

What the birds know: Lessons from migratory behaviour

Dear Tingasiga: Birds are whistling and singing as I write. The verdant canvas of Mount Kikuba, upon which beautiful flowers invite birds to feed, is a stage from which music wafts my way and concentrates my mind on a phenomenon that fascinates me every time I behold it.

Every autumn, something extraordinary unfolds across the skies of the world. Billions of birds — warblers, storks, swallows, geese — abandon familiar territories and launch themselves across continents, oceans, and deserts, guided by instincts refined over millions of years.

They travel thousands of kilometres, navigate by stars and magnetic fields, endure exhaustion and predation, and arrive — often to the very same tree, the very same marsh — they left the previous year. Lake Bunyonyi in Kigezi is one such destination that hosts repeat avian visitors every year.

In studying this phenomenon, scientists have uncovered not just biological marvels, but a series of profound lessons about how to navigate an uncertain world. Migration is not a tentative act. When a Blackpoll Warbler departs the coast of New England for South America, it embarks on a non-stop flight of up to 88 hours over open ocean. There is no turning back mid-Atlantic. The bird has fattened itself strategically, reconfigured its own organs to reduce weight, and prepared every system in its body for the ordeal ahead.

The lesson here is one of wholehearted commitment. Half-measures in migration are fatal. The bird that hesitates too long, that departs without adequate preparation, or that turns back at the first headwind, does not survive. There is a clarity in this that human endeavour often lacks. We frequently embark on important journeys — relationships, careers, creative projects — with one foot still on the shore. The warbler reminds us that some crossings demand everything.

Birds do not rely on a single navigational sys-

tem. Research has shown that migratory birds integrate information from the sun's position, the stars, the Earth's magnetic field, sense of smell, landmarks, and even sound with frequencies below the lower limit of human hearing.

When one system is disrupted — an overcast sky, a strange magnetic anomaly — others compensate. The result is a navigation network of extraordinary resilience. This redundancy is a lesson in robust thinking. We live in a world that rewards specialisation, encouraging us to become experts in one skill, one tool, one framework. Yet the birds demonstrate the wisdom of broadening our points of reference to multiple sources.

The person who reads widely, who consults diverse perspectives, who refuses to rely on a single map of reality, is far better equipped to find their way when conditions change. Breadth of knowledge, it turns out, is not the enemy of good navigation — it is its foundation.

Young birds making their first migration have never seen their destination. They carry no conscious memory of the route. Yet an internal calendar — responding to day length, hormonal shifts, and magnetic cues — tells them when to go, in which direction, and roughly how far. This inherited knowledge, encoded over countless generations of trial and error, is staggeringly precise.

There is a tendency in modern life to distrust instinct in favour of data, to override felt sense with spreadsheets and algorithms. Migratory birds suggest a different relationship with accumulated wisdom. The body — and by extension, culture, tradition, and long-held intuition — carries knowledge that cannot always be consciously articulated. This is not an argument against critical thinking, or evidence-based decision making, but a case for taking seriously the intelligence embedded in patterns that have survived long enough to be inherited.

Geese flying in V-formation are one of nature's most studied examples of emergent cooperation. Each bird benefits from the up wash of the bird

Recovery is not time lost.
It is investment.



Muniini K. Mulera
Letter to a
Kampala Friend



ahead, reducing energy expenditure by up to 20 percent. Leadership rotates as the lead bird tires. Leading birds have term and age limits. No single goose directs the formation — the pattern emerges from simple, local rules followed by everyone. This is a lesson for organisations, communities, and societies. The most resilient systems are often not those with the most commanding leadership, but those with the most distributed intelligence. When every participant understands the shared goal and the simple principles that govern behaviour, coordination arises naturally. The formation holds not because one goose is brilliant, but because each goose is responsive.

For all their extraordinary feats of endurance, migratory birds are masters of strategic rest. Songbirds travelling thousands of miles do so in short nocturnal bursts, spending days at stopover sites eating intensively and sleeping deeply. The journey is not a single heroic sprint but a carefully managed series of efforts and recoveries.

Contemporary culture tends to celebrate relentless effort and treat rest as laziness. The migratory birds expose this as a dangerous misconception. Rest is not the absence of progress — it is the mechanism by which progress is made sustainable. The fat reserve built at a Sudanese salt marsh is what powers the final leg to a Ugandan forest.

Recovery is not time lost. It is an investment.

Birds do not migrate because a date has arrived on a human schedule. They respond to real conditions — day length, temperature gradients, wind patterns, food availability. In recent decades, climate change has disrupted these cues, and many species have struggled to adjust when the signals that once reliably predicted seasonal conditions no longer hold true.

The lesson cuts both ways. It is a reminder to remain responsive to actual conditions rather than inherited routines. It is not what we have always done at this time of year, but what present conditions actually require. It is also a warning. When the environment changes faster than organisms can adapt, the ancient wisdom encoded in migratory behaviour becomes a liability rather than an asset. Flexibility and attentiveness to the present moment are essential companions to inherited knowledge.

Finally, migration is a reminder that the natural world does not respect political boundaries. A bird flying from Finland to Kenya crosses a dozen jurisdictions. The Arctic Tern, travelling from pole to pole, belongs to no single nation. The survival of migratory species depends entirely on international cooperation — on the health of habitats in Finland and Kenya, in Siberia and Uganda, in the Amazon and the Congo Basin alike.

In a world of narrowing politics and rising borders, the migratory bird asks us to think at the scale that nature operates. Our fates, like those of the birds, are bound up with people and places far beyond the visible horizon. The birds have been making these journeys for millions of years. They have outlasted ice ages, continental shifts, and mass extinctions. There is wisdom in watching them carefully — and in having the humility to learn what they know.

Dr. Mulera is a medical doctor.