Thrupp Lake

Seasonal Ecology and Species Assemblages
Version 2.0

Contents

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About this Booklet

This booklet forms part of an ongoing Field Notes Journal project — a personal record of place, built from long-term observation.

The material presented here is drawn from regular walks and repeated encounters with the same landscape over time. It doesn't reflect everything that occurs, but what has been noticed, recorded, and come to feel familiar.

The aim is not to produce a complete account, but to describe patterns — the ways in which species appear, persist, and shape the experience of the year.

All observations are local to Abingdon and the surrounding area.

The work continues.

— Field Notes Journal

Dave Walker

Spring 2026

Introduction

Thrupp Lake is a small inland water body on the edge of Radley, south of Oxford, forming part of a mosaic of gravel workings, scrub, rough grassland and wetland habitats associated with the Thames corridor. Although modest in scale, the lake supports a surprisingly varied seasonal bird assemblage, with species composition shifting throughout the year in response to migration, wintering behaviour, breeding activity and changing detectability.

Unlike the more curated Year in the Life of Abingdon project, which aims to present a broad narrative portrait of place, this directory takes a more analytical approach. It acts both as a seasonal field catalogue and as an exploratory ecological observatory — examining how species use the site across the annual cycle and how those patterns relate to one another.

The directory itself is organised as a structured seasonal reference, but beneath that sits a second layer of interpretation based on long-term observational data and computational analysis. Monthly occurrence patterns have been modelled and compared across species to explore broader ecological structure within the Thrupp Lake bird community.

One of the most revealing outputs of this work is the species similarity analysis shown below.

Seasonal Similarity and Ecological Structure

The dendrogram groups species according to the similarity of their annual seasonal behaviour rather than taxonomy or habitat alone. Species are clustered based on the shape of their yearly occupancy and detectability patterns — effectively asking:

> Which birds use the lake in similar seasonal ways?

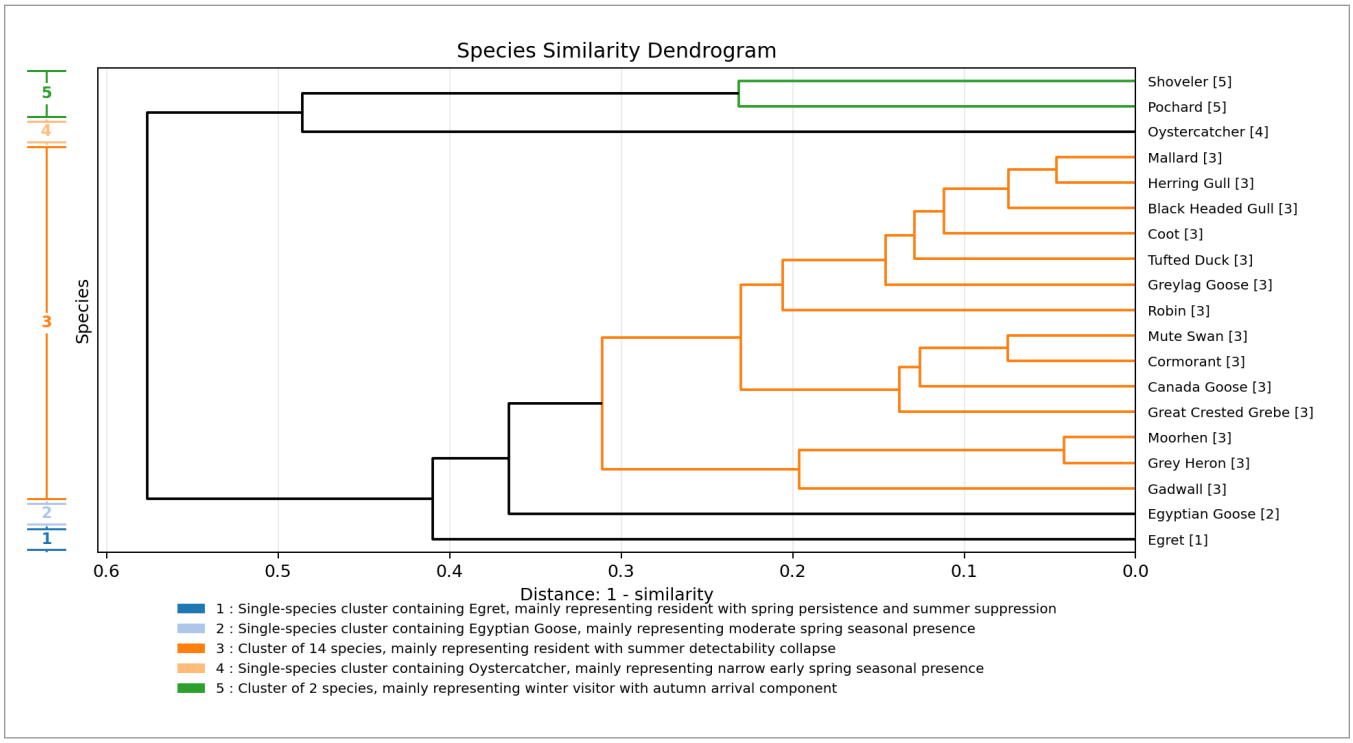
This produces ecological assemblages that broadly correspond to recognisable field experience at the site.

- Winter visitors such as shoveler and pochard cluster together through their strong cold-season occupancy and autumn arrival signatures.
- A large resident assemblage contains species that remain present through much of the year but show strong seasonal detectability shifts.
- More specialised seasonal users, such as oystercatcher, form distinct isolated clusters reflecting narrow seasonal windows of occurrence.
- Certain species, such as egret, display sufficiently unusual annual structure to separate into their own ecological grouping.

Importantly, these clusters emerge from seasonal structure alone. Closely related species do not necessarily group together unless they share similar annual behaviour at the site.

The analysis also highlights interesting edge cases. Pochard, for example, behaves broadly as a winter visitor at Thrupp Lake, but with fragmented and intermittent occupancy rather than the continuous winter presence shown by more canonical wintering species. This may represent a weaker or more episodic form of winter site usage — an example of the kind of “non-canonical” seasonal regime that becomes visible through comparative modelling.

Dendrogram of Seasonal Similarity

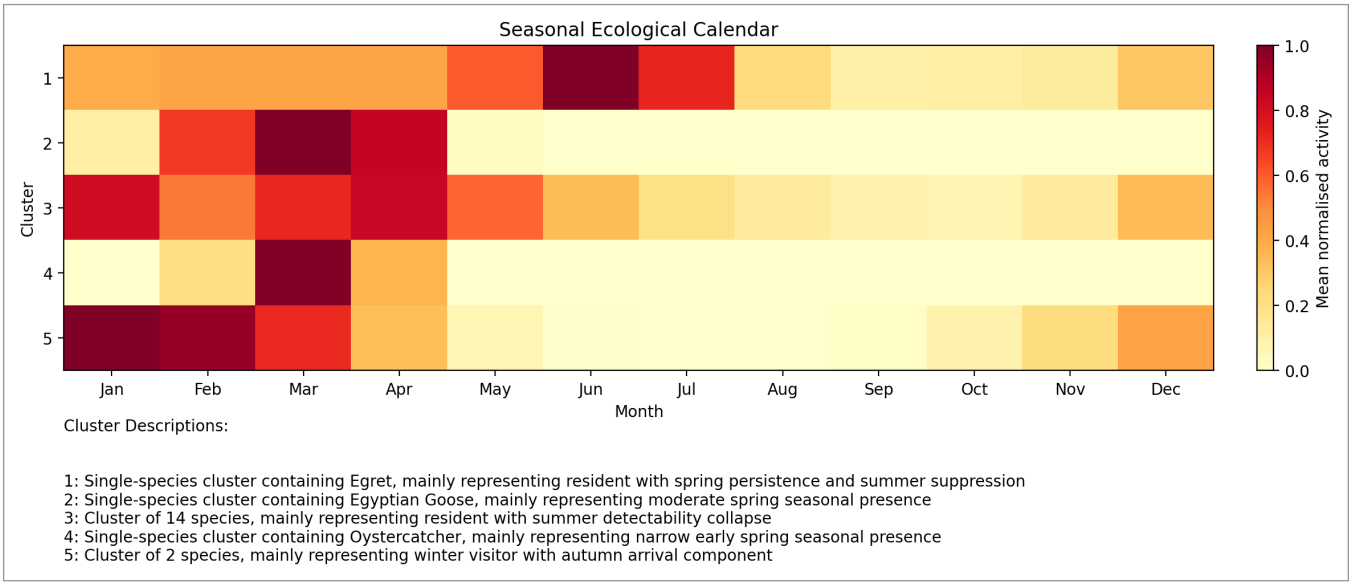


Species Similarity Clustering Dendrogram for Thrupp Lake

The dendrogram shows the hierarchical similarity relationships between species. Shorter branch distances indicate more similar seasonal structure.

Seasonal Ecological Calendar

To make these clusters easier to interpret, the mean annual activity pattern for each cluster is shown below as a seasonal calendar.



