

Where are the Pelicans?

Greenspace's board and staff invite you to join us on September 11 from 1 p.m. to 3 p.m. at the Creekside Reserve in Cambria, to meet Morro, the bird featured in Judy Irving's beautiful film, "Pelican Dreams" and learn more about his fascinating species. Dani Nicholson, former president of Pacific Wildlife Care and Morro's caregiver, will talk about brown pelicans and looming threats to their wellbeing.



Dani Nicholson and Morro

Photo credit: The Tribune

Dani and her husband have cared for Morro since he was found in Estero Bay years ago with an injured wing that could not be repaired. Dani and Morro visit schools and do special presentations on the lives of pelicans and the importance of sustaining our oceans for the survival of so many species. We hope you will join us! (A donation of \$10 is suggested.)

This year is an especially important time to talk about pelicans. In 2015, as the global El Nino weather pattern set in, warming ocean water moved north from the equator and up the west coast of Mexico and California, driving schools of colder water fish ahead of it. Locally, the increase in these populations brought an amazing display of brown pelicans, shearwaters, terns, gulls and other sea and shore birds along the shoreline. Walkers and diners along Moonstone Beach Drive were treated to the sight of thousands of birds diving, splashing, feasting on an unexpected abundance of their

favorite food. Each evening, a dozen squadrons of pelicans headed south to their roosts on Morro Rock.

But this year, brown pelican watchers are reporting just a few daily groups of three or four birds. Some days there are none at all. The sky above our offshore waters seems strangely empty. Where did they go? How could there be thousands of birds one year and only a few hundred the next? Did they fly to new waters because of El Nino's demise? Or has something worse happened?

In May, Audubon California conducted a citizen bird survey of the brown pelican, because numerous anecdotal reports were pointing to a population crash. The count was conducted at 179 known roosting sites from Baja California to Washington State. It did not include major nest sites on islands off Baja and the Channel Islands off Santa Barbara. The result was disturbing—6,378 total brown pelicans counted. This number contrasts sharply, even shockingly, with a total count of 141,360 individual birds in 2006. Although that earlier count included island nesting sites, the new numbers seem to indicate a dramatic population decline.

The story of the brown pelican is a high point for environmental protection. In the late sixties, pelican populations crashed. Researchers suspected that something in the environment was impacting the birds, as they found evidence in nests of eggs with shells too thin to support the development of babies. In 1970, just one hatchling survived out of 558 nests. Testing the egg shells and tissue from dead pelicans revealed the culprit to be DDT, a popular pesticide used to eradicate mosquitos and agricultural pests in areas with warm climates. After an initial legal action in Florida, DDT was banned nationwide.

Within a decade, the brown pelican population began to rebound and by 2009, the species had been removed from the U.S. Fish and Wildlife's Endangered and Threatened Species list. The return of the pelican is one of the great success stories in

American environmentalism and owes much to Rachel Carson's *Silent Spring*, published a few years before the pelican population's crash.

A common species along both the Atlantic and Pacific coasts of the United States, the state bird of Louisiana and national bird of several Caribbean islands, the brown pelican is among the smallest of the world's pelicans. It is not a small bird, however, standing three to four feet high, with a wingspan between 6.5 and 8 feet. The brown pelican is one of only two pelicans that dives headfirst when pursuing prey. Watching one fold its wings and drop like an arrow into the ocean is unforgettable.



Brown Pelican

Photo Credit: Birds and Water

The bird's skull includes a liquid shock absorber so that it can perform this manoeuver without brain damage. Among other physiological adaptations to its marine environment is its enormously long bill and the gular sac that joins the bird's lower mandible to its neck. When the pelican dives, sea water and fish flow into the sac and as the bird surfaces, it expels the water by retracting its sac, and swallows the fish.

Somewhat clumsy on land, pelicans are supremely graceful in the air. They fly in group formations, usually straight lines that follow wind currents or the cushion of air just above the ocean's surface. Pelicans are gregarious and noisy when they roost for the night on offshore rocks. Sensitive to intrusions, they won't nest successfully when too many people are nearby. At the same time, they like to "loaf" on fishing wharves, eyeing human fishers

and convincing them to share a bit of anchovy bait.

Recent breeding failures, ocean warming, toxic algal blooms and other potential impacts of climate change make future population trends for brown pelican uncertain. Since the species' de-listing in 2009, partial counts have pointed to a decline in numbers. The coordinated count in May of this year is the first strong evidence for a population crash.

Because of the result of this survey, a second one will take place in October 2016. If you would be like to become a pelican counter, please contact the Morro Coast Audubon Society at 601 Embarcadero, Suite 14 Morro Bay, CA 93442, (805) 772-1991, or go to www.ca.audubon.org/brownpelicansurvey.

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Jill Knight Benefit Concert

On Saturday, August 27 from 3 p.m. to 5 p.m., Jill Knight will perform a benefit concert for Greenspace at the Creekside Reserve, 2264 Center Street in Cambria. Jill's soaring voice and engaging songs will have you from the first note. Please bring your own seating. Beverages and snacks will be available for purchase. We also will raffle a beautiful piece of original art by a local artist and lunch at one of our favorite local restaurants! \$10 at the gate. Please, no smoking. Dogs on lease only.

Time to Renew Your Membership!

Your commitment to Greenspace enables us to maintain our commitment to preserving local watersheds, providing environmental education and advocating for ecologically sound public policy. Please consider renewing at a higher level this year.

Need a Tree or Two?

Monterey pine seedlings, from seeds harvested from pitch-canker asymptomatic trees, are available for purchase at the Greenspace office. Whether you are doing County-required mitigation or sprucing up your landscaping, a native Monterey pine is perfect for your needs. \$10 each. 805.927.2866.

www.greenspacecambria.org



The North Coast area of San Luis Obispo County is a national treasure. Greenspace will protect and enhance its ecological systems, cultural resources and marine habitats through land acquisition, education and advocacy.