



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Jessica A. Pate	Project Number J2213
Project Title Monitoring the Flight Patterns of Local White-Faced Ibis	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals On the way to school one morning, and I saw a group of unusual looking birds flying overhead. They had a large wingspan, and an odd shaped beak. I told my science teacher about it, and she said they were probably a migratory species of water bird called the White-faced Ibis. Soon afterward, I saw more groups of these birds flying in the same general direction, around the same time. I decided to document my findings. I wondered if the birds would be consistent in their flight patterns, or would their activity be unpredictable. I hypothesized that the number of Ibis I observed might vary significantly, and their direction of travel might differ. I also believed that the Ibis might appear at the same general time, but that the weather conditions might impact their flight patterns.</p> <p>Methods/Materials I recorded the date, time, location the birds were observed, number of flocks, number of birds per flock, number of birds, their flight direction, weather conditions, temperature (°C/°F) and humidity levels. During the time I was documenting my observations I did some additional fieldwork. I visited lakes in search of where the Ibis may have been drawn to each day, and did some additional research on where the Ibis had recently been seen. The lakes I visited included Guajome Lake, Buena Vista Lagoon, Libby Lake, and Whelan Lake. I met various #birders# who were involved with the lagoons or lakes, and I found lots of evidence of where the Ibis might reside.</p> <p>Results On days that I observed the White-faced Ibis, an average of 49 birds were seen daily, however I observed many more on some days, even as many as 120 one morning. For those days, the average number of birds per flock observed was 16. Finally, the most frequently recurring numbers of birds seen on the observation days were 20, 30, 45, and 60 White Faced Ibis.</p> <p>Conclusions/Discussion Through my observations, I discovered that they Ibis seemed to fly in only one direction in the morning, (east), and fly west in the evening, flying back to where they reside during the nighttime. The evidence I collected supported the theory that the Ibis are probably flying to Pala Lake from Whelan Lake. Also, they are using the San Luis Rey Riverbed as a guide to lead them to Pala. Weather did not appear to make a difference in their flight patterns.</p>	
Summary Statement I wondered if the White-Faced Ibis that I saw near my home would be consistent in their flight patterns, or if their activity would be unpredictable and I discovered that there was a significant pattern.	
Help Received My mom drove me to various lakes to observe birds; my science teacher let me borrow various of scientific equipment for the observation process; the caretaker of Whelan Lake allowed me to observe on private grounds; a member of the Buena Vista Audubon Society told me about her observations.	