

State of Ireland's *in situ* PGRFA National Inventory

Joint PGR Secure/ECPGR workshop
7th September 2011

Noel Collins, Department of Agriculture,
Fisheries and Food, Ireland.

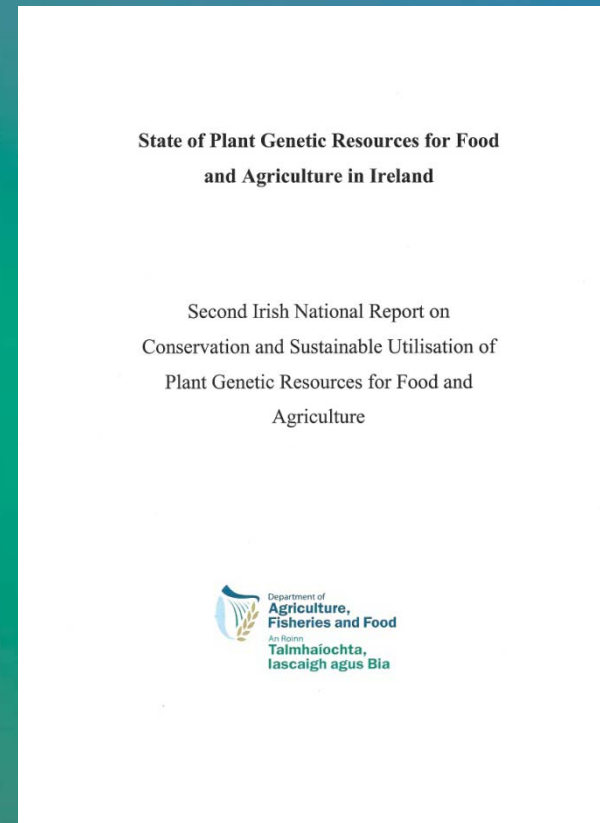


Department of
**Agriculture,
Fisheries and Food**

An Roinn
**Talmhaíochta,
Iascaigh agus Bia**

Background to Developing an *In Situ* NI in Ireland

- Limited focus on CWR's/landrace's pre- 2008
- Production of 2nd Nat. Report on the State of PGRFA in Ireland, highlighted knowledge gaps



Background to Developing an *In Situ* NI in Ireland

- National GR Forum held in late 2008, interested stakeholders resolved to help assist addressing CWR knowledge gaps, including..
 - NGO – Genetic Heritage Ireland
 - Recently established National Biodiversity Data Centre
- DAFF has grant aided these two bodies to carry out targeted work in CWR's via...

National Genetic Resources Grant Aid Scheme

- Supports GR projects in both Plant and Animals
- In existence since 1996
- *In situ* and *ex situ* projects supported
- In 2011 funding of €132k allocated
- Funding has been prioritised in addressing CWR knowledge gaps in the last 3 years


2009 Funded CWR Project - Production of a priority list of CWR for Ireland by Genetic Heritage Ireland

- Entire Irish flora scanned for CWR's
- Resulted in a list of 181 spp
- From this a priority list of 30 spp was produced based on four criteria of Annex 1 ITPGRFA listing, conservation status, current economic value & economic potential

2010 Funded Project – Establishment of a National CWR Database – National Biodiversity Data Centre (NBDC)

- Different approach to 2009 project in establishing a priority list as NBDC focus on *in situ* conservation
- A list of 102 CWR spp based on Annex 1 of ITPGRFA was created
- A National Crop Wild Relative website was established, includes information on CWR's at national and international level

NBDC CWR website; <http://geneticresources.biodiversityireland.ie/crop-wild-relatives/>



The screenshot shows a web browser window displaying the National Biodiversity Data Centre website. The header features the logo and navigation links for Genetic Resources, Crop Wild Relatives, and Species Profiles. The main content area is titled 'CROP WILD RELATIVES' and includes a definition, a quote, and three images. A 'Latest News' sidebar on the right lists recent updates. The footer contains the Department of Agriculture, Fisheries and Food logo and a Bioversity International logo.

NATIONAL BIODIVERSITY DATA CENTRE

GENETIC RESOURCES

Genetic Resources» Crop Wild Relatives» Species Profiles

CROP WILD RELATIVES

A crop wild relative (CWR) is a wild plant closely related to a domesticated plant.

