

## C1: Bird Atlas Data for Lifford

These atlases show data for breeding and wintering birds respectively in individual 10 km by 10 km squares. **Table C1** shows those species found in the relevant 10 km squares (C30, H29, H39) that are recorded in the Breeding Birds Atlases and are also protected under the EU Birds Directive or mentioned on the Birds of Conservation Concern in Ireland (BoCCI) red list. Birds listed under Annex I of the EU Birds Directive are offered special protection by the EU Birds Directive. Those listed on the BoCCI Red List meet one or more of the following criteria:

- Their breeding population or range has declined by more than 50% in the last 25 years
- Their breeding population has undergone significant decline since 1900
- They are of global conservation concern

**Table C1 Breeding Bird Atlas Data (C30, H29, H39)**

Common Name	Scientific Name	Grid Ref.	Annex I	BoCCI Red list
Yellowhammer	<i>Emberiza citrinella</i>	C30, H39, H29	No	Yes
Northern Lapwing	<i>Vanellus vanellus</i>	C30, H39, H29	No	Yes
Merlin	<i>Falco columbarius</i>	C30, H29	Yes	No
Black-headed gull	<i>Larus ridibundus</i>	C30, H39, H29	No	Yes
Herring gull	<i>Larus argentatus</i>	C30, H39, H29	No	Yes
Corncrake	<i>Crex crex</i>	C30, H39, H29	Yes	Yes
Eurasian Curlew	<i>Numenius arquata</i>	C30, H39, H29	No	Yes
Red Grouse	<i>Lagopus lagopus</i>	C30, H39	No	Yes
Barn Owl	<i>Tyto alba</i>	C30, H39, H29	No	Yes
Common Kingfisher	<i>Alcedo atthis</i>	C30, H39, H29	Yes	No
European Golden Plover	<i>Pluvialis apricaria</i>	C30, H39, H29	Yes	Yes
Greater White-fronted Goose	<i>Anser albifrons</i>	C30	Yes	No
Hen Harrier	<i>Circus cyaneus</i>	C30, H39	Yes	No
Peregrine Falcon	<i>Falco peregrinus</i>	C30, H39, H29	Yes	No
Common Quail	<i>Coturnix coturnix</i>	H29	No	Yes
Common Redshank	<i>Tringa totanus</i>	C30, H39	No	Yes
Grey Partridge	<i>Perdix perdix</i>	H39	No	Yes
Twite	<i>Carduelis flavirostris</i>	C30, H39	No	Yes

In terms of wintering birds, **Table C2** shows those species found in the 10 km squares C30, H29, H39 that are recorded in the Atlas of Wintering Birds in Britain and Ireland 1988-91 and are also protected under the EU Birds Directive or mentioned on the Birds of Conservation Concern in Ireland (BoCCI) red list.

**Table C2 Wintering Bird Atlas Data (C30, H29, H39)**

Common Name	Scientific Name	Grid Ref.	Annex I	BoCCI Red list
Whooper Swan	<i>Cygnus cygnus</i>	C30, H39, H29	Yes	No
Common Kingfisher	<i>Alcedo atthis</i>	C30, H39, H29	Yes	No
Northern Lapwing	<i>Vanellus vanellus</i>	C30, H39, H29	No	Yes
Herring Gull	<i>Larus argentatus</i>	C30, H39, H29	No	Yes
Black-headed Gull	<i>Larus ridibundus</i>	C30, H39, H29	No	Yes
Yellowhammer	<i>Emberiza citrinella</i>	C30, H39, H29	No	Yes
Hen Harrier	<i>Circus cyaneus</i>	C30, H39	Yes	No
Merlin	<i>Falco columbarius</i>	C30, H29	Yes	No
Barn Owl	<i>Tyto alba</i>	C30, H39, H29	No	Yes

Twite	<i>Carduelis flavirostris</i>	C30, H39	No	Yes
Greater White-fronted Goose	<i>Anser albifrons</i>	C30	Yes	No
Eurasian Curlew	<i>Numenius arquata</i>	C30, H39, H29	No	Yes
European Golden Plover	<i>Pluvialis apricaria</i>	C30, H39, H29	Yes	Yes

## C2: NPWS Records of Protected Species

The species records from the 10 km squares (C30, H29, H39) on the protected species dataset are listed below:

- Brown hare (*Lepus europaeus*)- Four records in hected H29 between 1984 and 2000
- Common frog (*Rana temporaria*)- Records in hected C30 and H29
- Common porpoise (*Phocoena phocoena*)- One record in hected C30 at Lifford in 2014
- Common seal (*Phoca vitulina*)- One record from in H29 in 2005
- Daubenton's bat (*Myotis daubentonii*)- Records of Daubenton's bat in hecteds C30, H29 and H39
- Eurasian badger (*Meles meles*)- Records of badger in hecteds C30, H29 and H39
- Eurasian pygmy shrew (*Sorex minutus*)- One record in hected H29 in 1995
- Eurasian red squirrel (*Sciurus vulgaris*)- Records of red squirrel in hected C30 and H39
- European otter (*Lutra lutra*)- Records of otter in hecteds C30, H29 and H39
- Freshwater pearl mussel (*Margaritifera margaritifera*)- Records of freshwater pearl mussel in hected H39 between 1899 and 1996
- Killarney fern (*Trichomanes speciosum*)- Record in hected H39
- Lesser Noctule (*Nyctalus leisleri*)- Records of lesser noctule bats in hecteds C30, H29 and H39
- Marsh fritillary (*Euphydryas aurinia*)-Two records of Marsh fritillary butterfly in hected H29
- Natter's Bat (*Myotis nattereri*)- Two records of Natter's bat in hected H39
- Pine marten (*Martes martes*)- Records of pine marten in hected H39 and H29
- Pipistrelle bat (*Pipistrellus pipistrellus*)- Records of pipistrelle bats in hecteds H29 and H39
- Red deer (*Cervus elaphus*)- Records of red deer in hected H29 in 2008
- Sika deer (*Cervus nippon*)- Records of sika deer in hecteds C30, H29 and H39
- Smooth newt (*Lissotriton vulgaris*)- Records of smooth newts in hected C30 and H39
- Soprano pipistrelle (*Pipistrellus pygmaeus*)- Records of soprano pipistrelle in hected C30, H29 and H39
- West European hedgehog (*Erinaceus europaeus*)- Records of hedgehog in hected C30, H29 and H39

