

ORNITHOLOGICAL MASTERCLASS

25 ETHNO-ORNITHOLOGY

Andy Gosler considers what birds mean to us, why that matters, and how through documentation and analysis ornithologists can help to convey this to a wider community.

Have you ever been asked “What’s your favourite bird?” I suspect every ornithologist has at some point, but what is your experience of trying to answer? What kind of mental gymnastics do you go through to try to meet the apparent expectation that, amongst the numerous species we may have encountered at home or abroad, we should have a favourite? What do they mean by favourite anyway? Is it the one I was most thrilled to see in the UK (the Pallas’s Leaf Warbler in Oxfordshire earlier this year after waiting 50 years to see one) or in the world (any hummingbird, but what about the Saddlebacks and Kiwis I finally got to see in Aotearoa New Zealand in 2019?), the one I am most entranced by in the hand when ringing (Kingfisher, Wryneck, Bearded Tit?), the bird that always cheers me when they visit our small suburban garden (Long-tailed Tit), or my totem bird (Barn Owl) or spirit guides (Swallow, Red Kite)? OK, for a birder or ornithologist it’s a minefield, but ask any group of non-birders and the chances are that they have a favourite, and their reasons may be profound. They may even tell us something about the state of the world in terms of people’s relationship with the rest of nature.

► The Huia of Aotearoa New Zealand paired for life and were considered sacred by the indigenous Māori people. Never described from the wild by a European ornithologist, Māori knew that while the stout-billed male broke open dead wood, the long-billed female could extract beetle larvae, which the pair shared. Driven to extinction by deforestation, introduced predators and overhunting, the last confirmed sighting was in 1907.



Discovering ethno-ornithology

In an extramural teaching day that colleagues and I ran on ethno-ornithology a few years ago at Oxford, we started by asking that question, and having collected all the responses we then asked why. The day-long introductory course had attracted 21 people ranging in age from 15 to 85, and the answers to these two questions, “what’s your favourite bird?” and “why?”, were profound. We found a statistically significant age effect in the kinds of answers that people gave, which might be characterised by contrasting the responses of the youngest and oldest attendees. While for the 15-year-old boy it was “penguin” – “any particular species of penguin?” we asked, “no”, because it was his favourite chocolate biscuit – for an 85-year old woman, who I believe was not a birder, it was a “Reed Warbler.” Ponder for a moment... “Why a Reed Warbler?” we asked. “Because when I was nine” she replied “my grandfather showed me a Cuckoo in a Reed Warbler’s nest, and I felt sorry for the Reed Warbler.” Contrast the responses. Her favourite bird expressed a profound link to a time, a place, a relationship with a long-lost loved one and to an empathy with the bird. She had carried that sentiment for most of a

lifetime. Her story connected us also to that moment so many years ago, to the insight and knowledge of a Victorian gentleman and his granddaughter. Perhaps it rekindled our own memories and connections with times, places, moments and relationships indexed in our memory by birds. Her account was real and more deeply heartfelt than the enjoyment of a chocolate biscuit, and it stopped us all in our tracks.

