

# THE HEAT IS ON

Species feeling the effects of climate change



## California Brown Pelican

*Pelecanus occidentalis californicus*

### Region:

West Coast

### Area affected:

Channel Islands, Gulf of California, Columbia River

### Climatic change:

Higher ocean temperatures

### Impact:

Food web changes, breeding failure

### ABOUT THIS SPECIES

With its pouched bill and seven-foot wingspan, the brown pelican is one of our most readily recognizable birds, as well as one of conservation's best success stories. Like bald eagles, pelicans feed almost entirely on fish and consequently once faced the same threat of extinction: reproductive failure due to the thinning of their eggshells caused by DDT and other pesticides that concentrate at the top of the food chain. The federal ban on these chemicals, along with protection of some of the coastal islands where colonies nest has led to a remarkable recovery, and the brown pelican was removed from the threatened and endangered species list in 2009. California brown pelicans feed mainly on schools of small marine fish and nest colonially on islands from southern California to central Mexico.

### DESCRIPTION OF IMPACT

Unusually warm temperatures in the Pacific Ocean appear to be leading California brown pelicans astray. For the last several years, thousands of birds have been appearing in the Columbia River, 900 miles north of their traditional breeding grounds. Unfortunately, while the birds have exhibited courtship and nest-building behaviors, none have laid eggs in this northerly location, indicating that the area might not be suitable habitat. Consequently, a substantial portion of the population may fail to breed due to their northerly wanderings. **Even worse, the birds that continued using breeding habitat in the Gulf of California in 2014 and 2015 experienced some of their worst nesting failures on record: Islands that usually have hundreds or thousands of nests produced only a handful of young and some none at all.** This failure has been blamed on particularly warm ocean waters shifting food supplies away from nesting grounds. It is not yet known whether these changes are a temporary effect due to the strong El Niño or the start of a downward trend.

### References

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Kerlin, K. 2014. Failure to launch: California brown pelican breeding rates dismal. *University of California-Davis News*. June 2. [http://news.ucdavis.edu/search/news\\_detail.lasso?id=10937](http://news.ucdavis.edu/search/news_detail.lasso?id=10937)

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