

### Corvid Perception Survey

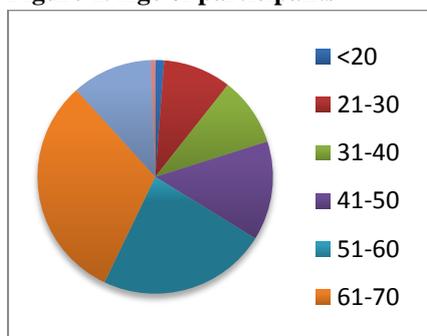
Thank you again for filling in the survey. We were delighted with the number of responses and appreciate the insights you shared. With the number of participants giving personal stories, and links to videos/pictures, it is obvious how important the composition and activity of wildlife in gardens is for people of all ages, with differing recreational hobbies, and from locations throughout the UK.

Summary of aims: Our survey aimed to understand how the distribution and behaviour of birds of the crow (Corvidae) and pigeon (Columbidae) family may correlate with people's opinions and actions.

### Participants

The majority of our 1714 participants were between 40-70 years old, and identified themselves as birdwatchers (75%). See **Figure 1, table 1.**

**Figure 1. Age of participants**



**Table 1. Percentage of participants that listed the following interests**

Birdwatcher	74.96%
Farmer	2.98%
Hunter	6.30%
'Not outdoorsy'	3.74%
Walker	61.06%

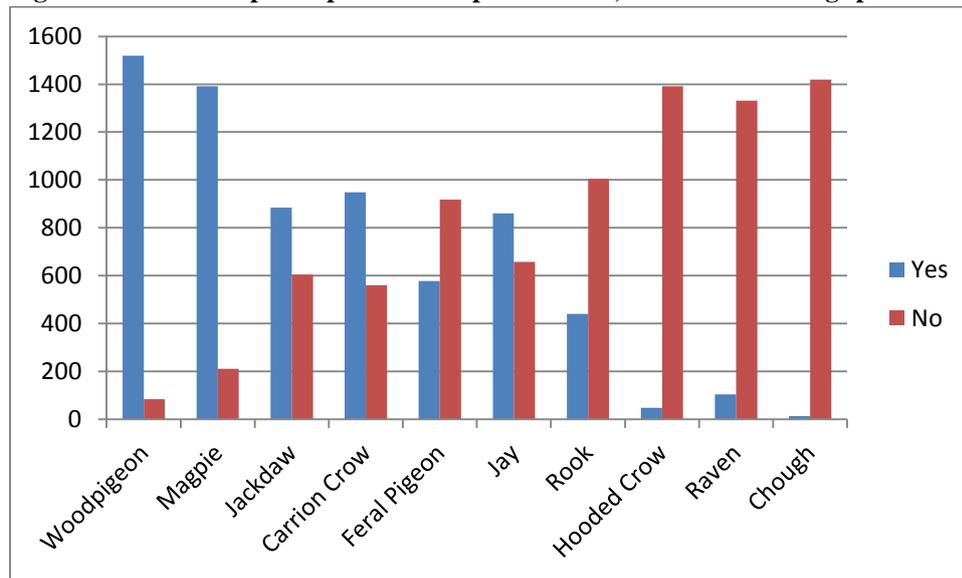
(note: Does not add up to 100% because people were free to identify with more than one category)

### Species Abundance

The reported abundances of species in our survey were similar to the relative abundances reported by participants in the BTO's GardenBirdWatch surveys. Woodpigeons and magpies

were the most common garden visitor, while hooded crows, ravens, and choughs were relatively rare. See Figure 2.

**Figure 2. Number of participants that reported visits; Does the following species visit your garden?**



### Provisioning/Foraging

Eighty-nine% of participants left food out in their gardens for birds. Water and mixed seed were the most frequent offering for birds, while live foods were the rarest. Of participants that left food out for birds in their gardens, see table 2 for a breakdown of what they left out.

**Table 2. Percentage of provisioning respondents that left out the following foods**

Peanuts	74.4%
Black sunflower seeds	38.3%
Sunflower hearts	52.7%
Live foods	9.9%
Fats	79.6%
Scraps	56.4%
Mixed seed	80.5%
Nyger	51.2%
Water	84.3%

Magpies were reported most frequently as foraging on human refuse (346 reports), but when adjusted for species prevalence, hooded crows (49.0%) and feral pigeons (28.7%) were more likely to be seen picking through rubbish.

Unusual feeding habits were reported for 7 of the 9 species (Ravens and Choughs did not receive reports). The most common innovation reported involved recovering food from bird feeders. Whether participants provided seeds, peanuts, or fats, and whether the feeders were placed on poles, hung from houses feeders, under mesh, or caged, the survey showed

that many birds were able to figure out how to obtain food. Jackdaws were the most innovative in this regard, with 9.2% of gardens that had jackdaws also reporting feeder innovations. Magpies had less than half that amount (4.2%), and Jays and Woodpigeons had similarly small numbers of feeder innovations (3.4% and 3.0% respectively). Other notable behaviours included Magpie, Jackdaw and Carrion Crow dunking food in water prior to eating, and the stealing of food from squirrels, and sparrow hawks.

### Positive Experiences

One of the survey questions asked whether people had hand-raised a species from the survey, had experienced a personal relationship with one, or knew people who had done either of these things. More people reported these types of positive relationships with jackdaws (174 reports), than any other species. When compared with species' prevalence, although the chough was the rarest of species of the survey, participants were more likely to report positive experiences with them. In contrast, jays were the least likely to be part of a positive relationship. While there could be many explanations for these results, they could be due to people's perceptions of certain species as being more worthy of attention, or the breeding ecology of some species could predispose their nestlings to be found more often by people.

