Birds

Birds are one of the most recorded taxonomic groups in the UK, with decades of high-quality data meaning that we are more certain about trends in bird populations and distribution than in other species groups. Over 600 species of birds have been recorded in Britain. [1] In Gwent there are around 130 breeding or probable breeding species.[2] This wealth of data, their sensitivity to change and position within food chains means that birds are often used as indicators for the overall health of ecosystems. For example, Birds of the Wider Countryside and at Sea is one of the UK's Biodiversity Indicators.[3]

Despite long-standing public affection for birds, they are still subject to pressures including habitat loss, changes in land management, disease and climate change. The State of the UK's Birds 2020 estimates that there were 19 million fewer breeding pairs of native birds in 2017 compared to 1966.[4] The overall biodiversity indicator for birds is declining,[3] and the Red List of Birds of Conservation Concern is growing, with an additional 20 species moving onto the Red List in its latest review.[5]

Within Greater Gwent, birds are well recorded and studied. The Gwent Ornithological Society (GOS) was formed in 1961 as the Pontypool Bird Club and has published three comprehensive reviews of the status of birds within Gwent – in 1977, 1985 and 2007. Most of the data within this section is owed to the dedication of GOS members; the gathering and compiling of such extensive and comprehensive records should be recognised as a significant accomplishment.

The main scheme for monitoring bird populations is the Breeding Bird Survey (BBS) run by the British Trust for Ornithology, JNCC and RSPB. Greater Gwent is well covered by BBS, with 74 survey squares within (or partly within) the study area (see Figure 1). From these, BTO were able to calculate population trends for 56 of the 133 species recorded by the BBS in Greater Gwent (see Figure 2). A fifth (11 species) of the 56 showed steep, long-term (1995–2018) declines equivalent to being on the Red List. A further 10 species showed moderate long-term (1995–2018) declines equivalent to being on the Amber List. Only 14 species (25%) showed significant increases over the same period.[6] Of most concern is that the 56 species for which trends could be calculated are more likely to be common and widespread species.

The worst declines were experienced by Yellowhammer (*Emberiza citronella*) (98%). Cuckoo (*Cuculus canorus*) (77%) Starling (*Sturnus vulgaris*) (-75%) and Rook (*Corvus frugilegus*) (74%). The strongest increases were for Canada Goose (*Branta canadensis*) (275%), Sparrowhawk (*Accipiter nisus*) (252%), Stock Dove (*Columba oenas*) (212%) and Raven (*C. corax*) (210%).

Figure 1. BBS squares within the study area (courtesy of BTO)[6]

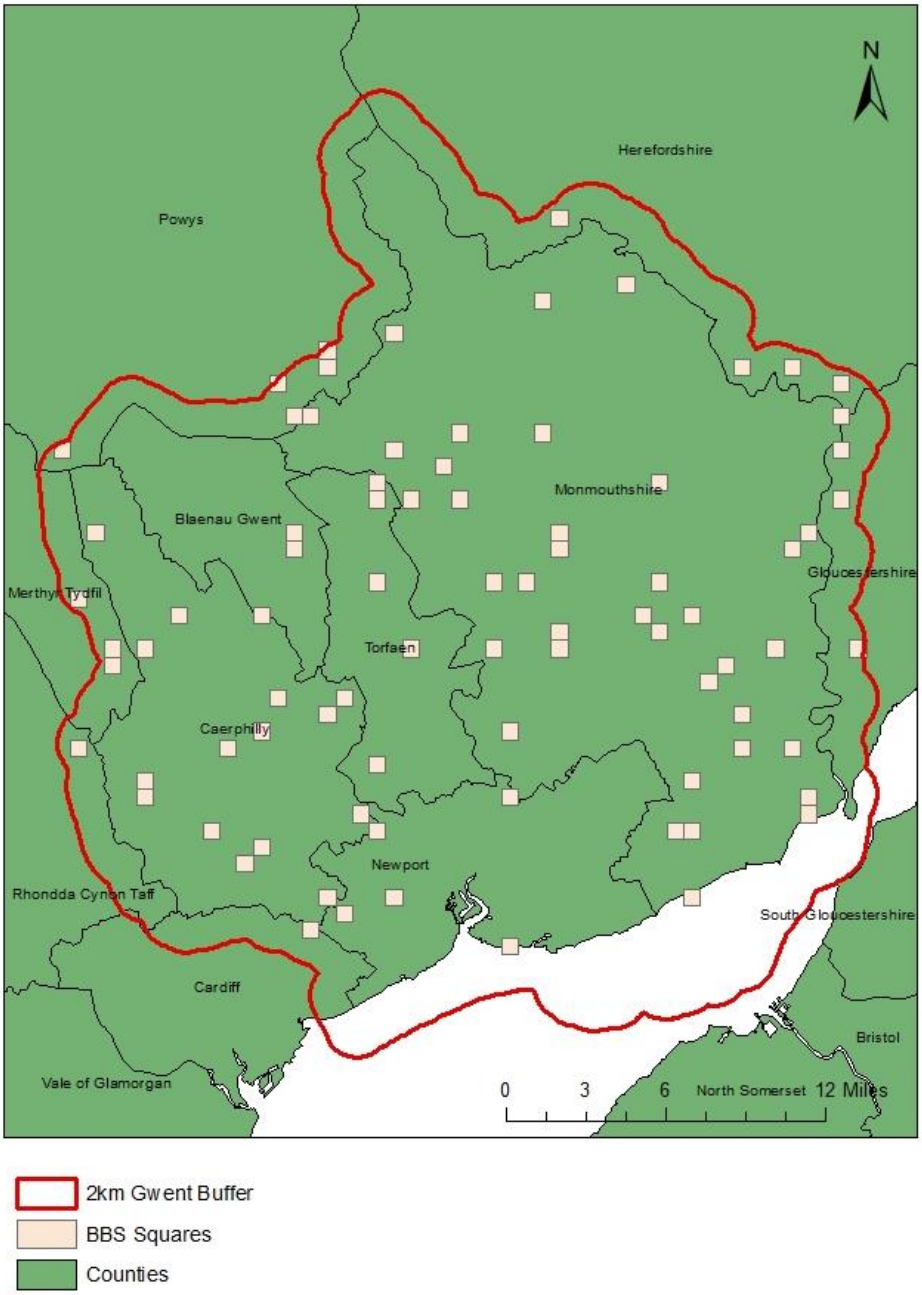

Figure 2. Long-term trends (1995–2018) for 56 species within Greater Gwent, based on the BTO/JNCC/RSPB Breeding Bird Survey (number of species shown in brackets)[6]

Strong Decline (11)	Moderate Decline (10)	No Significant Change (21)	Moderate Increase (6)	Strong Increase (8)

Combined indicators were produced for upland and lowland farmland birds and woodland birds, and together with indicators for all of Wales using the same species.[6] Species used to produce the

indicators are shown in the table at the end of the section. The lowland (Figure 3) and upland (Figure 4) farmland bird indicators show declines of 45% and 30%, respectively, over the BBS period, largely in accordance with UK as well as Wales patterns for farmland and upland birds. Although it fell in the last year, the Greater Gwent woodland indicator (Figure 5) is broadly stable.

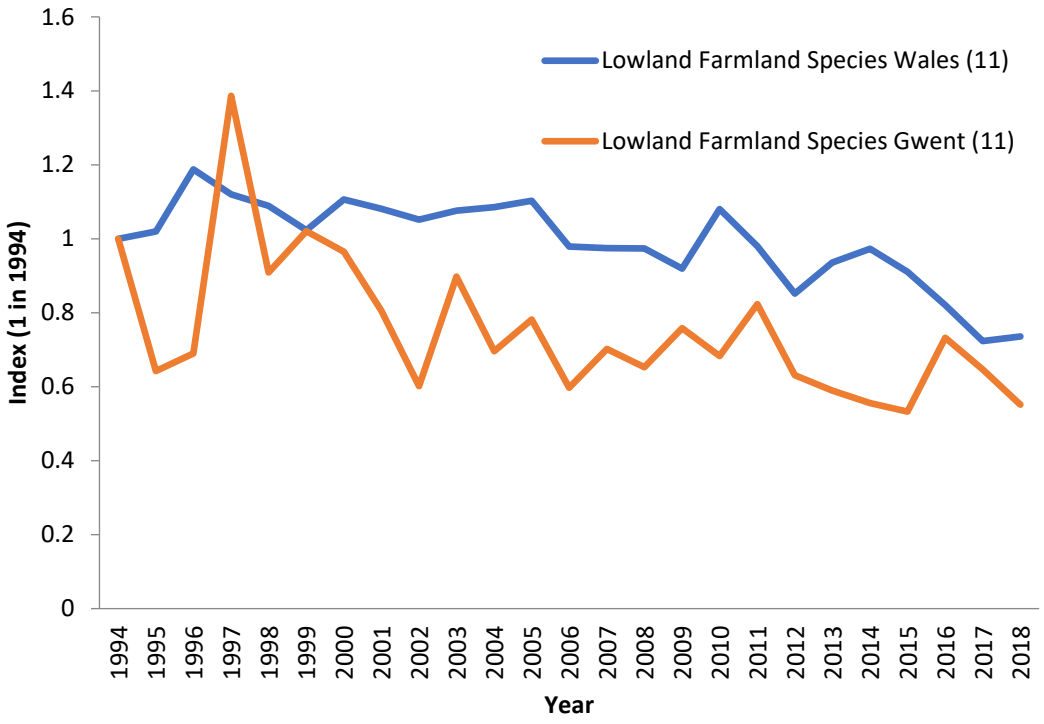

Figure 3. Multi-species lowland farmland bird indicators for Wales and the Greater Gwent region from 1994 to 2018 for the same 11 indicator bird species.[6]

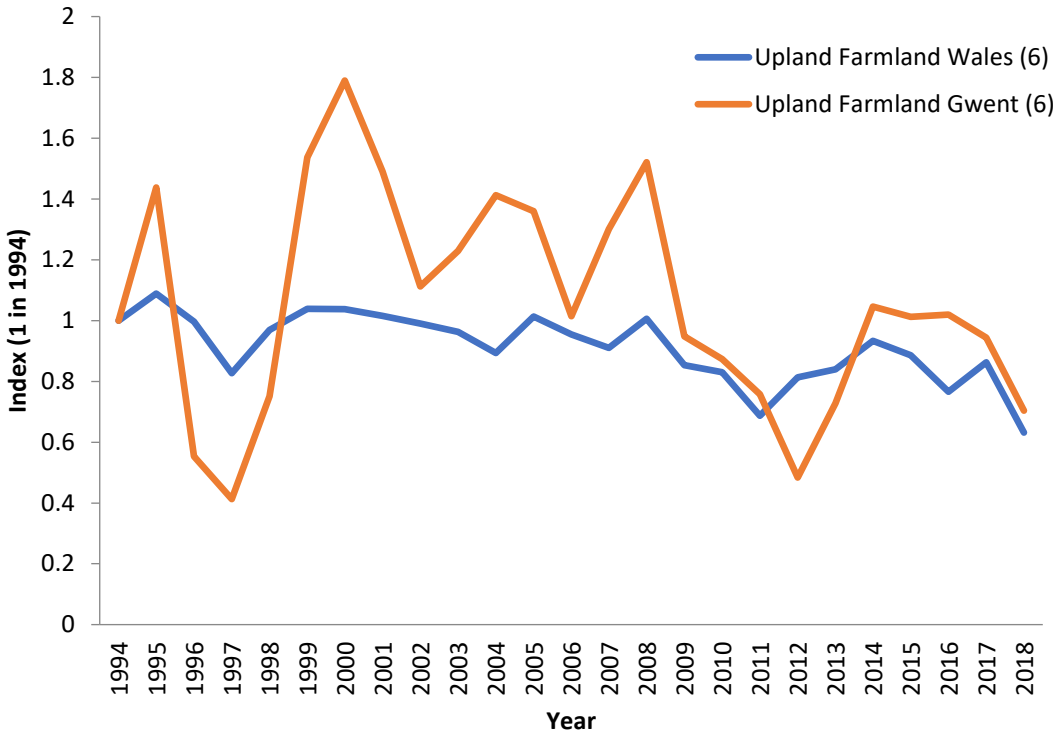

Figure 4. Multi-species upland farmland bird indicators for Wales and the Greater Gwent region from 1994 to 2018 for the same six indicator bird species.[6]

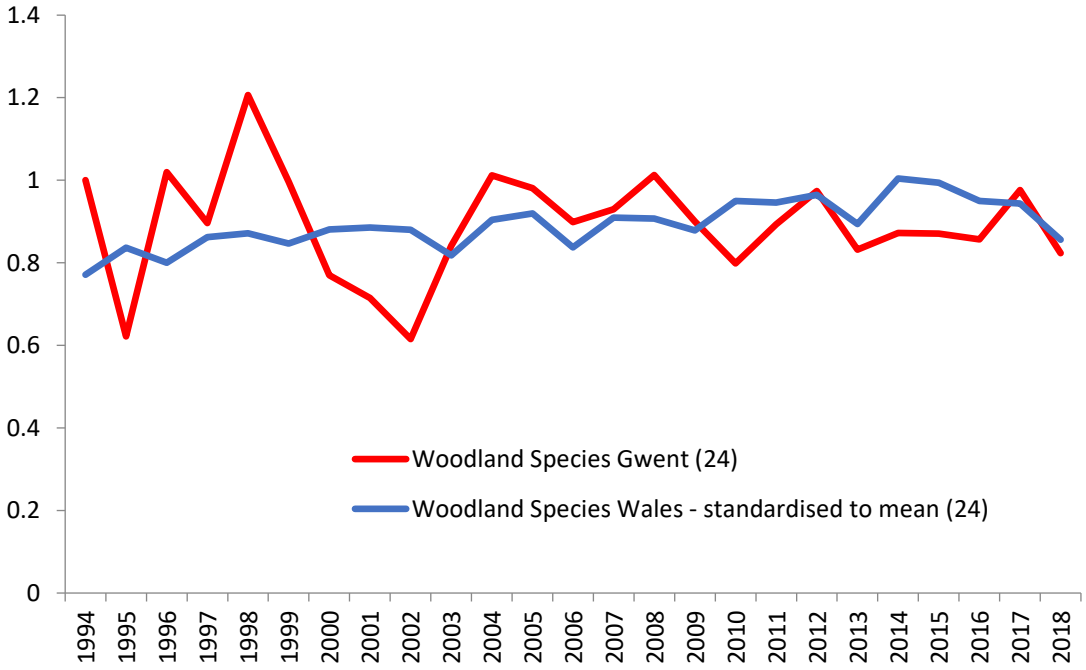

Figure 5. Multi-species woodland bird indicators for Wales and the Greater Gwent region from 1994 to 2018 for the same 24 indicator bird species, standardised to the same mean for the time series (so not unduly influenced by the start year values).[6]

The following 36 bird species profiles are divided into loose habitat sections for convenience: farmland, freshwater and wetlands, upland, urban, waders and woodland.

Species used in indicators

Lowland Farmland	**Upland Farmland**	**Woodland**
Yellowhammer	Grey Wagtail	Willow Warbler
Starling	Curlew	Chaffinch
Rook	Wheatear	Goldcrest
Greenfinch	Buzzard	Green Woodpecker
Jackdaw	Meadow Pipit	Blue Tit
Linnet	Raven	Wren
Whitethroat		Coal Tit
Woodpigeon		Bullfinch
Skylark		Robin
Goldfinch		Garden Warbler
Stock Dove		Redstart
		Jay
		Long-Tailed Tit
		Song Thrush
		Chiffchaff
		Great Tit
		Blackbird
		Nuthatch
		Treecreeper
		Dunnock
		Blackcap
		Great Spotted Woodpecker
		Tree Pipit
		Sparrowhawk

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2. Venables WA, Baker AD, Clarke RM, Jones C, Lewis JMS, Tyler SJ, Walker IR, & Williams RA. 2008. The Birds of Gwent. Gwent Ornithological Society.
3. UKBI - C5. Birds of the Wider Countryside and at Sea. JNCC - Adviser to Government on Nature Conservation. https://jncc.gov.uk/our-work/ukbi-c5-birds-of-the-wider-countryside-and-at-sea/ (accessed 06/06/21).
4. Burns F, Eaton MA, Balmer DE, Banks A, Caldow R, Donelan JL, Douse A, Duigan C, Foster S, Frost T, Grice PV, Hall C, Hanmer HJ, Harris SJ, Johnstone I, Lindley P, McCulloch N, Noble DG, Risely K, Robinson RA, Wotton S. 2020. The State of the UK's Birds 2020. The RSPB, BTO, WWT, DAERA, JNCC, NatureScot, NE and NRW, Sandy, Bedfordshire.
5. Eaton M, Aebischer N, Brown A, Hearn R, Lock L, Musgrove A, Noble D, Stroud D and Gregory R. 2015. Birds Of Conservation Concern 4: The Population Status of Birds in the UK, Channel Islands and Isle of Man. British Birds 108: 708–746.
6. Barnes A and Noble D. 2020. A Summary of the State of Terrestrial Wild Bird Populations in Greater Gwent Based on Data from the BTO/JNCC/RSPB Breeding Bird Survey, 1994 to 2018. British Trust for Ornithology, Thetford, Norfolk.

Farmland birds

Barn Owl *Tyto alba* (Scopoli, 1769)

Pete Hadfield

Protection: Wildlife & Countryside Act (1981, as amended) Schedule 1

Conservation status: Green (UK & Wales)

Data availability: Moderate (598 records)

Context: Unlike Britain's other familiar owl, the Tawny, which favours woodland, the Barn Owl prefers open habitats, especially lowland farmland that has rough grazing where field voles, its main prey, abounds. Suitable nest sites include buildings and cavities in rock faces and trees, with purpose-built boxes readily used. Barn Owls are generally very sedentary with juveniles normally dispersing less than 10km from the nest site,[1] and adults being faithful to a breeding area. Barn Owls are vulnerable to a number of factors: lack of suitable habitat limits population distribution; quality of habitat limits breeding productivity; rodenticides can lead to poisoning; barn conversions can reduce available nest-sites; and road mortality is also a significant factor. Additionally, differing levels of prey due to three-year vole cycles and cold/wet winters can cause more short-term population fluctuations. Barn Owls are of least conservation concern in the UK (downgraded from Amber in 2015). However, they are fully protected by Schedule 1 of the Wildlife & Countryside Act.

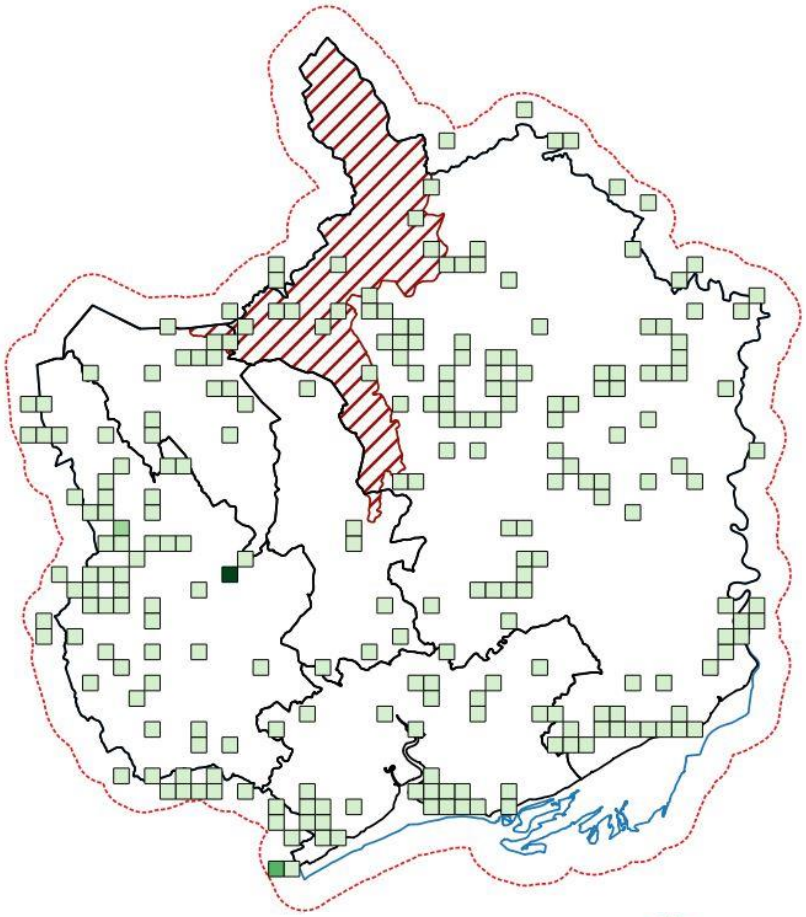
Outlook: Barn Owls were certainly a far commoner species at the beginning of the twentieth century than they are today, however numbers have recovered from their nadir in the 1970s and 80s.[2] There is a more southerly and lowland bias to their UK distribution as a direct consequence of their vulnerability to severe winter weather. The UK breeding population was 4000–14,000 pairs in 2016.[3] The BTO's Breeding Bird Survey[4] shows that Barn Owls recovered with an increase of 251% between 1995–2018. However, the shorter-term picture is of a 33% reduction in 2010–2018 and 41% in 2018–2019. The future currently looks relatively assured for Barn Owls, certainly in comparison with the low levels seen in the 1970s, but they are still vulnerable to the many threats that still exist and there is no room for complacency.

A number of modest nest box projects are run in the county by volunteers in the north-west, the Usk Valley and on the Caldicot Levels. The latter, run by the Goldcliff Ringing Group, recorded six breeding pairs in 2020, with other boxes being used as roost sites.[5]

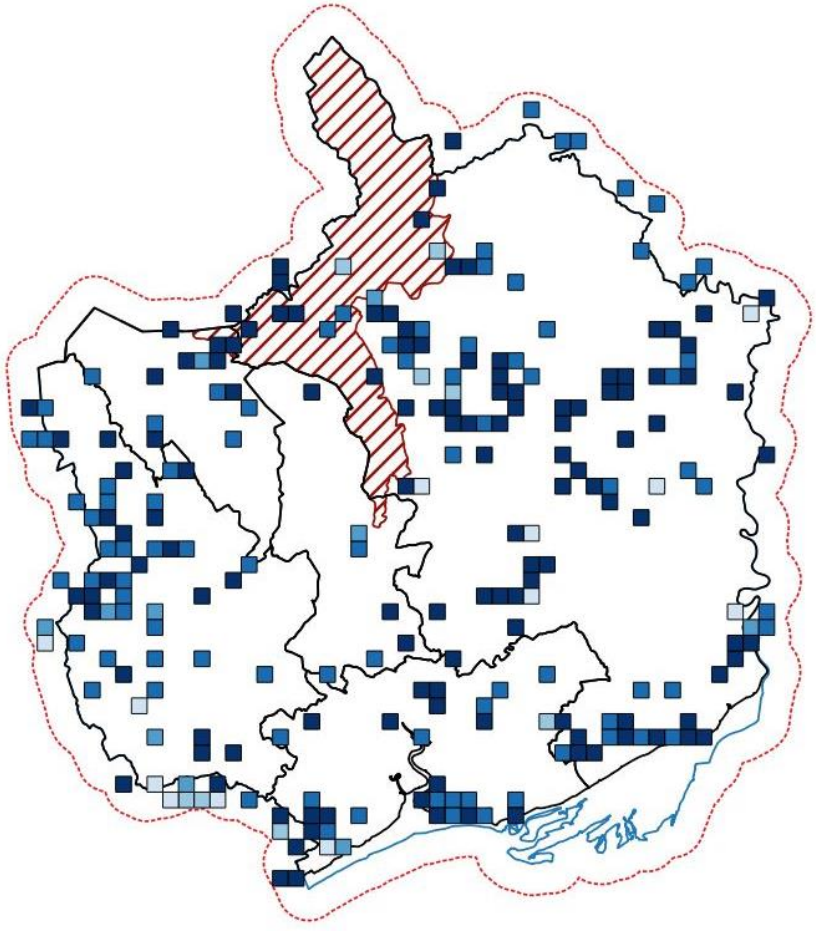
Greater Gwent range: The Barn Owl is described as 'an uncommon resident (some possibly the result of earlier re-introductions' in The Birds of Gwent.[6] This was still the case in the Gwent Bird Report 2018.[7] Barn Owls are distributed widely across Gwent, although the coastal strip and the Usk Valley would appear to be strongholds, and areas of the very highest ground are generally shunned. The Barn Owl's fortunes have changed over time in Gwent, although short-term fluctuations in population in response to harsh winters and cycles of prey abundance make it difficult to monitor population levels. The national Barn Owl survey in 1932 suggested a Gwent population of 120 pairs,[8] and Birds of

Monmouthshire (1963) described it as 'fairly common'.[9] Mirroring the population declines across the rest of the UK, the 'fairly common' was soon no longer applicable: 'only 7 records were received' in 1981.[10] Conversely a few years either side of this, in 1976, 'the number of reports remains encouragingly high'[11] and 'another encouraging increase'[12] in 1985 was noted. This perhaps reflects the natural fluctuations already alluded to. Still, the population was certainly much reduced from that in 1932 and indeed in 1967; a survey undertaken in 1982–85 by the Hawk and Owl Trust estimated 25 pairs for Gwent,[13] a considerable reduction on the 120 pairs of 1932. The second Gwent Atlas estimated there to be 25–50 pairs,[4] which suggests an improvement on the situation a few decades earlier.

On the following map, the 'Hotspot' is a recording hotspot – an individual or pair being very closely monitored (almost daily).



Distribution of Barn Owl records across Greater Gwent (maximum 78 records/km^2)



Barn Owl records by decade

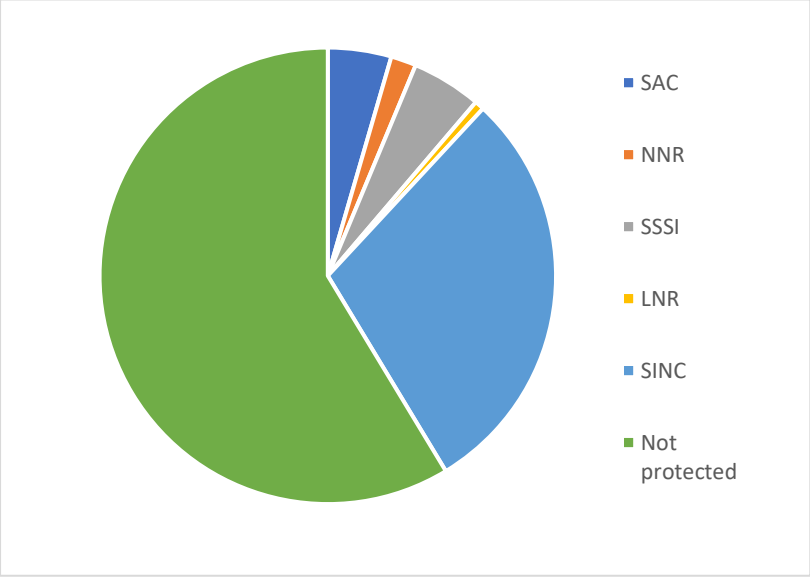
Habitats patterns: Barn Owls are birds of rough grassland that favour lowland rural areas but are largely absent from the highest exposed ground, thus avoiding the harshest winter weather. A lot of records are close to main roads with 50 (11%) being within 100m of motorways, dual carriageways, A-roads and primary roads. Eleven of these were casualties (although two were on the railway line next to the A40). There may be a number of factors at play here: they perhaps utilise the rough grassland of road verges for hunting, but observers are also most likely to see this largely crepuscular species showing up in car headlights.

Population trends: Populations fluctuate, overall it would be fair to say that Barn Owl populations are not at the levels of 100 years ago but are better than the low years of the 1970s/80s. The Barn Owl Trust publishes its 'State of the UK Barn Owl Population' every year (note this does not include Gwent records, but does include some from many other parts of the UK, including Wales). Headlines from recent years include 'the worst year since records began' (2013), immediately followed by 'an exceptionally good year' (2014), 'a poor year almost everywhere' (2015), 'a poor year in most areas' (2016), 'generally a good year' (2017), 'generally a poor year' (2018) and most recently 'a relatively good year (2019).[14]

Protection: No particular site, as expected – scattered records from Usk Bat Sites SAC, Wye Valley Woodlands SAC, Aberbargoed Grasslands, and then mostly Newport Wetlands and the Gwent Levels. The SINCs are scattered across the area but include the well monitored sites at Treowen and Bargoed.

Barn Owls are protected in some planning policy and Supplementary Planning Guidance (SPG): Monmouthshire County Council has particular SPG for barn conversions that require bat and barn owl surveys and potentially compensatory measures to be undertaken.[15]

Barn Owl records from protected sites



Fieldfare *Turdus pilaris* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended) Schedule 1

Conservation status: Amber (Wales[16]) Red (UK[17])

Data availability: 2,169 (Good)

Context: Fieldfares are widespread within the UK as a wintering species. However, their wild, flighty nature make them much less familiar than many of our other thrushes, with only extreme cold weather driving them into our gardens. They are by far at their commonest as a wintering bird, also passing through in good numbers on migration, and only breeding extremely rarely. This means that Fieldfares are vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source, both impacted by climate change.[18] They are one of a number of thrush species whose numbers in the UK are boosted in winter. However, like their cousin the Redwing, very few if any remain to breed. The large wintering population arrives from further north in Scandinavia.[19] Fieldfares eat invertebrates and, particularly in winter, fruit.[20] The number of Fieldfares wintering in the UK is quoted as being 720,000 (1981–84).[21] Breeding populations have always been very low with none confirmed in some years, although potential pairs did reach double figures in various years in the 1970s, 1980s, and as recently as the early 90s, with the majority of records from Scotland (but some English records).[22] The current UK breeding population is quoted as 0–1 pairs in the period 2013–2017.[20]

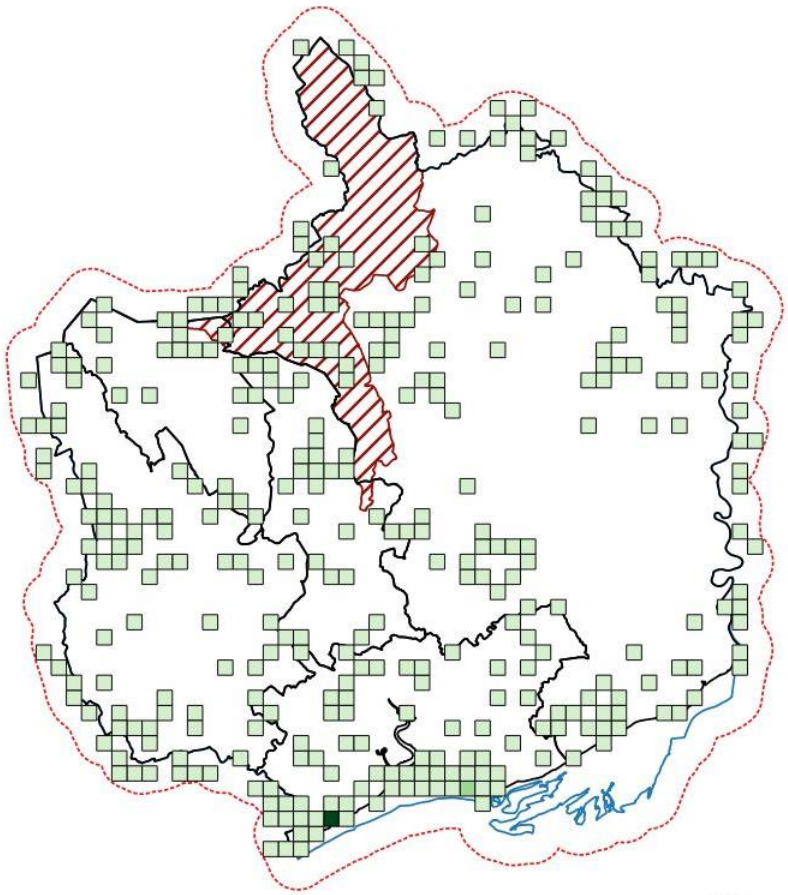
Outlook: The Fieldfare has always been a very rare breeding bird in the UK. The first confirmed record only occurred in 1967, and they have only been recorded breeding in very low numbers, fairly irregularly ever since.[23] In contrast to the very small, irregular and localised breeding population, the wintering population is considerably larger (720,000 (1981–84)).[21] It is difficult to find any wintering population trend data for the UK, however it has been noted that the overall world population is stable.[24] Fieldfares are Red listed in the UK Birds of Conservation Concern, this is due to declines in breeding numbers; wintering numbers are not mentioned, which indicates there are no current concerns regarding the UK wintering population.[17] It should be noted that Fieldfares are Amber on the latest Welsh Birds of Conservation Concern[16] due to their being on the European Red List of Birds (ERLoB), all be it as a species of 'Least Concern'. They are not on the Red List in Wales as there are no breeding populations to be of concern.

Greater Gwent range: The latest Gwent Bird Report (2018) records Fieldfares as being a 'Common Winter Visitor'.[7] It would be fair to say this has been the case for a while, with the Birds of Gwent 2008 recording Fieldfares as being a 'Common Winter Visitor'[6] and the 1977 publication calling it a 'Regular winter visitor, sometimes in very large numbers'.[25] The Birds of Gwent 2008 also references much earlier books (Birds of Monmouthshire 1937 and 1963), which note it was a regular winter visitor at these times as well.[6] Fieldfares can be found in many places within Gwent, with low-lying fields and berry-bearing hedgerows being favoured locations.[6] Flocks of several thousand birds have been recorded, particularly in association with severe winter weather. The Gwent Levels have been noted

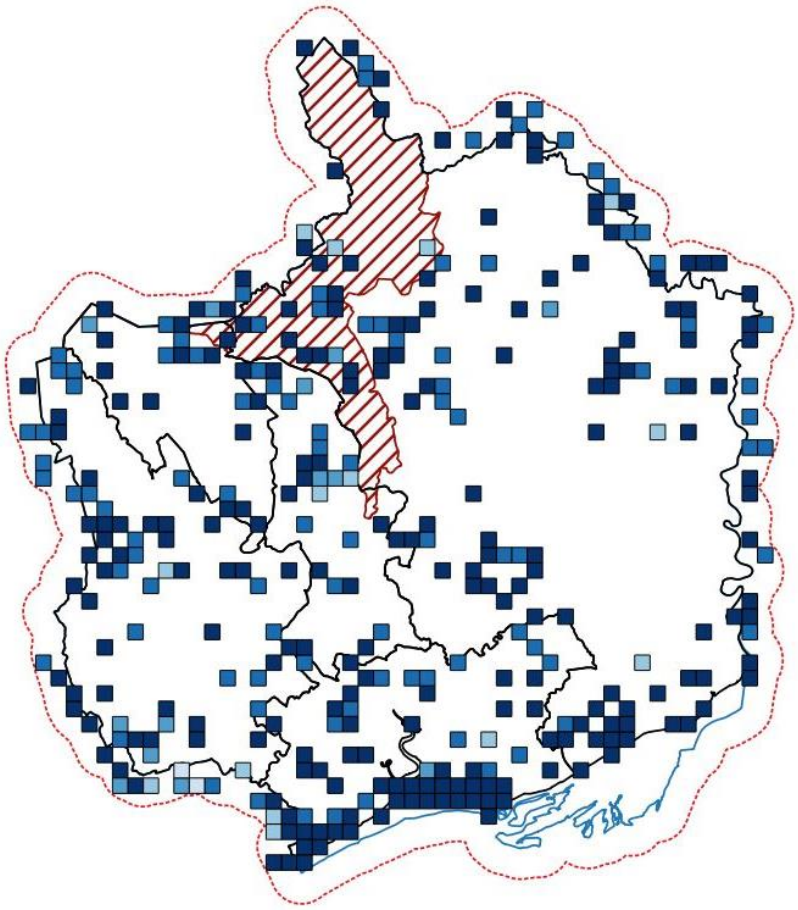
to support large numbers at times. Orchards, of which Gwent has quite a few, can also be utilised when weather is adverse, and they will also enter gardens in severe weather.

There are record hotspots at Peterstone, Newport Wetlands and Llandegfedd (likely to be concentrations of recorder effort rather than particularly high numbers in those places). Otherwise, records are well distributed.

Distribution of Fieldfare records across Greater Gwent (max 86 records/km²)



Records of Fieldfare by decade

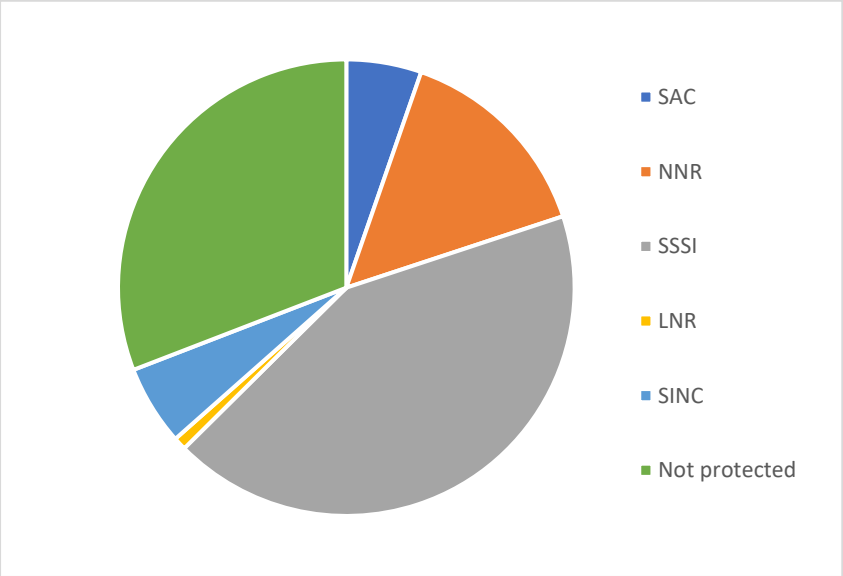


Habitats patterns: Fieldfares are recorded across much of Gwent. However, they favour lowland fields, berry-bearing hedgerows/hillsides and orchards.

Population trends: There seems to be no concern regarding wintering Fieldfare population levels in the UK (although the already low breeding numbers have fallen). There is similarly not currently any apparent concern in Gwent, although climate change may bring about changes in Fieldfare numbers in the future. Conservation efforts in Gwent can do little to directly influence this, but the habitat can be maintained in good condition for them, with hedgerows and their berry-bearing shrubs retained, berry-bearing shrubs included in the mix of new planting schemes, and orchards preserved and enhanced.

Protection: 69% of records come from protected sites, with high numbers of records from the following. SAC records come from the erroneous records in the Severn Estuary, Usk Bat SAC and a few from Aberbargoed Grasslands and along the River Usk. NNR records are from Newport Wetlands. SSSI records are from the Gwent Levels, Llandegfedd Reservoir, Nedern Brook and the Blorenge. LNR records are from Garn Lakes, Park Bryn Bach, Beaufort Ponds and others. SINC records are widely scattered across numerous sites, including Parc Cwm Darren, Treowen, Rudry Common and Lasgarn Woods.

Fieldfare records from protected sites



Northern Lapwing *Vanellus vanellus* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981 as amended)

Conservation status: Red (UK[17] & Wales[16]) Wales. Section 7 Priority Species

Data availability: Good (2083 records – Breeding season only)

Context: A much loved bird due to its appearance, energetic display flight and evocative call, the lapwing was once familiar to most, with a whole host of local names. However, it is sadly a much scarcer sight now, particularly as a breeding species. Lapwings are both resident breeders and migrants, with their numbers being greatly swollen by birds from the continent in the winter (UK wintering population of 635,000).[21] When breeding, they are birds of open country, favouring farmland and wet grassland where they can have a good view of any approaching predators. In winter, the flocks can range wider and can often be found near the coast. Loss of habitat is thought to be the main driver for population decreases, with the change from spring- to autumn-sown crops and the drainage of wet grassland as part of agricultural 'improvement' the main issues.[26]

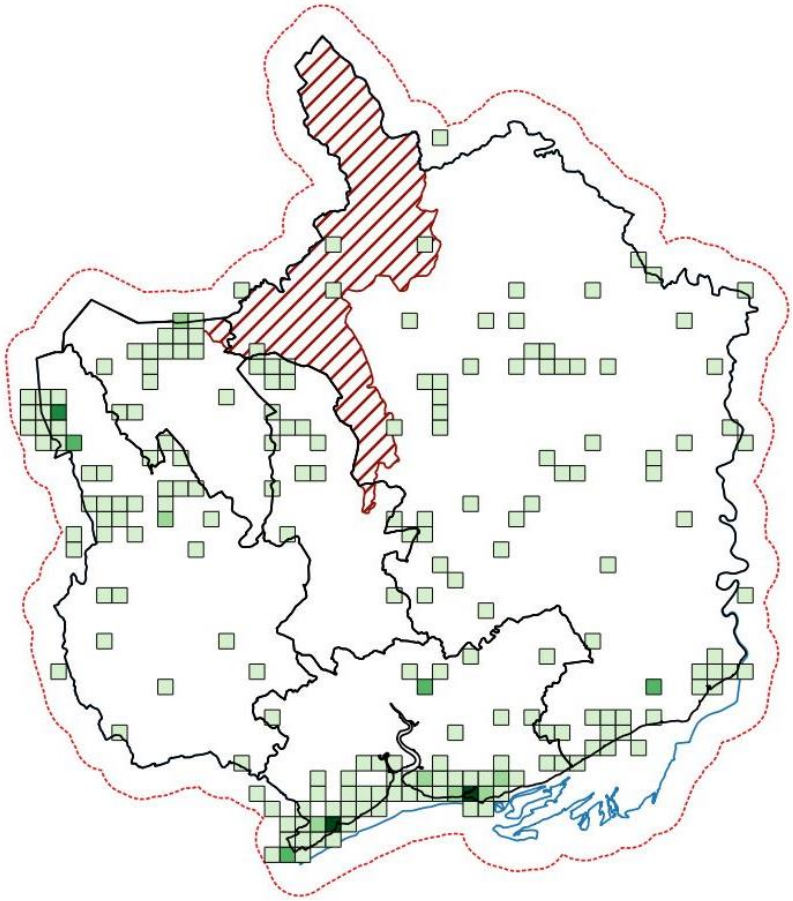
Outlook: The UK population was formerly widespread and abundant, including in Wales. While Lapwings are still widespread, their numbers are greatly reduced: the estimated UK breeding population in 2016 was 97,500 pairs.[21] Early declines were largely due to egg collecting for food, however, the Lapwing Act 1926 prohibited this and populations bounced back.[27] Since the 1940s farming practices have been the driver for population declines. The populations stabilised at a lower level in the 1960s, although there was a further sharp and sustained decline in the 1980s, including range contractions in SW England and parts of Wales.[27] As before, this was driven by changes in farm practices and intensification. The losses were greatest in southern England and Wales.[27] There were longer term declines of 63% (Farmland) and 56% (Wet Grassland) between 1975 and 2017 (described as 'weak decline'). However, in 2012–2017 there was a 5% increase (Farmland), noted as 'little change', and an 8% 'weak decline' (Wet Grassland).[3] The more recent BTO Breeding Bird Survey corroborates this decline, with a 43% decline (1995–2018), 33% decline (2008–18) and 4% decline (2018–19).[4] Lapwing populations are still declining in large parts of the UK, and it would appear that agri-environmental schemes are perhaps their best chance of a change in fortunes.

Greater Gwent range: Lapwings are described as 'breeds in moderate but decreasing numbers, over a sizeable but rapidly contracting range. A passage migrant and winter visitor in substantial numbers' in The Birds of Gwent.[6] The Gwent Bird Atlas in 1987 gave an estimation of 1,000 pairs. [28] However, 1993 survey work showed there to be between 167–185 pairs, with the largest colony at Waun-y-pound, Ebbw Vale hosting 50–55 pairs (this whole colony was lost to development in 1996).[6] In the early part of the twenty-first century the RSPB ran the 'Heads of the Valleys Lapwing Project', with the reclaimed coal spoil areas providing good nesting habitat, and 10% of the Welsh population (60 pairs) believed to be utilising the area.[29] In 2003, breeding population estimates were considered to be at the lower end of 220–500 pairs, which is thought to indicate a reversal of declines, substantially

attributable to the success of Newport Wetlands.[6] However, if there was a reversal of fortunes, it was short lived: numbers are currently significantly lower, and the Heads of Valleys population virtually gone, while another good site at Ben Ward's fields has been largely lost to roadworks. The Gwent Bird Report 2018 indicates that the population is still declining, with the only confirmed breeding being at Newport Wetlands (although there were a small number of other unconfirmed sites).[7] Analysis of Lapwing records at Newport Wetlands,[30] which is far and away the most significant site now left in Gwent over the last 20 years, make interesting reading. Numbers started at 8 pairs in 2000 and rapidly increased to a peak of 57 pairs in 2004. Since then, there was a decline to a low of 15 pairs in 2018 (up to 23 pairs in 2019). The productivity (number of chicks fledged) is particularly noteworthy, with numbers generally very low; the highest was 24 fledged in 2014 (when interestingly the number of pairs was only 22), this contrasts with 2005, when only 5 fledged from 55 pairs. Numbers of chick fledged has fluctuated but it has been worryingly low since the highpoint of 2014, with only 0,8,0,1 & 1 fledged in the five years from 2015 to 2019. Predation would seem to be the main cause of the low productivity at Newport Wetlands, despite the predator deterrent/exclusion measures there.

Maps show records within the breeding season – (March-September) to distinguish the resident breeding population from the larger wintering population. Recording hotspots are at Newport Wetlands, Peterstone Wentloog, Fochriw and Rhaslas Pond. Note the patterns of loss shown by historic record: shrinking patches at the Heads of the Valleys, Fochriw and the Blorenge, and on the western Levels. Loss of scattered records in Torfaen.

Density of Breeding Lapwing records, maximum ≥100 records/km^2 (true maximum 582/km^2)



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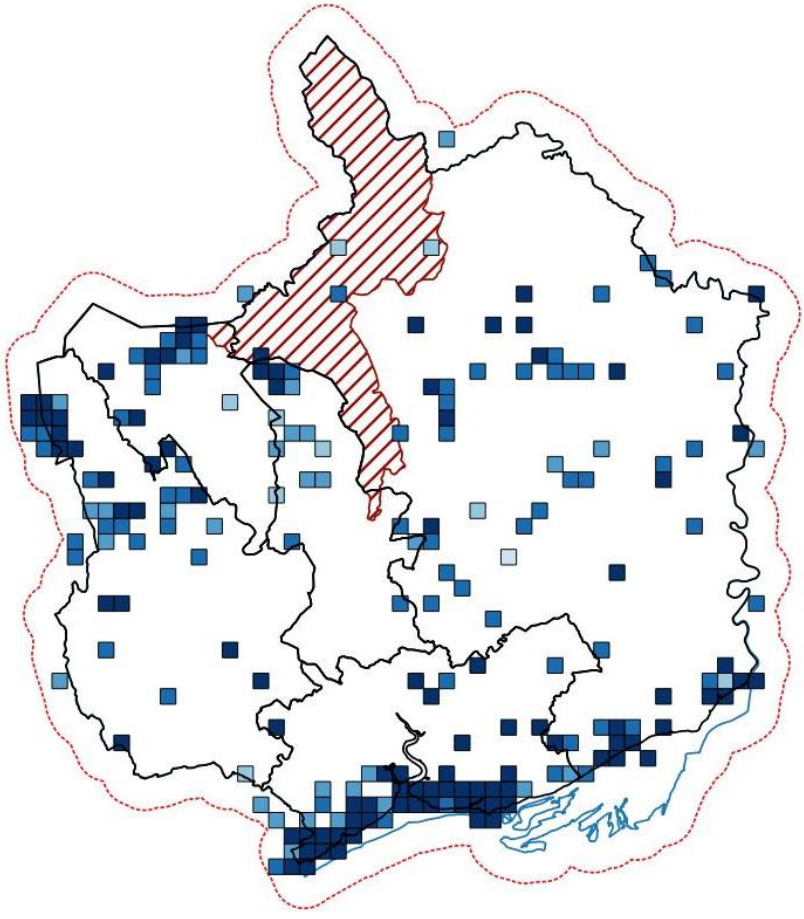
Breeding Lapwing records by decade

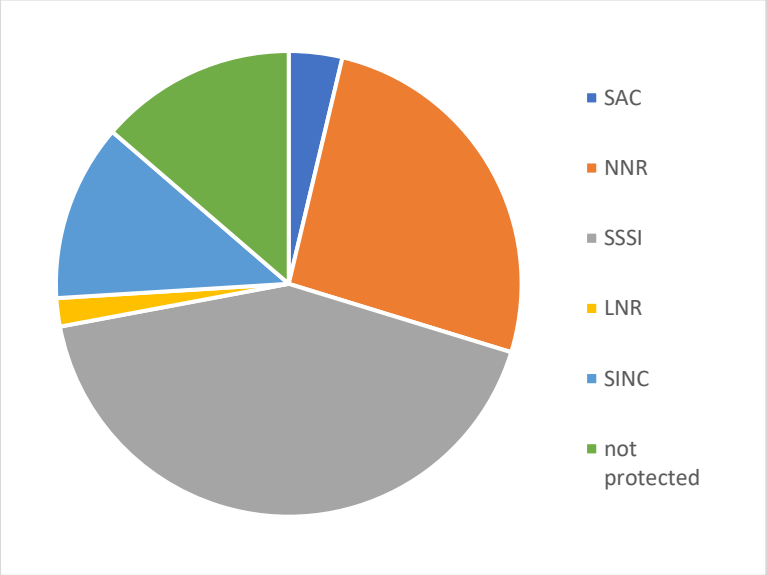


Habitats patterns: There is a definite correlation between the flat, open grassland of the Gwent Levels and areas of reclaimed coal spoil in the north-west of Greater Gwent. There is also a concentration of records at or near the coast, as this is where wintering Lapwing tend to concentrate, particularly during periods of harsher weather.

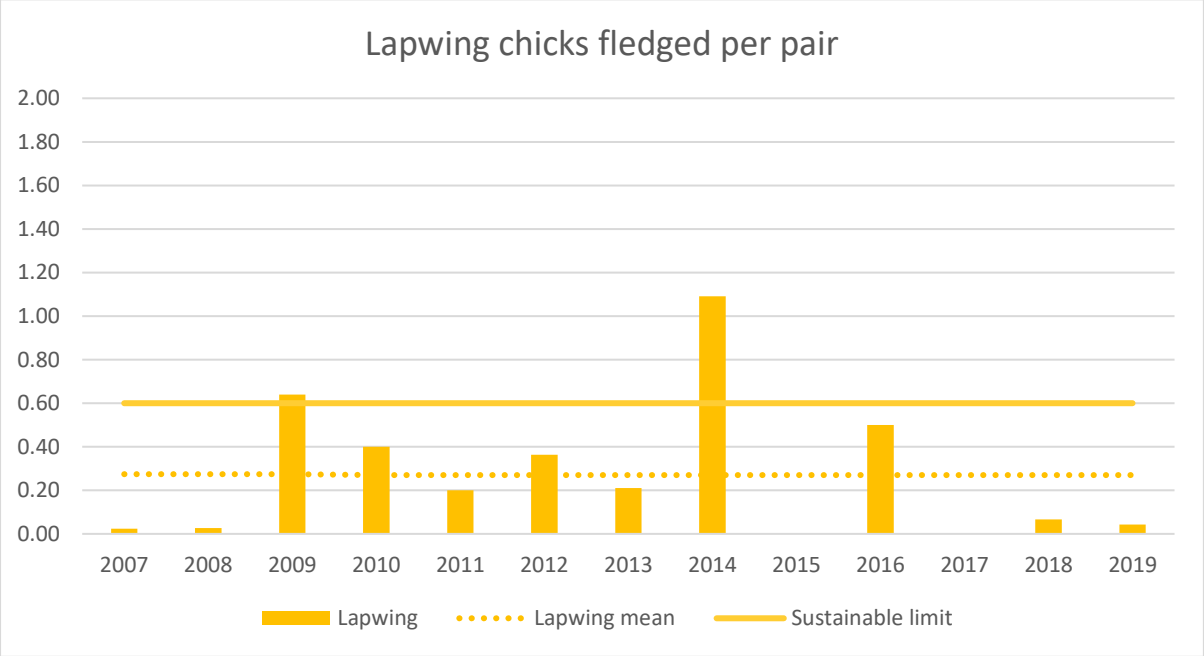
Population trends: Lapwings continue to decline in the UK, with more westerly areas hardest hit. This includes Wales and is apparent in the Gwent population, which continues to decline. The Heads of the Valley population has virtually gone and the Newport Wetlands is the only reliable site; even there, numbers are down on what they were 10–15 years ago. Since 2007 the productivity (chicks per pair) has been below the sustainable level (0.6 chicks/pair) in every year bar two (2009 and 2014), the average productivity being <0.3.[30] This does not bode well for the long-term survival of the Lapwing unless productivity can be remedied at Newport Wetlands and agri-environmental schemes devised to help Lapwings in the wider farmland of Gwent.

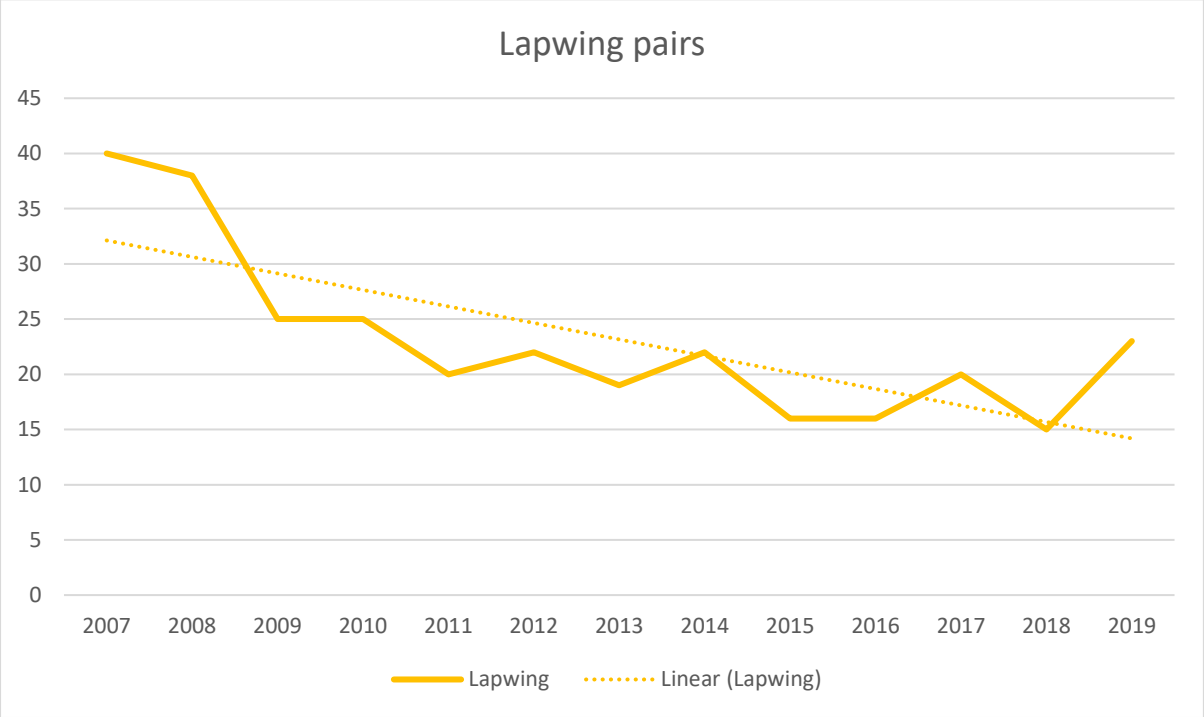
Protection: 86% of records come from protected sites, with high numbers of records from the Gwent Levels and particularly Newport Wetlands. The northern populations are often on SINCs, for example, Garnlydan, Cefn Gelligaer and Garn Lakes.

Breeding Lapwing records from protected sites



Specific surveys: The following shows Lapwing populations at Newport Wetlands, taken from data kindly provided by Natural Resources Wales:[30]





Tree Sparrow *Passer montanus* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981 as amended)

Conservation status: Red (UK[17] & Wales[16]) Wales Section 7 Priority Species

Data availability: Poor (219 records)

Context: A resident bird that is also recorded as a passage migrant, the Tree Sparrow is a 'farmland' bird' and, unlike its cousin the House Sparrow, is not associated with human habitation. It was once widespread throughout the UK, but populations are now much patchier; while some localised populations are doing well, the Tree Sparrow is now largely absent from large areas.[31] The Tree Sparrow relies on invertebrate prey to feed its young during the breeding season, but feeds on seeds, preferring smaller 'weed' seeds to larger cereal grains, in winter.[32] They are loosely colonial, forming small aggregations in the breeding season and larger flocks in the winter.[32] Tree Sparrows are a hole-nesting species, so require trees that provide these opportunities. Their specific requirements both during the breeding season and over winter make them vulnerable to adverse changes in the countryside, and they have suffered huge declines, with a hugely alarming 95% decline between 1970 and 1998.[31] It is thought the decline is due to agricultural intensification, involving increased use of herbicides and a move towards autumn-sown crops.[31] This has resulted in a reduction in invertebrates for nestlings and seed availability over the winter.

