

Ephran the Great Egret Returns



"Eric"



"Ephran"



"Edgar"



Nature
Where
You Are
AUDUBON CANYON RANCH

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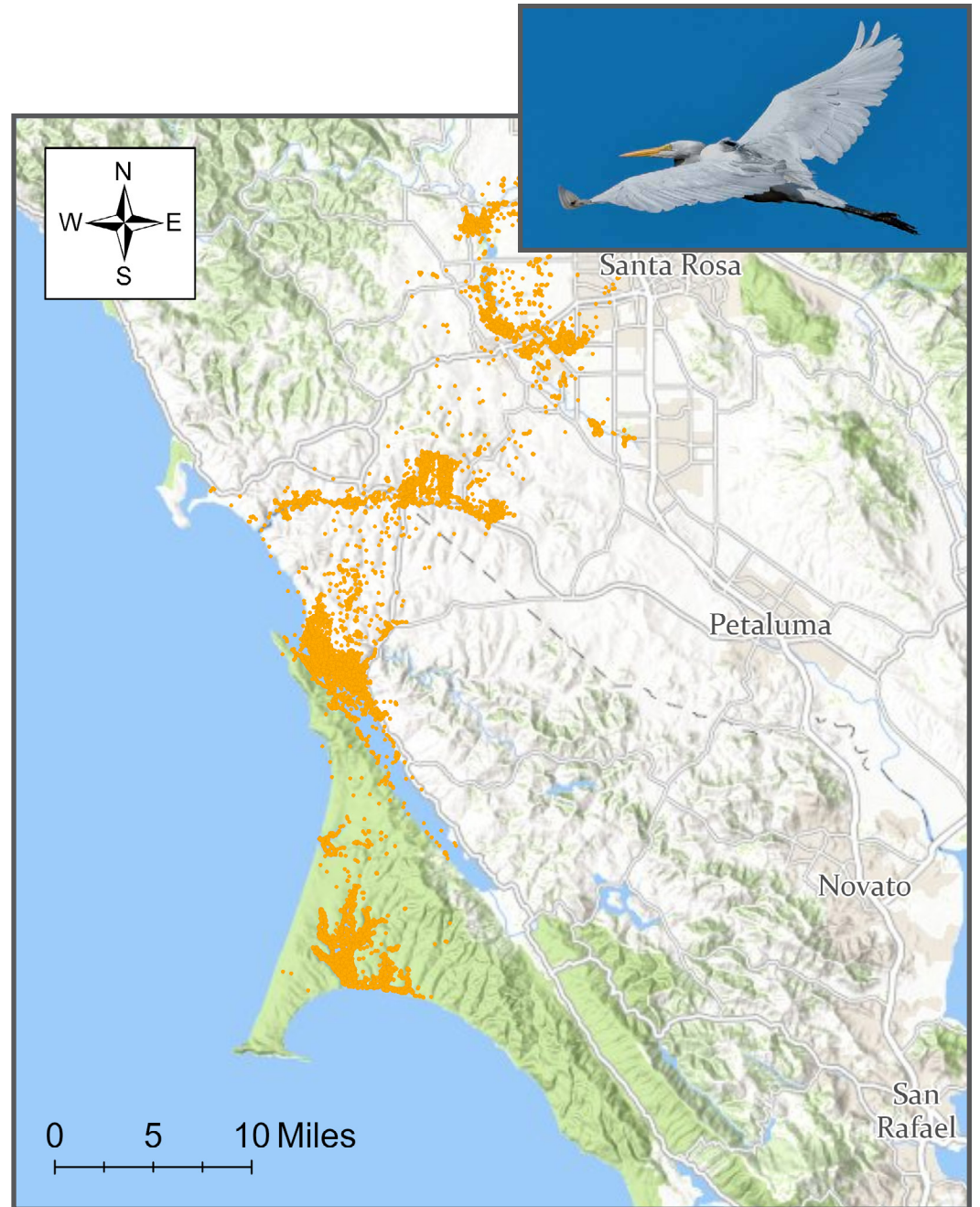
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Photographs by: David Lumpkin, Jennifer Newman, Suzi Eszterhas, and Len Blumin

CHAPTER ONE

Hello, it is me Ephran. Do you remember me? It has been several months since I have been here at the W 9th Street heronry in Santa Rosa. I was last here in September and now it is March. I am back to raise chicks with a mate.

Where have I been? The map to the right shows you. The golden dots shows all the places I have visited these last few months.



Map of Ephran's travels

When I left here in September I went to a place called Tomales Bay. It is on the coast in Marin County, California. Right along the edge of the bay is a good place to forage for fish.

I was enjoying some fish when my leg got caught in a trap. Don't worry, I was not hurt. I just could not fly away. Right away some humans carefully removed me from the trap. Then they put a small, light backpack on me. At first it felt a little weird to have something on my back, but I have gotten used to it.

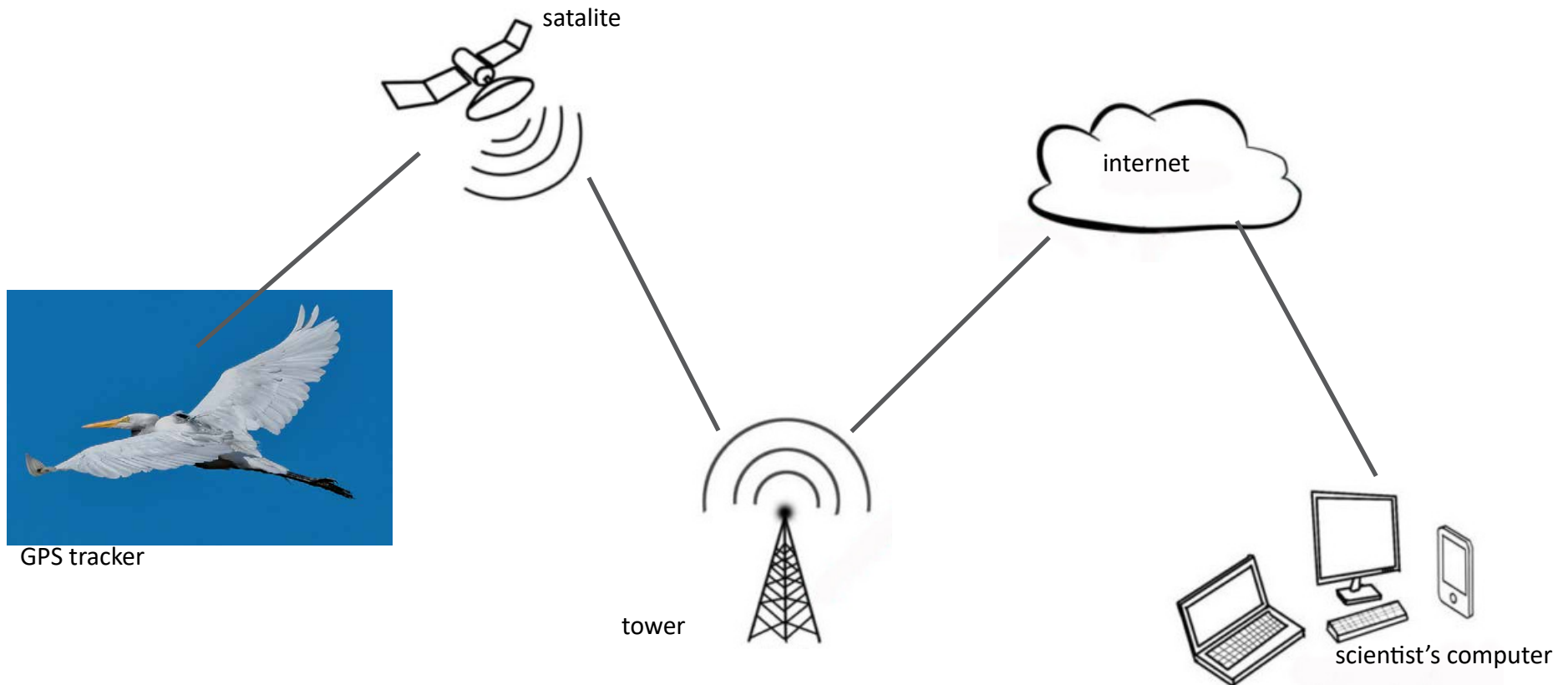
Why do you think the people put a backpack on Ephran?



It turns out that the backpack has a GPS tracker on it. GPS stands for global positioning system. The tracker records my position every five minutes and sends this information to human scientist using the cell phone network.