### **C3: Invasive Species Records**

The species records from the invasive species datasets (EU Regulation No. 1143/2014 and Regulation S.I. 477 (Ireland)) are listed below:

- Eastern Grey Squirrel (*Sciurus carolinensis*)- Listed on EU Regulation No. 1143/2014 and as High impact invasive on Regulation S.I. 477 (Ireland) (C30, H29 and H39)
- American Mink (*Mustela vison*)- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (C30, H29 and H39)
- Brown Hare (*Lepus capensis*)- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (H29)
- Canadian Waterweed (*Elodea canadensis*)- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (C30, H29 and H39)
- *Corbicula fluminea*- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (C30)
- Giant Hogweed (*Heracleum mantegazzianum*)- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (C30, H29 and H39)
- Giant Knotweed (*Fallopia sachalinensis*)- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (C30)
- Giant rhubarb (*Gunnera tinctoria*)- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (C30)
- Himalayan Knotweed (*Persicaria wallichii*)- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (H29 and H39)
- Himalayan Balsam (*Impatiens glandulifera*)- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (C30, H29 and H39)
- Japanese Knotweed (*Fallopia japonica*)- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (C30, H29 and H39)
- *Rhododendron ponticum*- Listed as High impact invasive on Regulation S.I. 477 (Ireland) (C30 and H39)
- Salmonberry (*Rubus spectabilis*)- Listed as Medium impact invasive on Regulation S.I. 477 (Ireland) (C30, H29 and H39)

#### **C4: Minutes of Loughs Agency Meeting**

A meeting of RH ecology personnel (N. Duff, G. Kilbane and T. Stafford) with the (LA) Lough's Agency (John McCartney and Caitriona Downey) on 23<sup>rd</sup> Sept enabled concerns to be expressed about the broad potential impacts and implications of the FRS, particularly instream works. Some key points made by LA:

- The Finn / Foyle is an SAC for Salmon and Otter
- Lamprey and Smelt spawn close to Lifford (e.g., lower end of R. Finn). Muddy-silty banks and bars are potential spawning habitat occurring adjacent to Lifford and upstream of bridge.
- Aim to prevent spread of Asian Clam, recorded downstream of Lifford
- River Foyle, at location adjacent to Lifford / Strabane, is a key point of importance on migration route of Salmon and Sea Trout and requires very high protection and therefore must not be damaged as a result of scheme works.
- The river is also important for migrating and breeding site for European Eel (critically endangered)
- Lifford at upper limit of tidal influence; salt water wedge regarded as being close to St Johnston.
- Groynes were constructed to provide habitat features for fish (Salmon) (i) as holding pools and deep pool resting places (ii) to affect flow velocity and create scour effect to transport silt further downstream. The Lifford FRS should not affect the groynes (should be far enough away).
- Major impact threat of the Lifford FRS is anticipated as regards suspended solids and silt. Timing of works will be a key factor and constraint; there must be no disturbance or disruption to migrating Salmon, both adults moving upstream or smolt run downstream.
- Data for Salmon is largely derived from the fish counters (installed in 1980's) at River Finn, Killygordon and River Mourne, Sion Mills.
- The LA can assist and cooperate with provision of fisheries, ecology and water monitoring data as requested.

The LA emphasised the importance of the Foyle at Lifford in respect of migrating Salmon into the Mourne and the Finn; crucial that there is no interference or impact on migrating Salmon or related habitat conditions, especially given the stocks populations are below conservation limit levels. Other concerns expressed similarly for Smelt, Lamprey spp. and European Eel. Indicated that the timing of works could be a major constraint on construction works, as there were seasonal times when works would be inappropriate and could cause significant impacts. The deflector groynes should not be disturbed by the scheme. LA raised that the Asian Clam posed a great threat and biosecurity would be a big env management issue of in stream works, as they stated it has not been recorded or deemed to have spread above the wier feature at Lifford yet. LA are willing to liaise and help with data on Salmon from counters and general background and data they can provide. Also, DAERA / NIEA and DFI have responded with willing assistance on provision of data sets on water quality and fish surveys. There was discussion on survey requirements concerning the aquatic habitats and generally regarded that baseline ecological

survey and monitoring would be useful to include in stream physical features and structural aspects of the habitat along with macro-invertebrate sampling, recording of macrophytes and possibly searches for Asian Clam.