Outlook: The UK population was formerly widespread, including in Wales. As mentioned, their numbers have declined hugely, as has their distribution. The best populations are now found across the Midlands, Southern and Eastern England; [33] they are almost absent from the South West, Wales and the North West.[33] The estimated UK breeding population in 2016 was 245,000 pairs.[21] There are longer term reductions of 90% between 1975–2017 (described as 'strong decline'). However, more recently there has been 'little change', with a small 4% decline from 2012–2017.[3] The previously quoted 95% decline between 1970 and 1998 corroborates this decline. The more recent BTO Breeding Bird Survey,[4] however, shows signs of recovery and some optimism, with an increase of 117% between 1995–2018, although it must be remembered that these more recent increases are from a very low level and numbers do not approach those of pre-1970 populations. So, while the Tree Sparrow is still at a low, there are signs of improvement brought about by increased understanding of its habitat requirements and specific conservation initiatives.

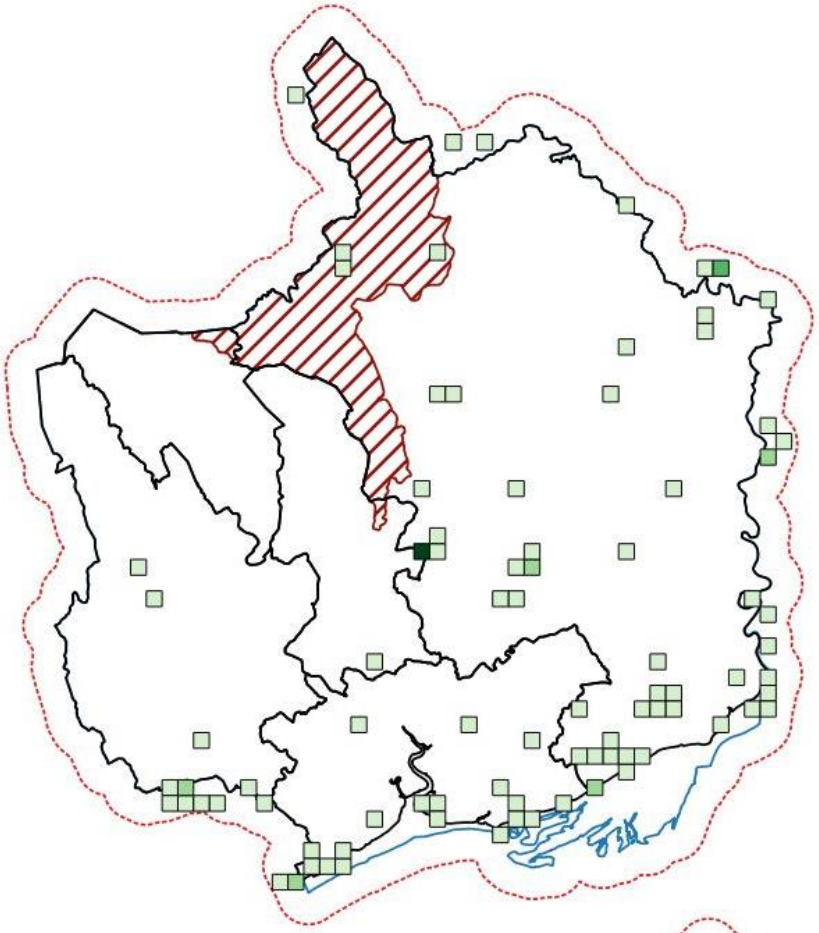
Greater Gwent range: As a breeding species, Tree Sparrows are just about extinct in Greater Gwent, with two pairs in 2013,[34] a single unsuccessful pair in 2015,[35] and a single pair that didn't breed in 2017[7] from Porton on the Gwent Levels. With ten pairs nesting there in 2006,[6] nest boxes were provided to aid this population, but these numbers have since fallen away.

It would appear that Tree Sparrows have historically fluctuated, with the 1937 Birds of Monmouthshire describing it as a 'very local resident' but the 1977 Birds of Gwent describing it as 'fairly common in all areas apart from the industrial valleys' with flocks of 30 often and up to 80 birds

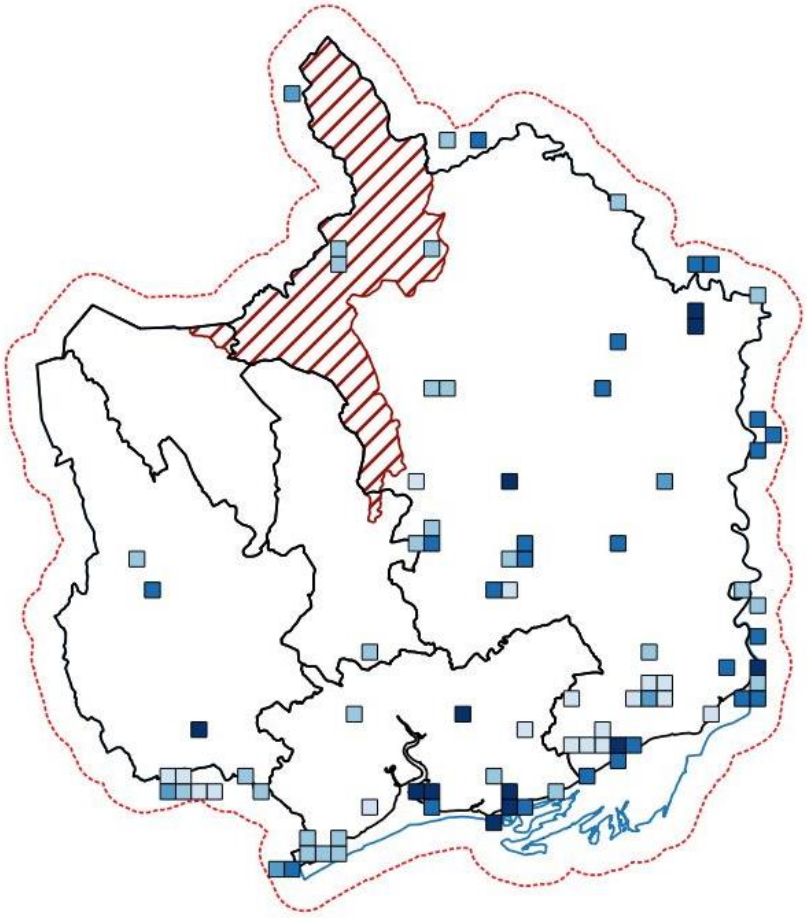
encountered.[6] Throughout all of this, the Gwent Levels and Usk floodplain have been noted to be strongholds, with pollarded willows and old orchards being important nest sites. Pollarding of willows has however much declined, and many orchards have been lost, making nest boxes a more important resource. Several nest-box schemes were established at places such as Llandegfedd Reservoir, Raglan, Porton and New Inn. The New Inn population fledged 189 young in 1981,[6] but only the Porton population has shown any activity (albeit very limited) in recent years.

Concentrations of records are at Llandegfedd, Chepstow and Gwent Levels, although the Llandegfedd records are mostly in the 1980s, with one in 2006. The most recent records are from the Gwent Levels.

Distribution of Tree Sparrow records across Greater Gwent (max 21 records/km^2)



Tree Sparrow records by decade

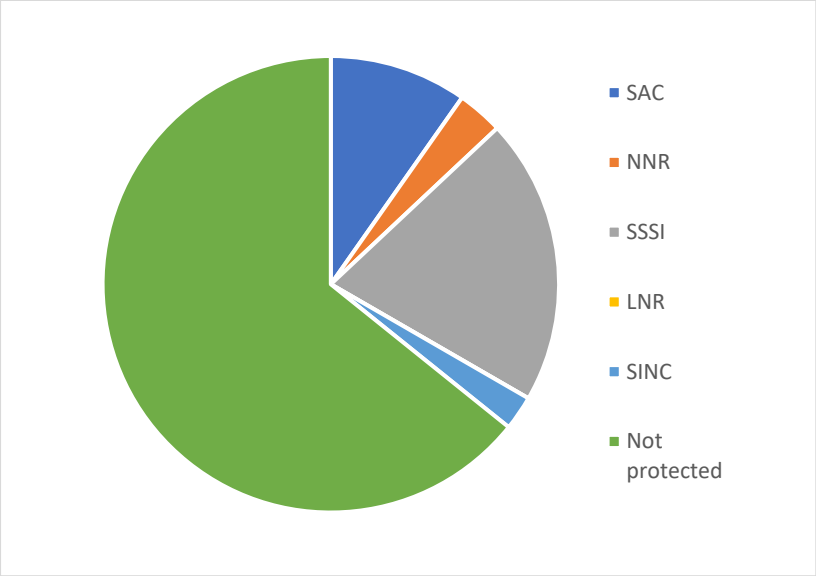


Habitats patterns: Linked to the Gwent Levels and along the two main watercourses of the River Usk and River Wye, showing a preference for being reasonably close to wetland habitats, likely because insects that are associated with wetlands are an important part of their diet during the breeding season.

Population trends: The decline in population to near extinction in Gwent has been documented previously; UK populations also fell greatly. However, despite populations being low, there have been signs of recovery more recently. It remains to be seen if the Gwent population can be saved; doing so would need lessons to be learned from successful schemes in other parts of the UK, suitable funding, committed individuals and buy-in from landowners to ensure habitat requirements are suitable all year round.

Protection: 36% of records come from protected sites, with high numbers of records coming from the Levels (spilling into the estuary) and historic records from Llandegfedd SSSI.

Tree Sparrow records from protected sites



Turtle Dove *Streptopelia turtur* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act 1981 (as amended)

Conservation status: VULNERABLE (Global)[36]

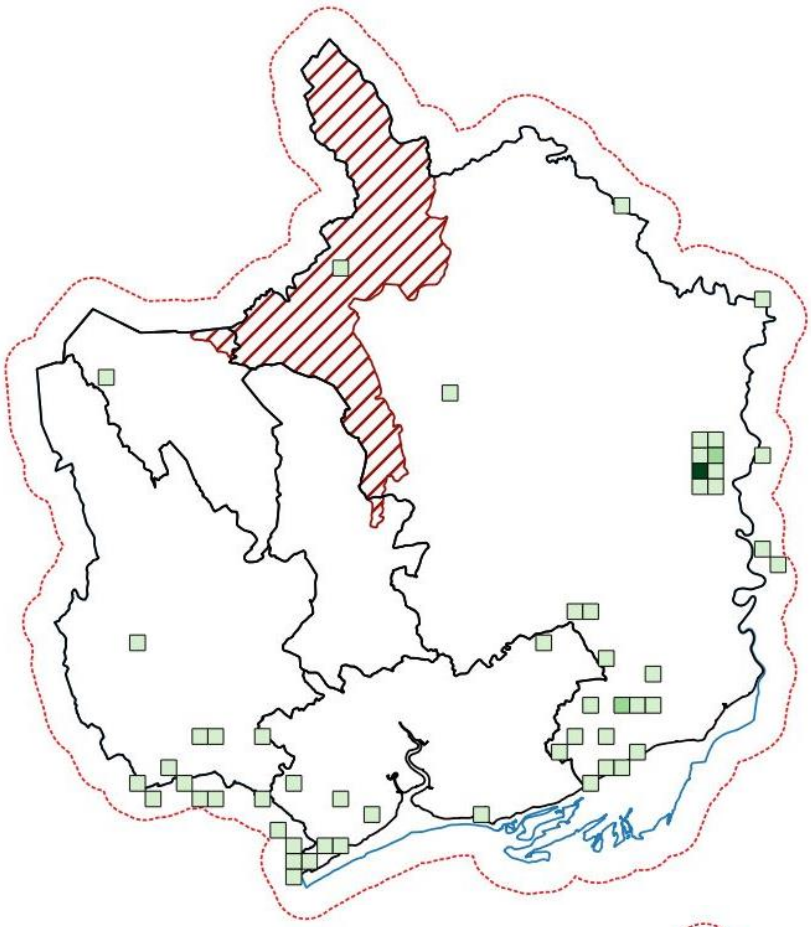
Red (UK[17] & Wales[16]) Wales Section 7 Priority Species

Data availability: Poor (163 records)

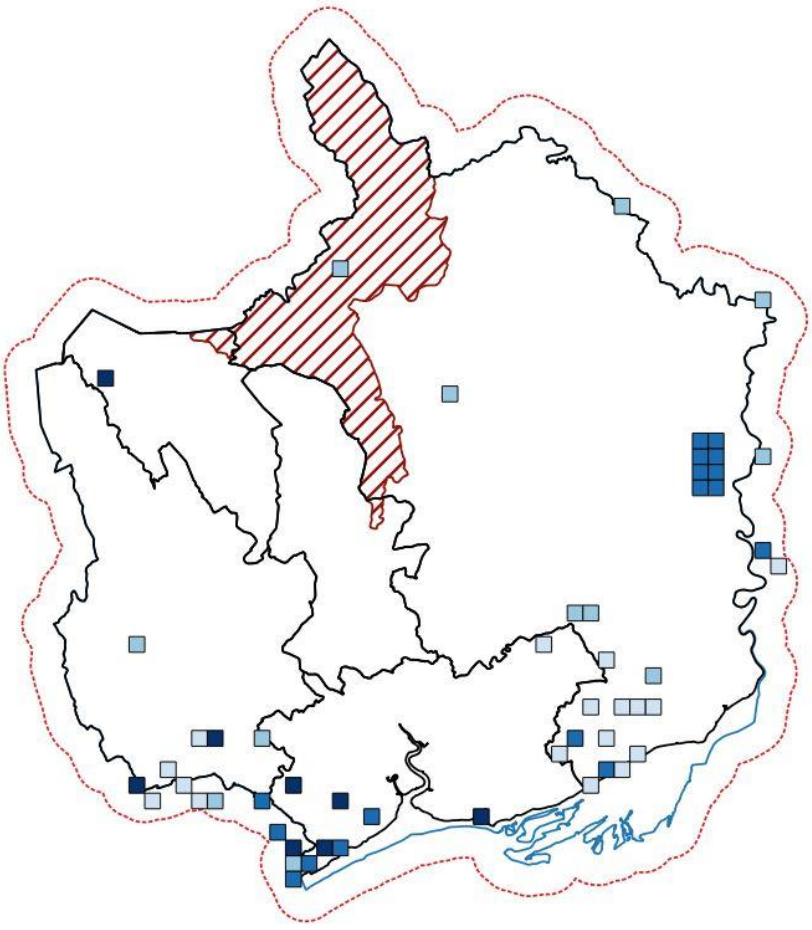
Context: A migrant bird that is a summer visitor to the UK, the Turtle Dove spends its winter in sub-Saharan Africa.[6] This means that the Turtle Dove is vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source, all of which are impacted by climate change.[18] Further drivers of the Turtle Doves decline include the changes in farming practices that have negatively impacted many of our farmland birds, habitat loss on their African wintering grounds, high levels of hunting along the migration route (most notably Malta) and trichomoniasis disease.[37] The combination of these factors mean that the Turtle Dove is the UK's fastest declining bird species,[37] with a shocking 94% population decline in the UK since 1995 and extinction (which has already happened in Wales) a real possibility. It is considered that habitat loss and the associated food shortages on their breeding grounds in the UK is the most damaging factor.[37] The Turtle Doves problems are exacerbated by their being obligate granivores, meaning that they only eat seeds; the loss of 'weed' seeds in our countryside means greatly reduced breeding success.

Outlook: The UK population was formerly widespread across much of England and, although scarce in much of Wales, it was once more abundant in the lowland border counties.[6] They are now confined to a few counties in SE England, with Kent and Sussex being the stronghold. There are thought to be just 1,000 pairs left.[38] There are longer term reductions of 98% between 1975–2017 (described as 'strong decline'), with a less severe but still 'strong decline' of 51% from 2012–2017.[3] The BTO's Breeding Bird Survey[4] corroborates this, recording a decline of 95% between 1995–2018. Various conservation organisations (such as Operation Turtle Dove[39]) are working to slow and reverse the decline, and some success stories; for example, there were 16 singing males on the Knepp Estate in 2017 compared to 3 in 2009.[40]

Greater Gwent range: As a breeding species, Turtle Doves are extinct within Gwent (as they are across the whole of Wales). In 1963 the Birds of Monmouthshire described Turtle Doves as 'regular summer visitors', although breeding areas were restricted to central eastern districts, as Gwent was at the edge of their range.[6] There were suggestions even then that numbers were declining, although this was little evident throughout the rest of the 1960s.[6] However, during the 1970s the Gwent population certainly did decline, with confirmed breeding becoming sporadic and populations shrinking until the population was confined to an area centred on Trelleck and Cleddon Bog by the mid 1990s.[6] Birds could still be found in this locality until 2005, but breeding was last confirmed in 1997. This is reflected in the hotspot at Trellech, with a smaller one at Caerwent. There are only nine records from the last decade – the most recent in 2016. Most of the more recent records are for single birds, mostly on the eastern Levels/Rhymney.



Distribution of Turtle Dove records across Greater Gwent (max 41 records/km^2)

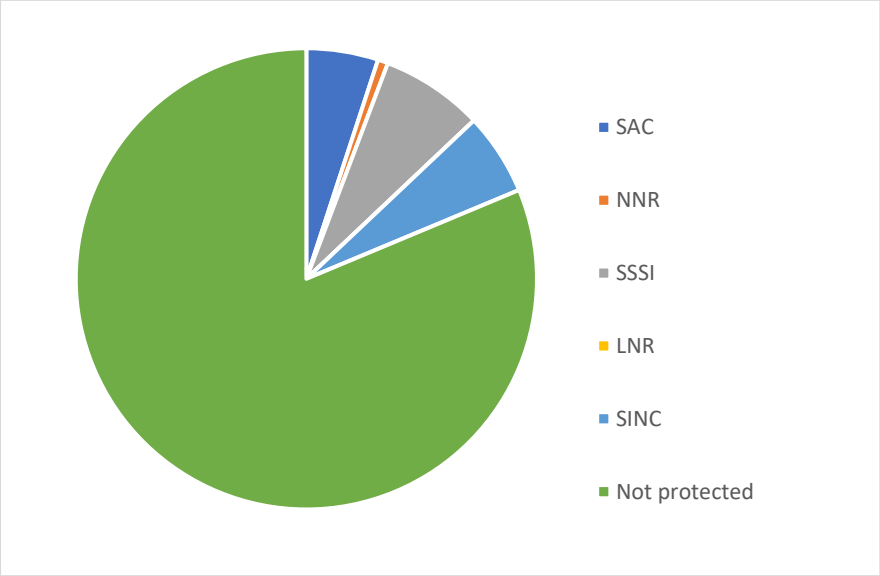


Turtle Dove records by decade

Population trends: The decline in population to extinction in Gwent and Wales has been documented. With the population continuing to fall in the UK, the chances of Gwent being repopulated are slim, particularly with so few migrating birds being recorded. Our best hope is to try to manage our farmland for the suite of farmland birds that we still have and hope that Turtle Doves return one day. If they were to return, then efforts should be made to further enhance their favoured areas, learning from lessons learnt in other parts of the UK.

Protection: Most of the records are from areas that are outside of protection. Those that are from protected areas are from the Gwent Levels SSSIs (including a few that are mis-recorded and end up in the estuary SAC). It should be noted that the area where their population held on longest, Cleddon Bog, is a SSSI, and the adjacent Trellech area has a strong network of SINCs, including Broad Meend and Beacon Hill.

Turtle Dove records from protected sites



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Freshwater and wetland birds

Bittern *Botaurus stellaris* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act 1981 (Schedule 1)

Conservation status: UKBAP Priority, Wales Section 7 Priority Species, Amber (UK[1] & Wales[2]) recently downgraded from Red to Amber (UK list)

Data availability: Moderate (73 records)

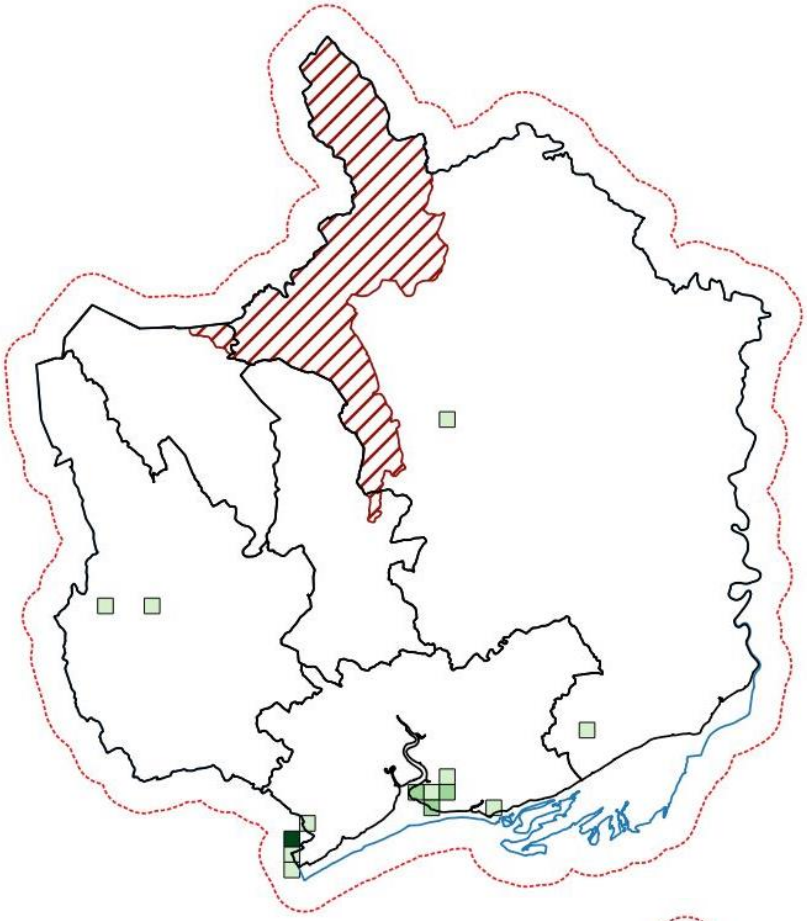
Context: A bird that, because of its very particular lifestyle, is confined to wetlands and more specifically reedbeds, where they have access to their diet of fish and are well camouflaged. It is quite rarely seen because it is so secretive and well hidden in its reedbed home. However, the booming call of males during the breeding season is distinctive and far carrying, so can reveal their presence. Bitterns are resident in the UK, where the population is boosted every winter by an influx of individuals from the continent. The Bittern was on the verge of extinction in the UK as recently as the 1990s but has made a pleasing comeback. The main threat to Bitterns is the loss of their very specific reedbed habitat. Historically, this was due to drainage of land for agriculture and water abstraction in the wider catchments that feed the reedbeds.[3] While water abstraction is still a potential threat, the main threats are currently neglect and lack of management allowing reedbeds to dry out and become unsuitable;[3] reedbeds are an early successional habitat that will eventually silt up and dry out to form woodland without intervention. As with all wildlife that relies on an aquatic environment, pollution incidents could have localised impacts as well.

Outlook: The UK population has a strong bias towards areas where there are large reedbeds; the vast majority are within England, with a more southerly and easterly bias, the real strongholds being the reedbeds of East Anglia and the Avalon marshes in Somerset. The numbers had reached such a level that there was a real threat of extinction in the 1990s. Since then targeted conservation work to create and maintain reedbeds in a suitable condition has seen a marked increase in breeding numbers, so that the Bittern has moved from the Red to the Amber List.[1] This recovery led to there being a breeding population estimate of 191 pairs in 2017 and a wintering population of 795.[4] Bitterns had not nested in Wales since 1984, until, after a gap of 32 years, they bred at Malltraeth Marshes on Anglesey.[5] It would seem the Bittern population has been saved by a greater understanding of its habitat requirements, concerted conservation efforts and many of the most important sites being within protected nature reserves. The Bittern looks secure, and it seems its population will expand further.

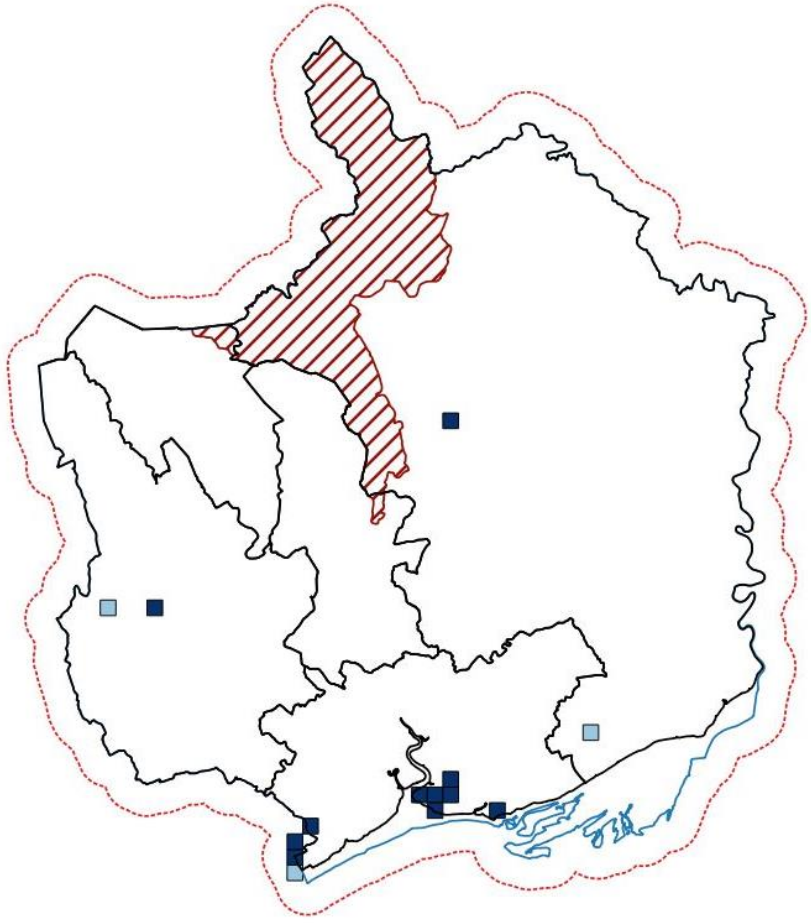
Greater Gwent range: The Bittern is described as 'a very rare winter visitor: regular at one site since 2002' in The Birds of Gwent.[6] This status has since improved, with records being more frequent, probably because of the general increase in the UK population and occasional winter influxes. The one regular site mentioned above is Newport Wetlands, where the Bittern has remained a regular site ever since, a 'booming' male in 2015 was the first record of a territorial Bittern in Gwent in modern times;[7] a pair were noted and considered a breeding pair in 2017,[8] culminating in two pairs proved to be

breeding in 2020 – the first time Bitterns have been proved to have bred in South Wales for 200 years.[9] The hotspot on the below map is Hendre Lake, just outside Greater Gwent. The majority of the other records are all from the Gwent Levels. The outlier ones are old records (1970 and 1985) from Nelson Bog and Magor (1985) and more recent ones from the River Rhymney at Ystrad Mynach (2012) and Llanfair Kilgeddin (2016). Apart from one record in 1985, the Gwent Levels records start from 2009, so reflect a relatively recent coloniser.

Distribution of Bittern records across Greater Gwent (maximum 27 record/km^2)



Bittern Records by decade

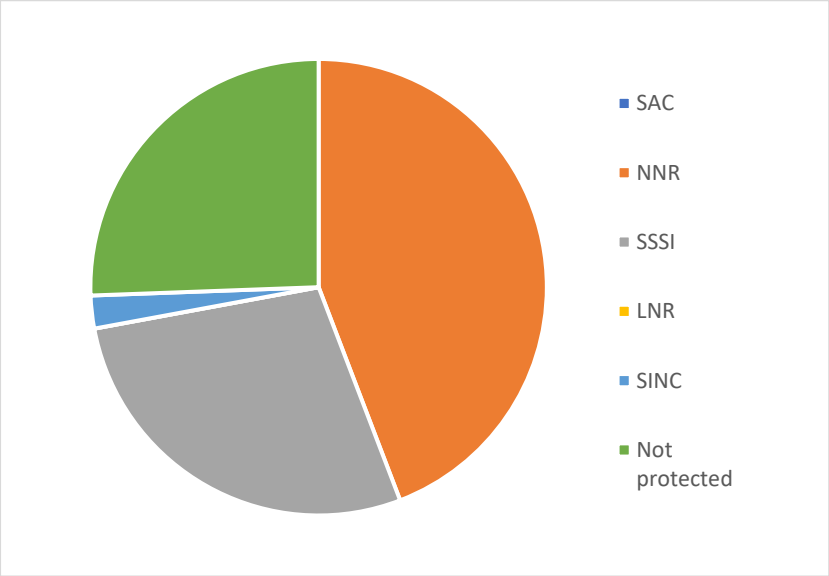


Habitats patterns: The Bittern is very strongly associated with reedbeds, and it is little surprise that the extensive, relatively recently created reedbeds at Newport Wetlands should now be a regular site for them, culminating in breeding in 2020.

Population trends: Things currently look positive for Bitterns in Gwent, with records increasing and the first breeding records for 200 years in 2020. There is no reason to suppose this will not continue, provided appropriate management is funded at Newport Wetlands. Numbers will however be limited, as it is likely that Newport Wetlands represents the only suitably large reedbed in Gwent.

Protection: Most records are from protected sites as the Gwent Levels and particularly the NNR at Newport Wetlands is the focal point for Bitterns in Gwent.

Bittern records from protected sites



Cetti's Warbler *Cettia cetti* (Temminck, 1820)

Andy Karran

Protection: Wildlife & Countryside Act (1981) (Schedule 1)

Conservation status: Green (UK[1] & Wales[2])

Data availability: Good (2228 records)

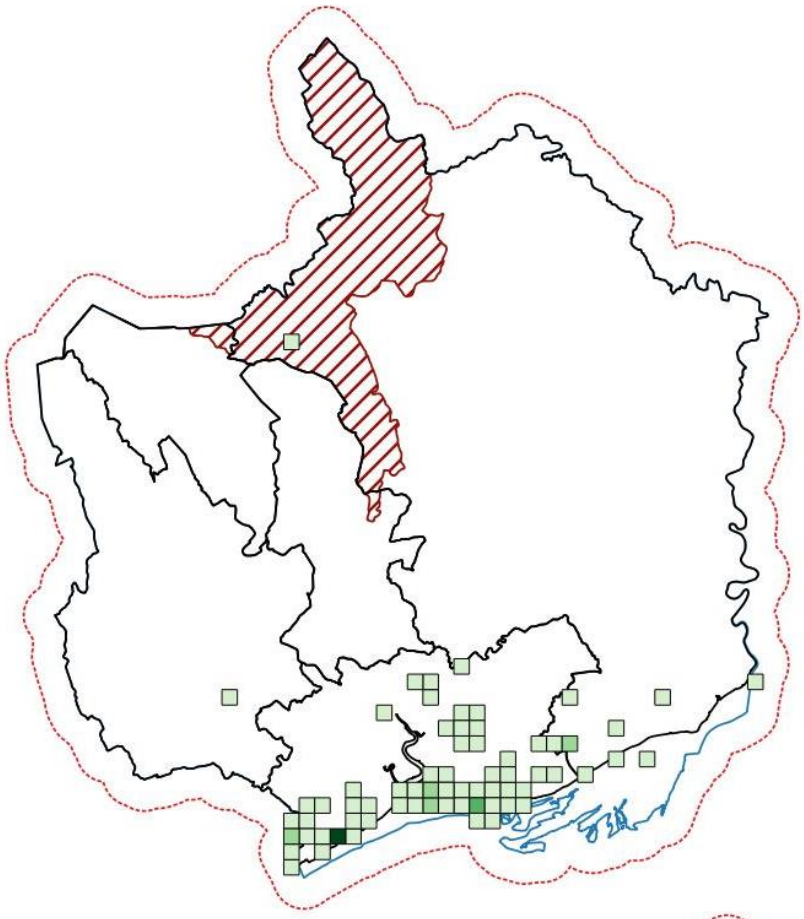
Context: Along with the Dartford Warbler, the Cetti's Warbler is the only UK warbler that is not migratory, staying with us all year round. They are a secretive species, rarely seen, as they favour the cover of thick Bramble & Willow scrub, as well as reedbeds. Despite their secretive nature, they are quite often recorded as they give away their presence with a distinctive and astonishingly loud song. Cetti's Warblers are a success story, with a population that has increased and expanded rapidly over the last 60 years. They could still, however, be vulnerable to localised scrub clearance, and are susceptible to cold winters. Cetti's Warblers are of least conservation concern in the UK but are fully protected on Schedule 1 of the Wildlife & Countryside Act as population numbers were still low when this legislation was enacted. Interestingly 'Cetti's Warbler is unique amongst British birds in having only ten tail feathers, and in laying bright red eggs'.[10]

Outlook: Cetti's Warblers were not recorded in the UK until 1961. Since then, the population has increased greatly, with breeding first proved in 1972. They have a generally southern bias to their population within the UK. The UK breeding population is quoted as being 3,450 singing males in 2016.[10] There was a long-term increase of 693% between 1975 and 2017 (described as 'strong increase'), with a lesser but still 'strong increase' of 47% from 2012 to 2017.[11] The BTO Breeding Bird Survey[12] corroborates this, showing an increase of 417% between 1995 and 2018. There is potential for the Cetti's Warbler to spread even further north in the UK in response to milder winters, although suitable habitat may limit increases, and harsh winters may check populations.

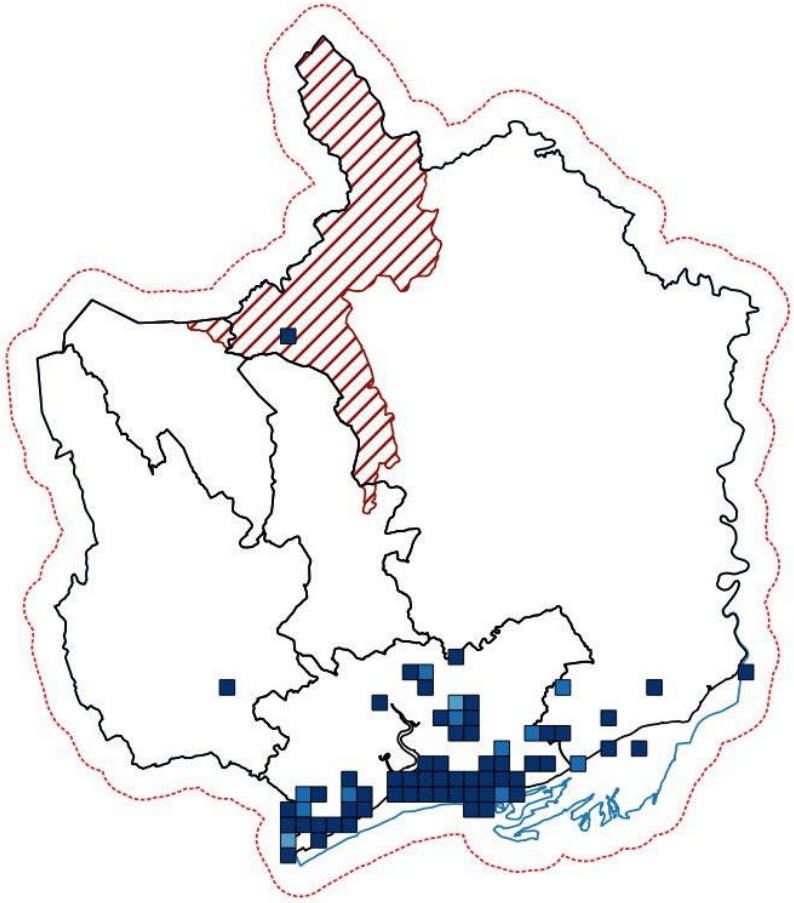
Greater Gwent range: Cetti's Warbler are described as being 'an uncommon resident' in The Birds of Gwent.[13] This status has changed in the years since it was published, and, while not common and widespread, the Cetti's Warbler could certainly be said to be locally common in suitable habitat, which is primarily the Gwent Levels. It is described in the Gwent Bird report 2018 as an 'uncommon breeding resident though with recent range expansion'.[8]

It was only first recorded in Gwent in 1988, on the Levels, and numbers recorded increased noticeably from 1994.[13] Breeding was first conclusively proved in 2001,[13] and numbers have increased significantly since then, with Newport Wetlands Reserve remaining the prime site throughout, although they can now be found across much of the Levels. Numbers were checked by the 'Beast from the East' in 2018 (pairs dropped from 64 in 2017 to 43 in 2018);[8] they will bounce back if such weather events are not regular. Across the Gwent Levels, high concentrations can be found at Peterstone Gout, as well as the Newport Wetlands. This is partly due to recorder effort at these two well known 'birding' sites, although Newport Wetlands is undoubtedly the prime site due to its size and ideal habitat.

Distribution of Cetti's Warbler records across Greater Gwent (maximum 632 records/km²)



Cetti's Warbler records by decade

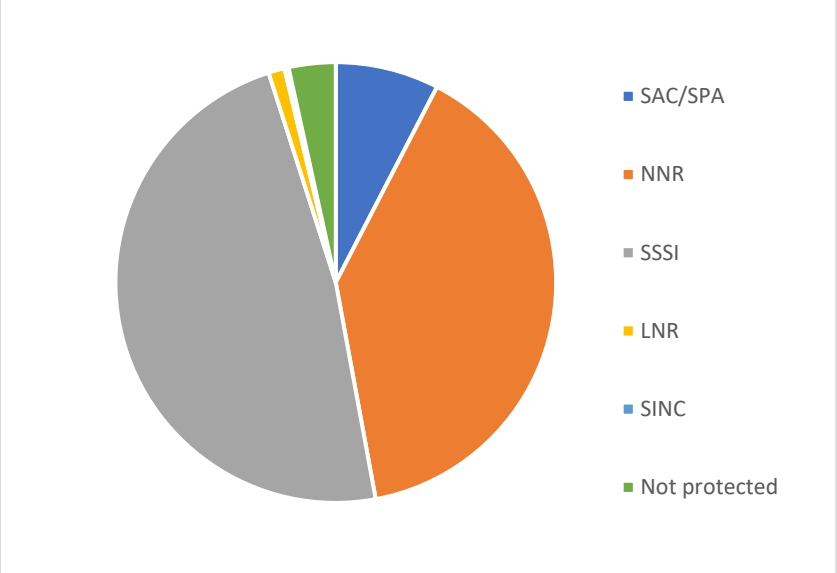


Habitats patterns: Very closely linked to an abundance of their preferred scrubby/reedbed wetland habitat, which abounds on the Gwent Levels and particularly at Newport Wetlands.

Population trends: The colonisation of Gwent and subsequent expansion and increase in numbers has been documented previously. With the UK population continuing to increase, it seems likely that the population will continue to thrive in Gwent, with perhaps an expansion of their range and potentially more records and breeding pairs away from the Gwent Levels stronghold. The only likely check to populations is extreme cold winter weather events.

Protection: As would be expected with a bird whose population is heavily associated with the highly protected Gwent Levels, the majority of records are from within protected sites, the NNR being Newport Wetlands and SSSIs largely being those on the Levels. The SAC/SPA records are likely to be record 'slippage', when records are centred or mis-recorded and they end up in the estuary.

Cetti's Warbler records from protected sites



Dipper *Cinclus cinclus* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981)

Conservation status: Amber (UK[1] & Wales[2])

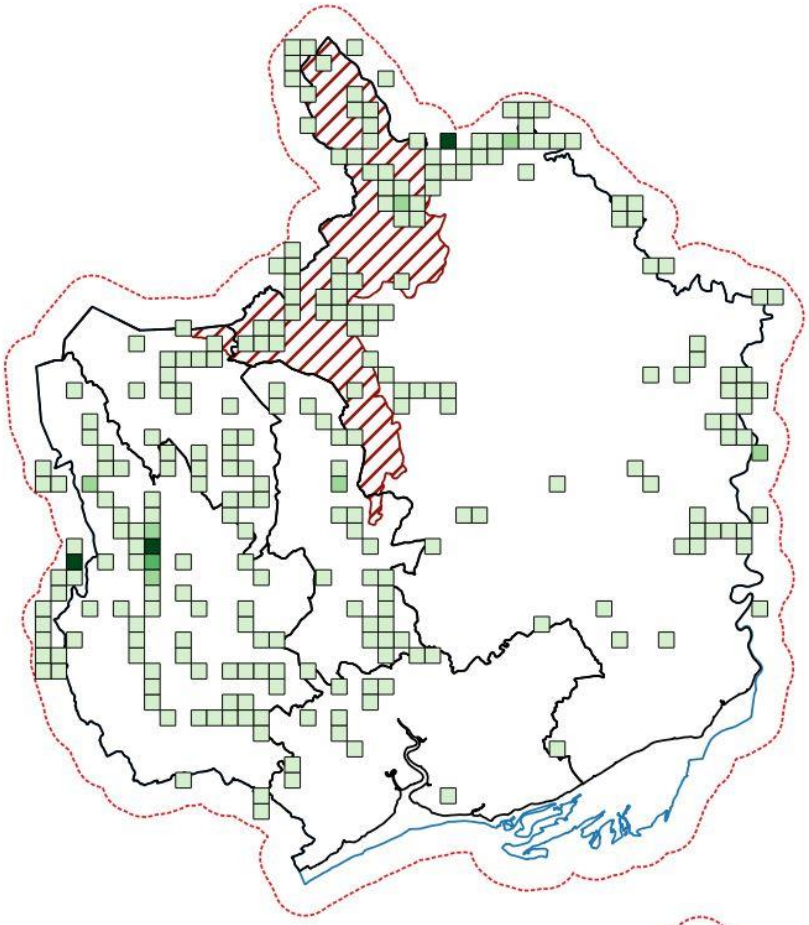
Data availability: Good (1,705 records)

Context: The Dipper is a bird that, because of its very particular lifestyle, is confined to our watercourses. It is resident and stays with us all year round, moving only relatively short distances (less than 2.5km) and generally staying within the same watershed, although post-breeding dispersal of juveniles (particularly females) can be over greater distances and between watersheds.[14] There are also some local movements in winter to more lowland rivers, particularly in relation to severe, cold weather, although frequent appearances in coastal regions appear to be confined to the past.[15] Dippers are vulnerable to declines in water quality and pollution incidents, which adversely affect the invertebrate fauna on which they rely for food and increase water turbidity, making it harder for them to locate their prey. Dippers were added to the UK Birds of Conservation Concern Amber List in 2015 due to a UK-wide 27% drop in breeding numbers over the preceding 25 years.[1] They were subsequently added to the Amber List in Wales in 2016 due to a 35% drop.[2] Feral Mink, pollution incidents, more unpredictable weather (including flooding) and loss of nest sites with bridge repairs are all possible reasons for population loss.

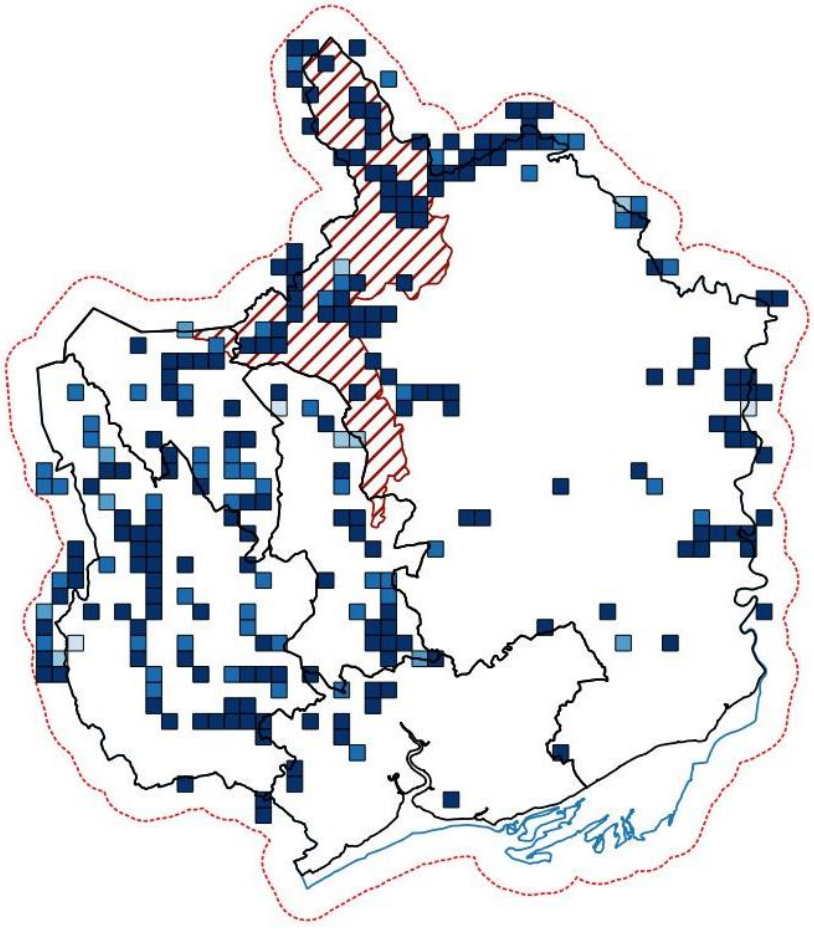
The Dipper has a particular significance amongst the avian fauna of Gwent, as it is the emblem of the Gwent Ornithological Society, whose newsletter is entitled 'The Dipper'.

Outlook: The UK population has a northerly and westerly bias in the UK, with a breeding population estimate of 6,900 to 20,500 pairs,[16] half of which are in Scotland. The numbers have fluctuated, remaining stable in many parts but with noticeable reductions in some parts, including West Wales. There was a longer-term reduction of 21% between 1975 and 2017 (described as 'little change'); shorter-term, more recent, data shows a 13% increase from 2012–2017 (described as 'weak increase').[11] The BTO Waterways Breeding Bird Survey (incorporated into the Breeding Bird Survey[16]) generally indicates a modest reduction in numbers between 1995 and 2018, albeit a less pronounced reduction in more recent years.

Greater Gwent range: The Dipper is described as 'a fairly common resident on suitable watercourses throughout the county' in The Birds of Gwent.[15] Mirroring the UK as a whole, Dippers are most numerous in the north and north-west of Gwent, this forms a strong correlation with the more upland areas, where there are the smaller, rocky, clear and well oxygenated watercourses they favour. There are also good numbers in the east on tributaries of the River Wye. Hotspots are at Parc Taf Bargoed and Bargoed Park (recording hotspots) and the Monnow (probably the result of centred records). Generally, they are on the Rhymney, Sirhowy, Ebbw Afon Lwyd, Honddu, upper parts of the Usk, Monnow, Trothy, Anghiddy and parts of the Wye, plus other minor tributaries.



Distribution of Dipper records across Greater Gwent (max 122/km^2)



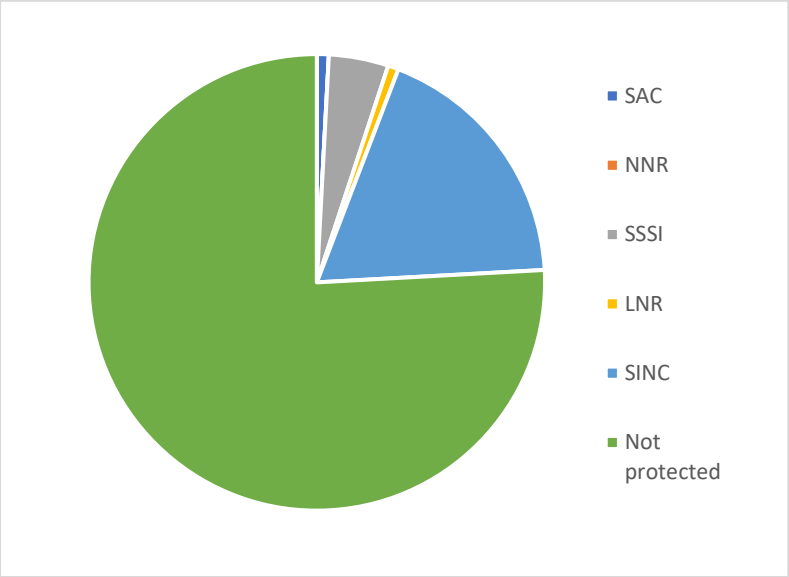
Dipper records by decade

Habitats patterns: Very much confined to watercourses, Dippers are now present on every significant watercourse in Gwent. There are very occasional records from still waterbodies.

Population trends: Currently things look reasonably good for Dippers: water pollution levels are much better than they were historically, and Dippers are well distributed on suitable watercourses within Gwent. If episodes of flooding and drought, causing greatly fluctuating water levels, become more common place, then this could have an adverse impact on Dipper populations.

Protection: While the below chart seems to show that much of the Dipper population is within habitat that has no level of protection, this is far from the truth. Both the River Wye and River Usk have the highest level of protection as SAC, and most of the watercourses within Gwent are covered by SINCs (notable exceptions being the Anghiddy and Honddu, which are good Dipper sites) but Dipper records may not actually appear within them because they are narrow linear habitats.

Dipper records from protected sites



Little Egret *Egretta garzetta* (Linnaeus, 1766)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended)

Conservation status: Green (UK[1]), Green (Wales[2])

Data Availability: Good (4,494 records)

Context: Not long ago, the Little Egret was a rare and exciting visitor to the UK. However, the status of this small, white heron has changed radically in recent times. Despite now being a familiar sight, they still provide an element of exotic glamour to our avifauna. It is likely that Little Egret were present in the UK and a commoner bird across Europe before hunting, particularly for their plume feathers reduced the population greatly. After protection was brought in, Little Egrets spread northwards from southern Europe, with increasing numbers being recorded in the UK; significant numbers arrived in 1989, followed by breeding in Dorset in 1996.[17] The effects of climate change have also been postulated as possible reasons for the range expansion and colonisation of the UK.[18] Little Egrets are most abundant along the south and east coasts of England and in Wales, but they are spreading inland and northwards.[17] Little Egrets largely feed on small fish, but will also take amphibians and large insects.[19] The UK population has increased since their first colonisation and continues to grow, with an overall increase of 59% between 2013 and 2018.[11] The breeding population is boosted by an influx of birds from the continent in the autumn/winter.

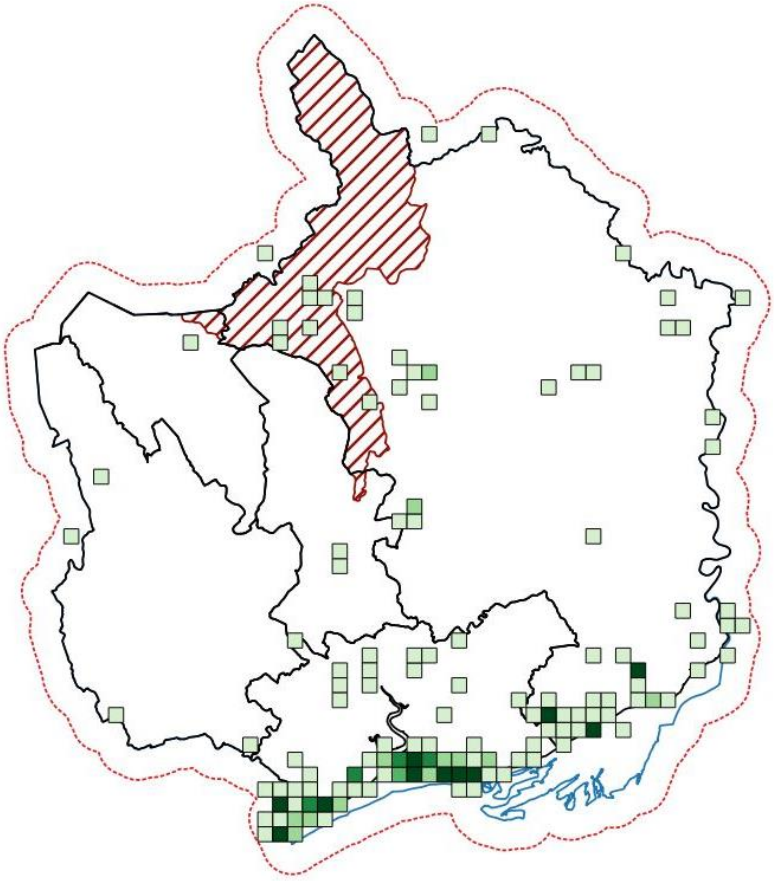
Outlook: As previously stated, the Little Egret was until recent times (1980s) a rare vagrant to the UK. A significant influx in 1989 led to breeding taking place in 1996; since then, the breeding and wintering populations have continued to grow and spread further north. The BTO Breeding Bird Survey,[12] corroborates this, noting a huge increase of 2,399% between 1995 and 2018, 64% between 2008 and 2018, and 10% in the single year 2018–2019. The estimated UK breeding population in 2012–2017 was 1,100 pairs.[4] In contrast to this relatively small but growing breeding population, the wintering population is quite a bit larger (11,500 in 2012/13–2016/17) and was subject to a 'strong increase' of 59% from 2013–2018.[12] The Wetland Bird Survey (WeBS) surveys[20] further corroborates these increases, noting a 39% increase in the UK as a whole and 59% in Wales from 2007/08 to 2017/18.

Greater Gwent range: The latest Gwent Bird Report (2018) records Little Egrets as 'uncommon away from the coast; rare breeding resident.'[8] There is no mention of Little Egrets in The Birds of Gwent in 1977[21] or the first The Gwent Atlas of Breeding Birds, which covers the period 1981–1985.[22] Little Egret are first mentioned in 2008's The Birds of Gwent, where it is described as 'uncommon throughout the year. Breeds at one location.'[23] The first record in Gwent was in fact in 1989,[23] as part of the first significant influx into the UK. The first breeding followed 12 years later, in 2001,[23] just 5 years behind the first UK breeding record. Reference to the 2016 Gwent Bird Report indicates that there were two breeding colonies in Gwent, both situated on the Gwent Levels, with the Magor Marsh colony being newly established.[7] By the time of the 2018 Gwent Bird Report, it is interesting to note that the Magor Marsh colony had expanded to the cost of the other Gwent Levels colony at Whitson Court, which had been abandoned.[8] There are also significant roost sites, with 42 being a peak count at the Magor Marsh

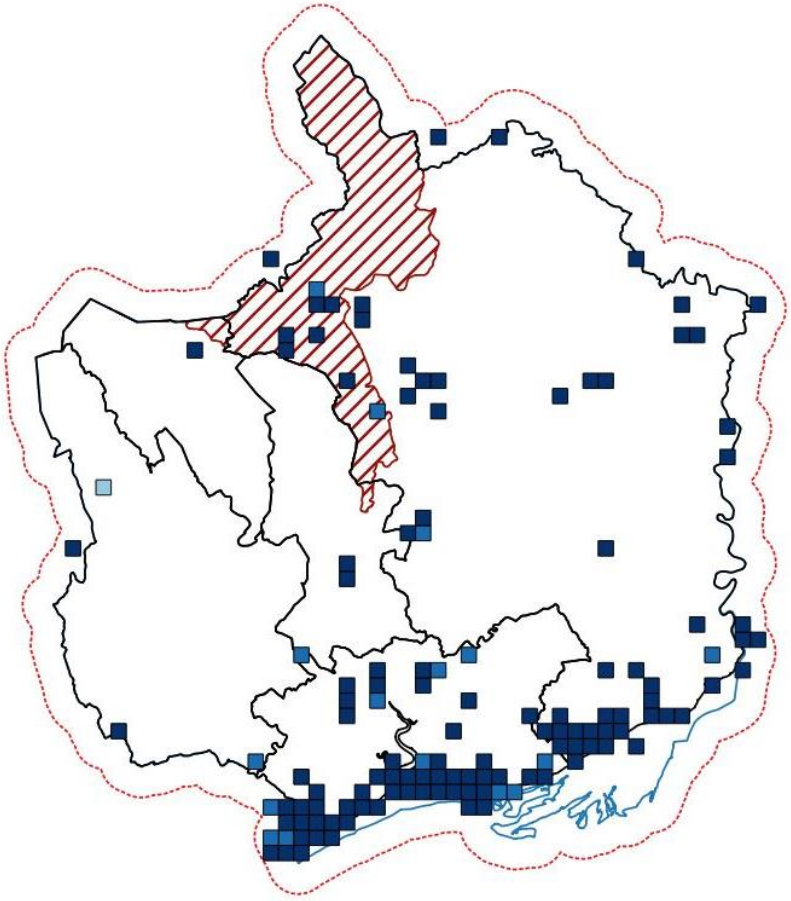
roost in 2018.[7] Little Egrets can be encountered in Gwent all year round, but – as in the rest of the UK – there are a greater number of birds present over winter. The Gwent Levels and foreshore is the location most likely to hold Little Egrets, but they can be encountered inland in small numbers associated with various waterbodies.

The main recording hotspots are Peterstone Wentlooge and Goldcliff. There are other noticeable hotspots at Nedern Brook, Collister Pill, Caldicot Pill, the Moorings and Rumney Great Wharf. The Gloucestershire hotspot is likely a false one, due to centring of low-resolution records. Away from the Levels, there are clusters of records at Llandegfedd and the River Usk near the Bryn.