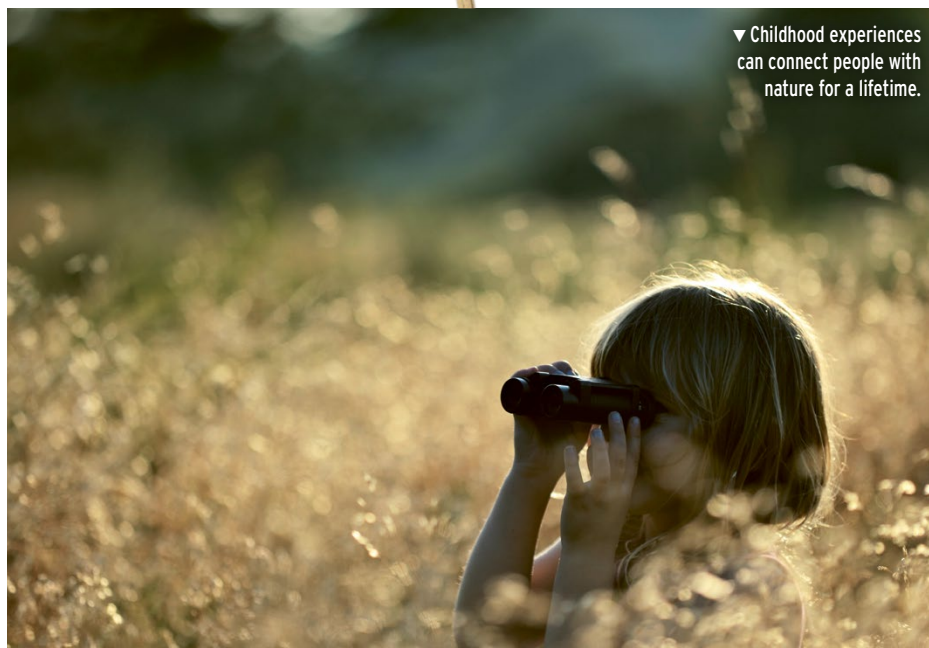
If this account conveys something of the wealth of stories ‘out there’ around the world, and of the connections we all have with birds, we need to be aware also that they are for the most part undocumented. Had we not engaged on that day, and had we not asked these questions, this story too would likely have remained untold, except perhaps in her family.

Ethno-ornithology is the study of human relationships with birds, and the primary data are made up of such stories, people’s knowledge of birds, and the linguistic and cultural contexts and influences (family, community, society etc.) in which these are held.

◀ How many British nine-year olds would recognise a Reed Warbler in 2022?



▼ Childhood experiences can connect people with nature for a lifetime.



Bringing ethno-ornithology home



Until now, ethno-ornithologists have largely worked as anthropologists and linguists, painstakingly documenting the knowledge and language of indigenous peoples around the world. These have revealed to a wider community, for example, the Māori knowledge of the extinct Huia, whose extreme dimorphism of the bill allowed devoted pairs to cooperate to find invertebrate food (like having knife and fork), as opposed to the assumptions of biologists after Darwin that it was to reduce competition for food; or the intimate and detailed bird knowledge of the Kayapó Indians of Brazil, who give each other bird nicknames, and of whom anthropologist Darrell Posey wrote in his notebook “to understand the Kayapó, you’ve got to know your birds”!

However, there is a strong tradition of ornithologists undertaking such work in the UK, and as birds become scarcer and changing social pressures reduce the salience of nature for people, rich experiences such as that given by the woman’s testimony above become scarcer also. So, the need to document them becomes an urgent part of our conservation agenda also, not least because it is too easy to assume that only birders have real and meaningful encounters with birds. Indeed, the revelation that everyone may have such experiences offers a source of inspiration for conservation that needs to be revealed, documented, affirmed and shared, potentially transforming the ‘landscape of despair’ into a landscape of hope. Volunteer ornithologists are uniquely placed to help in this.

Metrics for ethno-ornithology

It may seem that if ethno-ornithology is about such personal testimony, its data are purely qualitative. But, as in ornithology generally, which combines both qualitative (e.g. plumage description) and quantitative (e.g. population change and survival rates) approaches, ethno-ornithology comes to life through the combination of the two. My own work in two areas offers examples: studies of the 7,000 recorded English folk names of birds; and studies of the intergenerational loss of natural history knowledge in the UK and elsewhere.