CWRs have contributed many useful genes to crop plants, and modern varieties of most major crops now contain genes from their wild relatives. CWRs are an important resource for maintaining sustainable agro-ecosystems into the future.

Latest News

- » April: Data Centre will be recording priority CWRs in 2011 thanks to funding from DAFF
- » March: Bioversity launch 4 minute video on CWRs [link](#)
- » 16th Feb: Natural England publish a new report: CWRs - plant conservation for food security [link](#)
- » 17th Jan: The CWR global portal publicises the Irish CWR database and website [link](#)

Biodiversity International

This website provides a portal for information on Crop Wild Relatives in Ireland.

Click on the photographs above to learn more about [Crop Wild Relatives in Ireland, CWRs](#)

2010 Funded Project – Establishment of a National CWR Database – National Biodiversity Data Centre (NBDC)

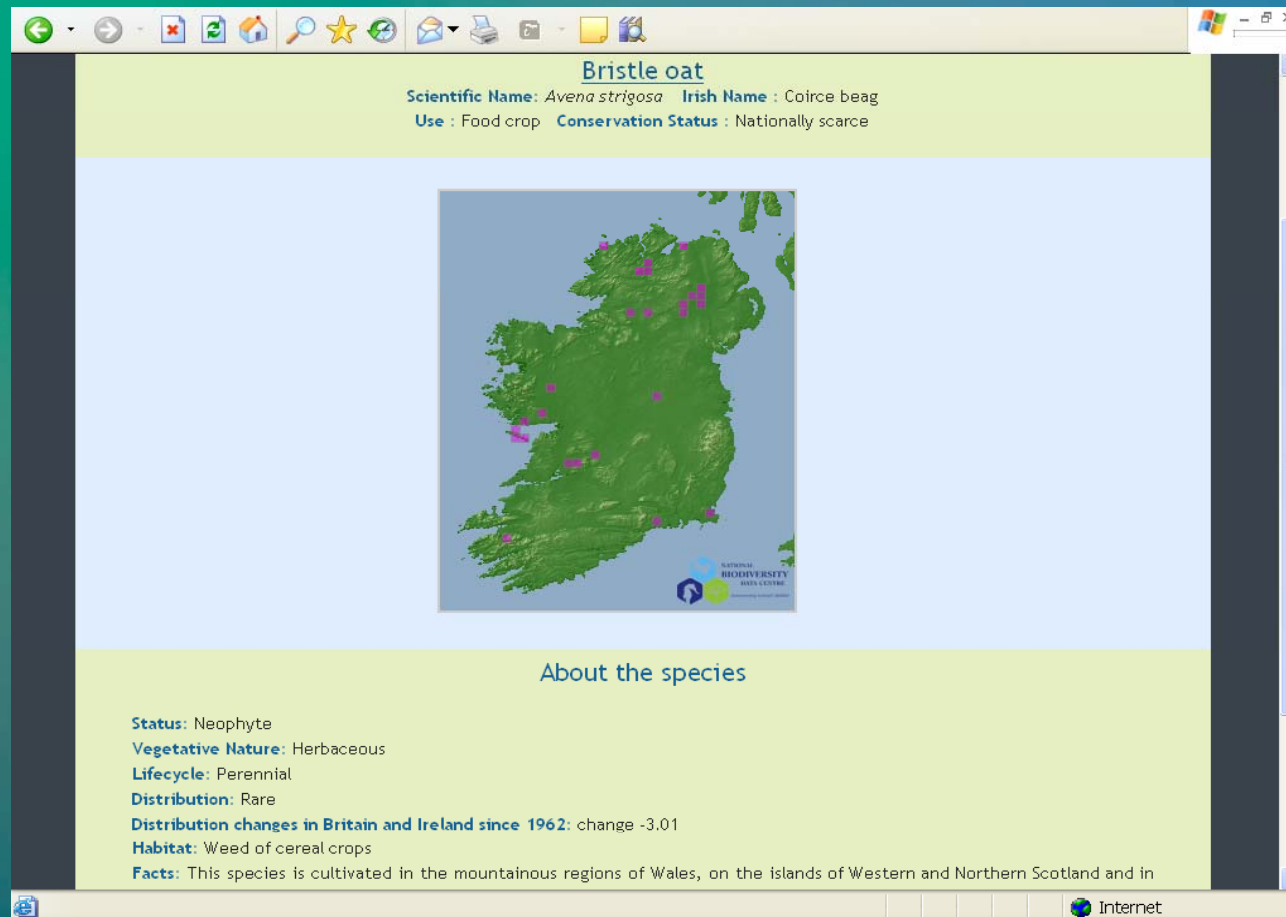
- For the 102 Annex 1 Listed ITPGRFA spp. individual spp. profiles have been created
- Contains info under various sub-headings
- Info on their geographical distribution was extracted from the Botanical Society of the British Isles database
- Spp search and example spp profiles...

