

Invasive brood parasites a threat to native bird species

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North Americans might be seeing new species of birds in certain areas of the continent in the near future. According to research conducted by a psychology professor at the University of Tennessee, Knoxville, and his co-authors, Eurasian birds are beginning to develop a presence on our continent, which could end up having a negative effect on native species.

Vladimir Dinets, research assistant professor of psychology, recently published a paper in the *Journal of Field Ornithology* examining the threats of global warming and its effects on wild animals. The warming climate is allowing various [species](#) in North America and Eurasia to get closer to, and even cross, the Bering Strait, a natural barrier only 50 miles wide. Birds from Eurasia, in particular, are crossing into North America.

Dinets, who has traveled extensively on both sides of the Bering Strait, notes that in the past 20 years, the vegetation of the region has changed dramatically. What used to be hundreds of miles of open tundra is now dense shrubland. And more southern bird species use this change to colonize new areas. For example, the savanna sparrow has recently begun breeding in Siberia, while the great spotted woodpecker has made it to Alaska for the first time.

Along with Mark Hauber, professor of neurobiology and behavior at City University of New York, and their co-authors, Dinets has discovered that two species of Eurasian cuckoos are on the verge of invading North America, and one of them may already be breeding here. These [birds](#) are considered brood parasites because they lay eggs into the nests of other birds and throw out the host's eggs to ensure there is no competition for food from the adoptive parents.

If these cuckoos become established in North America, the native bird population will decrease as a result. Some North American birds have

evolved defenses against cowbirds, which are native [brood parasites](#). But through their research, Dinets and Hauber have found that these defenses are likely to fail against the invasive cuckoos because cuckoos are more sophisticated parasites: for example, they can mimic the egg color of their hosts.

While the Eurasian cuckoos are threatening to invade North America, American cowbirds are increasing their presence in Eurasia. Many Eurasian birds have evolved defenses against cuckoos, but cowbirds are less picky about choosing their hosts, and might threaten other species that are not parasitized by cuckoos and have no defenses.

Dinets and Hauber are proposing to start monitoring when and where the invading cuckoos begin to breed in North America. They believe the foothold area will most likely be western Alaska, where a small number of people interested in birds are spread out over a large territory.

Dinets added that local fish and wildlife authorities, hunters and other people spending a lot of time outdoors should be taught to recognize Eurasian cuckoos in order to mitigate the effects when the [cuckoos](#) arrive.

"It is important to predict which [native species](#) are most at risk and to monitor their populations so that if they start to decline catastrophically, we can establish captive breeding programs and other supportive measures," he said.

More information: *Journal of Field Ornithology*, onlinelibrary.wiley.com/doi/10.1111/jfo.12111/abstract

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