

CURRICULUM VITAE

RORY HODD

B.Sc. (Hons.), Ph.D.

EDUCATION

2007 – 2012: Botany and Plant Science, National University of Ireland, Galway, Ph.D.

A study of the oceanic montane vegetation and bryophyte communities of Western Ireland and their potential response to climate change.

2003 – 2007: National University of Ireland, Galway, B.Sc. (Hons.) Botany (1st Class)

Thesis: A study of the vegetation of the scree slopes of the Macgillycuddy's Reeks, Co. Kerry.

EMPLOYMENT HISTORY

August 2010 – Present: Independent botanist and ecologist, Nimbosa Ecology

Carrying out ecological survey work, with a strong conservation focus, specialising in highly detailed bryological, botanical and habitat survey, in a wide range of habitats throughout Ireland, as well as bryophyte identification and training in bryophyte and habitat identification. Clients include NPWS, Natural Resources Wales, Teagasc, Blackwater Regional Partnership, NUI Galway, BEC Consultants, Scott Cawley, Denyer Ecology, Mountaineering Ireland and Irish Rail. Currently undertaking monitoring of the EU Annex Habitat Calaminarian grassland across Ireland on behalf of NPWS.

January 2017 – present: Visiting researcher/RIA Charlemont Scholar, Liverpool John Moores University, UK

Initiating long-term experiments to monitor the impact of climate change on montane plant communities in North Wales.

October 2015 – present: Associate Ecologist, BEC Consultants

Lead Ecologist on project to monitor eight plant species listed in Annexes of the EU Habitats Directive. Acting as lead surveyor of populations of *Saxifraga hirculus*, *Diphasiastrum alpinum*, *Lycopodium clavatum*, *Lycopodiella inundata* and *Huperzia selago* and assisting with monitoring of *Trichomanes speciosum*, *Hamatocaulis vernicosus* and *Petalophyllum ralfsii*. Also contributed to monitoring of various coastal habitats and grasslands since 2016.

February 2014 – March 2017: Guest lecturer, Botany and Plant Science, NUI Galway

Providing lectures and field training on the topics of bryophytes, conservation issues, rare plant and habitat conservation and field ecology to 2nd, 3rd and 4th year undergraduate students.

February – March 2016: Volunteer ecologist, Gurukula Botanical Sanctuary, Kerala, India

Carried out project studying epiphytic bryophytes and other plants growing on non-native stands of coffee in tropical rainforest ecosystems.

September 2014 – December 2016: FPO Bryophyte Surveyor, NPWS

Carrying out a survey of bryophyte species included on a revised Flora Protection Order throughout Ireland. This includes collecting detailed information on the ecology, management and conservation of

a number of rare and threatened bryophyte species, and resulted in many new records of rare species.

May 2012 – February 2013; April 2014 – September 2014: Associate Ecologist, BEC Consultants

Worked primarily on the National Survey of Upland Habitats (NSUH). Duties include field survey and mapping, often in challenging conditions, collection of relevé data, processing of large datasets collected in the field, report writing and identification of bryophyte and vascular plant specimens, in both the field and lab. This field work often involved interpreting aerial photographs to accurately determine proportion cover of specific vegetation types or damage features within an area.

August 2010 – October 2011: Consultant Ecologist, BEC Consultants

Worked part-time on the National Survey of Upland Habitats (NSUH). Duties were as above.

September 2011 – May 2012: Project supervisor, NUI Galway

Co-supervised a 4th year undergraduate Environmental Science student undertaking a project on the bryophyte communities of flush vegetation in western Ireland.

September 2008 - December 2008: Laboratory supervisor, NUI Galway

Supervision of 1st year Biology practicals, which included managing a team of demonstrators and teaching to large classes of students.

June 2007 - September 2007: Ecological researcher, NUI Galway

Carried out survey of the vegetation of Inisfallen Island, Killarney National Park for the National Parks and Wildlife Service. Techniques utilised include vegetation mapping, collection and analysis of relevé data, assessment of past land-use and report writing.

May 2007 - June 2007: Assisted in survey of endemic Hawkweeds in Kerry, Sligo, Leitrim, Antrim and Donegal, being carried out by researchers from the National Museum of Wales, Cardiff.

September 2006 – May 2014: Laboratory and field demonstrator, NUI Galway

Extensive laboratory and field demonstration to Biology and Botany students in the topics of general botany, taxonomy, bryology, ecology, vegetation analysis and soil science. This was carried out in both a laboratory environment and in a wide range of habitats in the field, including woodland, grassland, limestone pavement and peatlands.

