

# SHARKBITES

Buena Vista  
**MUSEUM**  
of Natural History & Science

2018 Chester Avenue  
Bakersfield, Ca 93301  
(661) 324-6350

[buenavistamuseum.org](http://buenavistamuseum.org)

## BOUNCING BACK AGAIN!



Featured Article:

**Mark Hodson - Shark Teeth: Shape Matters!**

Upcoming Events:

10/21

**The Wonder of Bats: Understanding the Misunderstood with Dr. Anna Doty**

11/18

**Voyages to the Bottom of the Sea: Exploring the Deep Ocean in a 3-Person Submersible with Dr. Anthony Rathburn**



Museum Hours: Thursday-Saturday 10am-4pm and Sunday 12pm-4pm.





## *A Note From the Director...*



**Koral Hancharick**  
Executive Director

### **Big things are happening at the museum!**

Dear Friends of the Museum,

When you visit, you might notice changes in signage, exhibits, newly painted walls or even new volunteers! What most visitors don't know is that the museum is changing in many ways that are not seen by a visitor. These changes are behind the scenes that have brought about much positive energy and productivity now and in the future.

In the early years, BVM struggled a lot! However, BVM has matured and is growing in a very positive direction.

Looking back to 2015, a bold move was taken to purchase the building we now call home to the many exhibits and displays. This move traded a lease payment for a mortgage and started building equity. This was one of the first steps to create a more stable future. Since then, many improvements have been completed, most through grants. Many challenges continued to face BVM in 2020 and 2021, yet BVM survived! Currently, BVM has been serving the community as an educational resource with constant improvement for over 26 years. For many years, BVM has had annual strategic planning meetings, planning ways to improve and create more stability for BVM's future. The strategic planning meeting of 2021 determined the need for a more in-depth look at all areas of the museum. A carefully selected committee was formed to take a comprehensive look at BVM's direction for the future. After eight months of meetings, research and lots of time and energy, the team presented a master plan to the board of directors, and it has been accepted. From this plan, there are now four sub-committees: education and outreach, curation and exhibits, marketing and fundraising, finance and operations. Each committee has a core of volunteers who will continue action plans to help BVM become the best museum it can be. We are always looking for talented and qualified volunteers to help with the committees listed. Please contact me if you have interest.

Recently, another milestone was reached with the establishment of an endowment fund! This is through Kern Community Foundation. Soon you will be receiving an appeal letter with more details about the museum's goals and plans. My hope is that you will take the time to consider what the museum offers to our community and visitors and make a much-needed donation to our general operation and/or to our endowment fund. Both will help BVM build a more secure future.

Sincerely ,

*Koral Hancharick*

### Board of Directors

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**Koral Hancharick**

*Executive Director*



**The mission of the Buena Vista Museum is to educate, engage and inspire our community to explore the wonders of science through enrichment activities, exhibits, and special programs**

# IN MEMORIAM

This past year, we have lost three women very special to the museum.

## Cathy Paddock

Wife of BVM board member Gary Paddock and mother to Tanya, Bryan, and Carrie. Cathy was passionate about her family, her husband of 52 years and the many community activities she was involved with. Cathy served as a docent and museum event volunteer. Cathy and Gary have been long time supporters of the museum going back to the early museum years. She also helped out as a teachers aid in the schools. She was one of the sweetest persons you would ever meet. Always enjoying life and wanting to help others in the most adoring ways, she had an infectious smile and always a positive outlook on life. She was a great friend to so many, and if you were one of the lucky ones, you got to call her Nana. She had a great love of animals, especially kitty cats. She was very talented and creative in making wire wrapped jewelry. Cathy was a wonderful lady who has left us too soon and will be missed by so many! Cathy passed away in June after a long battle with cancer.



## Mary Jane Harvey

Originally from Arlington, Virginia, she enjoyed frequent visits to the Smithsonian Museum of Natural History while growing up. After earning her Bachelor of Arts, she married and had 5 children. In the 1970's she went back to college earning an electronic technician degree. She was the first woman to complete this program and was hired by Chaffey College to help rewrite their text books. She also did testing of the circuit boards and wrote the test procedures.

