

# The Beacon

## PIEDRAS BLANCAS LIGHT STATION OUTSTANDING NATURAL AREA

VOL. 9 ISSUE 3

JULY-SEPT, 2016

### CELEBRATING CHRISTINA COOPER: NATURE DAY FOR SPECIAL NEEDS CHILDREN AND THEIR FAMILIES



Piedras Blancas celebrated the life of one of our volunteers with a special Nature Day open house for special needs children and their families on Saturday, May 14<sup>th</sup>. Christina Cooper passed away unexpectedly last year. She volunteered at the light station for only a few years, but her smile, patience and gentleness, particularly with our young visitors, was felt by anyone who came into contact with her. Christina served as a physical therapist to children.

To honor her legacy of compassion and kindness, BLM staff worked with a local non-profit, Jack's Helping Hand, to organize a special day of activities and nature. Jack's Helping Hand works with kids who are fighting cancer, struggling with autism, or dealing with a host of other medical needs. Karen Borges from Jack's Helping Hand, Jenny Foca from CA State Parks, Carolyn Skinder from NOAA, former Piedras Blancas intern, Jake Castellanos, as well as our amazing volunteers, were here to help with activities and information for the families. We hope

to make this a regular event at the light station to give more families in need the opportunity to enjoy the peace of the light station in the future. For more information about Jack's Helping Hand and the work that they do, please visit their website at [www.jackshelpinghand.org](http://www.jackshelpinghand.org)



*Photo courtesy of  
David Christy*

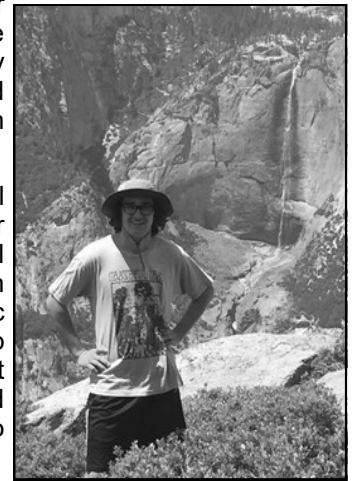
### NEW INTERNS AT THE PIEDRAS BLANCAS LIGHT STATION AND ONA

Interns are a vital part of Piedras Blancas Light Station and the Outstanding Natural Area. The Bureau of Land Management is dedicated to youth outreach and education, and our interns learn about local habitats, marine mammals, history, and have opportunities to engage with active scientific research. Our interns help us in our day-to-day tour operations, work on invasive plant removal, coordinate other volunteer groups, and take all of the education and experience of their internships out into the world. Previous interns have gone on to complete graduate degrees, and now work in a variety of fields: environmental consulting firms, Plant Protection Specialists with the BLM, and Camp Naturalists.

Drew Burke (right) grew up in San Diego where he spent most of his time at the beach or nearby deserts. His interest in the study of the environment began in an environmental science class in high school. He now majors in Environmental Management and Protection at Cal Poly San Luis Obispo, concentrating in botany and soil science. During his internship interview and site visit, Drew realized the Piedras Blancas Light Station was an incredible place, and looks forward to his work here.



Lexi Kookootsedes (left) grew up in San Clemente. Her high school environmental science teacher is entirely responsible for sparking her interest in the environmental sciences. She studies Environmental Management and Protection along with Sociology at Cal Poly San Luis Obispo. Lexi is hoping to work on ecological research and public outreach to preserve our natural environment. This internship opportunity at the Piedras Blancas light station sparked her interest because of its combination of preservation of natural resources and public outreach and education. Additionally, the location was too beautiful to deny!



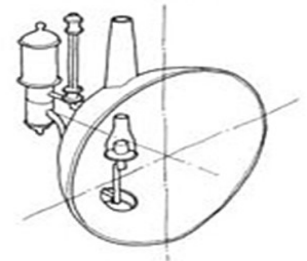
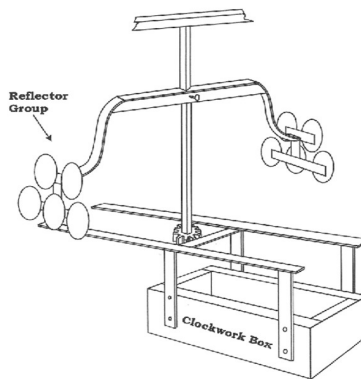
The Beacon is a joint publication of the Piedras Blancas Light Station Association and the Bureau of Land Management. The PBLSA is a non-profit partner of the BLM and provides support for the restoration, conservation, interpretation, and stewardship of the unique natural, historical, and cultural resources at the Piedras Blancas Light Station. © Copyright 2016



