

Monday, January 5, 2009 6:14 AM  
From: "Mark Patterson" <mpatterson@plos.org>  
To: "Mike Collins" <cinclodes@yahoo.com>

Dear Mike

Thank you for this message, and your earlier one, which I received whilst away from the office.

We have managed to line up a reviewer who will shortly provide an expert opinion on the additional information about the fieldwork and observations presented, and whether the interpretation (including the example statements that you've listed below) is appropriate, given the data.

Just to reiterate - we are committed to resolving this matter as fairly and promptly as possible. However, if you wish to withdraw the article, then you are of course at liberty to do so.

Sincerely

Mark Patterson

-----Original Message-----  
From: "Mike Collins" <cinclodes@yahoo.com>  
Sent: 27 December 2008 22:16  
To: Mark Patterson

Dear Mark,

You claim that the evidence is presented too strongly. The discussion of evidence is contained in the statements listed below. Which of these are too strong?

Mike Collins

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Video footage of birds that were identified in the field as Ivory-billed Woodpeckers is analyzed in terms of the flap rate models, historical accounts, and physiology.

A video obtained in Louisiana in 2006 shows a large woodpecker that is consistent with Ivory-billed Woodpecker in terms of posture while perched, large crest, large bill, and takeoffs involving deep and rapid flaps.

A video obtained in the same area in 2008 shows a large bird with the flap style of a large woodpecker, a flap rate and flight speed that are much too high for Pileated Woodpecker, and large white patches on the wings that are consistent with Ivory-billed Woodpecker.

A video obtained in Florida in 2007 shows a swooping takeoff and landing and a takeoff with deep and rapid flaps that are consistent with the 2006 video.

Videos were obtained during three encounters in which key field marks consistent with the Ivory-billed Woodpecker were observed, including footage of a cruising flight, two takeoffs into level flight, a short flight, a swooping takeoff, and a swooping landing.

The flight mechanics of the birds in these videos are consistent with Ivory-billed Woodpeckers in terms of historical accounts, physiology, and empirical [5] and physics-based [6] models for flap

rate.

Various additional characteristics of the birds in the videos are consistent with Ivory-billed Woodpeckers, including apparent field marks, a massive bill, a large crest, and an exaggerated leaned-back posture while perched.

Three putative Ivory-billed Woodpecker videos were obtained during a total of 84 weeks of fieldwork between November 2005 and October 2008.

Although no clear image of an Ivory-billed Woodpecker has been obtained in recent decades, flap rate, flap style, and other aspects of the flight mechanics are unambiguously resolved in these videos.

The 2006 video was obtained immediately after the last of five sightings in which deep and rapid flaps and field marks consistent with Ivory-billed Woodpecker were observed in a concentrated area over a five-day period.

Vocalizations consistent with the characteristic "kent" calls of this species were heard on two occasions in the same area during this period.

This is the first putative Ivory-billed Woodpecker footage that shows the head, the bill, the crest, the neck, a perched bird, level flight, and a bird that is unquestionably a woodpecker.

While climbing upward and rotating around the left branch of the fork, the bird remained in an exaggerated leaned-back posture (Fig. S2) that would be unusual for a Pileated Woodpecker (which typically has a more upright posture) but is consistent with historical photos of Ivory-billed Woodpeckers, including the upper photos in Plates 11 and 15 of Allen and Kellogg [15].

Various additional characteristics of the bird in the video are consistent with Ivory-billed Woodpecker (Fig. S3, Fig. S4, Fig. S5) but inconsistent with Pileated Woodpecker (the only conceivable confusion species).

Appearing in Fig. 1 is a series of frames that show a level takeoff into a short flight across the fork at 635 s (Movie S2); the wings were raised high above the plane of the body during a deep and rapid flap that corresponds to about 7.5 Hz. At 690 s, the bird took off into level flight with deep flaps and a flap rate of about 7.5 Hz (Movie S3, Movie S4). The deep and rapid flaps during these takeoffs are consistent with the physiology of the Ivory-billed Woodpecker and the accounts of takeoffs by Tanner [1] and Christy [7]. Pileated Woodpeckers have relatively low body mass and high wing surface area and do not require deep and rapid flaps in level takeoffs (Movie S5, Movie S6).

Based on the fast and direct flight, the bird was assumed to be a Wood Duck (*Aix sponsa*) when initially detected in the distance, but two white dorsal stripes (a key field mark of the Ivory-billed Woodpecker) were observed just before it passed nearly directly below. This is the first putative footage of an Ivory-billed Woodpecker in cruising flight.

The wingspan (Fig. S6) and the large white patches on the dorsal surfaces of the wings (Fig. S7, Fig. S8, Movie S10) are consistent with Ivory-billed Woodpecker, and a putative double rap (which is characteristic of *Campephilus* woodpeckers) was recorded in the video 77 s before the bird flew into view (Movie S11).

The flap rate varied between 6.6 Hz (15 flaps in 2.27 s) during the approach to 7.5 Hz (4 flaps in 0.533 s) just beyond the observation tree. These values are consistent with the estimates obtained using the flap rate models and much greater than any flap rate that has been reported for Pileated

Woodpecker in cruising flight. If the standard deviation of the raw flap rate is comparable to the standard deviation of the intrinsic flap rate, which Tobalske found to be 7.7% for the Pileated Woodpecker [10], it would not seem to be statistically reasonable for this species to achieve a raw flap rate of 6.6 to 7.5 Hz, which is 78 to 103% greater than the 3.7 Hz mean.

The flight speed is consistent with Eq. (5) and the 6.6 to 7.5 Hz flap rate, and it is significantly greater than the maximum of 11.6 m/s that Tobalske observed for Pileated Woodpecker [10]. The high flap rate and fast and direct flight are consistent with historical accounts of the Ivory-billed Woodpecker.

With the exception of the higher flap rate, the wingtip elevation and wingspan curves in Fig. 3 are similar to the corresponding curves for a Pileated Woodpecker in Fig. 8 of Tobalske [10].