At a young age she enjoyed collecting fossils, minerals, rocks, shells and Native American art. Mary Jane and her husband Morris were members of several mineral societies and enjoyed giving presentations at schools about fossils. She enjoyed setting up cases with her collections. In 2005, they moved to Bakersfield, and again enjoyed displaying rocks, fossils, and minerals at the Kern County Fair and placed permanent displays at Buena Vista Museum. Still on display are her shells, minerals and fossils as well as the most popular large Diplodocus Dinosaur leg bone! Mary Jane was active at the museum for many years creating and helping with displays. She was a kind and soft-spoken person willing to share her knowledge with other volunteers, docents and visitors. Mary Jane's smiling face and kind manner will be missed

## Carla Topel

Carla was born in Taft, California and lived most her life here in Kern County. She had a career working for dentists and in medical care. In retirement, she could be found volunteering at the museum. Carla enjoyed working in the museum's Paleo Lab cleaning and discovering fossils. She had a delicate way of excavating micro fossils from the matrix. She was always a pleasure to talk with and many of the volunteers looked forward to the pastries she would share with all. She also enjoyed playing card games with her numerous friends at the senior center and loved animals. We all miss Carla showing us the fossil find-of-the-day and the smile on her face.





# Shark Teeth: Shape Matters!

**Mark Hodson**

Sharks and their cousins, the rays, have been eating animals for 450 million years. Not surprisingly, they've become very good at it. As part of their success, their teeth are adapted to their preferred prey, so by looking at a shark's teeth you can tell what it eats.

There are three main shapes of shark teeth; long and skinny, triangular, and flat.



Long, skinny teeth work like a spear or the tines on a fork; they're great for stabbing things and then holding on to them. If all of a shark's teeth are long and skinny you can be confident that it's catching fast-moving food that is small enough that will readily fit in its mouth and down its throat. Why the size limitation? Long, skinny teeth aren't very effective for cutting things up.



For cutting things up, broadly triangular teeth, like those of the modern great white shark, are much more effective. Just like sliding a knife to cut off a piece of steak, broadly triangular teeth provide sharp edges, tilted enough to provide leverage for cutting. Sharks with broadly triangular teeth are ready to eat anything they can take a bite out of, regardless of size.



The third shape is flat, which is suitable for crushing and grinding. We find these teeth in sharks, or more often rays that eat relatively slow-moving things like shrimp and crabs, often with a bit of exoskeleton, or animals with a bit of armor plating, like sea urchins. Such prey are fairly easy to catch and, if the predator is reasonably quick, can be crushed before they can escape.





Ancient Mako teeth showing upper triangular and lower spear-like teeth. Specimens are on display at BVM

Some sharks' teeth don't fit in a single category. The ancient big-tooth mako that swam around what is now Bakersfield 15 million years ago had broadly triangular teeth in their upper jaws and spear-like teeth in their lower jaws. I like to think of them as sharks with a bit of etiquette—they held their food in place with their fork-like lower jaw while cutting it into bite-sized pieces with their upper jaw.

The modern tiger shark is another mixed-tooth shark, but in a different way. Both its upper and lower teeth are similar, and feature several points on each tooth. The front-most point is much larger and fairly spear-like, and the smaller points form an edge of serrations slanting down from the front point to the back of the tooth. It functions both as a spear-like tooth, with the long leading point catching and holding prey, and a broadly triangular tooth, as it uses the other points to cut



Tiger shark tooth showing multiple points

up its food. Tiger sharks eat just about anything, from small fish that require little or no cutting up to seals and sea lions nearly as large as the sharks.