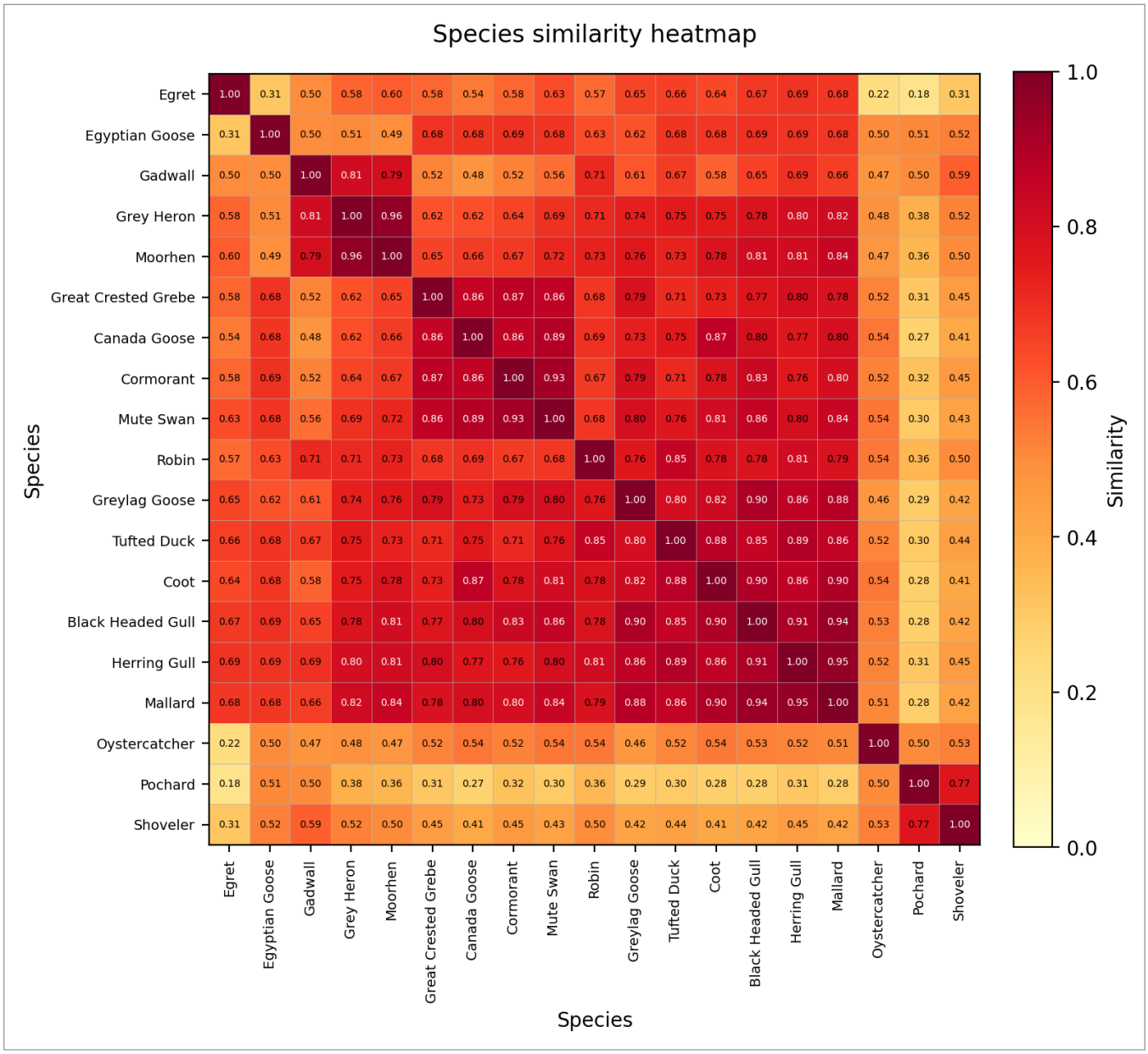
Seasonal Ecological Calendar for Thrupp Lake

This reveals distinct annual “seasonal territories” occupied by different ecological groups within the lake community:

- Strong winter occupancy
- Spring arrival peaks
- Year-round resident persistence
- Summer detectability collapse
- Narrow migratory windows

Rather than simply listing species, the calendar begins to describe the annual ecological rhythm of the site itself.

Species Similarity Heatmap



Species Similarity Heatmap for Thrupp Lake

The similarity heatmap provides the underlying pairwise comparison matrix used to generate the clustering analysis. Darker values indicate species with more closely matching seasonal behaviour.

Although more technical in nature, the heatmap helps expose subtle relationships that are less obvious in the dendrogram alone. For example:

- Resident waterbirds form a broad zone of high mutual similarity
- Winter visitors remain comparatively isolated from resident assemblages
- Certain species occupy intermediate or ambiguous positions between ecological regimes

Taken together, these analyses begin to reveal the latent seasonal structure of the Thrupp Lake bird community — not simply which species occur there, but how the lake is used through time.

The pages that follow allow exploration of individual species accounts and seasonal patterns across the site’s bird assemblage.

Black Headed Gull

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Black-Headed Gull (Chroicocephalus ridibundus), Radley Lakes, UK
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Black-Headed Gull (Chroicocephalus ridibundus), Radley Lakes, UK
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Black-Headed Gull (Chroicocephalus ridibundus), Radley Lakes, UK
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Black-Headed Gull (Chroicocephalus ridibundus), Radley Lakes, UK
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Black-Headed Gull (Chroicocephalus ridibundus), Radley Lakes, UK
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Summary

Black Headed Gull

Resident with summer detectability collapse

Black Headed Gull is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around April and reaches its lowest point around October. The model indicates weak baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and strong summer decay acceleration.

Confidence	Medium
Fit score	0.201
Peak detectability	April
Lowest detectability	October

Traits

- resident detectability pattern
- weak baseline presence
- spring detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- strong summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- rapid decline biased response dynamics

Seasonal wheel

Calendar strip

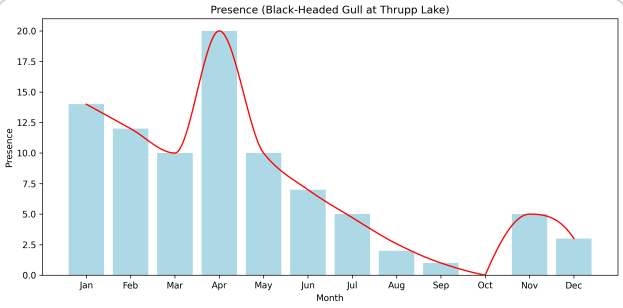
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.11	0.13	0.35	0.62	0.34	0.13	0.1	0.04	0.02	0.0	0.0	0.19

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

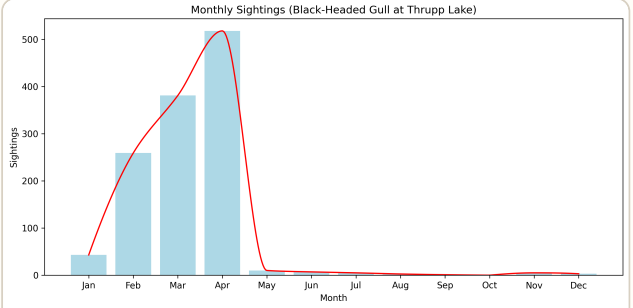
Classification evidence

Target peak month	4
Target peak label	April
Target trough month	10
Target trough label	October
Target peak value	0.618
Target trough value	0.0
Target mean value	0.169
Target amplitude	0.618
Baseline to peak ratio	0.068
Autumn to winter weight ratio	0.051
Year end to winter weight ratio	0.344
Decay to growth ratio	1.48

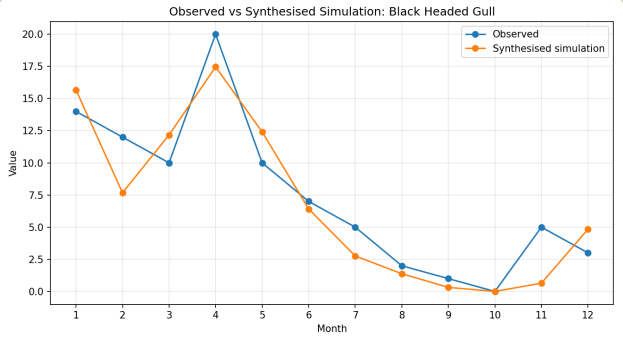
Observed and Simulated Seasonal Patterns



Black-Headed Gull Observed Presence, Thrupp Lake



Black-Headed Gull Observed Totals, Thrupp Lake



Black-Headed Gull Simulated Presence, Thrupp Lake

Canada Goose

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Canada Goose (Branta canadensis), Radley Lakes, UK

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Canada Goose (Branta canadensis), Radley Lakes, UK

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Canada Goose (Branta canadensis), Radley Lakes, UK

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Canada Goose (Branta canadensis), Radley Lakes, UK

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Summary

Canada Goose

Resident with summer detectability collapse

Canada Goose is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around April and reaches its lowest point around October. The model indicates moderate baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and moderate summer decay acceleration.

Confidence	High
Fit score	0.195
Peak detectability	April
Lowest detectability	October

Traits

- resident detectability pattern
- moderate baseline presence
- spring detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- moderate summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- decline biased response dynamics

Seasonal wheel

Calendar strip

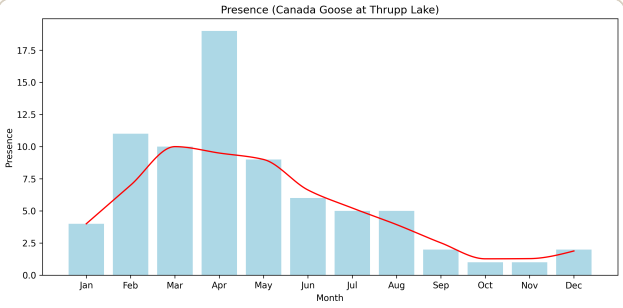
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.28	0.3	0.47	0.77	0.58	0.32	0.27	0.24	0.22	0.15	0.2	0.37

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

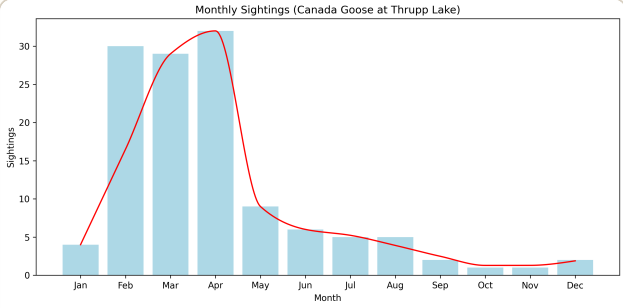
Classification evidence

Target peak month	4
Target peak label	April
Target trough month	10
Target trough label	October
Target peak value	0.767
Target trough value	0.154
Target mean value	0.348
Target amplitude	0.613
Baseline to peak ratio	0.31
Autumn to winter weight ratio	0.048
Year end to winter weight ratio	0.311
Decay to growth ratio	1.32

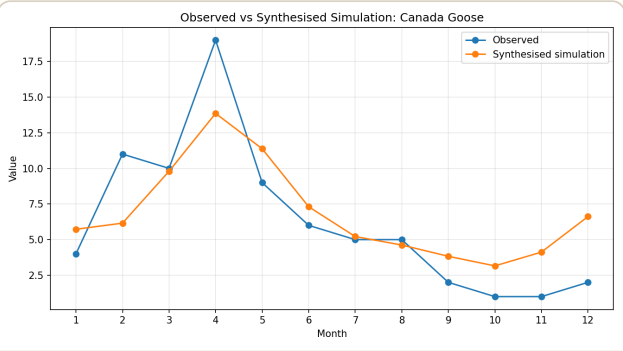
Observed and Simulated Seasonal Patterns



Canada Goose Observed Presence, Thrupp Lake



Canada Goose Observed Totals, Thrupp Lake



Canada Goose Simulated Presence, Thrupp Lake

Coot

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Coot (Fulica atra), Farmoor Reservoir, UK

David Walker, Field Notes Journal (CC BY 4.0)

Coot (Fulica atra), Farmoor Reservoir, UK

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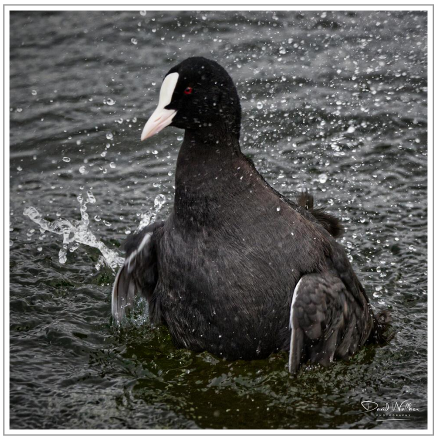

Coot (Fulica atra), Farmoor Reservoir, UK

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Coot (Fulica atra), Farmoor Reservoir, UK

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Summary

Coot

Resident with summer detectability collapse

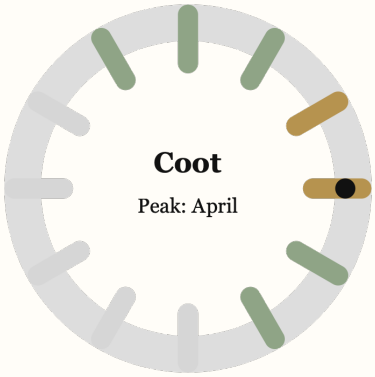
Coot is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around April and reaches its lowest point around October. The model indicates weak baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and moderate summer decay acceleration.