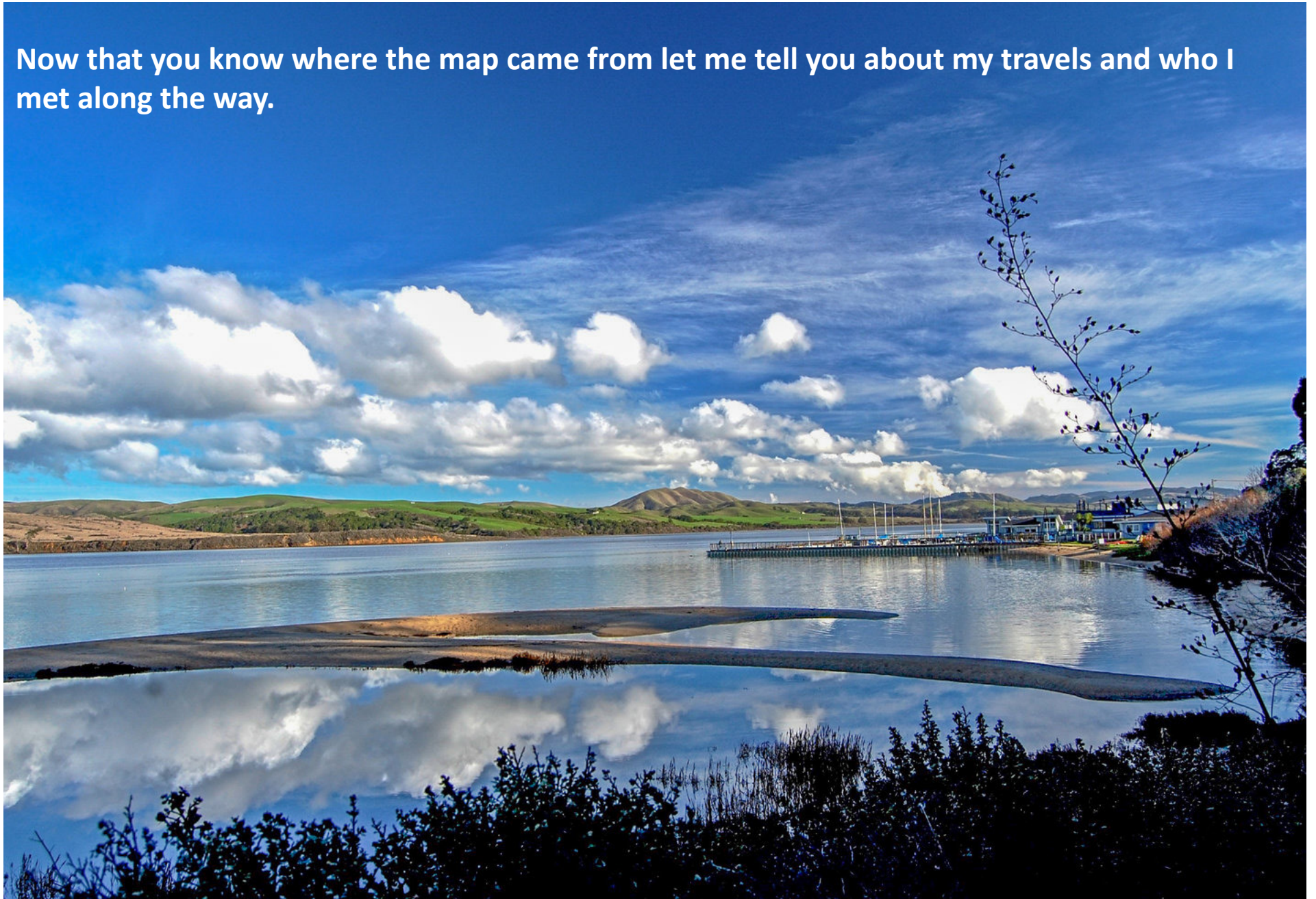
The GPS tracker works in a similar way as a navigator on a cell phone. Cell phones use GPS to make a map to show you how to get from one place to another. My tracker makes a map of where I have been.

Where was the last place you used a cell phone navigation system to get directions to?



CHAPTER TWO

Now that you know where the map came from let me tell you about my travels and who I met along the way.

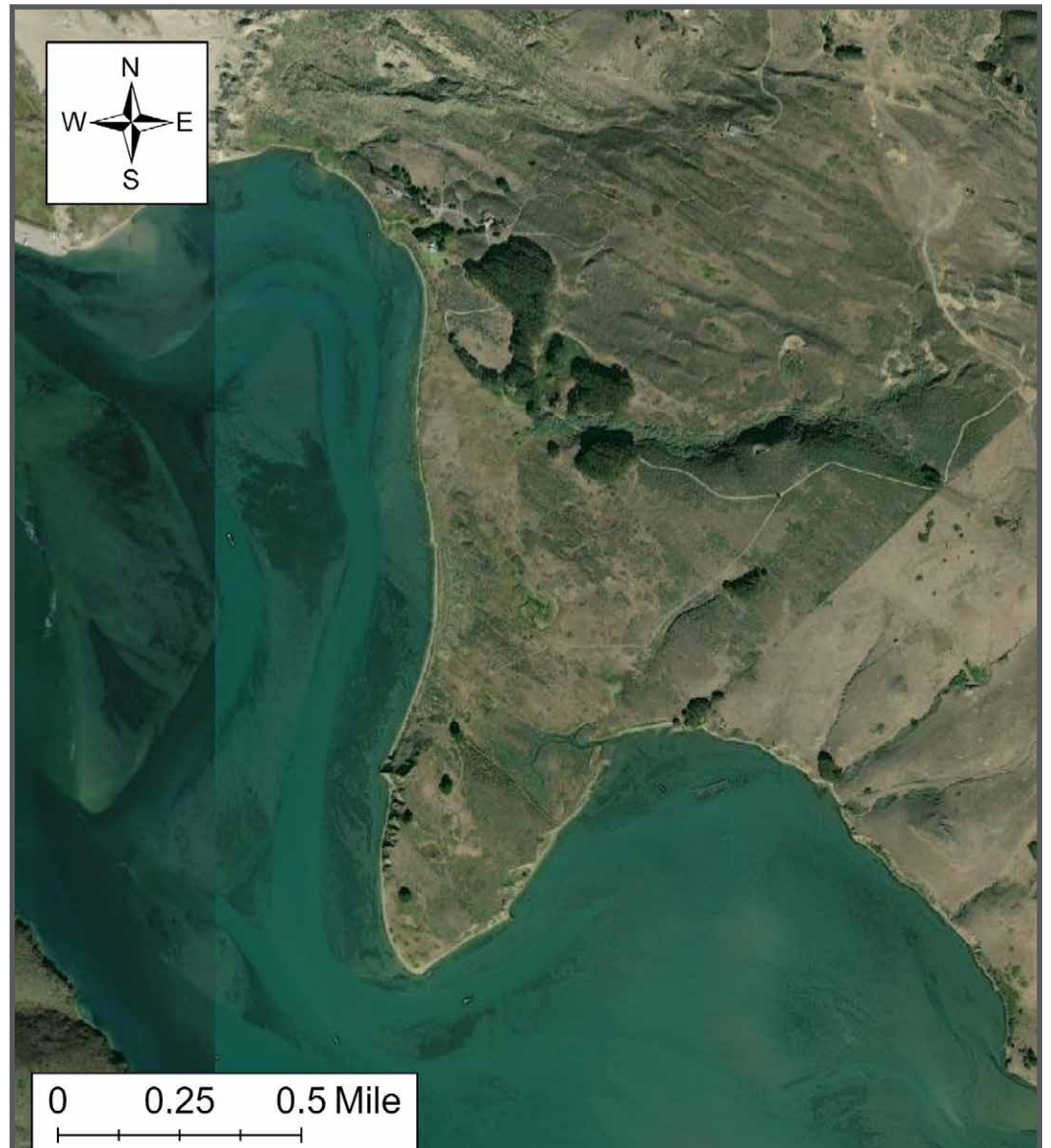


I stayed around Tomales Bay for a while after getting my backpack. I love eating the fish in the eelgrass along the coast. I can spend weeks at the coast, eating fish and napping in the afternoon by the pond. It can get very windy on the coast, so I roost at night in a eucalyptus grove to stay safe.

Look at the map to the right.