SKILLS AND OTHER INFORMATION

- Excellent bryophyte identification skills, in both the field and lab
- Very good vascular plant identification and fair lichen identification skills
- Experienced in surveying and monitoring rare and threatened bryophyte and vascular plant species and a range of habitats
- Extremely competent fieldworker, both as part of a team and alone, having carried out fieldwork in a wide variety of difficult terrain and conditions
- Experienced in using GIS and GPS, particularly for habitat mapping, with knowledge of interpreting aerial photographs to determine vegetation cover and conservation priorities
- Wide knowledge of conservation issues and threats, particularly in relation to upland and blanket bog habitats, and rare bryophytes and vascular plants

- In-depth knowledge of all Irish and most British habitats, especially upland, peatland, montane and coastal habitats, as well as a basic knowledge of the range of habitats across Europe, from the Mediterranean to the Arctic, New Zealand and tropical, subtropical and montane habitats of the Indian subcontinent
- Very knowledgeable on management measures and requirements for terrestrial habitats and plant species
- Highly proficient at vegetation sampling, multivariate analysis and vegetation classification
- Experienced at constructing and interpreting species distribution models in relation to future climate change scenarios
- Highly competent at creating, managing and utilising large datasets
- Experience of monitoring and recording local climate
- Full, clean driving licence and own vehicle; experience of driving 4x4 vehicle over rough terrain
- Holder of Remote Emergency Care Level 3 and FETAC Level 5 occupational first aid certificates
- Proficient at using a wide range of software, including Microsoft Office, Arc-GIS, Q-GIS, R, SPSS and specialised software for the recording, storage and analysis of ecological data, including TurboVeg, PC-Ord and JUICE
- Experienced vascular plant and bryophyte recorder, in both Ireland and Scotland, having contributed to the BSBI Atlas 2000 project, BSBI Atlas 2020 project, the atlas of British and Irish bryophytes and the Kildare bryophyte recording project
- Made many important records of rare and threatened vascular plant and bryophyte species, including the rediscovery of four species of bryophyte thought to be extinct in Ireland, as well as more than 100 new bryophyte vice county records in Ireland and the UK
- Excellent report and paper writing skills, with a number of papers published and in preparation. Also experienced at writing professional ecological reports
- Experienced public speaker, with numerous presentations given at conferences in Ireland, the UK and Europe
- Dynamic team worker, always work very well with other team members
- Extensive teaching skills in the classroom and field, gained from teaching and demonstrating to undergraduate students at NUI Galway and teaching bryophyte identification to professional ecologists, botany students and members of the public
- Experienced and highly competent hillwalker and mountaineer, with an extensive knowledge of all upland areas of Ireland, as well as certain areas of Scotland, the Alps and the Himalayas
- Excellent photographer, particularly landscape and botanical, with photographs used in a range of publications
- Familiar with the most up to date health and safety procedures and guidelines
- Various positions held on the committee of the NUI Galway Botany Society; also part of the Postgraduate Ecology Forum organising committee in 2009

- Invited reviewer of European bryophyte Red Data List assessments
- Invited to peer review scientific papers for a number of journals
- Author of regular bryophyte column in British Wildlife Magazine since 2018

PROFESSIONAL MEMBERSHIPS AND AWARDS

- British Bryological Society (BBS) – Regional recorder for North and South Kerry (H1 and H2), member of BBS council 2014-2017.
- Botanical Society of Britain and Ireland (BSBI) – Joint vice county recorder for North and South Kerry (H1 and H2), Honorary Treasurer and member of Committee for Ireland (CFI).
- European Committee for the Conservation of Bryophytes (ECCB) – Board member.
- British Ecological Society (BES).
- International Association of Bryologists (IAB).
- Awarded a Royal Irish Academy Charlemont Award in 2017.

PEER REVIEWED PUBLICATIONS

Hodd, R.L., Bourke, D. and Sheehy Skeffington, M. (2014) Range contractions projected under climate change: greater focus on future impacts essential to the conservation of European protected oceanic montane plant communities. *PLoS ONE* **9**(4):e95147. doi:10.1371/journal.pone.0095147.

Hodd, R.L. and Roche, J.R. (2015) *Diphasiastrum alpinum* L. (Holub) (Alpine Clubmoss) rediscovered in Co. Kerry (H1). *Irish Naturalist's Journal* **34**(2):125-126.

Hodd, R.L. and Sheehy Skeffington, M. J. (2011) Climate change and oceanic mountain vegetation: a case study of the montane heath and associated plant communities in western Irish mountains. In: Hodkinson, T. R., Jones, M. B., Waldren, S. and Parnell, J. A. N. (eds.) *Climate Change, Ecology and Systematics*. Cambridge University Press, Cambridge.

Coll J., Bourke D., **Hodd R.L.**, Skeffington M.S., Gormally M., Sweeney J. (2016) Projected climate change impacts on upland heaths in Ireland. *Climate Research* **69** :177-191.

Muldoon, C., **Hodd, R.**, Douglas, C., Lockhart, N. and Roche, J. (2014) New vice-county record for Marsh Saxifrage (*Saxifraga hirculus*) in Co. Sligo (H28). *Irish Naturalist's Journal* **33**(2):130-131.

Rich, T.C.G., Cotton, D.C.F., **Hodd, R.L.I.B.**, Houston, L., McCosh, D.J. and Wyse Jackson, M.B. (2009) Conservation of Ireland's biodiversity: status of the Irish endemic *Hieracium basalticola* Pugsley (Basalt Hawkweed) (Asteraceae) *Irish Naturalists Journal* **30**(2):79-89.

