

Learn from TED Talks- 3 bizarre (and delightful) ancient theories about bird migration

Class objective: I will be able to understand the concept and learn new vocabulary and answer related questions.

Concept A: Audio for the ted talk:

[3 bizarre \(and delightful\) ancient theories about bird migration](#)

Listen Till 4:37

Concept B: Transcript:

Students will read the paragraphs and understand it.

00:13

In May 1822, Count Christian Ludwig Von Bothmer shot down a stork over his castle grounds in North Germany. However, he wasn't the first person to hunt that specific bird. Upon recovering the stork, Von Bothmer found it impaled by a yard long wooden spear. A local professor determined the weapon was African in origin, suggesting that somehow, this stork was speared in Africa and then flew over 2,500 kilometers to the count's castle. This astonishing flight wasn't just evidence of the stork's resilience. It was an essential clue in a mystery that plagued scientists for centuries: the seasonal disappearance of birds.

01:02

Ancient naturalists had various theories to explain the annual vanishing act we now know as migration. Aristotle himself proposed three particularly popular ideas. One theory was that birds transformed into different bodies that suited the season. For example, summer garden warblers were believed to transform into black caps every winter. In reality these are two distinct species— similar in shape and size, but never appearing at the same time. Over the following centuries, birds were said to morph into humans, plants, and even the timbers of ships. This last transmutation was especially popular with many Christian clergy. If barnacle geese were truly made of wood, they could be deemed vegetarian and enjoyed during meatless fasts.

01:59

Aristotle's second and even more enduring hypothesis was that birds hibernate. This isn't so far-fetched. Some species do enter short, deep sleeps which lower their heart rates and metabolisms. And there's at least one truly hibernating bird: the common poorwill sleeps out winters in the deserts of North America. But researchers were proposing much more outlandish forms of hibernation well into the 19th century. Barn swallows were said to remove their feathers and hibernate in holes, or sleep through the winter at the bottom of lakes and rivers.

1. **Introduction**

2. **Background**

3. **Method**

1. **Study Design**
2. **Participants**
3. **Intervention**

4. **Results**

1. **Primary Outcome**
2. **Secondary Outcome**
3. **Subgroup Analysis**

5. **Conclusion**

1. **Summary**

6. **References**

7. **Appendix**

8. **Supplementary Material**

9. **Footnote**

1. **Page 1**
2. **Page 2**
3. **Page 3**

10. **Page 4**

1. **Introduction**

2. **Background**

3. **Method**

- 1. **Study Design**
- 2. **Participants**
- 3. **Intervention**

4. **Results**

- 1. **Primary Outcome**
- 2. **Secondary Outcome**
- 3. **Subgroup Analysis**

5. **Conclusion**

- 1. **Summary**

6. **References**

7. **Appendix**

8. **Supplementary Materials**

9. **Notes**

- 1. **Notes**
- 2. **Notes**
- 3. **Notes**

10. **References**

1. **Introduction**

2. **Background**

3. **Method**

1. **Study Design**
2. **Participants**
3. **Intervention**

4. **Results**

1. **Primary Outcome**
2. **Secondary Outcome**
3. **Subgroup Analysis**

5. **Conclusion**

1. **Summary**

6. **References**

7. **Appendix**

8. **Supplementary Materials**

9. **Footnote**

1. **Page 1**
2. **Page 2**
3. **Page 3**

10. **Page 4**