## CLOCKMAKER AND LENSMAKER: AUGUSTIN HENRY-LEPAUTE

BY TIM POSTIFF, VOLUNTEER

Before the era of the Fresnel lens, many lighthouses were equipped with chandelier lights. Lights of this type needed to rotate at a regular rate to be identifiable by a ship from any direction. Rotation at a regular rate is the same problem faced by clockmakers, except the lights were on a much larger scale than simple clock hands. To move a large load, most large clock mechanisms were driven by a weight and controlled by escapements, that is, they did not move constantly, but they moved in tiny increments and were motionless in-between. The larger the object being moved, the more problematic this jerky motion became. Fresnel's first rotating lens was driven in this manner, but as Fresnel said, this was an "unceasing cause of deterioration" because his devices, being made of glass, were much heavier than the chandelier type.



Left: A chandelier light. Each disc represents a lamp and reflector

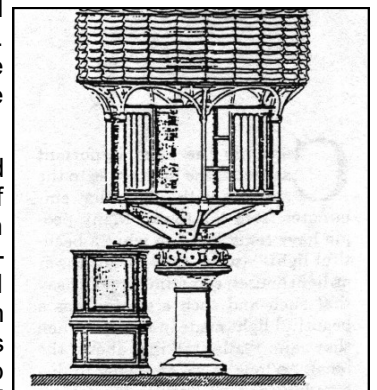
Right: Lamp and reflector



In 1824, Fresnel (pronounced fray-nell), then engineer to the French Lighthouse Service, met clockmaker Augustin Henry and asked him to design a clockwork that could rotate smoothly at a constant speed. Using the same concept that James Watt used to control the speed of steam engines, Henry produced a weight-driven clockwork that advanced continuously. Henry married into the Paute family, also famous clockmakers, and in 1854 officially changed his name to Augustin Henry-Lepaute (pronounced: on-ree lua-po-the). After Fresnel's death, Henry-Lepaute used his experience with Fresnel to expand into the manufacture of Fresnel lenses. His first successful bid (1838) was for the lens and clockwork for the Santander lighthouse in Spain. That same year he received a commission from Congress to construct a 1<sup>st</sup> and 2<sup>nd</sup> order lens for trial in the United States. These were installed at Navesink, New Jersey in 1841; the first Fresnel lenses installed in the United States. Unfortunately, due to the shortsightedness of the U.S. Lighthouse establishment, no other Fresnel lenses were installed in the United States until after the formation of the U.S. Lighthouse Board in 1852.

The lens designs and updated manufacturing tools and methods of Henry-Lepaute allowed for the manufacture of larger curved prisms and dioptric rings, thus reducing the number of individual pieces of glass in each lens. In 1861, Monsieur Reynaud, Director of the French Lighthouse Service acknowledged his preference for the devices produced by Henry-Lepaute, because his devices were more perfect in execution than those of Sautter and Lemonnier. The American Lighthouse Board split its lens purchases roughly fifty-fifty between Henry-Lepaute and Louis Sautter during the main conversion to Fresnel lenses. In the years 1853 through 1860, it purchased 336 Fresnel lenses from Henry-Lepaute. The relationship between the Lighthouse Board and the Lepaute factory continued for many years, with one of the later purchases being the first order lens installed at Piedras Blancas in 1874.

More information may be found at The US Lighthouse Society: [www.uslhs.org](http://www.uslhs.org)



Above: The base of a 24 panel first order Fresnel lens with clockwork.

## PBLSA Co-SPONSORS PIEDRAS BLANCAS NATIONAL MONUMENT INITIATIVE

In the fall of 2014, the Piedras Blancas Light Station Association joined forces with another local non-profit, Friends of the Elephant Seal, to co-sponsor the Piedras Blancas National Monument Initiative. The Initiative recognizes the extraordinary treasure bounded by the Piedras Blancas Outstanding Natural Area and seeks to attain the highest level of protection for its cultural and natural resources.

