



## CURRICULUM VITAE

Stephen Waldren B.Sc. (Hons.) Ph.D.

### EDUCATION

**Ph.D.** University College, Cardiff (awarded 1986)

Thesis Title: Physiological and Morphological Studies of Waterlogging Tolerance in *Geum rivale* L., *G. urbanum* L. and their Hybrids.

**B.Sc. (Hons.)**, Plant Science with auxiliary Biochemistry, First Class Honours (1981) University College, Cardiff

Prizes and Distinctions: Awarded H. Latham Scholarship in 1979 and 1980 by the University for exam performance in 1st and 2nd years.

### CAREER HISTORY

**Post-doctoral Research Fellow** School of Botany, Trinity College, January 1986 - August 1987:

This period of employment involved research in the areas of plant physiological ecology and ecological genetics, using native Irish species with disjunct geographic distributions.

**Botanic Gardens Curator/Administrator** Trinity College Botanic Gardens August 1987 - present:

My employment at the Botanic Gardens combines curatorial duties, financial and personnel management, teaching and academic research.

### Major Achievements:

- In-house development of a database system for storage and retrieval of accession records
- Development of the Irish Threatened Plant Genebank
- Increased postgraduate activity and use of the Botanic Garden
- Development of the Garden's international reputation in plant conservation
- Improved staff structure and allocation of duties
- Development plan for the Botanic Gardens

### Research Interests

My main areas of interest are ecological and population genetics, physiological ecology, plant biogeography, island floras, and conservation biology. Specific projects at present include the following:

- Flora and vegetation of the Pitcairn Islands, S.E. Polynesia, including:
  - Vegetation communities and floristics and biogeography of Oeno, Henderson & Pitcairn islands
  - Status of endemic and rare taxa and their conservation
- The biogeography and history of the Irish flora
- The biogeography, evolution and molecular systematics of Polynesian species of *Peperomia*

- Population biology of endangered Irish native species, and development of a gene bank of native Irish species
- Turlough ecology, including the physiological processes enabling plant survival in turloughs (temporary lakes in karst limestone) and soil nutrient dynamics.
- Conservation biology of threatened Irish plants, particularly genetic variation in threatened plants, and *ex situ* conservation
- Genetic resources conservation, particularly cereals

Research funding obtained from a variety of State and charitable sources over the last three years exceeds €500,000.

#### **Consultancy work:**

I have acted as a Consultant for Botanic Gardens Conservation International on several occasions. I have contributed to a series of BGCI training workshops for the Indonesian Network for Plant Conservation held in Java in March 1996, and in Bali in December 1996. I contributed sessions on vegetation survey methods to a BGCI training workshop at Tam Dao National Park, Vietnam in October 1997 and again in December 1999. Most recently, I made various presentations linked to plant conservation biology at a recent workshop in Beijing organized jointly by BGCI and the Chinese Academy of Sciences.

I am a Director of Botanical, Ecological & Environmental Consultants Ltd., an environmental consultancy company set up in 1999. The company has worked on a variety of projects including monitoring biodiversity in urban parks, monitoring rare plants threatened by development proposals, and assessing molecular variation in threatened plant populations. The company was recently awarded the contract to act as secretariat to the Irish National Platform for Biodiversity Research, of which I am project director.

#### **ADDITIONAL INFORMATION**

##### **Membership of Organisations**

- Director and Treasurer of the Irish Genetic Resources Conservation Trust, an NGO which aims to promote the conservation of Ireland's unique plant and animal genetic resources.
- Council Member of the Systematics Association
- Member of the BGCI/IABG European Botanic Garden Consortium
- Director and Board member of PlantNet (plant collections network for Britain & Ireland)
- Member of the Irish Government Advisory Committee on Genetic Resources for Food & Agriculture

##### **Expeditions:**

I participated in the Sir Peter Scott Commemorative Expedition to the Pitcairn Islands, 1991-1992, a fifteen- month expedition concentrating on the biology, geology and archaeology of Henderson Island, an uninhabited raised atoll.