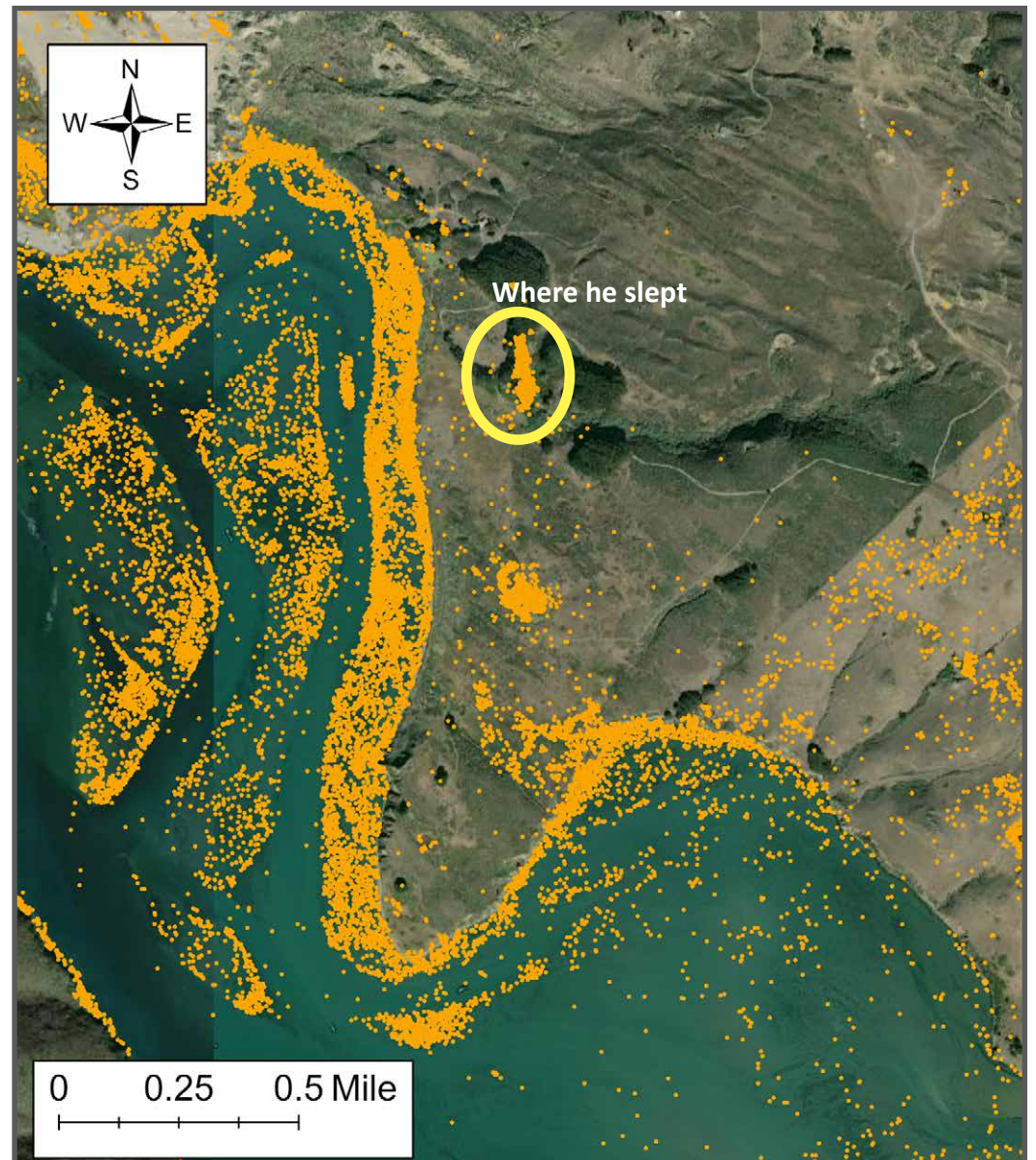
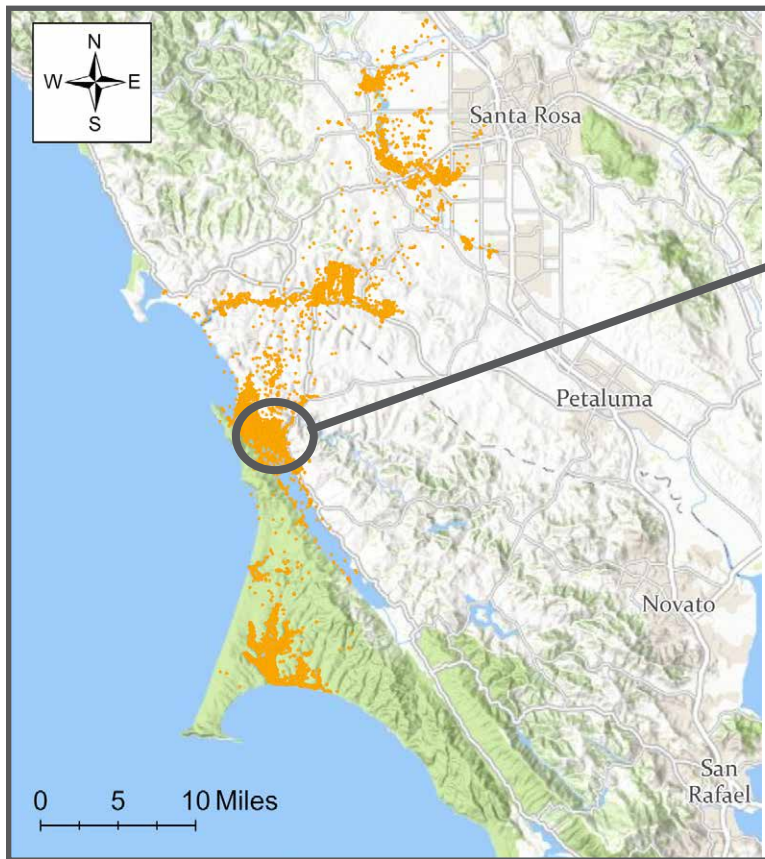
Circle the area where you guess Ephran slept at night.

Use a highlighter to mark where you guess he might have found food.



The map on the right is a close up of part of Tomales Bay. The gold dots are where Ephran spent his time.

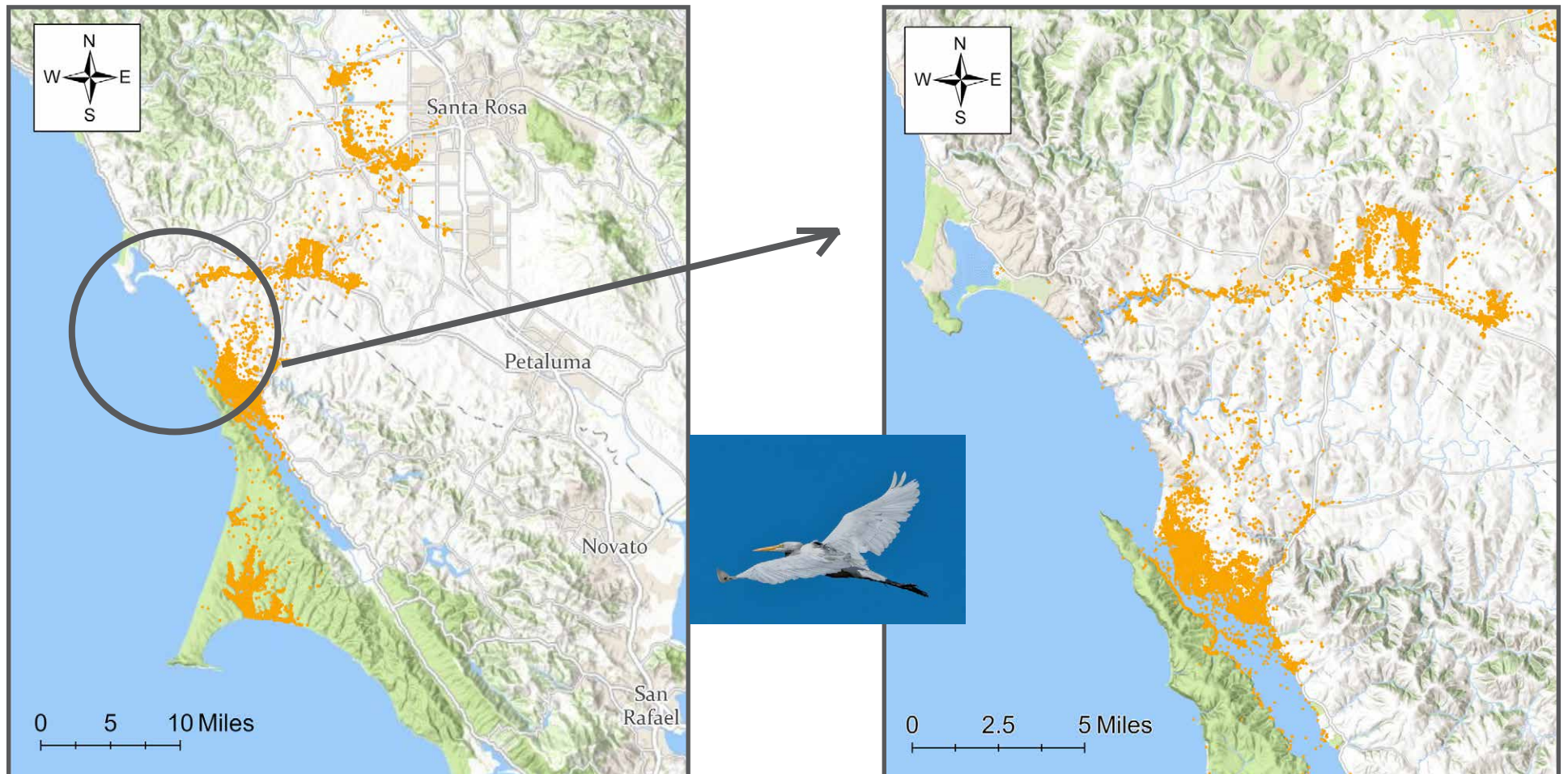
Did you predict correctly where Ephran spent his time?