There are other exceptions. Basking sharks and whale sharks are huge, the former ranging from 20 to 26 feet long when mature and the latter from 18 to 33 feet long. They both feed not with their teeth, but by using "rakers" on their gills to continually filter plankton, small invertebrates, and very small fish from the sea as they swim. Whale sharks add fish eggs, krill, and even some crab larvae to that menu of small morsels. The teeth of both sharks are small, about 1/4 inch long (5-6mm) and end in slightly hooked points.

The next time you find yourself peering into a shark's mouth, hopefully on a TV or movie screen and not when you are both in the water, take a minute to look at its teeth; you'll then know whether you'd hold a place on its menu.



Whale sharks eat by swimming with their mouths open and filtering the food with gill rakers.

# VOLUNTEER SPOTLIGHT

**Buena Vista Museum strives to provide a wonderful and educational experience to our guests, and we know that starts with our volunteers. Our volunteers are what keeps us going and we would like to take this opportunity show our appreciation.**

If you have been to the museum, chances are Ms. June was the first person to greet you. Longtime patron June Holford, a U.S Navy Vet, has dedicated the last 7 years operating BVM's front desk. Between welcoming guests, gift shop sales and much more, she is a vital member of our team. Buena Vista Museum wants to spotlight June for her compassion, camaraderie and dedication. If you are new to the museum, please make sure to say "hi" and sign the museum guest book.



Bill Clark began volunteering at Buena Vista Museum in 2019. In that time, he has shared his many years of construction experience and has been instrumental in maintaining the museum. No matter the size or complexity of the project, Bill is always ready to help. You can usually find him busy tidying up the place or sharing one of his funny jokes. Buena Vista Museum would like to say thank you to Bill and acknowledge his considerable experience and skill.

BVM would also like to give thanks to our newest volunteers. Kristin Grau, Quinn Braselton, Allyson Dunlavy and Ty Leveroni for quickly stepping in and helping BVM with our firework booth, auction and day to day operations and events.



**Volunteers are key to the museum's success. If you are interested in supporting the museum's mission with your time and skills, please consider applying at [buonavistamuseum.org/volunteer](https://buonavistamuseum.org/volunteer)**



# EVENTS

The restrictions due to the coronavirus pandemic have limited the types of events the museum can hold.

Please keep an eye on our online event calendar at [buonavistamuseum.org/events](https://www.buonavistamuseum.org/events)

## Family Day!

FIRST SATURDAY OF EACH MONTH

-OCTOBER 2<sup>ND</sup>-  
-NOVEMBER 6<sup>TH</sup>-  
-DECEMBER 4<sup>TH</sup>-

The first Saturday of each month is Family Day!  
Admission for 2 adults and up to 6 children is **only \$20!**



### Meet The Expert: Biology

**Dr. Anna Doty**  
**The Wonder of Bats:**  
**Understanding the Misunderstood**  
OCTOBER 21, 5:30PM-6:30PM

-Virtual Online Event-

Dr. Anna Doty will present information about one of the most common yet misunderstood animals. Bats are amazing creatures that use their remarkable physical traits to provide many benefits to society like pollination, seed dispersal and pest control. All ages, reservations required, Sign up on our website.

### Meet The Expert: Marine Science

**Dr. Tony Rathburn**  
**Voyages to the Bottom of the Sea: Exploring**  
**the Deep Ocean in a 3-Person Submersible**  
NOVEMBER 18, 5:30PM-6:30PM

-Virtual Online Event-

Join CSUB marine scientist and oceanographer Dr. Tony Rathburn for a journey to the seafloor to explore previously unmapped areas of the globe and to learn about the strange creatures that live there. Discover areas of the planet that have never been seen before and meet creatures that thrive in these perpetually cold, dark habitats. All ages. Reservations required. Sign up on our website.



**MARK YOUR CALENDARS!**

**BVM ONLINE AUCTION FUNDRAISER**

**OCTOBER 17-24**

Visit our online Auction! Support BVM by bidding and winning some great items like mineral and fossil specimens, artwork and items for the home! See our website for more information.





## JOIN US

Our members are kind of a big deal!

