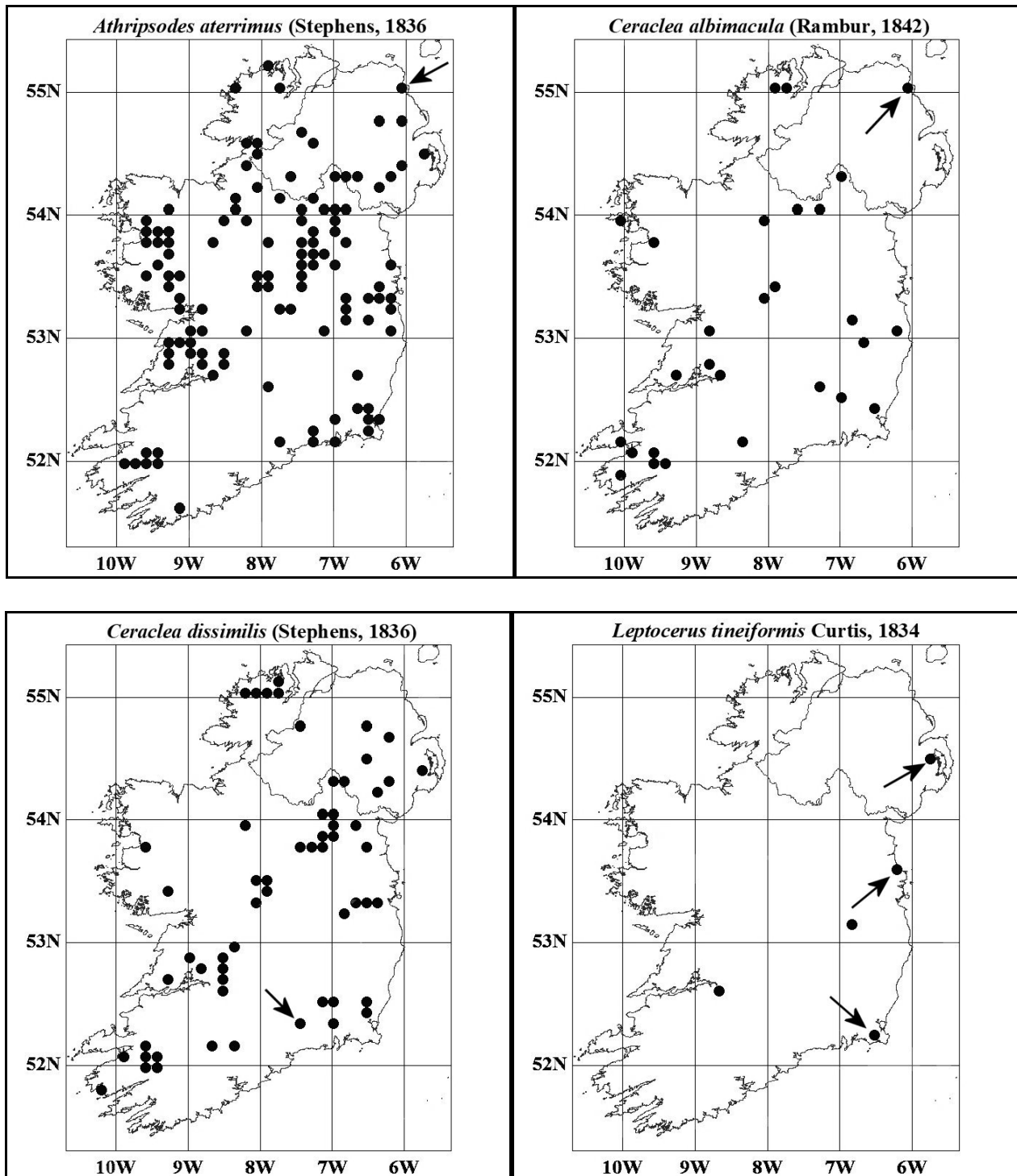
FIGURES 49-52. *Halesus radiatus* (Curtis, 1834), *Micropterna lateralis* (Stephens, 1837), *Micropterna sequax* McLachlan, 1875 and *Potamophylax cingulatus* (Stephens, 1837).



