

A stake was placed at the apparent midpoint between the direct and reflected images of the bird in the 2008 video, which corresponds approximately to the projection of the location of the bird onto the surface of the bayou. Various tree branches were lined up to determine the correct location.


The same approach was used to determine the position of the apparent midpoint for a frame from the video that corresponds to 4.38 seconds earlier. This stake is 66.5 meters from the other stake, which corresponds to a flight speed of $15.2 \mathrm{~m} / \mathrm{s}$. The other stakes correspond to published values of 7.5 to $11.6 \mathrm{~m} / \mathrm{s}$ for the range of flight speeds for the Pileated Woodpecker. The stake was placed slightly to the side of the actual location of the midpoint, but this should have a negligible effect on the flight speed estimate since the error in the position is orthogonal to the flight path.

