



Junior Keepers 2024

A Comprehensive Report

Agenda

- 2024 Year Summary
- Zoo Keeping Recap
- Tests



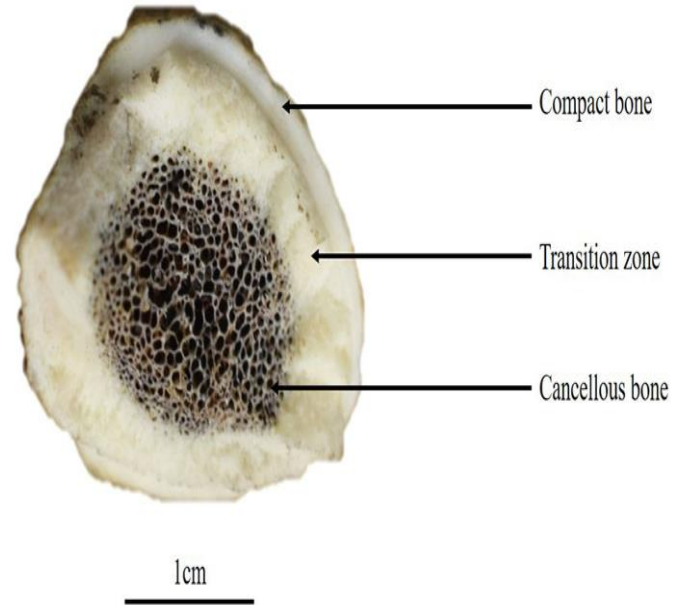


What Did Junior Keeper's Learn This Year?

Main Themes and Lessons for 2024

- Natural Biology
- Outreach
- Osteology
- Anthropology
- Amateur Radio



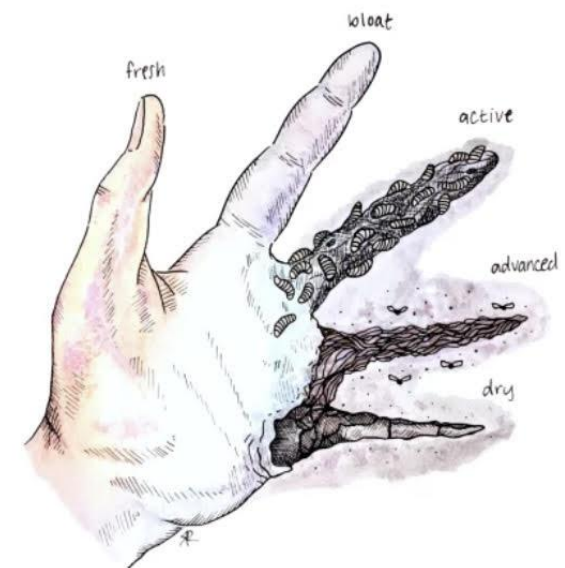


Natural Biology

Educating youth on the natural world

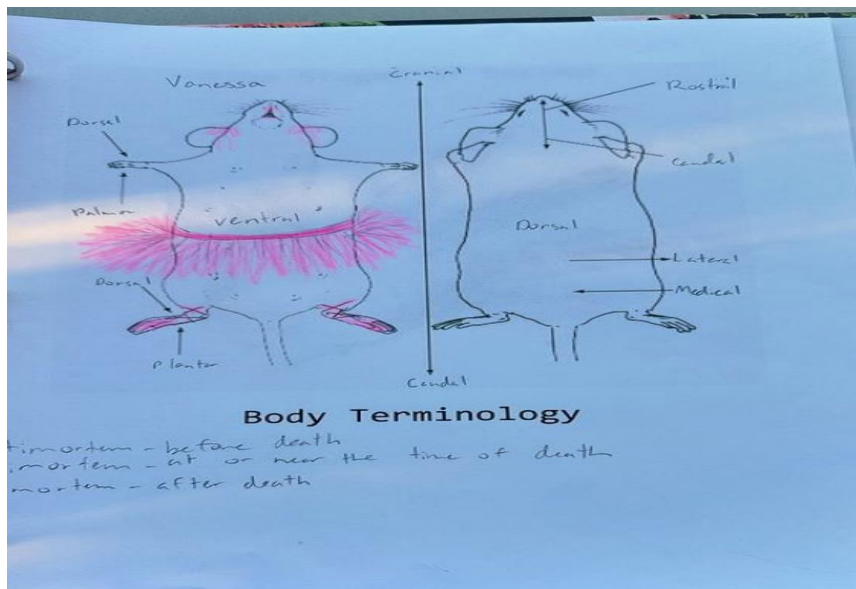
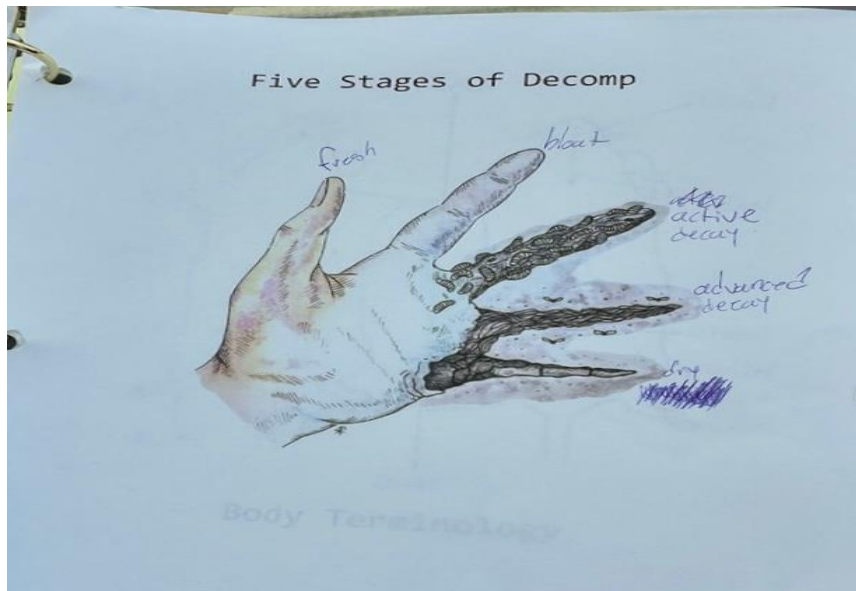
Natural Biology Lessons

