

#CAP4NATURE.

# Bird conservation on farmland

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Yellowhammer and Curlew by Andreas Trepte; Robin by John Quinn; Barn Owl by P.K. Burian;

# 1a. Status and trends

- Bird habitats in Ireland are diverse (Nairn & O'Halloran 2002). Some birds use sites protected by EU legislation but most do not.
- The conservation status of birds can be determined by one or more of a whole suite of different factors, including population trend, population size and thus vulnerability, distribution, whether population size or trends are known, and on their legal status in Europe.
- Typically, species put on the “Red list” have declined by more than 50%, while many on the Amber list have declined by up to 50%. Those on the green list have a favorable conservation status.
- In 2019 a review was published by Birdwatch Ireland and the Royal Society for the Protection of Birds (NI) on the status of the 202 bird species that breed regularly in Ireland.
- The review found that 63% of these species are threatened; that is, they are on the Red list (37 species) or on the Amber list (91 species). Just 37% of species have a favourable status (Colhoun and Cummins 2019).

# 1b. Status and trends

- Rare species or those with very restricted distributions are not surprisingly threatened
  - Coastal island seabirds and waders (e.g. storm petrel, dunlin, ringed plover)
  - Keystone predators with enormous societal value (e.g White-tailed eagle).
- But even species widely distributed across farmland are threatened too.
  - Granivorous” farmland birds (e.g finches, partridge) have been severely hit.
  - Ground nesting species of open country (e.g. snipe, curlew, grey partridge, skylark, meadow pipit, corncrake)
  - Birds of prey that feed on rodents (kestrel, barn owl)
  - Aerial insectivores: species that feed on insects when flying (swallows, swifts, martins)
  - Riparian species e.g. grey wagtail and kingfisher
- Examples of species with different conservation status:

Red list	Grey Partridge	Lapwing	Corncrake	Barn Owl	Meadow Pipit	Grey Wagtail	Whinchat	Yellowhammer
Amber list	Storm petrel	Kestrel	Snipe	Kingfisher	Skylark	Swallow	Chough	Robin
Green list	Woodpigeon	Wren	Song Thrush	Pied Wagtail	Great Tit	Goldfinch	Jay	Bullfinch

## 2. Drivers/Pressures

- Increasing use of herbicides and pesticides across farmland, including on field margins and hedgerows themselves, impact insect populations, seed availability, and rodent availability indirectly (Wilson et al. 1999).
- Over-frequent, severe hedgerow cutting, resulting in low hedge-volume and uniform structure, reduces bird nesting habitat (Dover 2019)
- Loss of field margins with rough grass impacts food for hedgerow species, game and ground nesting birds (Vickery et al. 2009; Westbury et al. 2017)
- Switch from hay to silage reduces nesting opportunities for ground nesting birds (Vickery et al. 1991; Donald et al. 2001).
- Switch from spring to autumn sown cereals severely reduces i) overwinter survival of granivorous species and ii) breeding habitat availability for ground nesting sp. (Fuller 2000; Robinson & Sutherland 2002).
- Removal of scrub for wintering and breeding gamebirds, including woodcock.
- Agroforestry effects on upland and rough ground affects ground nesting birds
- Nutrient run-off (diffuse and point source) likely contributing to declines in riparian species like grey wagtails
- Climate change is likely to have had some impact (Berry et al. 2002; Johnston et al. 2013) but long term drainage of farmland has been overwhelmingly more damaging (Fuller 2000; Marzluff and Sallabanks 1998).

# 4. Solutions

- Increase ecological intensification by an integrative farmland management approach; increase habitat diversity within farms
- Increase uptake of agri-environment schemes across all farm types.
- Substantially reduce use of pesticides and herbicides
- Substantially reduce use of fertilisers and encourage use of natural nitrogen fixing plants like clover
- Encourage a mixture of autumn and spring sown crops
- Manage hedgerows effectively, 5 year rotation
- Introduce field margin management plans
- Encourage nest boxes for threatened species e.g., barn owls, not common species, and protect dead standing wood in hedgerows
- Control grazing for ground nesting species
- Sites for agroforestry should be chosen wisely and without damaging habitat already valuable for birds

(Benton et al. 2003; and references on previous slides).

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