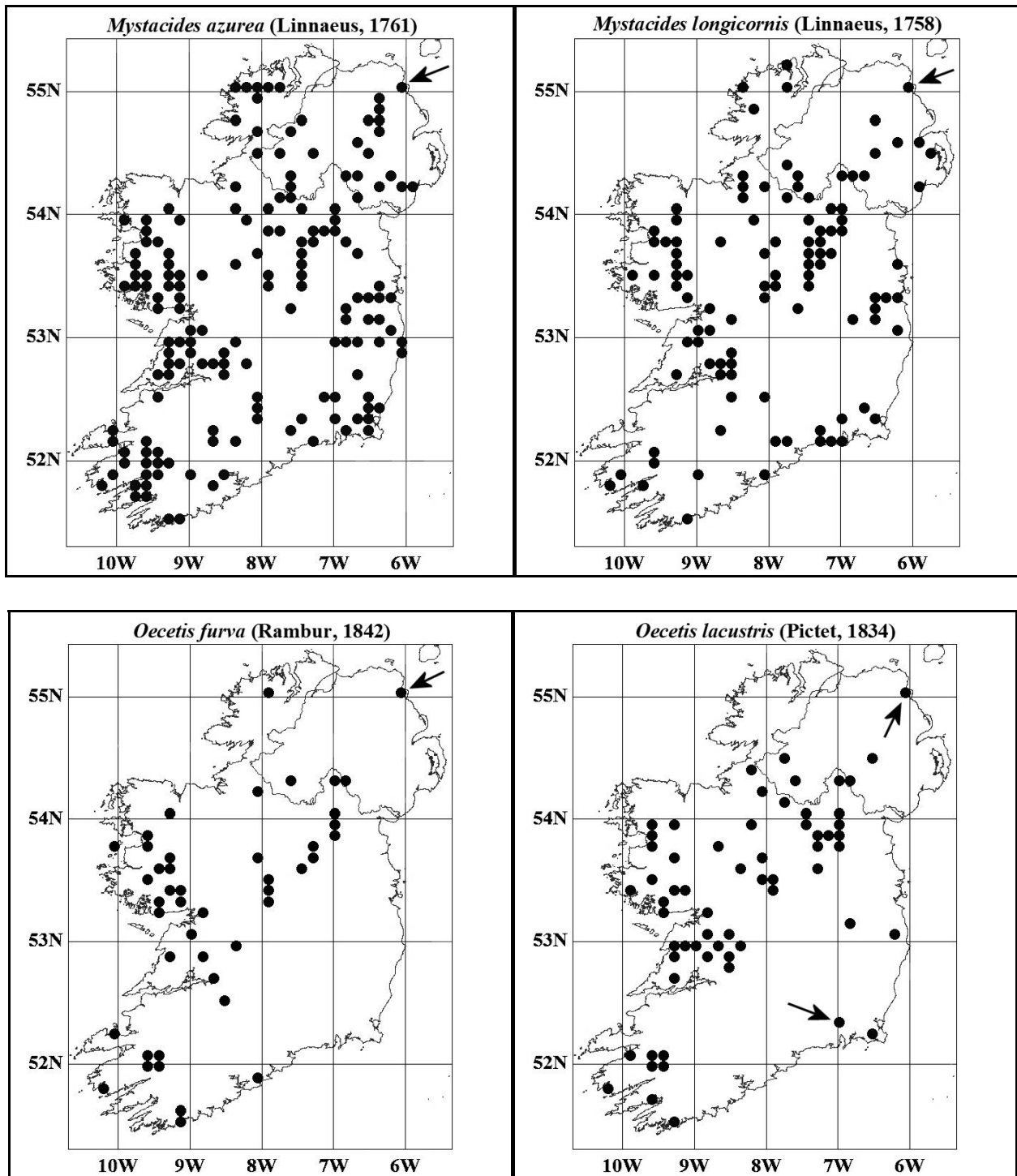
FIGURES 53-56. The known Irish distributions of *Potamophylax latipennis* (Curtis, 1834), *Stenophylax permistus* McLachlan, 1895, *Beraea maurus* (Curtis, 1834) and *Odontocerum albicorne* (Scopoli, 1763). Notable range extensions are indicated by arrows.



FIGURES 57-60. The known Irish distributions of *Athripsodes aterrimus* (Stephens, 1836), *Ceraclea albimacula* (Rambur, 1842), *Ceraclea dissimilis* (Stephens, 1836) and *Leptocerus tineiformis* Curtis, 1834. Notable range extensions are indicated by arrows.



FIGURES 61-64. The known Irish distributions of *Mystacides azurea* (Linnaeus, 1761), *Mystacides longicornis* (Linnaeus, 1758), *Oecetis furva* (Rambur, 1834) and *Oecetis lacustris* (Pictet, 1834). Notable range extensions are indicated by arrows.



FIGURES 65-66. The known Irish distribution of *Oecetis ochracea* (Curtis, 1825) and *Trienodes bicolor* (Curtis, 1834). The notable range extensions are indicated by arrows.