Distribution of Little Egret records across Greater Gwent (maximum≥100 records/km^2)



Records of Little Egret by decade

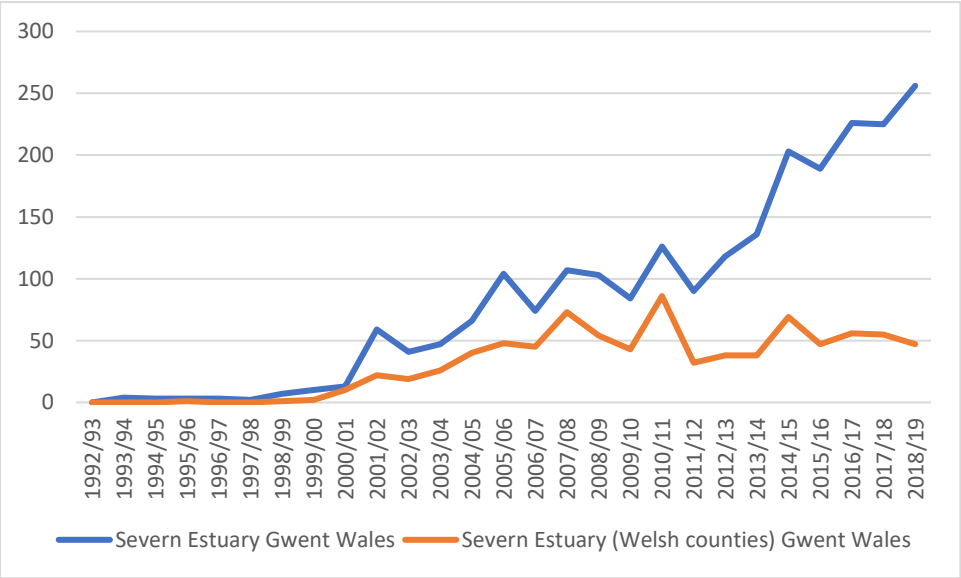


Habitats patterns: Little Egrets are strongly associated with wetland habitats, with the Gwent Levels and foreshore being the main habitat utilised.

Population trends: As previously stated, the Little Egret has only recently colonised and subsequently established breeding populations within the UK. Gwent has been no different, with the first breeding recorded in 2001. These increases are due to a reduction in persecution allowing an increase in range and the impact of climate change. The WeBS counts shown below clearly show the increases in the Severn Estuary from very low numbers in the early 1990s to counts in the hundreds now. The Severn Estuary population appears to be increasing, whereas the population in the Welsh counties has levelled out in the last 10 years. The population is now clearly very well established and of low conservation concern. However, it should be noted that the breeding population in Gwent is still at a low level (9 pairs) and concentrated at just two sites,[8] which makes it inherently vulnerable. These and any new sites should be protected from disturbance.

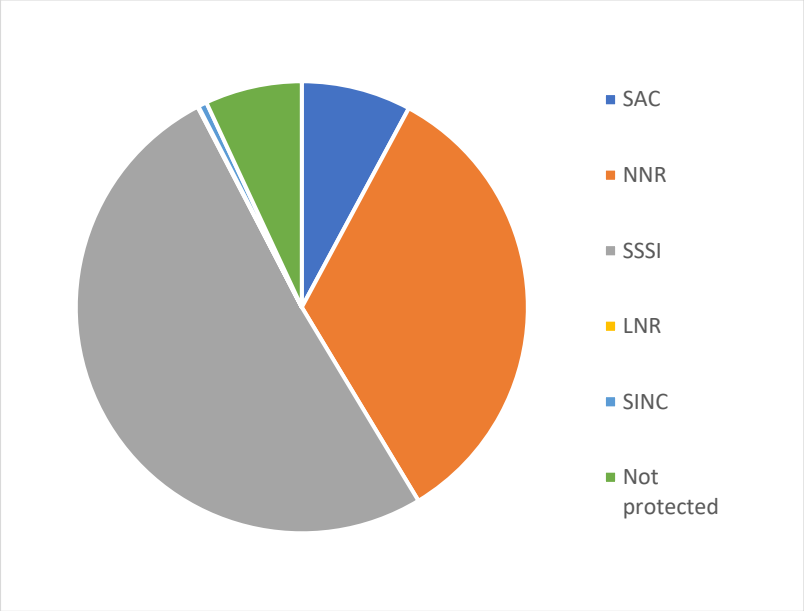
The WeBS counts represent the population at the most numerous recorded site (Severn Estuary), rather than the whole of Greater Gwent. Note that some annual counts are given as a minimum number rather than a count/estimate.

Winter WeBS Peak Counts for Little Egret on the Severn Estuary[24]



Protection: 93% of records come from protected sites, with records from the Severn Estuary SAC, together with high numbers of records from the Newport Wetlands NNR and Gwent Levels and Llandegfedd SSSIs.

Little Egret records from protected sites



Pintail Anas acuta (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended) Schedule 2

Conservation status: Red (Wales[1]) & Amber (UK[2])

Data Availability: Good (1,474 records)

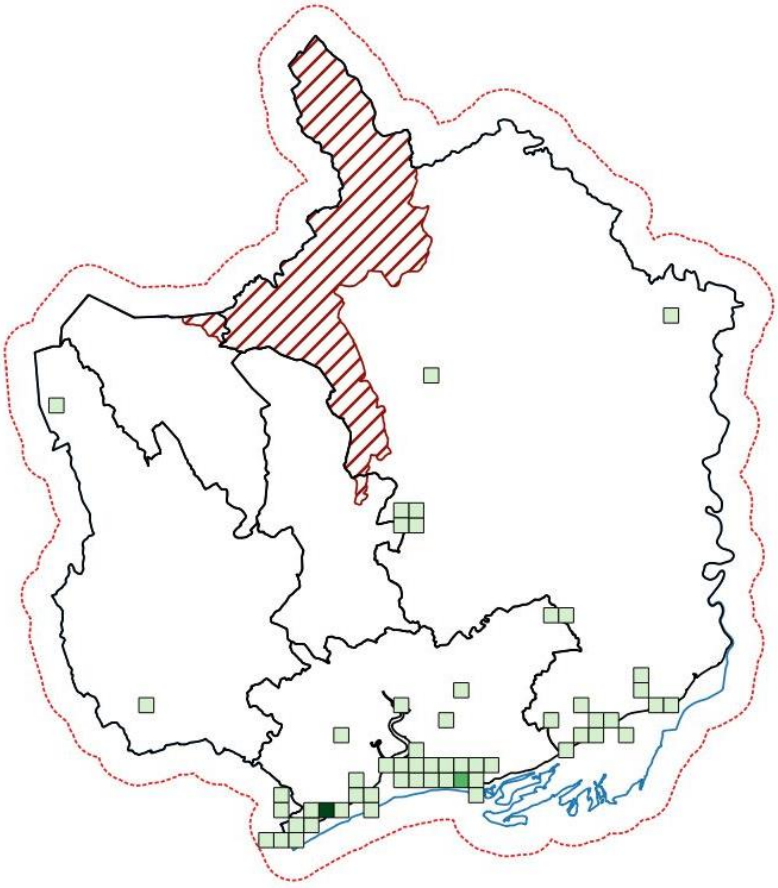
Context: The Pintail is a relatively common duck species within the UK as a wintering species, but perhaps one that people are less familiar with given their liking for wilder habitats and shy nature. They are by far at their commonest as a wintering bird, but also pass through on migration, although only very small numbers stay to breed. This means that Pintail are vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source – all impacted by climate change.[25] They are one of a whole host of duck species that winter in the UK in considerable numbers. The Pintail that breed in the UK are restricted by their very specific breeding requirements, needing freshwater pools in grassland.[26] This habitat is very vulnerable to a warming climate, as these shallow pools may dry out.[27] The small numbers of breeding birds are largely in northern Scotland.[28] Far greater numbers winter in the UK with birds coming from more northerly climes such as northwest Siberia, others migrate further south to sub-tropical Africa.[29] Pintail have an omnivorous diet, extracting this from submerged mud.[26] Overall in the UK, there has been a decrease of 24% in relation to wintering birds between 1992/93 and 2017/19.[20] The decrease in wintering numbers may be a response to milder winters meaning more Pintail winter further east, in places such as the Netherlands, but it is still concerning.[30] Breeding population trends are hard to find, but part of the reason for the Pintail being Amber listed is recent falls in breeding numbers and range. This would appear to be the case, with only an estimated 27 pairs in 2012–2017,[4] and the Rare Breeding Birds Panel recording there being a 'weak decrease' (35% over 25 years).[31]

Outlook: The only location where Pintail bred in the UK in the nineteenth century was a single site in Scotland.[32] Records increased during the twentieth century but were always scattered and at low numbers, with regular areas sometimes being abandoned due to sensitivity to water levels.[32] The estimated UK breeding population was never large and was only 27 pairs in 2012–2017;[31] this is apparently a reduction on previous levels, and Pintail were never more than very scarce however. In contrast to the small and localised breeding population, the wintering population is considerably larger (20,000 in 2012/13–2016/17)[31] but has been subject to alterations (principally decreases): 8% decrease 1975–2018 (described as 'little change'), with this altering in more recent times with a 7% increase (described as 'slight increase') from 2013 to 2018.[11] The WeBS surveys[20] show far more of a decrease: decreases of 24% increase in the UK as a whole (conversely 28% increase in Wales) from 1992/93 to 2017/18 and a more severe decrease of 29% in the UK from 2007/08 to 2017/18 (52% decrease in Wales). This wintering population is quite widely distributed throughout the UK, largely utilising sheltered coasts and estuaries, however the main concentrations are quite localised.[33]

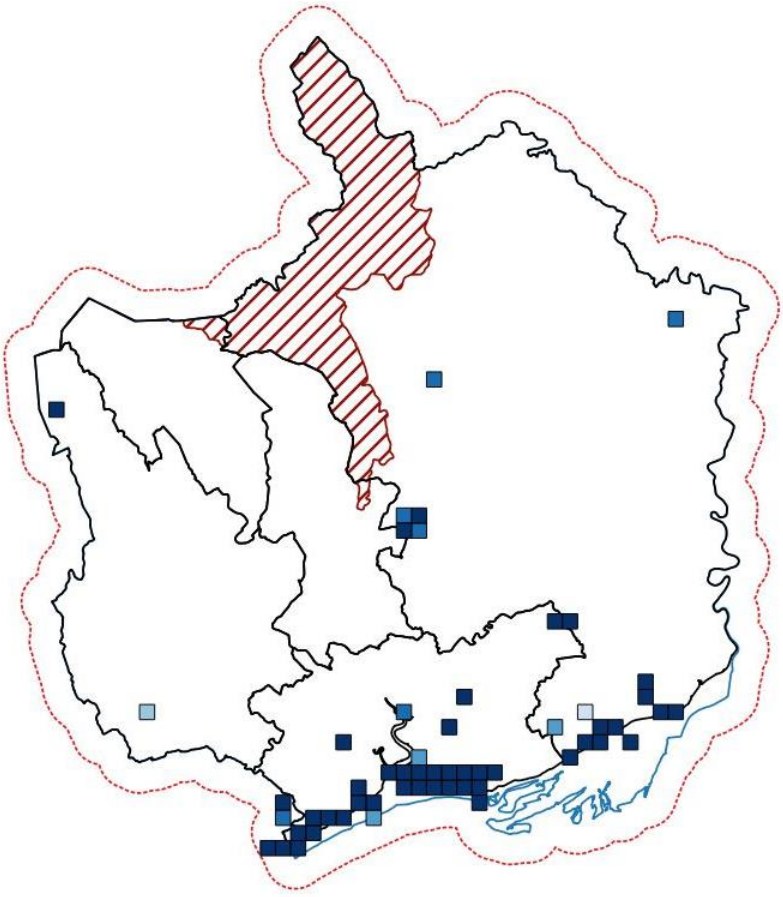
Greater Gwent range: The latest Gwent Bird Report (2018) records Pintail as being a 'fairly common winter visitor at main coastal sites; casual elsewhere'.[7] This has been the case for a long while, with the Birds of Gwent noting 'a fairly common winter visitor and passage migrant mostly to coastal sites. Winter numbers exceed the threshold for International Importance' in 2008[34] and a 'regular and fairly common winter visitor, mainly to the coast, but also to one or two inland waters. Numbers are usually small, but are subject to considerable fluctuation from one year to another' in 1977.[35] The Severn Estuary has been noted to be of great importance for Pintail, hosting populations of National Importance.[36] Those found within Gwent form a significant part of these populations, with an annual peak count of 682 (which actually exceeds the International importance threshold) in the early years of the twenty-first century.[34] Peterstone, St. Brides, Goldcliff and Newport Wetlands are recognised as the most important sites within the Birds of Gwent 2008.[20] Much smaller numbers are recorded at a number of inland sites, including Llandegfedd Reservoir. As previously stated, Pintail are an important part of the Severn Estuary avifauna over winter. The numbers recorded in recent years are however reduced, with the Gwent Bird Report 2014[37] noting that 'numbers remain considerably lower than in the previous decade'. This reflects the declines noted both in Wales and the UK as a whole, possibly due to more birds wintering further east as a response to generally milder winters. The continued importance of Peterstone is confirmed in the Gwent Bird Report 2018: 'Peterstone remains by far the most important site'.[7]

There are record hotspots at Peterstone, Newport Wetlands and Llandegfedd, with really good coverage of recent records.

Distribution of Pintail records across Greater Gwent (max 576/km^2)



Records of Pintail by decade

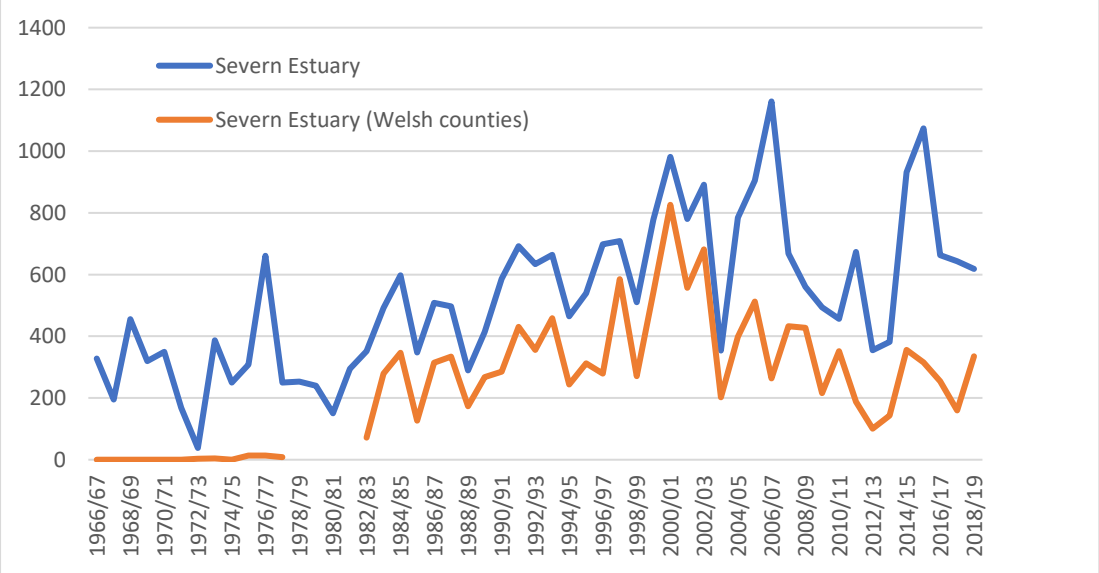


Habitats patterns: Pintail are very much a bird of the Severn Estuary coast. However, they are also recorded in small numbers at several inland sites, most notably Llandegfedd Reservoir.

Population trends: As previously stated, there have been general decreases in the Pintail wintering populations within the UK. At least for a while, particularly during the 1990s, Wales bucked this trend and saw numbers increase. However, in the last 10 years or so, Wales has also seen decreases. Gwent has been no different, showing a similar pattern to the overall Wales population. It would appear that the Pintail population that winters in Gwent is currently reduced but still of high importance as a significant part of the Nationally Important Severn Estuary population. Ongoing studies of trends is of great importance to monitor the populations, particularly as investigations continue into Severn barrages, lagoons and tidal power. The potential impacts of these upon wintering Pintail populations, together with the other waders and wildfowl, should be given great scrutiny.[38] It would also be important to extricate any of the currently occurring declines that may be due to climate change altering wintering ranges from other factors.

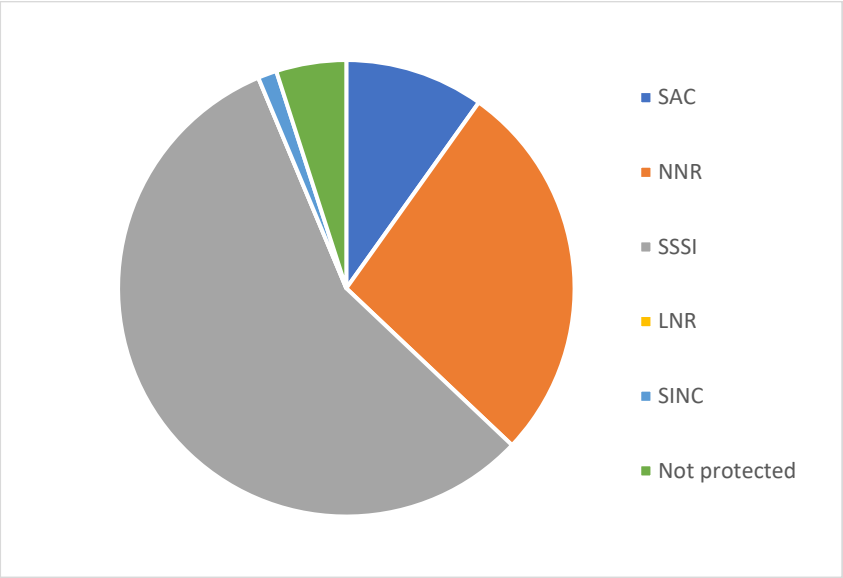
Details of the numbers wintering on the Severn Estuary through WeBS counts[34] are shown below. The graph shows the decline in the population in the twenty-first century after previous increases. It is unclear why the numbers recorded in the 1970s should be so low in Welsh counties. Numbers in Gwent were low at that time as the population centred on the Rhymney Estuary (outside of Gwent to the west). However, Pintail were still present in the Severn Estuary (perhaps not picked up by WeBS). This population became more mobile and moved to Peterstone regularly in the 1980s.[34]

WeBS counts for Pintail on the Severn Estuary[24]



Protection: 95% of records come from protected sites, with high numbers of records from the Severn Estuary SAC, Newport Wetlands NNR, Gwent Levels and Llandegfedd SSSIs. The SINC is Rhaslas Pond.

Pintail records from protected sites



Reed Warbler Acrocephalus scirpaceus (Hermann, 1804)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Green (UK[1]) Green (Wales[2])

Data availability: Good (1,493 records)

Context: A migrant bird that is a summer visitor to the UK, the Reed Warbler spends its winters in Africa.[39] This means that the Reed Warbler is vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source – all impacted by climate change.[25] They are one of a whole host of warblers that breed in the UK, most of which make long-distance migration to distant wintering grounds. Reed Warblers are largely insectivorous but will take berries in the autumn.[39] They are widespread across large parts of lowland central and southern England and Wales in their reedbed habitat; they are much scarcer in Scotland and Ireland.[39] As their name implies, they are very much a bird of reedbeds and associated scrub. Consequently, they are quite hard to see, but they give themselves away by their chattering song. In contrast with many of our other long-distance summer migrants, there has been a general increase in populations, with an overall 79% increase between 1975 and 2018.[11] These increases have been driven by a remarkable range expansion further north and west in the UK since the 1960s.[40] Improved breeding performance, the warming climate and improved habitat management have been suggested as reasons for this range expansion. [40]

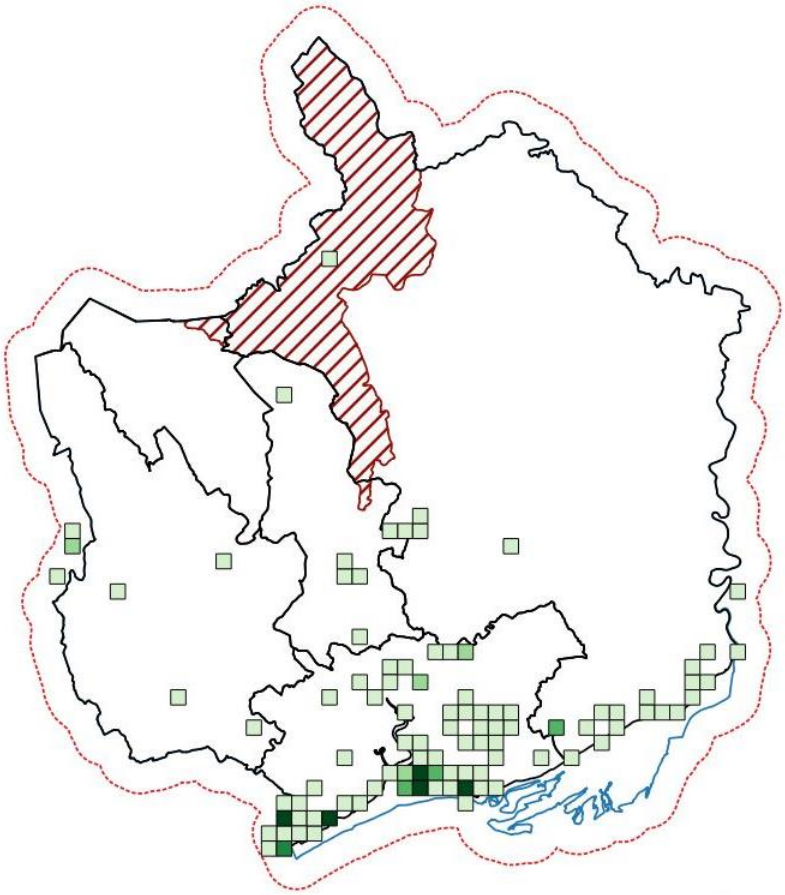
Outlook: It would appear that the Reed Warbler population and distribution has fluctuated over the last couple of centuries.[32] At the end of the nineteenth century, the Reed Warbler bred in most English and Welsh counties south of (and including) Yorkshire and Lancashire.[32] However, by the 1930s, it had been lost from much of the northern and western borders (including significant parts of Wales) of its range, and this remained the case until the 1970s.[32] From the 1970s onwards however, the population range has expanded, and the Reed Warbler has recolonised areas lost previously. Now, the range resembles that at the end of the nineteenth century, with breeding also in Scotland and Ireland.[32] The estimated UK breeding population in 2016 was 130,000 pairs.[4] This represents an increase in recent years: 79% increase between 1975 and 2018 (described as 'weak increase'), with this stabilising more recently, with no change between 2012 and 2017.[11] The BTO Breeding Bird Survey[12] further illustrates these patterns with a 21% increase between 1995 and 2018 in the UK as a whole.

Greater Gwent range: The distribution of Reed Warblers within Gwent is limited by their habitat requirements. Most of the region's reedbeds and reed-fringed reens are on the Gwent Levels in the south of Gwent, and correspondingly this is where Reed Warblers are concentrated.[41] The latest Gwent Bird Report (2018) records Reed Warbler as a 'fairly common breeding summer visitor/passage migrant'.[8] This has been the case for quite a while, but with a general increase in numbers. The Birds of Gwent in 1977 recorded it as a 'breeding summer visitor. It is an uncommon but fairly regular visitor, mainly to areas on the coastal levels'.[42] The Birds of Gwent in 2008 recorded Reed Warbler as being 'a fairly common summer visitor and passage migrant'.[41] The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of 200–300 pairs,[43] with the second atlas (1998–

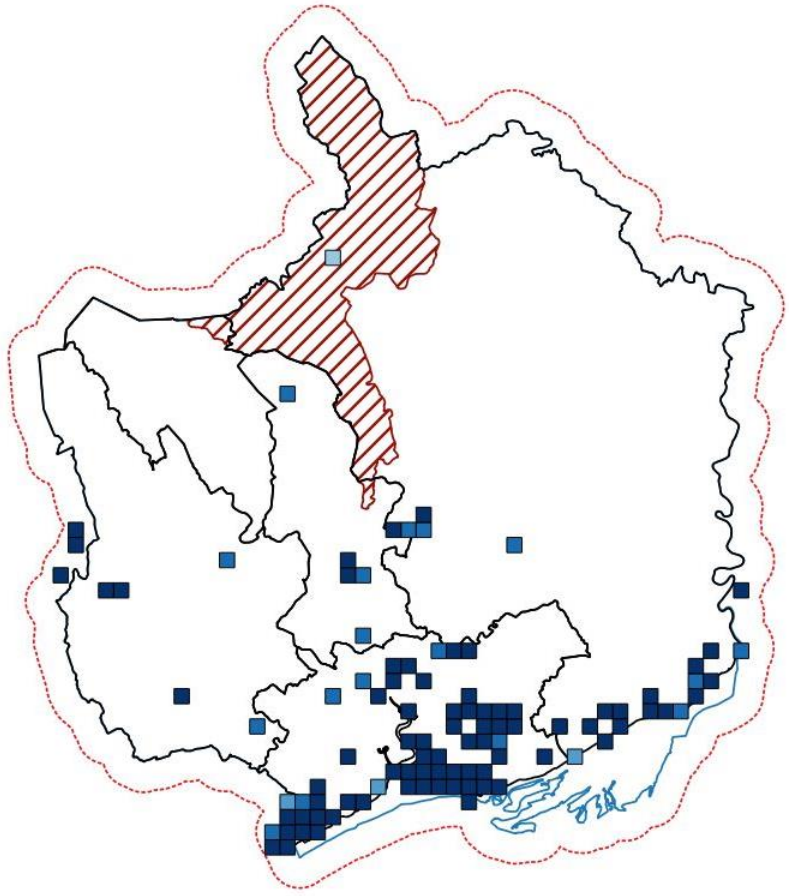
2003) estimating an increased population of 310–570 pairs.[41] This again clearly illustrates an increase. The establishment of the reedbeds at the Newport Wetlands Reserve has been noted as being noticeably beneficial for Reed Warblers.[41]

Hotspots for records are across the Gwent Levels, with concentrations at Peterstone Wentloog and Newport Wetlands, plus St Mellons in the buffer area. Away from the Levels there are clusters of records at Llandegfedd.

Distribution of Reed Warbler records across Greater Gwent (max >100)



Records of Reed Warbler by decade

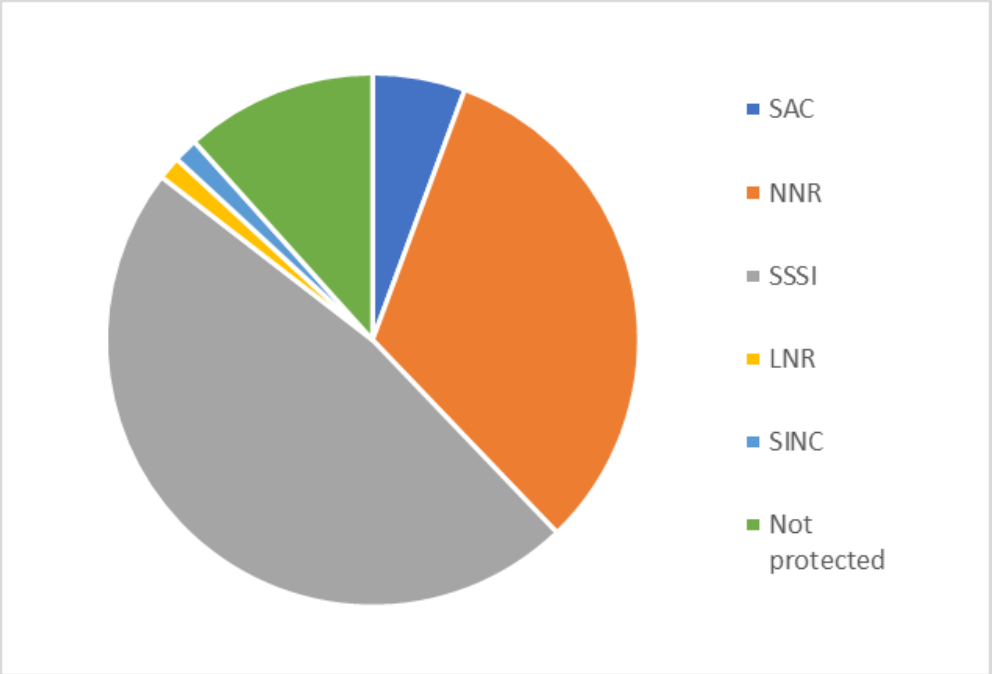


Habitats patterns: Reed Warblers are very much birds of reedbeds and reed-fringed reens/ditches.

Population trends: As previously stated, there have been increases in Reed Warbler populations within the UK, and their range has expanded further to the north into Scotland and westwards into Ireland. Gwent has been no different, with the breeding population generally increasing. However, it has remained largely confined to the Gwent Levels, as this is where suitable reed habitat is present, both in the form of reedbeds (most notably at Newport Wetlands) and also the more widely distributed reed-fringed reens. Reed Warblers are not currently of great conservation concern. However, it should be noted that many of our long-distance summer migrants are not faring so well, and issues on wintering grounds in Africa that affect them could come to affect Reed Warblers, so there should not be complacency. These climate change problems are difficult to address through more local conservation initiatives. However, habitats in Gwent can still be preserved and enhanced in such a condition as to maximise the potential available resources for breeding Reed Warblers to ensure productivity rates are high. The management of the many kilometres of reens (64km of main reen and 137km of lesser reen) on the Gwent Levels could be an important factor in the future success of Reed Warblers. While there will be a variety of management prescriptions in place for the reens based on different ecological and agricultural needs, economics and water control, reed-lined stretches should be maintained persist to provide suitable habitat for Reed Warblers.

Protection: 88% of records come from protected sites, with high numbers of records from the following: SAC records from the Severn Estuary; NNR records from Newport Wetlands; SSSI records from the Gwent Levels and Llandegfedd; LNR records from St. Julian's Park; SINC records from The Moorings, Rogiet Country Park and various others.

Reed Warbler records from protected sites



Shoveler *Anas clypeata* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended) Schedule 2

Conservation status: Amber (UK[1]), Amber (Wales[2])

Data Availability: Good (2,407 records)

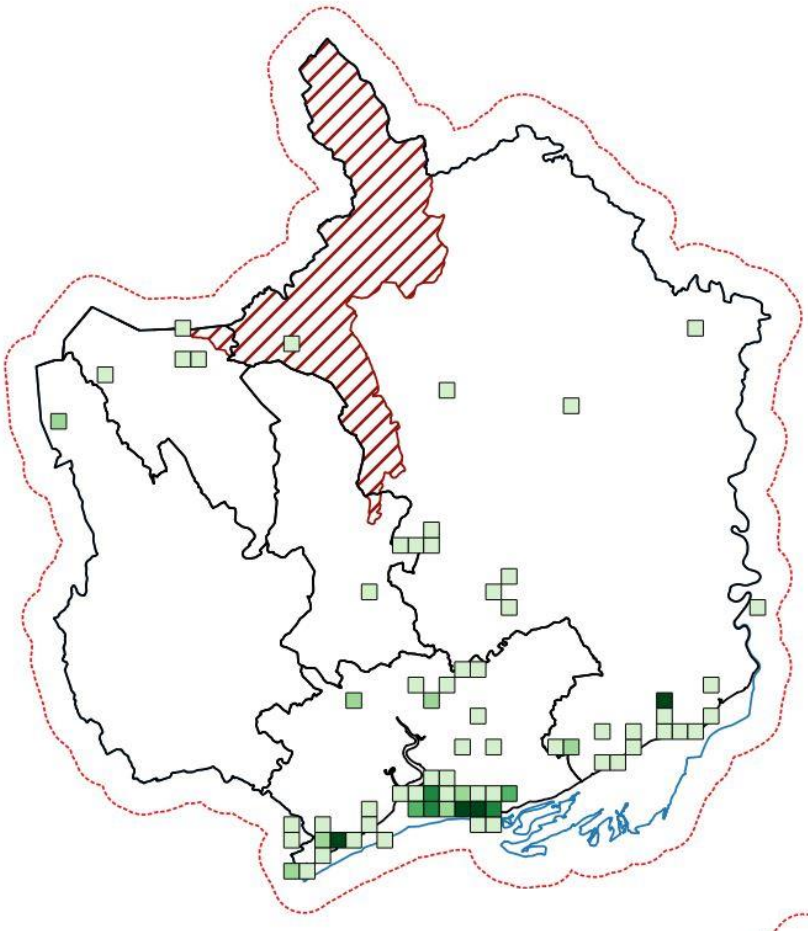
Context: Shovelers are a relatively familiar duck species in the UK, their over-sized and distinctively shaped beak giving them their name. They are by far at their commonest as a wintering bird, but also pass through on migration, and smaller numbers stay to breed. This means that the Shoveler is vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source – all impacted by climate change.[25] They are one of a whole host of duck species that winter in the UK in considerable numbers with only a relatively small number staying to breed. The Shoveler that breed in the UK are concentrated in southern and eastern England, with much smaller numbers in Scotland and western parts of England.[44] The breeding birds move further south in the winter, to be replaced by continental birds from further north that winter in the UK.[44] Shoveler are omnivorous and filter small invertebrates and seeds from the water with their specialised bills.[45] Overall in the UK, there was an increase of 132% in relation to wintering birds between 1975 and 2018.[11] The increase in wintering numbers is thought to be a response to milder winters meaning more Shoveler winter further north rather than in Spain or France. Breeding population trends are hard to find, but part of the reason for the Shoveler being Amber listed is recent falls in breeding numbers and range.[45] However, the BTO website[45] indicates that, following a 'slight decrease' between 1969 and 1995, the population has subsequently been largely stable.

Outlook: The Shoveler was seemingly quite a scarce breeder in the UK in the nineteenth century, with wildfowling being implicated in the low numbers.[32] Protection was introduced towards the end of the nineteenth century and, by the 1930s, Shoveler were breeding in most English counties and many Scottish counties, and was more widespread in Ireland but more localised in Wales (southern coast and Anglesey).[32] By the 1950s the increases in some areas were being balanced by losses in others due to habitat loss; increasingly, while doing well on managed reserves, Shoveler populations were being lost in more marginal areas.[7] The estimated UK breeding population in 2012–2017 was 1,100 pairs.[4] In contrast to the relatively small breeding population, the wintering population is much larger (19,500 in2012/13–2016/17) and has been subject to significant increases: 132% increase between 1975 and 2018 (described as 'weak increase'), with this continuing in more recent times with a 25% increase (described as 'strong increase') from 2013–2018.[32] The WeBS surveys[20] largely corroborate these increases, with a 68% increase in the UK as a whole (75% in Wales) from 1992/93 to 2017/18 and a 13% increase in the UK from 2007/08 to 2017/18, although there was been a contrasting 23% decrease in Wales over a similar time period. This wintering population is widely distributed throughout the UK, utilising both the coast and freshwater bodies. However, a considerable percentage of Shoveler are concentrated within a relatively small number of favoured sites.[46]

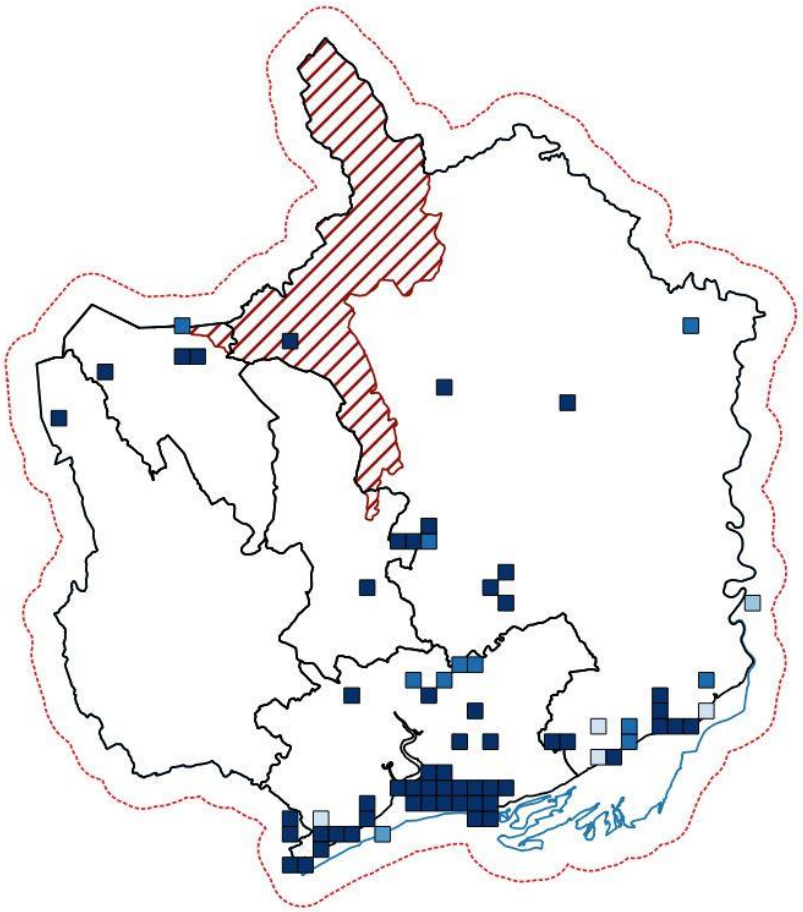
Greater Gwent range: The latest Gwent Bird Report (2018) records Shovelers as being 'fairly common in winter; scarce in summer; very rare breeder.'[8] This has been the case for a long while, but wintering numbers have been increasing to some extent over time: The Birds of Gwent recorded Shovelers as being 'a common winter visitor at two sites, where numbers exceed the threshold for National Importance. Also a scarce passage migrant and rare breeder' in 2008[47] and as a 'frequent winter visitor in quite large numbers; rarely breeds' in 1977.[48] The Severn Estuary, and Gwent in particular, has been noted to be of great importance for Shoveler, with the Peterstone Foreshore and Newport Wetlands both hosting populations of National Importance.[47] Inland in Gwent, Shovelers are annual, but generally only recorded in small numbers, with Llandegfedd Reservoir perhaps being the best site. As previously stated, Shoveler are a relatively common and important part of the Severn Estuary avifauna over winter. Numbers have generally increased in recent times, and this mirrors the situation in the UK as a whole and is likely due to similar reasons – the most significant of these being fewer birds migrating to France/Spain and spending the winter further north in the UK as a response to generally milder winters. Shoveler have never been remotely common, and likely never regular, as a breeding species in Gwent. The focal point for previous breeding activity has been various locations on the Levels.[47] It is likely that Shoveler will continue to breed sporadically on the Levels, although there is nothing to suggest that larger breeding populations will be established.

Records are largely focused along the Severn Estuary coast; occasional records are inland, with Llandegfedd Reservoir being a focus and some at various other inland waterbodies, with perhaps some focus in the vicinity of the Usk.

Distribution of Shoveler records across Greater Gwent (maximum≥100 records/km^2)



Records of Shoveler by decade



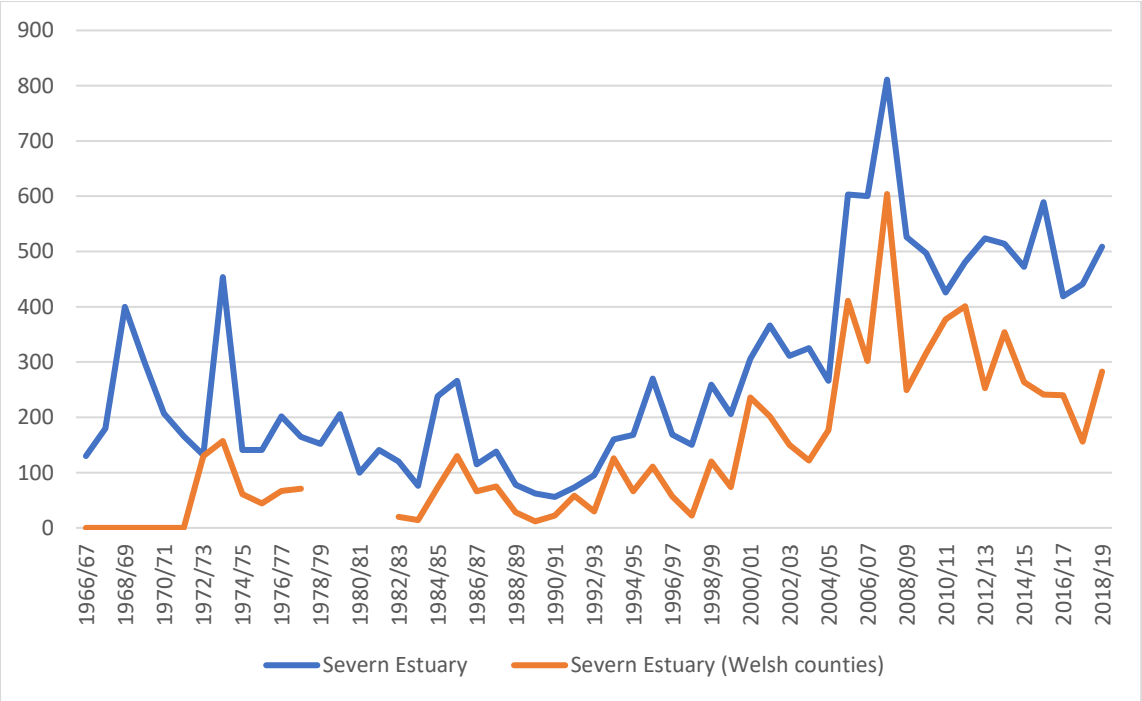
Habitats patterns: Shovelers are very much a bird of the Severn Estuary coast, with small numbers inland at various waterbodies.

Population trends: As previously stated, there have been noticeable increases in the Shoveler wintering populations within the UK; Gwent has been no different. It would appear that the Shoveler population that winters in Gwent is currently secure and still of high significance, with two Nationally Important Sites in the vicinity of the Severn Estuary. Despite this, ongoing studies of trends is still of great importance to monitor the populations, particularly as investigations continue into Severn barrages, lagoons and tidal power. The potential impacts of these on wintering Shoveler populations, together with the other waders and wildfowl, would have to be given great scrutiny.[38]

Details of the numbers wintering on the Severn Estuary through WeBS counts are shown below. The graph shows a generally increasing population, with a clear upwards turn at the beginning of the twenty-first century, perhaps due to the establishment of the second Nationally Important wintering population at Newport Wetlands. After this, numbers dropped back fairly quickly but appear to have stabilised at a higher level than previously. This represents the population at the most numerous recorded site (Severn Estuary), rather than the whole of Greater Gwent.

Note that some annual counts are given as a minimum number rather than a count/estimate

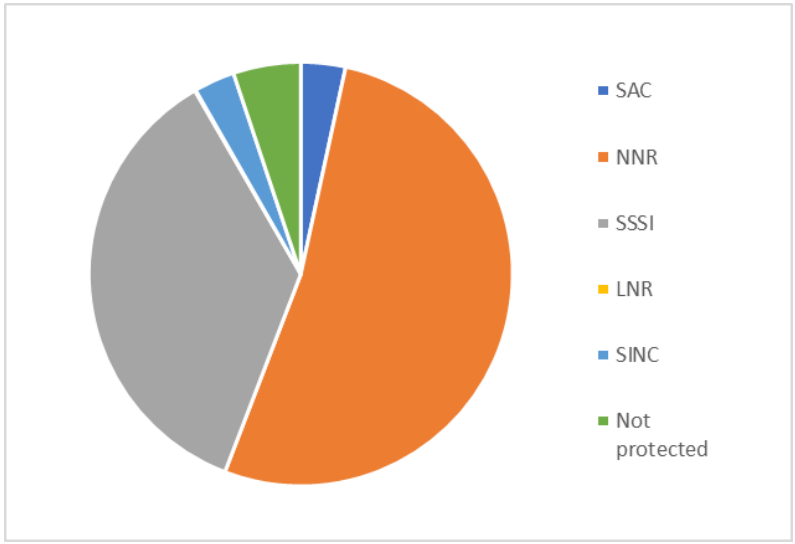
Winter WeBS Peak counts for Shoveler on the Severn Estuary[24]



As previously stated, it is unlikely that the Shoveler will be anything more than a scarce/rare and very localised breeding bird in Gwent. However, with the establishment of Newport Wetlands, there is perhaps the possibility of Shoveler becoming annual breeders in very low numbers.

Protection: 95% of records come from protected sites, with records from the Severn Estuary SAC, together with high numbers of records from the Newport Wetlands NNR and Gwent Levels and Llandegfedd SSSIs, and also some from SINCs in the region of the Heads of the Valleys and adjacent to the Usk.

Shoveler records from protected sites



Snipe *Gallinago gallinago* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended) Schedule 2

Conservation status: Amber (UK[1] and Wales[2])

Data Availability: Good (2095 records)

Context: Snipe are widespread within the UK, both as a breeding bird and wintering. They are less tied to the coast than many of our other wading birds, being birds of damp moorlands, marshy grassland and well-vegetated wetlands, although there are more birds at the coast during the winter. They are noticeably commoner as a wintering bird, However, they also pass through on migration and considerable numbers stay to breed. This means that the Snipe is vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source – all impacted by climate change.[25] Snipe breed in damp places, including lowland meadow/marshy grassland, however their stronghold is in the uplands/moorlands.[49,50] The Snipe's diet includes small invertebrates, including worms and insect larvae,[50] and they utilise their long bill to catch these.[51] They are particularly well known for their display flights during the breeding season, when they make a distinctive drumming sound using their tail feathers.[51] It should be noted that they are regarded as a 'game bird' and are shot in the UK (open season is 12 August to 31 January).[52] In the UK, there has been a decline in breeding numbers of 79% between 1970 and 2017.[11] Little information can be found on trends of wintering Snipe, although it is possible that wintering numbers should have similarly fallen to some degree, although many of our wintering birds are from breeding populations much further north and east[50].

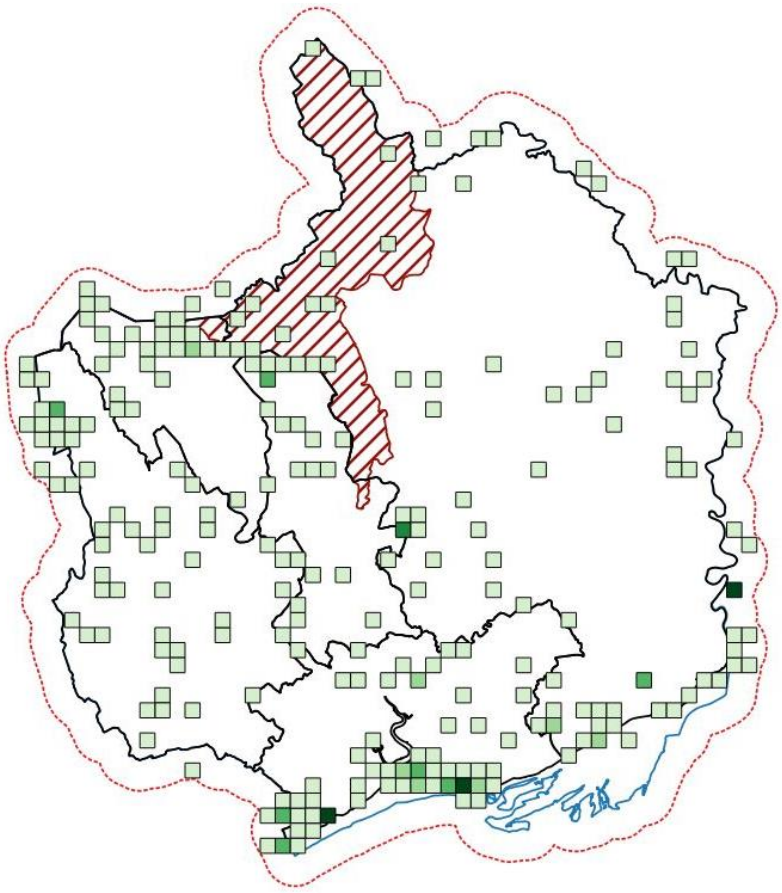
Outlook: Snipe were already suffering declines in the nineteenth century due to drainage, reclamation, enclosure of farmland in the lowlands[32] and vast numbers being shot.[32] However, these fortunes reversed, and breeding populations increased in the early twentieth century, stabilising in the 1930s/40s. This was thought to be due to a depression in agriculture and reduction in shooting. Declines however became apparent again in the 1950s and carried on due to continued loss of habitat.[32] The estimated UK breeding population in 2016 was 66,500 pairs.[4] This is less than it was historically, with the declines brought about by the drainage of wetland habitats. As outlined previously, there was a 79% reduction between 1970 and 2017 (described as 'strong decline'). However there has been a recent increase of 36% (described as 'strong increase') from 2012–2017,[52] although this is a recovery from much-reduced levels. The BTO Breeding Bird Survey[8] further corroborates the more recent increases, with a 26% increase between 1995–2018 in the UK. Most recently, however, there are indications that all is still not well, with decreases of 9% and 20% in 2008–2018 and 2018–2019 respectively.[4]

The wintering population is larger (110,000 in 2004–2005)[4] and is quite well distributed throughout the UK, with many of the UK breeding Snipe being resident. However, there are significant influxes from Northern Europe. There is limited information available to judge trends in the wintering population.

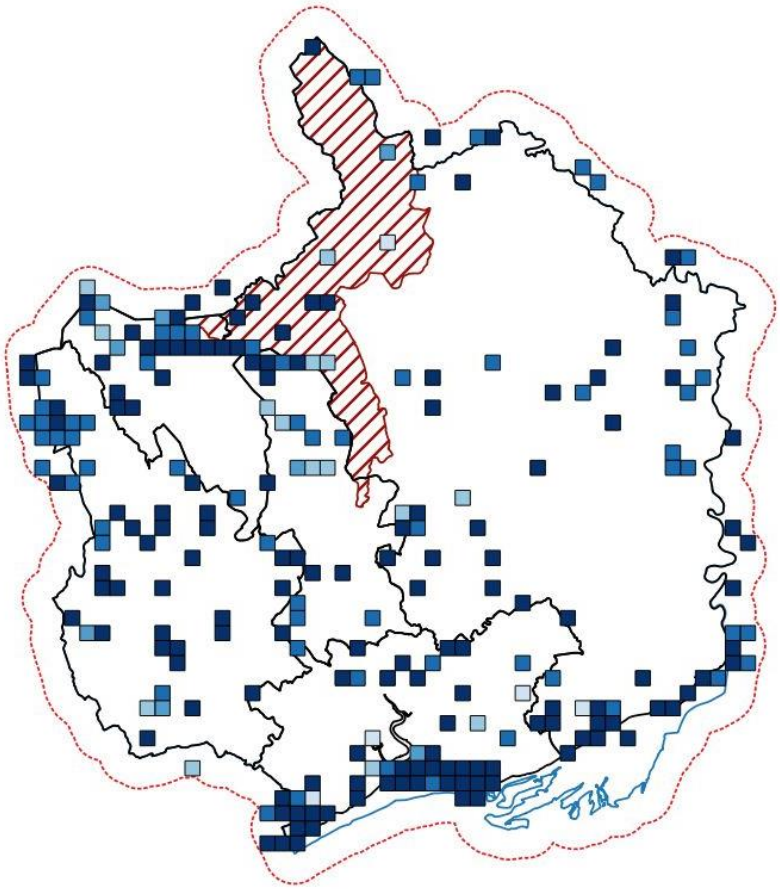
Greater Gwent range: The latest Gwent Bird Report (2018) records Snipe as a 'fairly common winter visitor; uncommon breeder'.[8] This has been the case for a long while, but with breeding numbers decreasing to some extent over time: The Birds of Gwent recorded Snipe as being 'a winter visitor in moderate numbers; a small, and probably decreasing, breeding population' in 2008[53] and as a 'Resident Breeder and Winter Visitor' in 1977.[54] The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population that may not exceed 50 pairs;[55] the second atlas (1998–2003) estimated a total of around 20 pairs.[8] This indicates a decline in population. Gwent breeding is now almost entirely confined to favoured upland sites in the north of the county, with the greatest losses occurring at lowland sites, and agricultural intensification and drainage of land being implicated (as in the rest of the UK). Trefil and Waunafon Bog are mentioned as being important sites in the latest Birds of Gwent (2008).[53] At other times of the year, Snipe can be found widespread within Gwent, with notable concentrations near the coast: the Severn Estuary is the fourth most important Snipe wintering WeBS site in the UK.[53]

The main recording hotspot is at Goldcliff (441 records). There are also concentrations at Peterstone Wentlooge, Newport Wetlands, Rhaslas Pond, Llandegfedd Reservoir, Garn Lakes, Nedern Brook and St Mellons and Rumney Great Wharf. The Gloucestershire hotspot is likely a false one due to centring of low-resolution records. Generally, Sniper are much more widespread across the area than our other more coastal waders.

Distribution of Snipe records across Greater Gwent (maximum≥100 records/km^2)



Records of Snipe by decade

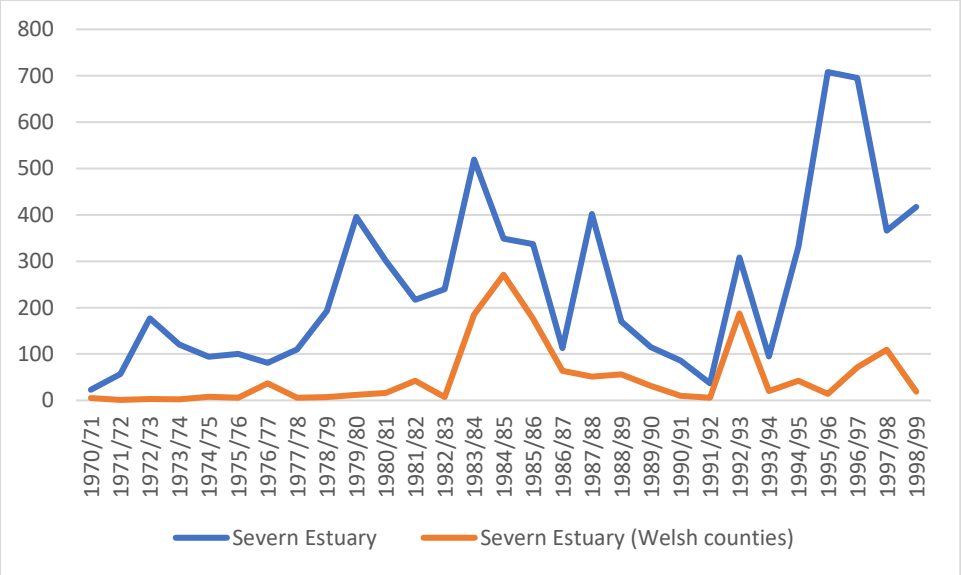


Habitats patterns: Snipe are very much a bird of wet grassland, on damp moorland in the uplands as a breeding bird and more widespread over winter with a coastal bias.

Population trends: Trends for the UK wintering population are hard to find, but it would appear to be more stable than the breeding population. This also appears to be true within Gwent. Despite this, ongoing studies of trends are still of great importance to monitor the populations. While less significant than for many of our other wading birds, the potential impact of Severn barrages, lagoons and tidal power on wintering Snipe populations would have to be given great scrutiny.[38]

Note that some annual counts are given as a minimum number rather than a count/estimate. So, this represents the population at the most numerous recorded site (Severn Estuary), rather than in the whole of Greater Gwent.

Winter WeBS Peak counts for Snipe on the Severn Estuary[24]

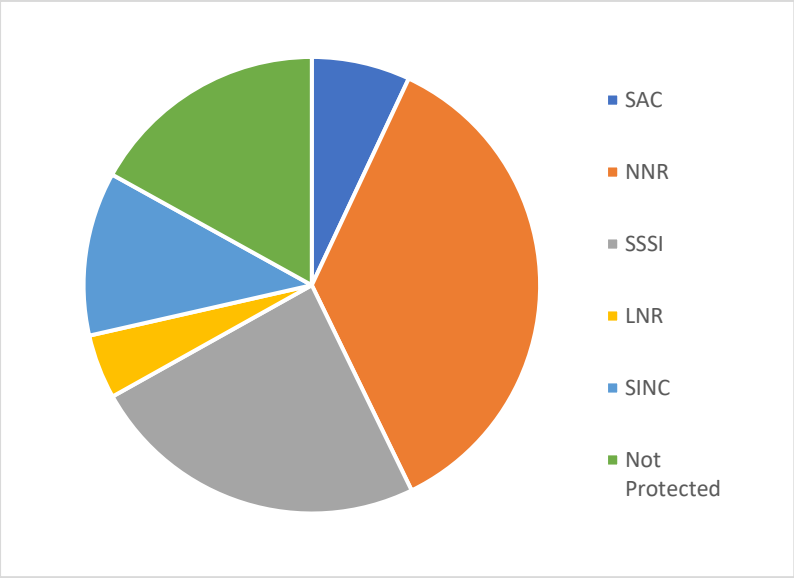


Fourteen other WeBS sites within Gwent have recorded Snipe, mostly in small numbers; the highest 5-year average outside the estuary is from Machine Pond, with nine records.