I spent several months along Tomales Bay. Then went north east for weeks to feed along the river and flooded farmland in winter. When food is hard to find on the coast, I can try hunting in grassy fields.

Do you remember what Ephran likes to eat besides fish?

What do you think Ephran is feeding on in the fields?



Imagine Ephran hunting in a field. Make your own drawing below of Ephran hunting in a field.

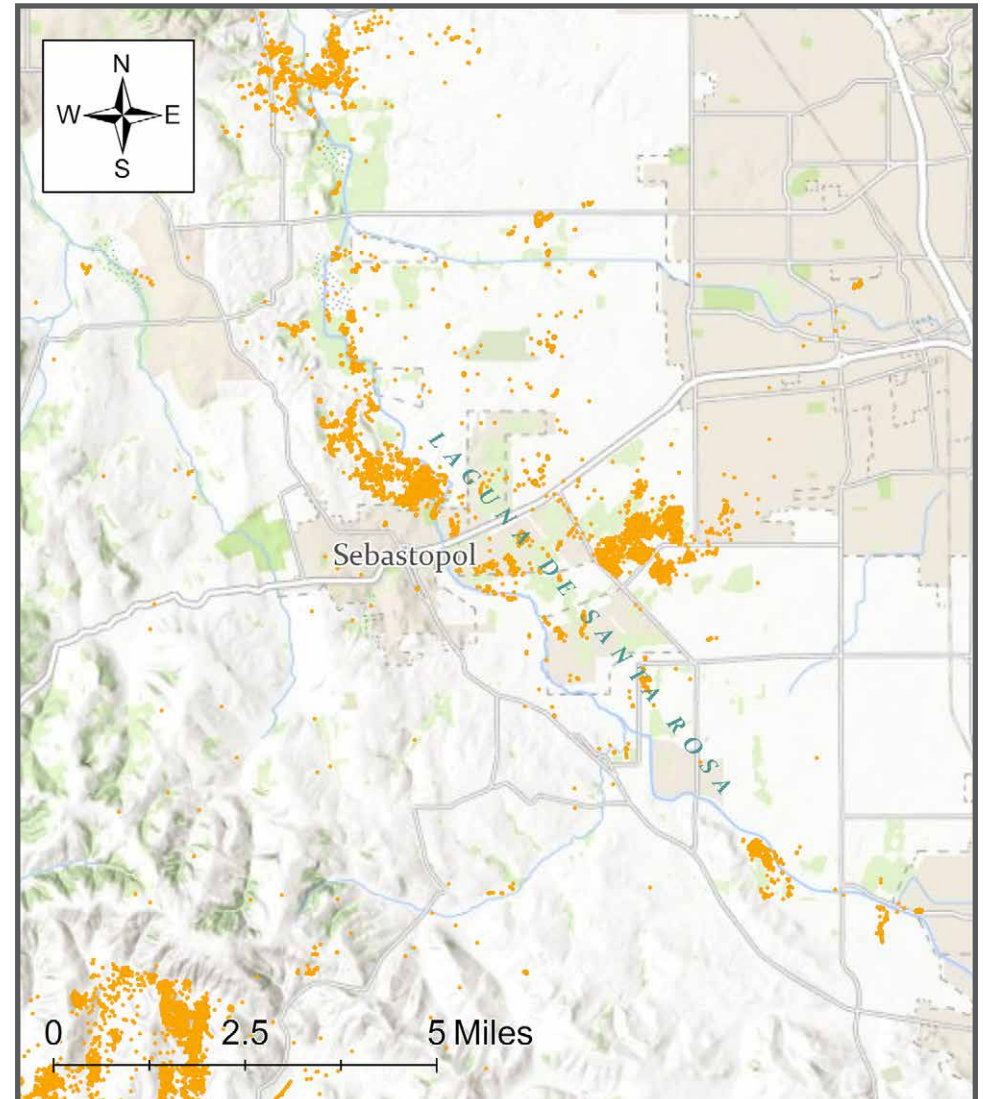
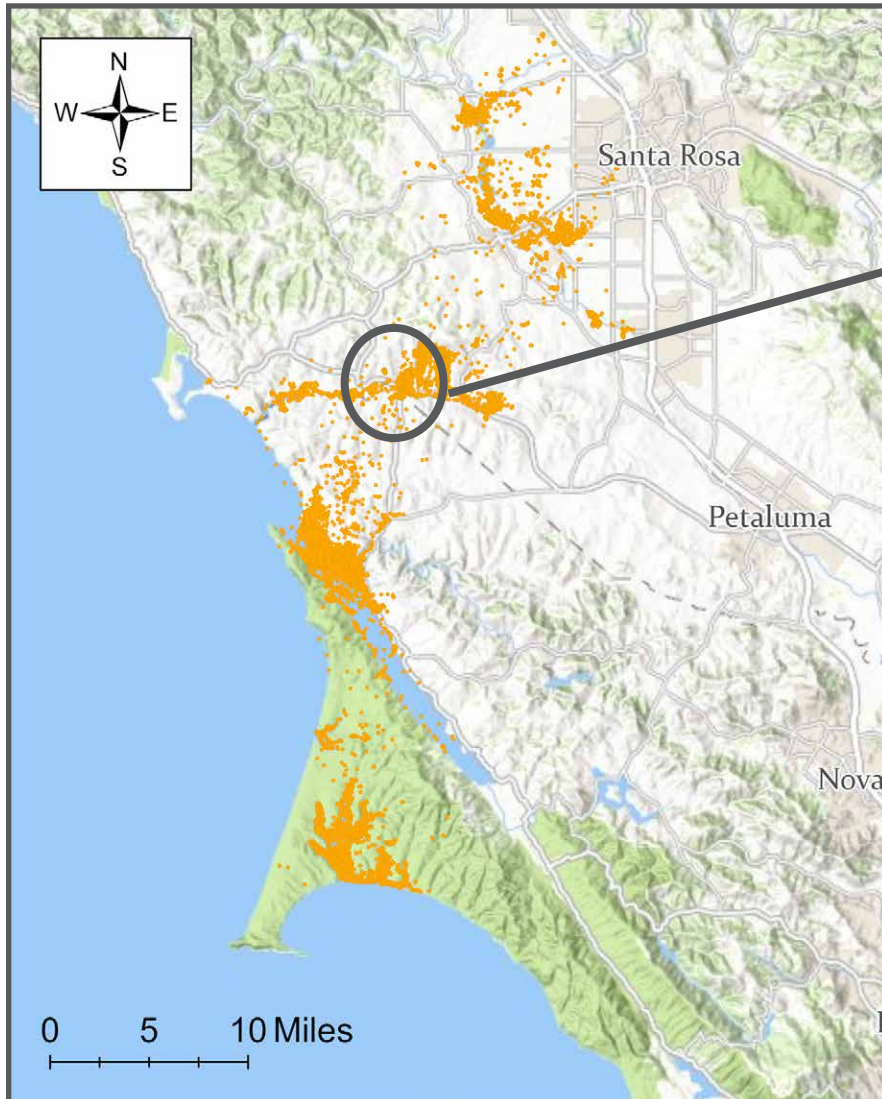
In your picture include:

- A place for him to roost.
- Something for him to eat.

