

## **Researchers conduct study to determine impact of using drones to study birds**

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Quadricopter drone used for the experiments. Credit: © Cyleone

(Phys.org)—A team of researchers working in various parts of France has conducted a study to determine the impact on birds when researchers use drones to study or watch them. In their paper published in *Royal Society Biology Letters*, the team describes the experiments they carried out and offer suggestions based on what they learned to others planning to use drones in their bird studies.



As drone technology has improved, prices and flexibility have evolved to the point where the mini-aircraft can now be bought and used by nearly anyone, including birdwatchers or scientists using the <u>new technology</u> to study birds in ways that have never been possible before. But what impact does the drone have on the birds being watched? That is what the researchers set out to learn.

They started by hiring a professional drone pilot to fly around ducks in a local zoo (after getting permission first, of course). Next, they flew the drone around flamingos and greenshanks living in a nature preserve in the southern part of the country. In testing the birds' reaction to the drone flights, the team varied drone color, speed and angle at which they approached the birds. The team reports that the birds appeared to be worried about the drones only when they approached from directly overhead (which is where predators would generally be coming from).

While limited, the study suggests that drones can be used to safely study some birds under some circumstances. It is still not clear if the drones have an impact that is not represented by changes in observable behavior in the birds, however, such as increased heart rates or respiration. The researchers allow that other birds might be adversely impacted, noting that a lot of videos have shown up on the Internet showing birds of prey attacking drones, though in such instances, it is not clear if the birds see the drones as a threat, or a possible meal. At any rate, the researchers suggest that researchers going forward should attempt to assess the possible impact on <u>birds</u> they are studying, by monitoring behavior changes. They also recommend that for such studies, <u>drones</u> be launched at least a hundred meters away from the test subjects and adjust approach speed according to the species under study.

**More information:** Approaching birds with drones: first experiments and ethical guidelines, *Biology Letters*, <u>rsbl.royalsocietypublishing.or</u> ... <u>.1098/rsbl.2014.0754</u>



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