Due to the inspired and ceaseless efforts of volunteers from both organizations, the initiative quickly picked up steam and support. It has been endorsed by local Chambers of Commerce, Community Service Districts, civic and service organizations, environmental groups, and the San Luis Obispo County Board of Supervisors. An online petition gathered over 1,500 signatures.

In August, 2015, the local initiative morphed into a statewide campaign when Senator Barbara Boxer, with the support of Congresswoman Lois Capps, introduced legislation to include Piedras Blancas and five other coastal sites as on-shore units of the California Coastal National Monument (CCNM). Senator Boxer's bill—The California Coastal National Monument Expansion Act—permanently protects more than 6,200 acres of crucial wildlife and ecological habitat, historic lighthouses, Native American archeological sites, and majestic coastal landscapes along the California shore. Those locations include Trinidad Head, Lighthouse Ranch, and Lost Coast Headlands in Humboldt County and Cotoni-Coast Dairies in Santa Cruz County.

The PBLSA continues to assist in any way it can to promote the CCNM campaign. National Monument status will bring significant recognition and added protections to the historical, cultural, scientific, ecological, and recreational values that residents of the Central Coast have always associated with the light station and adjacent Outstanding Natural Area.

To learn more about the CCNM campaign and to offer support, please visit [www.YourCaliforniaCoast.org](http://www.YourCaliforniaCoast.org)



## BLM UPDATE

Ryan Cooper, Park Manager

There is much hustle and bustle here at the Light Station. We will be breaking ground on our replica entrance gate in July. It will be a new addition that will welcome every visitor to the Light Station. Restoration of the Fog Signal Building is ongoing. We are testing the masonry to see if it will hold the seismic retrofit structure. If the test results are good, we should start to see work begin on the Fog Signal Building soon.

The tour program is alive and well. We will be continuing our regular public tours with a sprinkling of new "special" tours like photography tours, hike-in tours, and maybe even a night sky tour in the future. Keep an eye on the Association website for details. Some more big news—we will be accepting online reservations this fall! You will still be able to pay at the door, but this will give the public another option to help plan their visit to the Light Station.

Things are always changing at the Piedras Blancas Light Station, so please join us for a tour. I am sure something has changed since your last visit.

## HAVE YOU SEEN OUR WEBCAM?

Since it was installed last year, many visitors have written to say how much they enjoy the live 270 degree view from the light station. Depending on the time of year, you may see waves crashing on the rocks, elephant seals lounging on the beach, flowers in bloom, and beautiful sunsets. The view is easily accessible from our website!

[www.piedrasblancas.org/webcam](http://www.piedrasblancas.org/webcam)

*Join us for a special Hike-In Tour on the last Wednesday of July and August. Visit our website for details: [www.piedrasblancas.org](http://www.piedrasblancas.org)*

## FOCUS ON VOLUNTEER GROUP

The Bren School Sustainability Committee (BSSC) at UC Santa Barbara is made up of graduate students in the environmental studies program. The BSSC has made volunteer trips to the Piedras Blancas Outstanding Natural Area since 2013. Former BLM intern, Ivy Ku, initiated the volunteer trips when she started her master's program at UCSB. Now the club makes 1 - 2 trips per year to the light station to help with trail work and remove invasive plants. Ivy now works for an environmental consulting firm in Berkeley, CA, but still tries to join the service trip every year. This past May, Anjana Krishnan, Justin Kroes, Katie Day, Love Goyal, and Shreya Sonar worked on removing tar weed (*Sonchus* sp.) from the bluffs north of the light station. We are incredibly grateful for the ongoing efforts and dedication of the BSSC!

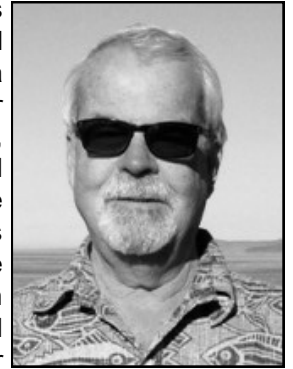


## PBLSA UPDATE

Jackie Howland, Chair

### Meet our newest board member, John Brass

Born in California, John has worked, surfed, golfed, hiked, and lived along or near the California coast all his life. After his first tour of Piedras Blancas Light Station, John saw the importance and opportunity to give back to the Central Coast and since 2014 has enjoyed helping with the lighthouse tours. This year, John began serving on the Association's Board of Directors and is also a member of the Association's investment committee. When in Cambria, drop by the office of Re/Max Pines By The Sea and say hello to him. Thank you for your dedication to the preservation of Piedras Blancas Light Station, John!



