

Magpies in Argyll

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Magpies

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The Eurasian Magpie (*Pica pica*), a member of the crow family (Corvidae), is found in a variety of habitats across England, Wales and N Ireland, but is more localised in Scotland and almost absent from the Highlands. Magpies have increased in much of Britain in numbers and range, especially since the 1960s (108% increase UK wide between 1967 and 2002 and 59% increase in Scotland 1994-2003). Despite this they have made little progress in Argyll and this paper examines possible reasons for this. It also challenges some of the accepted wisdom concerning the species, in particular the views expressed by most authorities that they are very sedentary birds and are averse to crossing the open sea.

Historical distribution

Historical evidence appears to indicate that Magpies were formerly more widespread in Argyll.

The New Statistical Account of Scotland 1834-45 mentions Magpies in Argyll parishes as follows: **Ardchattan North Argyll** (N. of Loch Etive): listed under birds of prey as the 'jay-pyot' (*C. Pica*). **Inveraray Mid-Argyll** : listed among birds 'which either inhabit or have occasionally been killed' in the parish. **Killeen & Kilchenzie Kintyre** (W. Kintyre): Magpie included in list of birds 'which visit the parish'. The author says the list 'may serve as a specimen for all of Kintyre'. **Skipness Kintyre** (E. Kintyre): mentioned under 'birds of prey'. Magpies are not specifically mentioned in any other parishes. However the general reliability of this source may be open to question as the entry for **Strathlachlan Cowal** parish does not mention Magpies but says 'The eagle pays occasional visits and some years ago one of that species carried off, killed, and devoured a child about three years old'(!)

Later in the nineteenth century H.D. Graham (1890) says: "The Magpie is well known on the mainland, but a very unusual straggler on the islands" and Harvie-Brown & Buckley (1892) mention two being killed at Calgary *Mull* in 1876 but that none have been seen there since. They also say Magpies are commoner in the 'south districts about Ardchattan and Bunawe (sic.) but less abundant on the north side of the River Awe and central districts of the area.'

From the above it would appear that until the mid nineteenth century Magpies were fairly widespread, at least in parts of Argyll. Subsequently corvids were widely persecuted by gamekeepers, farmers and gardeners and Magpies suffered disproportionately, being easy to shoot. By 1938 they were common only in parts of the Central Lowlands and very scarce or non-existent in all other lowland areas. The population recovered slowly after World War II and it was not until the mid-1990s that the increase and range expansion in Scotland became more marked (Forrester et al. 2007).

BTO Atlas records

According to the three BTO Atlases, there has been relatively little change in the distribution of Magpies in Argyll.

The **68-72 Atlas** (Sharrock 1976) contains confirmed breeding records for NM94 *North Argyll* (which is possibly an error), NN00 *Cowal/Mid-Argyll* (probably Strachur), NR96 *Cowal*, NS09 *Cowal*, NS16 *Cowal*, and NS17 *Cowal*. However, there is no mention in the Scottish Bird Reports for this period of any breeding records outwith *Cowal*. Perhaps contrary to expectations, the *68-72 Atlas* showed more confirmed breeding records here than either of the two subsequent breeding atlases. The six 10km squares with confirmed breeding were: NM94 (Appin area of North Argyll), NN00 (Inveraray, Mid-Argyll - Strachur area, Cowal), NR96 (Portavadie - Ardlamont area, Cowal), NS09 (Strathlachlan - Glenbranter area, Cowal), NS16 (Toward area, Cowal) and NS17 (Dunoon area, Cowal). George Newall (*pers. comm.*) tells me that when he first saw Magpies in Cowal in the early 1970s they were more numerous in the Innellan area and only later became commoner in Dunoon itself.

The verification process for the **68-72 Atlas** was less stringent than for subsequent volumes and the editor notes 'it is probable that the maps... still contain 50-100 minor errors...' (Sharrock 1976). This could well be an underestimate as there is no mention of the error that came up most often when validating the *07-11 Atlas*; namely incorrect reporting of grid references by observers. In this context the record for NM94 must be open to some doubt. It is a long way from any other confirmed breeding records and although the Argyll Bird Club (ABC) database has records of single birds in the Barcaldine area between 1996 and 2004 there has never been any suggestion of breeding and none of the subsequent atlases (including winter) has any records at all for this 10km square.

