

***CORYNONEURA COLLARIS* MAKARCHENKO & MAKARCHENKO, 2010
(DIPTERA: CHIRONOMIDAE: ORTHOCLADIINAE) NEW FOR IRELAND**

Declan A. Murray

*Emeritus Associate Professor, Freshwater Biodiversity Ecology and Fisheries Research Group,
School of Biology and Environmental Science, University College Dublin, Dublin 4, Ireland.*

e-mail: <declan.murray@ucd.ie>

(address for correspondence: *Meadesbrook, Ashbourne, Co. Meath, A84 K727, Ireland*)

Abstract

Corynoneura collaris Makarchenko & Makarchenko, 2010 is added to the checklist of Irish Chironomidae based on distribution records of the morphotype *Corynoneura* Pe2a, sensu Langton, that is now associated with the species. Records are documented from 28 locations in Counties Cork, Donegal, Galway, Kerry, Leitrim, Mayo, Meath, Roscommon, Sligo, Tipperary and Wicklow and in Hydrometric Areas (HAs) 7, 10, 18, 20, 21, 22, 26, 32, 34, 35, 37, 38 and 39.

Key words: *Corynoneura collaris*, Pe2a, Chironomidae, County, Hydrometric Area, distribution, Ireland.

Introduction

Pupal exuviae of the distinct morphotype *Corynoneura* Pe2a (sensu Langton) have occurred in occasional drift net and other collections of exuviae in Ireland for many years. The morphotype was designated “Pe2a” by P. H. Langton and included in his key to pupal exuviae of British Chironomidae (Langton, 1984) and in the updated and comprehensively revised key to pupal exuviae of West Palaearctic Chironomidae (Langton, 1991; Langton and Visser, 2003). The earliest record in Ireland of the morphotype was by Patrick Ashe from drift net collections in 1978 in which pupal exuviae were found, slide mounts prepared, labelled as “*Corynoneura* sp, indet”, deposited in a reference collection and later identified as *Corynoneura* Pe2a from Langton (1984). The morphotype was occasionally found in collections by the author and/or his students in the following years but, while noted, the records were not published. The first published record of the morphotype in Ireland was by Langton (2002) from two sites in County Donegal and those records, along with distribution data from nine other locations, were included in Murray *et al.* (2014). A record from one other location was given in Murray (2018) and a summary of its distribution at those twelve locations in Ireland was given in Murray *et al.* (2018).

Recently Dr Peter Langton (pers. comm.) kindly notified the author that a Finnish colleague, Janne Raunio, had alerted him to the fact that the morphotype, *Corynoneura* Pe2a sensu Langton, has been associated with the species *Corynoneura collaris* Makarchenko & Makarchenko, 2010. Based on the known records of *Corynoneura* Pe2a in Ireland, the species *Corynoneura collaris* may now be added to the checklist of Irish Chironomidae, thereby replacing the taxon entry of *Corynoneura* Pe2a in Murray *et al.* (2018, p. 27).

***Corynoneura collaris* Makarchenko & Makarchenko, 2010.**

Distribution data of *Corynoneura collaris*, in Ireland is presented here based on records of its pupal morphotype *Corynoneura* Pe2a in Murray (2018, 2022), Murray *et al.* (2014, 2018) and in post-graduate theses at University College Dublin (Hayes, 1991; Heneghan, 1986). Records are given from 28 locations that are documented by County and Hydrometric Area (HA), location data, six-figure Irish Grid Reference, date of collection and collector. Abbreviations used for names of collectors are: BH - B. Hayes, CD - C. Duigan, DM - D. Murray, EPA - Environmental Protection Agency (field officers), LH - L. Heneghan, J-RB - J-R Baars, PA - P. Ashe, PHL - P. H. Langton, WM - W. Murray.

Records of *Corynoneura collaris* in Ireland

The records are arranged by county in alphabetic sequence. New, previously unpublished records are marked with the asterisk symbol *.

CORK: HA20 - *River Ilen, Hollybrook (W117363), 24 August 1983 (BH); *River Ovane, Pierson's Bridge (W023544), 24 August 1983 (BH).

DONEGAL: HA37 - Carn Lough, Blue Stack Mountain (G871886), 10 May 2005 (J-RB); *River Eanymore, Letterbara Bridge (G883825), 10 August 1983 (BH) and *Drumagraa Bridge (G863822), 10 August 1982 (BH); *River Oily, Claggen (G751803), 8 August 1982 (BH); *River Stragar, Duninkeely (G727792), 10 August 1982 (BH): **HA38** - River Devlin, Dunlewy (B927190), 19 July 2000 (PHL) (Langton, 2002); Lough Waskel, The Rosses (B729165), 25 October 1985 (CD); *River Owenveagh, above Lough Veagh, Glenveagh National Park (B990170), 20 July 1985 (LH): **HA39** - River Swilly, Newmills, Letterkenny (C125092), 18 July 2000 (PHL) (Langton, 2002); *River Leannan, Claragh (C197210), 13 August 1982 (LH).