Confidence	High
Fit score	0.2
Peak detectability	April
Lowest detectability	October

Traits

- resident detectability pattern
- weak baseline presence
- spring detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- moderate summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- decline biased response dynamics

Seasonal wheel



Calendar strip

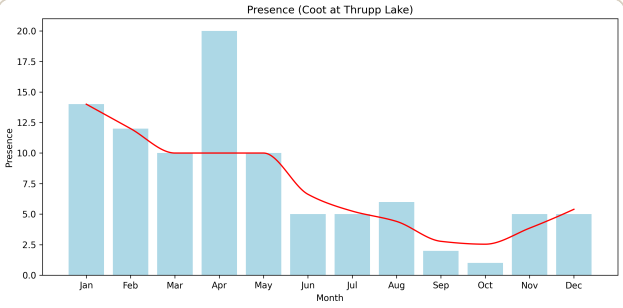
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.11	0.2	0.49	0.62	0.37	0.15	0.09	0.05	0.02	0.0	0.03	0.24

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

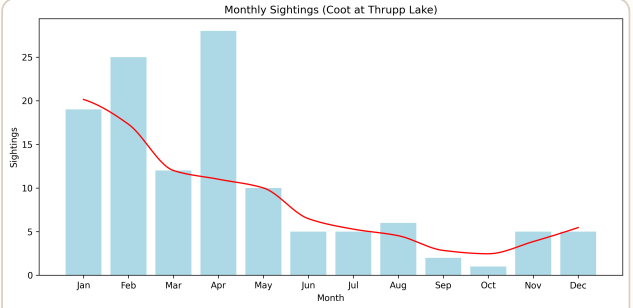
Classification evidence

Target peak month	4
Target peak label	April
Target trough month	10
Target trough label	October
Target peak value	0.618
Target trough value	0.0
Target mean value	0.197
Target amplitude	0.618
Baseline to peak ratio	0.087
Autumn to winter weight ratio	0.051
Year end to winter weight ratio	0.425
Decay to growth ratio	1.385

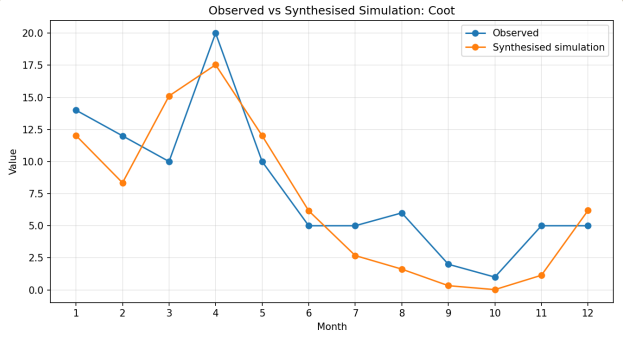
Observed and Simulated Seasonal Patterns



Coot Observed Presence, Thrupp Lake



Coot Observed Totals, Thrupp Lake



Coot Simulated Presence, Thrupp Lake

Cormorant

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Cormorant (Phalacrocorax carbo), Farmoor Reservoir, UK

Cormorant (Phalacrocorax carbo), Farmoor Reservoir, UK

Cormorant (Phalacrocorax carbo), Radley Lakes, UK

Summary

Cormorant

Resident with summer detectability collapse

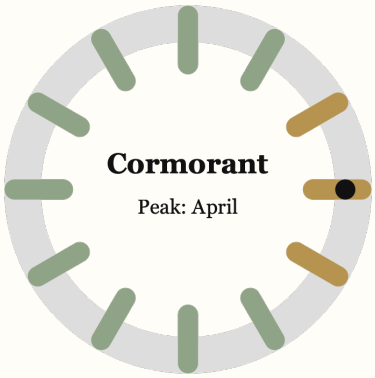
Cormorant is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around April and reaches its lowest point around October. The model indicates moderate baseline presence, weak spring carry-over, moderate pre-summer retention, moderate summer suppression, and strong summer decay acceleration.

Confidence	Medium
Fit score	0.206
Peak detectability	April
Lowest detectability	October

Traits

- resident detectability pattern
- moderate baseline presence
- spring detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- strong summer decay acceleration
- moderate pre summer retention
- weak autumn component
- meaningful year end component
- rapid decline biased response dynamics

Seasonal wheel



Calendar strip

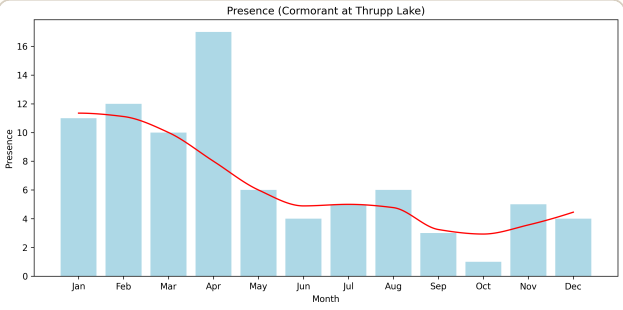
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.27	0.28	0.45	0.75	0.56	0.32	0.26	0.21	0.21	0.11	0.17	0.36

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

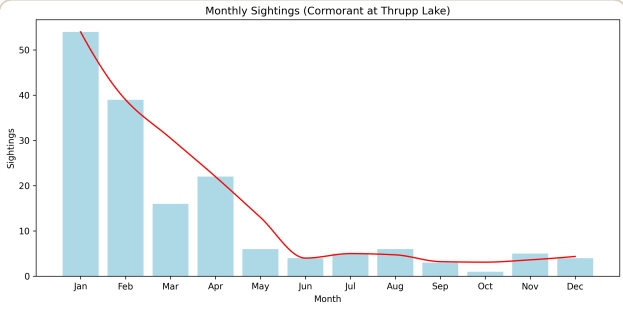
Classification evidence

Target peak month	4
Target peak label	April
Target trough month	10
Target trough label	October
Target peak value	0.748
Target trough value	0.105
Target mean value	0.329
Target amplitude	0.642
Baseline to peak ratio	0.286
Autumn to winter weight ratio	0.046
Year end to winter weight ratio	0.385
Decay to growth ratio	2.593

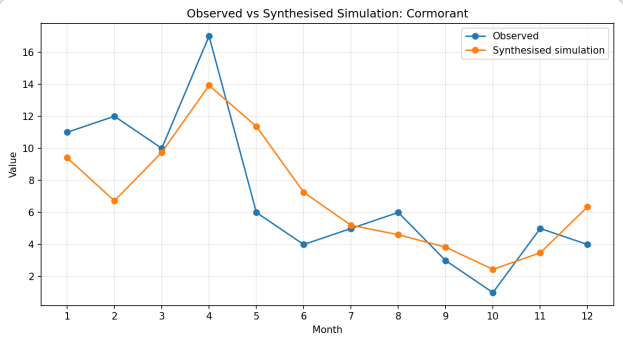
Observed and Simulated Seasonal Patterns



Cormorant Observed Presence, Thrupp Lake



Cormorant Observed Totals, Thrupp Lake



Cormorant Simulated Presence, Thrupp Lake

Egret

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Summary

Egret

Resident with spring persistence and summer suppression

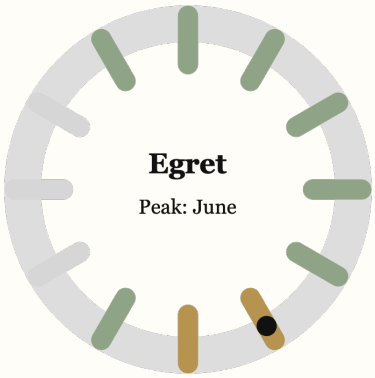
Egret is classified as resident with spring persistence and summer suppression. The fitted resident detectability target peaks around June and reaches its lowest point around September. The model indicates weak baseline presence, moderate spring carry-over, strong pre-summer retention, strong summer suppression, and strong summer decay acceleration.

Confidence	Low
Fit score	0.628
Peak detectability	June
Lowest detectability	September

Traits

- resident detectability pattern
- weak baseline presence
- late spring early summer detectability peak
- autumn detectability trough
- moderate spring carryover
- strong summer suppression
- strong summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- rapid decline biased response dynamics

Seasonal wheel



Calendar strip

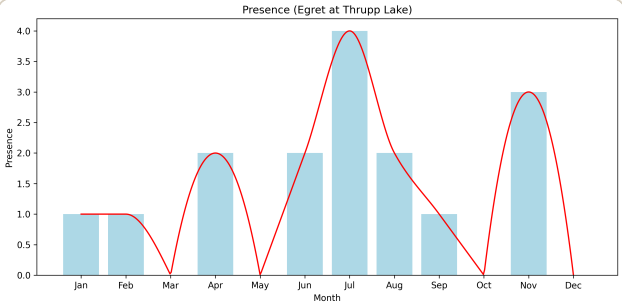
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.24	0.24	0.24	0.23	0.31	0.6	0.49	0.15	0.06	0.06	0.08	0.2

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

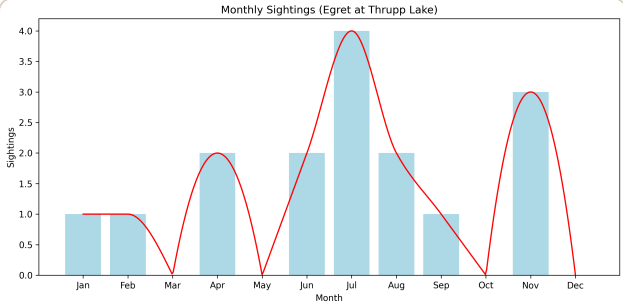
Classification evidence

Target peak month	6
Target peak label	June
Target trough month	9
Target trough label	September
Target peak value	0.605
Target trough value	0.057
Target mean value	0.243
Target amplitude	0.548
Baseline to peak ratio	0.086
Autumn to winter weight ratio	0.054
Year end to winter weight ratio	0.43
Decay to growth ratio	1.65

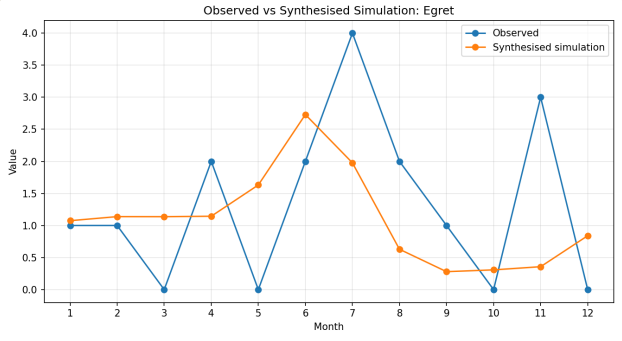
Observed and Simulated Seasonal Patterns



Egret Observed Presence, Thrupp Lake



Egret Observed Totals, Thrupp Lake



Egret Simulated Presence, Thrupp Lake

Egyptian Goose

Seasonal Analysis and Species Classification

Model Family : Seasonal presence

Egyptian Goose (Alopochen aegyptiaca), Radley Lakes, UK
David Walker, Field Notes Journal (CC BY 4.0)

Traits

spring peak
moderate season
sharp seasonal window
strong post peak decline
moderate offseason suppression
late peak alignment

decline, and moderate off-season suppression.