The NN00 breeding record almost certainly refers to Strachur rather than Inveraray as the only record in the database from the Inveraray area is one at the caravan park (Dalchenna - NN0806) in November 2003.

The **81-84 Winter Atlas** (Lack 1986) includes records for 11 Argyll 10km squares. Of these, seven (NN10, NR97, NS07, NS08, NS16, NS18 and NS19) are in *Cowal*, one (NR85) in *Kintyre*, two (NR76 and NR89) in *Mid-Argyll* and one (NN11) partly in *Cowal* and partly in *Mid-Argyll*. All are shown as small dots (1-20 records) apart from NS07, which is shown as a large dot (44+ records). However, there are no records for Dunoon NS17 (the source of most ABC records) and NS07 covers the Colintrave area of Cowal. This is probably a mapping error as it seems most unlikely that there were 44+ Magpies in the Colintrave area! Danielle and Graham Clark (*pers. comm.*) who have lived at Colintrave for many years agree that this is out of the question. So this dot should almost certainly be in NS17.

The **88-91 Atlas** (Gibbons *et al.* 1993) shows a curious set of records for Argyll. Confirmed breeding is indicated only for NN00 (Inveraray/ Strachur - presumably Strachur), NN10 (E of Strachur) and NS18 (Sandbank/Ardentinny). There are sight records for NS09 (Castle Lachlan/Glendaruel), NS19 (Glenbranter/Carrick Castle) and NN01 (Loch Awe/Glen Aray) but no records at all for NS17 (Dunoon/Bullwood etc) or NS16 (Innellan/Toward) the core breeding areas for Magpies in Argyll. As there is a confirmed breeding record for Innellan in the 1990 Argyll Bird Report (ABR 7: 49) there may be another mapping error here: or possibly a lack of contributors to that Atlas in the Dunoon area.

The **07-11 Atlas** (Balmer *et al.* 2013) shows Confirmed breeding for NS16 and NS17, as one would expect, and there is a probable breeding record NN00 (most likely Strachur). Also, possible breeding records for NS07, NR88 and NR98 but these are likely to be wandering birds that happened to be seen in potential breeding habitat during the breeding season.

All the Atlases show Magpies as more or less ubiquitous in Northern Ireland and most of the Republic of Ireland. Some of the highest densities occur in Northern Ireland and the greater Dublin area (Gibbons *et al.* 1993, Balmer *et al.* 2013).

A sedentary species?

Most studies of Magpies have found them to be a very sedentary species (eg Wernham *et al.* 2002). Birkhead conducted a ten year study of Magpies in the Rivelin Valley to the east of Sheffield. He found that "In our study all magpies were highly sedentary, and the median distance moved between breeding attempts in successive years was just 25 metres. There was no difference between males and females. In terms of territories, 95% of birds moved less than one territory distance between years. Even over several years there was no tendency for dispersal distance to increase". During this period he and his research students colour ringed 854 chicks, virtually every nestling hatched in the study area and some from the area immediately around it (Birkhead 1991). He says that "...we regularly searched all surrounding areas for colour-ringed birds, and in ten years of enthusiastic Magpie recording by the Sheffield Bird Study group we had only 4 reported sightings of individuals more than 2km from where they had been ringed" (Birkhead 1989).

The **81-84 Winter Atlas** (Lack 1986), in common with many other authorities, says of Magpies that 'the species is non-migratory and remarkable sedentary in Britain and Ireland'. Clearly the Magpies appearing in various far flung parts of Argyll are unaware of this! Like most other sources *Birds of Scotland* states that the Magpie is a sedentary species that usually disperses only short distances. However, of the 27 recoveries in Scotland (as at 2007), 21 had moved less than 9 km, five 10-99 km and one more than 100 km. The latter had moved 163 km in two months (Forrester *et al.* 2007), from Tarbet, Loch Lomond to Aberdeenshire. However, in this context, it should be noted that relatively few Magpies are

ringed in Britain and even fewer in Scotland. During the 8 years 2006-2013 only 238 Magpies were ringed in Scotland (fewer than 30 a year), *cf* tens of thousands of Blue Tits, Blackbirds, Common Chaffinches etc. Even in Britain and Ireland as a whole, only 4,185 Magpie were ringed during this period compared to hundreds of thousands of each of the more commonly caught species. So it's perhaps not surprising that there were only 8 recoveries in Scotland during 2006-2013. Six of these had moved 5km or less, one had moved 16km and one 42km (<http://www.bto.org/volunteer-surveys/ringing/publications/online-ringing-reports>).