Snipe breeding numbers have decreased in Gwent, with breeding records now almost exclusively from the uplands. Increasing numbers within Gwent would need changes of management within potentially suitable sites. Management of extensive uplands sites could be reviewed to attempt to make them more suitable for breeding Snipe. Alterations in grazing pressure and the blocking of drainage channels to make areas of the uplands damper (which would also have flood prevention benefits) could help boost the Snipe breeding population.[56]

Protection: 95% of records come from protected sites, with high numbers of records from obvious sites such as the Newport Wetlands, Gwent Levels and Llandegfedd SSSIs, with a few from Keepers Pond (Blorenge) and Nelson Bog SSSIs. LNR records are from Garn Lakes, Machine Pond, Parc Nant y Waun and The Moorings. There are also scattered SINC records, with concentrations around Garn yr Erw and Gelligaer Common.

Snipe records from protected sites



Water Rail *Rallus aquaticus* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended)

Conservation status: Green (UK[1]), Green (Wales[2])

Data Availability: Low (554 records)

Context: The Water Rail is shy and skulks within its wetland habitat. This makes it difficult to observe and easy to overlook. They are more often heard than seen, making all sorts of odd noises from deep within reedbeds; these noises ranging from 'squealing piglets' to the 'purring of contented squirrels'.[57] The UK's breeding Water Rails are largely resident, however there is a noticeable influx of birds in the winter.[58] The Water Rails that breed in the UK are widely but thinly distributed and are absent from the uplands. They are most abundant in eastern England and along the south coast, where suitable habitat is present.[58] In winter they are more numerous and widespread due to the influx of birds from continental Europe.[58] Water Rails are omnivorous, but largely eat animal matter, caught using their long beaks in shallow water.[57] Population statistics for this elusive, difficult to survey species are relatively sparse. However, the BTO website[57] indicates that following a 'slight decrease' between 1969 and 1995, the population has subsequently been largely stable.

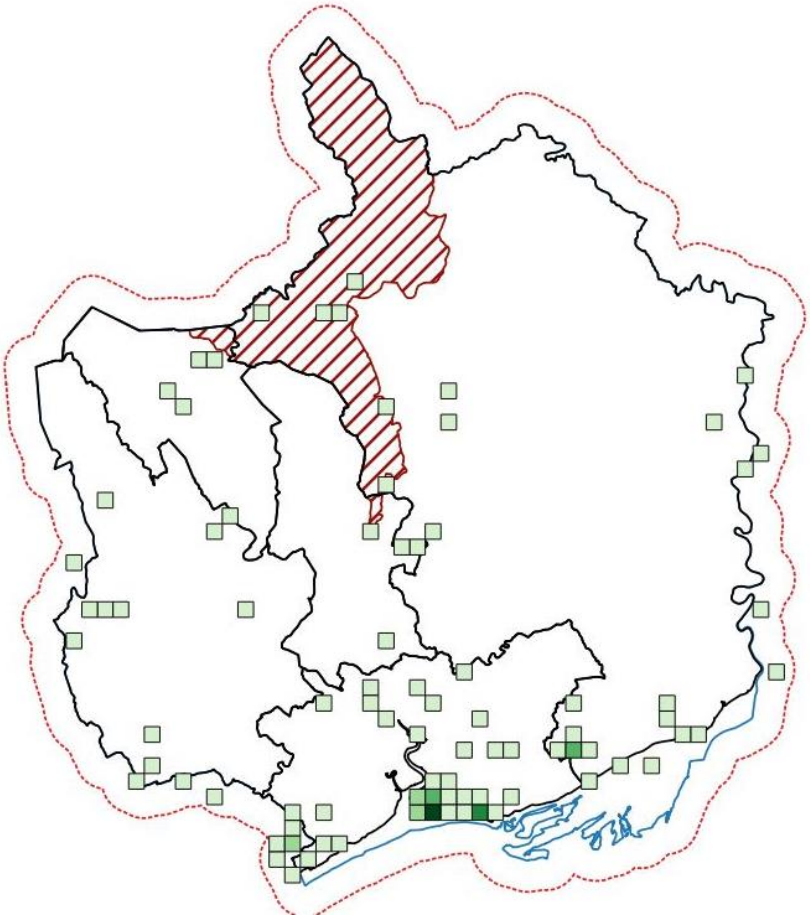
Outlook: At the end of the nineteenth century Water Rails were widely distributed and considered common as a breeding bird in many areas within the UK.[32] Despite this, it was considered to be somewhat threatened, with drainage of land impacting on both breeding and wintering habitats.[32] This, coupled with shooting and egg collecting, led to a reduction in numbers, although it was only in the 1960s that these led to noticeable and considerable gaps appearing in Water Rails' breeding distribution in the UK.[32] There then followed some re-colonisation of deserted areas, with abandoned canals and gravel pits being utilised, and wetlands on nature reserves being created.[32] There was noted to be a similar distribution between the bird atlases in 1968–72 and 1988–91, although numbers had thinned across the range,[32] as highlighted in the previously mentioned 'slight decrease' between 1969 and 1995 noted by the BTO.[57] Since then numbers have been largely stable, with possibly some slight decline, as noted by the WeBS surveys:[20] a small 3% decrease in the UK as a whole (6% in Wales) from 2007/08 to 2017/18. The current (2016) breeding population is 3,900 pairs.[4] It should be noted that the Water Rail was previously Amber listed due to contraction of range; it is now Green listed, reflecting the stabilisation of the population.

Greater Gwent range: The latest Gwent Bird Report (2018) records Water Rails as an 'uncommon winter visitor and very scarce breeder.'[8] This has been the case for a long while, but breeding numbers have likely increased since the establishment of Newport Wetlands. The Birds of Gwent recorded Water Rails as being 'an uncommon winter visitor and resident', with an estimated 30 pairs in 2008;[59] and as 'breeds in small numbers with an influx of visitors during the winter' in 1977.[60] The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of 2 probable and 11 possible pairs,[61] with the second atlas (1998–2003) estimating a population of around 30 pairs.[59] The second atlas noted that breeding was almost entirely on the Gwent Levels, with a stronghold at

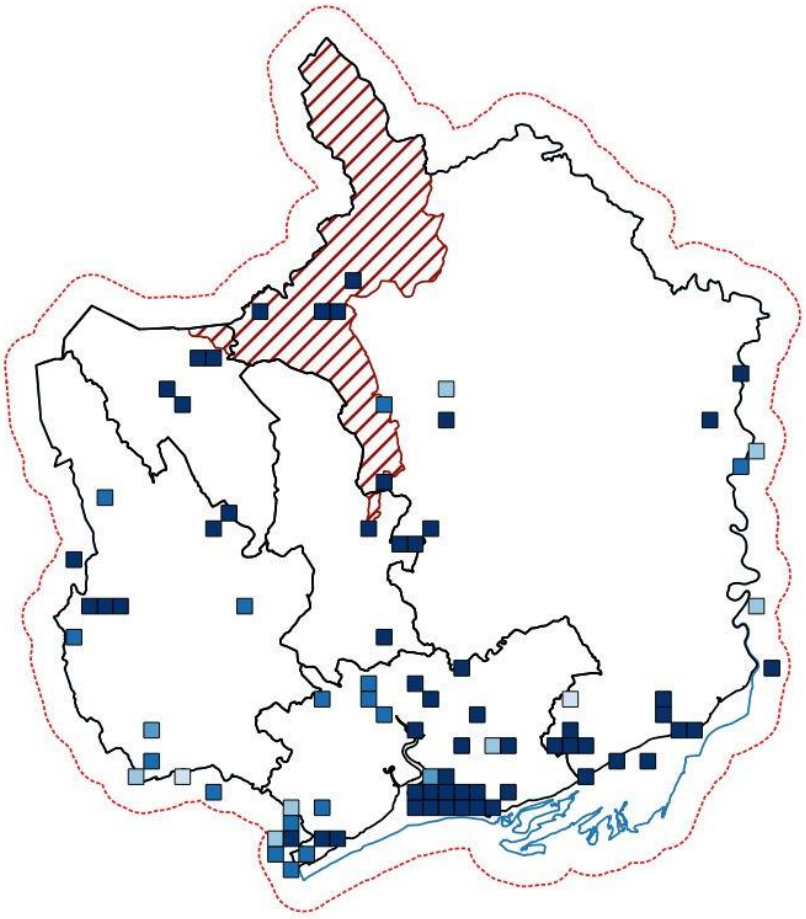
Newport Wetlands; the number of pairs increased greatly with the establishment of the reedbeds, from 2–3 pairs in 1996 to 20–24 in 2005.[59] This indicates an increase in the population, all be it one that is largely focussed on one area. Winter records in Gwent are more widespread and include small ponds and the Monmouthshire-Brecon Canal.[60]

The main recording hotspots are at Newport Wetlands, together with Goldcliff, Magor Marsh and St Mellons.

Distribution of Water Rail records across Greater Gwent (maximum≥100 records/km²)



Records of Water Rail by decade

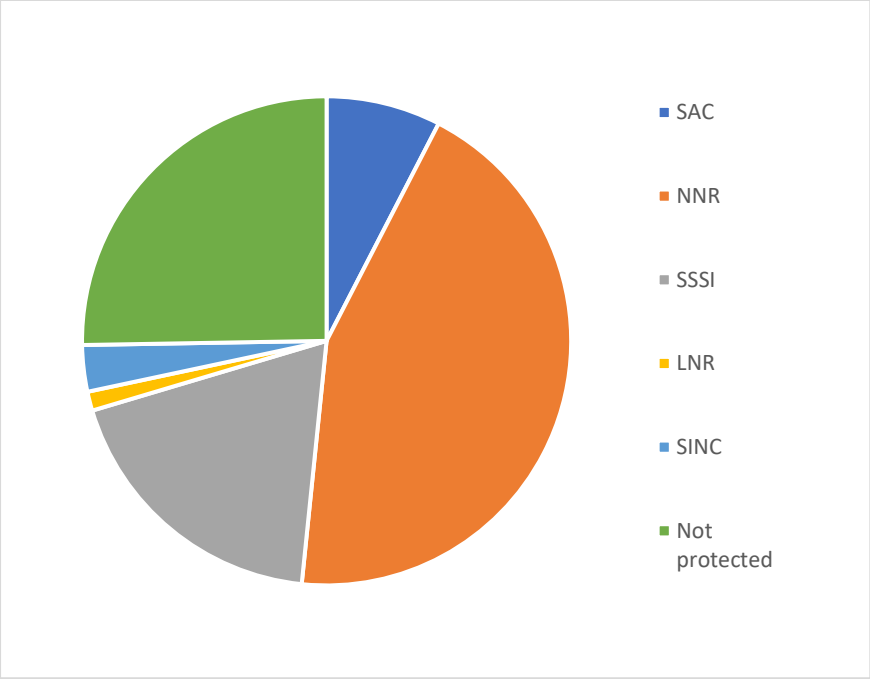


Habitats patterns: Water Rails are very much closely linked with dense, marshy vegetation, with reedbeds being particularly favoured.

Population trends: The Water Rail population seems now to be relatively stable. The reedbeds at Newport Wetlands are the stronghold of the species and have resulted in breeding and wintering numbers being higher than before its formation. Provided this area continues to be appropriately managed, the Water Rail population in Gwent would appear secure. The creation of additional waterbodies and appropriate management of the huge network of reens could aid further increases in the population.

Protection: 76% of records come from protected sites, with records from the Severn Estuary SAC, together with high numbers of records from the Newport Wetlands NNR and Gwent Levels (particularly Magor Marsh) and Llandegfedd SSSIs. LNR records were from St. Julian's and SINC records from The Moorings and a few other places.

Water Rail records from protected sites



Whooper Swan Cygnus cygnus (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended) Schedule 1

Conservation status: Amber (UK[1]), Green (Wales[2])

Data Availability: 33 (Poor)

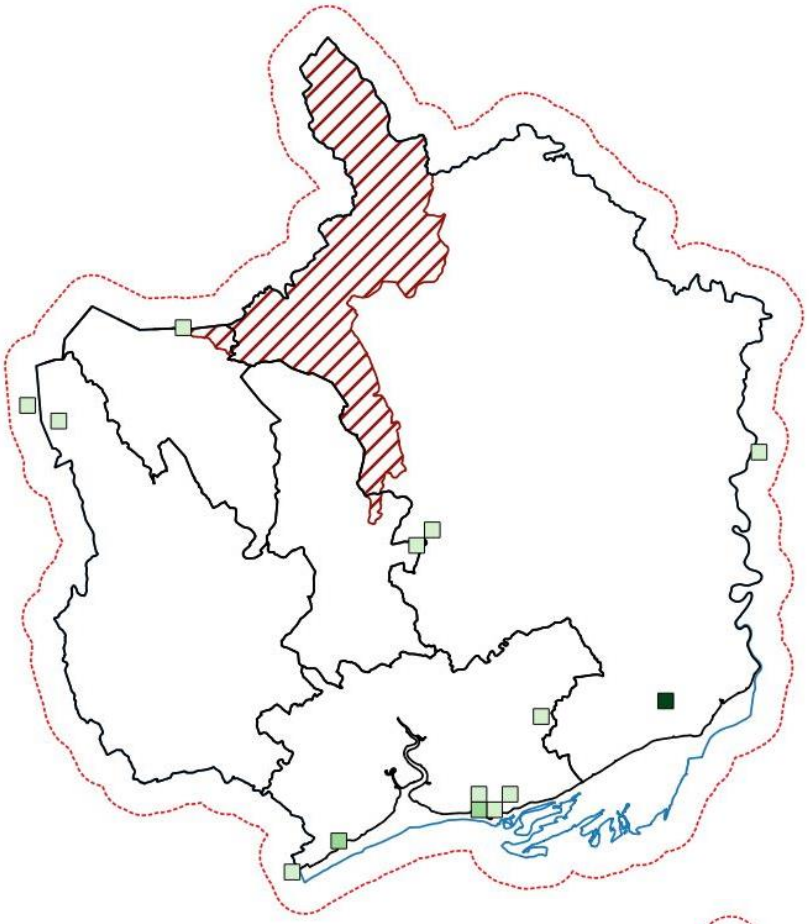
Context: Whooper Swans are quite widespread within the UK as a wintering species. However, people are not so familiar with the species as they are with the familiar, tamer, Mute Swan. They are by far at their commonest as a wintering bird, with only very small numbers remaining to breed. This means that Whooper Swans are vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source – all impacted by climate change.[25] They are one of a whole host of 'wildfowl' species that winter in the UK in considerable numbers with only a relatively small number staying to breed. The small number of Whooper Swans that breed in the UK are in the north.[62] The larger wintering population arrive from their breeding grounds further north in Iceland.[63] Whooper Swans have a vegetarian diet, the wintering population eat 'improved grass, leftover potatoes, sugar beet, winter wheat and grain'.[63] Overall in the UK, there has been an increase of 210% in relation to wintering birds between 1992 and 2018.[20] Breeding population trends show a 'strong increase', with a 371% increase over the 25 years up to 2018, although numbers always have been, and still are, very low.[31] The current UK breeding population is quoted as 28 pairs in the period 2013–2017.[64]

Outlook: Whooper Swans were always a rare breeding bird in the UK. It appears they went extinct in the UK as a breeding bird in the late eighteenth century.[32] Breeding commenced again in the early twentieth century but was very intermittent until 1978, after which they have bred annually in small numbers.[32] The current UK breeding population is quoted as 28 pairs in the period 2013–2017.[31] In contrast to the small and localised breeding population, the wintering population is considerably larger (19,500 in 2015)[4] and has been subject to significant increases: 813% increase between 1975 – 2018 (described as 'strong increase'), with this continuing in more recent times with a 9% increase (described as 'strong increase') from 2013–2018.[65] The WeBS surveys[20] largely corroborate these increases, with a 210% increase in the UK as a whole (67% in Wales) from 1992/93 to 2017/18 and an increase of 43% in the UK from 2007/08 to 2017/18, However, there was actually a 17% decrease in Wales over this period. This wintering population occurs throughout the UK on estuaries and wetlands, it is however localised.[66] The localised nature of the population is one of the reasons they are UK Amber listed despite increasing populations.[66]

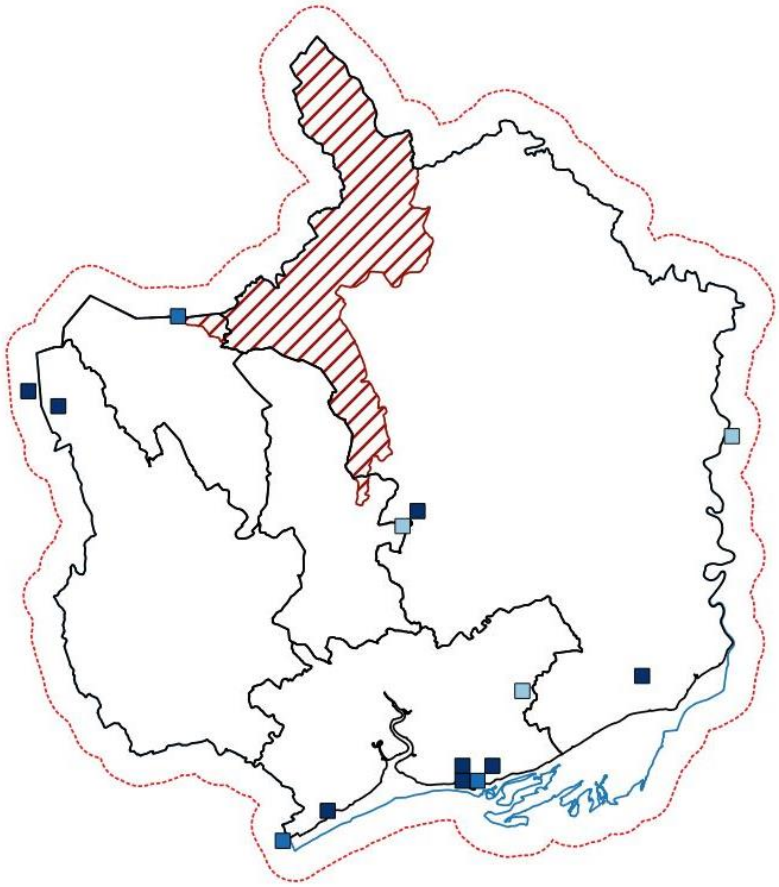
Greater Gwent range: The latest Gwent Bird Report (2018) records Whooper Swans as being a 'rare winter visitor'.[8] While never a common bird, this reflects a reduction in wintering numbers over time (despite most SEWBReC records being in the last 10 years (see below)), with the Birds of Gwent 2008 recording Whooper Swans as being 'a very scarce winter visitor'[67] in 2008 and as 'fairly regular winter visitor in recent years, though usually only in small numbers' in 1977.[68] It should be noted that the first Gwent record is as recent as 1960.[67] Wales as a whole is not hugely blessed with many wintering Whooper Swans (main wintering sites are in Scotland and on the Ouse Washes), and Gwent is similar.

The main hotspots for records are at Nedern Brook, Newport Wetlands and Peterstone. There are actually very low numbers of records. Interestingly, there are historic clusters of records at Lisvane and Pontyscill (just outside the study area) but nothing at either site since 1990. Most records (73%) are within the last decade, presumably as Newport Wetlands has developed.

Distribution of Whooper Swan records across Greater Gwent (max 10 records/km^2)



Records of Whooper Swan by decade



Habitats patterns: As would be expected of a swan, records are generally from wetland areas or adjacent fields.

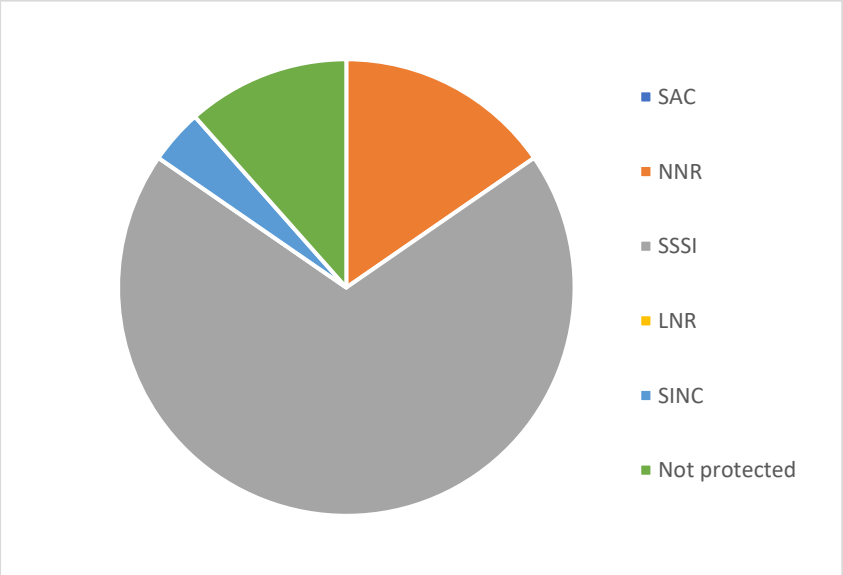
Population trends: As previously stated, there have been noticeable increases in the Whooper Swan wintering populations within the UK. Numbers in Gwent are, and have always been low, so that these increases have not been noticed. In fact, Whooper Swans would appear to be scarcer now than they were in the 1970s. There would appear to be a bias towards more recent records being at Newport Wetlands, although numbers are only very small. Gwent, and indeed Wales as a whole, is not a significant area for Whooper Swans within the UK.

Reference has been made to WeBS Counts on the Severn Estuary[24] and a few other sites within Gwent. Numbers are so low that no clear patterns can be seen, although it can be noted that the Severn Estuary is the most commonly utilised site, with records in most years and very irregular records at other sites such as Llandegfedd Reservoir, Ynys-y-fro, River Usk and Undy. A record of 25 birds at Llandegfedd Reservoir in 1971–72 is exceptional.

It would seem unlikely that the wintering population status of Whooper Swans in Gwent will change significantly in the near future. No specific measures really need to be taken to alter this, as the UK's main Whooper Swan populations appear to be faring well in their core areas further north and east. However, ensuring our current wetlands are preserved in good condition and, where possible, increased in size will ensure there is suitable habitat available for any Whooper Swans that stray into Gwent in the future.

Protection: 88% of records come from protected sites, with records not being high anywhere. NNR records are from Newport Wetlands; SSSI records from Nedern Brook, Gwent Levels and Llandegfedd. There is also a single SINC record from Rhaslas Pond.

Whooper Swan records from protected sites



Wigeon *Mareca penelope* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended) Schedule 2

Conservation status: Amber (UK[1]), Amber (Wales[2])

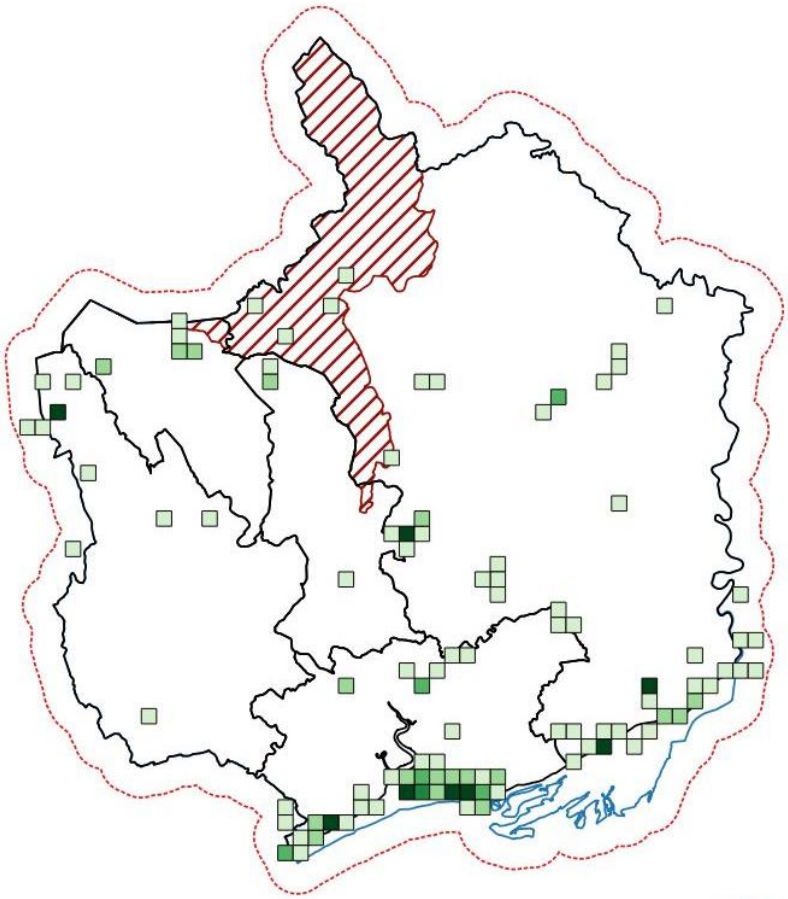
Data Availability: Good (3,141 records)

Context: Wigeon is a common duck species within the UK as a wintering species, but perhaps one that people are less familiar with given their liking for wilder habitats and shy nature. They are by far at their commonest as a wintering bird, but also pass through on migration, although only very small numbers stay to breed. This means that Wigeon are vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source – all impacted by climate change.[3] They are one of a whole host of duck species that winter in the UK in considerable numbers with only a relatively small number staying to breed. The Wigeon that breed in the UK are confined to central and northern Scotland and also in northern England.[62] Far greater numbers winter in the UK, with birds coming from more northerly climes such as Iceland, Scandinavia and Russia.[62] Wigeon have a vegetarian diet, obtaining much of their food by grazing.[63] Overall in the UK, there has been an increase of 146% in relation to wintering birds between 1975 and 2018.[11] The increase in wintering numbers may be a response to milder winters meaning more Wigeon wintering further north. Breeding population trends are hard to find, but part of the reason for the Wigeon being Amber listed is recent falls in breeding numbers and range. This would appear to be the case, with only an estimated 200 pairs in 2012–2017,[4] compared to 350 pairs in the late 1960s and 300–500 pairs in the early 1970s.[64]

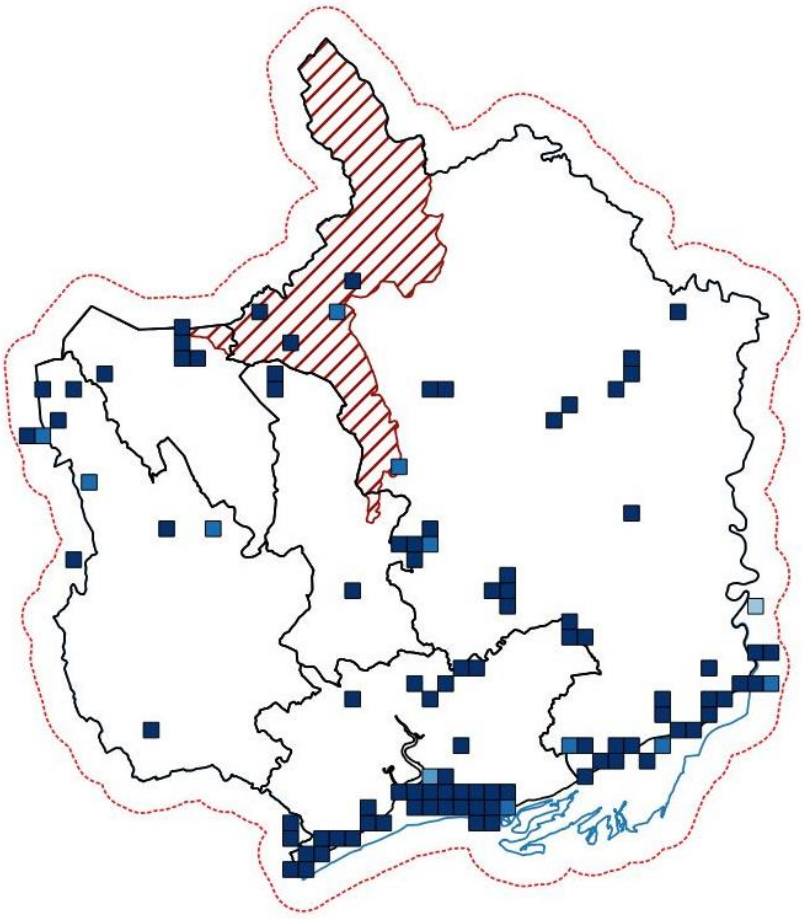
Outlook: Wigeon were not recorded breeding in the UK until 1834, when a nest was found in Scotland.[32] From then on it would appear that Wigeon spread southwards through the centre of Scotland until they had colonised the North Pennines by the 1930s. The southward spread halted there, and more southerly breeding records may be linked to escaped/released birds.[32] The estimated UK breeding population was never large, and was 200 pairs in 2012–2017.[4] This is apparently a reduction on the 300–500 pairs estimated in the early 1970s.[64] In contrast to the small and localised breeding population, the wintering population is considerably larger (450,000 in 2012/13–2016/17)[4] and has been subject to significant increases: 146% increase between 1975 and 2018 (described as 'weak increase'), with this continuing in more recent times with a 6% increase (described as 'weak increase') from 2013–2018.[11] The WeBS surveys[20] largely corroborate these increases, with a 12% increase in the UK as a whole (57% in Wales) from 1992/93 to 2017/18 and a small decrease of 3% in the UK from 2007/08 to 2017/18 (7% increase in Wales). This wintering population is widely distributed throughout the UK, utilising both the coast and to a lesser extent freshwater bodies. However, a considerable percentage of Wigeon are concentrated within a relatively small number of favoured sites: 50–60% of the UK's wintering population are found at ten or fewer sites.[63]

Greater Gwent range: The latest Gwent Bird Report (2018) records Wigeon as being a 'fairly common winter visitor'.[8] This has been the case for a long while, with the population increasing: the Birds of Gwent recorded Wigeon as being 'a common and increasing winter visitor and passage migrant; rare in summer'[65] in 2008 and as an 'winter visitor in considerable numbers' in 1977.[66] It should be noted that the Birds of Gwent 1977 mentions breeding in Gwent from 1965–1968,[66] however these breeding records were dismissed in the 2008 edition,[65] as they lacked hard evidence. The Severn Estuary has been noted to be of great importance for Wigeon, hosting populations of National Importance.[36] The Wigeon found within Gwent form a significant part of these populations, particularly those found on the saltmarsh at Goldcliff, which hosted 2,260 Wigeon in December 2005.[65] Lesser, but still important concentrations can be found at various other sites along the coast. The Gwent coast has always been a significant site for Wigeon, however Llandegfedd Reservoir used to be the most important site in Gwent and it has SSSI status due to its wintering wildfowl population. The reservoir was built in 1963 and, by winter 1967/68, had become the major site in Gwent.[65] This continued to be the case throughout the 1970s and much of the 1980s, with numbers peaking at 2,000 birds (the highest counts coinciding with severe weather).[65] Numbers at Llandegfedd Reservoir went in to a sharp decline after 1986/87[65] however, with WeBS counts being now typically around 200 birds.[24] Other inland waterbodies are utilised, with flooded fields adjacent to the Usk and a number of other reservoirs being quoted in Birds of Gwent 2008[65] and a series of waterbodies mentioned in the Gwent Bird Report 2018.[8] As previously stated, Wigeon are a common and important part of the Severn Estuary avifauna over winter. Numbers have generally increased in recent times, and this mirrors the situation in the UK as a whole and is possibly due to more birds wintering further north in the UK as a response to generally milder winters.

The main hotspots for records are at Peterstone Wentlooge and Goldcliff. Other well recorded sites are Newport Wetlands, Collister Pill, Nedern Brook Wetlands, Llandegfedd and Rhaslas Pond.



Distribution of Wigeon records across Greater Gwent (maximum≥100 records)



Records of Wigeon by decade

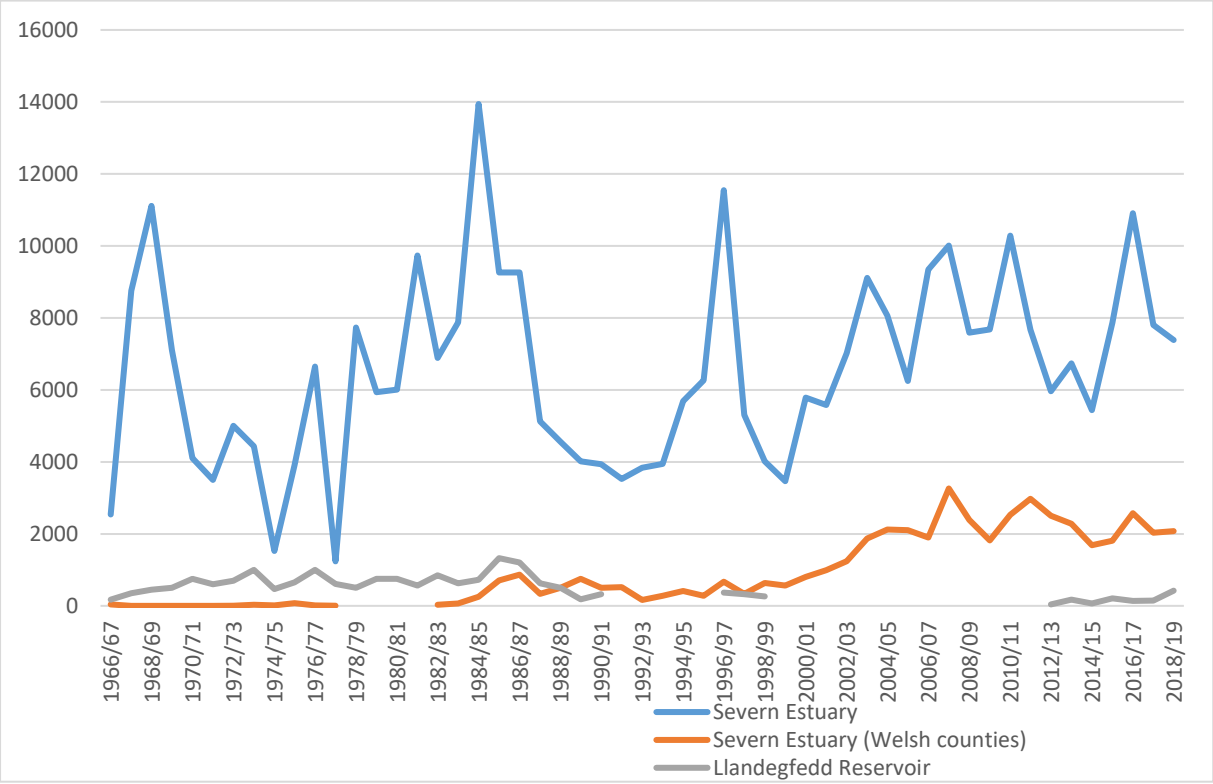
Habitats patterns: Wigeon are very much a bird of the Severn Estuary coast, however they are also present in good numbers at several inland sites, most notably Llandegfedd Reservoir.

Population trends: There have been noticeable increases in the Wigeon wintering populations within the UK; Gwent is no different. There have been identifiable increases in birds wintering, despite the numbers at the main wintering site (Llandegfedd Reservoir) falling in the late 1980s, as this has been more than compensated for by an increase in numbers at the Goldcliff saltmarsh (part of the Newport Wetlands complex). It would appear that the Wigeon population that winters in Gwent is currently secure and still of high importance as a significant part of the Nationally Important Severn Estuary population. Despite this, ongoing studies of trends are still of great importance to monitor the populations, particularly as investigations continue into Severn barrages, lagoons and tidal power. The potential impacts of these upon wintering Wigeon populations would have to be given great scrutiny.[38]

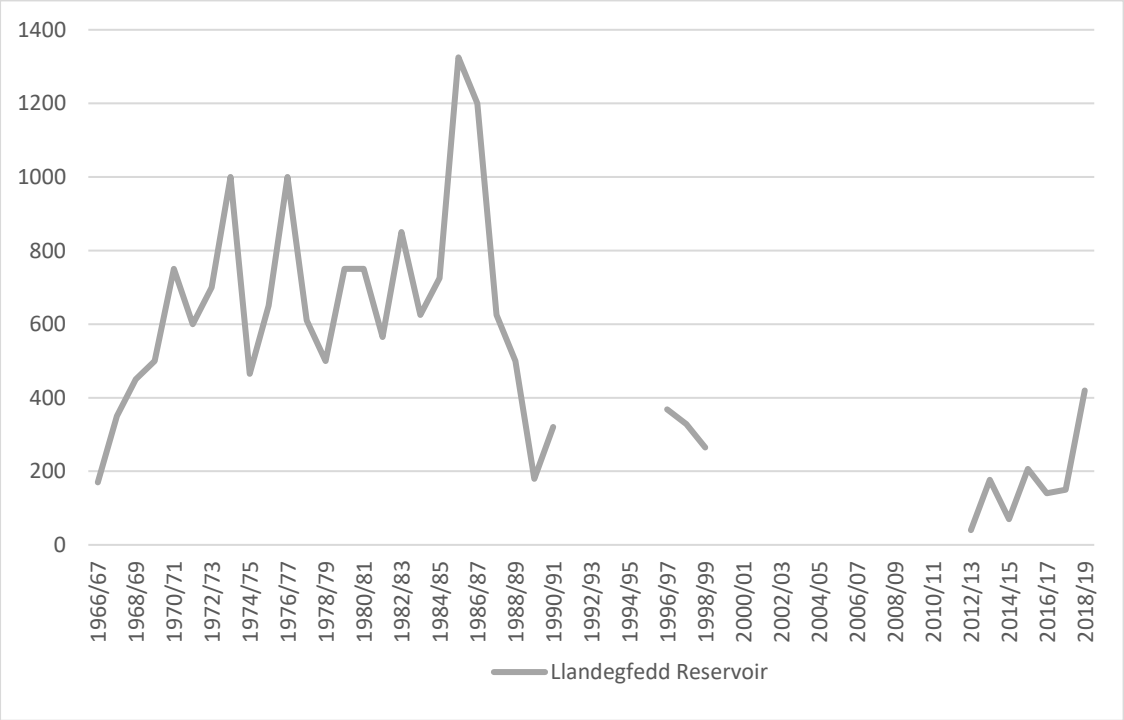
Details of the numbers wintering on the Severn Estuary through WeBS counts[24] are shown below. These show generally steady/increasing populations, although there are some dips. The increase in numbers following the creation of the Newport Wetlands at the beginning of the twenty-first century is clear to see. This represents the population at the most numerous recorded site (Severn Estuary), rather than in the whole of Greater Gwent. Llandegfedd Reservoir is also included for comparison and separately in its own figure and very clearly shows the sharp decline following winter 1986/87.

Note that some annual counts are given as a minimum number rather than a count/estimate.

Winter WeBS peak counts for Wigeon on the Severn Estuary and Llandegfedd Reservoir[2416]



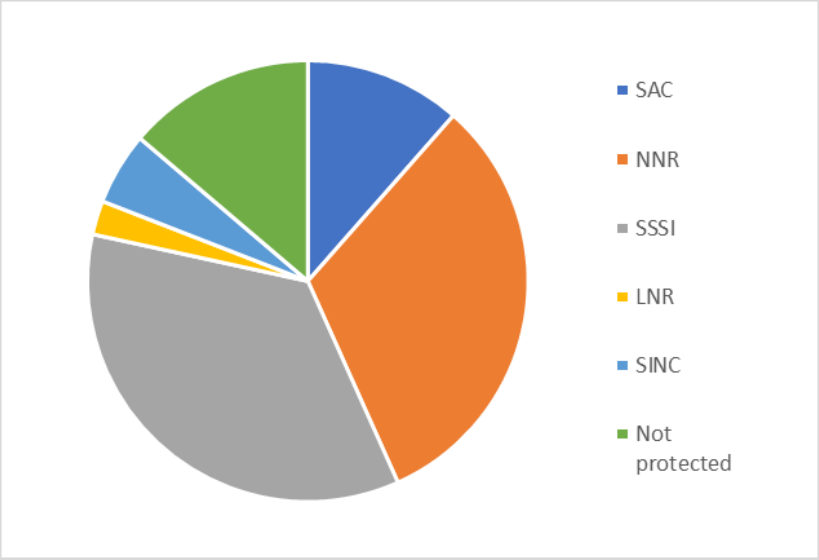
Winter WeBS peak counts for Wigeon at Llandegfedd Reservoir[24]



As previously stated, despite there being reports of breeding in the 1960s, it is now considered unlikely that Wigeon have bred, and there is no reason to suppose that they are likely to breed in Gwent, as the small UK breeding population is much further north.

Protection: 86% of records come from protected sites, with records from the Severn Estuary SAC, together with high numbers of records from the Newport Wetlands NNR and Gwent Levels and Llandegfedd SSSIs. LNR records come from St Julians, Garn Lakes, Beaufort Ponds and Parc Bryn Bach, and there are also some SINC records from places such as Rhaslas Pond, Ynys-y-Fro Reservoir, Parc Cwm Darren and Semtex Pond, as well as some on the edges of the River Usk.

Wigeon records from protected sites



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Upland and heath birds

Hen Harrier *Circus cyaneus* (Linnaeus, 1766)

Pete Hadfield

Protection: Wildlife & Countryside Act (1981, as amended) Schedule 1

Conservation status: Red (UK[1] & Wales[2]) Wales Section 7 Priority Species

Data availability: Poor (245 records)

Context: Hen Harriers are resident to the UK, with numbers being bolstered from the continent in the winter. It is a bird of upland heather moors during the breeding season, but is more frequently encountered in lowland areas near the coast in the winter.[3] They are birds of prey and the RSPB reports that 95% of their diet is made up of small mammals. They eat a smaller proportion of birds,[4] but it is possible that small birds make up a larger part of the diet than 5%. The fact that they take birds and are present on shoot days, deterring Red Grouse from taking flight, brings them into conflict with gamekeepers on grouse moors, making them one of our most persecuted bird species.[5] This, coupled with their vulnerability to predation as a ground nesting species,[5] has led to their population levels remaining low. Additionally, naturally fluctuating rodent populations also have an influence on Hen Harrier populations from year to year.

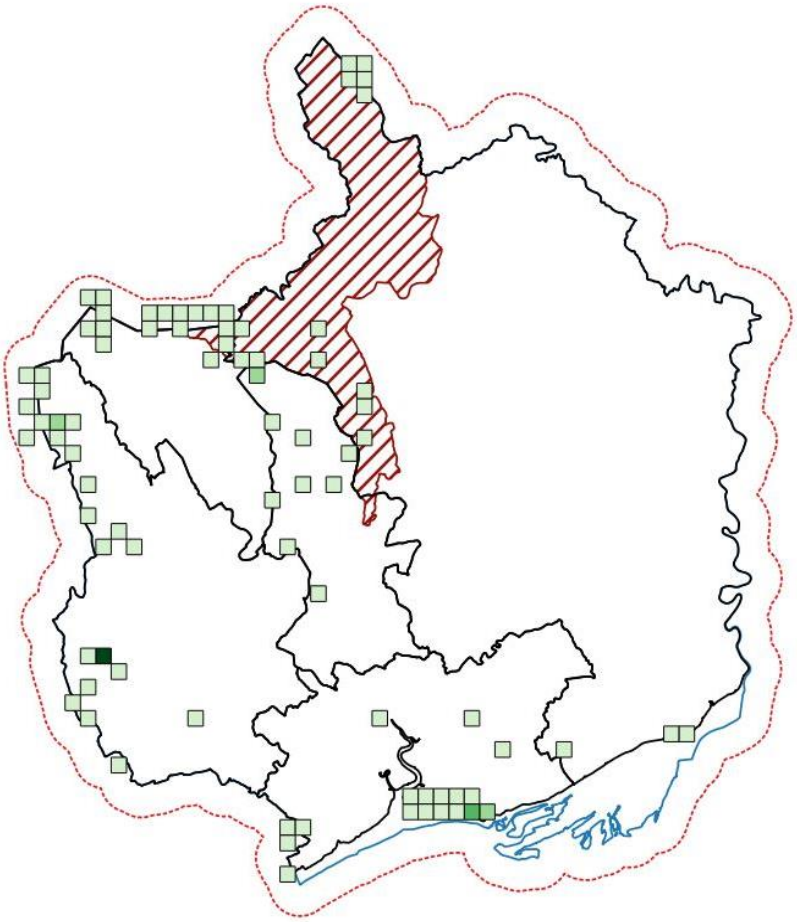
Outlook: The UK population up to approximately 1830 was quite widespread. However, habitat loss was responsible for losses by 1850 and, from then until the end of the nineteenth century, persecution by gamekeepers accelerated this, resulting in the breeding population being virtually confined to outlying islands by 1900.[6] Populations have made something of a recovery since 1940.[6] In the last 25 years the picture has been mixed, with both increases and contractions at regional and national levels, and an overall modest increase.[7] However, against this backdrop, Hen Harriers became virtually extinct in England.[8] It is only in the Outer Hebrides and the Orkneys that Hen Harriers have maintained a constant extant population.[6] The current (2016) breeding population is 545 pairs,[9] with a large proportion of these being in Scotland.

Greater Gwent range: The latest Gwent Bird Report (2018) records Hen Harriers as a 'scarce passage migrant and winter visitor',[10] and it would be fair to say this has been the case for a long while now: The Birds of Gwent in 2008 recorded Hen Harriers as being 'a scarce passage migrant and winter visitor'[11] and in 1977 as an 'uncommon winter visitor and passage migrant'.[11] This was not always the case however, with the 1963 Birds of Monmouthshire only listing four previous records.[11] Since the mid-1960s records have been virtually annual[11] and are indeed now annual, with for example 17 records in 2018, 7 in 2017, 28 in 2016 and 32 in 2015.[10] The fact that The Gwent Bird Report from 2007 stated that it was 'an excellent year for this species with six records' shows how numbers have generally increased in recent years.[12] Hen Harriers are virtually unknown as a breeding bird in Gwent however: proven breeding in 1975 may have actually been over the border in Powys; potential breeding was recorded on Mynydd Garn-clochdy in two consecutive years in the 1990s.[10] The

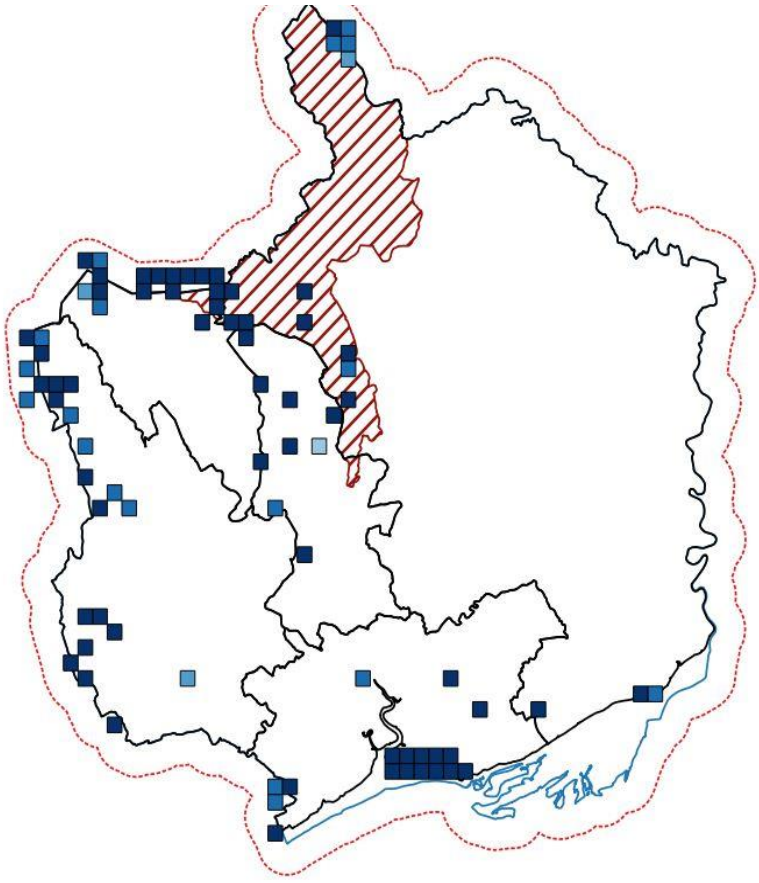
distribution of records in Gwent reflects the Hen Harrier's habitat preferences within the UK, with records generally from either upland moor/heathland or the coast. There is very much a westerly bias to records in Gwent and hardly a record from the administrative area of Monmouthshire (Monmouthshire records are from within the more upland parts within the Brecon Beacons Naitional Park (BBNP)); records come from the Newport coast and the more upland areas in the west of Gwent.

There is a dense hotspot on the uplands of Mynydd Eglwysian and numbers of records at Rhaslas Pond, Goldcliff Lagoons and Waunafon Bog, which reflects both habitat suitability and the fact that they are well watched.

Distribution of Hen Harrier records across Greater Gwent (maximum 42 records/km^2)



Records of Hen Harrier by decade

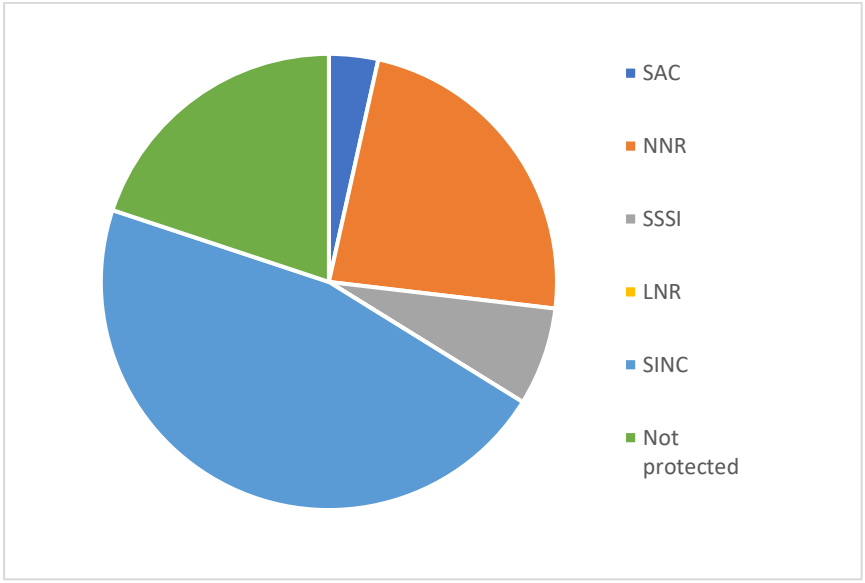


Habitats patterns: There are clear patterns to Hen Harrier distribution, with the coastal lowlands of the Gwent Levels and the upland heath/moorlands being the frequented sites.

Population trends: Whilst Hen Harrier numbers within Gwent are quite low, there is definitely a general trend towards more records in recent years. This may be partially attributable to more recorder effort, but is likely to be due to an increase in the UK population, with a general improvement in Welsh fortunes, populations having remained stable in the 80s/90s and increasing in the 2000s.[13] However in more recent years there has been downturn in the population, with a drop of one-third between the national surveys of 2010 and 2016.[14] There are certainly potential breeding sites for Hen Harriers within Gwent, and while the Welsh population is extant and Hen Harriers are being recorded yearly in Gwent there is the potential for Hen Harriers to breed within the county. For this to occur, there would need to be areas of upland heath with a good coverage of heath, maintained in a good condition. This is often the case on uplands where grouse shooting occurs, but they are also sites of potential conflict good relations need to be maintained between conservation bodies and the shooting community for breeding to be successful. This chapter should be cross-referenced with that for Red Grouse.

Protection: The SAC records are those falling in the Severn Estuary or Usk Bat SAC. The NNR is Newport Wetlands, with the SSSIs being those on the Gwent Levels and Black Mountains, with a few on the Blorenge and Mynydd Llangynidr. SINCs are very scattered across the uplands in Torfaen and Caerphilly, involving sites such as Coity, Mynydd James and Varteg, and Cefn Gelligaer.

Hen Harrier records from protected sites



Nightjar *Caprimulgus europaeus* (Linnaeus, 1758)

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Amber (UK[1] & Wales[2]) UKBAP, Wales Section 7 Priority Species

Greater Gwent data availability: Poor/moderate (344 records)

Context: The Nightjar is a summer visitor to the UK and spends its winter in scrubby grasslands to the south of the equator in Africa.[15] This means that the Nightjar is vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source, both impacted by climate change.[16] They are our only representative of a whole host of 'nightjar' species that occur around the globe. They are an enigmatic bird, their nocturnal habitats, unearthly song and cryptic camouflage giving rise to much folklore. In the UK the Nightjar is a primarily a bird of heathland, bracken covered hillsides and open woods, with felled and young plantations more recently being an important habitat. Due to its great camouflage and nocturnal habits, it is rarely seen on migration. However, it gives away its presence on breeding sites with its distinctive churring call. Nightjars are insectivorous, relying on airbourne insects, with moths and beetles making up a large part of the diet.

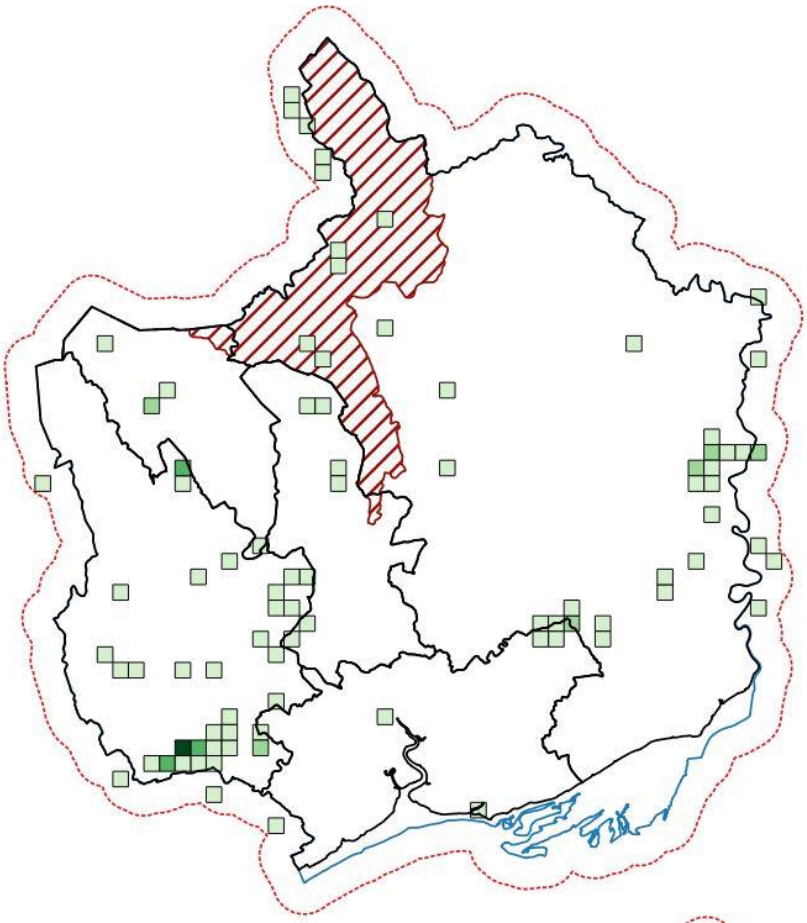
Outlook: The UK population was formerly (nineteenth century) widespread, with breeding occurring in every UK county apart from offshore islands and being particularly common in southern England, Wales and the Marches.[6] By the 1930s a general decline was underway as habitat loss continued and plantations matured.[6] Habitat destruction led to a major decline in Nightjars following the Second World War.[17] The loss was particularly marked in more western areas, with Nightjars being lost from some Welsh counties by the 1950s/60s.[6] By the time of the 1968–72 survey, Nightjars had lost even further range, disappearing from much of Scotland, Ireland, northern England and central Wales.[6] Dedicated Nightjar surveys have been undertaken at three points since 1980, and Nightjar numbers have increased greatly since the national survey in 1981, when the British population was estimated at only 2,100 churring males; the population was estimated to be 3,400 in 1992 and 4,606 in 2004.[18] Data cannot be found for a more recent breeding population, but it is likely to have increased further since 2004, with the utilisation of coniferous plantations and dedicated conservation work helping populations recover further.