Members help support the mission of BVM to educate, engage, and inspire our community to explore the wonders of science through enrichment activities, exhibits, and special programs.

Join now at  
[buenavistamuseum.org/memberships](http://buenavistamuseum.org/memberships)

- **Free** admission to the museum
- **Free** entry to our regular-admission priced educational programs like our "Just for Kids" events and monthly science talks.
- **Free** admission to over 600 ASTC participating museums worldwide! ([www.astc.org](http://www.astc.org))
- **Free or discounted** admission to 12 other reciprocal and local museums and zoos
- **Eligibility** to participate in Paleo-Digs at Sharktooth Hill
- **\$10 discount** per Science Camp session your child enrolls in
- **Discounts** on other museum events and in our museum store.

# TOGETHER WE CAN DO SO MUCH

Your gift of any amount helps to support BVM's mission.

Thank you for your generosity!

**Donate Now**

[buenavistamuseum.org/donate](http://buenavistamuseum.org/donate)

## WISH LIST

### Improvements and Operational Needs

- Drywall for hall stairwell
- New flooring for the Oh Zone
- Back steps to the museum finished with non-skid coating
- 10 six ft. lightweight plastic folding tables

### Monthly Needs

- Windex, cleaning supplies, lysol, etc.
- Office supplies, pencils, pens, paper, etc.

### Projects and Goals

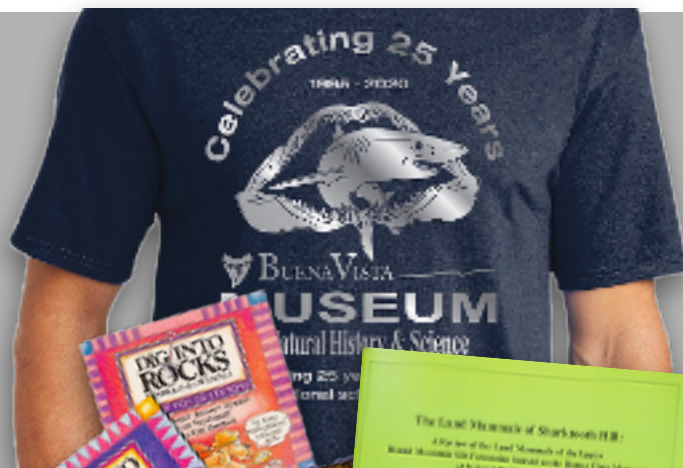
- Open a new "just for kids" science lab containing a make-it-take-it station. This will be a place where children and parents, along with BVM science experts, will be able to think critically, experiment, create and make fun projects.
- Bring new, creative and hands-on STEM items into our science discovery center, the Oh Zone and Explore-it Zone
- Additional interactive exhibition kiosks

If you can make any of our wish list items come true or need more details and cost of projects, please contact Executive Director Koral Hancharick at (661) 324-6350



# VISIT BVM'S ONLINE MUSEUM STORE

Shop our exclusive fossil guides, books, apparel, rocks and minerals, STEM kits and more!



Shop now at: [buenavistamuseum.org/museumstore](https://buenavistamuseum.org/museumstore)



For more info visit  
[astc.org](https://astc.org)

## Have you heard?

In addition to your regular membership benefits, **your membership also includes the "ASTC Passport"** which gives you free and discounted access to over 600 museums and science centers world wide!



BVM provides discounted admission for those currently receiving SNAP food assistance benefits. Simply present your valid EBT card and photo ID at the front desk for \$2 admission each for up to 4 individuals per EBT card.



BVM is a Blue Star Museum which means we offer free admission to the nation's active duty military personnel including National Guard and Reserve and their families.

## You shop. Amazon gives.

Amazon will donate 0.5% of your purchase to the charitable organization of your choice.

Support Buena Vista Museum by selecting us at [smile.amazon.com](https://smile.amazon.com)



# CONSIDER A DONATION

BVM is looking ahead to exciting goals and growth we have planned, and we want you to be a part of our future! Current goals include returning to a rich menu of in-house programming to offer visitors during regular museum hours. We are also currently seeking sponsorship for new, kid-friendly, high-tech exhibits! In addition, a donation directly to BVM's new endowment fund will insure the sustainability of the museum long into the future.