In 1997 I led a party of four on the Pitcairn Islands Botanical and Invertebrate Expedition, which spent three months surveying the flora, mapping vegetation communities, examining the distribution and ecology of invasive plants and collecting invertebrates from Pitcairn Island.

I have undertaken field survey work for the fern flora of Tam Dao National Park, Vietnam (1997, 1999), and recently (2002) have undertaken a collecting trip to the Marquesas Islands, French Polynesia.

##### **Other Qualifications:**

British Sub-Aqua Club Advanced Diver, Diver Cox'on, and Assistant Practical Instructor.  
Full British driving license held since 1984, no endorsements.

## Recent Publications

- Waldren, S.**, Lynn, D.E. & Murphy, S. (2006). The turlough form of *Ranunculus repens* L. (Creeping Buttercup). In: *Botanical links in the Atlantic Arc*, Eds S.J. Leach, C.N. Page, Y. Petoureau & M.N. Sanford, pp 301-309. Botanical Society of the British Isles: London.
- Smith, R.J. & **Waldren, S.** (2006). Genetic variation in Irish threatened plant species: a European perspective. In: *Botanical links in the Atlantic Arc*, Eds S.J. Leach, C.N. Page, Y. Petoureau & M.N. Sanford, pp 147-156. Botanical Society of the British Isles: London.
- Kingston, N. & **Waldren, S.** (2006). Biogeography of the Irish Lusitanian Heathers. In: *Botanical links in the Atlantic Arc*, Eds S.J. Leach, C.N. Page, Y. Petoureau & M.N. Sanford, pp 137-145. Botanical Society of the British Isles: London.
- Waldren, S.**, Coxon, P. & Kingston, N. (2006). Phytogeography of Ireland, past & present. In: *Botanical links in the Atlantic Arc*, Eds S.J. Leach, C.N. Page, Y. Petoureau & M.N. Sanford, pp 31-39. Botanical Society of the British Isles: Lond
- Waldren, S.** (2006) Recovery programmes for threatened Irish plants. *Enscenews*, **1**: 12-13.
- Waldren, S.**, Kingston, N., Smyth, N., Warren, J. & Warren, C. (2005). Integrated plant conservation on Pitcairn Island, south-central Pacific Ocean. *BG Journal*, **2**: 22-24.
- Waldren, S.**, Kingston, N., Smyth, N., Warren, J. & Warren, C. (2004). Plant conservation activities on Pitcairn Island. *Flora English Nature*, **Summer 2004**, 14-15.
- Lynn, D.E. & **Waldren, S.** (2003) Uniquely Irish III. The turlough form of *Ranunculus repens*. In *Wetlands of Ireland. Distribution, Ecology, Uses and Economic Value*, (ed. M. Otte), pp 157-159. Dublin: University College Dublin Press.
- Kingston, N., Lynn, D.E., Martin, J.R. & **Waldren, S.** (2003) An overview of biodiversity features in Dublin city urban parklands. *Management of Environmental Quality*. **14**: 556-570.
- Lynn, D.E., Curtis, T.G.F. & **Waldren, S.** (2003). The collection and storage of seed of selected threatened Irish plant species. *Irish Naturalists Journal*, **27**: 273-277.
- Lynn, D.E. & **Waldren, S.** (2003) The use of *Ranunculus repens* as an indicator species for assessing the extent of flooding in turlough basins. *Biology and Environment*, **103B**: 161-168.
- Walsh, D.G.F., **Waldren, S.** & Martin, J.R. (2003) Monitoring seed viability of fifteen species after storage in the Irish Threatened Plant Genebank. *Biology and Environment*, **103B**: 59-67.
- Kingston N. & **Waldren S.** (2003). The phytogeographical affinities of the Pitcairn Islands - a model for south-eastern Polynesia? *Journal of Biogeography*, **30**: 1311-1328.
- Kingston, N. & **Waldren, S.** (2003). The plant communities and environmental gradients of Pitcairn Island: the significance of invasive species and the need for conservation management. *Annals of Botany*, **92**: 31-40.
- Lynn, D.E. & **Waldren, S.** (2003). Survival of *Ranunculus repens* L. (Creeping Buttercup) in an amphibious habitat. *Annals of Botany*, **91**: 75-84.