Another possible factor is that most of the studies have been carried out in areas where Magpies are numerous and present in high population densities. It would make a certain amount of sense if the birds leave their home territory in spring (males specifically do that in some species) and stop when they find possible mates. In an area with many Magpies they are not going to have to travel far, whereas in an area like Argyll they may just keep going?

Magpie records in Argyll

With the exception of the, possibly doubtful 68-72 *Atlas* breeding record in NM94, until 2014 all Argyll breeding records are within the *Cowal* recording area. Most are around Dunoon but there are a few elsewhere, including Strachur, which has a long history of Magpie records dating back to at least the 1960s. The confirmed breeding records in all three atlases for the 10km square NN00 almost certainly refer to Strachur rather than Inveraray (there are no Magpie records at all from Inveraray in the ABC database). The small and apparently long standing population at Strachur could represent a relict population that survived from before the extensive planting of conifers, possibly supplemented by occasional wanderers from Dunoon via Loch Eck.

Nevertheless, since records began to be kept systematically in Argyll (from 1981 onwards) significant numbers of Magpies have been reported well away from the core breeding area. There are 357 Magpie records in the ABC database. Nearly half of these relate to the core breeding area in *Cowal* and a good many are repeat records of individual birds seen at one location over a period of time. Removing these, as far as is possible, leaves a total of 196 records outwith *Cowal*.

Geographical spread of records.

The breakdown by recording areas is as follows (repeat sightings of what was obviously the same bird at the same locations are not included in the totals for *Kintyre*, *Mid-Argyll* and *Mull*):

Coll – no records.

Colonsay – one record, of a bird used as a call bird in a Larsen trap which was released on the island at the end of the breeding season in 2001 by John Bridges. At this time it was at least 2 yrs old (M Ogilvie, D C Jardine *pers comm.*).

Cowal – 166 records (44.6% of all records). Removing records from core breeding area around Dunoon leaves a total of 25.

Islay – 36 records (1981-2014) from various sites on the island, all concerning single birds. Some almost certainly involved multiple sightings of wandering long staying individuals e.g. sightings at several locations between May 2002 and May 2003 (19 records) and between March and June 2011 (10 records). Allowing, as far as possible, for these, there may only have been 13 or 14 individuals involved, possibly fewer. A contact of John Bowler's on Islay says that in their opinion Magpies generally don't last very long on Islay as the island remains relatively well kept for legally controlled corvid species. However, as experience on *Colonsay* has shown, Magpies are also used by keepers in crow control.

Jura - no records: although the bird on the Oa peninsula *Islay* on 16 May 2002 was reportedly seen earlier on Jura.

Kintyre - 74 records (1984-2014) from throughout the recording area including: Southend, Campbeltown, Machrihanish, Peninver (several), Muasdale, Gigha, Skipness and Tarbet, and also from Gigha. All were of single birds, except two birds in Campbeltown in 2013 and 2014. A pair was reported visiting an apparent nest site near the top of a tall conifer in Campbeltown in May 2014 but this nest was thought to have been predated by Hooded Crows (E. Maguire *pers. comm.*).

Mid-Argyll – 35 records (1984-2014) (excluding repeat sightings). However it is very difficult to be certain about repeat sightings and records, especially in the Lochgilphead area, which *could* relate to a fairly small number of long staying individuals.

Mull – 14 records (1984-2010) (excluding repeat sightings, but all records in the years 2000, 2005 and 2008 could refer to single wandering individuals, which would reduce the total to 9 birds).

North Argyll - 15 records (1988-2010) but all the records at Barcaldine Oct 1997 to Mar 1998 and the two records at Achnacree more (nr. Benderloch) in 1999 probably refer to the same individuals, so the true total is probably nearer 9.

Tiree - One seen in January 1986 was reportedly seen again in the spring of that year. It is possible that this bird came via *Coll* having made the sea crossing from the north of *Mull*. It's also at least a possibility that this, like the bird on *Colonsay*, was introduced in some way. A further, but perhaps less likely, possibility is that it was a ship assisted visitor. John Bowler (*pers comm.*) thinks the deliberate introduction theory plausible especially considering lack of further records and the absence of records from *Coll*, which has more suitable habitat for the species (including conifer plantations) and is rather closer to *Mull*.