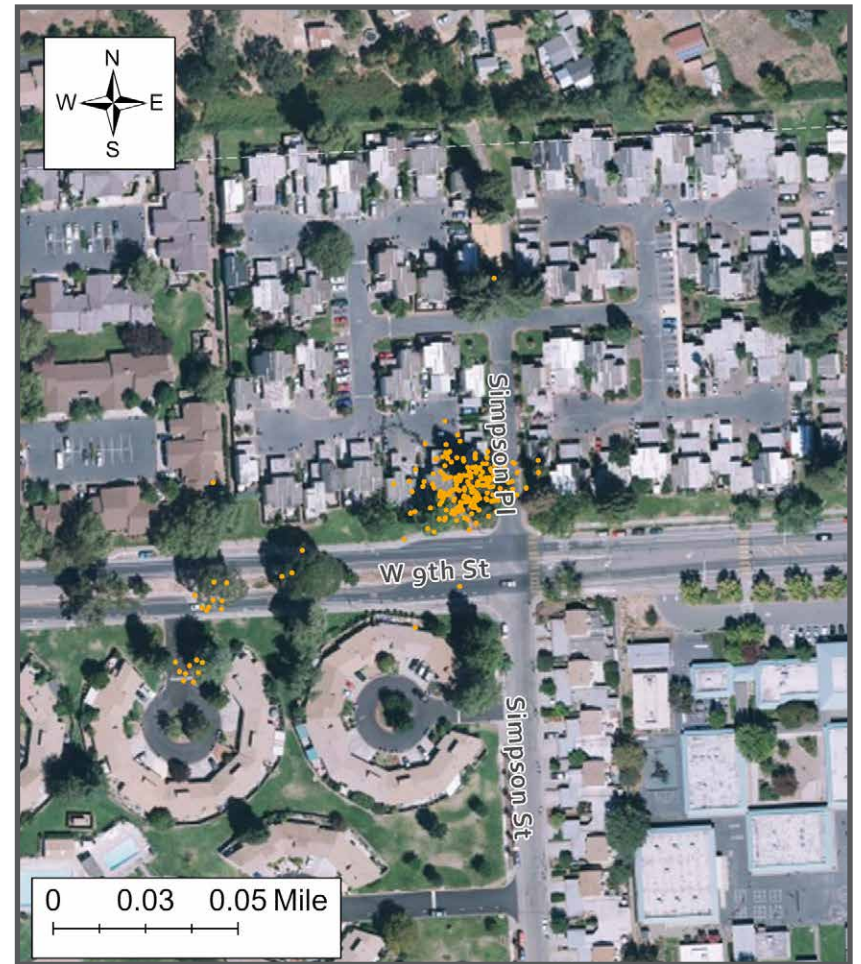
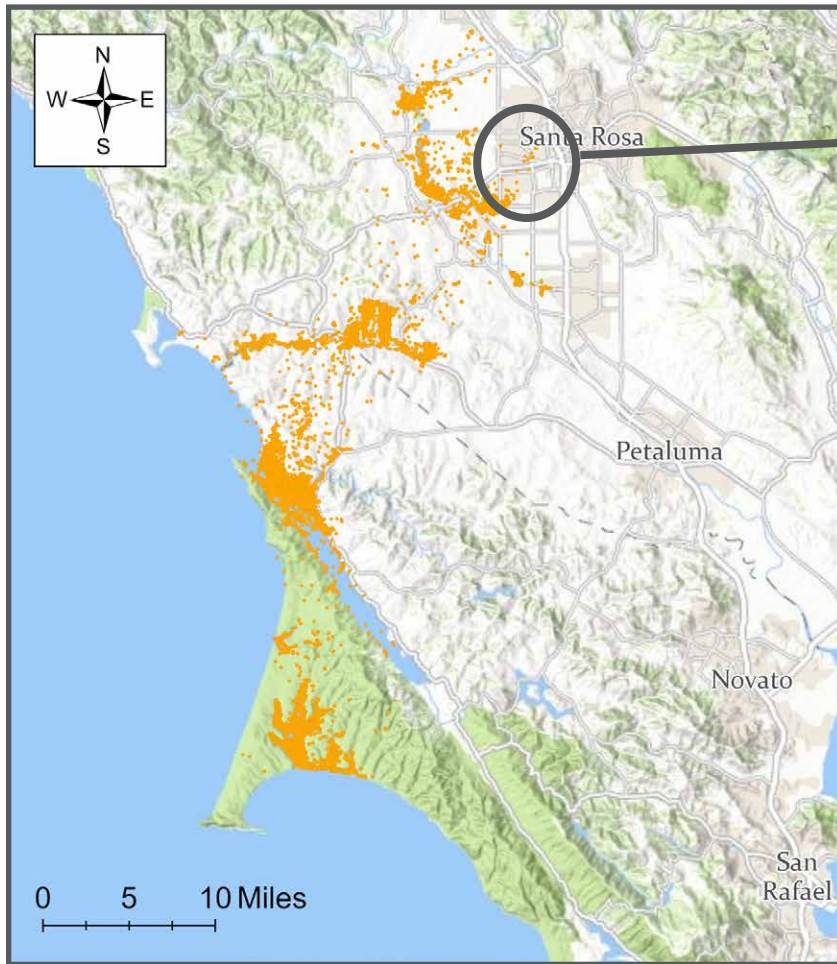


I like to move around between my favorite places to feed and roost. I might spend a week near the Laguna wetlands then another week foraging in farmland. How long I stay in one place depends on the weather and if I am finding food.

Circle the places on the map on the right where Ephran spent the most time.



Here I am back on W 9th Street in Santa Rosa looking forward to raising another brood of chicks with my mate.



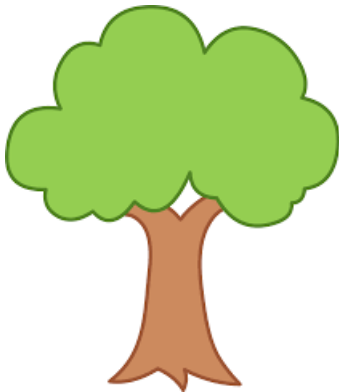
***Each dot shows a place Ephran has been. What do you think is in the spot where Ephran spends the most time?
Circle your answer.***



Pond



House



Tree



Field



CHAPTER THREE

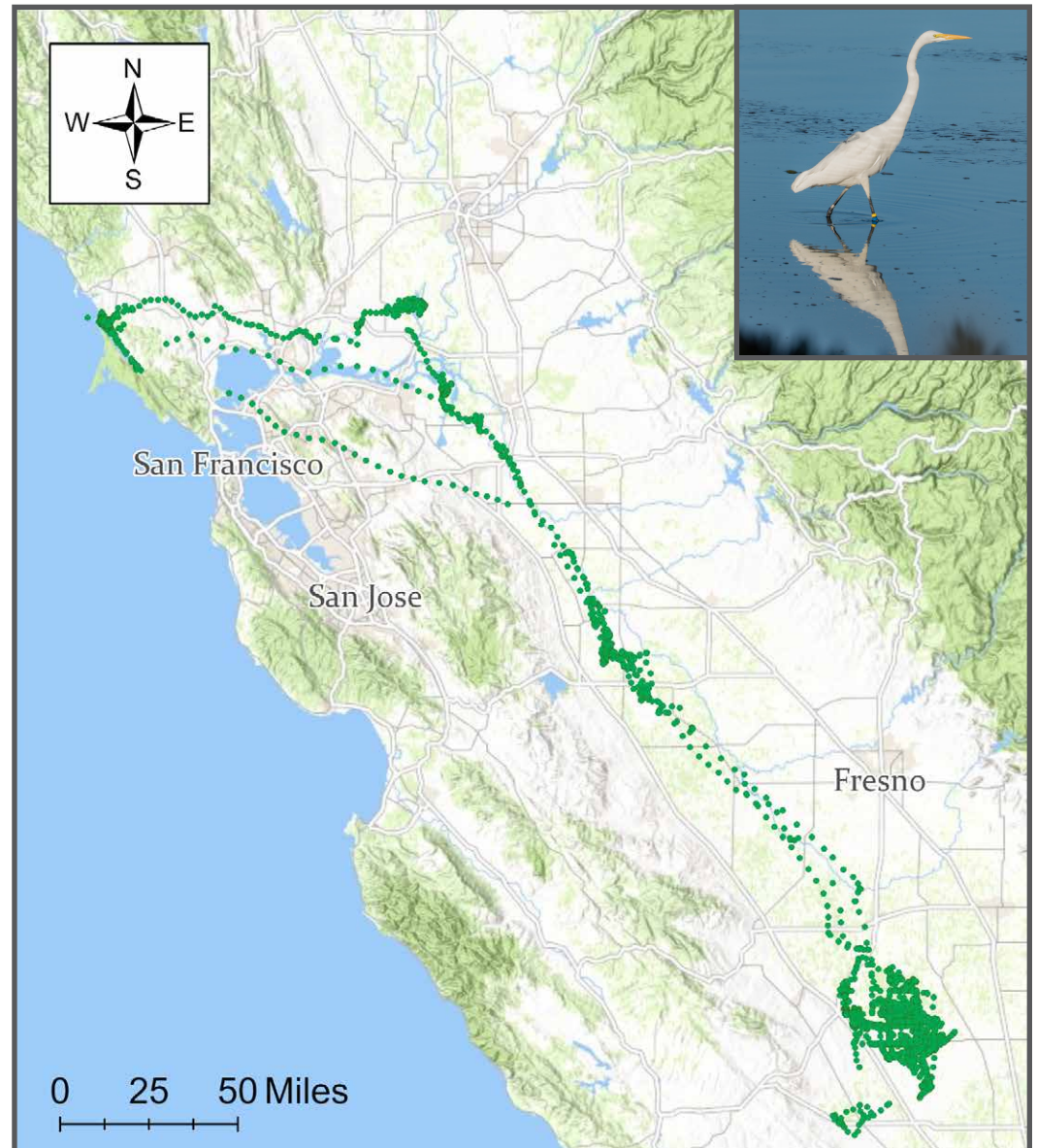
I am seeing a lot of old friends here on W 9th street in Santa Rosa where I have been spending my time in the trees. I have not seen my friend Eric in a while. Last time I saw him he was in Tomales Bay, I wonder where he is now?



