



An Investigation into Feeding Behaviours of UK Garden Bird Species

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Introduction

The overall goal of this study is to investigate feeding behaviours of bird species in UK gardens, and to identify changes and patterns between different bird species.

Specifically focusing on the effects of access to a variety of feed types and the provision of predation cover near feeding areas.

Aims:

1. To investigate whether different feed types affect bird feeding behaviour
2. To investigate whether different feeding areas affect bird feeding behaviours

Objectives

1. To determine whether feeding behaviour differs between species in relation to species size
2. To determine whether feeding behaviour differs with predation risk
3. To determine whether feeding behaviour differs depending on feed value

Predictions:

1. More birds will feed from patch A overall, regardless of species
2. Smaller bird species will predominantly feed from patch A and B, whilst larger birds will feed from patch C

Background and Rationale

- As urbanisation continues, UK garden bird behaviour changes and adapts.
- Studies show strong links between feeding garden birds and strong connections towards nature (Cox and Gaston, 2016).
- Recent research shows that a positive connection with nature can be beneficial for human mental health (Mind, 2021).
- When choosing feeding areas, individuals alter between acting on the risk of starvation and the risk of predation to increase efficiency (Quinn *et al.*, 2012).
- Specialist charities The British Trust for Ornithology (BTO) and the Royal Society for the Protection of Birds (RSPB) suggests:
 - Smaller birds – full/partial cover and seeds and nuts
 - Medium/Large birds- fats, proteins and human derived foods

Methodology

- Behavioural Observations

Behavioural observations taken in person in a private garden.

A total of 20 hours of observations made:

- 5 hours morning -5 hours midday
- 5 hours afternoon -5 hours evening

Three Feeding areas:

Patches



Patch A:
In cover, suet block



Patch B:
Partial cover, mixed
seeds and nuts



Patch C:
No cover, mealworms

Methodology Continued

- Survey

A total of 283 respondents.

Details obtained include bird feeding patterns and feed source provision.

Survey shared on local community website 'Nextdoor' and local radio.

Initial Findings- Observations

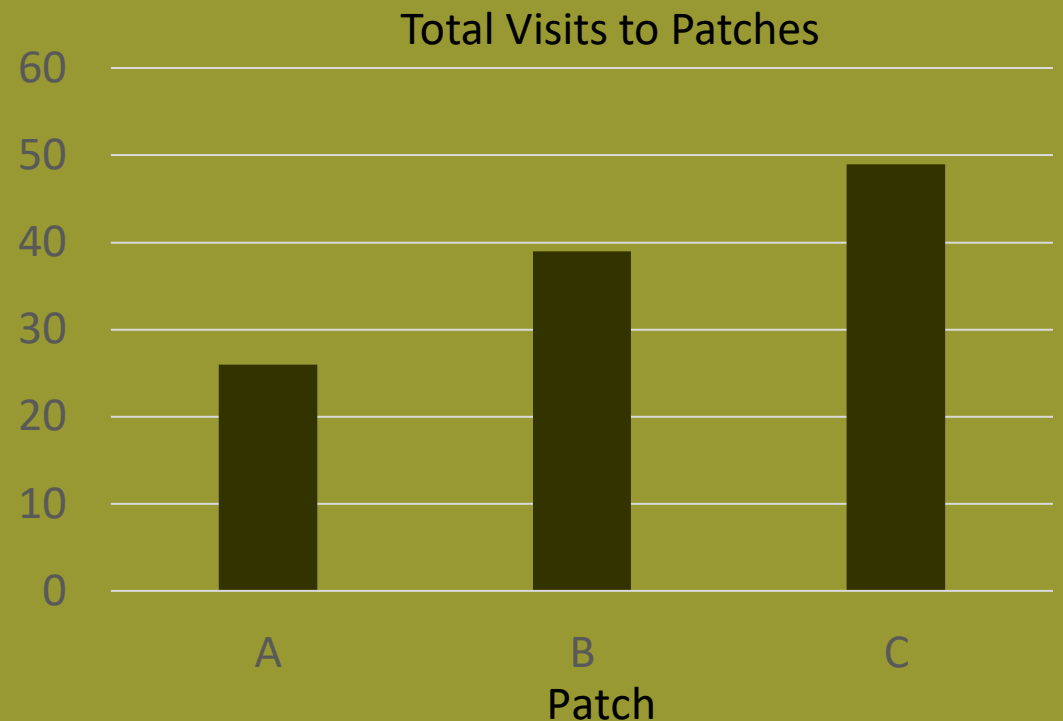
- Initial findings suggest that more species fed from patch C than other patches.

49 birds fed from patch C

39 birds fed from patch B

26 birds fed from patch A

- These findings differ from the prediction that patch A will be most popular.