Piedras Blancas Light Station Association board members welcome your comments or questions.

Phone 805-927-3719 or email: [contact.pblsa@gmail.com](mailto:contact.pblsa@gmail.com)

Board meetings are held in the conference room at Rabobank in Cambria at 6 PM on the fourth Wednesday of every month.

## COOKING AT THE LIGHTHOUSE

Life was a challenge at Piedras Blancas; keepers faced monotonous work in harsh conditions, lived with their families in cramped quarters, and were isolated from other communities. Keepers' wives were tasked with daily chores which usually included providing a warm meal. Local Cambria resident Bev Praver wrote a wonderful cookbook full of light station history along with many recipes that were used by keepers' wives from the early 1900s and from more recent employees and volunteers of the light station. Keep in mind that women who wrote some of these recipes were cooking on wood stoves and each knew her stove well enough to know how long to bake cookies or cakes without needing to write it down. Hence the omission of oven temperature in this particular recipe!

### Strawberry Shortcake



2-1/2 cups flour	1/2 tsp salt
5 tsp Watkins baking powder	Scant cup of milk
1/2 cup shortening	Strawberries
Butter	Whipped cream
1-1/2 cups sugar	

Sift together flour, baking powder and salt; work in shortening and then use milk as needed to mix a soft dough. Spread the dough in two well-greased pans and bake about 15 minutes. Turn one cake on a large plate, spread with butter, cover with strawberries mixed with sugar; set the second cake above the berries, spread with butter and cover with the rest of the berries. Serve with or without cream.

Note: Watkins started as the JR Watkins Medical Company in 1868 selling natural remedies and began selling vanilla extract, black pepper, and cinnamon in 1895.

## PIEDRAS BLANCAS LIGHT STATION TOURS

Tours are offered year-round on Tuesdays, Thursdays, and Saturdays. From June 15 through August 31, tours are offered daily except Wednesdays and Sundays. There are no tours on federal holidays. Tours last about 2 hours and include the historic Piedras Blancas lighthouse and support buildings along with a half mile interpretive trail that provides spectacular ocean views and opportunities to view wildlife. Meet at the former Piedras Blancas Motel located 1.5 miles north of the light station at 9:45 AM.

***Please do not wait at the gate to the light station!***

For information, email [piedrasblancastours@gmail.com](mailto:piedrasblancastours@gmail.com)  
or call 805-927-7361

Groups of 10 or more  
please make advance  
arrangements.

\$10 for adults, \$5  
ages 6-17, no fee for  
children 5 and under.

Tours may be  
cancelled on the day  
of the tour due to  
inclement weather.



Dress warmly and wear comfortable  
walking shoes. Sorry, no pets!

PBLS Association  
P.O. Box 127  
San Simeon, CA 93452-0127  
805-927-3719  
[membership.pblsa@gmail.com](mailto:membership.pblsa@gmail.com)



All memberships include our quarterly newsletter. Your dues help with the maintenance and restoration of the Piedras Blancas Light Station.

- \_\_\_ \$50 Friend of the Lighthouse  
(1 complimentary tour)
- \_\_\_ \$100 Acting Keeper  
(2 complimentary tours)
- \_\_\_ \$250 Assistant Keeper  
(4 complimentary tours)
- \_\_\_ \$500 Principal Keeper  
(engraved brick)
- \_\_\_ \$1000 Superintendent of Lights  
(engraved brick & private tour for up to 6)

***Help restore  
and preserve  
Piedras Blancas  
Light Station  
by joining  
PBLSA***

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Please make check payable to PBLSA  
You may also join online at [piedrasblancas.org](http://piedrasblancas.org)

***Thank you for your support!***

PIEDRAS BLANCAS LIGHT STATION ASSOCIATION  
P.O. BOX 127  
SAN SIMEON, CA  
93452-0127