Eric told me where he went last year. He has had his tracking backpack on for 18 months. The map to the right shows all the places Eric has traveled in that time.

Can you see the three different paths of green dots crossing the San Francisco Bay area? Each one shows a different flight that Eric took. He spent the summer on the coast and the winter in the San Joaquin Valley.

Do you have any guesses why Eric traveled different routes when traveling between the coast and the valley?



Map of Eric's travels

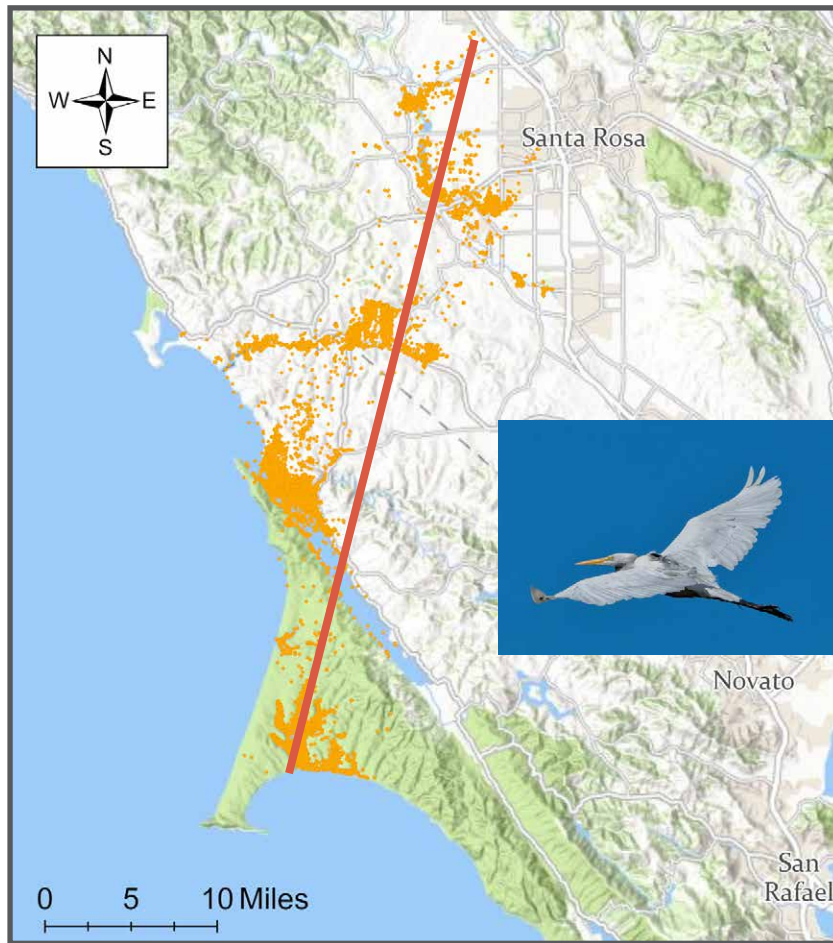
Compare the distance from north to south traveled by Ephran and Eric.

1. Use the scale bars to decide which bird traveled farthest. Which bird traveled farthest?

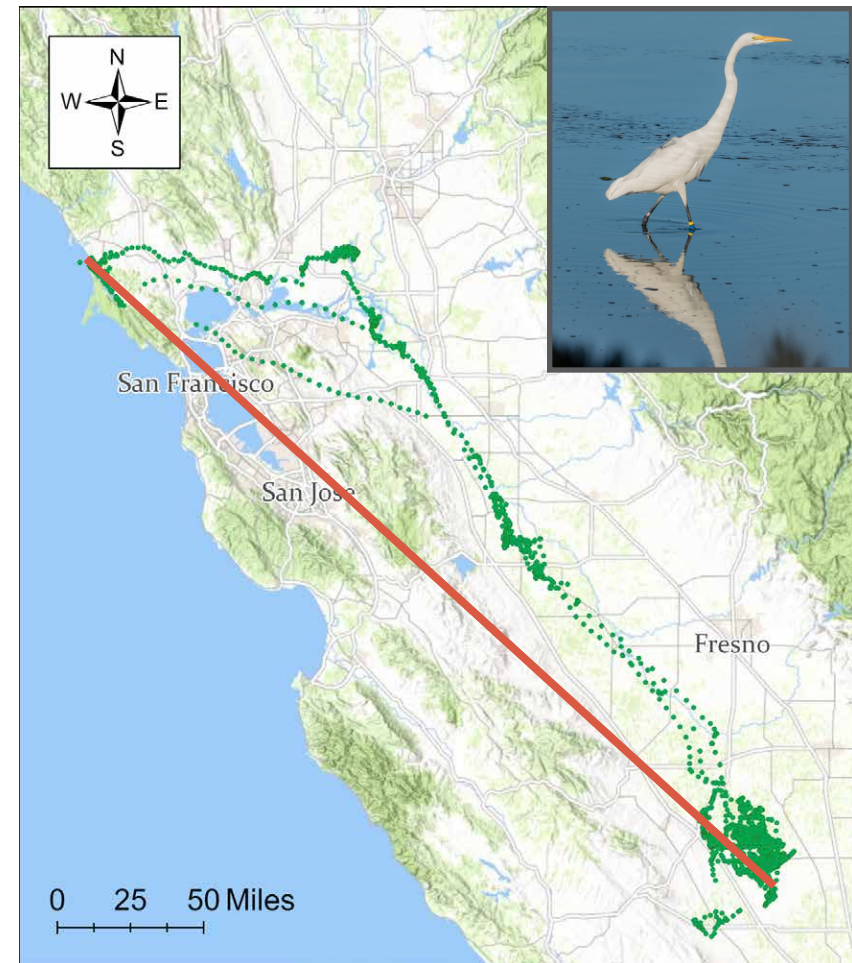
2. Estimate how far each bird traveled using the red lines on the map.

A) How far did Ephran travel?

B) How did Eric travel?