Rich, T.G.G., **Hodd, R.L.I.B.**, McCosh, D.J., Mhic Daeid, E.C., McVeigh, A, Sawtschuck, J. and Wyse Jackson, M.B. (2008) Conservation of Ireland's biodiversity: a survey and assessment of the current status of three Irish endemic hawkweeds from Kerry, *Hieracium argentatum*, *H. Scullyi* and *H. sparsifrons* (Asteraceae). *Biology and Environment: Proceedings of the Royal Irish Academy* **108**:143-155.

NON-PEER REVIEWED PUBLICATIONS

Hodd, R.L. (2017) BBS Summer meeting 2016: Donegal, Ireland. *Field Bryology*.

Hodd, R.L. (2016) Review of 'Atlas of British and Irish Bryophytes'. *Irish Naturalists Journal*.

Hodd, R. and Sheehy Skeffington, M. (2011) Mixed northern hepatic mat: a threatened and unique bryophyte community. *Field Bryology* 104:2-11.

Rich, T.C.G., McVeigh, A., **Hodd, R.** and Wyse-Jackson, M.B. (2013) The genus *Sorbus* in the Killarney area, Co. Kerry, Ireland. *Irish Botanical News* 23:11-20.

SELECTED REPORTS

Hodd, R.L. (2018) Assessing the condition of liverwort-rich scree in Wales. NRW Evidence Report No: 241, 32 pp, Natural Resources Wales, Bangor.

Hodd, R.L. (2018) Survey of the bryophytes of upland rocky habitats of Cadair Idris NNR/SSSI. NRW Evidence Report No: 240, 98 pp, Natural Resources Wales, Bangor.

Hodd, R.L. (2018) Survey of the bryophytes of outlying campuses of University College Cork: Lough Hyne, Curaheen Sports Grounds, Curaheen Agricultural Grounds and the ERI. Unpublished report to Caroline Lalor, Offaly.

Hodd, R.L. (2016) Survey of Flora Protection Order Bryophytes 2016. Unpublished summary report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Hodd, R.L. (2015) Survey of Flora Protection Order Bryophytes 2015. Unpublished summary report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Hodd, R.L. (2015) Survey of Flora Protection Order Bryophytes in counties Cork and Kerry. Unpublished summary report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Hodd, R. and Barron, S. (2015) An assessment of damaged habitat on Sliabh Beagh, Cos Monaghan, Tyrone and Fermanagh, using aerial imagery. Unpublished report for Blackwater Regional Partnership.

Hodd, R.L. (2014) University College Cork bryophyte survey 2014. Unpublished report to Caroline Lalor, Offaly.

Hodd, R.L. (2014) Survey for *Hamatocaulis vernicosus* (varnished hook moss) for the Galway City Transport Project (GCTP). Unpublished report to Scott Cawley, Dublin.

Hodd, R.L. and Denyer, J.L. (2013) O'Sullivan's Cascade Bryophyte Survey. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Hodd, R.L. and Sheehy Skeffington, M.J. (2008) A description of the vegetation of Inisfallen Island, L. Leane, Killarney National Park. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Perrin, P.M. and **Hodd, R.L.** (2013) A classification of Irish upland vegetation. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., **Hodd, R.L.** and Devaney, F.M. (2014). National Survey of Upland Habitats (Phase 4, 2013-2014), Site Report No. 16: Caha Mountains cSAC

- (000093), Cos. Cork and Kerry. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., **Hodd, R.L.** and Devaney, F.M. (2014). National Survey of Upland Habitats (Phase 4, 2013-2014), Draft Site Report No. 15: Slieve Mish Mountains cSAC (002185), Co. Kerry. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., **Hodd, R.L.**, Muldoon, C.S. and Leyden, K.J. (2013) National Survey of Upland Habitats (Phase 3, 2012-2013), Draft Site Report No. 10: Ox Mountains Bogs cSAC (002006), Cos. Mayo and Sligo. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., **Hodd, R.L.**, Muldoon, C.S. and Leyden, K.J. (2013) National Survey of Upland Habitats (Phase 3, 2012-2013), Draft Site Report No. 11: Ben Bulbin, Gleniff and Glenade Complex cSAC (000623), Co. Sligo. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., **Hodd, R.L.**, Muldoon, C.S. and Leyden, K.J. (2013) National Survey of Upland Habitats (Phase 3, 2012-2013), Draft Site Report No. 12: Arroo Mountain cSAC (001403), Co. Leitrim. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., **Hodd, R.L.**, Muldoon, C.S. and Leyden, K.J. (2013) National Survey of Upland Habitats (Phase 3, 2012-2013), Draft Site Report No. 13: Cuilcagh – Anierin Uplands cSAC (000584), Cos. Cavan and Leitrim. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Perrin, P.M., Roche, J.R., Barron, S.J., Daly, O.H., **Hodd, R.L.**, Muldoon, C.S. and Leyden, K.J. (2013) National Survey of Upland Habitats (Phase 3, 2012-2013), Draft Site Report No. 14: Slieve League cSAC (000189), Co. Donegal. Unpublished report to National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Rich, T.C.G., McVeigh, A. and **Hodd, R.L.** (2008) The genus *Sorbus* in the Killarney area. Unpublished report, National Museum of Wales, November 2008.