Confidence	Medium
Fit score	0.131
Peak	April
Season	January–May

Seasonal wheel

Calendar strip

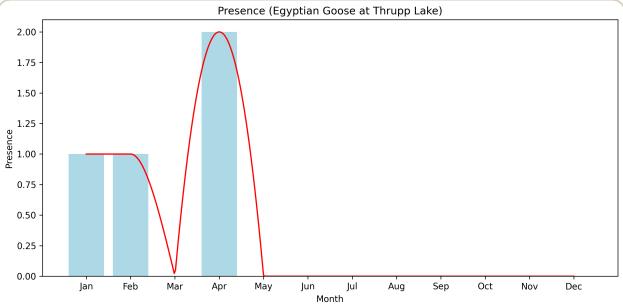
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
■	■	■	●	■							

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

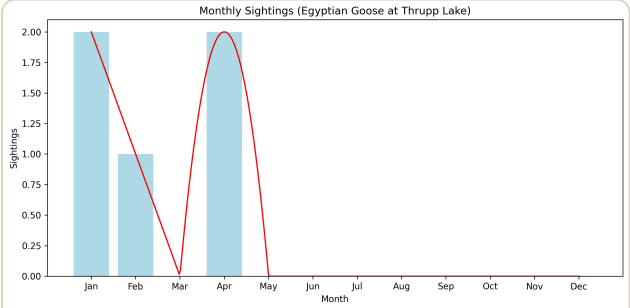
Classification evidence

Season start month	1.43
Season end month	4.725
Forcing peak month	3.915
Season width months	3.295
Season midpoint month	3.078
Season start label	January
Season end label	May
Forcing peak label	April

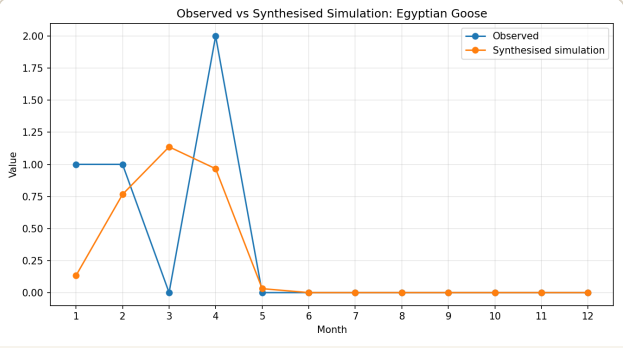
Observed and Simulated Seasonal Patterns



Egyptian Goose Observed Presence, Thrupp Lake



Egyptian Goose Observed Totals, Thrupp Lake



Egyptian Goose Simulated Presence, Thrupp Lake

Gadwall

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Summary

Gadwall

Resident with summer detectability collapse

Gadwall is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around February and reaches its lowest point around May. The model indicates weak baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and strong summer decay acceleration.

Confidence	Medium
Fit score	0.234
Peak detectability	February
Lowest detectability	May

Traits

- resident detectability pattern
- weak baseline presence
- winter detectability peak
- late spring early summer detectability trough
- weak spring carryover
- moderate summer suppression
- strong summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- rapid decline biased response dynamics

Seasonal wheel

Calendar strip

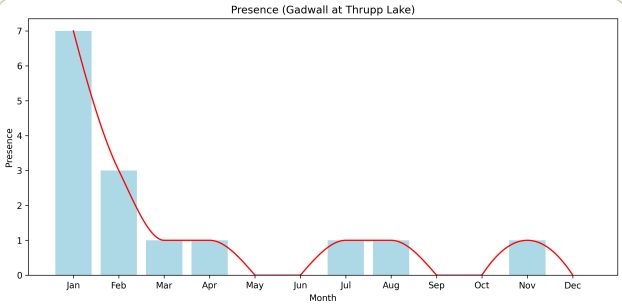
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.45	0.47	0.17	0.09	0.0	0.04	0.07	0.04	0.04	0.05	0.07	0.28

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

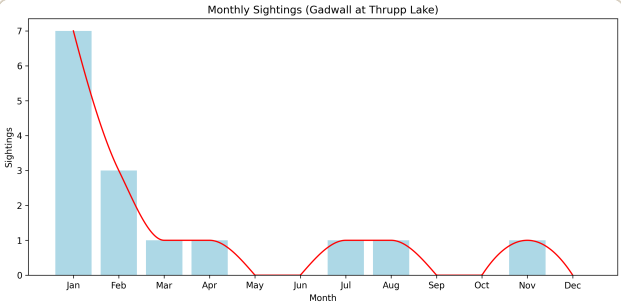
Classification evidence

Target peak month	2
Target peak label	February
Target trough month	5
Target trough label	May
Target peak value	0.468
Target trough value	0.0
Target mean value	0.148
Target amplitude	0.468
Baseline to peak ratio	0.085
Autumn to winter weight ratio	0.069
Year end to winter weight ratio	0.382
Decay to growth ratio	1.54

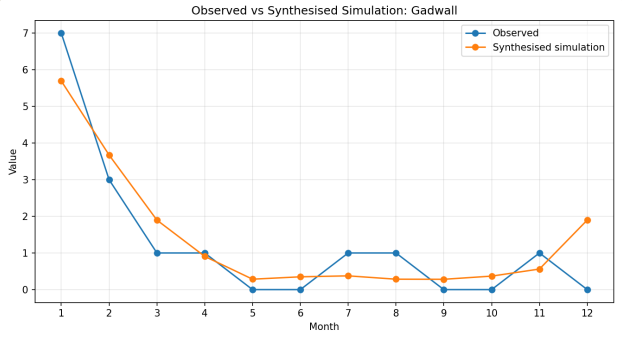
Observed and Simulated Seasonal Patterns



Gadwall Observed Presence, Thrupp Lake



Gadwall Observed Totals, Thrupp Lake



Gadwall Simulated Presence, Thrupp Lake

Great Crested Grebe

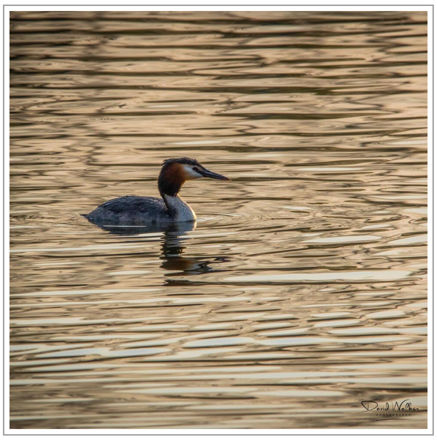
Seasonal Analysis and Species Classification

Model Family : Resident detectability

Great Crested Grebe (Podiceps cristatus), Radley Lakes, UK
David Walker, Field Notes Journal (CC BY 4.0)

Great Crested Grebe (Podiceps cristatus), Radley Lakes, UK
David Walker, Field Notes Journal (CC BY 4.0)

Great Crested Grebe (Podiceps cristatus), Radley Lakes, UK
David Walker, Field Notes Journal (CC BY 4.0)



Great Crested Grebe (Podiceps cristatus), Radley Lakes, UK
David Walker, Field Notes Journal (CC BY 4.0)

Great Crested Grebe (Podiceps cristatus), Farmoor Reservoir, UK
David Walker, Field Notes Journal (CC BY 4.0)

Summary

Great Crested Grebe

Resident with summer detectability collapse

Great Crested Grebe is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around April and reaches its lowest point around September. The model indicates moderate baseline presence, weak spring carry-over, moderate pre-summer retention, moderate summer suppression, and moderate summer decay acceleration.

Confidence	Medium
Fit score	0.224
Peak detectability	April
Lowest detectability	September

Traits

- resident detectability pattern
- moderate baseline presence
- spring detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- moderate summer decay acceleration
- moderate pre summer retention
- weak autumn component
- weak year end component
- rapid decline biased response dynamics

Seasonal wheel

Calendar strip

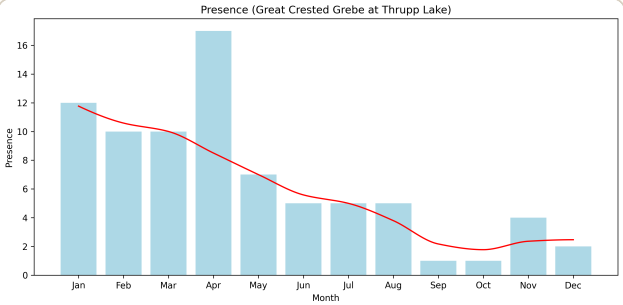
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.31	0.36	0.61	0.76	0.46	0.31	0.29	0.26	0.18	0.2	0.26	0.37

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

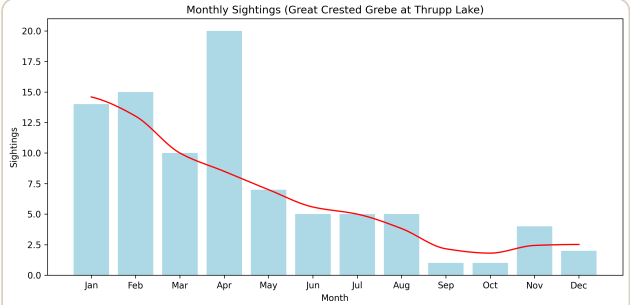
Classification evidence

Target peak month	4
Target peak label	April
Target trough month	9
Target trough label	September
Target peak value	0.764
Target trough value	0.177
Target mean value	0.364
Target amplitude	0.586
Baseline to peak ratio	0.337
Autumn to winter weight ratio	0.043
Year end to winter weight ratio	0.294
Decay to growth ratio	1.655

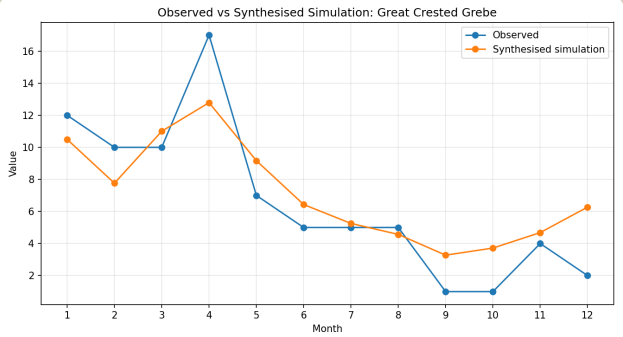
Observed and Simulated Seasonal Patterns



Great Crested Grebe Observed Presence, Thrupp Lake



Great Crested Grebe Observed Totals, Thrupp Lake



Great Crested Grebe Simulated Presence, Thrupp Lake

Grey Heron

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Summary

Grey Heron

Resident with summer detectability collapse

Grey Heron is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around February and reaches its lowest point around October. The model indicates weak baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and moderate summer decay acceleration.