Map of Ephran's travels



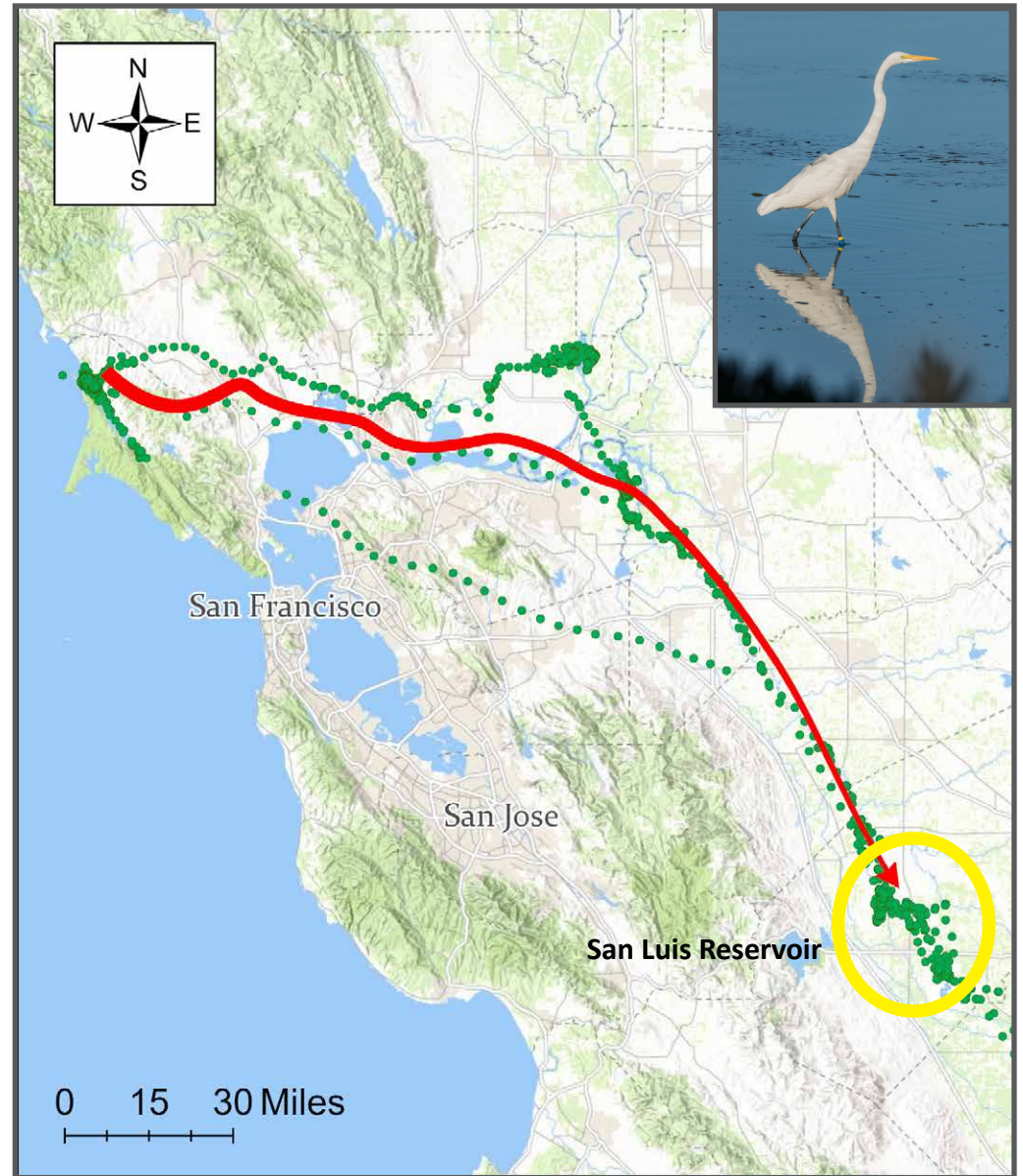
Map of Eric's travels

Not long after Eric got his backpack he flew over the San Francisco Bay, then above the city of Richmond to the San Luis Reservoir in one night! After he got there he stayed a few days. I wonder if he was tired after that long flight.

He did another marathon flight to the farms down south where he spent the winter.

1. What do you wonder about Eric and his travels?

2. How far did Eric travel on the first night? The red arrow shows this first flight.



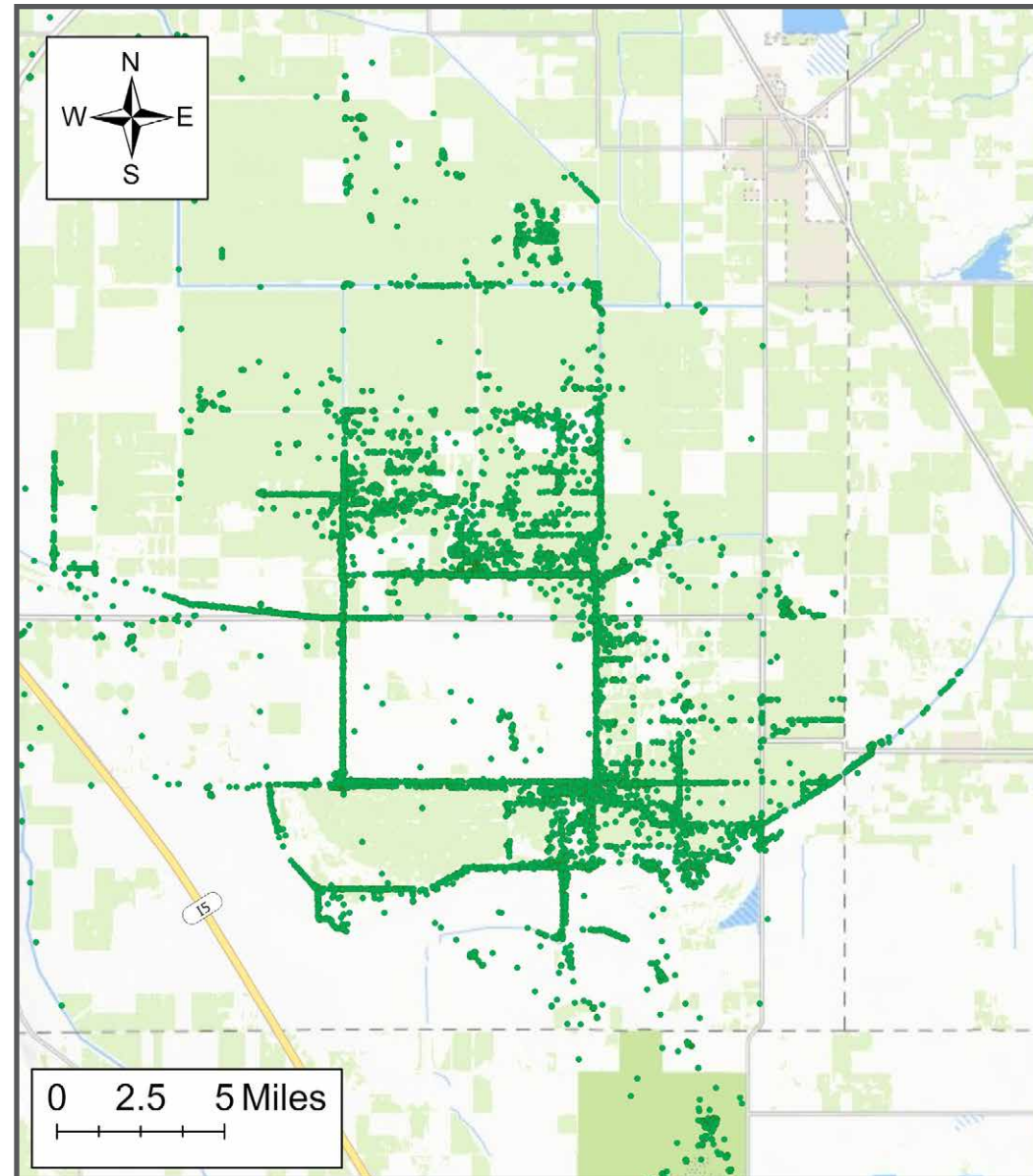
The region where Eric traveled, between Stockton and Fresno is called the Central Valley. A long time ago the central valley was one large wetland. Now most of the wetland in the Central Valley is farmland.

1. What do you notice about the type of places where Eric spends his time?

2. Why do you think he spends his time there?



The diagonal lines on the map are roads and the horizontal and vertical lines are small farm roads and irrigation ditches.