Collected from diverse sources, including personal testimony of ornithologists in the nineteenth century, folk names tell us much about the knowledge of, and relationships that people have had with, birds in these islands, as well as the cultural significance of birds. The plethora of names for 78 British passerine species reflects the diversity across villages and counties, and shows that frequently encountered birds are often represented by a single word (monolexic) name, such as Wren (164 names – 70 monolexic) or Robin (41 names – 20 monolexic). These can become ‘iconic’ referents for lesser-known, but still named, species such as *furze wren* (Dartford Warbler) or *furze robin* (Stonechat), ‘furze’ being Gorse. But familiarity is reflected in its true sense by names such as *Jenny Wren* or *Bobby Robin*, which are never monolexic (except for Robin – a special case!). If we simply count the number of monolexic

and ‘familiar’ names for each bird, we find that across species they are correlated, and that ‘iconic’ species have significantly more names than those that are not iconic. Knowledge of the cultures in which these names were held suggests that familiar names were coined to teach children their birds, and to regard them as family (the ‘Beatrix Potter effect’) and instil a sense of responsibility for them.

LOSING KNOWLEDGE

That children in the past were more likely to know their local birds than are children today will come as no surprise to many *BTO News* readers. The decline in knowledge of natural history has been well documented and has become a focal issue for conservationists. It is why a GCSE in Natural History has recently been incorporated into the school curriculum. Steve Tilling and I investigated the natural history knowledge of all the first-year biology students at Oxford (in 2013 and 2014), by asking them to name five British birds, trees, butterflies, mammals and wildflowers, to species level (i.e. 25 names in all) and to say if they thought they were native or introduced. This method, known by ethnobiologists as ‘free-listing’, can be more powerful than asking people to identify species from pictures. Names were marked out of four for accuracy and specificity (e.g. Mallard vs. duck, Black-headed Gull vs. seagull), and one mark

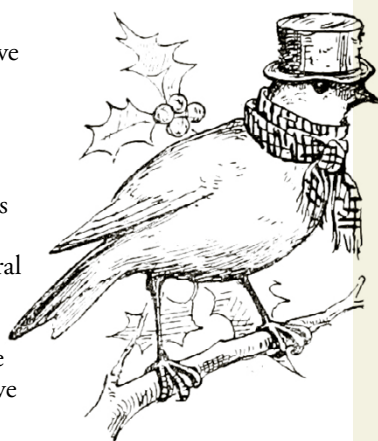


▼ Strong British sentiment for the Robin is reflected in its name. Previously known as the *redbreast*, *ruddock*, or *hirdick*, affection for it resulted in the attachment of a familiar name of Robin (referencing red as in Latin *ruber*) e.g. *Robin-redbreast*, *Robin-ruddock* and *Robin-hirdick*. The tendency to monolexis through familiarity reduced this to Robin for short.

was added for correctly knowing the native status, giving a possible 100 marks. We also asked a few extra questions, such as where they'd spent their childhood and who influenced their knowledge. We did not record students' names and the results contributed nothing to their degree.

We discovered that the students' natural history knowledge had the status of folk knowledge: it was held and transmitted largely within families. About half of the 149 UK-born students couldn't name five British birds to species level. Those who could were significantly more likely to have learned about nature from parents and grandparents. Furthermore, their knowledge of birds was the best predictor of their overall knowledge of all taxa, and that students who named rarer species of birds (i.e. less salient) had better knowledge across all taxa. A few months earlier, I'd field-tested the questionnaire with a number of church groups of older people (49 people, mostly clergy, mostly graduates, median age 64.5) who had gathered for a variety of reasons other than for worship. It turned out that while they were indeed better able to name birds, trees and butterflies (they gave more correct names at species level), their overall scores were much the same as the students and their knowledge of mammals seemed to be slightly but significantly poorer. However, interestingly, the birds most salient (i.e. most often given) by the two groups were remarkably similar, as were the influences they reported for their natural history knowledge. This suggests that our group of biology students was representative of a broader non-specialist population of people of similar educational status. However, what of the broader population? My own experience suggests that people with less 'formal' education may be more knowledgeable about nature, as is suggested by the folk names mentioned above, which were coined by non-specialist, and often illiterate, country folk.