Considering the geographical spread of records and the dates involved, all these reports could relate to a relatively small number of wandering individuals. However there are several instances of almost simultaneous records from widely separated locations.

Temporal pattern of records

Table 1 shows the monthly pattern of Argyll Magpie records 1981-2014, both overall and excluding the Dunoon area:

Table 1. *Monthly & Quarterly totals of Argyll records.*

Month	Total records excluding core breeding area around Dunoon*	% total	Total of all records
January	9	4.6	40**
February	16	8.2	29
March	24	12.2	33
April	60	30.6	76
May	24	12.2	30
June	11	5.6	27
July	6	3.1	16
August	4	2.0	9
September	7	3.6	16
October	14	7.1	20
November	13	6.6	43
December	8	4.1	20
Total	196		359
1 st quarter	48	24.5	
2 nd quarter	95	48.5	
3 rd quarter	18	9.2	
4 th quarter	35	17.9	
Total	196		

* edited, as far as possible, to remove repeat sightings of the same individuals.

**22 of these are notional 1 Jan records indicating records for the whole year.

For the records outwith the Dunoon area repeat sightings of the same individual have, as far as possible, been discounted so that these are the first records of an individual at a given location. There is clearly a striking peak in April when over 30% of records occur. One aspect of Magpies social behaviour is the so called Ceremonial Gatherings that begin in December and reach their peak in April, just prior to the breeding season. They usually consist of 8-10 birds, although there are large spectacular gatherings of up to 50 birds. Gatherings occur on the ground or in the trees - the birds, noisily chasing each other. George Newall's record of 22 birds in one tree in Dunoon on 29 Jan 2005 was probably such an event (ABR 20:132). Although not fully understood it is thought that these gatherings represent different stages in territory acquisition (Birkhead & Clarkson 1985). It is possible that the record peak in April involves immature birds that have been unable to acquire a territory locally and are

motivated to look elsewhere. However, without an intensive ringing programme in the Dunoon area there is no empirical evidence to support this theory. Interestingly, Neville McKee also refers to an April peak of passage birds at Copeland Bird Observatory, Northern Ireland.

Clusters of records

That several individuals are simultaneously involved in Magpie movements in Argyll is demonstrated by clusters of records on the same dates or within a day or two at widely separated locations. For example, on 26 March 1999 there were birds at both Connel and Kintallan (near Tayvallich), *Mid-Argyll* and one was at Campbeltown *Kintyre* on 29 March 1999. Again, between 4 April and 7 April 2002 there were records at Craignish Castle *Mid-Argyll*, Barcaldine *North Argyll* and Loch Poit na h-I (Pottie) *Mull*.

The Magpie is a relatively large, distinctive species that is easily recognised by people with only a passing interest in birds. They also have a (largely undeserved) reputation as a pest and predator of garden birds and are thus more likely to be reported than most other birds. It therefore seems likely that (despite the small number of birders in Argyll) a good proportion of the Magpies that do occur in Argyll, away from the Dunoon area, will have been reported.

Where do they come from?

Wanderers from Cowal.

Despite the Magpie's reputation as a sedentary species, some individuals do move considerable distances. Of only 27 recoveries quoted in *Birds of Scotland*, five had moved 10-99 km and one 163 km in two months. The paucity of published records of such movements is probably a function of the very small numbers of Magpies ringed.

Records in the Lochgilphead *Mid-Argyll* area could relate to birds that have flown across Loch Fyne from the Otter Ferry area (e.g. birds at Otter Ferry *Cowal* and Minard *Mid-Argyll* in late March 2005 and one seen on 10 November 2013 both at Ballimore, near Otter Ferry and at Minard). They might also be birds flying north from *Kintyre*.