Confidence	Medium
Fit score	0.212
Peak detectability	February
Lowest detectability	October

Traits

- resident detectability pattern
- weak baseline presence
- winter detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- moderate summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- rapid decline biased response dynamics

Seasonal wheel

Calendar strip

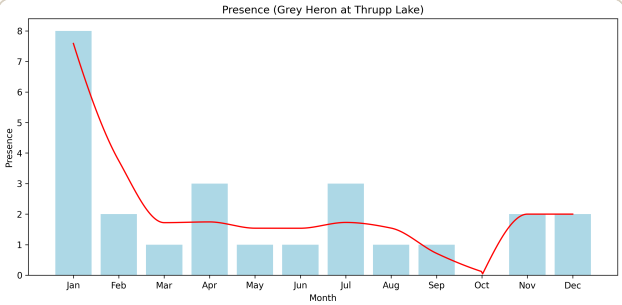
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.29	0.47	0.29	0.12	0.09	0.09	0.09	0.04	0.03	0.0	0.0	0.21

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

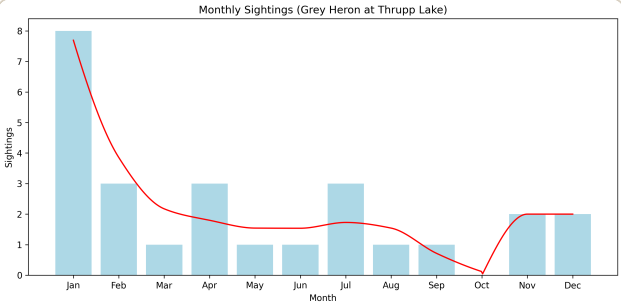
Classification evidence

Target peak month	2
Target peak label	February
Target trough month	10
Target trough label	October
Target peak value	0.468
Target trough value	0.0
Target mean value	0.143
Target amplitude	0.468
Baseline to peak ratio	0.081
Autumn to winter weight ratio	0.067
Year end to winter weight ratio	0.425
Decay to growth ratio	1.709

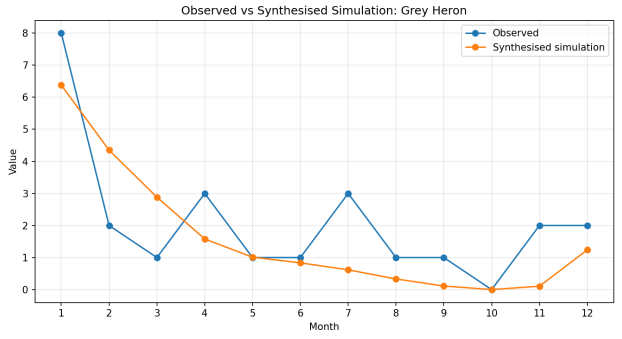
Observed and Simulated Seasonal Patterns



Grey Heron Observed Presence, Thrupp Lake



Grey Heron Observed Totals, Thrupp Lake



Grey Heron Simulated Presence, Thrupp Lake

Greylag Goose

Seasonal Analysis and Species Classification

Model Family : Seasonal presence

Greylag Goose (Anser anser), Farmoor Reservoir, UK
David Walker, Field Notes Journal (CC BY 4.0)

Greylag Goose (Anser anser), Farmoor Reservoir, UK
David Walker, Field Notes Journal (CC BY 4.0)

Greylag Goose (Anser anser), Farmoor Reservoir, UK
David Walker, Field Notes Journal (CC BY 4.0)

Summary

Greylag Goose

Narrow spring seasonal presence

Greylag Goose is classified as narrow spring seasonal presence. The fitted seasonal window runs from about November to September, with a spring peak around April. The season is narrow, with a sharp active window, strong post-peak decline, and strong off-season suppression.

Confidence	Review
Fit score	0.348
Peak	April
Season	November–September

Traits

spring peak
narrow season
sharp seasonal window
strong post peak decline
strong offseason suppression
early peak alignment

Seasonal wheel

Calendar strip

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			●								

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

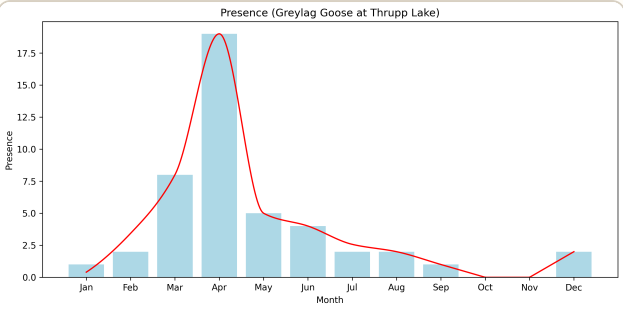
Classification evidence

Season start month	11.27
Season end month	9.34
Forcing peak month	4.33
Season width months	-1.93
Season midpoint month	10.305
Season start label	November
Season end label	September
Forcing peak label	April

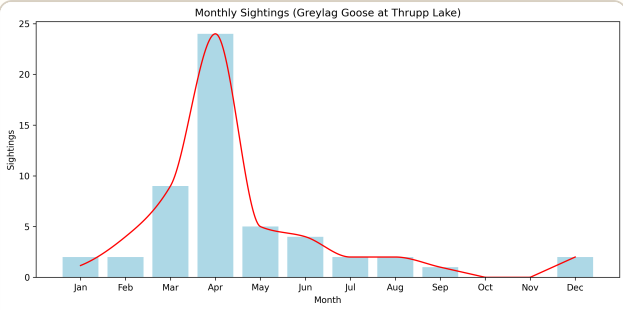
Warnings

- Season end is not later than season start; this classifier expects a non-wrapping seasonal model.
- Forcing peak lies outside the fitted seasonal window.

Observed and Simulated Seasonal Patterns



Greylag Goose Observed Presence, Thrupp Lake



Greylag Goose Observed Totals, Thrupp Lake

Greylag Goose Simulated Presence, Thrupp Lake

Greylag Goose Simulated Presence, Thrupp Lake

Herring Gull

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Herring Gull (Larus argentatus), Marazion, UK
David Walker, Field Notes Journal (CC BY 4.0)

Herring Gull (Larus argentatus), Pembrokeshire, UK
David Walker, Field Notes Journal (CC BY 4.0)

Herring Gull (Larus argentatus), Pembrokeshire, UK
David Walker, Field Notes Journal (CC BY 4.0)

Summary

Herring Gull

Resident with summer detectability collapse

Herring Gull is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around April and reaches its lowest point around September. The model indicates weak baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and moderate summer decay acceleration.

Confidence	Medium
Fit score	0.217
Peak detectability	April
Lowest detectability	September

Traits

- resident detectability pattern
- weak baseline presence
- spring detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- moderate summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- rapid decline biased response dynamics

Seasonal wheel

Calendar strip

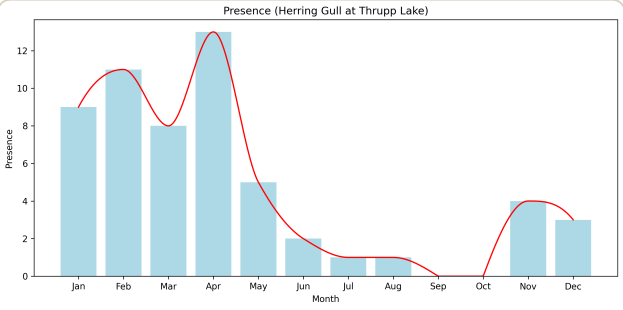
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.09	0.11	0.32	0.52	0.26	0.11	0.09	0.03	0.0	0.0	0.06	0.17

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

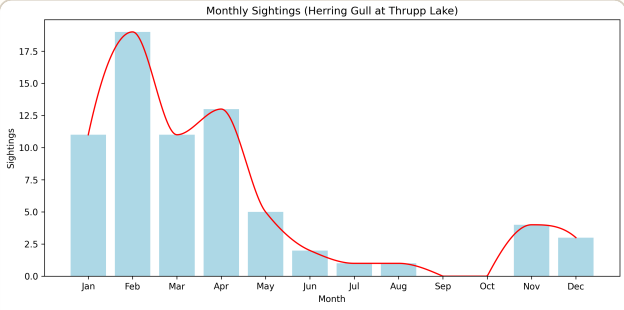
Classification evidence

Target peak month	4
Target peak label	April
Target trough month	9
Target trough label	September
Target peak value	0.517
Target trough value	0.0
Target mean value	0.146
Target amplitude	0.517
Baseline to peak ratio	0.091
Autumn to winter weight ratio	0.063
Year end to winter weight ratio	0.327
Decay to growth ratio	1.333

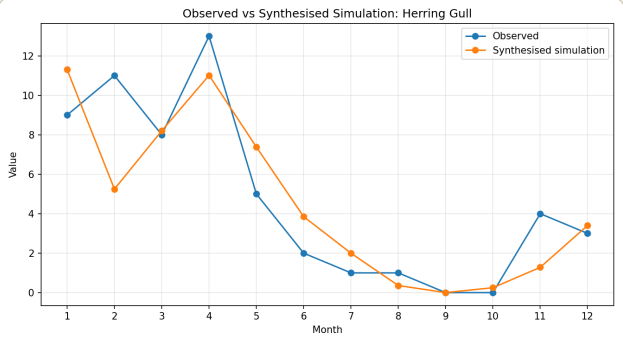
Observed and Simulated Seasonal Patterns