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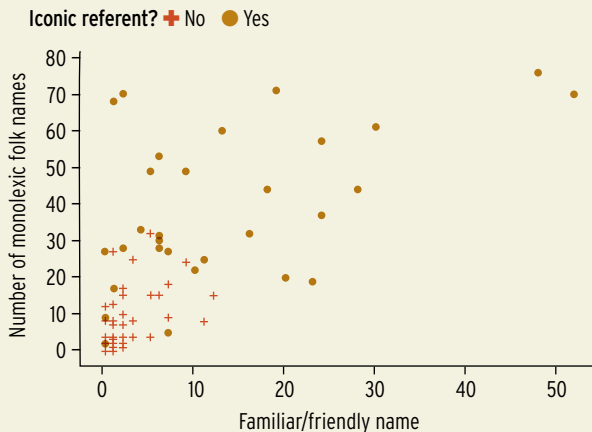
▲ The first Christmas card was sent in 1843. Robins appeared on them in the 1880s, probably because of an association with the postmen who were known as Robins because they wore red uniforms, but it undoubtedly also reflects a deeper British sentiment for this bird.

▼ The Blackbird or *ouzel* has little associated folklore, but is iconic nonetheless as its name references less familiar birds. Ring Ouzel is an obvious example, but less well known are *water-ouzel*, *brook-ouzel* and *water-blackbird* for Dipper, and *horn ouzel* for Mistle Thrush.



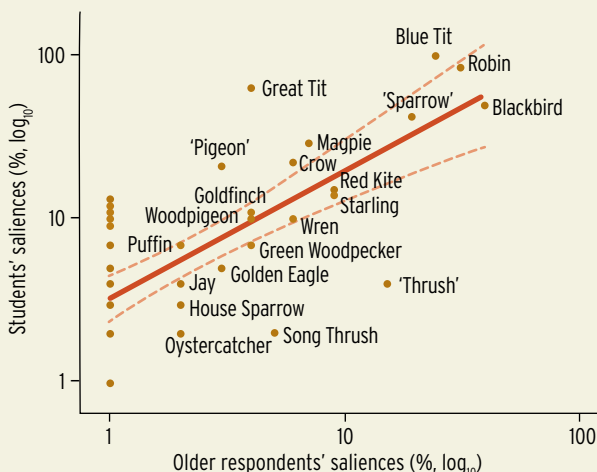
SPECIES ENCOUNTER FREQUENCY AND FOLKNAMES

Folk names of 78 British passerine birds in the English language reveal that frequently encountered species have more names, more of which are monolexic or of a 'familiar' form.



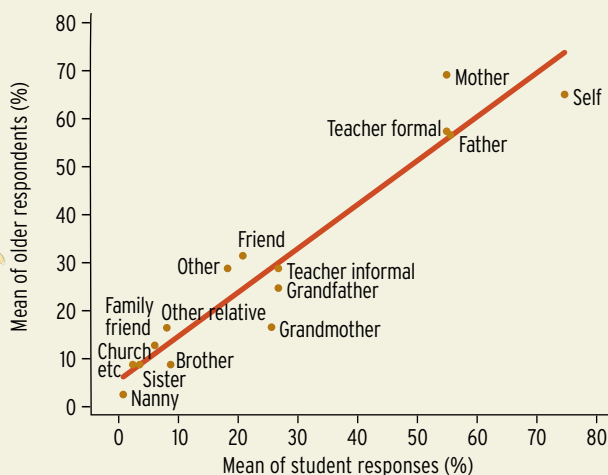
FREE-LISTING ACROSS THE GENERATIONS

Oxford biology students (median age 19) and older non-specialists (median age 64.5) showed a significant correlation of salience across bird taxa. The high salience of Great Tit for Oxford students reflects a significant cultural bias (see Masterclass, *BTO News* 342)!