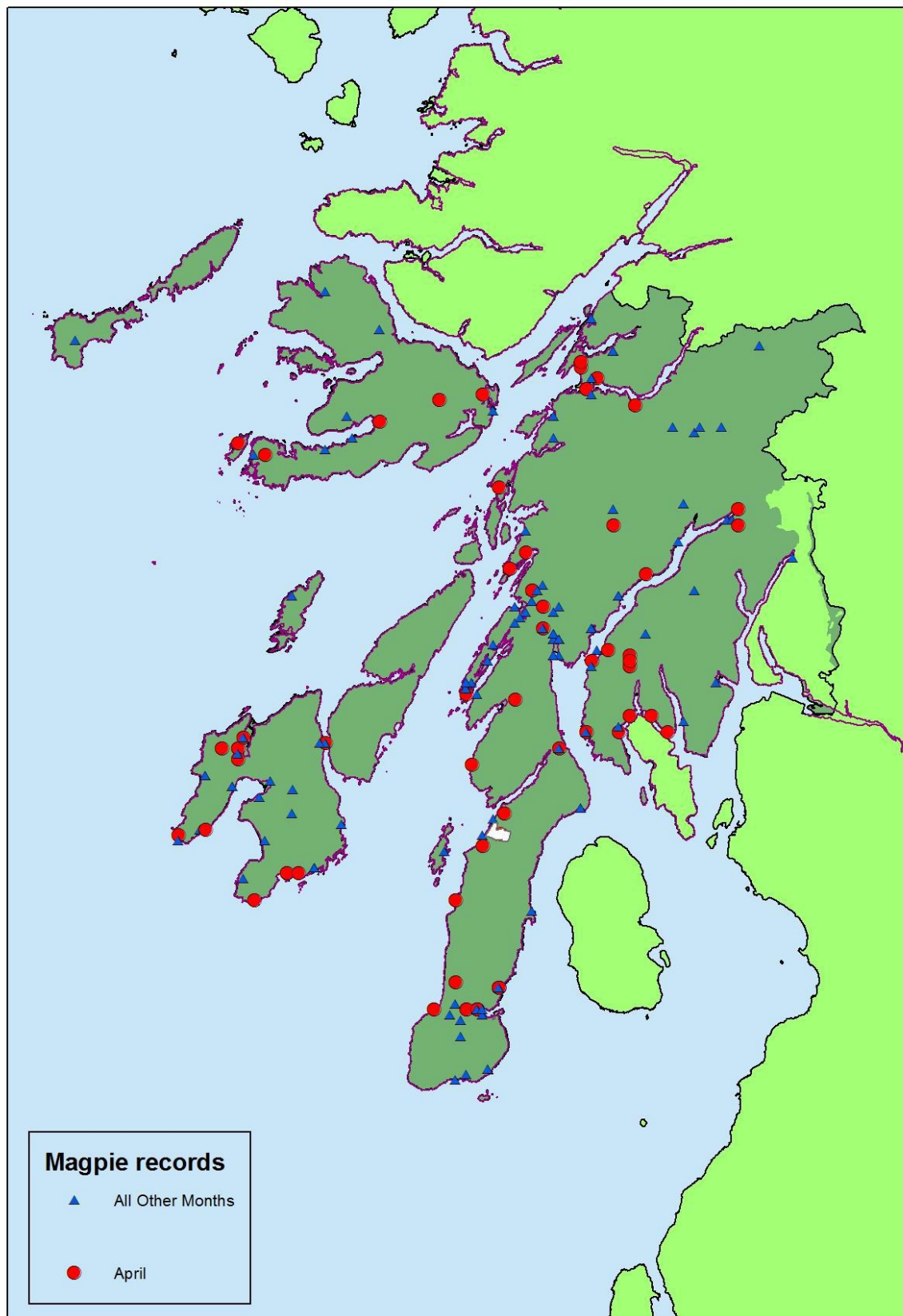
While this paper was in preparation three sightings of birds by the A83 road, in Glen Kinglas *Cowal*, were reported. One was at the Junction with the A815 Dunoon road (NN1909) on 11 Apr 2014 and what was presumably the same individual was at Butterbridge (NN2309) on 16 Sept 2014 and on the following day. These could all refer to the same bird, which may have made its way up the A815 from Strachur or, just possibly, up Glen Croe (A83) from Arrochar and over the Rest and be Thankful (NN2207 - altitude 269m).

