

## **Eagle Owls Send Sweeter Valentines When Moon Is Full**

January 21 2010, by Ted Goodman



Eurasian Eagle Owl (Image: Wikipedia)

(PhysOrg.com) -- Placing a tracking device on breeding owls with a wing span large enough to cover eight humans lined up side-by-side, is not a walk in the park. But, funded by a grant from the Spanish Ministry of Science and Innovation, four biologists from Spain, Finland, and Portugal sought to find out how the Eurasian Eagle Owl's (the Bubo bubo) communication behavior is affected by moonlight. The study is one of the few that have looked at intraspecies communication of nocturnal birds and the findings provide further evidence lunar cycles affect the behaviors of animal species.

From 2003 to 2008, the researchers trapped and radiotagged 26 breeding



eagle owls - 14 males and 9 females) from breeding sites in southwestern Spain. (Owls were caught with <u>mist nets</u>, and the radio transmitters only weighed 30 grams, less than about 3 percent of the owl's own weight.) Every measure known to the research team was taken to avoid disturbing the adult owls or their infants. They continuously radio-tracked every person even remotely near the owls for the period of the study, and saw no adverse reactions from the owls.

The researchers traced two unique communication behaviors of the Eurasian Eagle Owl: vocal communication and visual communication. These behaviors were observed during five phases of the moon: new moon, waxing/waning crescent, first/third quarter, waxing/waning gibbous and <u>full moon</u>, under good <u>weather conditions</u>.



Phases of the moon. (Image credit: PLoS ONE)

As you might have guessed by the title of this article, the Eurasian Eagle Owl is turned on by moonlight. The brighter the moon, the more



frequent the calls. But along with the owls' vocalizations is the moon's affect on the owls' visual communication.

Eagle owls have white patches of soft feathers under their beaks that they show only when vocalizing. So, as the moon gets brighter, and the eagle owls are calling to their mates more frequently, so do these owls climb to higher perches where they can be more easily spotted.

The researchers also learned that the eagle owls communicate similarly at dusk and at dawn to when the moon is full, and suggest that this is because the amount of ambient light at dusk and dawn are about the same as a moonlit night.



The puff of white feathers under the eagle owl's beak only shows when the owl is calling. (Image: Wikipedia)

It is possible that the largest owl in the sky with the best vision doesn't have to worry about too many predators. It can afford to strut its stuff at night.

But not all nocturnal birds or animals can afford to be so boisterous in the moonlight. For many of them, it's time to lay low.



**More information:** Moonlight Makes Owls More Chatty, *Plos ONE*, <a href="https://www.plosone.org/article/info">www.plosone.org/article/info</a> %3Adoi%2F10.1371%2Fjournal.pone.0008696

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