

# Like father, like child: Male parents lead young birds on first migration

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GPS tracking of Caspian terns showed that male parents carry the main responsibility for leading young during their first migration from the Baltic Sea to Africa.

Bird migration has fascinated human minds for millennia. How do these creatures learn to find their way to distant wintering locations? In a new study published in *Nature Communications*, a team of researchers from Finland, Sweden and the UK tracked entire bird families with GPS devices to find out.

"We wanted to get a better idea of how the migratory skills of birds are passed from one generation to another in a species where individuals normally migrate together," says lead author Patrik Byholm of the University of Helsinki.

While it is well known that many birds migrate in groups, only limited information has previously been available on how individuals migrating together actually interact while traveling. Using the Caspian tern—a fish-eating waterbird that normally migrates in [small groups](#)—as a study system, the researchers found that [adult males](#) carry the main responsibility for teaching young the secrets of migration. Guiding behavior is normally the responsibility of the biological father, although in one case a foster male adopted the role.

"This is very fascinating behavior, which we really did not expect to find when setting up our study," Byholm says.

## Learning the right routes is critical for survival

Careful analysis concerning the movements of the migrating birds showed that [young individuals](#) always remained close to an adult bird, and [young birds](#) that lost contact with their parent died. This indicates that, in Caspian terns at least, it is of utmost importance for the young to migrate together with an experienced adult to survive their first migration.

The question remains unclear why the males, instead of the females, are mainly engaged in leading their young on their first migration southwards. Importantly, the study also shows that during their first solo migration back to their [breeding grounds](#), young terns used the same migratory routes they took with their father on their first journey south.

"This indicates that in Caspian terns, migration knowledge is inherited through culture from one generation to another. This has consequences on the decisions individuals make years after they first migrated with their father," comments co-author Susanne Åkesson, from Lund University, Sweden.

These findings are also important for understanding whether Caspian terns and other [migratory birds](#) can persist in the face of global climate change and widespread habitat loss. Their future depends on how effectively the knowledge of successful migratory routes and stopover sites is transmitted from one generation to the next.

**More information:** Patrik Byholm et al, Paternal transmission of migration knowledge in a long-distance bird migrant, *Nature Communications* (2022). [DOI: 10.1038/s41467-022-29300-w](https://doi.org/10.1038/s41467-022-29300-w)

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