Those from the south Knapdale and north *Kintyre* area could be wanderers from *Mid-Argyll*/south *Kintyre* or birds that had flown from Portavadie *Cowal* to Tarbert *Kintyre*. Sightings in the Oban *Mid-Argyll* and *North Argyll* areas might derive from birds that had moved north up the west coast from Lochgilphead or roughly along the route of the A85 (e.g. records at Lochawe and Connel). Birds seen in south *Kintyre* could have moved south from *Mid-Argyll* or possibly be immigrants from Northern Ireland.

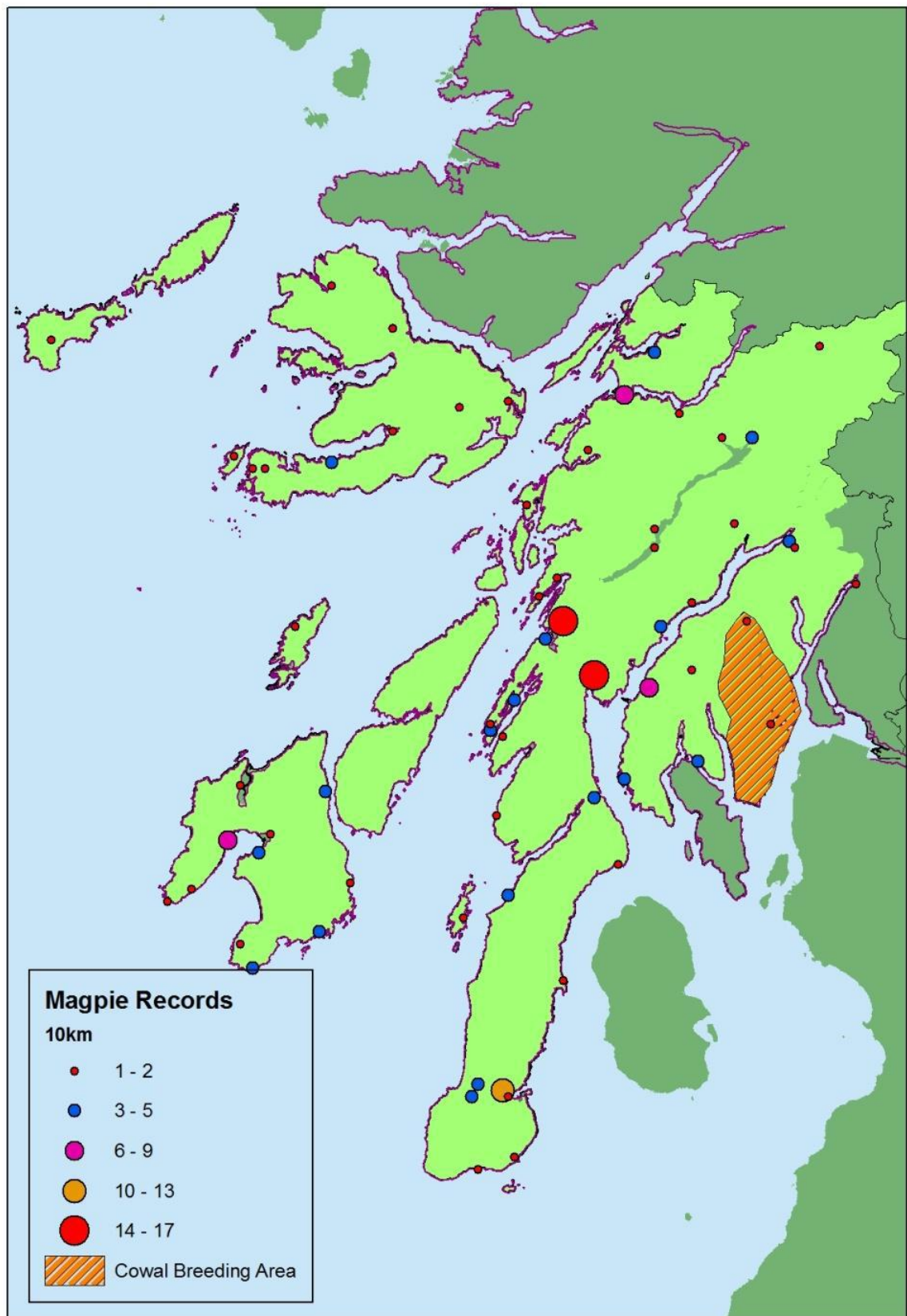
Sightings on *Mull* might involve birds coming from the mainland via Lismore *North Argyll* or Kerrera *Mid-Argyll*. Both involve relatively short sea crossings: 5 km or *ca* 3 miles in the case of Kerrera and less for Lismore. The *Islay* records could be the result of island hopping via *Jura*. The sea crossing from the mainland (near Keills, Loch Sween *Mid-Argyll*) to Tarbert on *Jura* is only *ca* 7km (4.5 miles) and one of the *Islay* birds was reportedly seen initially on *Jura*. Alternatively, birds could possibly have come via Gigha *Kintyre*, involving a sea crossing of 16km (10 miles). It's just possible that birds could have flown direct from Northern Ireland, although, even from Rathlin Island, this would entail a sea crossing of 30 km (18.6 miles).

