

OPINION

## The cuckoo's intriguing story of deceit and survival

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Nature continually astounds us with its wealth of extraordinary adaptations and behaviors, and among its most intriguing inhabitants is the Cuckoo (*Clamator glandarius*), a bird renowned for its cunning and deceptive strategies. Recognized for its distinctive call, the Cuckoo has secured a prominent spot in both folklore and scientific studies, thanks to its distinctive behaviors and complex interactions with other species.

**Keywords:** Great spotted cuckoo, Mating, Breeding season.

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### Introduction

The Cuckoo, scientifically known as *Clamator glandarius*, is a member of the Cuculidae family, which encompasses various cuckoo species found across the globe. This medium-sized bird measures approximately 32-34 centimeters in length, displaying a slender physique and a lengthy tail. Adults exhibit a striking appearance with their ash-gray plumage adorned by bold black and white stripes, resulting in a distinctive and attention-grabbing aesthetic.

Cuckoos primarily inhabit regions in Europe, Asia, and North Africa, making their homes in diverse environments such as woodlands, forests, and open countryside. Their wide distribution enables interactions with a diverse range of bird species (Soler, M., 1990).

One of the most captivating aspects of Cuckoo biology lies in its breeding behavior, often characterized as "brood parasitism." Unlike the majority of avian species that construct nests and nurture their own offspring, Cuckoos employ a cunning and somewhat ruthless strategy. Female Cuckoos deposit their eggs in the nests of other bird species, particularly smaller songbirds like warblers and pipits. Unsuspecting host birds then incubate and care for the Cuckoo chick as if it were their own. To execute this remarkable feat of deception, the female Cuckoo masterfully mimics the appearance of the host bird species to avoid detection while laying her eggs. Furthermore, Cuckoo eggs frequently hatch ahead of the host's eggs, granting the Cuckoo chick a competitive edge in securing nourishment from its foster parents. In certain instances, the Cuckoo chick may even displace the host's own eggs or chicks from the nest, ensuring that all available resources are channeled toward its survival (Soler, M., et al., 1995).

### Description

The interaction between Cuckoos and their host species offers a captivating illustration of co-evolution and an enduring evolutionary arms race. Host species have developed a variety of strategies to counteract the Cuckoo's parasitic behavior. Some birds have acquired the ability to discern Cuckoo eggs and eliminate them from their nests. Others have become adept at recognizing Cuckoo chicks through their distinctive calls, choosing to either forsake the nest or expel the intruder. In retaliation, Cuckoos have persistently honed their mimicry and deceptive techniques to enhance their prospects of successfully infiltrating host nests. This ongoing contest of intelligence between Cuckoos and their hosts has resulted in a dynamic and intricate interplay of adaptations, continuously fascinating researchers and naturalists (Canestrari, D., et al., 2009).

The Cuckoo confronts a myriad of contemporary challenges, encompassing habitat loss, the effects of climate change, and fluctuations in host populations. Declines in certain host species could potentially impact the Cuckoo's reproductive success. Therefore, it is imperative to prioritize conservation initiatives that revolve around safeguarding the habitats and ecosystems that foster the well-being of Cuckoos in the long run.

The Cuckoo's exceptional behaviors and intricate interactions with other species have rendered it an enthralling subject for scientific exploration, offering profound insights into the nuances of animal behavior, co-evolutionary dynamics, and adaptive strategies. As we delve deeper into unraveling the enigma of this captivating bird, our reverence for the intricate and awe-inspiring complexities of the natural world continues to grow (Avilés, J.M., et al., 2004).

The Cuckoo, scientifically known as *Clamator glandarius*, serves as a testament to nature's ingenious artistry. Its crafty breeding tactics and ongoing co-evolutionary tussle with host species vividly illustrate the lengths to which creatures will go to secure their survival. Observing and researching the Cuckoo serves as a poignant reminder of the fragile equilibrium within ecosystems and the extraordinary strategies that have evolved over millennia (Molina-Morales, M., et al., 2012).

The Great Spotted Cuckoo (*Clamator glandarius*), classified by Linnaeus in 1758, boasts a vast distribution spanning tropical Africa, the Middle East, and the Mediterranean region of Europe. In its central range, populations of these crested cuckoos display a tendency toward sedentary behavior, while those in South Africa, the Middle East, and Europe partake in migratory journeys.

It is widely accepted that all avian populations of this species spend their winter months on the African continent. Notably, the Great Spotted Cuckoo employs an obligate nesting parasitic strategy. Its preferred breeding hosts primarily encompass corvids, alongside select long-tailed and spray starlings. These species construct their nests in hollows, burrows within sandy cliffs, and piles of stones. The specific species include *Lamprotornis* spp., *Onychognathus* spp., and *Spreo bicolor*. Among the vigilant guardian birds are the blue *Cyanopica cyanus* and common *Pica pica* magpies, the black *Corvus corone*, the gray *C. cornix* crows, and occasionally the *Garrulus glandarius* jay, *Pyrrhocorax pyrrhocorax* bough, *Corvus monedula* jackdaw, *C. monedula* common, and *Corvus corax* bristly black *C. rhipidurus* (Martínez-Zunzarren, N., et al., 2023).

## Conclusion

In the Mediterranean and European regions, the breeding season of the Great Spotted Cuckoo synchronizes with that of its primary breeding host, the magpie, spanning from late April to early June. Fledglings vacate their nests by the close of May and linger until November, preparing for their impending winter migration. In Spain, adult birds conclude their breeding activities by mid-June, while the younger population remains until early August. Detailed records of the presence of these crested cuckoos are well-established across various Western and Eastern European countries, as well as Turkmenistan. Although this species has been sighted in the Turkish region, its official documentation within the territories of Azerbaijan and the Nakhchivan Autonomous Republic remains pending.

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