### Negative Experiences

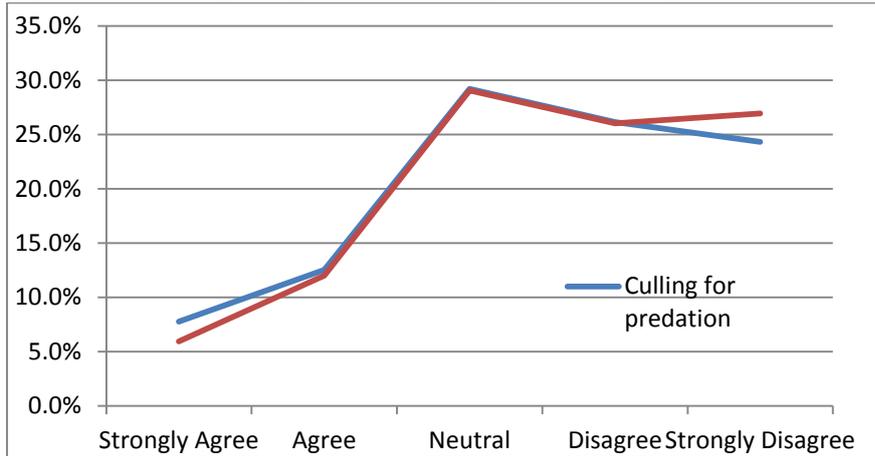
Woodpigeons were reported to cause the most damage to property, even when accounting for their higher prevalence (with 95% of all participants reporting their visits and 14.5% of those reporting damage by woodpigeons). In comparison, only 1% of the number of ravens and jays that were reported to occur in participants gardens caused damage. Either ravens and jays simply cause less damage with their activities, or we are less likely to perceive their activities as damaging.

Forty-four % of participants (464 people) reported having witnessed a nest predation event, and 650 gave details about predated nests and their predators. Those details indicated that magpies and "crows" (including both carrion crows and hooded crows) were seen to, or assumed to predate the largest number of nests. Other corvids such as jackdaws were reported as both predators and as victims of predation. Some of these details indicate confusion over species identity, as some participants mentioned uncertainty over what they had seen. Reports of nest predation by rooks (13 cases listed), may fall under this misidentification as rooks are not known to take live prey other than insects.

### Opinions on Culling

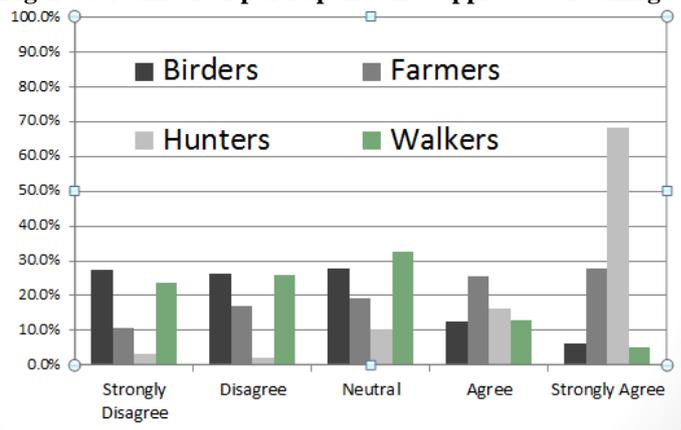
Responses to questions about opinions on culling were consistent whether the purpose of the culling was to prevent nest predation or damage to crops, see Figure 3.

**Figure 3. Percentage of opinions on culling to reduce nest predation vs culling to reduce crop damage**



When broken down by interest type, those who identified as hunters were more likely to agree with culling, while those who identified as birdwatchers or walkers were more likely to disagree. See Figure 4.

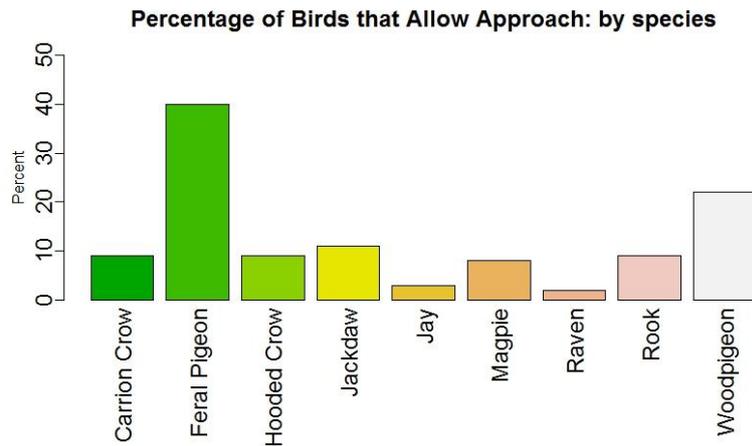
**Figure 4. Number of participants that approved of culling to reduce nest predation**



Other factors that influenced people’s opinions about culling included having witnessed nest predation, and having reported that damage had been caused to one’s property by these species. Factors that did not contribute were respondents’ age, history of personal relationships with birds, postal code region, whether he/she provided food in their garden, and the frequency of corvid visits.

Tameness of birds

When asked whether each bird species allowed the respondent to approach, people reported statistically significant differences between certain species. Feral pigeons and Woodpigeons were reported to be the tamest, with Jays and Ravens being the least tame.



Summary: Overall, these results give us a clearer picture about how people perceive species of birds that occupy a polarized space in British culture. Corvids (members of the crow family that include magpies and jays) are highly disliked for their cunning and potential destruction, while also captivate some people with their problem solving abilities and intelligence. This study has laid a foundation for determining the source of and variation between people's attitudes towards their garden wildlife. Future studies will be able to build on this information to understand why people value interactions with some species and not others, and how this can best be applied in conservation focused settings.

Thank you again for your time.