Greater Gwent range: The latest Gwent Bird Report (2018) records Nightjars as an 'uncommon breeding summer visitor',[10] and it would be fair to say this has been the case for a long while, although numbers have fluctuated and strongholds within Gwent have shifted over time. Nightjars were not officially recorded in Gwent until 1926,[19] although soon after, the 1937 Birds of Monmouthshire described them as being 'a fairly common visitor, breeding rather locally on fern-covered hillsides, commons and heaths and in open woodlands or on sites of felled woods'.[20] However, by the time of the revised Birds of Monmouthshire in 1963, the Nightjar was 'a rather uncommon visitor, breeding very locally and thought possibly to be decreasing'.[20] There was an increase in records from 1965, and Wentwood was noted to be the main site, with eight pairs in 1970 (although this subsequently declined).[20] The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of 30 pairs, with the main breeding stronghold having transferred from Wentwood to the Wye Valley, where 23 singing males were recorded during the 1981 National census.[21] Subsequently, numbers increased further, although the stronghold shifted to some extent again, with the 1992 survey showing a good population in the Ebbw Forest (13 males), a reduced 11 males in the Wye

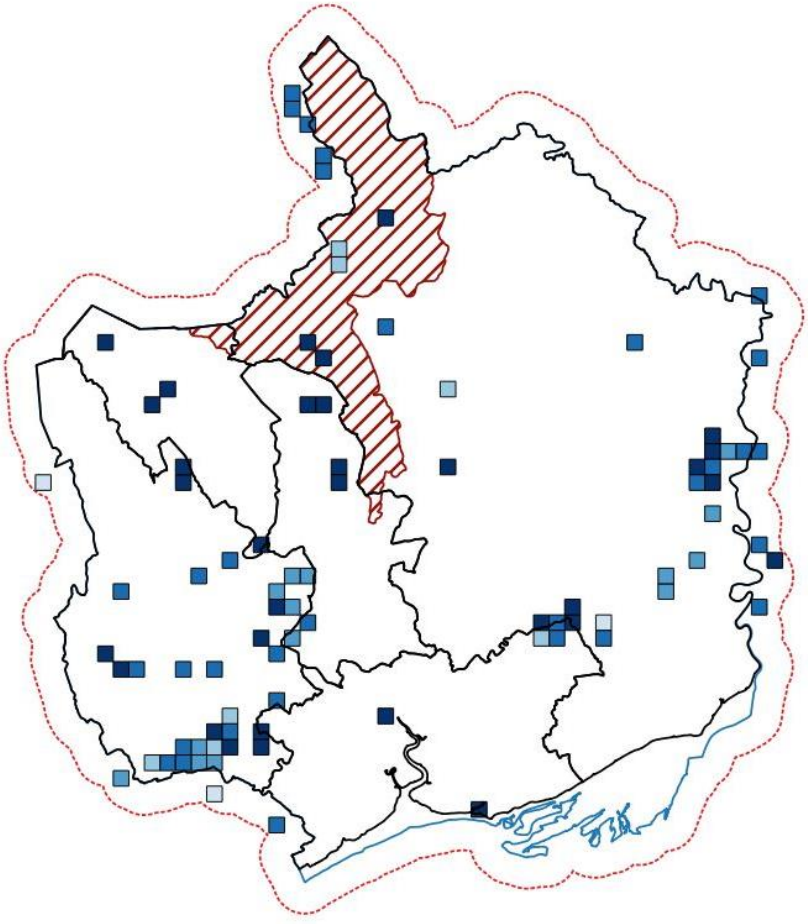
Valley, and only 4 males in Wentwood.[20] There was a further change in distribution in the mid-1990s when the Ebbw Forest and Wye Valley populations began to decline, and the Wentwood population became the stronghold once more.[20] By the time of the publication of the Birds of Gwent in 2007, the Nightjar was described as 'an uncommon summer visitor, now at the highest level ever recorded'.[20] Since then numbers have fluctuated , perhaps due to under-reporting, but the Nightjar has still been found at various sites in the Wye Valley (Beacon Hill and others), Wentwood and in the west of Gwent in places such as Machen Mountain, Abersychan and the Gwyddon Valley.[19] The distribution and success of Gwent's Nightjars is very much dependent on the availability of forestry plantation clearfells/restocks at suitably open stages, with populations dwindling and shifting when suitable areas become more forested. Unlike many other migrant species, which are often recorded near the coast, away from breeding sites, the well-camouflaged and nocturnal Nightjar is rarely recorded away from its breeding grounds.

The Nightjar is much more a lowland rather than upland heath species, particularly found on forestry clearfell areas. Hotspots around Broad Meend/Beacon Hill, Wentwood, Ruperra & Wern Ddu, with a smaller hotspot at Coed y Llanerch. Note the shrinkage of all the hotspots (particularly the Caerphilly one) over time.

Distribution of Nightjar records across Greater Gwent (max 43/km^2)



Records of Nightjar by decade



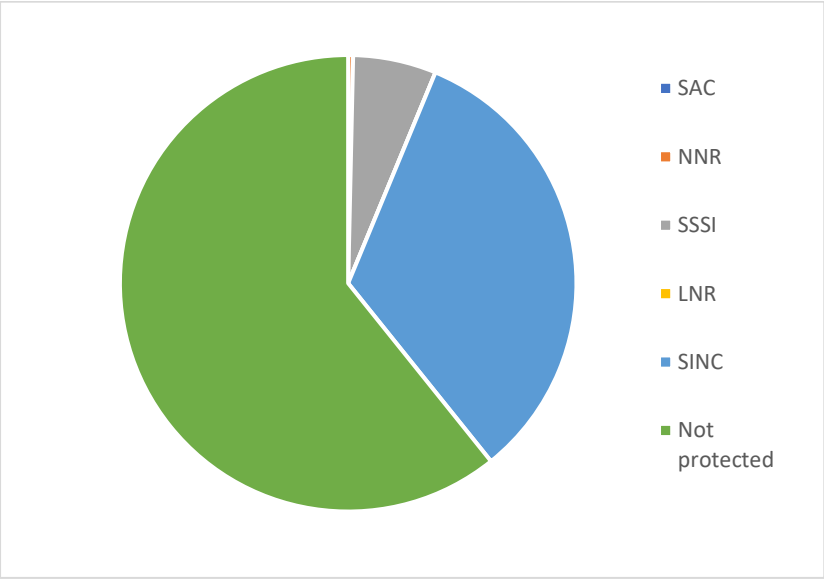
Habitat patterns: There is a clear pattern to the records, with concentrations in the forestry areas of Wentwood, Wye Valley and the western Valleys, where areas of clearfell/restocking are suitable for breeding Nightjars.

Population trends: The fluctuating but generally positive (in recent times) population in Gwent has been documented previously. With the population generally increasing across the UK (and Wales) – the conservation status has been reduced from red to amber for both – and the Gwent population seemingly quite stable, it would appear that the Nightjar is currently in quite a healthy situation in Gwent. With large areas of conifers being felled in recent years due to larch disease, it is possible that potential breeding sites for Nightjars will increase at least in the relatively short term, perhaps leading to an increased population. The longer-term management of these felled areas, how they are restocked and whether there will be regular felling operations opening up new areas in the future will play a large part in determining Nightjar numbers in the longer term. The availability of prey (principally nocturnal moths and beetles) will also be a factor, and it is well documented that invertebrate numbers, including of moths,[22] are much declined, and this could be a limiting factor.

Protection: 60% of records are from unprotected sites. However, it should be noted that a lot of records occur at the edge of protected sites, for example, to the east of Wentwood.

SSSI records are from Ruperra and Cleddon Bog, and a solitary record from the Blorenge. There are many SINC records: Wentwood, Beacon Hill, Broad Meend and Rudry Common, together with a scattering on upland SINCs like Mynydd Maen.

Nightjar records from protected sites



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Red Grouse *Lagopus lagopus* (Linnaeus, 1758)

Pete Hadfield

Protection: Wildlife & Countryside Act (1981, as amended) Schedule 2

Conservation status: Red (Wales[2]), Amber (UK[1]). UKBAP Priority Species, Wales Section 7 Priority Species

Data availability: Moderate (429 records)

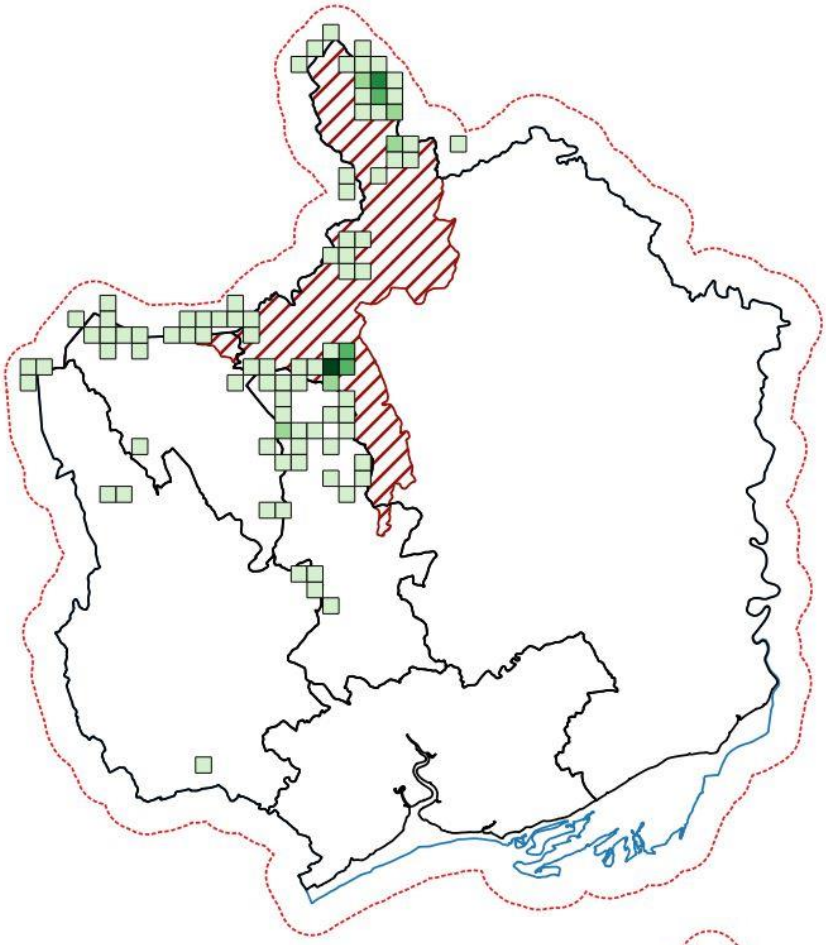
Context: A resident and sedentary bird, travelling very little during their lives.[23] The Red Grouse is very closely associated with upland heather moorland. The distinctive dark-winged race, *Scotica*, is endemic to the British Isles,[24] giving this species extra significance for conservation. The Red Grouse is vegetarian and has quite a limited diet; it relies on the shoots, seeds and flowers of heather, but may supplement this with items such as bilberries. [25] This limits their distribution to where a ready supply of heather is present. Insects are an important part of the diet for chicks.[25] In practice, this means they are confined to upland heather-clad moorland, so that their geographical distribution is strongly biased towards the north and west,[23] where this habitat is abundant. There has been a general loss in Red Grouse numbers in the twentieth century because of lack of heather moorland management and loss of habitat.

Outlook: Before concerted management of the moors began at the end of the eighteenth century, Red Grouse numbers were far lower.[6] The end of the nineteenth century and up to the First World War was the heyday of moorland management and grouse shooting, and Red Grouse were present throughout Ireland and on most heather moorland in Britain, although absent from lowland heath.[6] There was a decline in the management of sporting estates during the First World War which accelerated further during the Second World War, bringing about a degradation in habitat and therefore a reduction in numbers.[6] Particularly severe losses occurred in Scotland and Wales after the mid-1970s.[26] Planting of heather moors for coniferous forestry and degradation from sheep farming caused further loss of Red Grouse habitat and this, together with predation in the absence of predator control, saw Red Grouse numbers continue to fall.[26] Numbers have recently improved to some degree: there has been a 26% increase between 1970 and 2017 (described as 'little change'), largely driven by a 19% 'strong increase' in 2012–2017.[27] The more recent BTO Breeding Bird Survey,[28] further shows signs of recovery, recording an increase of 23% in 1995–2018 in the UK, although there was a 18% decrease in 2018–2019 perhaps reflecting fluctuations in population brought about by disease (Louping Ill spread by ticks and Strongylosis caused by a nematode worm can cause large levels of mortality)[26] and weather. Red Grouse are now only present in very low numbers in Wales.[26] The current (2016) breeding population is 256,000 pairs.[9]

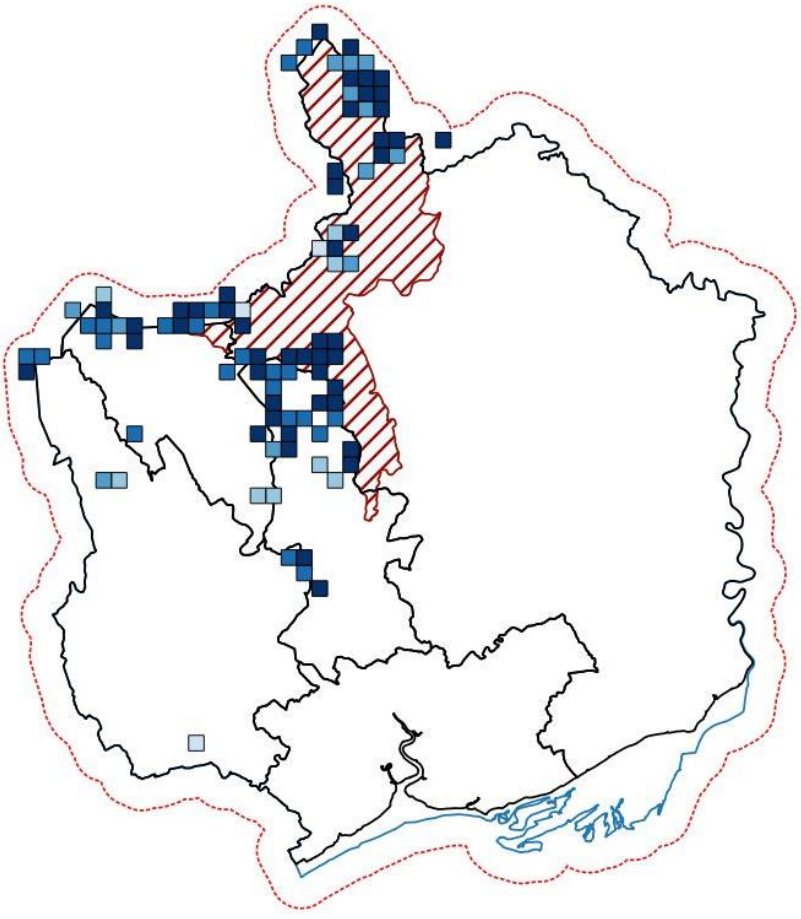
Greater Gwent range: The Gwent population and most specifically that on the Blorenge is the most southerly naturally occurring population in the UK.[29] The latest Gwent Bird Report (2018) records Red Grouse as an 'uncommon breeding resident; apparent decline in recent years',[10] and this has been the case for a while now: The Birds of Gwent in 2008 recorded Red Grouse as being 'an uncommon and declining resident on heather uplands'.[30] The 1977 Birds of Gwent described them as 'at present

widespread and regularly seen on the high ground in the north-west, though usually only in small numbers'. This publication however notes large declines, mirroring the UK's, with 1,000 birds on the Blaenavon moors in the late nineteenth century declining 10 pairs at most in 1960.[31] The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimates a Gwent population of 650 pairs, although350 pairs may be more realistic.[21] This 1981–1985 population was subsequently revised downwards to 67–74 pairs, which is more in line with the population estimate of 60 pairs in the 1998–2003 census.[10]

The distribution of records in Gwent reflects the Red Grouse's preference upland heathland. There is very much a north and westerly bias to records in Gwent. Hotspots are on the Blorenge and in the Black Mountains, with some range shrinkage in Torfaen.



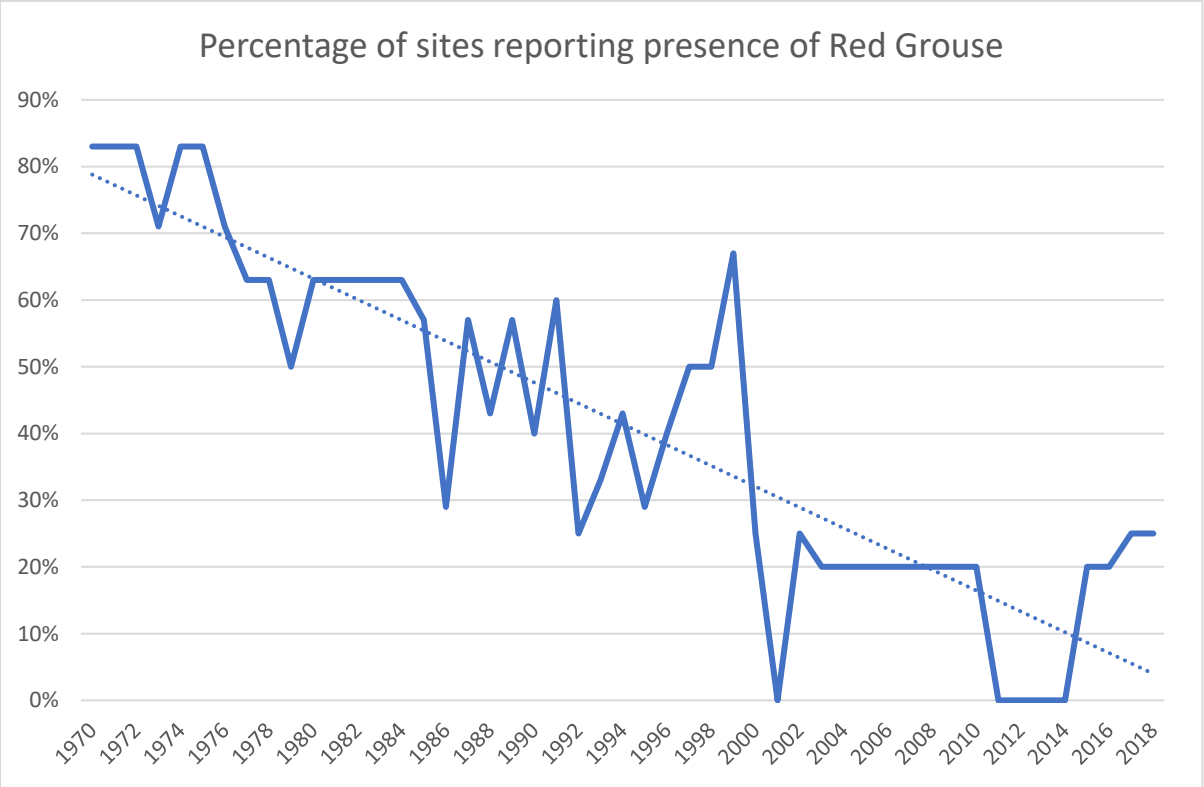
Distribution of Red Grouse records across Greater Gwent (maximum 46 records /km^2)



Records of Red Grouse by decade

Habitats patterns: The Red Grouse is very strongly associated with heather-clad uplands, so they are restricted to these sites in the north/west of Gwent.

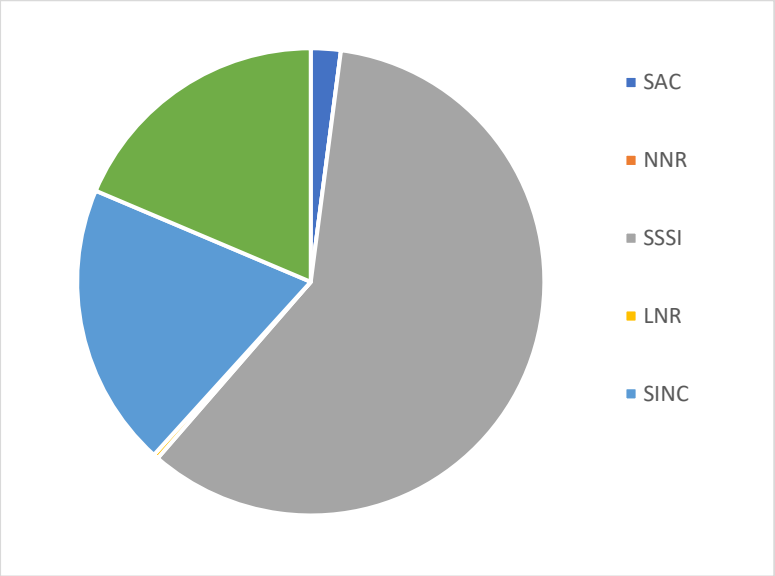
Population trends: Gamebag Census records for the study area (courtesy of the Game and Wildlife Conservation Trust) show a decrease in the percentage of sites reporting the presence of Red Grouse. Note that this is not a statistically significant trend as it is based on a low number of shoots reporting. Number of census returns varies between three and eight, with a general fall in numbers reporting since the 1970s and early 1980s. Also note that there is a bias in location of shoots (see data sources section for more information).



The area within the Blaenavon World Heritage Site is a stronghold, and surveys have been ongoing since 2007 with the aim of monitoring populations, informing management plans and increasing populations. During surveys in 2014, 110 birds were recorded – a 63% increase since 2008.[32] There was a moratorium on shooting in 2011, and it is predicted that with habitat enhancements the populations in this area have the potential to increase further. There are however unknowns that could affect the population: climate change could impact habitat quality, parasite loading and chick survival, with wet springs/summers generally being poor for Red Grouse.[33]

Protection: 81% of records come from protected sites, with a few records from Usk Bat SAC, but the vast majority (nearly 60%) from the Blorenge and Black Mountains SSSIs, with a few on Mynydd Llangynidr. The remainder are from across the Torfaen Upland SINCs, such as Coity, Mynydd James and Varteg, and Garn yr Erw.

Red Grouse records from protected sites



Ring Ouzel *Turdus torquatus* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Red (UK[1] & Wales[2]) UKBAP Priority Species, Wales Section 7 Priority Species

Data availability: Poor (201 records)

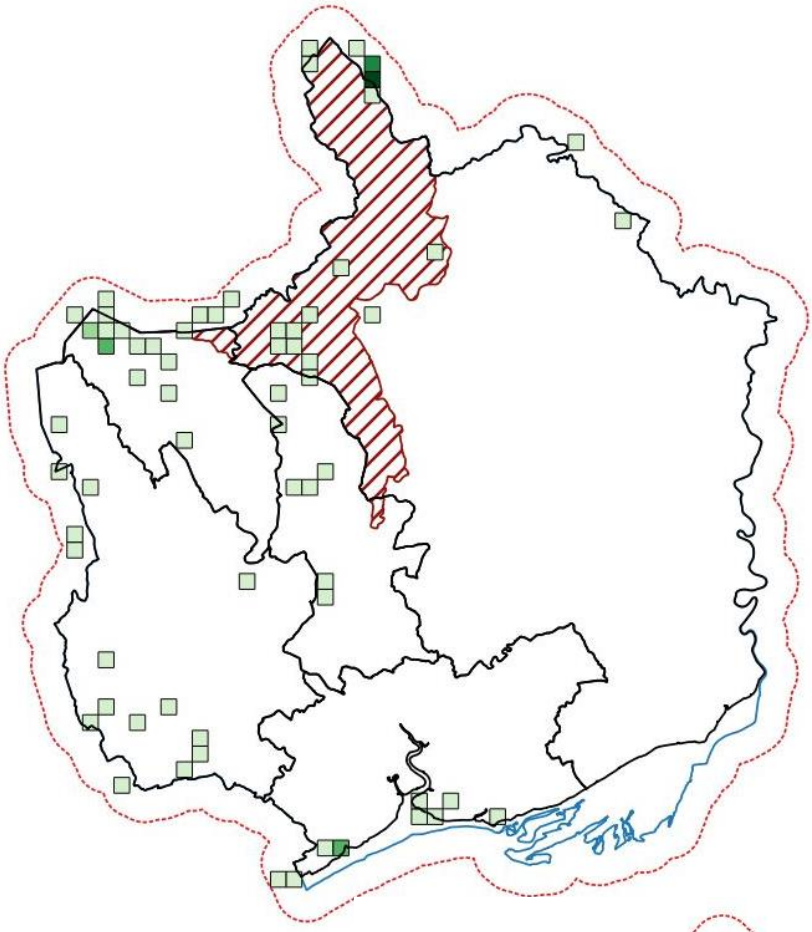
Context: A migrant bird that is a summer visitor to the UK, the Ring Ouzel spends its winter in the Atlas Mountains of north-west Africa.[34] This means that the Ring Ouzel is vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source, both impacted by climate change.[16] A whole paper has been produced regarding the potential impacts of climate change on Ring Ouzels.[34] They are a member of the thrush family and most closely resemble the much more familiar Blackbird; the striking white gorget of the male, however, makes it easily recognisable if seen well. In the UK, it is primarily a bird of the uplands, breeding in steep-sided valleys, crags and gullies.[38] An alternate name is Mountain Blackbird. As such, the Ring Ouzel (at least as a breeding bird) is confined to where these more upland habitats occur and thus has a westerly and northerly bias to its distribution. It relies on invertebrate prey during the breeding season, taking a wide variety of items, with earthworms and leatherjackets appearing to be particularly important.[38] However, once the breeding season is over, berries are the main diet, with those that abound in our uplands, such as bilberry, crowberry and rowan, being utilised.[38] On migration, Ring Ouzels can turn up in more lowland habitats and recently arrived or departing birds can be found along the coast in particular.

Outlook: The UK population was formerly (nineteenth century) widespread across much of the UK, with a westerly and northerly bias.[6] A decline started in the twentieth century, with large declines reported in Scotland in 1900–1950.[36] A further 27% reduction in the British breeding range was apparent between the 1968–72 and 1988–91 national atlases, with losses particularly marked in Scotland and Wales.[38] A first national survey was undertaken in 1999 that highlighted a further range contraction and a probable 58% decline in population size since 1988–91.[37] The number of breeding pairs of Ring Ouzels decreased by 44–100% during 1979–2009 across 13 study areas throughout the UK.[38] Most recent population estimates show there to be perhaps a slowing or reversal of the decline, with a 37% increase from 2008–2018,[28] albeit from much reduced original numbers. The current (2016) breeding population is 7,300 pairs.[9]

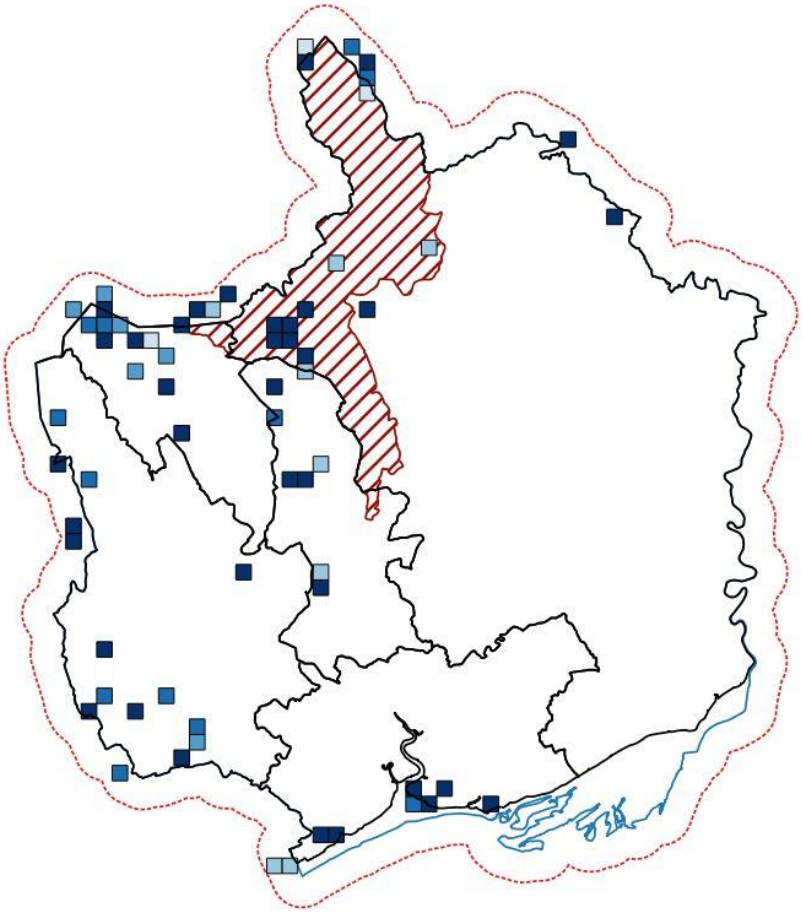
Greater Gwent range: As a breeding species, Ring Ouzels are effectively extinct within Gwent. The last remaining reliable breeding site was Trefil Quarries, where 3–4 pairs could be found up to 1997.[39] Birds have been recorded in small numbers there fairly regularly since, but it would appear they are lost as a breeding species. The latest Gwent Bird Report (2018) now records Ring Ouzels as a 'passage migrant; former rare breeding summer visitor'.[10] Historically (1970s), it was noted to be sparsely distributed in the wilder hill regions of the north and north-west but also breeding irregularly on high ground in the south of the coalfield, but numbers were noted to have been decreasing since 1970.[40] The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimates a Gwent population

of 50 pairs, mentioning the Black Mountains, Trefil and the hills between Abergavenny, Ebbw Vale and Pontypool as breeding sites.[21] Subsequent to this, it is clear the population continued to fall sharply, resulting in its aforementioned extinction as a breeding bird in Gwent. Ring Ouzels are still recorded annually, often in upland sites with potential for breeding. However, the birds appear to no longer remain to breed. On migration, occasional birds also turn up at more lowland sites, principally at well-watched coastal sites.

Hotspots for records are upland sites at Trefil, Hatterall Ridge & Pwll Du, as well as the coastal, lowland Peterstone Gout, where there is much recording effort at migration times. More records are out of area – we have 201 study area records and just 110 in Greater Gwent – in Mynydd Llangattock and Craig y Cilau plus the Hereford side of Hatterall Ridge.



Distribution of Ring Ouzel records across Greater Gwent (maximum 27 records /km^2)



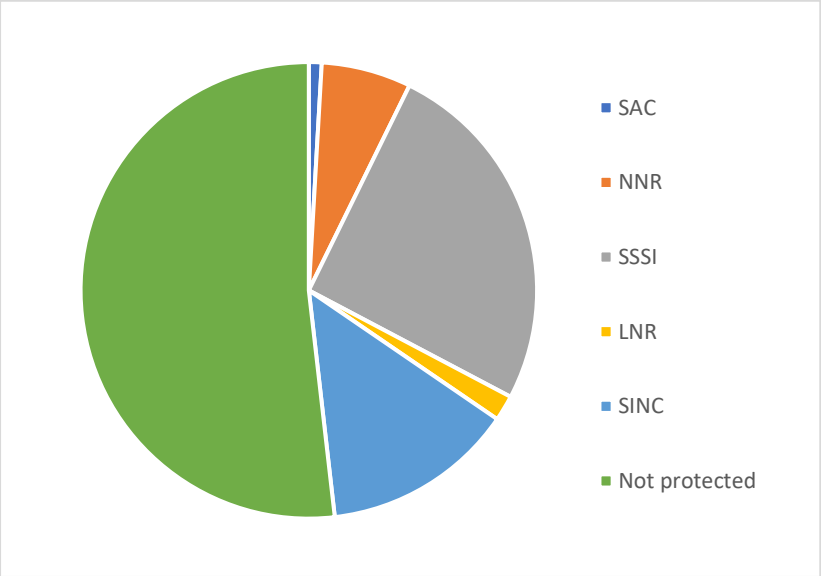
Records of Ring Ouzel by decade

Habitats patterns: There is a clear pattern to the records, with upland sites being favoured; those areas with berry-producing trees/dwarf shrubs will be of particular importance for autumn migrating birds. For breeding birds, sites that will be favoured for breeding birds will need, ideally, a mix of heather and bracken together with short turf for foraging.

Population trends: The decline in population to extinction in Gwent has been documented previously. With the population generally reduced across the UK, repopulation may seem unlikely. However, with Ring Ouzel still being recorded annually and quite often in potential breeding areas, it is conceivable that they may breed sporadically again or even establish regular breeding. If there is a determined desire to return Ring Ouzels to our list of breeding birds then there may need to be focused engagement with landowners in certain parts of our uplands, and appropriate habitat management to create suitable breeding conditions. Alongside this, however, the backdrop of climate change and general temperature increase may push breeding populations into even higher upland areas as Gwent's 'lower' uplands become unsuitable.

Protection: 48% of records come from protected sites, with Newport Wetlands NNR, then many records from the Black Mountains, Blorenge and Mynydd LLangynidr SSSIs. LNR records from Garn Lakes, and then scattered across the large upland SINCs within Torfaen and Caerphilly.

Ring Ouzel records from protected sites



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Urban birds

House Sparrow *Passer domesticus* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Red (UK[1]), Amber (Wales[2]) UKBAP, Wales Section 7 List

Greater Gwent data availability: Moderate/Poor (they are, perhaps understandably, massively under-recorded) (7,785 records)

Context: A resident and sedentary bird, the House Sparrow is very closely associated with human habitation, including rural, suburban and urban settlements. It was and still is widespread throughout the UK, although populations have suffered falls in various areas. The House Sparrow has a diverse diet that includes seeds and invertebrates, and it will readily exploit food thrown out/provided by people. The House Sparrow's quite catholic diet and ability to adapt and exploit humans is behind its success; it is one of the most widely distributed species in the world.[3] They are loosely colonial, forming small colonies in the breeding season[4] and largely remaining in these groups over winter. House Sparrows are a hole-nesting species, readily exploiting gaps under the eaves of houses and occupying nest-boxes. However, they are adaptable enough to form nests in dense vegetation if suitable holes are not available.[4] Despite their widespread distribution and adaptability, they have suffered worrying declines in relatively recent times: a 71% decline between 1970 and 2017,[5] although this has improved more recently. Different factors are responsible for the declines, and these differ for rural and suburban populations. Rural populations have been affected by changes in agricultural practices, loss of nest sites and reduced food availability. Urban and suburban declines are more difficult to explain, but the presence of urban greenspace in the form of large gardens/allotments is important for their success, as are nesting opportunities, and the loss of invertebrates may be a cause of decline.[6]

Outlook: The UK population of House Sparrows increased substantially in the nineteenth century, in line with the human population.[7] Sparrow populations were such that they were a well-recognised nuisance, and 'Sparrow Clubs' were set up with the aim of eradicating them from every parish.[6] Despite this, numbers continued to rise through much of the twentieth century, until the 1970s, when declines became apparent.[6] As mentioned previously, the numbers have declined alarmingly. Although they are generally still well distributed, they are disappearing from city centres, are absent from the Scottish Highlands and thinly distributed in the uplands.[8] The best populations are now found across the Midlands, Southern and Eastern England.[9] The estimated UK breeding population in 2016 was 5,300,000 pairs.[10] There were longer term reductions of 71% between 1970 and 2017 (described as 'weak decline'); more recently there has been 'little change', with a small 2% decline from 2012–2017.[5] The more recent BTO Breeding Bird Survey[11] shows signs of recovery and cause for optimism, with an decrease of only 1% in 1995–2018 in the UK as a whole and a pleasing 92% increase in Wales

over the same period –although it must be remembered that these more recent increases are the coming back from considerable losses in the 1980s. So, while there were large drops in House Sparrow populations, there are signs of improvements, particularly in Wales.

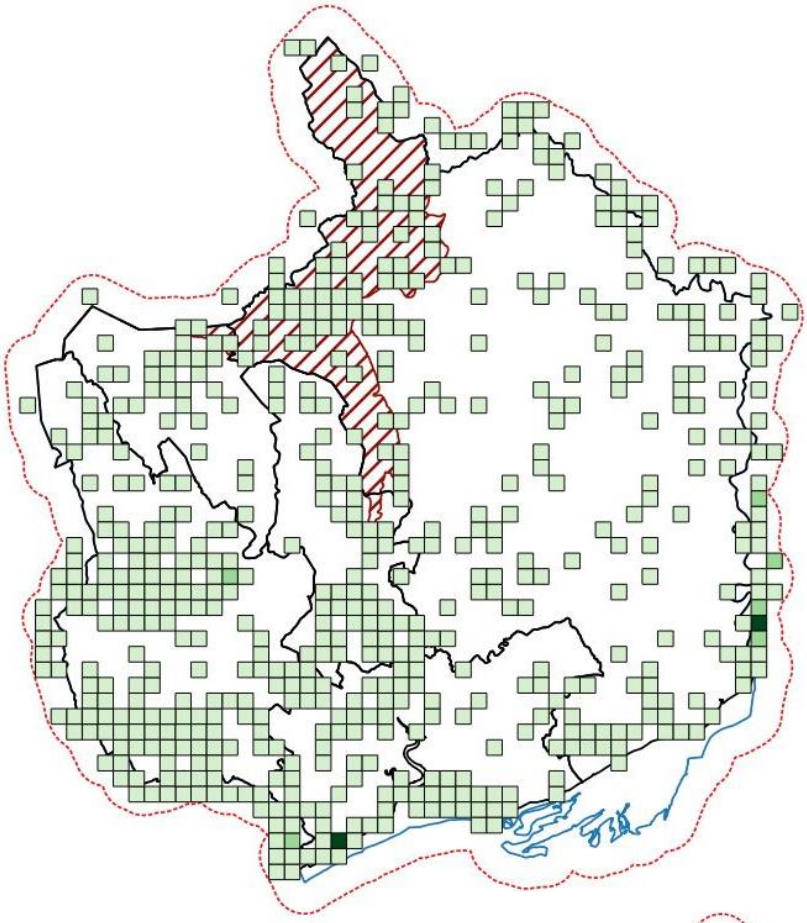
Greater Gwent range: The latest Gwent Bird Report (2018) records House Sparrows as an 'abundant breeding resident'[12] and, while their numbers may have fluctuated a bit, this has been the case for a long while now. The 1937 and 1963 Birds of Monmouthshire described them as being 'a common breeding resident', especially in and around towns and villages.[13] The Gwent Atlas of Breeding Birds for 1981–1985 estimated a Gwent population of 15,000–30,000 pairs, with House Sparrows being closely associated with human habitation and occurring in 92% of the tetrads within Gwent.[12] By the time of the publication of the Birds of Gwent in 2007, the House Sparrow was described as 'a fairly common resident' and its population estimated at 23,000–33,000 pairs.[12] This publication references the 2002 Bird of Wales, which noted significant declines in most parts of Wales during 1970–1990 but states that this may not have been the case in Gwent.[12] Indeed, the Gwent Bird Reports between 1975 and 2018 do not reveal any great loss in numbers, although some very localised declines and re-populations are recorded (it should be noted that the House Sparrow is generally a very under-recorded species). It can be concluded that House Sparrows are still a widespread (except in the uplands) and numerous species within Gwent. However, there is an impression that autumn–winter flocks in arable fields are not as large as they used to be.

Referring to records held by SEWBReC is complicated because the House Sparrow is so familiar it is rarely reported. Analysis of records is interesting as they are surely not a true representation. Hotspots are at Peterstone Gout (this is a birding hotspot so has more records) and on the Gloucestershire border, which is caused by centring of tetrad and hectad records.

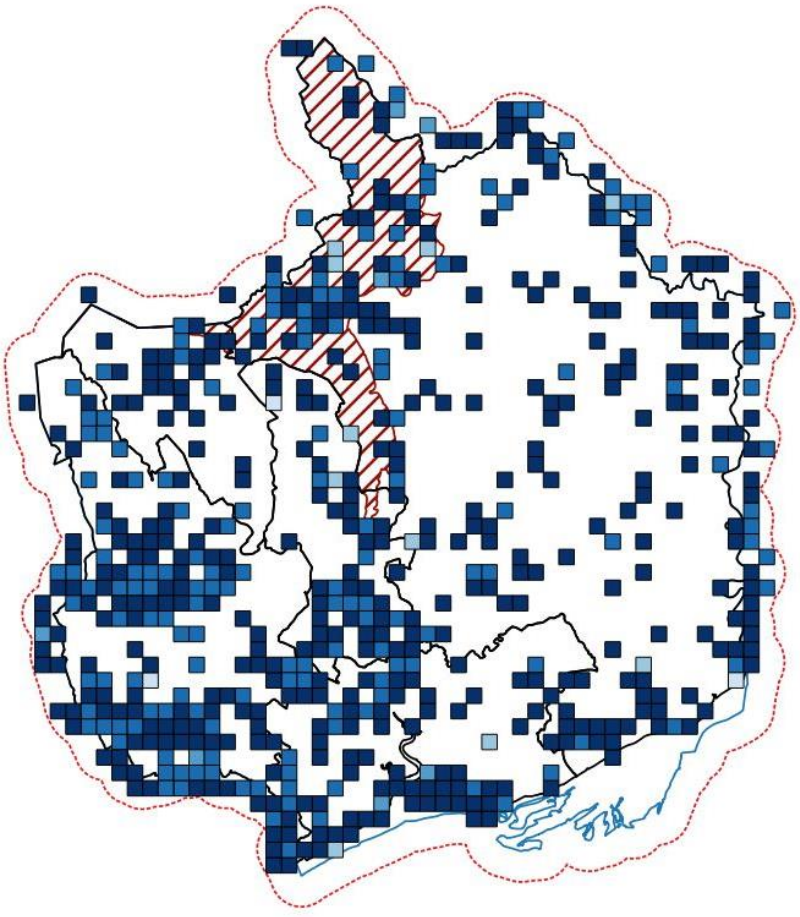
The reality is that, of the 1,916 1km squares, 1,324 (69%) have no records and 1,791 (93%) have 5 or less records in a period of 50 years. Just 125 (7%) squares have more than 5 records. There also is no great correlation with urban areas: Caerphilly perhaps has more records, but Newport, Chepstow, Cwmbran etc. have very few. This data should be compared to the tetrad maps for the Gwent Bird Atlases (1981–1985) and (1998–2003), which have records from 90%+ of the tetrads.[12]

Equally, the date map looks good until you realise that any area where there are no records of House Sparrow for a decade may be an issue. Again, it is likely to be the case that they simply are not recorded as they are so common. Recording of House Sparrows only really took off following recent media reports of declines: there were 17 records in the 1970s, 47 in the 1980s and 10 in the 1990s, but 1,124 in the 2000s and 3,047 in the 2010s.

Distribution of House Sparrow records across Greater Gwent (max. 1,099 records/km²)



Records of House Sparrow by decade

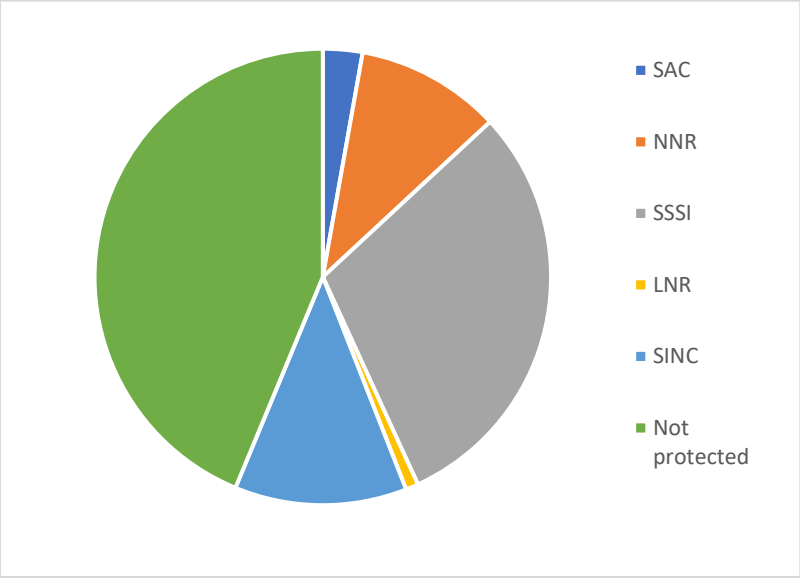


Habitats patterns: SEWBReC records may not clearly show this but there is a very clear correlation between House Sparrows and the presence of human habitation.

Population trends: As previously stated, quite large declines in House Sparrow populations were noted across the UK during the 1970s, 80s and 90s, with these declines slowing in more recent times and even reversing in areas such as Wales. Gwent appears to have been relatively unaffected by the national declines, and the House Sparrow population in Gwent would appear to currently be in good health.

Protection: 56% of records come from protected sites, with high numbers of records from Peterstone, within the Levels SSSIs and Newport Wetlands NNR, as these areas are visited often by birders. In reality you would expect far more records from unprotected areas (people's gardens), but as already stated such records are generally not submitted.

House Sparrow records from protected sites



Peregrine Falcon *Falco peregrinus* (Tunstall, 1771)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended) Schedule 1

Conservation Status: Green throughout UK.

Greater Gwent data availability: Moderate/Good (1,419 records)

Context: Peregine Falcons are resident in the UK and have the distinction of being the fastest bird species in the world. As a breeding bird, it has strongholds in the uplands of the north and west, as well as along rocky coastlines.[14] However, urban breeding peregrines are Increasingly a feature of many cities and towns throughout the UK.[15] They can be found more frequently in coastal areas during the winter. They are birds of prey, with their diet primarily being birds taken on the wing – feral pigeons are a favoured prey but a wide range of bird species will be taken.[16] The taking of birds has brought them into conflict with gamekeepers and the keepers of racing/carrier pigeons. This, coupled with young birds being taken by falconers and the effects of organochlorine poisoning, led to Peregrines falling to low levels, with the nadir being in the early 1960s. More recently, these negative impacts have reduced significantly, allowing Peregrine populations to bounce back, although they can still be subject to persecution, and habitat loss/degradation is an issue for most bird species.

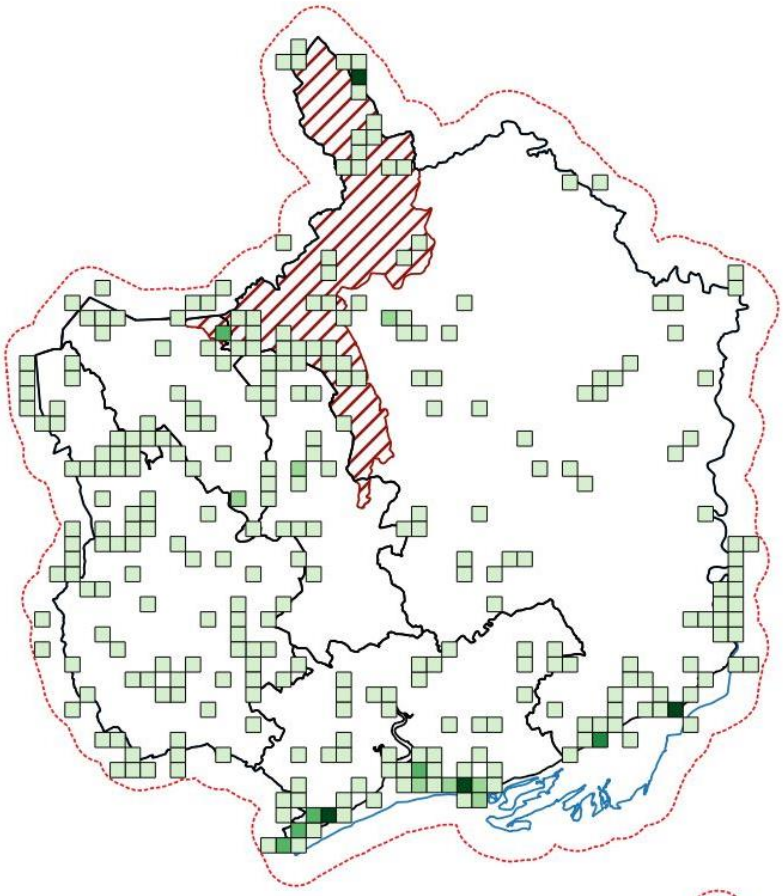
Outlook: The UK population started to decline in numbers during the nineteenth century as a result of an increase in game preservation and an improvement in the accuracy of firearms.[7] Reductions in Wales may not have been as noticeable because game-keeping was not so prevalent.[7] The advent of the First World War reduced game-keeper pressure, and numbers were high and stable by the advent of the Second World War.[7] This did not last, as an emergency order from 1940, and lasting until 1946) allowed for the destruction of Peregrines to protect Military Carrier Pigeons.[7] More severe declines were to come, with organochlorine pesticide poisoning halving populations between 1956–1963.[7] A voluntary moratorium in 1961, followed by bans in the 1970s & 1980s,[17] allowed Peregrine numbers to recover. A slow but strong recovery began in 1967, with numbers recorded in the late 1980s being probably higher than at any time to date in the twentieth century.[7] This is reflected in the 204% increase between 1970–2018 (rather curiously described as a 'weak increase'[5]) and an indication that population levels are now quite stable, with a 2% increase ('little change') from 2012 to 2017.[5] The current (2014) breeding population is 1,750 pairs.[10]

Greater Gwent range: The latest Gwent Bird Report (2018) records Peregrine as a 'resident and winter visitor',[12] and it would be fair to say that the recent fortunes of Peregrines within Gwent are good. The Birds of Gwent in 2008 recorded Peregrines as being a 'scarce or uncommon resident: more numerous now than ever recorded previously in the county',[18] and in 1977 as a 'fairly regular visitor, both in winter and on passage'.[20] This all indicates that numbers have increased over this period, particularly as the 1977 Birds of Gwent does not record them as a breeding species (indeed it mentions that the only confirmed breeding attempt in Gwent up to that point was in 1927).[20] However, other sources suggest a number of pairs in Gwent, with an average of three pairs and up to six sites used at least

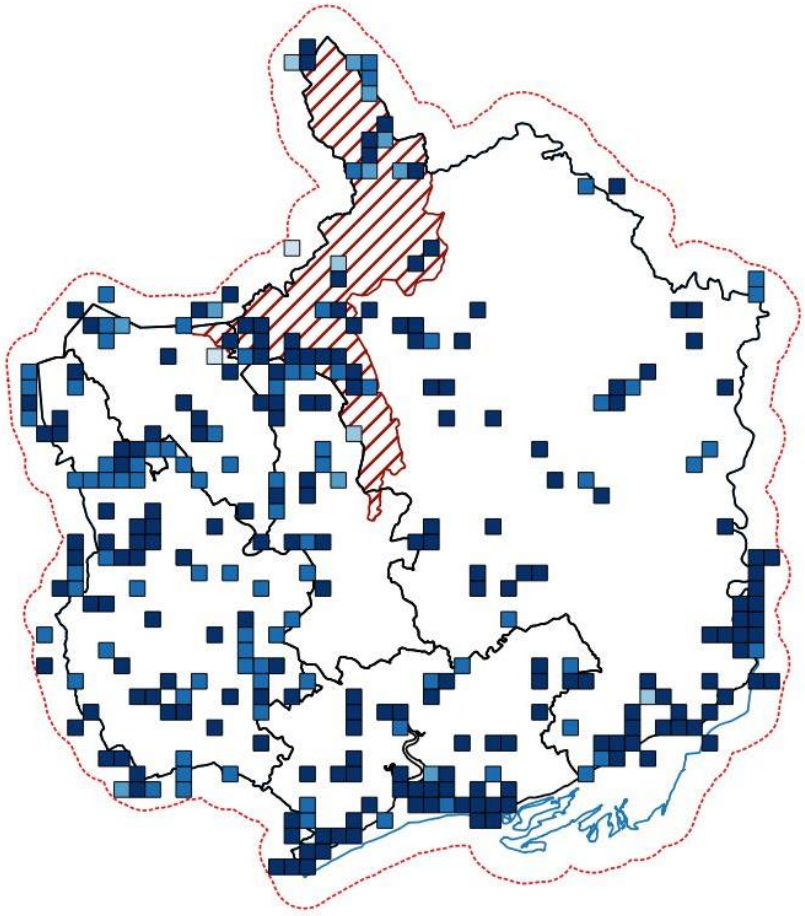
occasionally during the first half of the twentieth century.[18] Peregrines were however extinct as a breeding bird in Gwent by 1960. This situation continued until 1979, when a pair returned to Cwmyoy, although numbers recorded had been increasing prior to this.[18] By the time of the latest Gwent Bird Atlas (1998–2003), the population was at least 15 pairs, with the population concentrated in the western valleys and Black Mountains, although a number of more urban records and breeding on pylons were recorded in the Newport area.[18] The population is clearly doing well, with good food supplies and increased protection,[18] together with the ban on pesticides, cited as reasons for this. Persecution was/is still an issue however, with one site recording five different dead adults in one breeding season (1997).[18]

There are hotspots at Peterstone Gout and Newport Wetlands. This is undoubtedly due to increased observers at these bird-watching hotspots, but these areas are also likely to be well frequented by Peregrines as much potential prey is available. Smaller hotspots are at Hatterall Ridge (Black Mountains) and the Clydach Gorge, which more likely reflect breeding sites in these more rugged areas.

Distribution of Peregrine records across Greater Gwent (max >50)



Records of Peregrine by decade



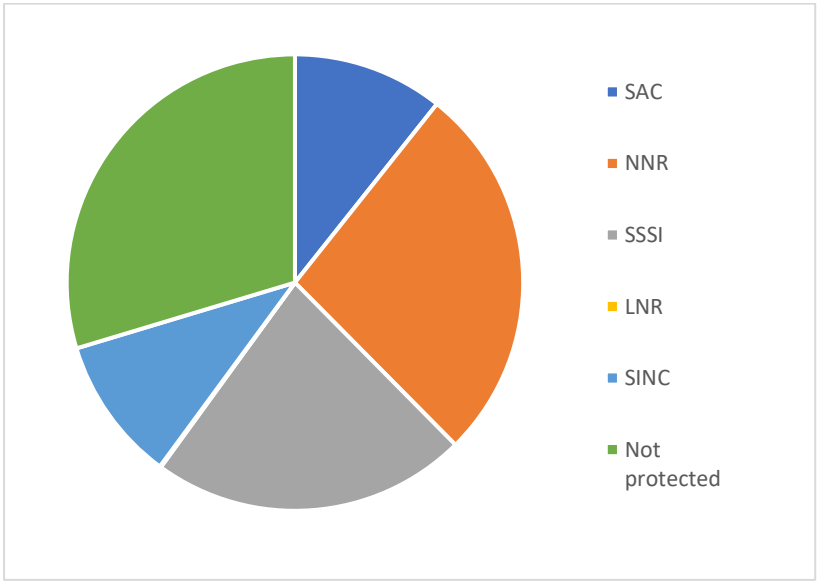
Habitats patterns: Breeding Peregrines still have a bias towards the more rugged west and north of Gwent, where rocky crags for nesting sites are present, although they can be found in the south of the county and in more urban environments, where structures such as pylons are utilised as nesting sites. Outside the breeding season, Peregrines can be found widely, particularly where there is ample prey, so that coastal sites with concentrations of birds such as Peterstone Wentlooge and Newport Wetlands are favoured sites.

Population trends: Reference to the BTO's latest Peregrine Survey (2014) shows that the overall increase in Peregrine populations in the UK between 2002 and 2014 was driven by increases in England and Northern Ireland.[19] Numbers in Wales and Scotland had actually fallen due to reductions in the upland Peregrine populations, with Grouse Management persecution being cited as a possible significant factor.[19] Numbers in lowland areas were actually increasing, driven by the Peregrine's exploitation of urban, feral pigeons as an abundant food source and the use of man-made structures as nest sites.[19] It may be that, over time, the Peregrine will become associated less with wild uplands and more with man-made structures in the lowlands.[20]

Within Gwent in recent years, the Peregrine population has been exploiting both the uplands of the north/west as well as the coast and open lowlands associated with the Gwent Levels. It is always a species that is likely to suffer some persecution, however Gwent's population is high and stable, and it is hoped this will continue.

Protection: 70% of records come from protected sites, with high numbers from SAC records along the Severn Estuary, plus a few at the Usk Bat Sites SAC. NNR records were from Newport Wetlands. The SSSI records were again from across the Levels, plus the Blorenge, Black Mountains and Llandegfedd Reservoir. SINCs from multiple sites across Caerphilly and Torfaen, plus a few Blaenau Gwent, generally associated with the more upland, western valleys, especially north of Caerphilly, around Parc Cwm Darren, northern Torfaen and around the Blaenavon area.

Peregrine records from protected sites



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Waders

Black-Tailed Godwit *Limosa limosa* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Red (UK[1]), Amber (Wales[2])

Data availability: Good (1431 records)

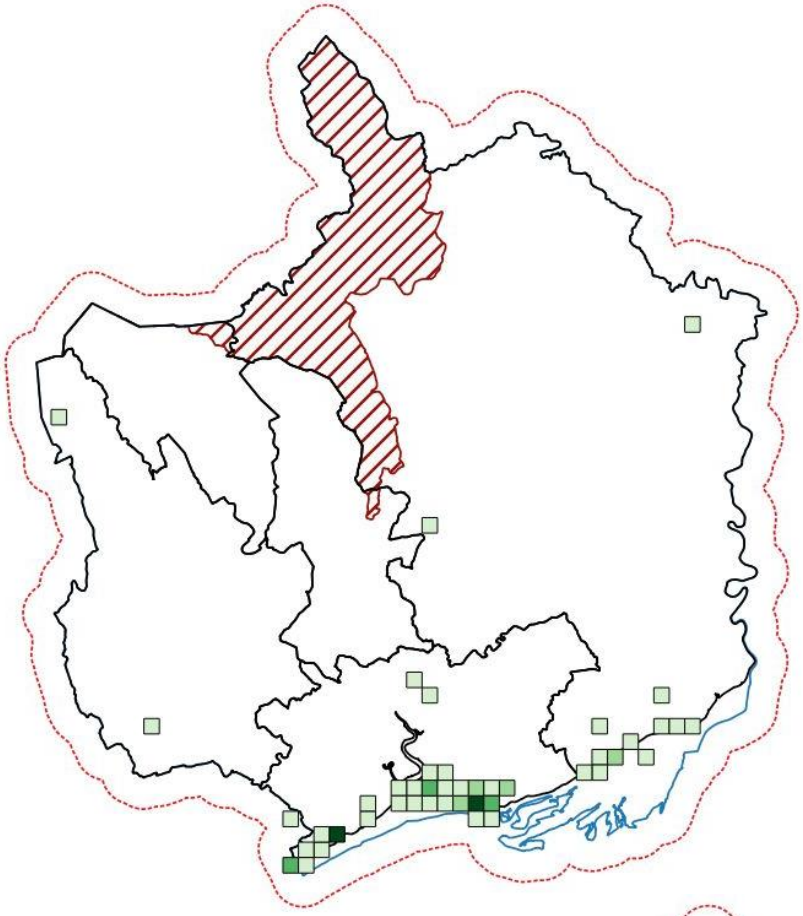
Context: The Black-Tailed Godwit is chiefly a passage migrant through the UK and a winter visitor, with a small number breeding in the east of England. This means that the Black-Tailed Godwit is vulnerable to changes in summer, winter and migration stepping-stone habitats, and changes in food source – both impacted by climate change.[3] They are one of a whole host of wader species that pass through the UK on both spring and autumn passage, with only a few staying to breed. However, significant numbers spend the winter in the UK. The Black-Tailed Godwits that remain to breed in the UK are on only a handful of marshy sites in eastern England, and this rarity is reflected in their Schedule 1 Protected status. The passage birds generally spend the winter in West Africa, whereas the substantial wintering population are made up of birds that bred further north, in Iceland.[4] They are one of two godwit species that regularly visit the UK, but the only one that breeds with us; its close cousin, the Bar-Tailed Godwit, is just a passage and wintering species. Black-Tailed Godwits largely feed on insects, worms and snails[4], making good use of their very long beak. Overall, in the UK there has been a huge increase (765%) in wintering birds between 1970 and 2017.[5] This is likely due to increases in the Icelandic population,[6] which winter in the UK. The breeding population has fluctuated but has remained broadly similar in recent times. The population is, however, susceptible to losses due to flooding and predation,[7] and its small size also makes it vulnerable.