Malcolm Chattwood has kindly produced various maps showing the distribution of Argyll Magpie records. Map 1 below shows records outwith the core breeding area and highlights April records (dots). One possible interpretation of the distribution shown is that it shows individuals moving westward around the coast of Cowal and through the glens, thus avoiding higher ground. Map 2 shows locations where records were most numerous.

Map 1 *Magpie* records in Argyll 1981-2014 (circles – April records, triangles – records in other months)



Map 2 (right) Magpie records in Argyll 1981-2014 by 10km square with core breeding within Cowal area shown hatched.



Immigrants from Northern Ireland?

Many authorities state that Magpies are reluctant to cross water and there are accounts of birds attempting to cross from Sweden to Denmark, a distance of 24 km (*ca* 15 miles), but returning, apparently 'panic stricken' (Cramp & Simmons 1985). However, Eddie Maguire (*pers. comm.*) has long suspected that birds seen in the south of *Kintyre* and the Campbeltown area in particular, might come from Northern Ireland. There is certainly a healthy population there (Balmer *et al.* 2013) and some time ago I asked the Northern Ireland bird recorder, George Gordon, for his opinion regarding the possibility of migration across the North Channel. He in turn approached Neville McKee of the Copeland Bird Observatory (Copeland Islands ASSI is located off the County Down coast of Northern Ireland and comprises Big Copeland, Lighthouse Island and Mew Island). Neville's reply was most illuminating:

Magpies at Copeland Bird Observatory

"Outside the breeding season, numbers present vary from 0-4 mostly but can be up to 12 sometimes, and even more occasionally during spring passage. They regularly cross to Mew, but can also be seen commuting to and from Big Copeland. We also, on occasion, see flocks migrating to and from Scotland in season. The passage is most notable in spring, especially April. Flocks of up to 20 have been seen going out so far that they disappear from telescope view. Ours always seem to be travelling to and from Portpatrick, which of course we and they can see as it is only 14 miles away. On some days in spring up to 50 have been recorded on or over the island. They can be a great height, perhaps 200 metres. While sea-watching we also pick them up in the scope in autumn, far out to sea and heading towards us from Galloway. Magpie days usually involve other corvids, particularly Carrion Crows. In the numbers these occur (up to 20 and sometimes more) I assume these are heading back to Scotland after a winter in Ireland. Maybe we should make an effort to ring more of these crows. I would imagine that Magpies, if from Ireland, would cross from Torr Head to the Mull of Kintyre." (N McKee *pers comm.*).

Given that the distance across the North Channel from Torr Head to the Mull on Kintyre is slightly less (20 km or 12.4 miles) than from Portpatrick to the Copeland Islands there would appear to be no reason why some Magpies should not make the crossing from Northern Ireland to Argyll.

Deliberate introductions.

Magpies may sometimes be trapped although according to Birkhead (1991) this is, for adults at least, difficult and time consuming. However young taken from nests have been kept as 'pets' in the past and the *Colonsay* example demonstrates that they may be released or escape elsewhere. This might explain the bird on *Tiree*, which is otherwise difficult to account for.

Ship assisted 'migrants'.

For birds seen on *Mull*, *Islay* and *Tiree*, the possibility of ship assisted 'migrants' e.g. on ferries or fishing boats, exists. It's difficult to imagine that a large, striking and noisy bird like the Magpie could 'hitch a lift' undetected: in which case one imagines it might have been reported. On the whole this seems an unlikely explanation for Magpies appearing on the Argyll islands.