Herring Gull Observed Presence, Thrupp Lake



Herring Gull Observed Totals, Thrupp Lake

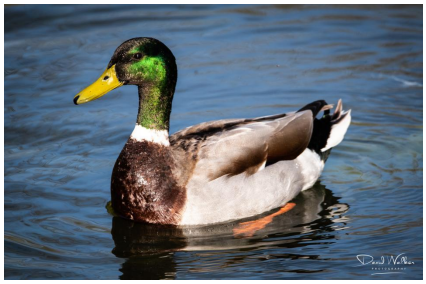


Herring Gull Simulated Presence, Thrupp Lake

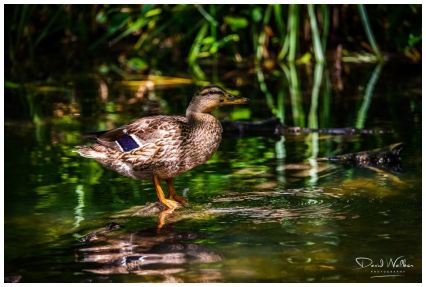
Mallard

Seasonal Analysis and Species Classification

Model Family : Resident detectability



Mallard (Anas platyrhynchos), Abingdon, UK
David Walker, Field Notes Journal (CC BY 4.0)



Mallard (Anas platyrhynchos), Abingdon, UK
David Walker, Field Notes Journal (CC BY 4.0)

Mallard (Anas platyrhynchos), Abingdon, UK
David Walker, Field Notes Journal (CC BY 4.0)

Summary

Mallard

Resident with summer detectability collapse

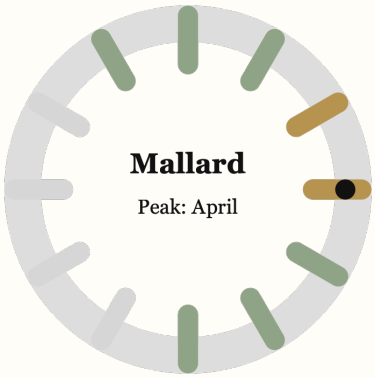
Mallard is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around April and reaches its lowest point around October. The model indicates weak baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and moderate summer decay acceleration.

Confidence	Medium
Fit score	0.24
Peak detectability	April
Lowest detectability	October

Traits

- resident detectability pattern
- weak baseline presence
- spring detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- moderate summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- rapid decline biased response dynamics

Seasonal wheel



Calendar strip

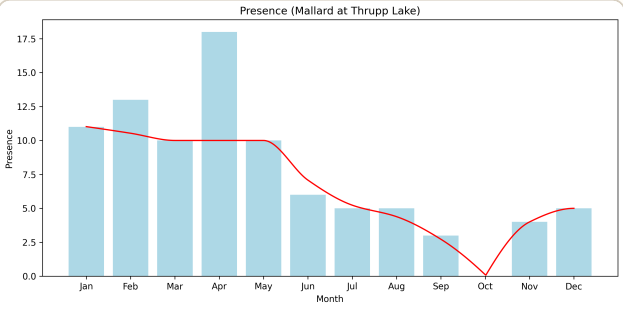
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.12	0.18	0.42	0.54	0.31	0.14	0.11	0.05	0.0	0.0	0.03	0.18

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

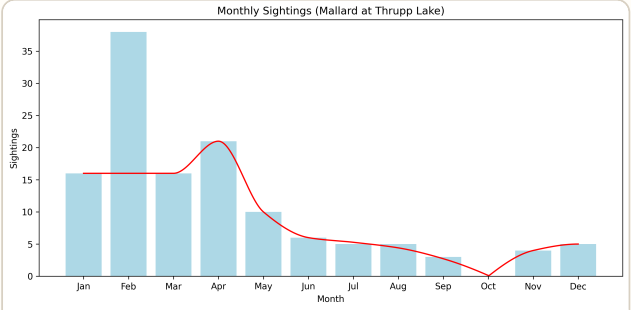
Classification evidence

Target peak month	4
Target peak label	April
Target trough month	10
Target trough label	October
Target peak value	0.537
Target trough value	0.0
Target mean value	0.173
Target amplitude	0.537
Baseline to peak ratio	0.101
Autumn to winter weight ratio	0.055
Year end to winter weight ratio	0.355
Decay to growth ratio	1.51

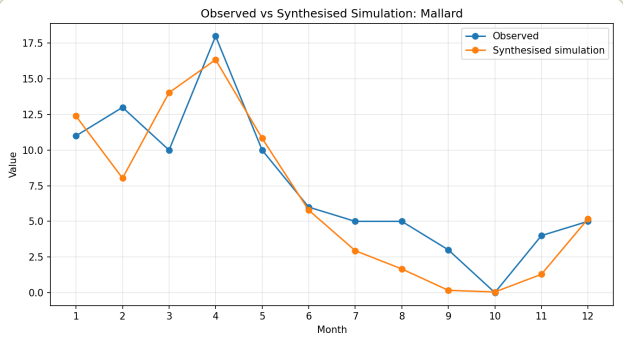
Observed and Simulated Seasonal Patterns



Mallard Observed Presence, Thrupp Lake



Mallard Observed Totals, Thrupp Lake



Mallard Simulated Presence, Thrupp Lake

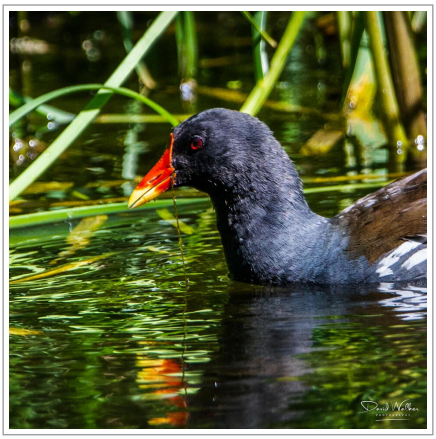
Moorhen

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Moorhen (Gallinula chloropus), Abingdon, UK

David Walker, Field Notes Journal (CC BY 4.0)



Moorhen (Gallinula chloropus), Abingdon, UK

David Walker, Field Notes Journal (CC BY 4.0)

Moorhen (Gallinula chloropus), Abingdon, UK

David Walker, Field Notes Journal (CC BY 4.0)

Moorhen (Gallinula chloropus), Abingdon, UK

David Walker, Field Notes Journal (CC BY 4.0)

Summary

Moorhen

Resident with summer detectability collapse

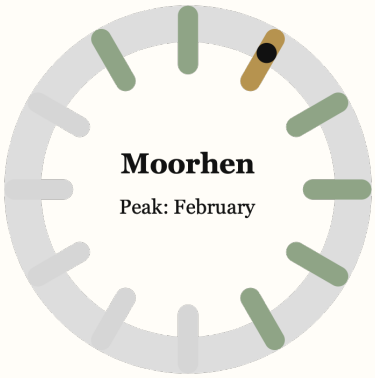
Moorhen is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around February and reaches its lowest point around October. The model indicates weak baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and moderate summer decay acceleration.

Confidence	Medium
Fit score	0.251
Peak detectability	February
Lowest detectability	October

Traits

- resident detectability pattern
- weak baseline presence
- winter detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- moderate summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- rapid decline biased response dynamics

Seasonal wheel



Calendar strip

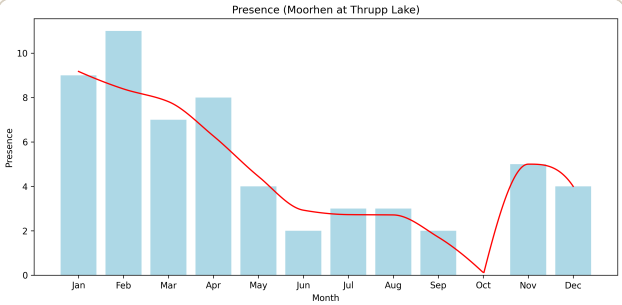
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.3	0.56	0.4	0.16	0.11	0.11	0.08	0.05	0.04	0.0	0.0	0.2

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

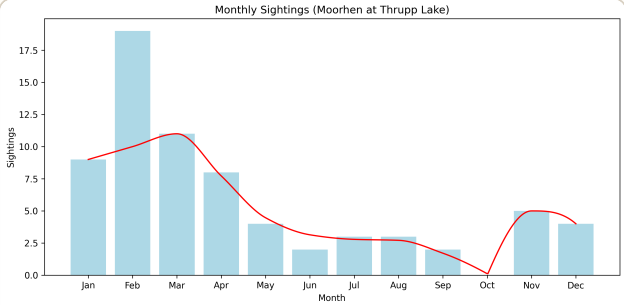
Classification evidence

Target peak month	2
Target peak label	February
Target trough month	10
Target trough label	October
Target peak value	0.563
Target trough value	0.0
Target mean value	0.167
Target amplitude	0.563
Baseline to peak ratio	0.084
Autumn to winter weight ratio	0.063
Year end to winter weight ratio	0.382
Decay to growth ratio	1.358

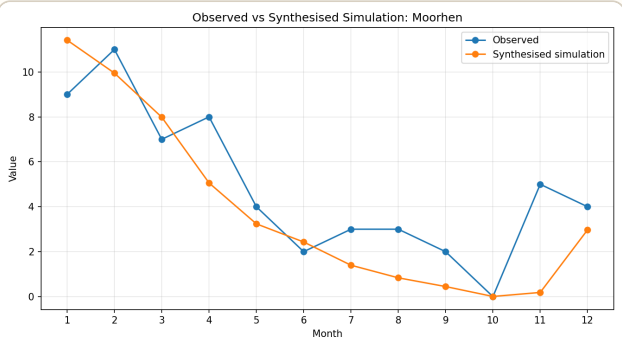
Observed and Simulated Seasonal Patterns



Moorhen Observed Presence, Thrupp Lake



Moorhen Observed Totals, Thrupp Lake



Moorhen Simulated Presence, Thrupp Lake

Mute Swan

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Mute Swan (Cygnus olor) at Radley Lakes
David Walker, Pixelfed (CC BY 4.0)
Source - No changes made

Mute Swans (Cygnus olor) at Radley Lakes
David Walker, Pixelfed (CC BY 4.0)
Source - No changes made

Mute Swan (Cygnus olor) at Radley Lakes
David Walker, Field Notes Journal (CC BY 4.0)

Summary

Mute Swan

Resident with summer detectability collapse

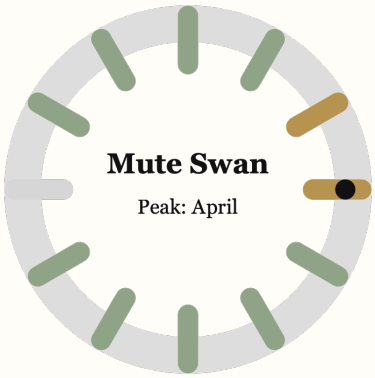
Mute Swan is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around April and reaches its lowest point around October. The model indicates moderate baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and strong summer decay acceleration.