Outlook: The Black-Tailed Godwit has seemingly never been widespread as a breeding bird in the UK. However, it did once breed abundantly on the East Anglian Marshes,[8] but was extinct as a regular breeding bird in the UK by the mid-nineteenth century, with drainage of the marshlands for agriculture largely to blame.[8] They did not return as a breeding species in that part of eastern England until the 1930s.[8] East Anglia remains their stronghold in the UK, with occasional breeding records in Scotland. A small population did develop on the Somerset Levels but was adversely affected by lowered water-tables.[8] The East Anglia population remains extant but is small and vulnerable to spring flooding. The estimated UK breeding population in 2013–2017 was 53 pairs.[9] It would appear that this population peaked at 65 pairs in the early 1970s, and was reduced by flooding to half that number by the late 1980s.[7] In contrast to the small and vulnerable breeding population, the wintering population has increased greatly: 765% increase between 1970–2017 (described as 'strong increase'), with this still being apparent more recently with a further 23% increase from 2012–2017.[5] The wintering population stood at 41,000 in 2017.[9]

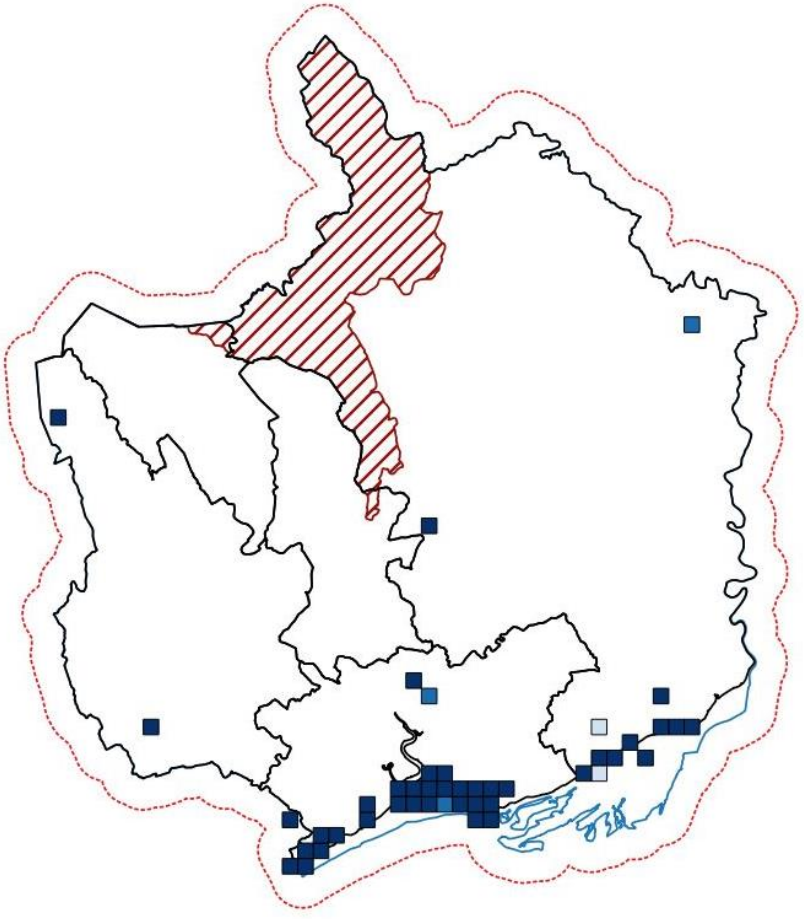
Greater Gwent range: The latest Gwent Bird Report (2018) records Black-Tailed Godwits as a 'passage migrant, summer and winter visitor',[10] and it would be fair to say this has been the case for a long while with numbers increasing over time. The Birds of Gwent in 2008 recorded Black-Tailed Godwits as 'a regular passage migrant and winter visitor in increasing numbers', noting that 'some birds stay through the summer';[11] in 1977 it was described as a 'regular spring and autumn passage migrant in small numbers, with occasional birds remaining during summer and winter'.[12] The dramatic increase in numbers of birds on both passage and wintering can be seen from the fact that the 1963 Birds of Monmouthshire only listed ten previous records,[11] whereas now flocks of hundreds of birds can be encountered. The reason for the increase is undoubtedly closely linked to the hugely increased breeding population in Iceland, which both passes through and winters here in Gwent. The impact of the creation of the Goldcliff Lagoons in both attracting additional birds and concentrating their numbers is also of great significance. The account in The Bird of Gwent 2008 provides a fuller idea of the dramatic increase in numbers. Black-Tailed Godwit have never bred in Gwent. However, with successful breeding having occurred on the Somerset Levels and potentially suitable habitat at the Goldcliff end of Newport Wetlands, this breeding in Gwent is a possibility.

Records are pretty much exclusively on the Gwent Levels. The recording hotspot is at Newport Wetlands, with 854 records within 1 km square. Lots of the records are recent.

Distribution of Black-Tailed Godwit records across Greater Gwent (max ≥100 records/km^2)



Records of Black-Tailed Godwit by decade



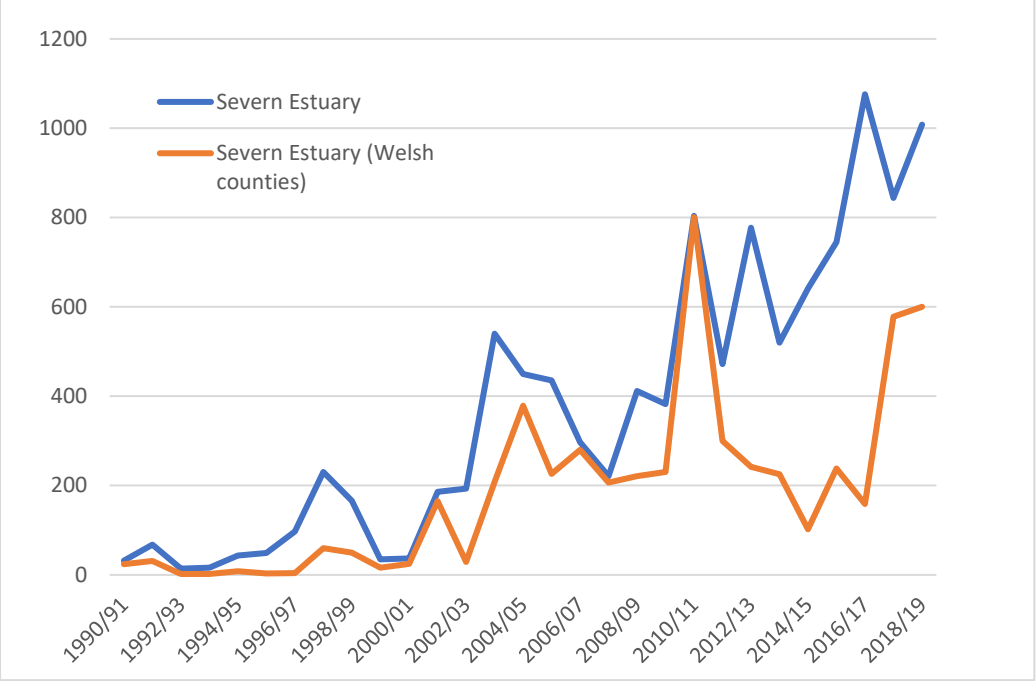
Habitats patterns: Very much a bird of the coast in Gwent.

Population trends: As previously stated, there have been great increases in passage and wintering populations of Black-Tailed Godwit within the UK. Gwent has been no different, with huge increases in birds passing through and wintering. These increases are driven by the hugely expanded Icelandic breeding population and are compounded more locally by the creation of the Goldcliff Lagoons, which both attract the Godwits and concentrate the numbers. It would appear the Black-Tailed Godwit population on migration and over winter is currently very secure in Gwent.

Details of the numbers wintering on the Severn Estuary through Wetland Bird Survey (WeBS) counts are shown in the chart below, which shows very clearly the increasing populations.

Note that some annual counts are given as a minimum number rather than a count/estimate.

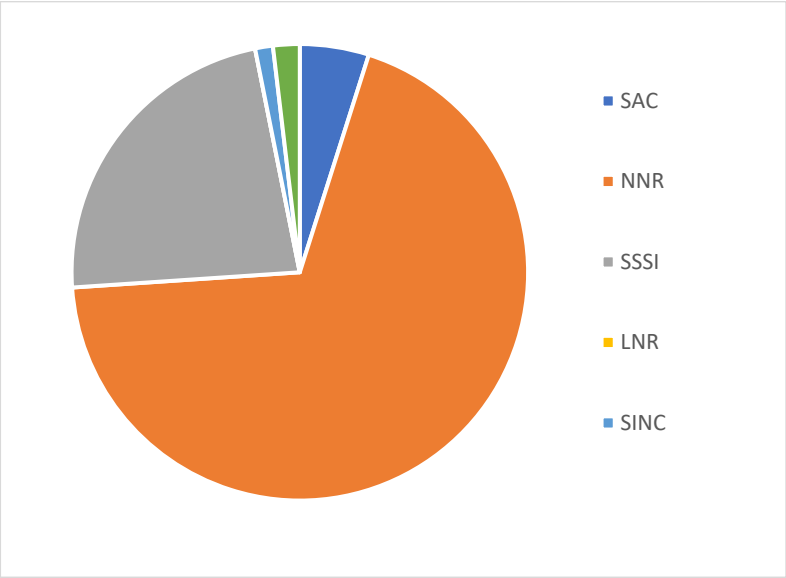
Winter WeBS Peak Counts for Black-Tailed Godwit on the Severn Estuary[13]



However, there is a real possibility of adding Black-Tailed Godwit to the Gwent (and Wales) breeding list. The Newport Wetlands complex has already added a number of species to the Gwent/Wales breeding bird fauna, with Avocet one notable example. Understanding hoow habitat is managed in East Anglia, at places such as Nene Marshes and Welney, and areas closer to home on the Somerset Levels would prove useful if encouraging Black-Tailed Godwits to breed in Gwent is desirable. However, great care would need to be taken to ensure that any alterations to habitat management that may encourage Godwits to nest do not have a harmful effect on the success of some of the other wader species already nesting there.

Protection: 98% of records come from protected sites, with high numbers of records from Newport Wetlands NNR (69%) and the Gwent Levels SSSIs.

Black-Tailed Godwit records from protected sites



Common Sandpiper *Actitis hypoleucos* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended)

Conservation status: Amber(UK[1]), Green (Wales[2])

Data availability: Good (1354 records)

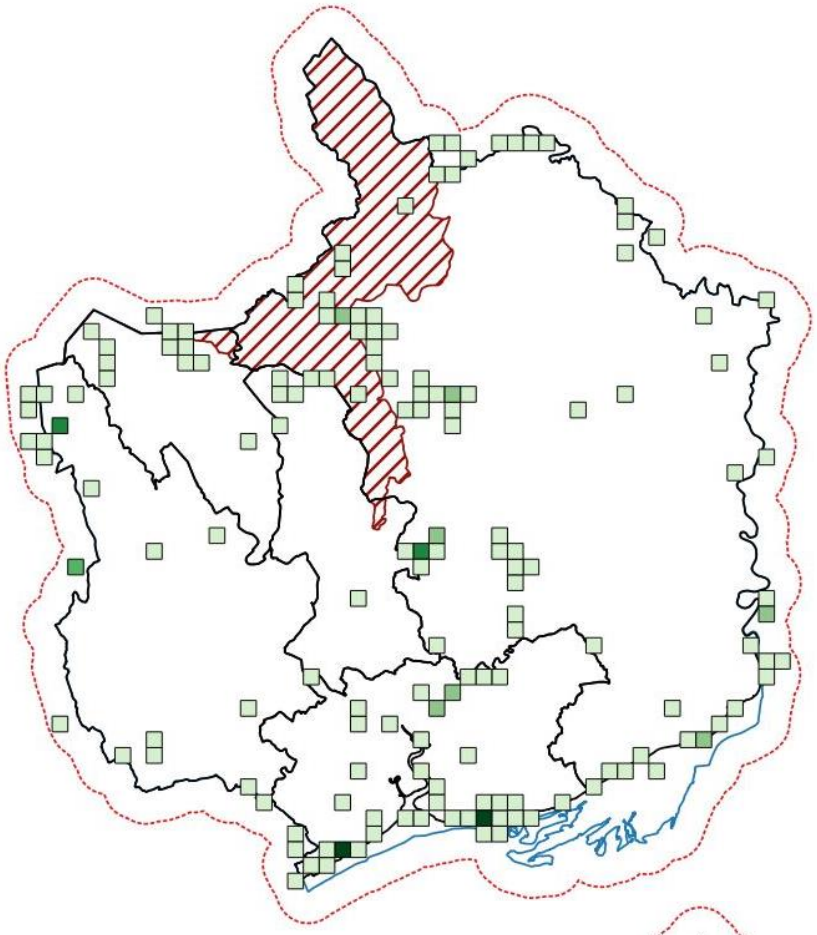
Context: The Common Sandpiper is a summer visitor and passage migrant to the UK, with a small number remaining with us for the winter. This wintering of birds is a more recent phenomenon, and numbers are small. This means that the Common Sandpiper is vulnerable to changes in summer, winter and migration stepping-stone habitats, and changes in food source – all impacted by climate change.[3] They are one of a whole host of wader species that pass through the UK on both spring and autumn passage, with a number staying to breed, albeit in smaller numbers than seen at the main breeding grounds further north. The Common Sandpipers that remain to breed in the UK have a generally northerly and westerly distribution, breeding 'along fast rivers and by lakes, lochs and reservoirs in Scotland, Wales, Northern Ireland and the north of England'.[14] 'It is easily identified by its habit of bobbing up and down and its rapid, stiff-winged flight low over the water'.[15] Common Sandpipers largely feed on insects but will also take worms and molluscs.[14] Overall in the UK, there has been a decline of 48% between 1970 and 2017.[5] While a few birds winter in the UK, most migrate long distances to Africa, and it is thought the main reason for these declines lies with their wintering grounds.[16]

Outlook: The Common Sandpiper is now considered more a bird of upland streams in the UK, but this was not always the case; they were also common in lowland areas in the nineteenth century.[8] This decline in lowland areas began at the end of the nineteenth century and was most marked (certainly in South Wales) in the late 1940s and 1950s.[8] The pollution of lowland rivers may have been a driver behind this change of range.[8] This contraction to more upland areas resulted in the now observed core northerly and westerly distribution in the UK. The estimated UK breeding population in 2016 was 13,000 pairs.[9] This is less than it was historically, with the decline brought about by the loss of much of the lowland population and more recent declines as follows: 48% reduction between 1970–2017 (described as 'weak decline'), with this still being apparent more recently with a further 5% decline from 2012–2017.[9] The BTO Breeding Bird Survey[17] further illustrates these declines, showing a 29% decline between 1995 and 2018 in the UK. Most recently there have been some signs of recovery, with a 9% increase,[18] albeit it in just over a single year (2018–2019). Only time will tell if this is the start of a recovery.

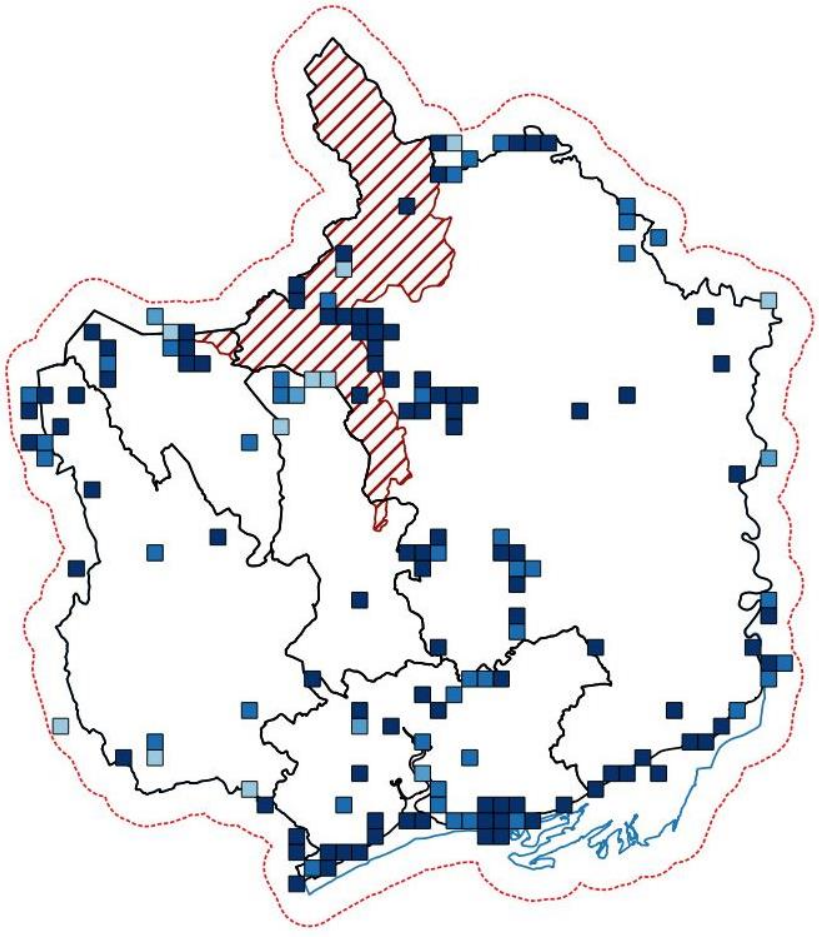
Greater Gwent range: Common Sandpipers can be found within Gwent as a breeding bird on several watercourses, with the Rivers Usk and Monnow being the best sites[18] and a number of standing waterbodies also being utilised. Stretches of river with gravel shoals are particularly favoured. On migration, they can be found more widely, but still associated with water, with many passage migrants on the coast and the occasional wintering bird there also. The latest Gwent Bird Report (2018) records Common Sandpipers as an 'uncommon passage migrant and breeder; uncommon winter visitor'.[10] The Birds of Gwent in 1977 recorded it as a 'regular breeder and passage migrant, occasionally remaining

to overwinter'.[19] However, the Birds of Gwent in 2008 recorded Common Sandpipers as being 'an uncommon passage migrant and scarce winter visitor. An uncommon breeder'.[18] This hints at a drop in population levels as has been seen in the UK in general. The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of fewer than 100 pairs,[20] with the second atlas covering 1998–2003 estimating a lower total of 25–40 pairs.[18] This again illustrates a decline through the 1980s and 1990s. As a whole, it would be fair to say that the breeding population has dropped but is being maintained at a new, lower level. Conversely, it is more frequent as a wintering bird – still in very small numbers – probably because of generally milder winters.

Records show distribution generally across the Levels coastline but also along the Usk, Wye, Monnow, as well as Llandegfedd reservoir and Rhaslas Pond. Recording hotspots at Goldcliff/Newport Wetlands (334 records) and Peterstone Wentloog (122 records).



Distribution of Common Sandpiper records across Greater Gwent (maximum ≥100 records/km^2)

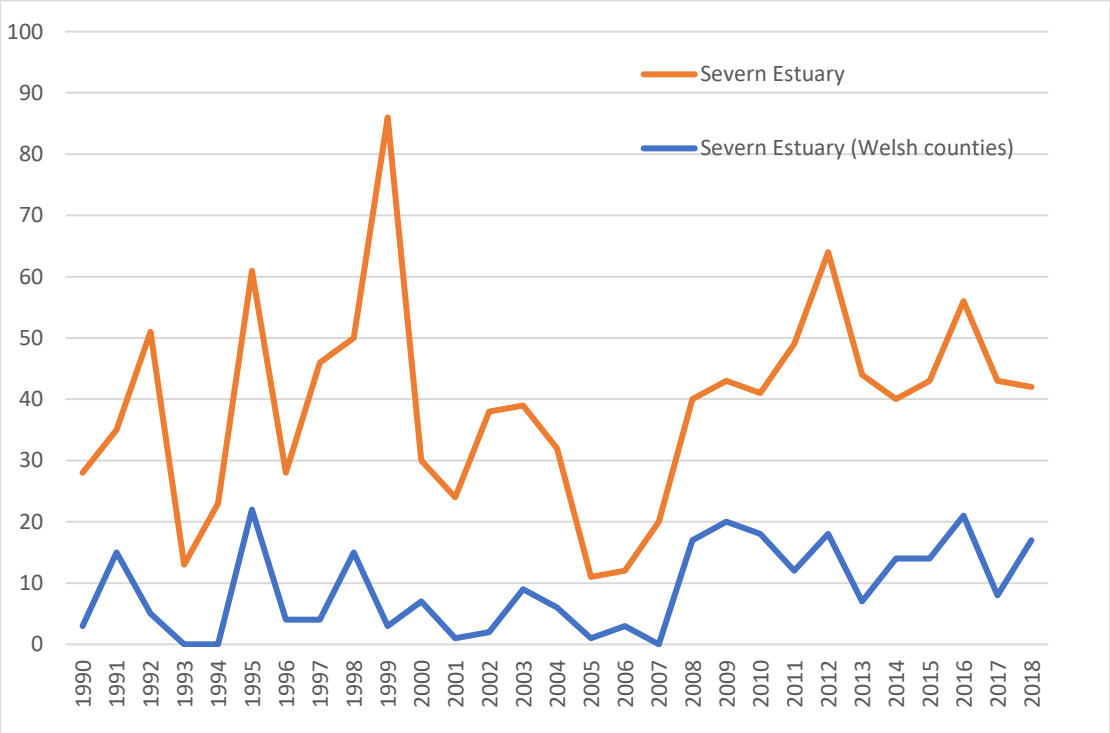


Records of Common Sandpiper by decade

Habitats patterns: Very much a bird associated with water, with breeding birds favouring rivers with gravel exposures and birds on passage more catholic in their choice of waterbodies, with many records from the coast also.

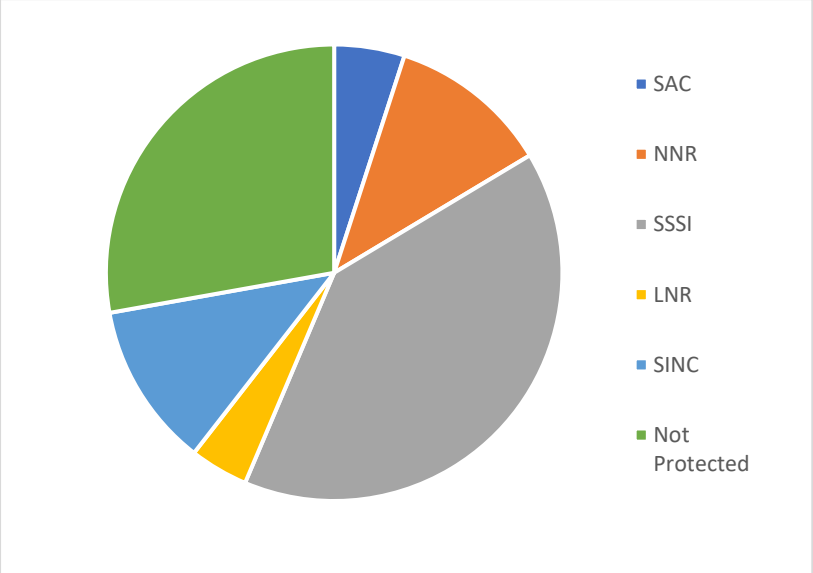
Population trends: As previously stated, there have been declines in Common Sandpiper populations across their range in the UK. Gwent has been no different, with drops in breeding numbers. The rate of these losses appears to have slowed, with Common Sandpipers in Wales actually being Green listed, thus of the lowest conservation concern, although it is still Amber in UK. It would appear that population losses are largely driven by issues on wintering grounds and on passage. This reflects the global issue of climate change, which makes the decline hard to address at the local level. However, habitats here in Gwent can be preserved and enhanced to maximise the potential available resources for breeding Common Sandpipers. Clean, unpolluted rivers with gravel shoals are the preferred habitat, so if these habitats can be retained and left undisturbed during the breeding season then the future of Common Sandpipers in Gwent should be reasonably assured. It should also be remembered that Common Sandpipers are now increasingly wintering in Gwent, with the Severn Estuary being the prime site. Details of the numbers wintering on the Severn Estuary through WeBS counts are shown in the following chart, which shows fluctuating, quite low numbers but with perhaps a very gentle increase over time.

Winter WeBS Peak Counts for Common Sandpiper on the Severn Estuary[13]



Protection: 72% of records come from protected sites, with high numbers of records from the Newport Wetlands and Gwent Levels SSSIs, as well as Llandegvedd Reservoir SSSI. SAC records are from the Severn (there are also records along the Usk and Wye SACs that are not registered within the protected site because it is such a narrow designation). LNR records are from Parc Bryn Bach, Garn Lakes, and St Julians Park, and SINC records from Rhaslas Pond and the River Usk at Caerleon.

Common Sandpiper records from protected sites



Dunlin *Calidris alpina* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended)

Conservation status: Amber (UK[1]), Red (Wales[2])

Data availability: Good (2,792 records)

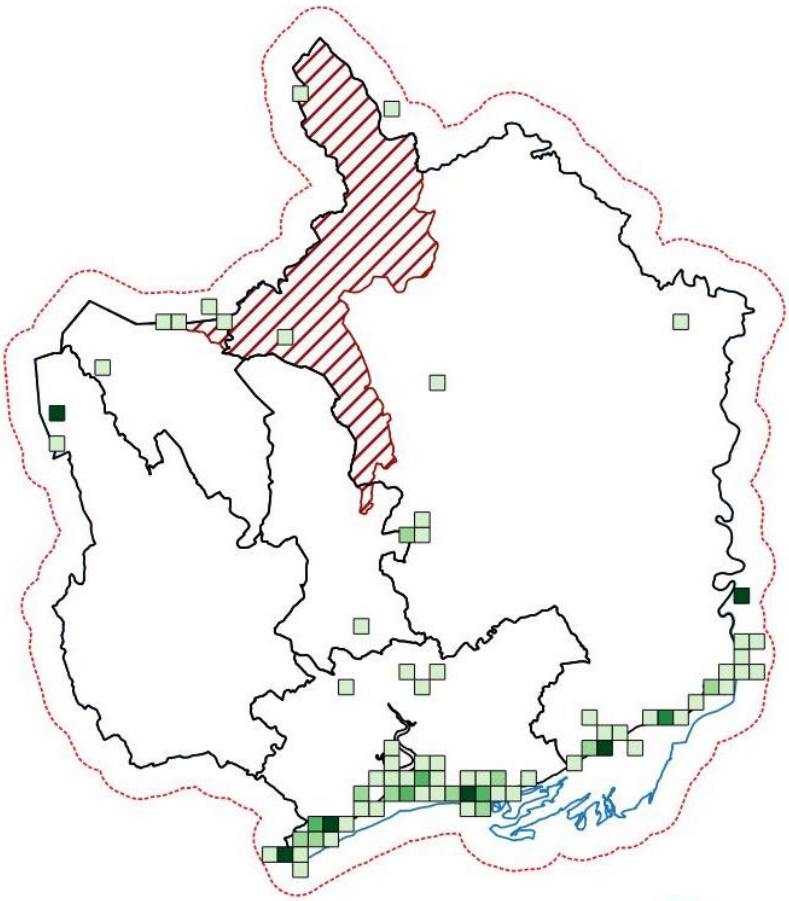
Context: Dunlins are one of the most familiar and common wading birds in the UK. They are by far the commonest as a wintering bird, but also pass through on migration, and smaller numbers stay to breed. Three different races of Dunlin visiting the UK. Only one of these races breeds and it is also a passage migrant; a second race only passes through on migration, nesting further north and wintering much further south in West Africa.[21] A third race nests further north but winters in the UK and it is this race that is by far the most numerous in the UK.[21] This means that the Dunlin is vulnerable to changes in summer, winter and migration stepping-stone habitats, and changes in food source – all impacted by climate change.[3] They are one of a whole host of wader species that pass through the UK on both spring and autumn passage. Only a relatively small number stay to breed, but significant numbers spend the winter in the UK. The Dunlin that breed in the UK are restricted to upland areas of England, Scotland and Wales and lower altitudes on Scottish Islands, such as the Western Isles, so there is a distinct northerly and westerly distribution.[22] The passage birds generally spend the winter in West Africa, whereas the substantial wintering population are made up of birds that bred in Western Siberia.[23] Dunlin largely feed on insects, snails and worms,[22] making good use of their long beak. Overall in the UK, there has been a decrease of 47% in wintering birds between 1970 and 2017.[5] The reduction in numbers may be down to a number of factors, with the spread of *Spartina anglica* (Cord Grass) within estuary feeding areas implicated.[24] Milder winters also mean that more birds are wintering further east in areas such as the Wadden Sea, and therefore not reaching the UK.[25] The breeding population has fallen to some degree with hedgehog predation on island strongholds and afforestation of upland areas two suggested causes.

Outlook: The Dunlin has seemingly always been far more familiar as a wintering bird than a breeding bird in the UK. It did once breed on more lowland sites, but many of these were lost to drainage/conversion to farmland.[8] The upland breeding populations generally fared better, but some sites were lost to afforestation.[8] Scotland remains the stronghold for the breeding population, but there are significant populations in the Pennines in northern England and smaller populations in the Welsh uplands; the most southerly breeding populations in the world are on Dartmoor.[26] The estimated UK breeding population in 2005–2007 was 8,600–10,500 pairs.[9] In contrast to the relatively small and quite localised breeding population, the wintering population is large (350,000 in 2016–2017) but has been subject to significant declines: 47% decrease in 1970–2017 (described as 'weak decline'), with this appearing to have stabilised recently with no change from 2012–2017.[5] This wintering population is widely distributed around the coast of the UK, but a considerable percentage is concentrated within a small number of favoured estuary systems.

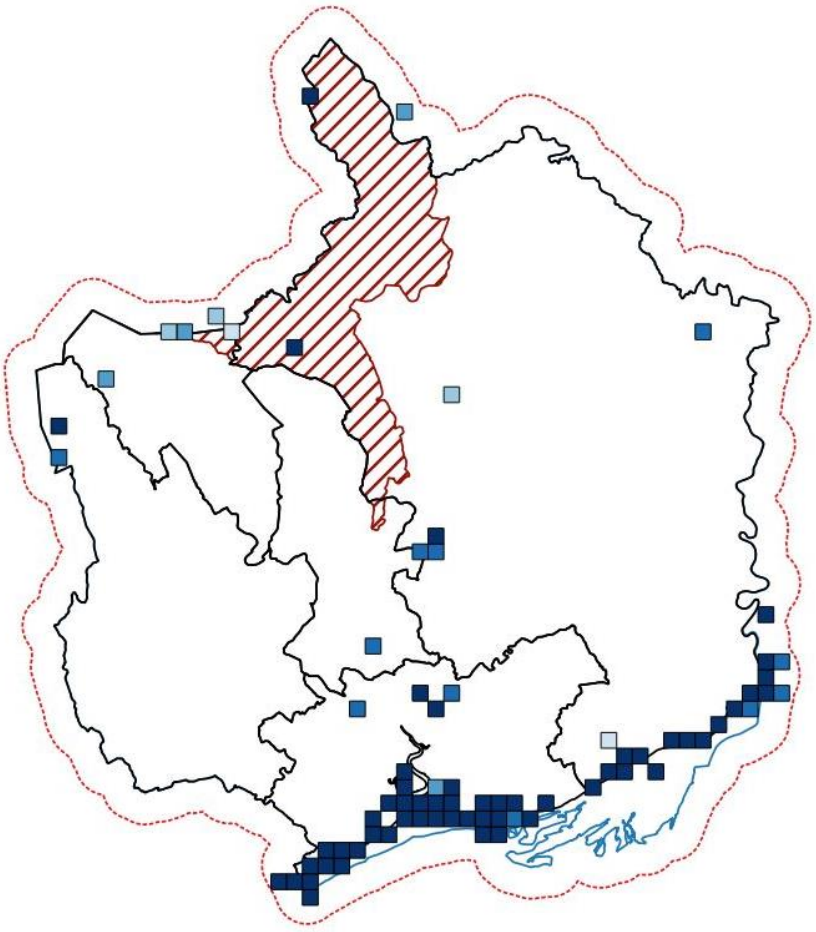
Greater Gwent range: The latest Gwent Bird Report (2018) records Dunlins as a 'common winter visitor/fairly common on passage on coast/very rare breeder'.[10] This has been the case for a long while, but wintering numbers have been decreasing to some extent over time: The Birds of Gwent in 2008 recorded Dunlins as being 'a winter visitor to the coast in large numbers, with some passage birds. Formerly an occasional breeder in very small numbers',[27] and in 1977 as an 'abundant winter visitor and passage migrant; a few pairs breed irregularly'.[28] The Severn Estuary and Gwent in particular have been noted to be of great importance for Dunlin: the Severn Estuary is of International Importance (the fifth most important in the UK) and the greatest density of Dunlins in the Severn Estuary is in the Peterstone-St-Brides shore area.[27] Inland in Gwent, Dunlins arrive annually but only in small numbers, with Llandegfedd Reservoir being the best site.[27] As previously stated, Dunlin are a common and important part of the Severn Estuary avifauna over winter, although numbers have dropped. This mirrors the situation in the UK as a whole and most likely for similar reasons. The most significant reason being that birds are wintering further east as a response to generally milder winters. Dunlin have never been remotely common and possibly never regular as a breeding species in Gwent; the occasional historical record may even be over the border in Powys. The focal point for previous breeding activity was the uplands in the north of the county, in the vicinity of Abergavenny and the Heads of the Valleys.[27] It is possible that Dunlin may breed again in these general localities, but there is nothing to suggest that this is likely to be anything more than a rare and irregular occurrence.

Records are largely focused along the Severn Estuary coast; occasional records are inland, with Llandegfedd Reservoir being a focus and some in the uplands.

Distribution of Dunlin records across Greater Gwent (maximum≥100 records/km^2)



Records of Dunlin by decade



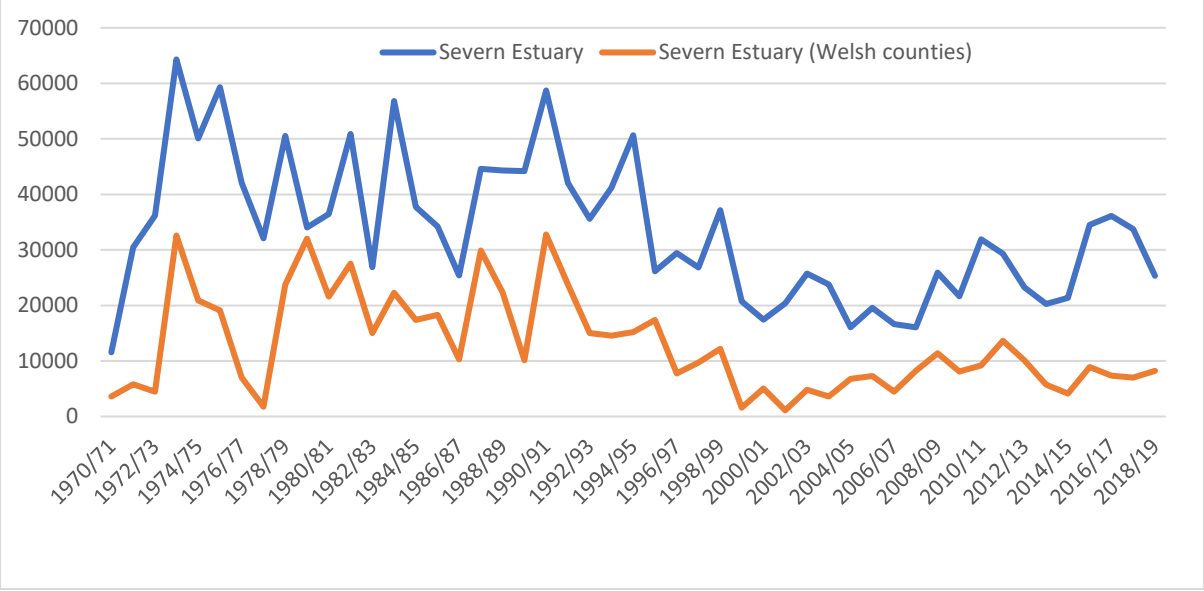
Habitats patterns: Dunlin are very much a bird of the muddy Severn Estuary coast, with small numbers inland at waterbodies and very occasionally recorded in the uplands on potential moorland breeding habitat.

Population trends: As previously stated, there have been noticeable decreases in the Dunlin wintering populations within the UK. Gwent has been no different, with identifiable decreases in birds wintering. These decreases are driven by generally milder winters allowing greater numbers to winter further east. It would appear currently that the Dunlin population that winters in Gwent is secure and still of high significance as part of the Severn Estuary Internationally important site. Despite this, ongoing studies of trends is still of great importance in monitoring the populations, although little can be done in terms of local conservation to influence the declines caused by birds wintering further east. However, the potential impacts of Severn barrages, lagoons and tidal power on wintering Dunlin populations would need careful scrutiny.

Details of the numbers wintering on the Severn Estuary through WeBS counts are shown in the following chart, which shows very clearly the gradually decreasing populations up to the turn of the century, since which the declining population has steadied. This represents the population at the most numerous recorded site (Severn Estuary) rather than the whole of Greater Gwent. Note that the Dunlin is one of the few birds with a continuous count since 1970 – a very impressive dataset.

Note that some annual counts are given as a minimum number rather than a count/estimate

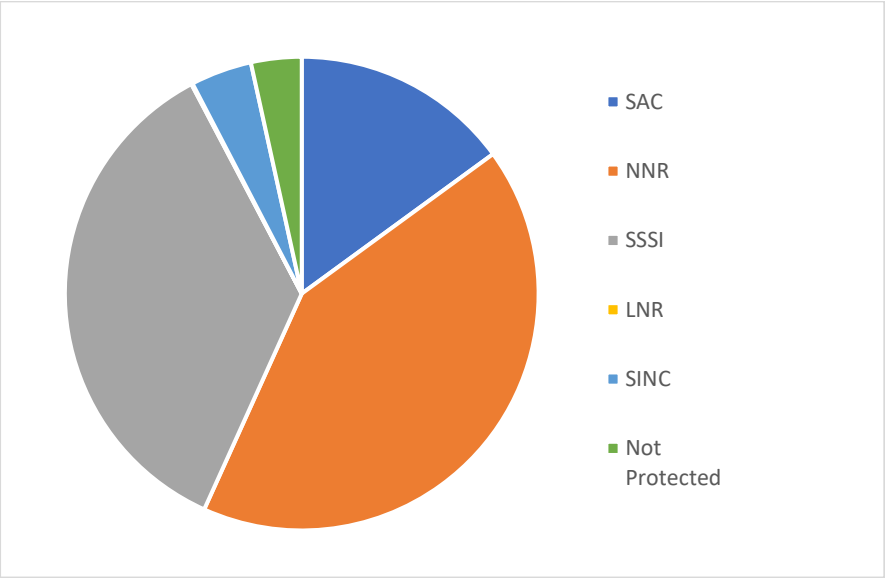
Winter WeBS Peak Counts for Dunlin on the Severn Estuary[13]



As previously stated, it is unlikely that the Dunlin will be anything more than a very rare breeding bird in Gwent, particularly as we are practically at the southern end of its world breeding range. Provided the uplands in the north of Gwent continue to be protected then this resource will remain available to them and may be utilised occasionally.

Protection: 97% of records come from protected sites, with high numbers of records from the Severn Estuary, Newport Wetlands and Gwent Levels SSSIs and some from Llandegfedd SSSI.

Dunlin records from protected sites



Little Ringed Plover *Charadrius dubius* (Scopoli, 1786)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended)

Conservation status: Green (UK[1] and Wales[2])

Data availability: Good (775 records)

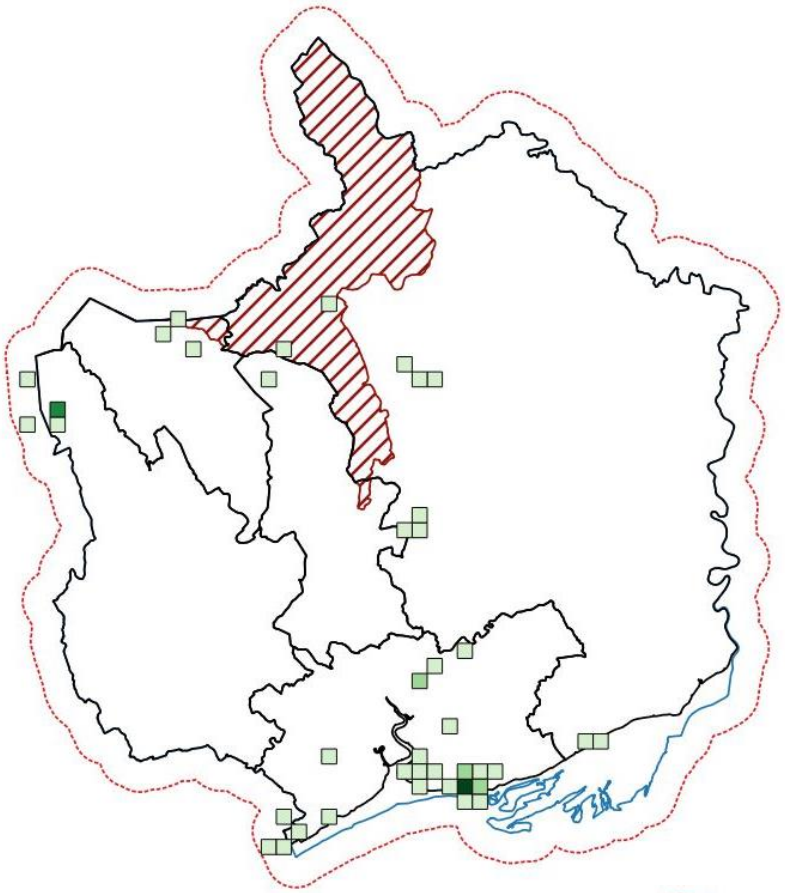
Context: The Little Ringed Plover is a summer visitor to and passage migrant through the UK. This means that it is vulnerable to changes in summer, winter and migration stepping-stone habitats, and changes in food source – all impacted by climate change.[3] Whereas many of our wader species are at their most numerous in the UK during the winter, the Little Ringed Plover only visits during spring/summer and leaves in late summer/autumn to spend the winter in Africa.[29] Little Ringed Plovers are a relatively recent addition to the UK's breeding avifauna, the first breeding was recorded as recently as 1938.[30] They breed on gravelly shores adjacent to water; they can be found along gravel shoals on rivers but particularly favour gravel pits and man-made reservoirs.[31] Their distribution is more southerly within the UK, with most of the population being in England and Wales.[30] Little Ringed Plovers largely feed on insects and aquatic invertebrates.[30] Overall in the UK, the population has increased since their first colonisation and has remained quite constant in recent years. This success has been attributed to an increase in suitable nesting habitat, with gravel pits, reservoirs and quarries created and, in some cases, abandoned, providing ideal locations.[32]

Outlook: The Little Ringed Plover was considered a very rare vagrant to the UK during the nineteenth century.[8] The first UK breeding record did not occur until 1938.[8] Breeding was then occasional for a few years. However, the breeding population increased 15% each year from 1948 to 1962.[8] This colonisation and increase has been attributed to the expansion of building in the UK during the twentieth century, which led to a rapid rise in the number of flooded gravel pits and other man-made environments, such as industrial tips, waste grounds, sewage farms, reservoirs and quarries, all of which have been exploited by Little Ringed Plovers.[8] By 1972, it was estimated that there were 400 pairs in the UK; by 1991 there were 825–1,070 pairs.[8] The latest estimated UK breeding population in 2007 was 1,250 pairs.[9] Reference to BTO trends shows there was a 'large increase' from 1940–1969, a 'moderate increase' from 1969–1995' and 'no overall change' from 1996–2020.[32]

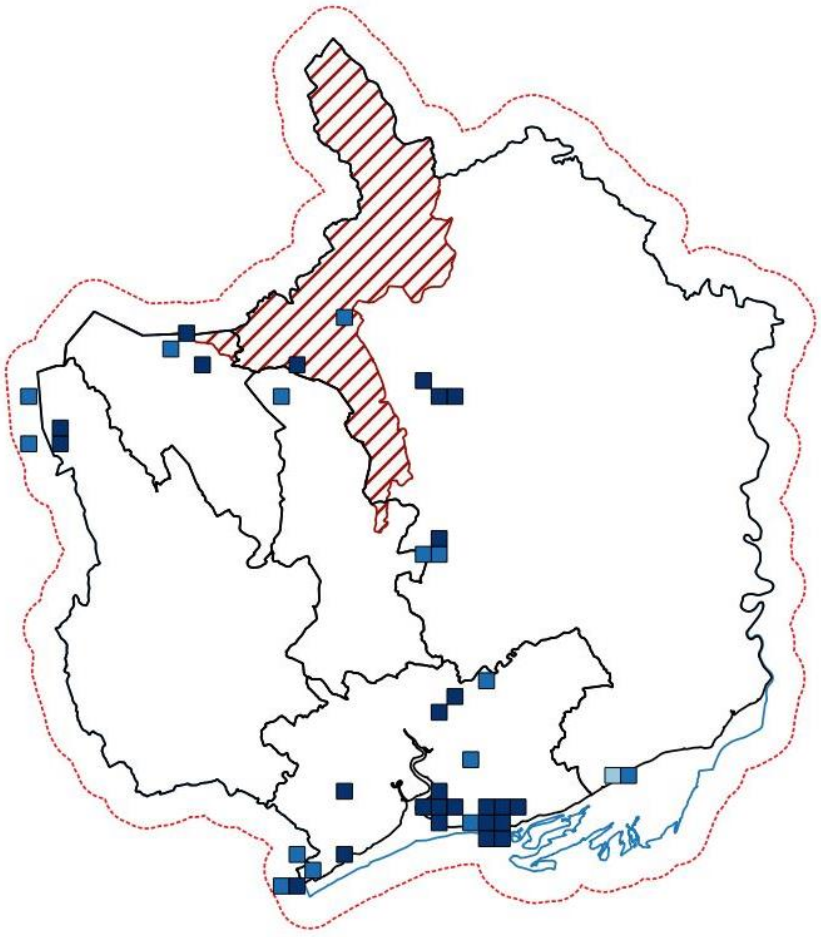
Greater Gwent range: The latest Gwent Bird Report (2018) records Little Ringed Plovers as an 'uncommon passage migrant and scarce breeder'.[10] The Birds of Gwent in 1977 recorded it as an 'uncommon passage migrant' with only 16 previous records (13 of these since 1970) and predicted that it would not be long before they bred in Gwent.[33] The Birds of Gwent in 2008 recorded Little Ringed Plovers as being 'an uncommon passage migrant and scarce summer visitor',[34] this clearly shows that the numbers of Little Ringed Plovers have increased and that they have become established as a breeding bird in Gwent. The Gwent Atlas of Breeding Birds covering 1981–1985 shows a Gwent population of 3 pairs (the first breeding being in 1984);[35] the second atlas, covering 1998–2003, estimates a lower total of 8–12 pairs.[33] This again illustrates the increase in Little Ringed Plovers in Gwent from the 1970s onwards and their establishment as a breeding species from the 1980s

onwards. There appears to be some confusion over where the first pairs in Gwent nested, with both dried-up reservoir banks[35] and gravel shoals on the River Usk[34] being mentioned. What is clear is that, while sites like this are still utilised, the lagoons at Goldcliff (Newport Wetlands) are now the main focal point of breeding activity in Gwent. On passage birds are recorded at the coast, principally Goldcliff Lagoons, but it is difficult to distinguish passage migrants from the breeding population; the inland Llandegfedd Reservoir would appear to be the most reliable site for migrants.

The main hotspots are Goldcliff (440 records) and Rhaslas Pond. Smaller spots are at Llandegfedd, and along the River Usk. There are also hotspots on the borders of the study area at Ystrad Quarry and Lisvane reservoir (not shown).



Distribution of Little Ringed Plover records across Greater Gwent (maximum≥100 records/km^2)



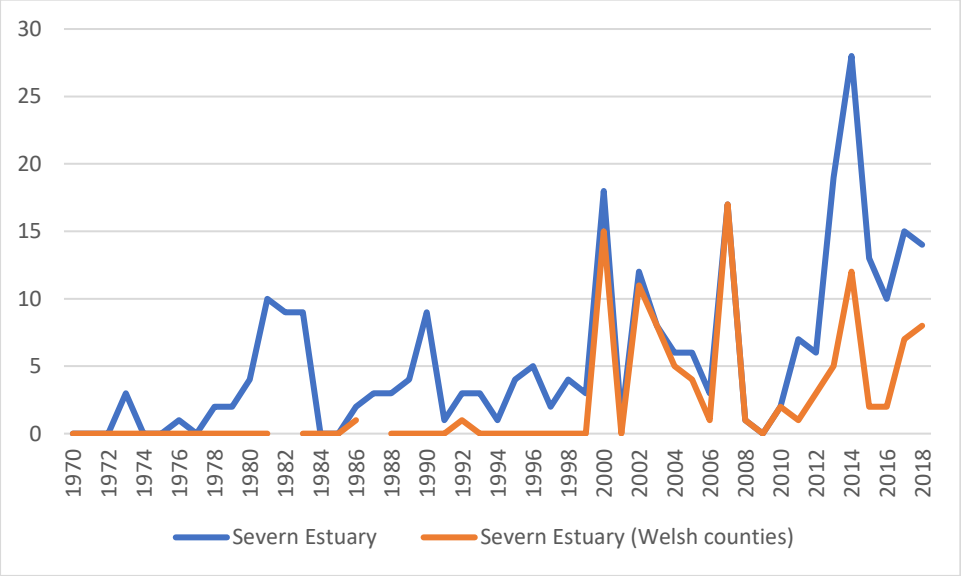
Records of Little Ringed Plover by decade

Habitats patterns: Little Ringed Plovers are very much a bird associated with the gravelly shores of waterbodies, so certain sections of the River Usk, reservoirs and particularly the lagoons at Goldcliff are favoured sites.

Population trends: As previously stated, the Little Ringed Plover has only relatively recently colonised and subsequently established populations across large parts of the UK. Gwent has been no different; the first breeding was reported in 1984 and breeding has been noted in every year since, with numbers increasing particularly since the establishment of Newport Wetlands in 1999. These increases are due in large part to the increased availability of suitable breeding habitat. The WeBS counts in the following graph clearly show the increase post-1999, and while numbers have fluctuated from year to year, this population is now clearly well established. With their quite specific breeding requirements, numbers of Little Ringed Plover are likely to remain relatively low in Gwent, however their long-term future would appear well assured, particularly with the levels of protection and management given to their stronghold at Goldcliff Lagoons. Away from Goldcliff, breeding attempts and success could perhaps be aided to some degree my trying to keep disturbance of sites to a minimum during the breeding season.

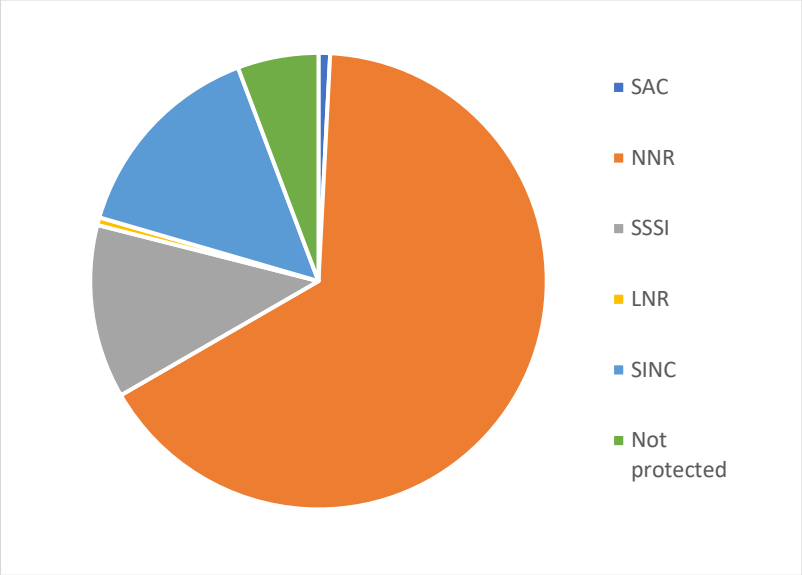
Note that some annual counts are given as a minimum number rather than a count/estimate. Little Ringed Plover did appear in WeBS counts for three other sites – Llandegfedd Reservoir, Warrage Lakes and Machine Pond – but only occasionally and usually a single bird. So, this represents the population at the most numerous recorded site (Severn Estuary) rather than in the whole of Greater Gwent.

Winter WeBS Peak Counts for Little Ringed Plover on the Severn Estuary[13]



Protection: 94% of records come from protected sites, with high numbers of records from the obvious sites of Newport Wetlands, Gwent Levels SSSIs and Llandegfedd SSSI. There were also high numbers from Rhaslas Pond SINC.

Little Ringed Plover records from protected sites



Redshank *Tringa totanus* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended)

Conservation status: Amber (UK[1]) Red (Wales[2])

Data availability: Good (3,693 records)

Context: Redshanks are one of the most familiar and common wading birds in the UK. They are by far the commonest as a wintering bird, but also pass through on migration, and reasonable numbers stay to breed. This means that the Redshank is vulnerable to changes in summer, winter and migration stepping-stone habitats, and changes in food source – all impacted by climate change.[3] Redshank breed in damp places like saltmarshes, flood meadows and around lakes.[36] While distributed relatively widely around the UK as a breeding bird, there is a northerly bias, with greatest concentrations in parts of Scotland and north-west England.[36] The wintering birds are boosted by many birds from further north, with large influxes from the Icelandic breeding population.[37] Redshank diet changes with season and habitat; they prey on invertebrates, especially earthworms and cranefly larvae, when inland and crustaceans, molluscs and marine worms in estuaries,[38] making good use of their long beaks. Overall, in the UK there was a 60% decline in breeding numbers between 1970 and 2017.[5] In contrast, there has been little alteration in the wintering population, with only a very minor 3% decline between 1970 and 2017.[5] The reduction in breeding numbers is down to a number of factors, with drainage of farmland and over-grazing of saltmarshes highlighted as being of particular significance.[37]

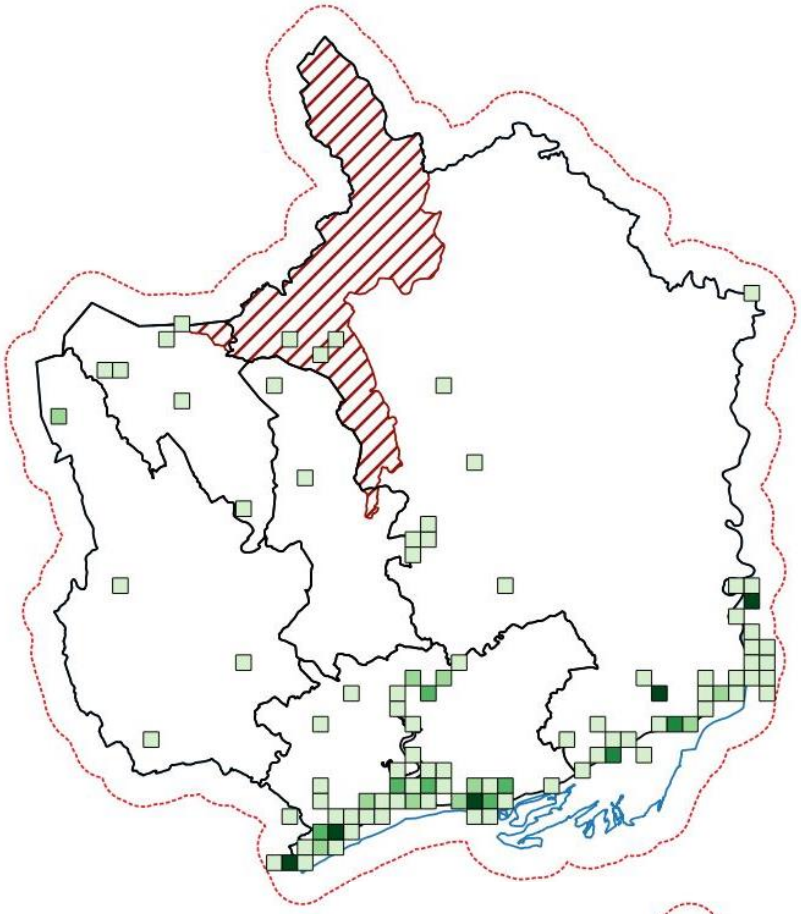
Outlook: Redshanks suffered a decline in the first half of the nineteenth century due to increased cultivation and drainage of farmland.[8] However, their fortunes reversed, and breeding populations increased in the second half of the nineteenth century and into the twentieth century.[8] There was to be a further decline after 1940 however, which was attributed to further habitat loss. The estimated UK breeding population in 2016 was 22,000 pairs.[9] This is less than it was historically, with declines brought about by the loss and degradation of wetland habitats through drainage and over-grazing. As outlined previously, more recent declines have occurred: 60% reduction between 1970–2017 (described as 'weak decline'), with this being less severe more recently, with a further 4% decline from 2012 to 2017.[5] The BTO Breeding Bird Survey[17] further illustrates these declines, showing a 42% decline between 1995 and 2018 in the UK. Most recently, there have been some signs of recovery, with a 14% increase[17] in 2018–2019. Only time will tell if this is the start of a recovery.