CWR spp search facility

The screenshot shows a web browser window displaying the National Biodiversity Data Centre website. The page features a header with the logo and the text "NATIONAL BIODIVERSITY DATA CENTRE". Below the header, there are several small images and a navigation menu with the text "GENETIC RESOURCES". The main content area has a search bar with the text "Enter Species Name" and two radio buttons labeled "Taxon Name" and "Common Name". Below the search bar, there is a table with two columns: "Taxon Name" and "Common Name". The table contains the following data:

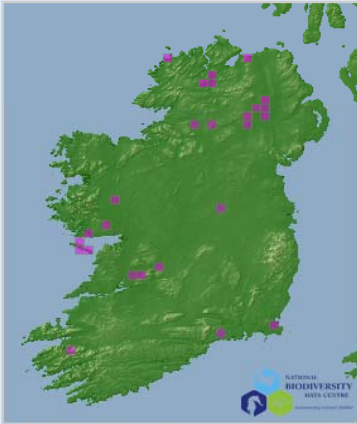
Taxon Name	Common Name
<i>Medicago sativa</i> subsp. <i>sativa</i>	Lucerne
<i>Medicago sativa</i> subsp. <i>varia</i>	Sand lucerne
<i>Melilotus albus</i>	White melilot
<i>Melilotus officinalis</i>	Ribbed melilot
<i>Onobrychis viciifolia</i>	Sainfoin
<i>Phalaris arundinacea</i>	Reed canary-grass
<i>Phleum pratense</i>	Timothy
<i>Poa alpina</i>	Alpine meadow-grass
<i>Poa annua</i>	Annual meadow-grass
<i>Poa pratensis</i>	Smooth meadow-grass
<i>Raphanus raphanistrum</i> subsp. <i>maritimus</i>	Sea radish
<i>Raphanus raphanistrum</i> subsp. <i>raphanist.</i>	Wild radish
<i>Rorippa amphibia</i>	Great yellow-cress
<i>Rorippa islandica</i>	Northern yellow-cress
<i>Rorippa microphylla</i>	Narrow-fruited water-cress
<i>Rorippa nasturtium-aquaticum</i>	Water-cress
<i>Rorippa nasturtium-aquaticum</i>	Water-cress

Bristle Oats Profile



The screenshot shows a web browser window with a toolbar at the top. The main content area has a light green header with the title "Bristle oat" and the following information: "Scientific Name: *Avena strigosa* Irish Name: Coirce beag Use: Food crop Conservation Status: Nationally scarce". Below this is a map of Ireland with several pink dots indicating the distribution of the species. The map includes a logo for "NATIONAL BIODIVERSITY DATA CENTRE". Below the map is a section titled "About the species" with the following details: "Status: Neophyte Vegetative Nature: Herbaceous Lifecycle: Perennial Distribution: Rare Distribution changes in Britain and Ireland since 1962: change -3.01 Habitat: Weed of cereal crops Facts: This species is cultivated in the mountainous regions of Wales, on the islands of Western and Northern Scotland and in". The browser's status bar at the bottom shows "Internet".

