

Ornithologist



BIRDS: DECODED

GROUNDBREAKING NEW SCIENCE

What are the UK's birds really saying? Pioneering new research provides the answers.

Vocal complexity

A pioneering interdisciplinary study uses semantic modelling to translate avian vocalisations for the first time, providing unprecedented insight into social communication in passerines.

Patterns of exchange

Behavioural analysis reveals new associations between vocal cadence and object manipulation in corvid species, with implications for tool use and symbolic learning.

Shifting interpretations

Emerging evidence suggests that territorial song may include sophisticated signalling behaviours previously misinterpreted as basic aggression.

Troglodytes troglodytes
Wren

Troglodytes troglodytes emitted repeated alarm bursts in response to minimal rustling.

Subject 68
Recorded 08:12 | 09.03.23
Hedgerow margin, Powys

“

STRANGER!
BAD! OUT!
OUT! NOW!
LEAVE NOW!
OUT FASTER
PLEASE!



| Translated repeated utterance

”



Columba palumbus
Woodpigeon

Subject observed
vocalising repetitively on
a suburban fence during
extended low-energy
cooing sessions.

Subject 15
Recorded 07:28 | 10.10.23
Billericay, Essex, England

“

Mate.
Maate.
MAATEE?



| Single translated utterance

”



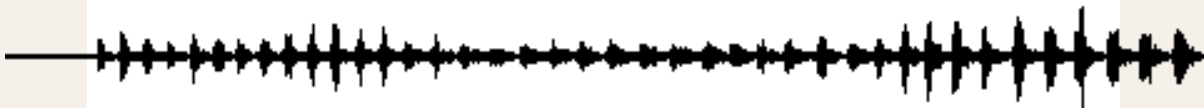
Haliaeetus albicilla
White-tailed Eagle

Individual performed wide circling over coastal inlet, eliciting alarm responses from local avian and mammalian species.

Subject 1273
Recorded 12:03 / 3.10.23
Isle of Mull, Scotland

“

Everyone stay calm. I’m just massive.



| Single translated utterance

”

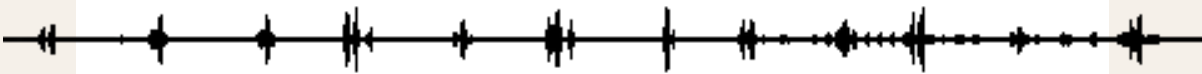


Motacilla alba
Pied Wagtail

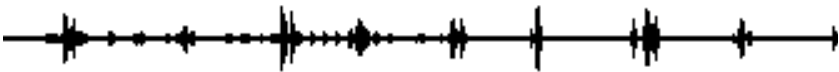
Subject engaged in territorial pacing across asphalt, interspersed with assertive tail flicks and vocalisations directed at passing vehicles.

“

Step. Bob.
Glance. Good.



They’ll wait. They
always wait.



| Translated utterances (sample of multiple)

”

Subject 906
Recorded 09:44 | 18.11.23
Supermarket Car Park, Bangor



Cyanistes caeruleus
Blue Tit

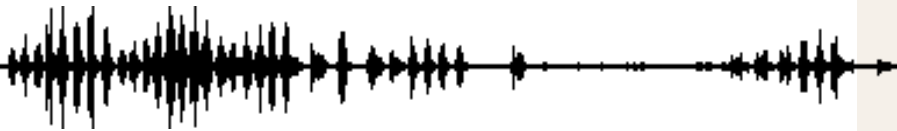
Feeder interactions
between six *Cyanistes*
caeruleus individuals.
Directed glances observed
toward *Parus major* (Great
Tit) feeding below.

Subjects 604–610
Recorded 07:36 | 27.02.24
Suburban garden, Ipswich

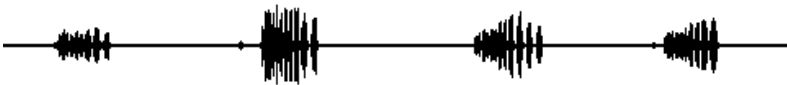


“

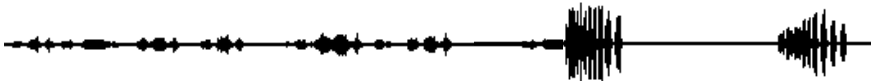
I’m just saying I
don’t get it... He’s
really not that great.



He laughed when
Sandra fell off the
perch.



Feeder’s free! Go. GO.



| Sample of multiple translated
utterances between recorded subjects.

”

Turdus merula
Blackbird

Pre-dawn vocalisation
emitted from roofline
position.

Subject 133
Recorded 05:03 | 14.04.23
Cul-de-sac corner, Norfolk

“

5:03am. Everyone’s
asleep. PERFECT.



| Single translated utterance

”



Phalacrocorax carbo
Cormorant

Subject adopted wings-spread posture on perch for 38 minutes following foraging dive. Wings appeared dry well before conclusion.

