

Statistical Analysis of Sighting Data

I highly recommend this blog post:

Live Pterosaurs and Science

We now have 74 sightings with wingspan estimates, up from the 57 that were analyzed about one year ago. The updated database includes the earlier sighting reports, as they were combined with the newer accumulations of information on such things as wingspans, time-of-day-or-night, presence or absence of a long tail, head crest, etc.

Whitcomb's analysis is somewhat brief, with general concepts that show how the weight of evidence points to a lack of hoaxes for those sightings in which wingspan estimates were given. This could benefit from a closer perusal.

By the way, Whitcomb is open to requests for the original database, for those who would want to take the time to do their own analysis.

Getting back to wingspan estimates, the proposal by some antagonists, that hoaxes caused sighting reports, is countered by Whitcomb's data on wingspan estimates. To understand this, it helps to know something about what type of pterosaur is often reported.

The long-tail to no-long-tail ratio is about twenty to one as follows:

- long tail 41%
- no long tail 2%
- not specified 57%

This means that if many hoaxes had contaminated the data then those jokesters would need to be in one of the following

categories:

1. Trying to convince people that basal pterosaurs were seen
2. Ignorantly including long tails in their hoaxes

If number one, the hoaxers would have given wingspans below about seven feet. But Whitcomb's data clearly defeats that possibility, for the only impressive peak is more like eight to thirteen feet, and that peak is not extremely high, tapering gradually into those wingspans that are somewhat larger than wingspans of large birds. Number one is practically eliminated, for it would not have led to the data we have on wingspans.

Number two seems more likely, but a different problem presents itself. If jokesters had ignorantly promoted long-tailed pterosaur sightings, what would influence them in providing wingspan sizes? It would be large wingspans, probably over twenty feet, that they would have lied about, for three reasons:

1. Cause shock from a report of a huge size
2. Avoid the possibility of a bird-misidentification interpretation
3. Connect the hoax with popular science fiction movies and stories

No jokester would report seeing a modern pterosaur with a wingspan of eight or nine or ten feet. That's too much like the size of large birds. Where's the shock value in that lie? But it's in that simple concept that we have a device for eliminating the number two category of jokester mentality. Here is part of Whitcomb's data for wingspan sizes in feet:

6, 6, 6, 6

7, 7

8, 8, 8, 8, 8

9, 9, 9, 9

10, 10, 10, 10, 10.5

11, 11

12, 12, 12.5

13, 13, 13, 13

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15

16, 16

17, 17, 17

18

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20, 20, 20, 20, 20.5

21, 21.5

22

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24

25, 25, 25, 25

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27

The range from 8-13 feet is small, compared with the overall range from 1.3 to 46 feet, but see how many sightings have wingspan estimates from 8-13 feet inclusive: 23 sightings,

which is 31% of all those in which wingspan was given numerically. That number, 23, eliminates the number two possibility for jokesters, for if they existed, they would not have given wingspan estimates of 8-13 feet.

Now we compare that five-foot range (8-13) to the five-foot range from 16-21 and see the difference: Only 12 sightings in that range, far fewer than the 23 sightings from 8-13 feet. I chose 16-21 because it is just above the wingspan size of large birds. When we go further up the wingspan size range, we see fewer and fewer sighting reports, which eliminates that kind of hoax potential. Nothing in the wingspan estimates makes any sense when we think about how hoaxes could have skewed the data.

I'm not preaching absolute purity from any hoax contamination in the data. I can't say whether or not there is complete purity. But there could not be any major contamination. To be plain, there could have been one or two hoaxes among so many, but what would that mean? It would not have any influence on the numerous other sighting reports. Even so, I have not yet seen any evidence that even one of Whitcomb's reports has any evidence of it being from any hoax.

I also recommend the following:

Tail flange and long tails

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Searching for Ropens and Finding God – true adventures that support the Bible

From page 181:

I had wondered why so many sightings are in daylight; ropens are nocturnal. Then I began finding clues, including reports of storms that sometimes pass through before sightings. Since a sighting in Georgia in 2008, I sometimes ask about the weather, including for the previous day or two before the sighting.