Bristle oat
Scientific Name: *Avena strigosa* Irish Name: Coirce beag
Use: Food crop Conservation Status: Nationally scarce




About the species

Status: Neophyte
Vegetative Nature: Herbaceous
Lifecycle: Perennial
Distribution: Rare
Distribution changes in Britain and Ireland since 1962: change -3.01
Habitat: Weed of cereal crops
Facts: This species is cultivated in the mountainous regions of Wales, on the islands of Western and Northern Scotland and in

Sea Beet Profile

Sea beet
Scientific Name: *Beta vulgaris subsp. maritima* **Irish Name:** Laíon na trá
Use: Food crop **Conservation Status:** Not protected



About the species

Status: Native
Vegetative Nature: Herbaceous
Lifecycle: Perennial
Distribution: Widespread but occasional
Distribution changes in Britain and Ireland since 1962: change+1.23
Habitat: Rocky, gravely seashores and cliffs
Facts: This species is a direct ancestor of all cultivated beets. Evidence suggests it has begun cultivation in the Middle East about 2000 years ago. Leaves are eaten between April and October. The stalks are used for the base and the thick stems...

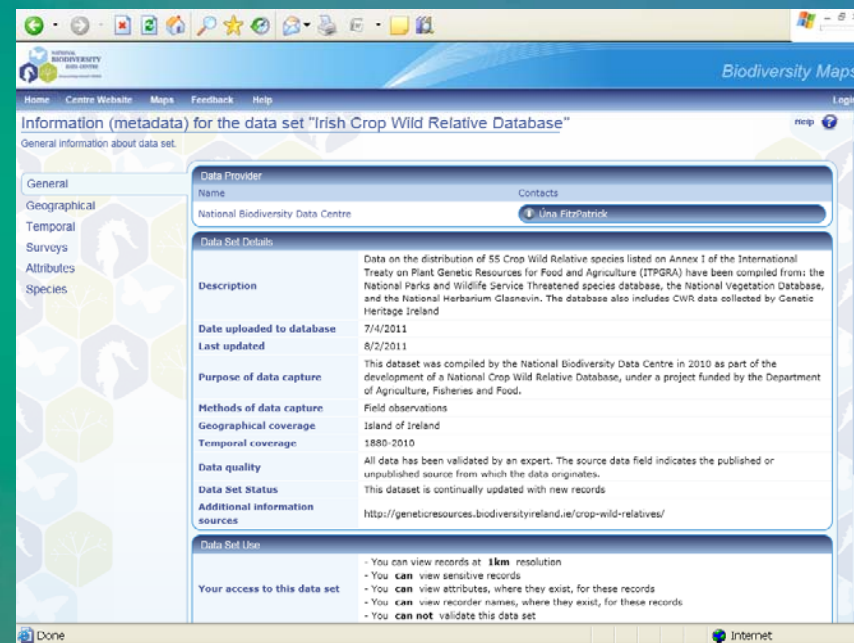
2010 Funded Project – Establishment of a National CWR Database – National Biodiversity Data Centre (NBDC)

- Additional data was specifically sourced for 55 of the 102 CWR spp that are less widespread in Ireland (<100 hectads)
- Info sources ranged from herbarium folders in Botanic Gardens to Dept. of Environ.'s threatened spp database
- A separate web portal for these 55 species has been set up

Data Set on 55 less widespread CWR's available at <http://maps.biodiversityireland.ie/>



The screenshot shows the homepage of the Biodiversity Maps application. The header includes the logo for the National Biodiversity Data Centre and the text 'Biodiversity Maps'. The main content area is divided into several sections: a 'Welcome' message, a 'Species Search' box with a search bar and 'Search' button, a 'Species Designation Browser' with buttons for 'Invasive Species', 'Protected Species', and 'Threatened Species', a 'Browse the Database' section with buttons for 'Browse Species', 'Browse Data Sets', and 'Browse Data Providers', and a 'Statistics Results' box showing 'Species records: 1,838,264', 'Species: 10,862', 'Data Sets: 76', and 'Last updated: 26 August 2011'. A 'Go to live maps' button is located at the bottom of the main content area. The footer contains logos for the National Biodiversity Data Centre, COMPASS, and the Department of Agriculture, Fisheries and Food.