Confidence	High
Fit score	0.194
Peak detectability	April
Lowest detectability	October

Traits

- resident detectability pattern
- moderate baseline presence
- spring detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- strong summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- rapid decline biased response dynamics

Seasonal wheel



Calendar strip

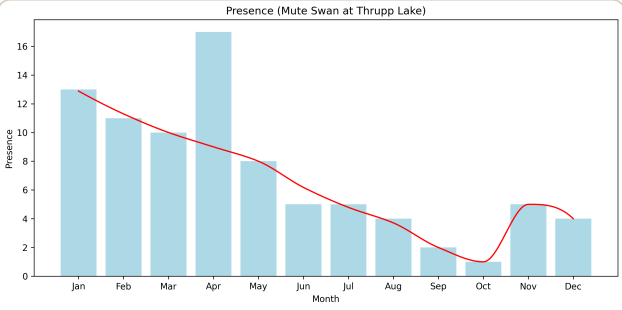
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.25	0.29	0.59	0.67	0.36	0.26	0.25	0.19	0.18	0.09	0.17	0.34

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

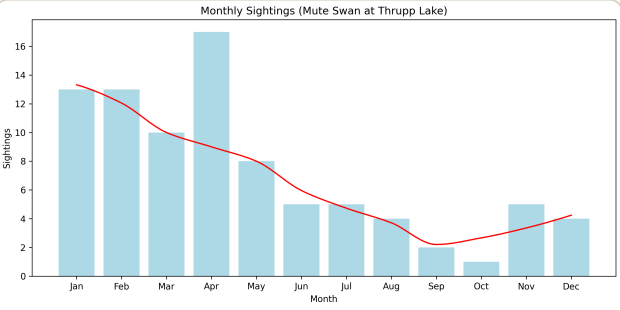
Classification evidence

Target peak month	4
Target peak label	April
Target trough month	10
Target trough label	October
Target peak value	0.667
Target trough value	0.09
Target mean value	0.304
Target amplitude	0.577
Baseline to peak ratio	0.292
Autumn to winter weight ratio	0.06
Year end to winter weight ratio	0.41
Decay to growth ratio	1.673

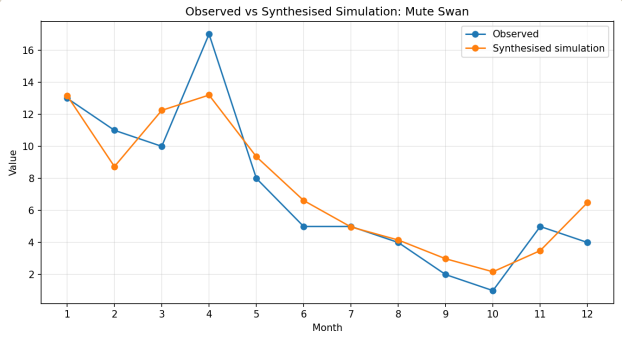
Observed and Simulated Seasonal Patterns



Mute Swan Observed Presence, Thrupp Lake



Mute Swan Observed Totals, Thrupp Lake



Mute Swan Simulated Presence, Thrupp Lake

Oystercatcher

Seasonal Analysis and Species Classification

Model Family : Seasonal presence

Summary

Oystercatcher

Narrow early spring seasonal presence

Oystercatcher is classified as narrow early spring seasonal presence. The fitted seasonal window runs from about February to April, with a early spring peak around March. The season is narrow, with a sharp active window, strong post-peak decline, and strong off-season suppression.

Confidence	High
Fit score	0.007
Peak	March
Season	February–April

Traits

- early spring peak
- narrow season
- sharp seasonal window
- strong post peak decline
- strong offseason suppression
- central peak alignment

Seasonal wheel

Calendar strip

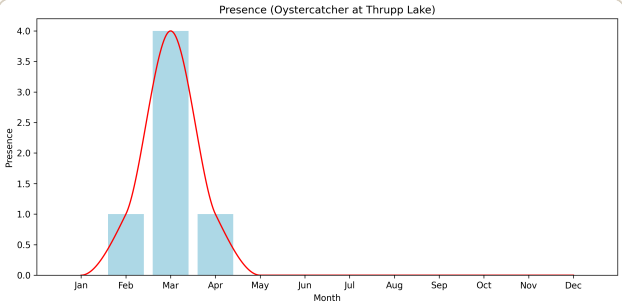
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		●									

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

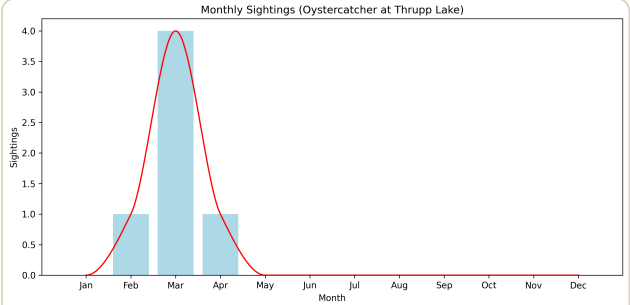
Classification evidence

Season start month	2.43
Season end month	4.27
Forcing peak month	3.3
Season width months	1.84
Season midpoint month	3.35
Season start label	February
Season end label	April
Forcing peak label	March

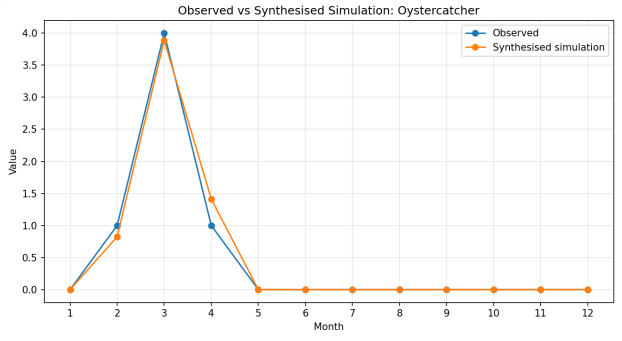
Observed and Simulated Seasonal Patterns



Oystercatcher Observed Presence, Thrupp Lake



Oystercatcher Observed Totals, Thrupp Lake



Oystercatcher Simulated Presence, Thrupp Lake

Pochard

Seasonal Analysis and Species Classification

Model Family : Winter presence

Summary

Pochard

Winter visitor with autumn arrival component

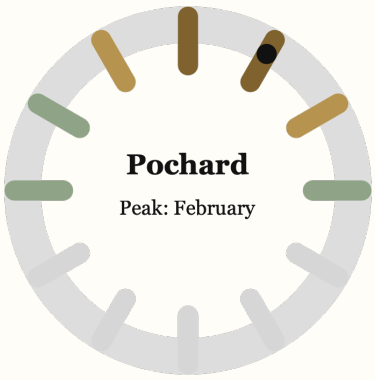
Pochard is classified as winter visitor with autumn arrival component. The fitted winter component peaks around February, with a moderate autumn component centred around November. The model has low baseline presence and moderate summer suppression centred around July. The fitted response dynamics suggest slow arrival fast departure.

Confidence	Low
Fit score	0.161
Winter peak	February
Lowest detectability	May

Traits

- year wrapping winter presence
- core winter winter peak
- moderate autumn component
- moderate summer suppression
- low baseline presence
- moderate winter bump
- slow arrival fast departure response dynamics

Seasonal wheel



Calendar strip

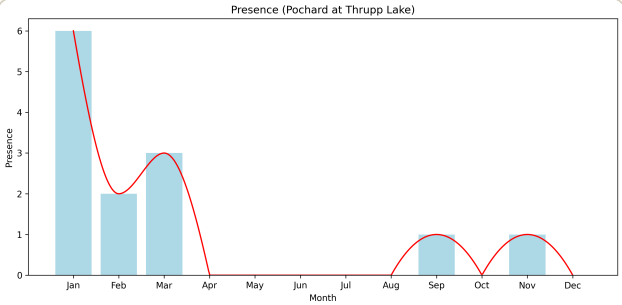
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.89	0.93	0.65	0.24	0.0	0.0	0.0	0.0	0.02	0.17	0.35	0.61

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

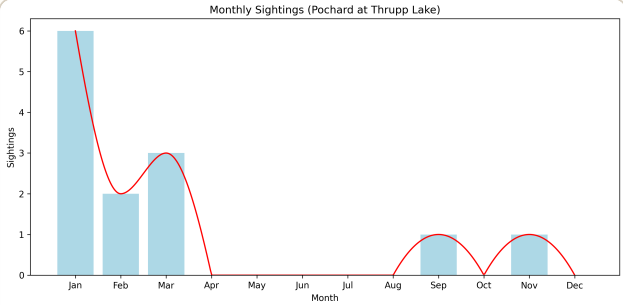
Classification evidence

Winter peak month	1.755
Winter peak label	February
Autumn peak month	11.005
Autumn peak label	November
Summer low month	6.565
Summer low label	July
Autumn to winter weight ratio	0.219
Decay to growth ratio	3.585
Target peak month	2
Target peak label	February
Target trough month	5
Target trough label	May

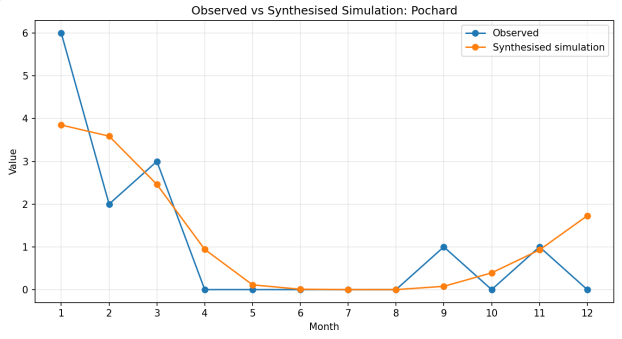
Observed and Simulated Seasonal Patterns



Pochard Observed Presence, Thrupp Lake



Pochard Observed Totals, Thrupp Lake



Pochard Simulated Presence, Thrupp Lake

Robin

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Robin (Erithacus rubecula) at Radley Lakes

David Walker, Field Notes Journal (CC BY 4.0)

Robin (Erithacus rubecula) at Radley Lakes

David Walker, Pixelfed (CC BY 4.0)

Source - No changes made

Robin (Erithacus rubecula) in Bagley Wood

David Walker, Field Notes Journal (CC BY 4.0)

Robin (Erithacus rubecula)

David Walker, Field Notes Journal (CC BY 4.0)

Robin (Erithacus rubecula), Abingdon, UK

David Walker, Field Notes Journal (CC BY 4.0)

Robin (Erithacus rubecula), Abingdon, UK

David Walker, Field Notes Journal (CC BY 4.0)

Summary

Robin

Resident with summer detectability collapse

Robin is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around March and reaches its lowest point around August. The model indicates weak baseline presence, weak spring carry-over, moderate pre-summer retention, moderate summer suppression, and strong summer decay acceleration.