Subject 233
Recorded 09:14 | 06.11.23
Disused jetty, Poole Harbour, Dorset

“

Observe. Me.



| Single translated utterance

”



Erithacus rubecula
Robin

Territorial vocalisation
displayed from garden
perch following visual
detection of perceived
rival.

Subject 015
Recorded 07:41 | 29.12.23
Front garden border, Derbyshire

“

Touch my hedge.
Go on. I dare you.



| Single translated utterance

”

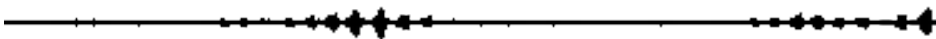


Falco tinnunculus
Kestrel

Falco tinnunculus
maintained stable hover
for 19 seconds over verge
habitat. Low-intensity
muttering captured
during hold phase.

“

Wind? I AM the wind.



| Single translated utterance

”



Subject 712
Recorded 11:06 | 03.02.24
Rough verge, South Downs, Sussex

Fulica atra

Coot

Escalating territorial chase followed brief visual contact with perceived intruder.

Subjects 441
Recorded 10:52 | 05.03.24
Urban boating lake, Southampton

“

I said GET OUT OF MY POND. What did they just - say it to my face!

SAY IT TO MY FACE!



”

© Image credit: Rudolf Ernst



Buteo buteo
Buzzard

Subject observed
vocalising mid-glide
across thermals with
minimal wingbeats
during circling ascent.