The screenshot shows the metadata page for the 'Irish Crop Wild Relative Database'. The header includes the logo for the National Biodiversity Data Centre and the text 'Biodiversity Maps'. The main content area is titled 'Information (metadata) for the data set "Irish Crop Wild Relative Database"' and provides general information about the data set. The page is organized into several sections: 'General', 'Geographical', 'Temporal', 'Surveys', 'Attributes', and 'Species'. The 'Data Provider' section lists 'National Biodiversity Data Centre' and 'Úna FitzPatrick'. The 'Data Set Details' section includes a 'Description' of the data set, 'Date uploaded to database' (7/4/2011), 'Last updated' (8/2/2011), 'Purpose of data capture', 'Methods of data capture', 'Geographical coverage' (Island of Ireland), 'Temporal coverage' (1880-2010), 'Data quality', 'Data Set Status', and 'Additional information sources' (http://geneticoresources.biodiversityireland.ie/crop-wild-relatives/). The 'Data Set Use' section provides information on how the data set can be used, including resolution (1km), sensitive records, attributes, recorder names, and validation status.

Darnel Profile

NATIONAL BIODIVERSITY DATA CENTRE
Biodiversity Maps

Home Centre Website Maps Feedback Help Login

Species Detail for "Lolium temulentum"

Species information displayed is based on the data set "Irish Crop Wild Relative Database".

Species Details

Terrestrial Map - 10km	Marine Map - 50km	Scientific Name	Lolium temulentum
		Common Name	Darnel
Hover over map for more detail		Synonyms	N/A
		Designations	Threatened Species: Regionally Extinct
		Abbreviation	lotem
		Authority	L.
		Group	flowering plant
		Rank	Species
		Number of records	6
		Number of 10km squares	6
		Number of 50km squares	6
		Earliest Record (across all data sets)	N/A
		Latest Record (across all data sets)	N/A

Number of Records per Month (across all data sets)

Number of Records per Year (across all data sets)

Done Internet

Meadow Barley Profile

NATIONAL BIODIVERSITY DATA CENTRE
Biodiversity Maps

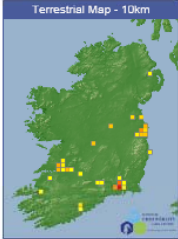
Home Centre Website Maps Feedback Help Login

Species Detail for "Hordeum secalinum"

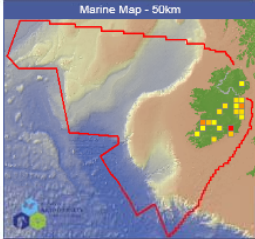
Species information displayed is based on the data set "Irish Crop Wild Relative Database".

Species Details

Terrestrial Map - 10km



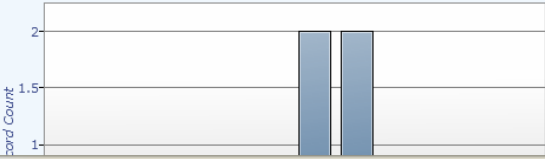
Marine Map - 50km



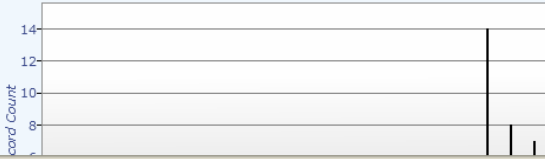
Hover over map for more detail

Scientific Name	Hordeum secalinum
Common Name	Meadow Barley
Synonyms	Critesion secalinum, Critesion secalinum, Hordeum nodosum auct., Hordeum nodosum auct., non L.
Designations	Protected Species: Flora Protection Order Threatened Species: Endangered
Abbreviation	hosec
Authority	Schreb.
Group	flowering plant
Rank	Species
Number of records	108
Number of 10km squares	32
Number of 50km squares	19
Earliest Record (across all data sets)	20 July (recorded in 2002)
Latest Record (across all data sets)	30 August (recorded in 1990)

Number of Records per Month (across all data sets)



Number of Records per Year (across all data sets)



Done Internet

2011 Funded Project – Recording of CWR from key under recorded areas (NBDC)

- Project has two principle aims
 - Collect new CWR records from five key under-recorded sites
 - Format this data to Eurisco template and add to the aforementioned National CWR Database

Fieldwork in the course of being completed at present

Summary

- Development of CWR NI still at an early stage in Ireland
- Further targeted recording needed to improve knowledge of spp. distribution
- Key knowledge gap is absence of up to date plant Red List, once available info can be collated to produce a definitive list of CWR spp for *in situ* conservation



Thank You!



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