Initial Findings- Survey

- Initial findings show that 'other' species collectively visit gardens more frequently than others.

('Other' category includes birds counted less than 29 times- approximately 10% of respondents)

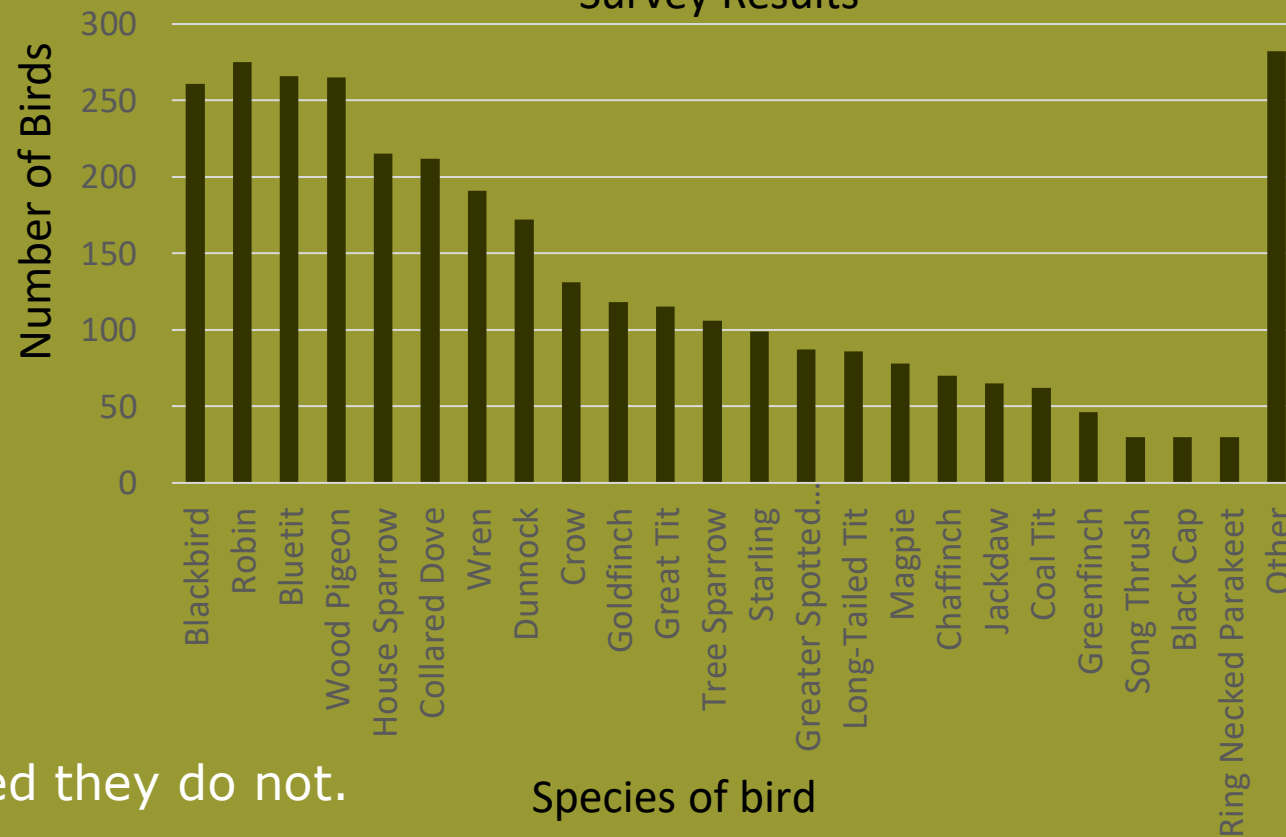
Other survey findings:

264 participants state they feed birds, 19 stated they do not.

Main reasons for not feeding birds included: Attracting rats/pests

(N=7), household owning predatory pets (N=6), participant felt no need to feed birds (N=4), and participant did not have access to private garden (N=1).

Species Populations found in UK Gardens
Survey Results



Limitations

Observations

- Due to the current global situation, limited behavioural observations could take place in different gardens
- Therefore, data cannot be used to represent whole populations of birds in a given area

Survey

- Due to the nature of the survey and how it was distributed, permission was not granted to directly quote respondents, therefore qualitative data (opinions) needed to be categorised in order to interpret data
- This study must rely on members of the public correctly identifying bird species, therefore some numbers may not be 100% accurate in describing local populations

Conclusions

- In conclusion, this study will provide details on how members of the public in local areas engage with garden birds and wildlife.
- Observations will allow for patterns to be identified regarding feeding behaviour of different garden bird species in a UK garden.
- Results, along with existing literature, will help to create an understanding of how human demographics affect UK garden bird species



Thank you!

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