PASSING ON NATURAL HISTORY KNOWLEDGE

Comparing students (median age 19) with non-specialists (median age 64.5) suggests that societal influences have changed little over 40 years. Self-motivation is key, but mothers in particular can affirm or condemn the natural nature-curiosity of young children.



HUIA ILLUSTRATION: PUBLIC DOMAIN, ROBIN; DAVID TIPLING/BIRDPHOTO.CO.UK, BLACKBIRD; GRAY IMAGES/BTO, ROBIN ILLUSTRATION: PUBLIC DOMAIN



Citizen science in ethno-ornithology

There are more than 7,000 languages in the world, and while this raises challenges for communication, it also offers immense opportunities to explore how others experience and understand their place in the world. It is not uncommon for 40% of words in local or indigenous languages to relate to species of plant or animal and their behaviours, to subtleties of habitat, or human relationships. Furthermore, that such cultural diversity is itself part of the planet's biodiversity is indicated by the realisation that across countries the number of languages (1,000 in Papua New Guinea) is significantly correlated with the number of bird and mammal species and relative area of forest. This is known as biocultural diversity. Indigenous languages are going extinct as rapidly as non-human species are disappearing so, if the need to document the status of biodiversity is critical, so too is the need to document human connections with nature.

DOCUMENTING CONNECTIONS

The citizen science approach pioneered by BTO offers a model for such documentation and mapping, but rather than the presence or absence of a species, the primary data will indicate people's knowledge of birds expressed through bird names, stories, personal

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▲ Chief Megaron of the Kayapó speaking at the International Society of Ethnobiology conference in Belem, Brazil, in 2018. When the author asked him "what do birds mean to you?" Chief Megaron replied "When the birds are gone, we are lost."

testimony, songs, poems, even artefacts documented via images, audio or video, held on a publicly accessible website. In 2013, we started work with colleagues at BirdLife International on such a website: *The Ethno-ornithology World Atlas* (EWA). Here, people everywhere can document their own connections with birds, in their own language, and set their own boundaries on who can access the material they upload. These are still early days in the development of EWA but, while the challenges are immense, so too is the scope and value of EWA to amplify the voices of all who care about the world's birds. ■

Find out more www.ewatlas.net and www.ewatlas.net/desfayes

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The Maco people from the Beni prov in Bolivia perform ritual dances for occasions where the dancers – the m – wear magnificent feather crowns. crown consists of approximately 30 feathers from up to four macaw species have been killed for this purpose by catchers. Hunting has become a p threat to the blue-tinted macaw found in Bolivia. The already small is additionally threatened by the destruction of its habitat.

ARTIFICIAL FEAT

The Armonia preservation trust f out of the crisis. The local populati made aware of the urgency of the p and developed alternative artificial in collaboration with the dancers. out of six macheteros wears a crown from real feathers. The positive sid that being able to sell the artificial tourists opened a new source of in population.

◀ Macheteros dancer headdress or 'tocado' of artificial macaw feathers from Bolivia. In a pioneering project by BirdLife Partner Armonía, macaw conservation has been promoted through the replacement of real feathers by artificial ones in traditional headdresses.

Credits

Thanks to EWA colleagues and students for carrying the vision of EWA to amplify the voices of birds and people, especially Drs John Fanshawe and Alberto Yanosky (BirdLife International), Felice Wyndham (EWA Ethnoecologist), Karen Park (EWA Linguist), Anant Deshwal (EWA Community programming liaison) and Ada Grabowska Zhang (Oxford University Dept of Continuing Education).

The author

Andrew (Andy) Gosler is Professor of Ethno-ornithology at the University of Oxford; a joint position between the Department of Biology and School of Anthropology and Museum Ethnography. Lifelong birder and ornithologist, former BTO Council Member and Editor of *Bird Study*, he says of ethno-ornithology: "I'm fascinated by birds, but I'm also fascinated that I'm fascinated by birds!"