BVM's **average year operating expenses are about \$184,000 per year, or about \$15,335 a month, or approximately \$500 per day.** No donation is too small; in the end it all adds up! Your continued support is what enables the museum to serve our community by offering such a rich variety of educational programs for children and people of all ages.

\*\*\*\*\*cut and detach\*\*\*\*\*

Name\_\_\_\_\_E-mail\_\_\_\_\_

Address\_\_\_\_\_City\_\_\_\_\_State\_\_\_\_Zip\_\_\_\_\_

Phone:\_\_\_\_\_Cell:\_\_\_\_\_

\_\_\_\_Enclosed is my donation for the **General Operations** in the amount of \$ \_\_\_\_\_

\_\_\_\_Enclosed is my donation to ***Sponsor A Day at the Museum*** for \$500

Date: \_\_\_\_\_or In memory of : \_\_\_\_\_

\_\_\_\_Enclosed is my donation directly into **BVM's Endowment Fund** \$ \_\_\_\_\_

\_\_\_\_Enclosed is my donation in support of many **Educational programs** \$ \_\_\_\_\_

\_\_\_\_Enclosed is my donation in support of **Exhibit Acquisitions and improvements** \$ \_\_\_\_\_

\_\_\_\_I would like to **pledge** on a monthly basis \$ \_\_\_\_\_

\_\_\_\_I would like to receive pre-addressed monthly pledge envelopes.

\_\_\_\_Please charge the above amount to my credit card # \_\_\_\_\_

Name on Card \_\_\_\_\_Expiration date \_\_\_\_\_

Signature\_\_\_\_\_

Please contact me at Ph # \_\_\_\_\_Best time to call \_\_\_\_\_

\_\_\_\_I would like to be a volunteer. Please send me an application and more information.

Please mail to **BVM, 2018 Chester Ave, Bakersfield, CA. 93301 USA**

You can also call **661-324-6350** or donate online at the link below.

**Donate Online**

**[buenavistamuseum.org/donate](http://buenavistamuseum.org/donate)**



# THANK YOU TO OUR SUPPORTERS

## DIAMOND

Tim & Pat  
Elam



Virginia and Alfred Harrell Foundation



## GOLD

Carol Bowman

Pat & Michele  
Leveroni

Jeff Johnson

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Sampson

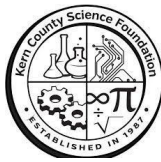
Dave & Jill  
Hanley

## SILVER



Don and Diane  
Lake

N|V|5



David  
Fiddler



## BRONZE



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Timothy  
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Sikola

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Allison

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Alan  
Neumann



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Rolnick

Harry  
Jarvis

Jeanne  
Schlemmer

Jack & Mary Lou  
Thomson

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Paulina & Ted  
Standfield

Bill Ayers  
Construction

Rob  
Ernst

## GRANTS

Kern County  
Board of Trade

Kern Recovery  
Covid 19

State Covid  
Relief

Kern County Oil  
& Gas



Pacific  
Section  
AAPG



Bakersfield Rotary  
Waterman  
Foundation



Kern Community  
Foundation



Kern County  
Superintendent  
of Schools

## MUSEUM HOURS

THURSDAY - SATURDAY

10:00am - 4:00pm

SUNDAY

12:00pm - 4:00pm

[www.buenavistamuseum.org](http://www.buenavistamuseum.org)

# WE'RE OPEN!

2018 CHESTER AVENUE  
BAKERSFIELD, CA 93301



EMAIL: [INFO@BUENAVISTAMUSEUM.ORG](mailto:INFO@BUENAVISTAMUSEUM.ORG)

PHONE: 661-324-6350

BAKERSFIELD, CA 93301

2018 CHESTER AVENUE

Buena Vista  
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