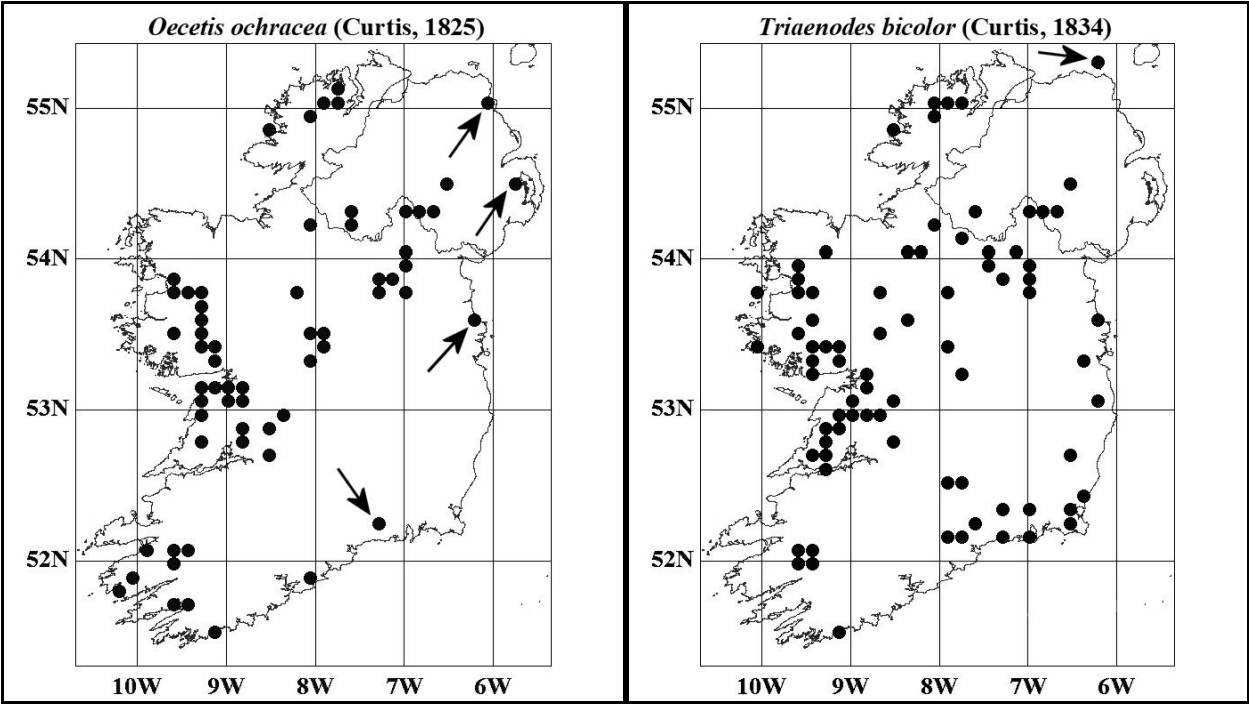


FIGURE 67. The counties of Ireland.



FIGURES 68-69. Above: ?*Hagenella clathrata* (Kolenati, 1848) in wet woodlands beside Abbeyleix Bog, County Laois, 22 May 2016. Photograph © Tina Claffey. Below: *Agrypnia obsoleta* (Hagen, 1864), Lough na Trosk, Garron Plateau, County Antrim, 1 August 2017. Photograph © Cathal McNaughton.



FIGURES 70-71. Wavin Lake, Balrothery, County Dublin. Above: general view. Photograph © Mary O'Connor. Below: causeway between the lake and adjoining pond. Photograph © Helen O'Connor. Adults of *Leptocerus tineiformis* were collected on this causeway.



FIGURES 72-73. Views of Castle Lake, Johnstown Castle, County Wexford. Adults of *Leptocerus tineiformis* were collected on this lake. Photographs © Kevin O'Connor.



FIGURES 74-75. Above: the Lower Lake, Johnstown Castle, County Wexford. An adult of *Lype reducta* was taken here. Photograph © Kevin O'Connor. Below: Tullynagee, County Down. Adults of *Leptocerus tineiformis* were collected on this lake. Photograph © Oliver Dixon, geograph.org.uk.



FIGURE 76. Oaklands Lake, New Ross, County Wexford. Adults of *Oecetis lacustris* were taken at this lake. Photograph © Mary O'Connor.



FIGURE 77. *Oecetis ochracea* (Curtis, 1825), a species recently found in Counties Antrim, Down, Dublin and Waterford. Photograph © Cathal McNaughton.