Why has a breeding population not become established outwith Cowal?

Habitat Requirements

Magpies are chiefly birds of open lowland or lightly wooded country. They inhabit both broad-leaved and coniferous woods, wherever glades, clearings or more open stands occur, and especially near margins of natural or cultivated grasslands and croplands. They avoid both densely forested and treeless regions and precipitous rocky terrain. The spread into suburban and even inner city areas is a relatively recent phenomenon, chiefly since the 1950s (Cramp & Simmons 1985). Birkhead (1991) established that prime breeding habitat for Magpies was grazing land, defined as grassland occupied by livestock, usually horses or cattle. The animals keep the grass short and their droppings help to attract many of the invertebrates, like dung flies and beetles, that magpies eat.

Habitat in Argyll.

Magpies formerly occurred at least in *Kintyre* and *North Argyll* and there is certainly still suitable habitat in south *Kintyre* and to a limited extent in *North Argyll*. Areas of grazing land still occur in parts of *Mid-Argyll* (especially in the Lochgilphead/Kilmartin area). However for Magpies to become re-established there would require a small core of individuals to be present together at the right season.

Altitude.

There is in Britain a fairly close correlation between Magpie density/distribution and altitude. Although a large part of *North Argyll* would be unsuitable for this reason, much of the remainder is relatively low lying. It is possible though, that the higher ground to the west and north of the core breeding area around Dunoon could act as a partial barrier to range expansion.

Extensive conifer plantations.

Danielle Clark first suggested to me that the dense conifer plantations that have been extensively planted in Argyll since the late 1940s might act as a barrier to the spread of a breeding population. Certainly this is the major difference in the general habitat since the nineteenth century, when Magpies were more widespread. They are said to avoid forested areas and most of the core breeding area around Dunoon is surrounded by such plantations. Although Magpies are widespread in parts of Scandinavia (e.g. Finland) with extensive

conifer forest cover, these are in the main native forests with open glades etc. rather than the dense plantations frequent in Argyll. It may be that this limits the spread to the immediate periphery of the core area and that the relatively few individuals that manage to bypass the forestry by travelling around the coast or through the glens are insufficient to re-establish a breeding population? However there is extensive harvesting taking place in the area to the west and south west of Dunoon, which could provide opportunities for Magpies to extend their range. Alternatively, it may be that birds from Northern Ireland (if such there be) represent the best chance of Magpies re-establishing themselves.

Predators.

Another possible factor that may have affected the spread of Magpies in Argyll is the increase in potential predators, which may well slow dispersal from the relatively low-density breeding population in *Cowal*. Common Buzzards, Eurasian Sparrowhawks, Peregrine Falcons, Common Ravens and crows are much more abundant now than in the past (M Daw *pers. comm.*). Some continental studies have shown that high densities of Hooded Crows impact on Magpies (D Jardine *pers. comm.*)

Diet and Persecution.

Magpies have an extremely varied diet: in summer mainly grassland invertebrates, such as beetles, flies, caterpillars, spiders, worms and leatherjackets and in winter, more plant material, such as wild fruits, berries and grains, with the addition of household scraps and food scavenged from bird tables or chicken runs, pet-foods etc. They will eat carrion at all times and catch small mammals and birds. Occasionally, Magpies prey on larger animals such as young rabbits. During the breeding season they will take eggs and young of other birds but all the studies that have been carried out show no evidence that increased numbers of Magpies have caused declines in songbirds. They confirm that populations of prey species are not determined by the numbers of their predators. Availability of food and suitable nesting sites are probably the main factors limiting songbird populations (https://www.rspb.org.uk/discoverandenjoynature/discoverandlearn/birdguide/name/m/magpie/effect_on_songbirds.aspx).

If they do manage to re-establish themselves outwith *Cowal*, it is to be hoped that they will not be persecuted as vermin. Magpies are, I would maintain, intelligent, harmless and beautiful birds and would be a welcome addition to our avifauna.

Conclusions

Magpies in Britain have long been considered to be sedentary birds, which are averse to crossing the open sea. In this paper I have presented evidence that questions this view and put forward suggestions as to why, despite range expansion and increased population density elsewhere in Britain, they have not spread significantly in Argyll. It will be interesting

to see if the extensive conifer harvesting currently taking place will provide opportunities for Magpies to extend their range

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