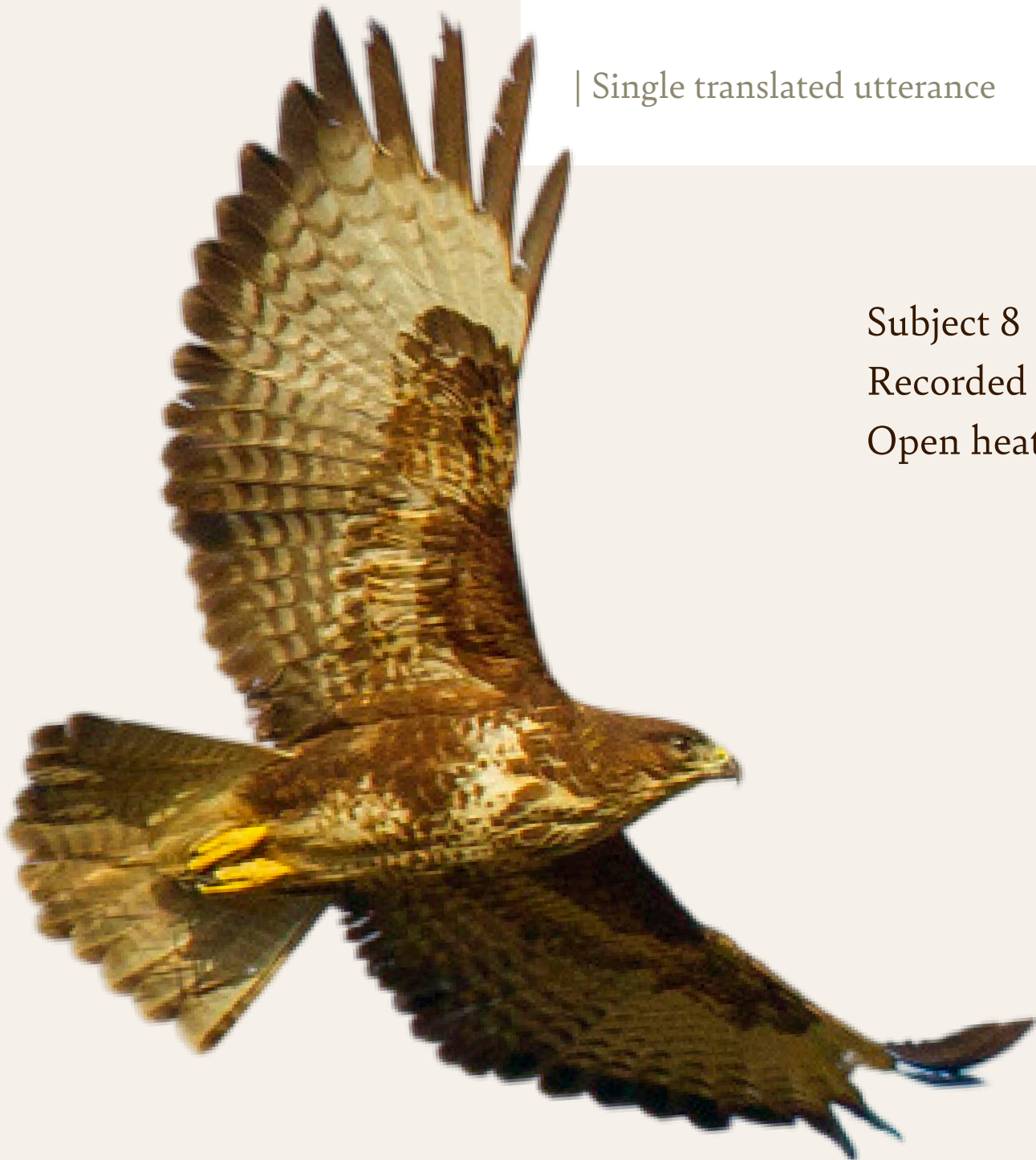
“

Wheeeeeeeeeeeee!

| Single translated utterance

”

Subject 8
Recorded 12:21 | 05.09.23
Open heathland, Dartmoor



Podiceps cristatus
Great Crested Grebe

Extended courtship display included weed presentation and synchronised movement across pond surface.

“

I brought the
pondweed. I did the
dance. PLEASE?



| Single translated utterance

”



Subject 44

Recorded 07:36 | 27.02.24

Farnham Lake, Reading

Apus apus
Swift

Aerial utterance extracted during high-speed foraging circuits above residential housing.

Subjects 421 - 429
Recorded 18:02 | 03.06.23
Town centre, St Albans



“

LANDING IS FOR
PIGEONS!!



| Sample of multiple translated utterances between recorded subjects.

”



Cygnus olor
Mute Swan

Defensive vocalisation recorded during slow-paced patrol of park footpath. Subject maintained eye contact for full duration of encounter.

Subject 308
Recorded 08:42 | 18.03.24
Urban park, St Albans

“

Yeah. Keep walking.



| Single translated utterance

”



Sturnus vulgaris Starling

Overlapping vocalisations captured mid-flight during murmuration. Multiple speakers assumed, with inconsistent turn-taking and escalating volume.

Subjects 201–999

Recorded 16:41 02.11.23

Estuary marshes, Morecambe Bay



“

Where are we going?

WHO IS LEADING?!

Help! I'm upside
down!

Form a shape!
WHICH SHAPE?
Just keep flying!



| Sample of multiple translated
utterances between recorded subjects.

”

Corvus frugilegus
Rook

Multiple corvids
exhibiting side-stepping
and hop-walking
behaviour in open pasture
under observation.

Subjects 134–138
Recorded 10:02 | 13.03.24
Grazing field, Suffolk

“

The humans are
watching. Act
casual...

Do a hop.

| Sample of multiple translated
utterances between recorded subjects.

”



Regulus regulus
Goldcrest

Rapid-fire vocalisations captured while individual moved continuously through coniferous canopy. Subject remained airborne for 96% of recording window.



“

Branch. Faster
Branch. Branch.
NEXT BRANCH.



| Single translated utterance

”

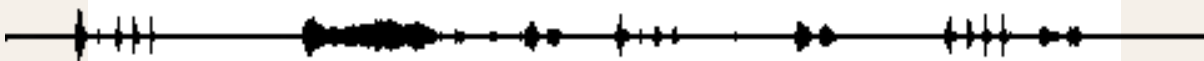
Subject 112
Recorded 13:26 | 21.01.24
Scots pine stand, Galloway Forest Park,
Dumfries & Galloway

Larus argentatus
Herring Gull

Tactile foraging
technique observed on
short grass verge.
Subject employed rapid
foot-tapping to simulate
rainfall, followed by
intense visual scanning
for surfaced
invertebrates.

“

Haha. Stupid worms
think it’s raining.



| Single translated utterance

”

Subject 456
Recorded 11:02 | 14.03.24
Coastal car park, Scarborough



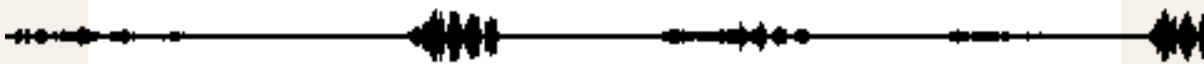
Aegithalos caudatus
Long-tailed Tit

High-pitched vocal clusters recorded from shaded mid-hedge position. Subject appeared to vocalise in synchrony with at least four others.

Subject 588
Recorded 08:47 | 14.03.24
Elder thicket, East Sussex

“

Hello! Hi! You’re
here! I’m here!
We’re here! Yay!



| Single translated utterance

”



Phylloscopus collybita
Chiffchaff

Continuous repetitive
vocal units recorded from
shaded mid-hedge
location near flowering
hawthorn.

Subject 214
Recorded 09:18 | 02.04.23
Hedgerow, Cambridgeshire

“

Chiff. Chaff.
Chiff. Chaff.
Chiffchaffchiffch
affchiffchaff.



| Single translated utterance

”