This wintering population is larger (100,000)[9] and is quite distributed around the coast of the UK, with many of the UK breeding Redshank being resident. However, there are significant influxes, many from the Icelandic population[37], and a considerable percentage of these are concentrated within a relatively small number of favoured estuary sites. The wintering population has been more stable than the breeding population, with only very minimal declines: 1% decrease between 1970 and 2017 (described as 'little change'), with this still being the case in more recent years, with a small 3% increase noted in 2012–2017.[5] This pattern might be more complicated however, as BTO data suggests an increase from the 1970s but a decline setting in from 2001 that has slowed or reversed in most recent years.[37]

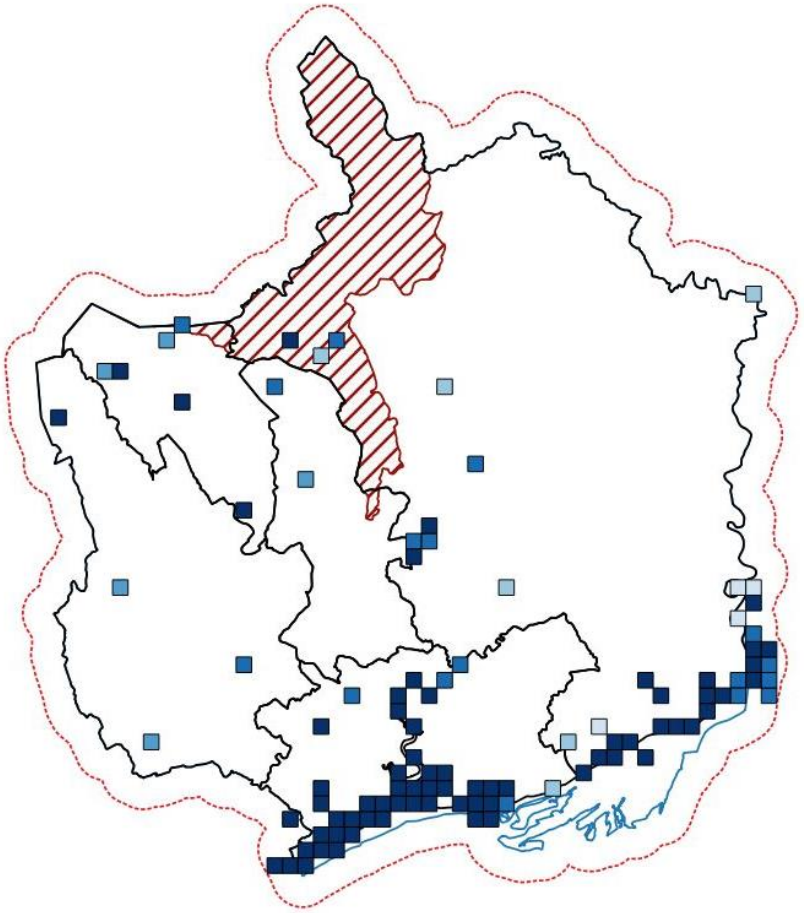
Greater Gwent range: The latest Gwent Bird Report (2018) records Redshank as a 'common winter visitor and passage migrant, uncommon breeder'.[10] It would be fair to say this has been the case for a long while, although its numbers are possibly decreasing over time: the Birds of Gwent in 2008 record Redshanks as being 'breeds in small numbers, mainly on the coast. Also a passage migrant and winter visitor in moderate numbers';[39] in 1977 it called it a 'breeding resident in moderate numbers; passage migrant and winter visitor in larger numbers'.[40] The Gwent Atlas of Breeding Birds covering 1981–1985 estimated a Gwent population of 40–50 pairs,[41] with the second atlas, which covers 1998–2003, estimating a lower total of 15–30 pairs.[39] This indicates a decline in population. Gwent breeding is now almost entirely confined to the coast, with previous inland populations adjacent to the Usk and the Olway largely lost to agricultural intensification.[39] Upland populations have always seemingly been a rare occurrence in Gwent, although pairs have bred in the Heads of the Valleys area in the past.[39] At other times of the year, the Severn Estuary has been noted to be of great importance for Redshank; it is of international importance for Redshanks wintering and of national importance on passage (autumn migration).[42] Inland in Gwent, Redshanks are annual but only in small numbers.[39] As previously stated, Redshanks are an important part of the Severn Estuary avifauna over winter; numbers appear to be relatively stable, and this largely mirrors the situation in the UK as a whole.

The main recording hotspots are Peterstone Wentlooge (1,272 records) and Goldcliff. Also spots at Nedern Brook, Collister Pill, Caldicot Pill, the Moorings, Rumney Great Wharf. The Gloucestershire hotspot is likely to be false and due to centring of low-resolution records.

Distribution of Redshank records across Greater Gwent (maximum≥100 records/km^2)



Records of Redshank by decade

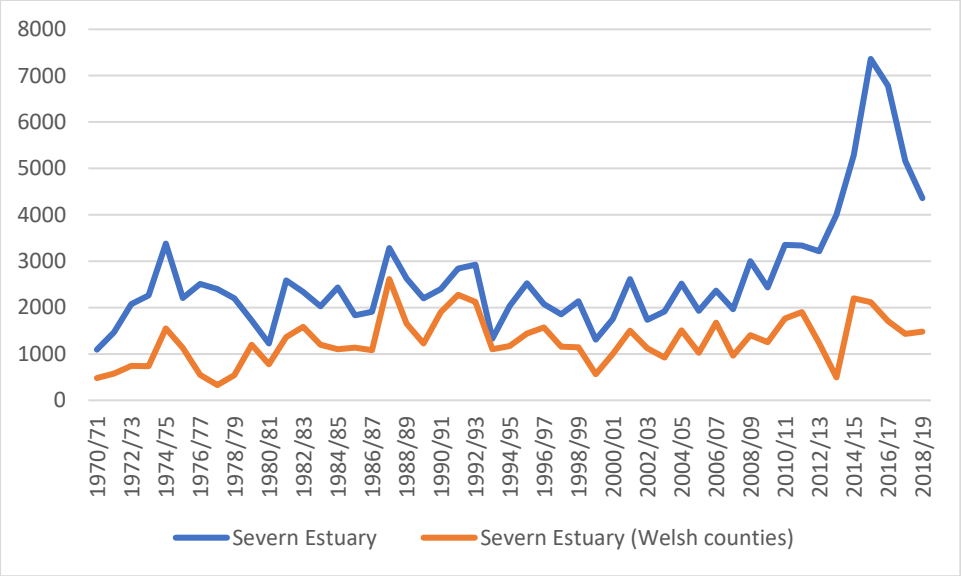


Habitats patterns: Redshanks are very much a bird of the Severn Estuary coast, with significant numbers there over winter and small breeding populations on the immediately adjacent Levels in a few areas.

Population trends: As previously stated, the UK wintering population, while fluctuating to some degree, is broadly stable. This is also true within Gwent, and our passage wintering populations are secure. Despite this, monitoring the populations through ongoing studies of trends is important, so that appropriate action can be taken. The potential impacts of Severn barrages, lagoons and tidal power on wintering Redshank populations, and other waders and wildfowl, would need to be carefully scrutinised.[43]

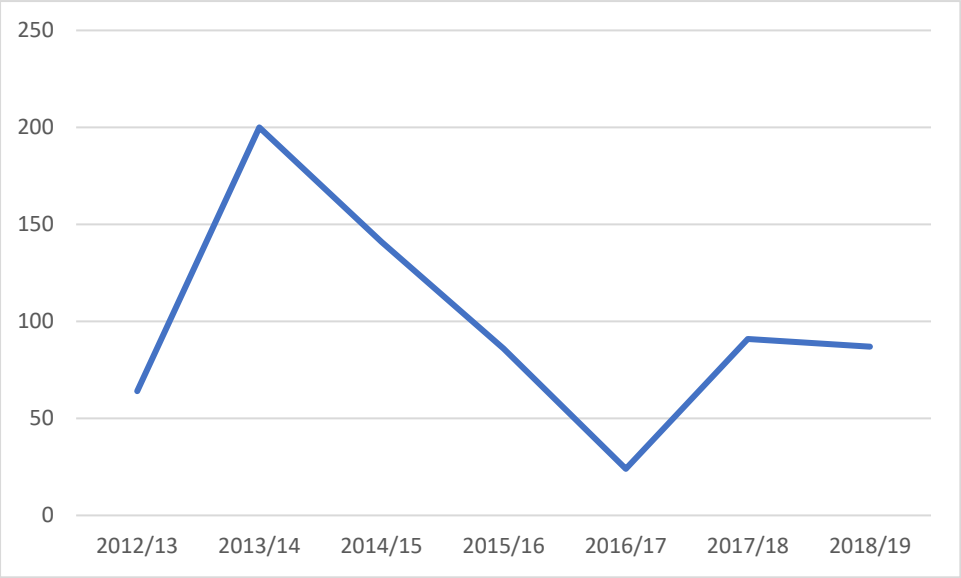
Note that some annual counts are given as a minimum number rather than a count/estimate. So, this represents the population at the most numerous recorded sites (Severn Estuary and Nedern Brook) rather than in the whole of Greater Gwent.

Winter WeBS Peak Counts for Redshank on the Severn Estuary[13]



Nedern Brook has continuous data since 2012/13 as well as some isolated counts in the 1990s. Although not really a long enough dataset to determine a trend, it shows the significance of the site for Redshank as well as the variation between seasons

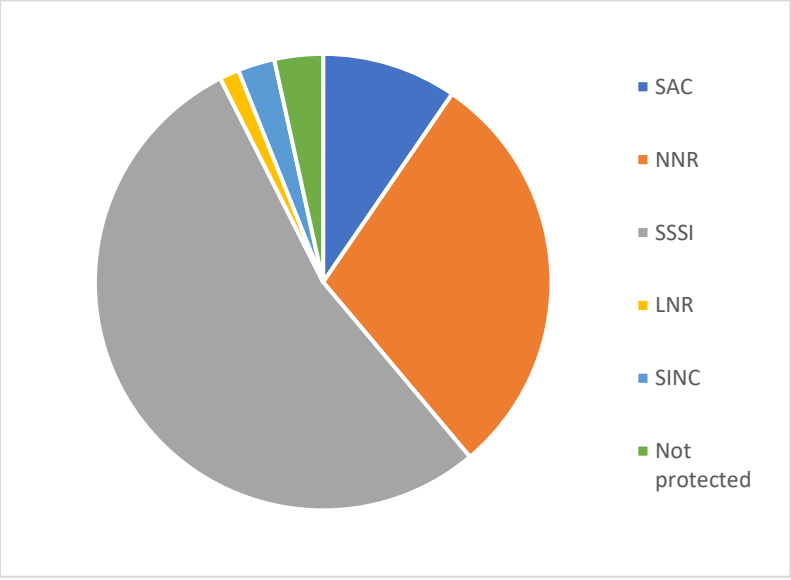
Winter WeBS Peak Counts for Redshank at Nedern Brook[13]



Redshank breeding numbers seem to have stabilised within Gwent, with Goldcliff Lagoons now the focal point. If numbers were to increase within Gwent, there would need to be a change of management within potentially suitable sites. There would need to be reductions in grazing, reclaiming of arable fields and re-wetting of habitats in former sites inland adjacent to the Usk and Olway. There is also the potential for more pairs on the Gwent Levels, but this would need a concerted change in management, with grazing reduced.

Protection: 97% of records come from protected sites, with high numbers of records from the the Newport Wetlands, and Gwent Levels and Nedern Brook SSSIs. LNR records come from St Julians and Garn Lakes. Scattered SINC records.

Redshank records from protected sites



Ringed Plover *Charadrius hiaticula* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife and Countryside Act (1981 as amended)

Conservation status: Red (UK[1] and Wales[2]) recently moved from Amber to Red on both lists.

Data availability: Good (1,268 records)

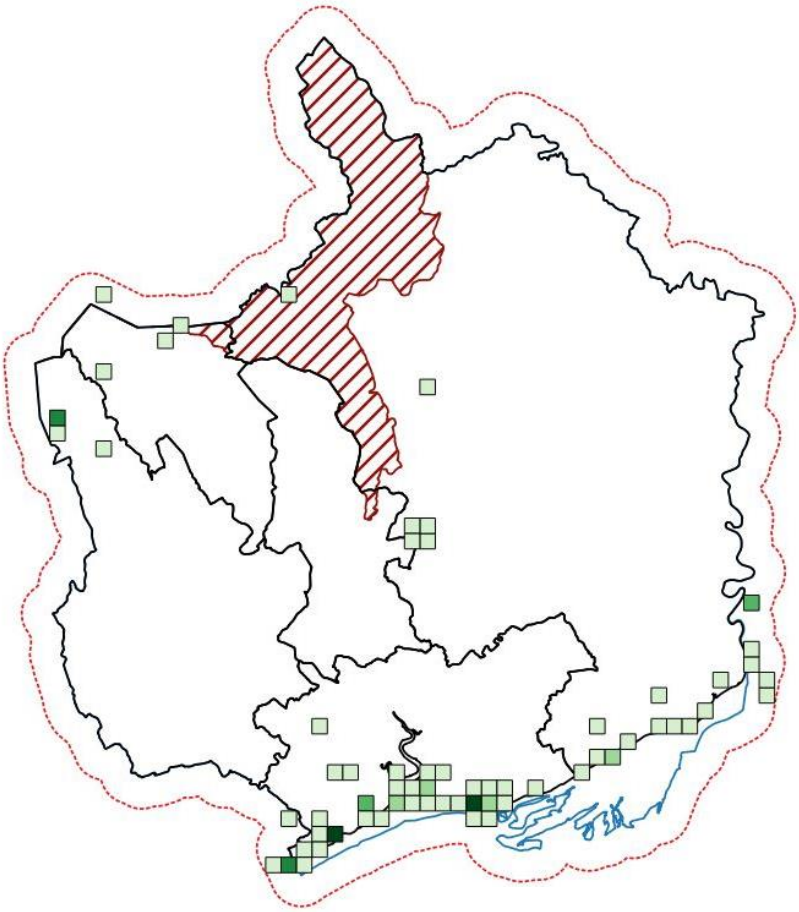
Context: Ringed Plovers are one of the commoner and more familiar wading birds in the UK. They are commoner as a wintering bird, but also pass through on migration, and smaller numbers stay to breed with some birds resident all year round.[44] This means that the Ringed Plover is vulnerable to changes in summer, winter and migration stepping-stone habitats, and changes in food source – all impacted by climate change.[3] The Ringed Plover that breed in the UK are distributed widely around the coast, with further records at inland sites such as gravel pits and former industrial sites.[44,5] The passage birds breed in areas such as Greenland,[44] wintering much further south, as far as Africa. The substantial wintering population is made up of birds that bred in mainland Europe.[44] This population is of particular conservation significance for the UK, as it forms a significant percentage of the distinct race *hiaticula*. Ringed Plover largely feed on invertebrates in the summer and marine worms, crustaceans and molluscs in the winter.[38] Overall, in the UK there has been a decrease of 36% in wintering birds between 1970 and 2017.[5] The reduction in numbers may be down to a number of factors; the most significance is that climate change is resulting in higher winter temperatures that mean fewer birds are pushed this far west – this has been implicated for falls in a whole range of wintering waders of which Ringed Plover is one.[43] The breeding population has also fallen with hedgehog predation on island strongholds[37] and human disturbance[45,37] being two of the causes suggested.

Outlook: At the end of the nineteenth century, Ringed Plovers bred on the coastline of just about every British county; the shoreline of Monmouthshire, interestingly, was the notable exception.[8] It was noted that a widespread decline occurred between the two World Wars, with the heightened disturbance caused by increased recreational use and development of the coast with, for example, caravan parks and sea defences heavily implicated.[8] The estimated UK breeding population in 2007 was 5,450 pairs.[9] BTO surveys noted increases in breeding populations between 1974 and 1984, driven by an increase at inland sites.[37] After this however, there was a decline in the breeding population of 37% between 1984 and 2007, with hedgehog predation on Western Isles strongholds and general increased disturbance being implicated. The greatest losses were at inland sites, although there were increases at wet meadow sites.[37] In contrast to the relatively small breeding population, the wintering population is much larger (42,500 in 2016) but has been subject to noticeable declines: 36% decrease between 1970–2017 (described as 'little change', but would appear to be fairly significant), with this appearing to have stabilised recently with a 3% decline in 2012–2017.[5] This wintering population is widely distributed around the coast of the UK, with many of the UK breeding Ringed Plover being resident. However, there are significant influxes and a considerable percentage of these are concentrated within a relatively small number of favoured sites.

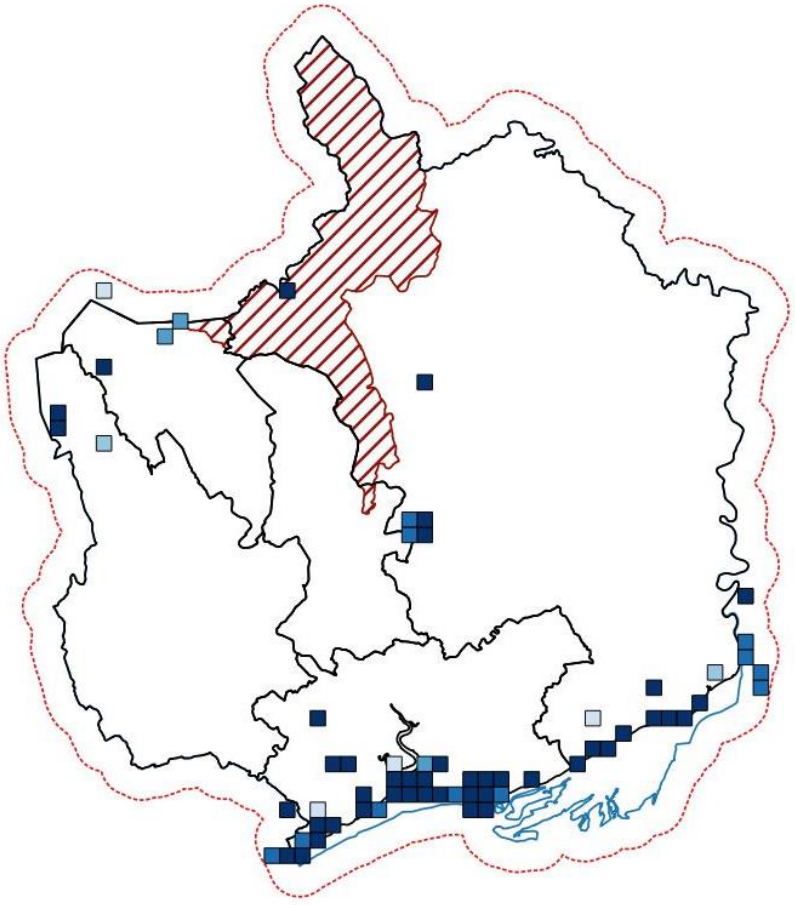
Greater Gwent range: The latest Gwent Bird Report (2018) records Ringed Plovers as a 'fairly common passage migrant; scarce breeder; uncommon in winter.'[10] This has been the case for a long while, with wintering numbers decreasing to some extent over time. The Birds of Gwent in 2008 recorded Ringed Plovers as 'mainly a passage migrant but some birds stay through the year. Has bred sporadically, becoming regular in recent years';[46] in 1977, it called it 'predominately a passage migrant with a small wintering population and an occasional breeding pair'.[33] The small breeding population is of little surprise, as the Gwent coast is largely devoid of the sandy/shingle beaches that are their favoured breeding habitat.[46] At other times of the year however, the Severn Estuary has been noted to be of great importance for Ringed Plover. The Severn Estuary is of national importance for Ringed Plovers both wintering and on passage (particularly autumn migration).[42] Inland in Gwent, Ringed Plovers are annual but only in small numbers, with Llandegfedd Reservoir being the best site.[46] As previously stated, Ringed Plover are an important part of the Severn Estuary avifauna over winter, although numbers have dropped. This mirrors the situation in the UK as a whole and is likely due to similar reasons, the most significant of which being birds wintering further east as a response to generally milder winters.[46] Ringed Plover have never been remotely common and until recently never regular as a breeding species in Gwent. Indeed, as previously stated, at the end of the nineteenth century, the Monmouthshire coast was noted to be the only stretch in Britain without Ringed Plover breeding.[3] Up until the formation of Newport Wetlands in 1999, there had only been seven previous breeding records for Gwent;[46] they are now recorded annually in small numbers, with Goldcliff Lagoons being the focal point. It is likely Ringed Plover will continue to breed at Newport Wetlands but, with much of the rest of the Gwent coast generally unsuitable, numbers will remain low.

The main hotspot is at Goldcliff (540 records). There are also noticeable concentrations at Peterstone Wentlooge, Rhaslas Pond and Rumney Great Wharf. The Gloucestershire hotspot is likely a false one due to centring of low-resolution records.

Distribution of Ringed Plover records across Greater Gwent (maximum≥100 records/km^2)



Records of Ringed Plover by decade

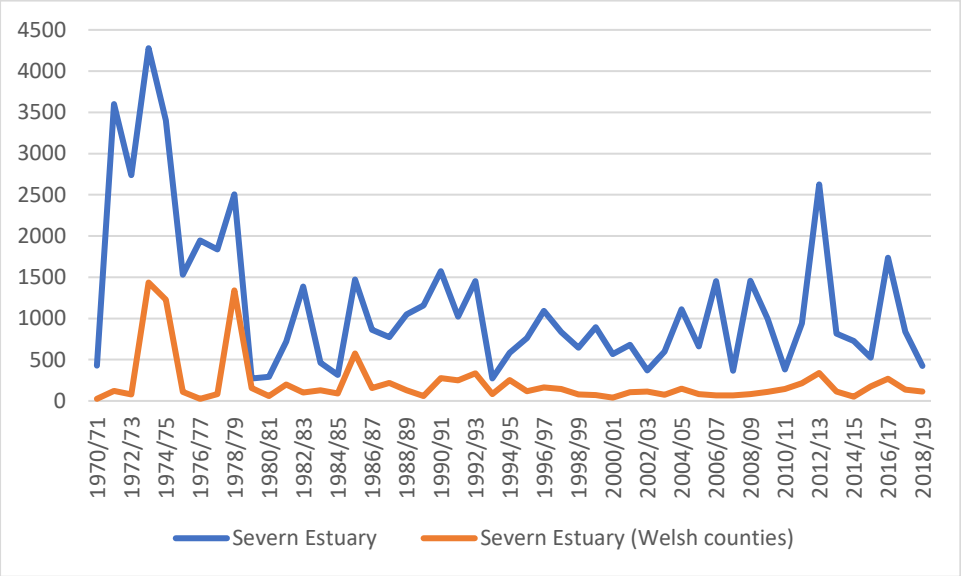


Habitats patterns: Ringed Plovers are very much a bird of the Severn Estuary coast, with small numbers inland at waterbodies such as Llandegfedd Reservoir.

Population trends: As previously stated, there have been noticeable decreases in the Ringed Plover wintering populations within the UK. Gwent has been no different, with identifiable decreases in birds wintering. These decreases are driven by generally milder winters allowing greater numbers to winter further east. It would appear that the Ringed Plover population that winters in Gwent is currently secure and still of national significance as part of the overall Severn Estuary population. Despite this, ongoing studies of trends are still important, although little could be done in terms of local conservation to influence the declines caused by birds wintering further east. The potential impacts of Severn barrages, lagoons and tidal power on wintering Ringed Plover populations, and other waders and wildfowl, would need to be carefully scrutinised.[43]

Note that some annual counts are given as a minimum number rather than a count/estimate. So, this represents the population at the most numerous recorded site rather than in the whole of Greater Gwent. In this case, the count exclusively refers to the Severn Estuary. A reduction in numbers through the late-1970s into the 1980s can be clearly seen.

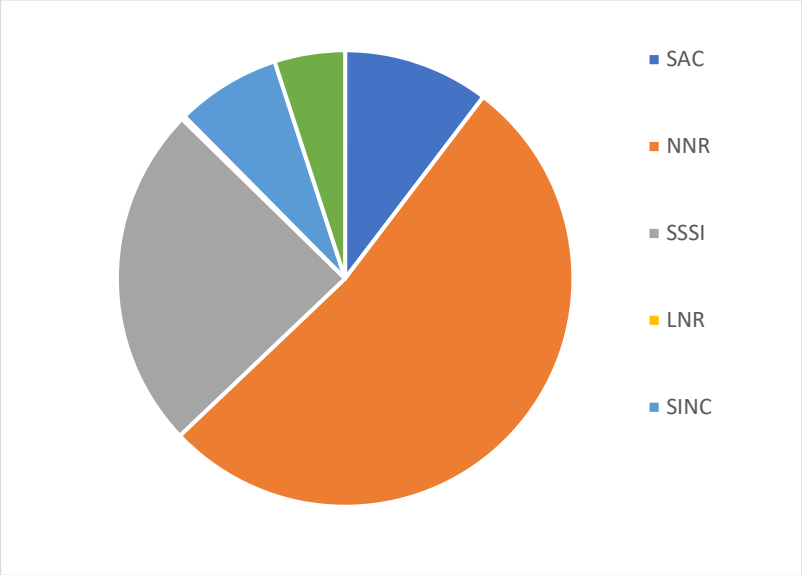
Winter WeBS Peak Counts for Ringed Plover on the Severn Estuary[13]



As previously stated, it is unlikely that the Ringed Plover will be anything more than an uncommon breeding bird in Gwent, as much of the coast is unsuitable. The continued management of the lagoons at Goldcliff should retain them as a regular breeding species.

Protection: 95% of records come from protected sites, with high numbers of records from protected sites on the coast, notably the Newport Wetlands and Gwent Levels. There are also many records from Llandegfedd SSSIs and some SINC records from Rhaslas Pond.

Ringed Plover records from protected sites



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Woodland birds

Brambling *Fringilla montifringilla* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended) Schedule 1

Conservation status: Amber (was Green) (Wales[1]) Green (UK[2])

Data availability: 791 (Good)

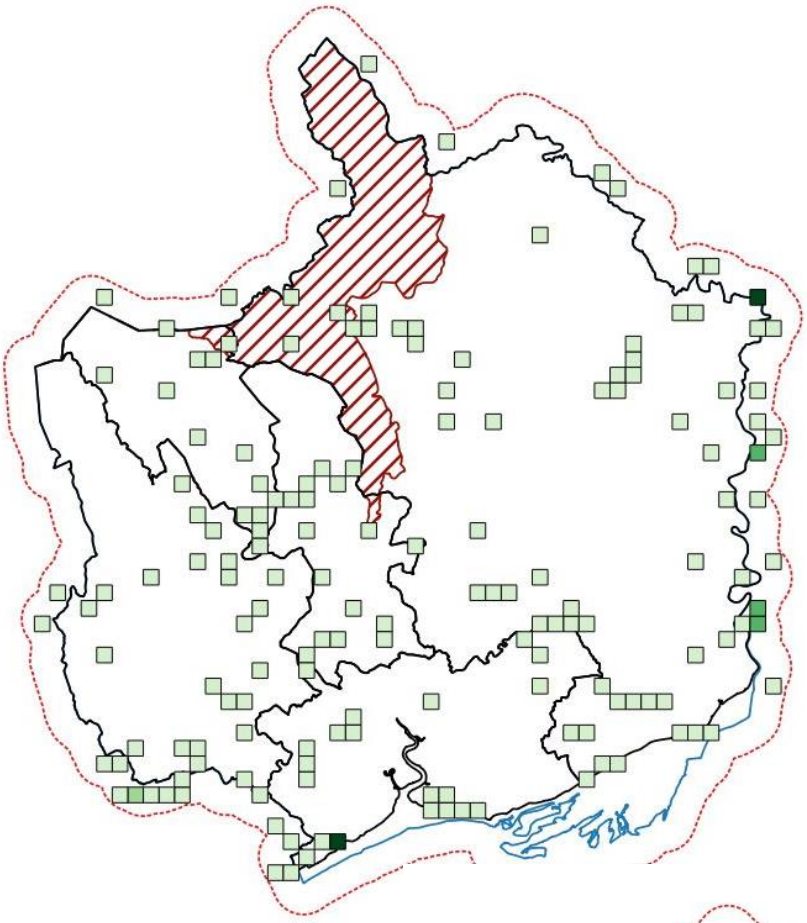
Context: Bramblings are widespread within the UK as a wintering species, but are unfamiliar to many people, as they do not frequent gardens anywhere near as frequently as their close cousin the Chaffinch. They are by far at their commonest as a wintering bird, also passing through in good numbers on migration, and only breeding extremely rarely. This means that Bramblings are vulnerable to changes in summer, winter and migration stepping-stone habitats, and changes in food source – all impacted by climate change.[3] They are one of many finch species whose numbers in the UK are boosted in winter. However, they differ from most in that very few, if any, remain to breed. The large wintering population arrives from further north, in Fennoscandia.[4] Brambling eat seeds and berries, with a particular liking for Beech mast; during the breeding season, their diet changes to invertebrates.[5] The number of Brambling wintering in the UK varies considerably from year to year in relation to the Beech mast crop on the continent and the severity of the winter.[6] Breeding populations have always been very low, with none confirmed in many years and virtually all records from Scotland.[7] The current UK breeding population is quoted as 0–1 pairs in the period 2013–2017.[8]

Outlook: Brambling have always been a very rare breeding bird in the UK. The first confirmed record did not occur until 1920, and they have only been recorded breeding in very low numbers irregularly since.[9] In contrast to the very small, irregular and localised breeding population, the wintering population is considerably larger (45,000–1,800,000 in 1981–84).[10] The numbers quoted are over a large range as the numbers vary hugely from year to year for reasons outlined above. Perhaps because of the huge fluctuations from year to year, it is difficult to find any wintering population trend data for the UK, but the wintering population has been noted to have suffered a moderate decline in Europe between 1980 and 2013.[11] Brambling were Amber listed in the original UK Birds of Conservation Concern, but they have been Green listed in the three iterations since, which indicates there are no current concerns regarding the UK population.[8] It should be noted that they have moved from Green to Amber on the latest Welsh Birds of Conservation Concern[1] due to their European Importance, as recognised by their listing on the European Red List of Birds (ERLoB), albeit as a species of 'Least Concern'. The State of Birds in Wales 2018 notes the special significance of the Welsh Brambling population in a UK context, with 33% of the UK wintering population being in Wales.[12]

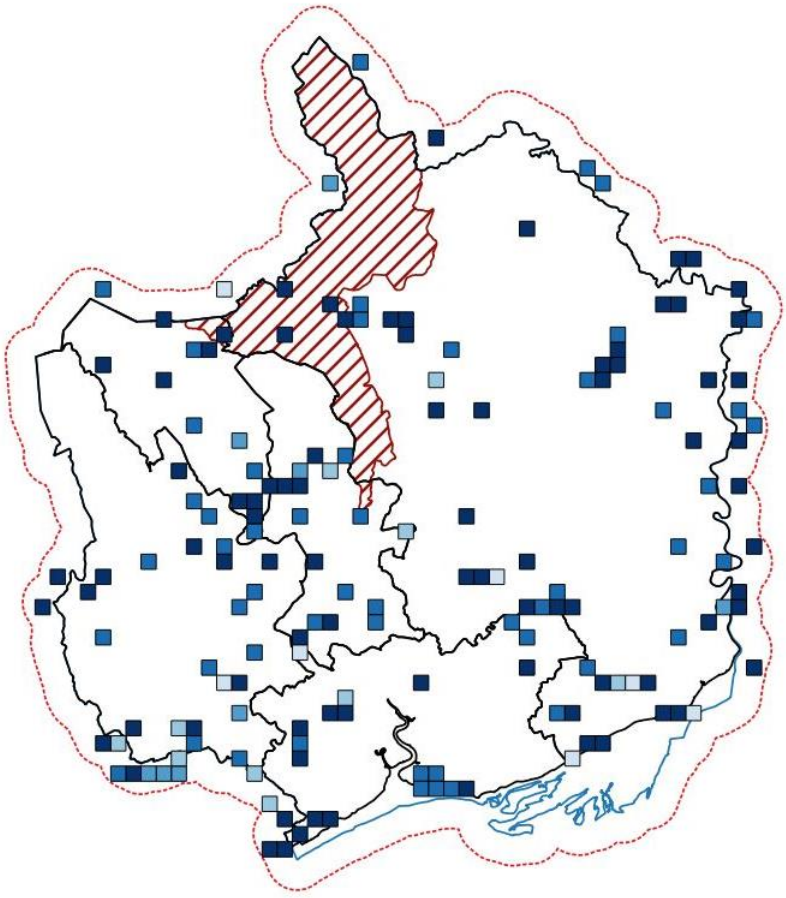
Greater Gwent range: The latest Gwent Bird Report (2018), records Bramblings as being a 'fairly common winter visitor and passage migrant'.[13] This has been the case for quite a while, with the Birds of Gwent recording Brambling as being 'a fairly common but local winter visitor and passage migrant'[14] in 2008 and as a 'regular winter visitor, usually in small numbers. Once it was considered rare, appearing only in hard weather' in 1977.[15] However, prior to the 1970s it would appear that Bramblings were a rarer and more irregular occurrence. Bramblings can turn up throughout Gwent, with migration records at the coast and small numbers visiting gardens. However, the largest flocks are generally associated with woodland, particularly where Beech is found.

Record hotspots are at Peterstone (popular migration/birding hotspot), Fforest Ganol (in buffer zone, nr. Cardiff) Dingestow, Newport Wetlands, Wentwood. There are also false hotspots along the Gloucestershire border, but there are likely to be high numbers of sightings from the Forest of Dean and Tidenham Chase.

Distribution of Brambling records across Greater Gwent (max 86 records/km^2)



Records of Brambling by decade



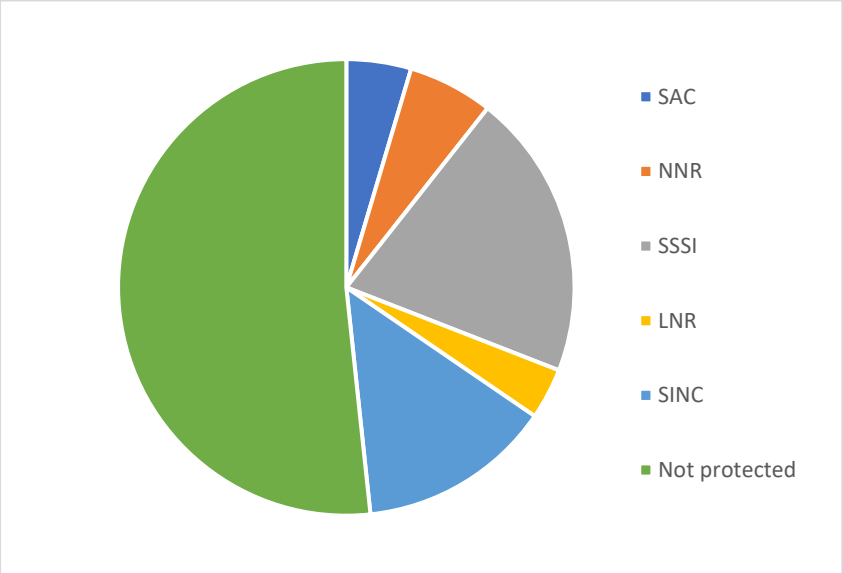
Habitats patterns: The best sites in Gwent are woodlands, particularly Beech woods. Brambling may also be found in stubble fields and, particularly if winters, in gardens.

Population trends: As previously stated, the number of Brambling arriving in the UK each winter varies greatly from year to year, largely driven by the size of the Beech mast crop in southern Scandinavia (if this is large then far fewer birds need to migrate to the UK). According to The Birds of Gwent 2008, 'this fluctuation occurs in microcosm within Gwent with maximum annual flock sizes ranging from three individuals to five hundred'.[14]

It may be difficult to accurately document Brambling population trends in Gwent due to the naturally large fluctuations in population. It seems entirely possible that numbers may have dropped to some degree, reflecting moderate decreases in European breeding populations.[11] It was also postulated in the Birds of Gwent 2008 that 'with a milder climate due to global warming occurring in Northern Europe, good Beechmast crops may be produced more regularly in Scandinavia, causing British numbers to decrease as birds are able to find food further north'. Conservation efforts in Gwent can do little to directly influence this, but work can be done to ensure that our woodlands, particularly our Beech woods, are conserved in good condition in the long term. Retaining weedy stubble fields on farmland where possible would also benefit Bramblings, together with a host of other seed-eating farmland birds, many of which are suffering declines.

Protection: 48% of records come from protected sites, with high numbers of records from the following. SAC records come from the erroneous records in the Severn, plus a few along the sea wall. NNR records from Newport Wetlands. SSSI records from Gwent Levels, Silent Valley, Nedern Brook and Brockwells Meadows. LNR records from St Julian's Park, The Moorings and Silent Valley. SINC records are scattered across numerous sites, including Wentwood, Beacon Hill, Rudry Common, Treowen, Torfaen uplands such as Blaenserchan and The British.

Brambling records from protected sites



Hawfinch *Coccothraustes coccothraustes* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Red (UK[2]) Amber (Wales[1]) UKBAP Priority Species, Wales Section 7 List

Data availability: Poor (362 records)

Context: The Hawfinch is the UK's largest finch, but is a shy bird, difficult to see and therefore easily overlooked.[16] It is largely a resident and sedentary bird, although some quite limited migration has been noted.[17] The unprecedented influx of birds from the continent in winter 2017/2018 was truly exceptional.[18] The Hawfinch is renowned for its exceptionally strong beak, which it uses to crack open various seeds, including cherry stones. It distribution is linked to areas where favoured trees, such as Cherry and Hornbeam are present in numbers. Its diet varies throughout the year, with invertebrates being of great importance during the breeding season.[19] In the UK, the majority of the population now has a more westerly distribution, with four main strongholds in the Forest of Dean/Wye Valley, New Forest, North Wales and Cumbria.[20] The loss of English Elm in eastern Britain (in the 1970s) may have contributed to declines in the east. The more westerly distribution of Wych Elm ensures food availability in late winter (when other seed sources are depleted). There has been a worrying loss in both Hawfinch numbers and range in the UK, and work is being undertaken to ascertain why this is the case, with predation and late winter food availability being investigated.[21]

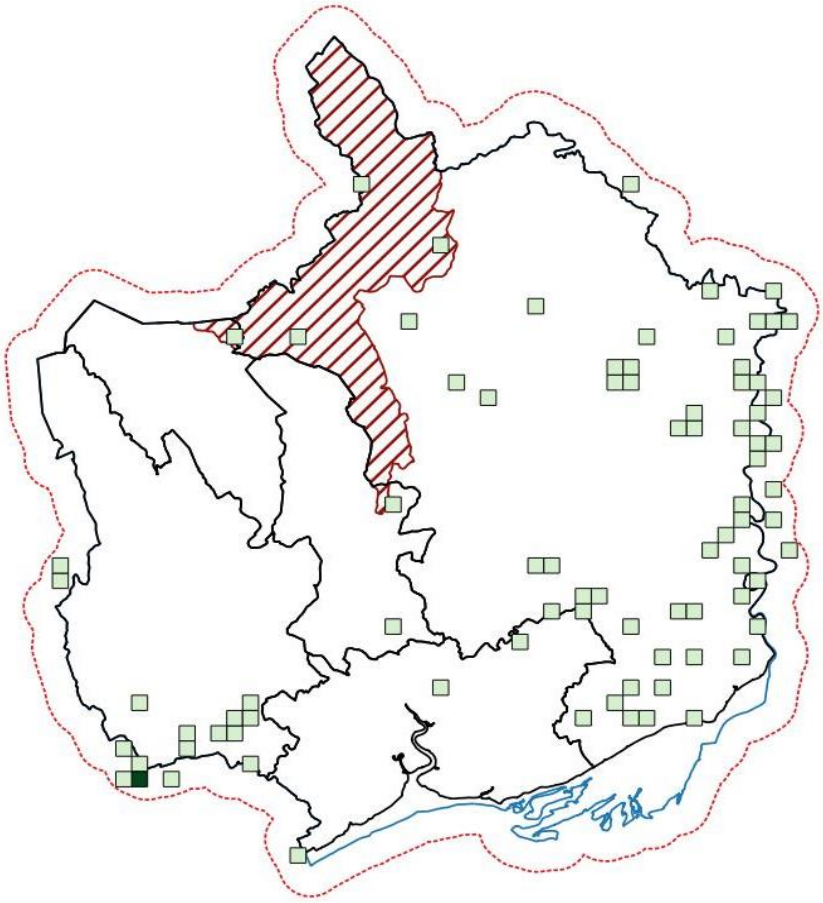
Outlook: The history of the Hawfinch in the UK is an interesting one. It was not known to have bred in the UK until the early nineteenth century, and while it is an easy species to overlook, its absence would appear to be genuine.[9] It originally started nesting in south-east England from 1835, and its numbers rapidly expanded into the twentieth century until it had colonised most of England and Wales and made it into Scotland.[9] The increase in food supplies by the planting of extensive orchards, the increase in suburban gardens and legal protection given in the 1880s are all thought to have aided this expansion.[9]

However, in recent years the population has very much gone into rapid decline (both numbers and range), so that it is now too scarce to be covered by national annual monitoring schemes.[22] Breeding bird atlases were published in 1976, 1993 and 2013, and showed a 76% reduction in the number of occupied 10 km squares between 1976 and 2013, the majority of this occurring between 1993 and 2013.[22] As outlined above, Hawfinches are now limited to a small number of geographical locations, with just 4% of 10 km squares in Britain occupied.[22] The current (2011) breeding population is 500–1,000 pairs.[10] The new Birds in Wales (in prep) suggests: 'The decline of c.40% in the British breeding population between the mid 1980s and the late 1990s was not evident in Wales, but the increased numbers now recorded in Wales are due to dedicated monitoring rather than to an increased population.'

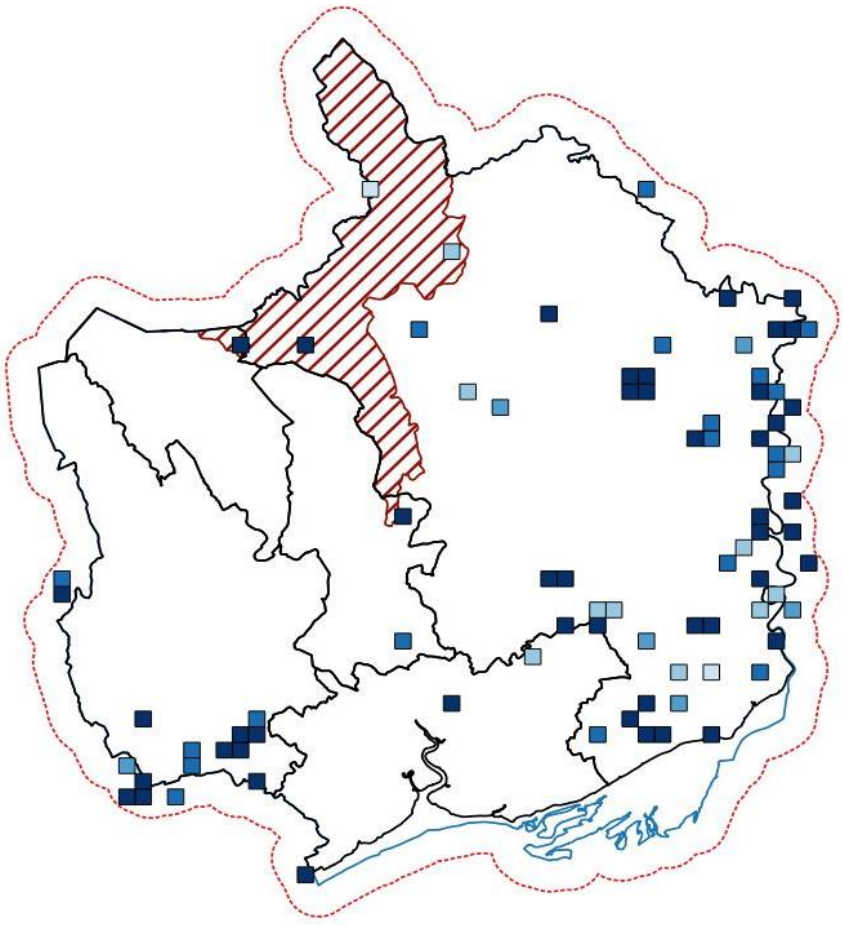
Greater Gwent range: The latest Gwent Bird Report (2018) records Hawfinch as a 'uncommon breeding resident and very rare passage migrant'.[13] This has been the case in Gwent for quite some time, as it is one of the few places in the UK that has retained its Hawfinch population (as part of Forest of Dean/Wye Valley stronghold). The Birds of Gwent in 2008 recorded Hawfinch as 'an uncommon and local resident' and noted that 'the Hawfinch is one of the least known and possibly under-recorded of Welsh Birds. Most Welsh breeding records come from Gwent.'[23] In 1977, Birds of Gwent noted the Hawfinch was a 'very local breeding resident in small numbers.'[24] This would indicate that numbers have generally remained relatively similar over this period and indeed longer, with the Birds of Monmouthshire in both 1937 and 1963 recording it as a 'somewhat local resident breeding species found in the central and southern portions of the county'.[23] The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of 50–100 pairs,[25] with the second atlas, which covers 1998–2003, estimating 30–100 pairs but stressing that it was likely nearer the lower end of this, which perhaps indicates some reduction in numbers.[23] However, more recent ringing studies in the Forest of Dean/Wye Valley suggest that the population estimates for both Gloucestershire and Gwent (based on tetrad occupancy) were too low, as in excess of 100 adult birds have been caught in the breeding season annually since 2010. An analysis of recaptures and survival rates suggests a Forest of Dean/Wye Valley population of 650 pairs,[28] with some 250–300 of these in Gwent.

The main hotspot is at Fforest Ganol (which is just outside of Greater Gwent). Smaller hotspots are at Penallt, Slade Wood/Minnetts & Gwern Ddu. Hawfinches are not a common species, but they are undoubtedly overlooked due to their secretive habits. The population extends into Gloucestershire/Forest of Dean.

Distribution of Hawfinch records across Greater Gwent (max 155)



Records of Hawfinch by decade

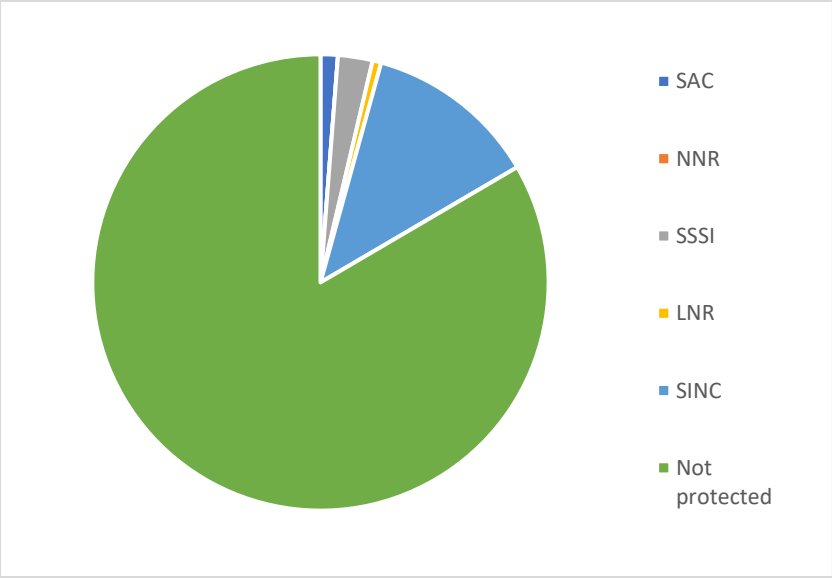


Habitat patterns: Hawfinch are very much birds of semi-natural broadleaved or mixed woodland, but in recent years they have been visiting garden feeding stations more frequently in late winter/early spring.

Population trends: As previously outlined, the UK Hawfinch population has fallen and contracted in range in recent times. Here in Gwent we are part of one of the last four remaining strongholds within the Forest of Dean/Wye Valley population. Recoveries of ringed birds and radio tracking studies show that birds are highly mobile in late winter/early spring, ranging throughout the area and further afield. There is much research being undertaken to ascertain the reasons for the population declines. Nest predation was suspected to be a significant driver of losses, but research has shown that this was not as significant as suspected.[26] It has been found however that, while Hawfinches generally nest within larger areas of continuous broadleaved woodland, the actual nest sites are often near openings in the canopy. It is also possible that food shortages at other times of the year may be a factor.[21] Birds of Gwent notes that Gwent is a well wooded county, with a good variety of suitable seeding/fruiting trees, so that if one species fails to seed, there will always be an alternative food source, thus ensuring the species continued presence.[23] Future woodland management will need to take into account the findings of this ongoing research to help arrest and reverse the losses. Faecal analysis has identified a wide variety of vegetation matter being taken in Gwent, and forest managers could improve food availability by including small patches of 'non-timber' trees (Hornbeam, Wild Cherry, Holly, Field Maple, Lime, Hawthorn, Yew and especially Wych Elm) in any restocking/planting.

Protection: Only 17% of records come from protected sites. SSSI records were from Coombe Valley Woods, Gilwern Hill, and the edges of the Gwent Levels. SINC records from Coed Cefn Pwll-Du, Kemeys Inferior (Wentwood) and scattered woods along the Wye Valley.

Hawfinch records from protected sites



Marsh Tit *Poecile palustris* (Linnaeus, 1758)

Pete Hadfield

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Red (UK[2] & Wales[1]), UKBAP Priority Species, Wales Section 7 List

Data availability: Moderate (750 records)

Context: The Marsh Tit is a resident and sedentary bird. Despite its name, it is more a bird of broadleaved woodland, copses, parks and gardens.[28] It is very similar in appearance to its close cousin the Willow Tit, and was only recognised as a separate species around 1897.[9] Unlike the Willow Tit, the Marsh Tit does not excavate its own nest hole, but exploits existing holes in trees.[29] It is found in England and Wales, with the population extending into southern Scotland, the best populations are however in South Wales and southern and eastern England.[28] Its distribution and numbers within this range have recently declined considerably.[30] In common with many other UK songbirds and all our other tit species, the Marsh Tit's diet is largely invertebrates, particularly during the breeding season, although seeds are exploited more over the winter.[29] As outlined above, Marsh Tits have suffered considerable declines in relatively recent times: a 77% decline between 1970 and 2017.[31] However, unlike for the Willow Tit, predation or competition for nest sites are not considered significant factors in Marsh Tit declines.[32] However, it has been noted that they have very specific habitat requirements, needing mature, largely unmanaged broadleaved woodland with a good understorey.[33] They also need an exceptionally large territory for such a small bird and have very poor dispersal and movement between geographically separate woods, so that large areas of contiguous woodland in suitable condition are needed.[32] This could limit populations.

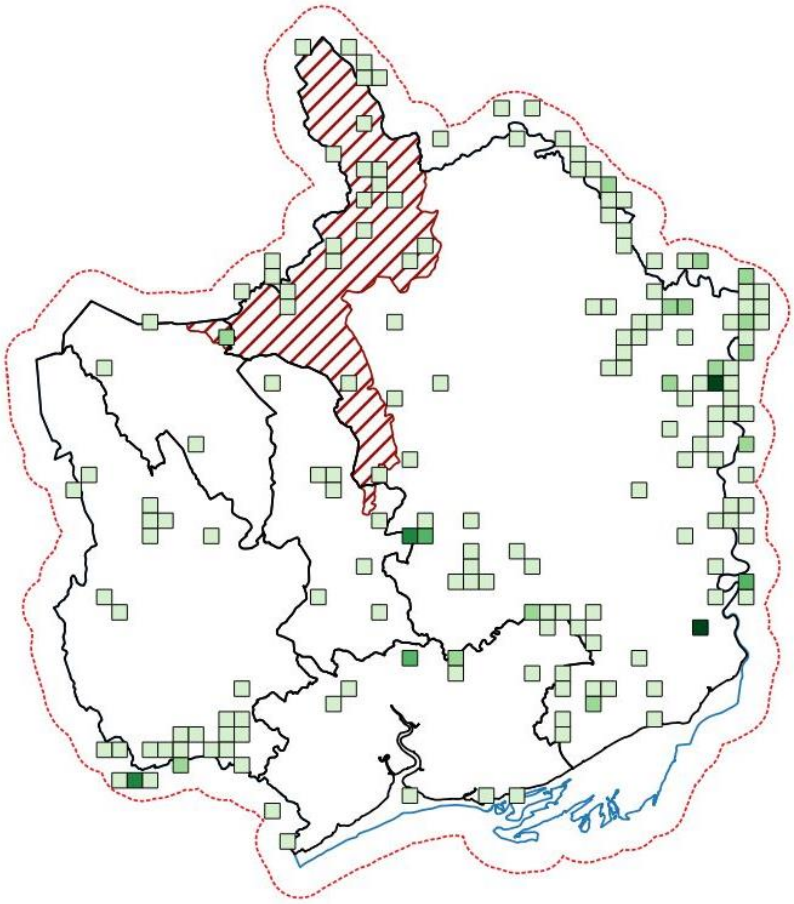
Outlook: The history of the Marsh Tit in the UK is clouded by the fact that it was not recognised as a separate species separate until 1897, and for a while after this records would still be confused. In the nineteenth century Marsh/Willow Tits nested throughout most of England and Wales, albeit locally in many counties.[29] These populations remained broadly similar throughout much of the twentieth century, but there has been a decline since at least the late 1960s.[9] There were longer-term 77% reductions in 1970–2017 (described as 'strong decline'), and there has been continued 'strong decline' more recently, with a 22% decline from 2012–2017.[31] The more recent BTO Breeding Bird Survey shows a continuation of the decline, with a decrease of 24% between 2008 and 2018 in the UK. There was an increase of 4%, albeit only over a single season, in 2018–19.[33] The current (2016) breeding population is 28,500 pairs.[10]

Greater Gwent range: The latest Gwent Bird Report (2018) records Marsh Tit as a 'fairly common, but declining resident',[13] this decline is in line with the population declines seen across the UK but may not have been occurring for such a long time. Marsh Tits seem to be well distributed across Gwent, although there are obvious biases away from upland areas and towards areas of considerable broadleaved woodland cover, i.e. the Wye Valley. The Birds of Gwent recorded Marsh Tit as being 'a scarce resident' in 2008[34] and as a 'breeding resident, widely but thinly distributed' in 1977.[35] This would indicate that numbers are currently declining but have not necessarily been declining over this

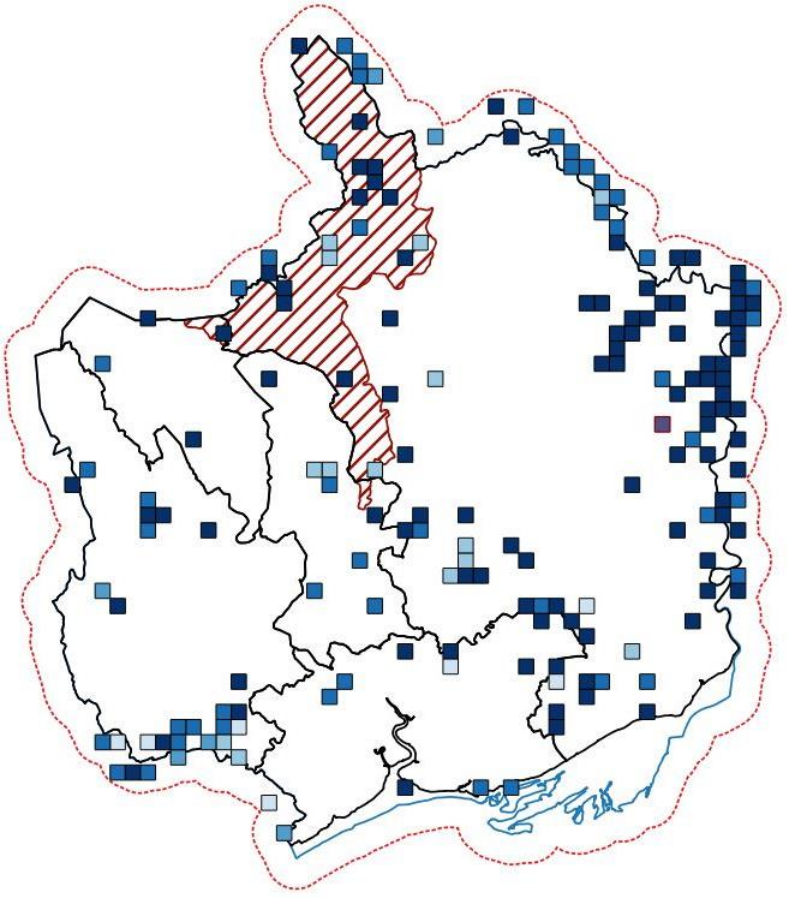
entire period. The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of 500 pairs, with this possibly being an underestimate;[36] the second atlas, which covers 1998–2003, estimated 510–1,200 pairs (this figure should be treated with caution, due to small sample size).[34] It is perhaps difficult to ascertain from these figures how populations have changed, although a noticeable drop in the number of tetrads occupied and ringing records between 1974–2003 indicate a general decline in numbers.[34] It is clear from reference to recent Gwent Bird Reports that numbers are currently declining, although the Marsh Tit is not in such a perilous state as a Gwent bird as the Willow Tit.