GALWAY: HA32 - *River Dawros, Tullywee Bridge, Letterfrack (L730586), 18 August 1981 (BH).

KERRY: HA21 - Lough Brin, Derreeny (V780775), 10 September 2008 (EPA); *River Inny, Scarriff Bridge (V504696), 24 August 1983 (BH): **HA22** - River Loo, Aughnanus Bridge, Crohane (W045790), 23 July 1978 (PA).

LEITRIM: HA35 - Lough Lakagh, Boleybrak (G920320), 3 August 2005 (J-RB).

MAYO: HA32 - River Bunowen, Louisburg (L807807), 7 May 2004, (DM, WM); River Owenwee, Westport, Aughamore Bridge (L972817), 5 August 2004 (DM, WM); Stream, Murrisk, Westport (L908824), 7 May 2004 (DM, WM): **HA34** - Castlebar Lough, Castlebar (M106879), 7 May 2004 (DM, WM).

MEATH: HA7 - River Boyne, New Bridge, Navan (N873679), 18 August 1988 (DM).

ROSCOMMON: HA26 - *River Suck, Athleague (M825758), 14 August 1981 (BPH).

SLIGO: HA35 - *River Easky, Easky (G377378), 19 August 1983 (BH).

TIPPERARY: HA18 - Lough Curra, Galtymore (R867242), 10 August 2005 (J-RB).

WICKLOW: HA10 - *River Glenealo, Glendalough (T090962), 5 October 1996 (DM); *River Avonbeg, Drumgoft Bridge, Glenmalure (T105905), 4 August 1983 (BH); *River Avonmore, Castlehoward (T190833), 4 August 1983 (BH).

Summary

Records of *Corynoneura collaris* in Ireland, based on identification from pupal exuviae, are given from 28 locations in eleven counties (with number of locations per county in brackets): Cork (3), Donegal (10), Galway (1), Kerry (3), Leitrim (1), Mayo (4), Meath (1), Roscommon (1), Sligo (1), Tipperary (1), Wicklow (3). These locations are situated in thirteen Hydrometric areas (HAs): (with number of locations per HA in brackets): HA7 (1), HA10 (3), HA18 (1), HA20 (2), HA21 (2), HA22(1), HA26 (1), HA32 (4), HA34(1), HA35 (2), HA37 (5), HA38 (3), HA39 (2).

Acknowledgement

Sincere thanks to Peter Langton for drawing the author's attention to the association between the pupal morphotype *Corynoneura* Pe2a with the named species *Corynoneura collaris*.

References

- Hayes, B. P. (1991) *Studies on the Chironomidae (Diptera: Insecta) of Irish rivers, based on collections of pupal exuviae*. Ph.D. thesis. Department of Zoology, University College Dublin. 282p.
- Heneghan, L. (1986) *The Chironomidae (Diptera) of Glenveagh National Park, Co. Donegal: An annotated Inventory*. M.Sc. thesis. Department of Zoology, University College Dublin. 147p.
- Langton, P. H. (1984) *A key to pupal exuviae of British Chironomidae*. Privately published by the author.
- Langton P. H. (1991) *A key to pupal exuviae of West Palaearctic Chironomidae*. Privately published by the author.

- Langton, P. H. (2002) A preliminary survey of the non-biting midges (Diptera: Chironomidae) of Northern Ireland. *Bulletin of the Irish Biogeographical Society* **26**: 14-28.
- Langton, P. H. and Visser, H. (2003) *Chironomidae exuviae - A key to pupal exuviae of the West Palaearctic Region*. Interactive System for the European Limnofauna Biodiversity Centre of ETI, UNESCO Publishing, Paris.
- Murray, D. A. (2018). Further distribution records of Chironomidae (Insecta: Diptera) in Ireland from past collections. *Bulletin of the Irish Biogeographical Society* **42**: 58-74.
- Murray, D. A. (2022) Land and freshwater fauna. Chapter 11. Chironomidae (Insecta: Diptera) of Clare Island and the adjacent mainland Mayo, Ireland. Pp 133-184. In †McCarthy, T. K Leonard, É. and Breen, J. (eds) *New Survey of Clare Island Volume 10, Royal Irish Academy, Dublin*.
- Murray, D. A., O'Connor, J. P. and Ashe P. J. (2018) Chironomidae (Diptera) of Ireland – a review, checklist and their distribution in Europe. *Occasional Publication of the Irish Biogeographical Society* **Number 12**. Published in association with University College Dublin and the Environmental Protection Agency. 404pp.
- Murray, D. A., Langton, P. H., O'Connor, J. P. and Ashe, P. (2014). Distribution records of Irish Chironomidae (Diptera): Part 2 – Orthoclaadiinae. *Bulletin of the Irish Biogeographical Society* **38**: 61-246.