Confidence	Medium
Fit score	0.23
Peak detectability	March
Lowest detectability	August

Traits

- resident detectability pattern
- weak baseline presence
- spring detectability peak
- summer detectability trough
- weak spring carryover
- moderate summer suppression
- strong summer decay acceleration
- moderate pre summer retention
- weak autumn component
- meaningful year end component
- decline biased response dynamics

Seasonal wheel

Calendar strip

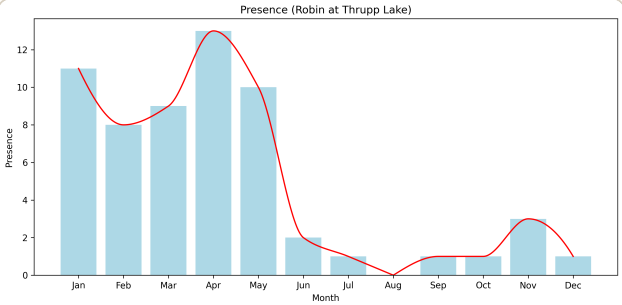
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.11	0.22	0.51	0.5	0.19	0.11	0.01	0.0	0.03	0.05	0.08	0.18

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

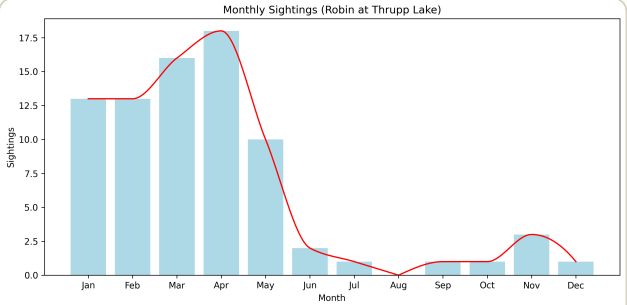
Classification evidence

Target peak month	3
Target peak label	March
Target trough month	8
Target trough label	August
Target peak value	0.508
Target trough value	0.0
Target mean value	0.167
Target amplitude	0.508
Baseline to peak ratio	0.106
Autumn to winter weight ratio	0.053
Year end to winter weight ratio	0.333
Decay to growth ratio	1.114

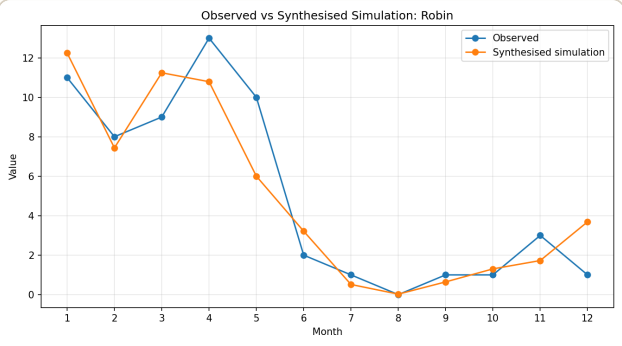
Observed and Simulated Seasonal Patterns



Robin Observed Presence, Thrupp Lake



Robin Observed Totals, Thrupp Lake



Robin Simulated Presence, Thrupp Lake

Shoveler

Seasonal Analysis and Species Classification

Model Family : Winter presence

Summary

Shoveler

Winter visitor with weak autumn arrival component

Shoveler is classified as winter visitor with weak autumn arrival component. The fitted winter component peaks around February, with a weak autumn component centred around November. The model has low baseline presence and moderate summer suppression centred around July. The fitted response dynamics suggest faster departure than arrival.

Confidence	Medium
Fit score	0.097
Winter peak	February
Lowest detectability	June

Traits

- year wrapping winter presence
- core winter winter peak
- weak autumn component
- moderate summer suppression
- low baseline presence
- moderate winter bump
- faster departure than arrival response dynamics

Seasonal wheel

Calendar strip

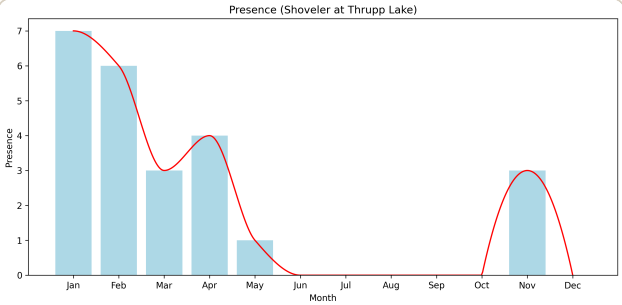
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.81	0.93	0.75	0.37	0.02	0.0	0.0	0.0	0.0	0.14	0.29	0.52

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

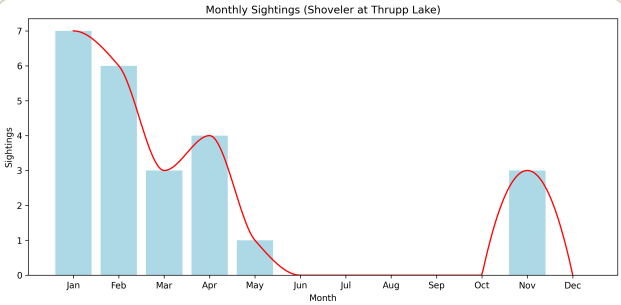
Classification evidence

Winter peak month	1.955
Winter peak label	February
Autumn peak month	10.595
Autumn peak label	November
Summer low month	6.87
Summer low label	July
Autumn to winter weight ratio	0.168
Decay to growth ratio	2.481
Target peak month	2
Target peak label	February
Target trough month	6
Target trough label	June

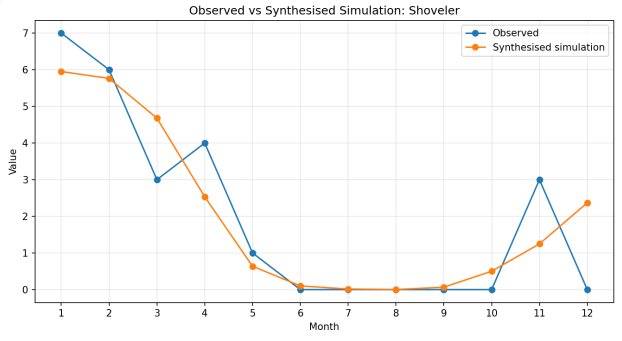
Observed and Simulated Seasonal Patterns



Shoveler Observed Presence, Thrupp Lake



Shoveler Observed Totals, Thrupp Lake



Shoveler Simulated Presence, Thrupp Lake

Tufted Duck

Seasonal Analysis and Species Classification

Model Family : Resident detectability

Female Tufted Duck (Aythya fuligula) at Radley Lakes
David Walker, Field Notes Journal (CC BY 4.0)

Summary

Tufted Duck

Resident with summer detectability collapse

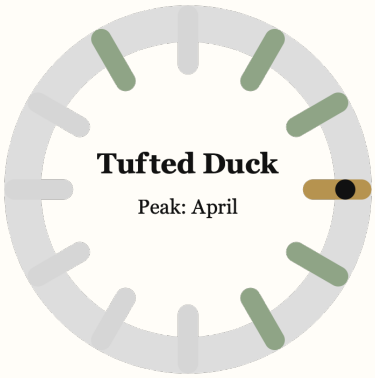
Tufted Duck is classified as resident with summer detectability collapse. The fitted resident detectability target peaks around April and reaches its lowest point around September. The model indicates weak baseline presence, weak spring carry-over, strong pre-summer retention, moderate summer suppression, and strong summer decay acceleration.

Confidence	Medium
Fit score	0.225
Peak detectability	April
Lowest detectability	September

Traits

- resident detectability pattern
- weak baseline presence
- spring detectability peak
- autumn detectability trough
- weak spring carryover
- moderate summer suppression
- strong summer decay acceleration
- strong pre summer retention
- weak autumn component
- meaningful year end component
- decline biased response dynamics

Seasonal wheel



Calendar strip

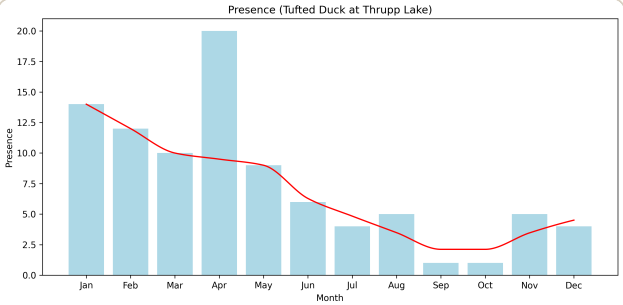
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.09	0.11	0.31	0.49	0.26	0.1	0.09	0.04	0.0	0.0	0.05	0.19

Highlighted months indicate stronger modelled presence or detectability. A ring marks the fitted peak; a hollow mark indicates the trough where available.

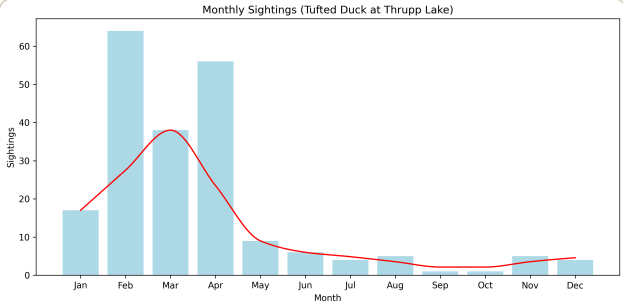
Classification evidence

Target peak month	4
Target peak label	April
Target trough month	9
Target trough label	September
Target peak value	0.49
Target trough value	0.0
Target mean value	0.144
Target amplitude	0.49
Baseline to peak ratio	0.086
Autumn to winter weight ratio	0.069
Year end to winter weight ratio	0.483
Decay to growth ratio	0.996

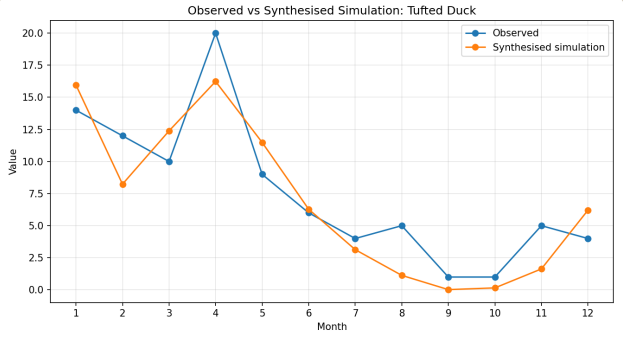
Observed and Simulated Seasonal Patterns



Tufted Duck Observed Presence, Thrupp Lake



Tufted Duck Observed Totals, Thrupp Lake



Tufted Duck Simulated Presence, Thrupp Lake