Hotspots are at Penallt (perhaps due to many records from one observer), Great Barnet Wood, Llandegfedd and Lodge Wood (Caerleon), plus Fforest Ganol and an unknown location in Gloucestershire, both of which are just outside Greater Gwent.

Distribution of Marsh Tit records across Greater Gwent (max 38 records/km^2)



Records of Marsh Tit by decade

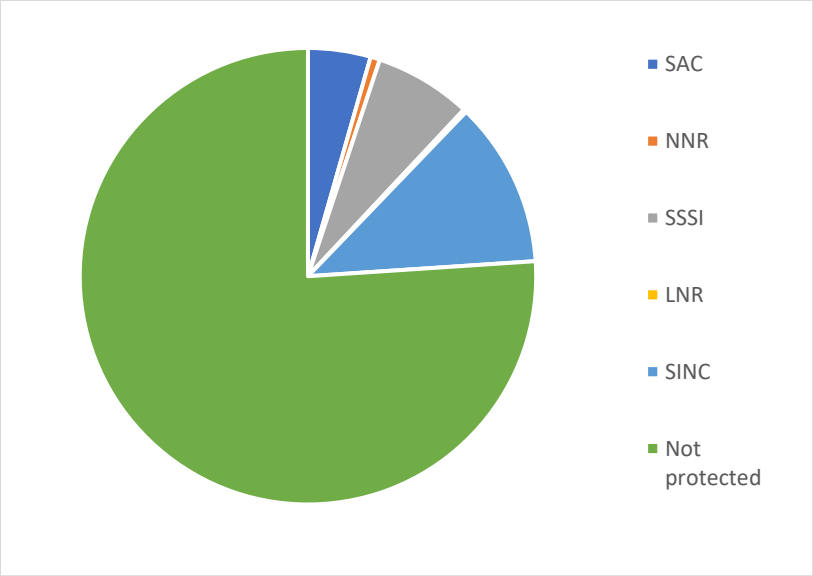


Habitats patterns: Marsh Tits are a bird closely associated with extensive areas of mature broadleaved Woodland.

Population trends: As previously stated there have been declines in Marsh Tit populations across the UK. Gwent has also had declines, although it would appear there is still a reasonable population in Gwent. This should not be a cause for complacency, as it needs to be ensured that population levels do not drop as low as those of the Willow Tit. Preserving and enhancing the extensive woodland areas required by this species should be a priority, and this also needs to take into account that Marsh Tits prefer woodland with little management and that this may run contrary to conservation plans for other species.

Protection: 66% of records come from protected sites, with SAC records from the Usk Bat SAC, SSSI records from the Gwent Levels and Llandegfedd. SINC records from various woodlands throughout south Caerphilly and the Wye Valley.

Marsh Tit records from protected sites



Pied Flycatcher Ficedula hypoleuca (Pallas, 1764)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Red (UK[2] & Wales[1]), Wales Section 7 List

Data availability: Poor (344 records)

Context: A migrant bird that is a summer visitor to the UK, the Pied Flycatcher spends winter in western Africa.[37] This means that the Pied Flycatcher is vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food source – all impacted by climate change.[3] They are one of a whole host of small passerines that breed in the UK and make long-distance migrations to distant wintering grounds. They are insectivorous, catching most of their prey on the wing with darting flights from perches. They are a bird of 'upland deciduous woods in parts of western and northern Britain'.[38] Overall, in the UK there has been a large decline of 42% between 1970 and 2017.[31] 'The reasons for this decline is unknown, but there is good evidence that they lie at least partly outside the breeding season and are thought to be linked to changing conditions on wintering grounds and migration.'[38] Additionally the well-publicised reduction in invertebrates in the UK and indeed farther afield is likely to have had an impact on breeding productivity, and wetter summers will certainly impact any species that largely relies on flying insects. There are also studies that suggest increasingly early springs mean that migrant species such as Pied Flycatchers are now breeding at mismatched times with the peak abundance of prey, with reduced productivity the result.[39]

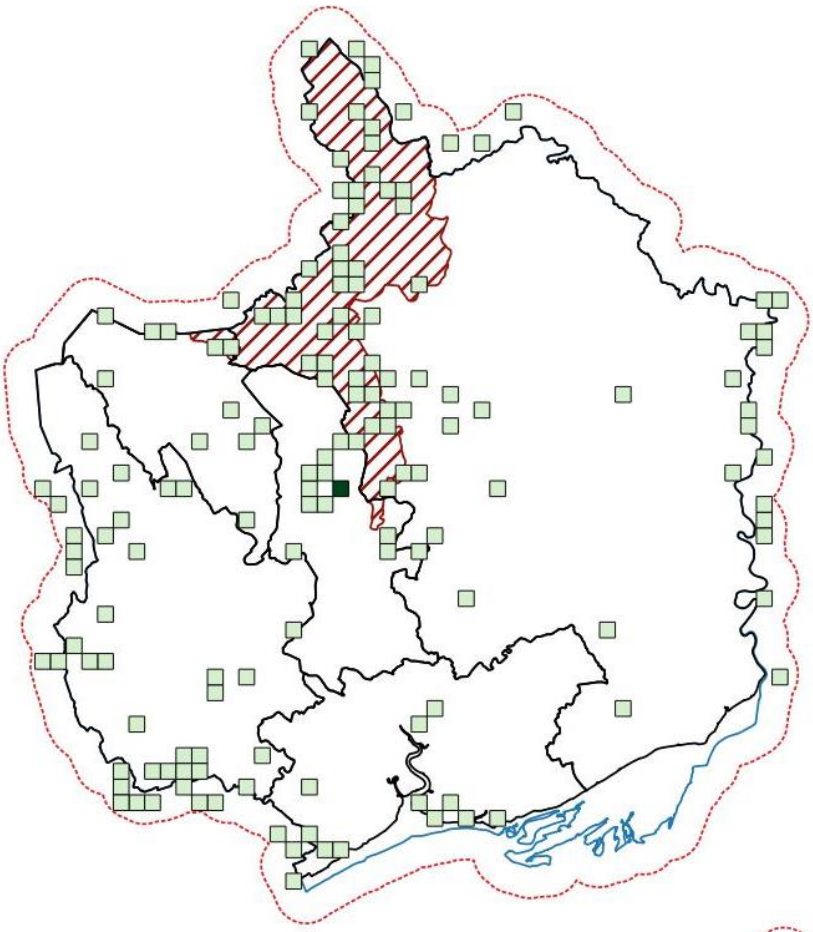
Outlook: It would appear that Pied Flycatchers were scarce in the UK in the first half of the nineteenth century.[9] It was apparent that numbers increased towards the end of the nineteenth century and gradually spread and consolidated in Wales, western England, northern England and parts of Scotland through the first part of the twentieth century.[9] However, declines were noted in the second half of the twentieth century. There was a 42% reduction between 1970 and 2017 (described as 'weak decline'); this reversed to some extent more recently, with a 10% 'weak increase' from 2012–2017.[31] The BTO Breeding Bird Survey[33] further illustrates these declines and possible partial recover with a considerable 43% decline in 1995–2018 in the UK as a whole. Most recently, there have been some signs of recovery, with a 18% increase, although this is just over a single year (2018–2019), so only time will tell if this is the start of a recovery.[33] The estimated UK breeding population in 2016 was 22,000–25,000 pairs.[10]

Greater Gwent range: As a breeding bird, Pied Flycatchers are generally found in the more upland deciduous woodlands of north-west Gwent and to a lesser extent in the Wye Valley in the east.[40] On migration they may be encountered more widely, with some records from more coastal areas. The latest Gwent Bird Report (2018) records Pied Flycatcher as a 'fairly common breeding summer visitor/passage migrant'.[13] The Birds of Gwent recorded Pied Flycatcher as being 'a fairly common passage migrant and summer visitor' in 2008[40] and as a 'summer visitor, fairly frequent locally' in 1977i, noting it 'was a lot scarcer prior to 1960's, the provision of nest-boxes being the cause of

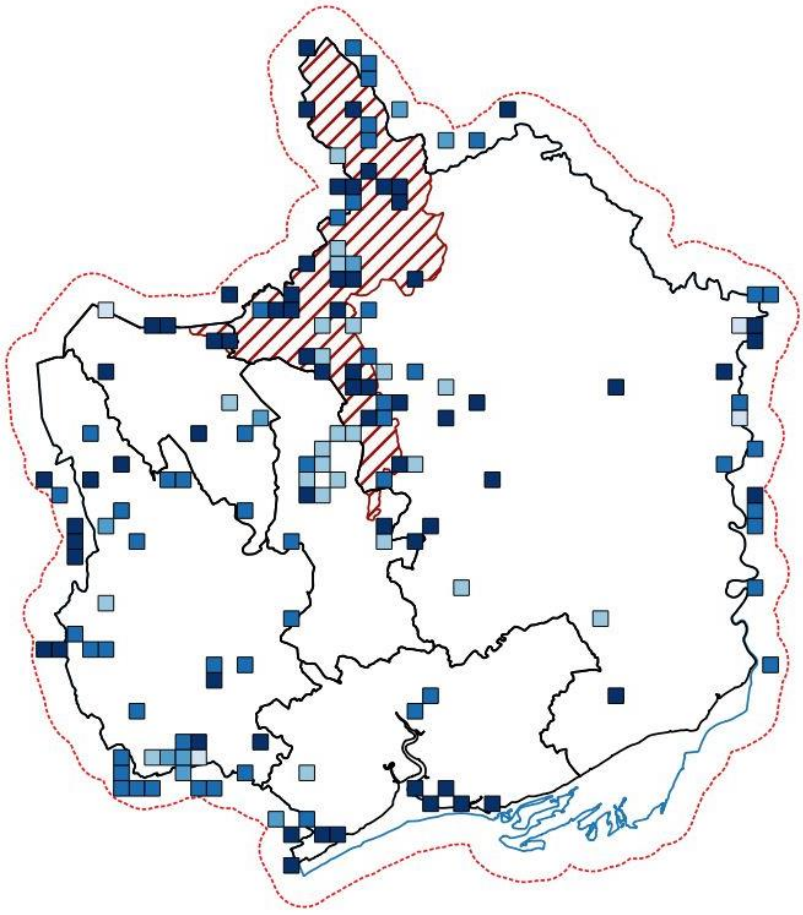
noticeable increases'.[41] This indicates that the declines within the UK as a whole may not have been so noticeable in Gwent, although there have been some (see below). It also highlights the importance of nest-boxes. The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of 500 pairs,[42] with the second atlas, which covers 1998–2003, estimating a lower 400–450 pairs.[40] This shows some degree of a decline, mainly in the population present in the east of the county.[40] The fluctuating fortunes of various nest-box schemes is clearly laid out in the second Gwent Atlas.[40]

The main hotspot is at Lasgarn Woods; smaller (>10 records) hotspots are at Parc Cwm Darran, Penallt, Strawberry Cottage Woods and an unknown site outside the region (in Herefordshire).

Distribution of Pied Flycatcher records across Greater Gwent (max 75 records/km^2)



Records of Pied Flycatcher by decade



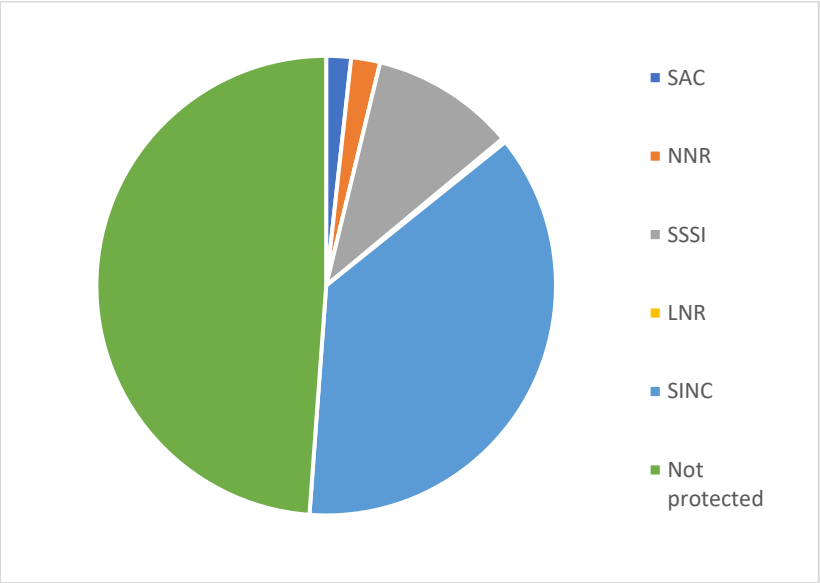
Habitats patterns: Strongly linked to more upland deciduous woodlands, particularly where sheep grazing controls the understorey. Also found along riparian woods in more upland areas (i.e. Honddu) and deciduous woodland in the Wye Valley.

Population trends: As previously stated, there have been significant declines in Pied Flycatcher populations across the UK. Gwent has also been affected but perhaps to a lesser extent than many other areas. The rate of these losses has generally slowed, and Pied Flycatchers can still be found in suitable habitats within their range, with Wales being a stronghold. If the cause of these losses is being largely driven by issues on wintering grounds and on migration then this is a global issue of climate change and more difficult to address through local conservation initiatives. However, habitats in Gwent can still be preserved and enhanced in such a condition so as to maximise the potential available resources for breeding Pied Flycatchers; ensuring productivity rates are high will all help population levels.[43] The importance of maintaining next boxes and creating new nest-box schemes for Pied Flycatchers will remain a very important factor.

Protection: 51% of records come from protected sites, with high numbers of records from the following places:

SSSI records scattered across the Gwent Levels, Blorenge, Black Mountains, Llandegfedd & Nelson Bog. SINC records across central Torfaen, South Caerphilly sites such as Nant Fawr, and with a few across northern Caerphilly and Blaenau Gwent.

Pied Flycatcher records from protected sites



Spotted Flycatcher *Muscicapa striata* (Pallas, 1764)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Red (UK[2] & Wales[1]), UKBAP Priority Species, Wales Section 7 List

Data availability: Poor (434 records)

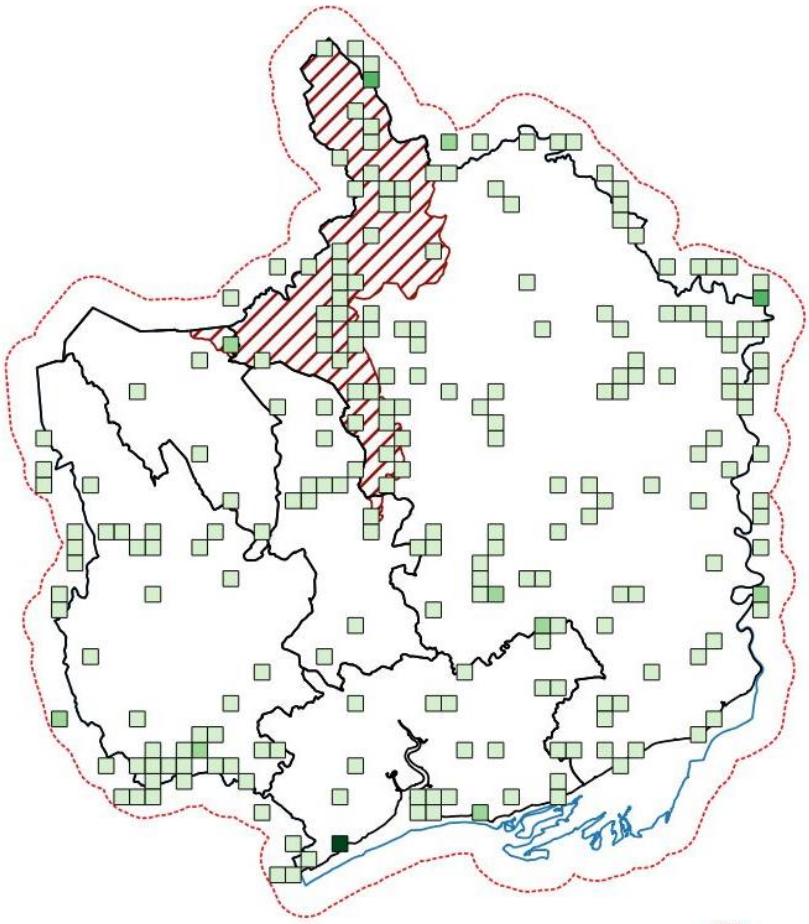
Context: A migrant bird that is a summer visitor to the UK, the Spotted Flycatcher spends its winter in sub-Saharan Africa.[44] This means that the Spotted Flycatcher is vulnerable to changes in summer, winter and migration stepping-stone habitats, and changes in food source – all impacted by climate change.[3] They are one of a whole host of small passerines that breed in the UK and make long-distance migrations to distant wintering grounds. They are insectivorous, catching most of their prey on the wing with sallying flights from favoured perches. They are still widespread across the UK, favouring wooded glades, orchards cemeteries, parks and large gardens.[45] Sadly, they cannot now be regarded as particularly common, as populations have fallen dramatically in recent times. Overall, in the UK there has been a staggering decline of 87% between 1970 and 2017.[31] Research has found the declines to be widespread across the UK and not linked to nest survival but to the survival of fledged birds in their first year of life.[46] Other studies have, however, implicated nest predation in significantly reducing productivity.[47] The well-publicised reduction in invertebrates in the UK and indeed farther afield is likely to have had an impact on breeding productivity, and wetter summers will certainly impact any species that largely relies on flying insects. There does, however, appear to be a consensus that the greater impact is caused by factors outside the UK, on migration and on the wintering grounds.[48]

Outlook: At the end of the nineteenth century the Spotted Flycatcher was distributed almost universally throughout Britain and was generally considered to be one of the commonest summer migrants.[9] It was noted that up to the late 1960s/early 1970s the population had remained much the same.[9] However, there were large declines from then on. The estimated UK breeding population in 2016 was 41,600 pairs.[10] This is still a reasonable number of birds, albeit much reduced, as illustrated by recent declines: 87% reduction in 1970–2017 (described as a 'strong decline'), with this lessening more recently with a small 5% increase, noted as 'little change', from 2012 to 2017.[31] The BTO Breeding Bird Survey[33] further illustrates these declines with a considerable 51% decline between 1995 and 2018 in the UK as a whole. Most recently there have been some signs of recovery, with a 15% increase, although this is just over a single year 2018–2019 from much depleted levels, so only time will tell if this is the start of a recovery.[33]

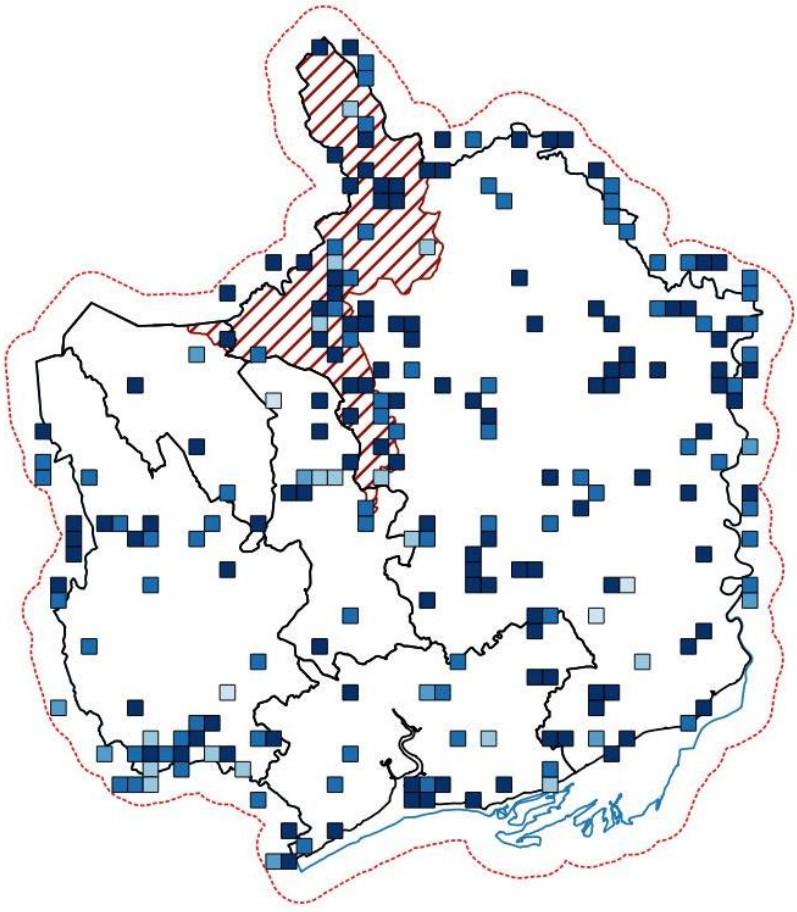
Greater Gwent range: As a breeding bird, Spotted Flycatchers can be found widely throughout Gwent in suitable habitats, they are however absent from barren uplands and generally scarcer on the Levels. Despite being widespread, they are now sadly far from common, with distribution patchy and at low levels where they do occur. On migration they may also be encountered widely, with considerable numbers of records from more coastal areas. The latest Gwent Bird Report (2018) records Spotted Flycatcher as a 'uncommon breeding summer visitor'.[13] The Birds of Gwent recorded Spotted

Flycatcher as being ‘a passage migrant and fairly common summer visitor, now declining’ in 2008’[49] and as a ‘summer visitor that is ‘fairly common and breeds widely’ in 1977.[41] This clearly indicates that the declines seen over much of the UK have also affected the Gwent populations. The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of 1,250 pairs, which it considered to be an underestimate;[50] the second atlas, covering 1998–2003 estimated a much lower 490–830 pairs.[31] This again clearly illustrates a decline, indeed it is described as a ‘significant decline in both range and population density’.[31]

The main hotspot is at Peterstone Gout (recording hotspot), with smaller ones along the Herefordshire border.



Distribution of Spotted Flycatcher records across Greater Gwent (max 34 records/km^2)



Records of Spotted Flycatcher by decade

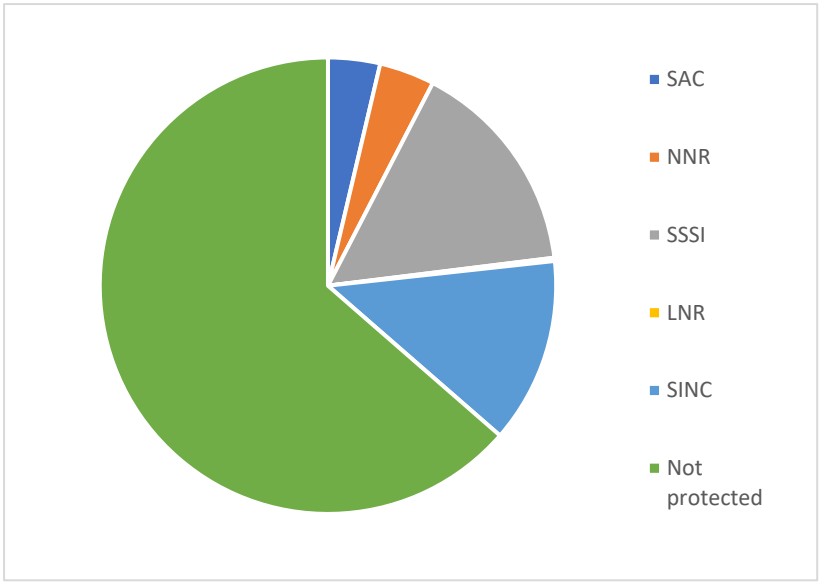
Habitat patterns: Open wooded areas such as glades, orchards cemeteries, parks and large gardens.

Population trends: As previously stated, there have been significant declines in Spotted Flycatcher populations across the UK. Gwent has been no different, with large losses in populations. The rate of these losses has generally slowed, and Spotted Flycatchers are still a widespread species across the UK and within Gwent. However, they are still of considerable concern, and localised extinctions and fragmented distributions are very possible. If the cause of these losses is being largely driven by issues on wintering grounds and on migration, this is more a global issue of climate change and difficult to address through more local conservation initiatives. However, habitats in Gwent can be preserved and enhanced in such a condition as to maximise the potential available resources for breeding Spotted Flycatchers, ensuring productivity rates are high, which will help population levels.[43]

Protection: 36% of records come from protected sites, with high numbers of records from the following:

SAC records from the Severn Estuary due to centring; NNR records from Newport Wetlands; SSSI records scattered across the Gwent Levels and Llandegfed, plus a few from the Blorenge and Black Mountains. SINC records across central Torfaen, south Caerphilly, with a few across northern Caerphilly and Blaenau Gwent.

Spotted Flycatcher records from protected sites



Willow Tit *Poecile montanus* (Conrad von Baldenstein, 1827)

Pete Hadfield

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Red (UK[2] & Wales[1]), UKBAP Priority Species, Wales Section 7 List

Data availability: Poor (190 records)

Context: A resident and sedentary bird, the Willow Tit is constrained in its distribution by its need for decaying, standing timber to us for hollowing out nest sites.[51] This is because, unlike our other tit species, which utilise existing holes, the Willow Tit excavates its own; due to its tiny beak, it can only do so in rotten wood.[52] They are very similar in appearance to their close cousin the Marsh Tit, in fact they were only recognised as a different species as recently as 1897.[9] The Willow Tits occurring in the UK are of a distinct endemic sub-species,[52] which makes them of particular importance for conservation. They are found in England and Wales, with the population extending into southern Scotland.[53] Its distribution and numbers within this range have recently been much reduced, and it the second fastest declining bird species in the UK after the Turtle Dove.[54] In common with many other UK songbirds and all our other tit species, the Willow Tit's diet is largely invertebrates, particularly during the breeding season, although seeds are exploited more over the winter.[55] As outlined above, they have suffered severe and worrying declines in relatively recent times: a 94% decline between 1970 and 2017.[31] Different factors are considered as possible reasons for the declines, with competition for nest sites from other tit species, predation (particularly by Greater Spotted Woodpeckers) and habitat loss (damp scrub is essential habitat) being cited.[56] Deer browsing reducing habitat quality and climate change drying out wet woodlands are also touched upon in literature.[57]

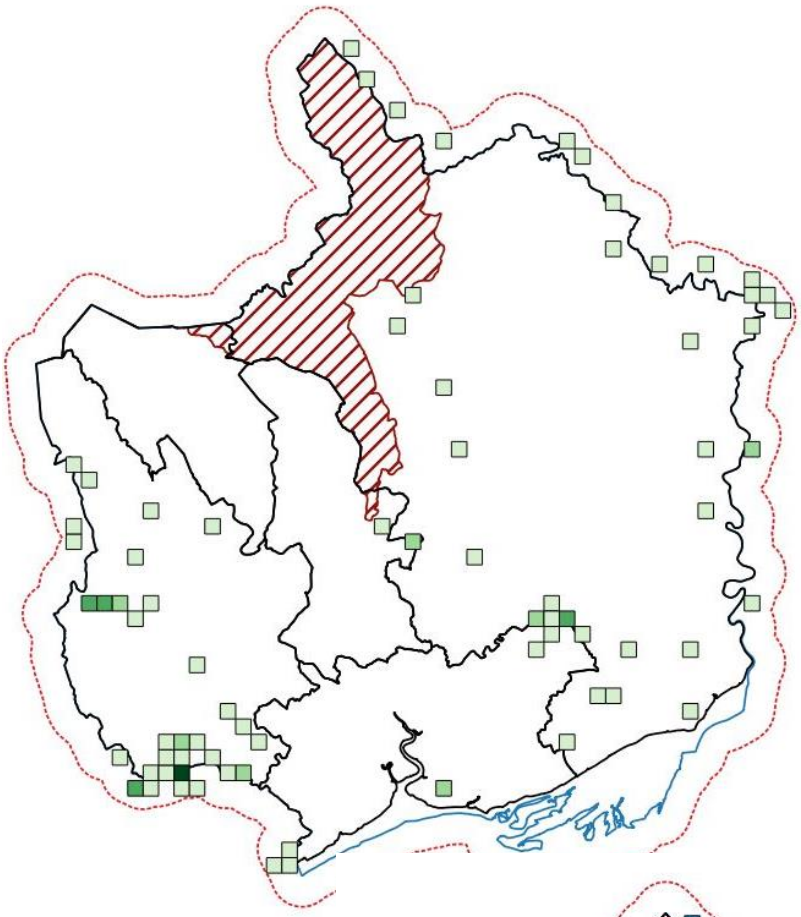
Outlook: The history of the Willow Tit in the UK is clouded by the fact it was not recognised as a species separate from the Marsh Tit until 1897; for a while after this, records would still be confused. In the nineteenth century Marsh/Willow Tits nested throughout most of England and Wales, albeit locally in many counties.[9] These populations remained broadly similar throughout much of the twentieth century, but there has been a decline since at least the late 1960s.[9] There were longer-term 94% reductions between 1970 – 2017 (described as 'strong decline') and there has been continued 'strong decline' more recently, with a 17% decline from 2012–2017.[31] The more recent BTO Breeding Bird Survey, perhaps shows some slowing of the decline (albeit from numbers already hugely reduced), with a decrease of only 3% in 2008–2018 in the UK and an increase of 20% in the 2018–19 season.[12] The current (2016) breeding population is 2,750 pairs.[10]

Greater Gwent range: The latest Gwent Bird Report (2018) records Willow Tit as a 'very scarce breeding resident'.[13] This is the culmination of an ongoing decline, in line with the population declines seen across the UK. The Birds of Gwent recorded Willow Tit as being 'a scarce and declining resident' in 2008[58] and as a 'breeding resident, widely but thinly distributed' in 1977.[35] This would indicate that numbers have declined over this period. The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of 300–450 pairs,[59] with the second atlas, which covers

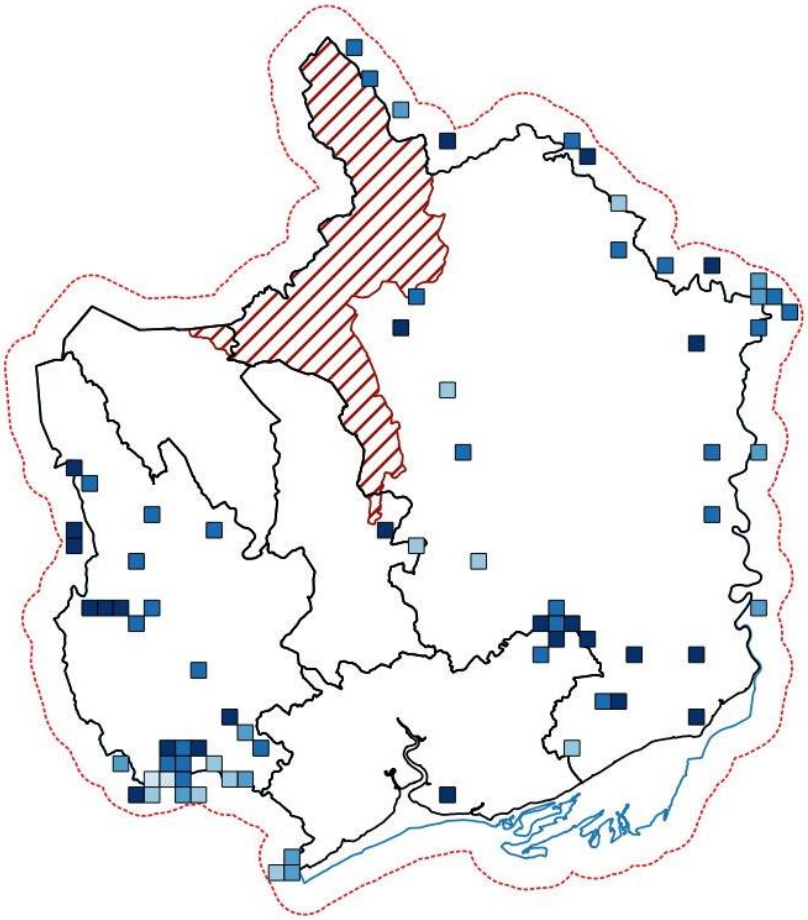
1998–2003, estimating 70–125 pairs.[10] The population is now sadly much lower than this. Indeed, it would appear to be barely hanging on: the Gwent Bird Report stated that 'sadly there were no records away from Wentwood this year; one pair of bred there'[60] in 2016 and that 'just two records were received of this rapidly declining species… Disappointingly no records were received from Wentwood' in 2018.[13]

Hotspots for records are at Nelson Bog/Nelson Wern, Wernddu Woods and Wentwood. Also Fforest Ganol, which is just outside Greater Gwent.

Distribution of Willow Tit records across Greater Gwent (max 15 records/km^2)



Records of Willow Tit by decade

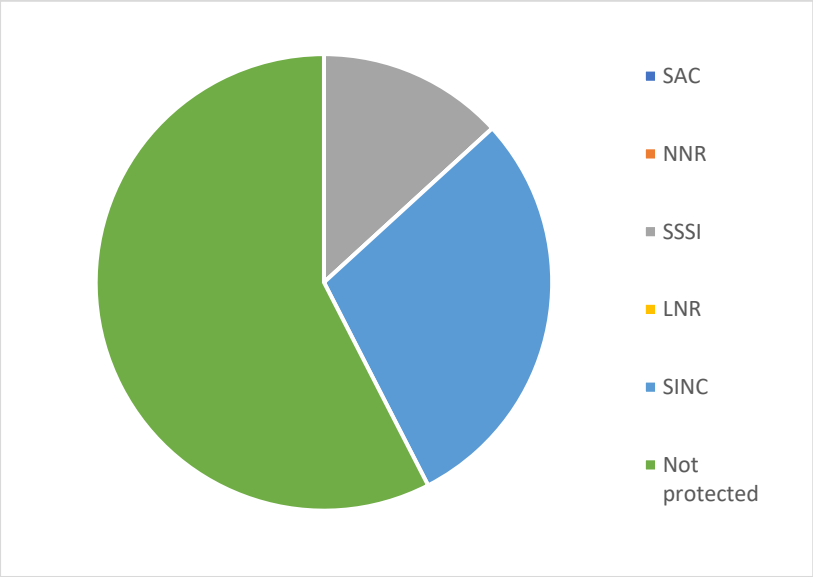


Habitats patterns: Willow Tits are very much a bird of wet scrubby woodland.

Population trends: As previously stated, there have been declines in Willow Tit populations across the UK. Gwent has been no different, with the species not far from local extinction. It is possible the Willow Tit may continue to hang on in a few localised sites. However, if we want to make sure the Willow Tit is not lost, concerted conservation effort will be needed. A priority would be to preserve and enhance their few remaining sites and provide additional sites containing suitable habitat in close proximity for the populations to colonise. Issues such as predation and competition are more difficult to address. The latest research should be consulted to inform management.

Protection: 42% of records come from protected sites. SSSI records were from Nelson Bog, plus a few scattered across the Gwent Levels. SINC records were from Nelson Wern, Wernddu Woods and Wentwood.

Willow Tit records from protected sites



Willow Warbler *Phylloscopus trochilus* (Linnaeus, 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981, as amended)

Conservation status: Amber (UK[2]) Red (Wales[1])

Data availability: Good (2911 records)

Context: A migrant bird that is a summer visitor to the UK, the Willow Warbler spends its winter in sub-Saharan Africa.[61] This means that the Willow Warbler is vulnerable to changes in summer, winter and migration stepping-stone habitats, and changes in food source – all impacted by climate change.[3] They are one of a whole host of warblers that breed in the UK, most of which migrate to long-distant wintering grounds. They are largely insectivorous, but will take fruits and berries in the autumn.[62] They are widespread across the UK, wherever suitable woodland/scrub with ground cover for nesting is present.[63] However, populations have altered significantly in recent times, with more northerly Scottish populations generally faring well, while those in England, particularly the south and east, have suffered sharp declines.[64] Overall, in the UK there has been a decline of 45% between 1970 and 2017.[31] Several possible factors for the declines have been suggested, including issues on wintering grounds and migration stop-offs (with Scottish and English birds perhaps utilising different areas, thus explaining the differences).[64] This is further expanded upon by reference to poor adult survival in wintering quarters to the south of the Sahara.[63] The general drying out of the countryside, making habitats less suitable, and browsing deer removing nest sites is also implicated.[64]

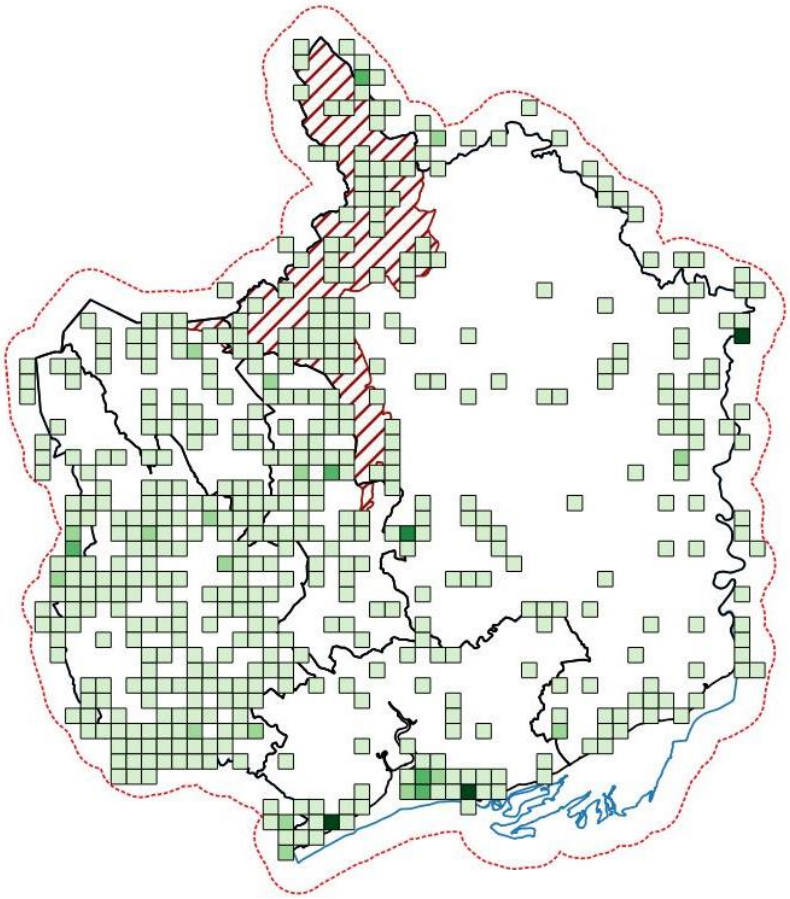
Outlook: It would appear that the Willow Warbler has been a common, well distributed species within the UK with little fluctuations in population for a long time.[9] It is interesting to note that there were inferences that it was absent from Wales in the mid nineteenth century.[9] This seems unlikely to be true. It was noted that in the second half of the twentieth century, the Willow Warbler took advantage of young plantations to colonise areas of upland where it had been previously absent.[9] This long-standing population stability has not been so apparent in more recent times, however (at least away from Scotland). The estimated UK breeding population in 2016 was 2,300,000 pairs.[10] This is still a considerable number of birds, but is nonetheless much reduced, as is illustrated by the recent declines: 45% reduction between 1970 and 2017 (described as 'weak decline'), and further 'weak declines' of 13% from 2012–2017.[31] The BTO Breeding Bird Survey[33] further illustrates these declines, with a huge 82% decline between 1995 and 2018 in the UK as a whole, and a worrying but less steep decline of 16% in Wales over the same period. Most recently there have been some signs of recovery, with a 66% increase (UK) and 29% increase (Wales),[33] although this is only over a single year (2018–2019), so only time will tell if this is the start of a recovery.

Greater Gwent range: Willow Warblers can be found throughout most of Gwent in suitable habitats (open woodland and scrub), although breeding densities are lower on the coastal levels., Conversely, greater numbers may be encountered on migration on the coastal levels. The latest Gwent Bird Report

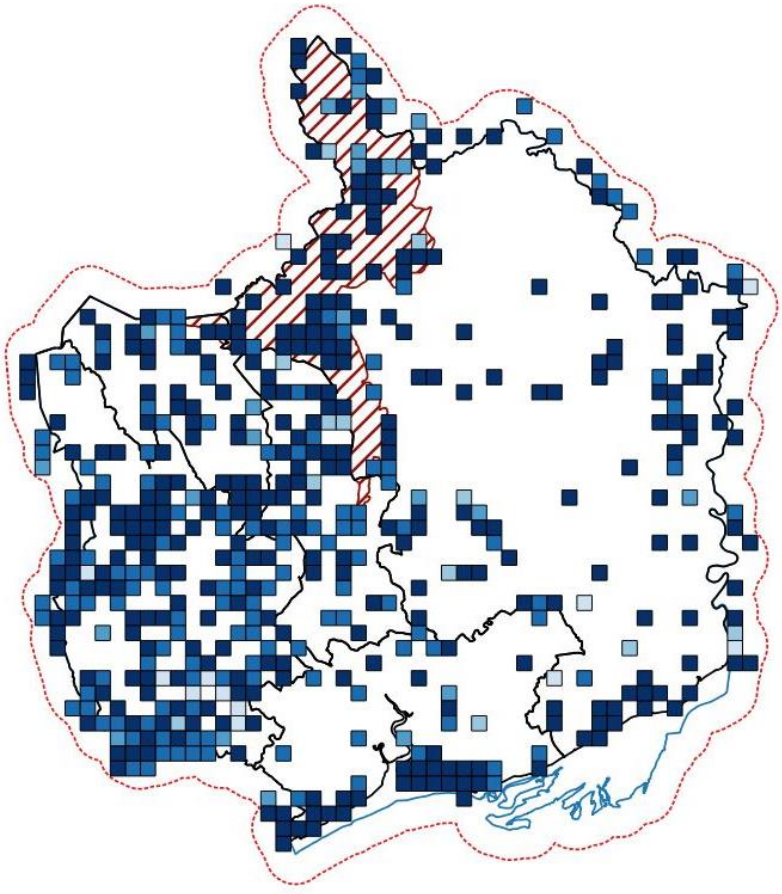
(2018) records Willow Warbler as a 'common breeding summer visitor and passage migrant'.[13] This on its own could paint a rosy picture for the Willow Warbler in Gwent, particularly as The Birds of Gwent in 1977 recorded it as a 'common breeding summer visitor', calling it, 'the most numerous and widely distributed of the warblers.'[65] However The Birds of Gwent in 2008 recorded Willow Warbler as being 'a common summer visitor and passage migrant; much declined in recent years',[63] clearly indicating that the declines seen over much of more southerly UK have also affected the Gwent populations. The Gwent Atlas of Breeding Birds that covers the period 1981–1985 estimated a Gwent population of 55,500 pairs;[66] the second atlas, which covers 1998–2003, estimated a much lower 5,600–21,000 pairs.[63] This again clearly illustrates a decline; indeed, it is described as a 'calamitous drop in the population'.[63]

Hotspots for records are at Peterstone Gout (recording hotspot) Newport Wetlands & Goldcliff, plus Llandegfedd, Garn Lakes, Lasgarn Woods, The British, Parc Taf Bargoed, Hendre Lake, Broad Meend, Magor Marsh, Pen y Fan Pond, Treowen and the Wye Valley Woodland in Herefordshire (outside of Greater Gwent).

Distribution of Willow Warbler records across Greater Gwent (max >100)



Records of Willow Warbler by decade



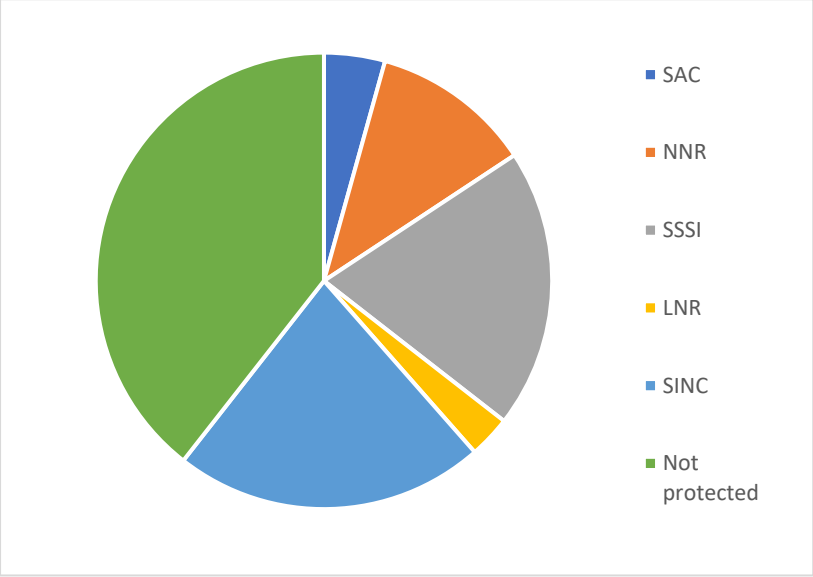
Habitat patterns: Willow Warblers are birds of more open woodland (avoiding areas with closed canopies) and scrub for breeding. They are also likely to be found in similar habitats on migration, although concentrations at these times have a more coastal bias.

Population trends: As previously stated, there have been significant declines in Willow Warbler populations across large parts of the UK, with only Scotland escaping these. Gwent has been no different, with large losses in populations, particularly in the 1990s. The rate of these losses has generally slowed, and Willow Warblers are still a common bird species across the UK and within Gwent. However, they are still of concern, particularly in Wales, where they are now Red listed. If the cause of these losses is being largely driven by issues on wintering grounds south of the Sahara, then this is more a global issue of climate change and more difficult to address through local conservation initiatives. However, habitats in Gwent can still be preserved and enhanced in such a condition as to maximise the potential available resources for breeding Willow Warblers, ensuring productivity rates are high, which have been shown to be an important factor in population levels.[43] Deer browsing in woodlands and loss of young growth in cleared and developing plantations are potential impacts on local populations, and these could be addressed in future conservation measures.

Protection: 60% of records come from protected sites, with high numbers of records from the following.

SAC records from the Severn Estuary, Usk Bat SAC, and Aberbargoed. NNR records from Newport Wetlands. SSSI records from the Gwent Levels, Blorenge, Llandegfedd and Silent Valley. LNR from Silent Valley, Parc Bryn Bach and scattered across others in Blaenau Gwent and Torfaen County Borough Council (CBC). SINC records are too numerous to specify – lots from across Caerphilly CBC and Torfaen CBC.

Willow Warbler records from protected sites



Cuckoo *Cuculus canorus* (Linnaeus 1758)

Andy Karran

Protection: Wildlife & Countryside Act (1981 as amended)

Conservation Status: Red (UK[2] & Wales[1]) UK BAP Priority Species, Environment (Wales) Act Section 7 Species.

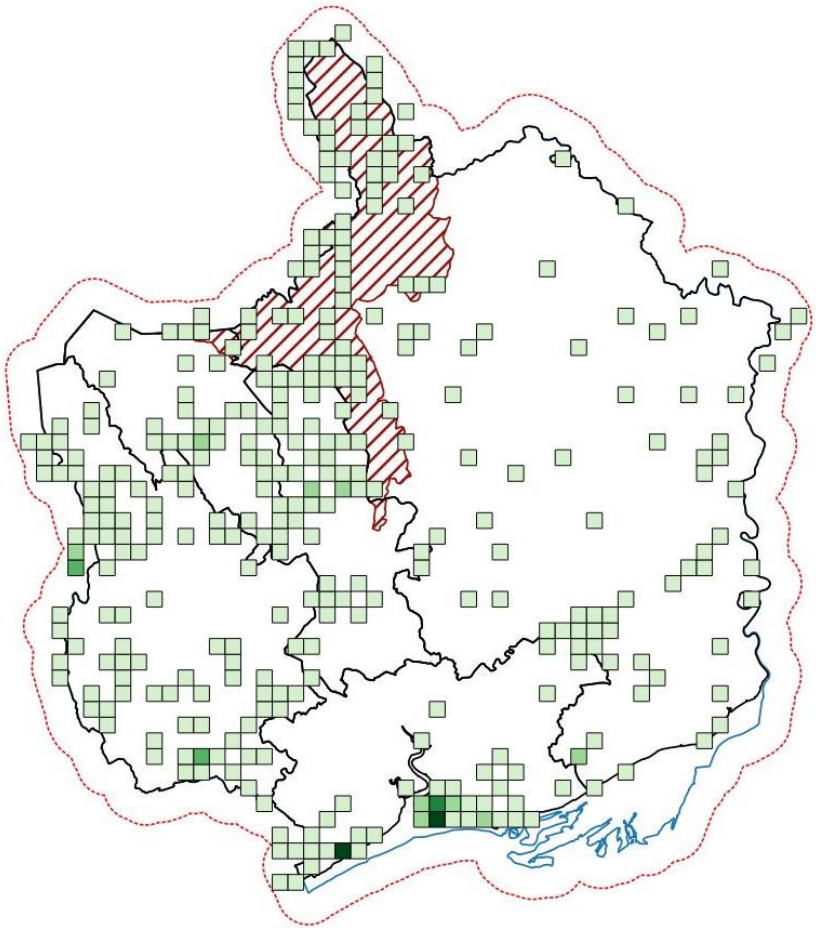
Data Availability: Good (1,317 records)

Context: Cuckoos are a migrant brood parasite, spending a short time in the UK in early summer to breed and the rest of the year in the Congo rainforest in Africa.[67] This means that the cuckoo is vulnerable to changes in summer, winter and migration stepping-stone habitats and changes in food sources, both impacted by climate change.[3] Cuckoos were added to the BAP Priority Species list in 2007, and the Birds of Conservation Concern Red List in 2009. Between the early 1980s and mid-2000s, Cuckoo numbers dropped by 65% in the UK.[68] The exact reasons for this decline are not known, but it has been suggested that declines in its hosts or climate-induced shifts in the timing of breeding of its hosts could have reduced the number of nests that are available for cuckoos to parasitize. The main hosts in Gwent are the Dunnock, Meadow Pipit and Pied Wagtail.[14] The British Trust of Ornithology have been satellite tracking Cuckoos since 2011 to try and understand more about their decline.[67]

Outlook: Currently the UK population and range is predicted to continue to decline, which would be reflected in the Greater Gwent population and range. Further research is needed to understand the ecology and the impacts of climate change on cuckoos in Wales and Greater Gwent.

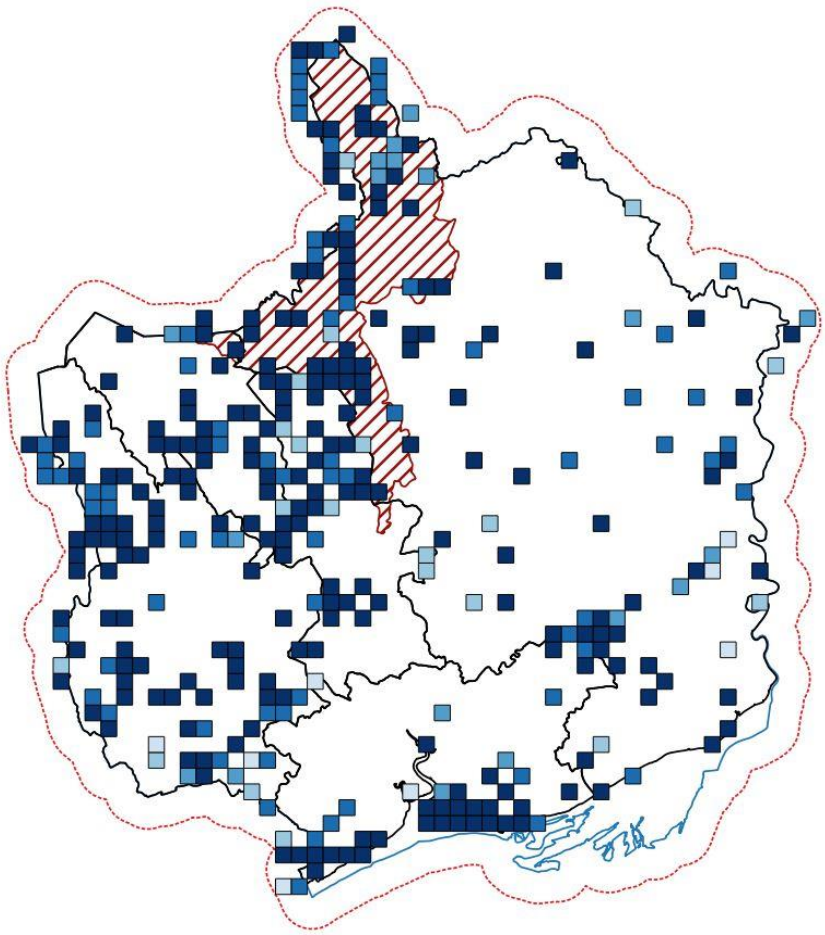
Greater Gwent range: Cuckoo are found across Greater Gwent, with distribution broadly corresponding to upland and lowland semi-natural areas. It can utilise a broad range of habitats including grassland, woodland edge and reedbed habitats. There is a higher proportion of records present in the Gwent Levels, Eastern Valleys and Brecon Beacons National Park area of Monmouthshire, with recording hotspots occurring at Newport Wetlands and Peterstone Wentlooge.

There has been some historic loss, particularly in the south and east of the study area. This corresponds with the findings within Birds of Gwent[14], where it is thought that there have been more marked losses from farmland areas.



Distribution of Cuckoo records across Greater Gwent (max 72 records/km^2)

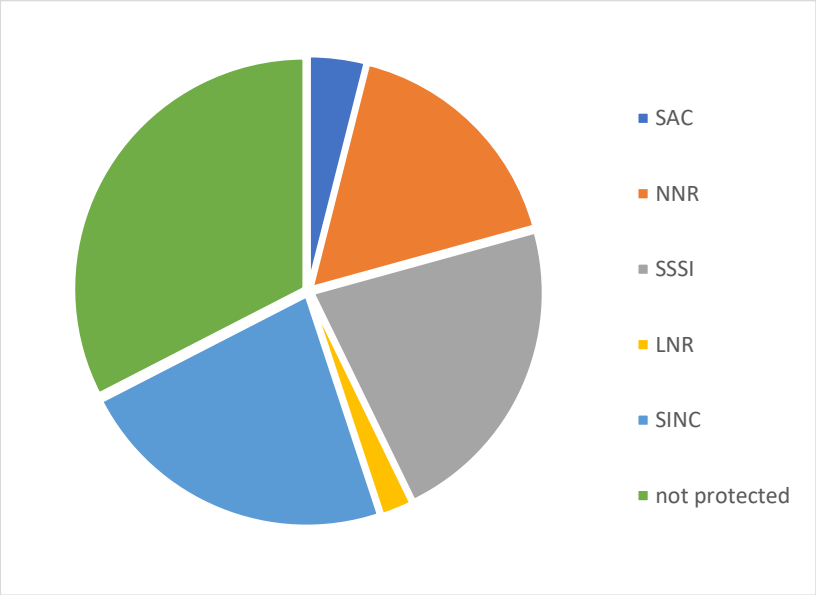
Records of Cuckoo by decade



Population trends: The UK Cuckoo population fell by 38% between 1995 and 2018.[33] Although the presence of cuckoos is easy to detect, thanks to their loud calls, evidence of breeding is much more difficult, so local population estimates are more difficult to calculate. In Gwent, the percentage of occupied tetrads fell from 87% in the 1980s to 67% at the time of the latest atlas (1998–2003). The Gwent population was estimated at 240–360 pairs in 1998–2003.[14]

Protected Sites: Two thirds (67%) of records come from protected sites, with a third (33%) coming from non-protected sites. This could be due to recording effort being concentrated at protected sites, or the higher quality of habitat and associated diversity often found within protected sites compared to the wider landscape.

Cuckoo records from protected sites



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