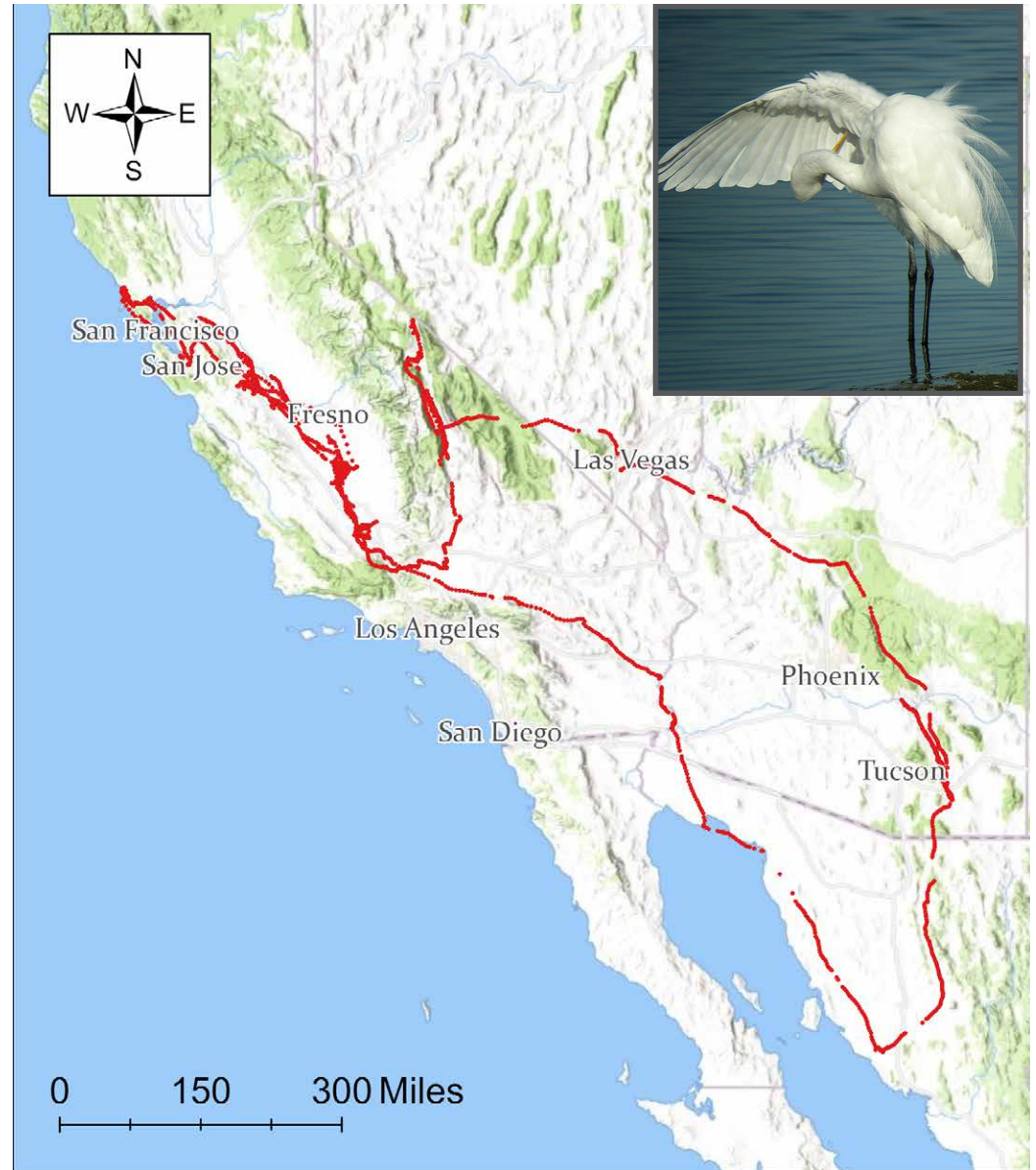
CHAPTER FOUR

Of all my friends Edgar traveled the farthest. The first year he had his backpack he went to Mexico. He only stayed one day in Mexico before going to Arizona and Nevada. You would not think there would be much to eat in the desert for birds like us, since we usually find food in the water, but Edgar stayed there a while.

Look at the map of Edgar's travels.

Put an X on southernmost point of his travels.

Circle the eastern most point of his travels.



Edgar had a hard time getting back to the Bay Area after he left Nevada. There was something very big in his way.

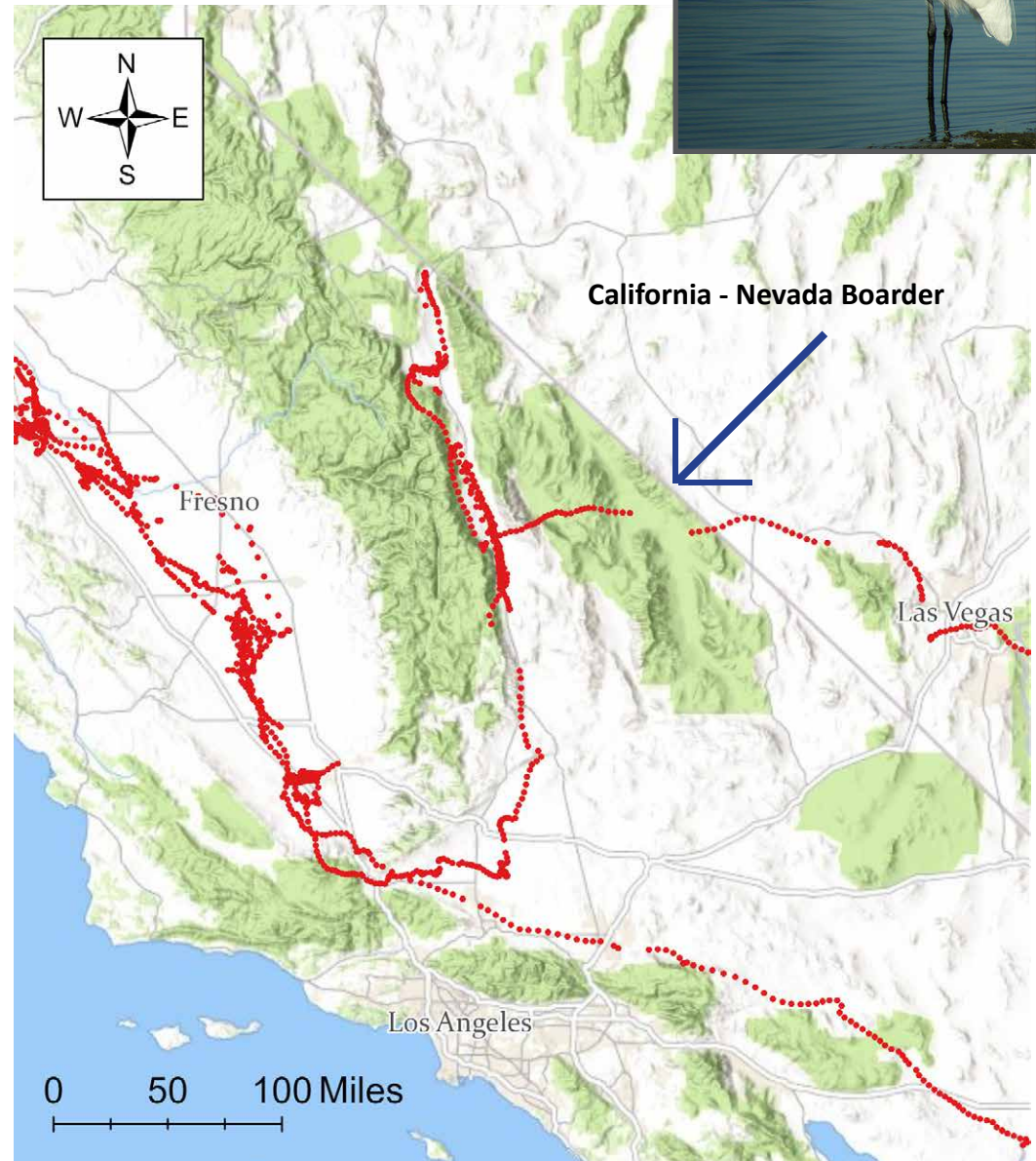
The purple arrow shows where he returned to California from Nevada.

After that first year of travel Edgar has stayed in California, like me and Eric.

Look Closely at the map.

1. What do you think was in Edgar's way when he tried to get back to the Bay Area?

2. How did he overcome it?



It is always interesting to catch up with my friends. I like to hear about where they spend their time during and after breeding season. I used to travel more when I was younger, all around the San Francisco Bay Area. Now, I have my favorite spots to forage and roost here in Sonoma County.

There are many different types of places that are important to us Great Egrets. From the shoreline to agricultural fields to tree groves. We need your help to protect those places so they are welcoming to us when we need them.

There are a lot of reasons why some of my friends travel long distances and others don't. We all want and need the same things to survive. We all need food, clean air and water, a place to sleep, and safety from predators.

I have enjoyed telling you about my travels and my friends. I hope you look out for me when I fly by.



FURTHER REFLECTION

Some of the birds the scientists have put GPS backpacks on traveled long distances like Edgar in the story. Other birds stay in one area like GREG - 6 on the [MoveBank](#) website.

1. What do you think some advantages are of traveling long distances for a Great Egret?
2. What do you think some disadvantages are of traveling long distances for a Great Egret?
3. What do you think some advantages are of staying in one area are for a Great Egret?
4. What do you think some disadvantages are of staying in one area are for a Great Egret?
5. Ephran said he traveled more when he was younger. Scientist think this might be true for other birds, flying longer distances when they are young and staying in one place more when they are older. Why do you think that might be?
6. What more would you like to know about the movements of Ephran and his friends?

AFTERWARD

This story was a fictional account based upon real birds that were fitted with trackers by Audubon Canyon Ranch scientists. To learn more about their work visit the [ACR website](#).

Find out more about the movements of all the birds in the study visit the [Movebank](#) website.

If you explore the Movebank website you can guess which birds Ephran and his friends were modeled after.





for animal tracking data

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☒	GREG_3, [n=105109], Ardea alba	 
☒	GREG_4, [n=29764], Ardea alba	 
☒	GREG_5, [n=71989], Ardea alba	 
☒	GREG_6, [n=121473], Ardea alba	 

GLOSSARY

Forage - to find food

Heronry - a place where herons and egrets build nests and raise chicks.

Roost - settle or congregate for rest or sleep

Tracker - a device used to find the location of a person or animal

Wetland - land made up of marshes or swamps

Irrigation ditch - ditch used for watering plants, often on farmland