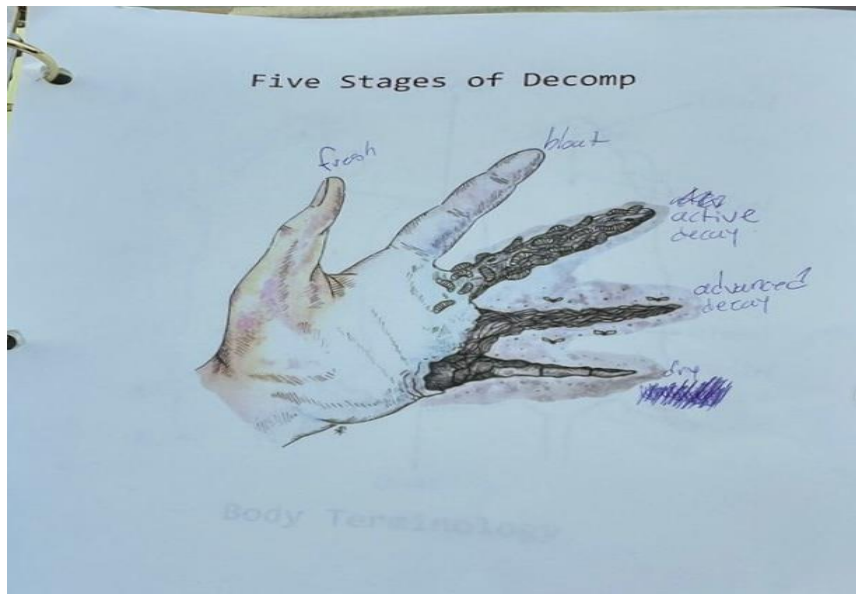
- Decomposition
- Horns and Antlers
- Animal Biology



Understanding Decomposition is an important part of field conservation

Kids looking to go into fields like zoological archeology, Fish and Wildlife, Conservation, Park Ranger, and even biological anthropology need to have the fundamental understanding of the 5 stages of decomp and be able to conduct a forensic evaluation of the animal being studied. Understanding how long ago it died, cause of death, and being able to document your findings are essential skills for fighting poaching and data collecting for the protection of our environment.

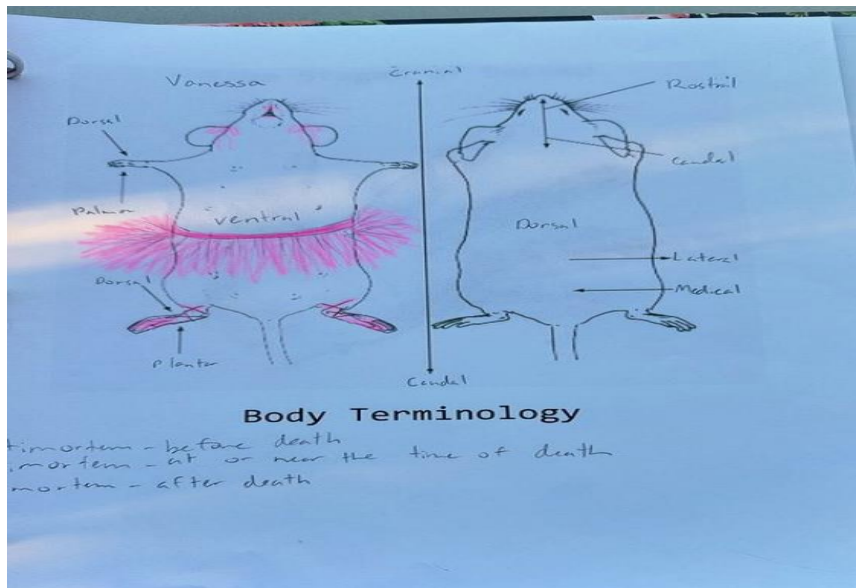




Understanding Decomposition is an important part of field conservation

Each Junior Keeper has notes in their field guide on both anatomical terminology to prepare them for lab/field work as well as the 5 stages of decomp and what it can tell us about the animals that have passed.

While it seems morbid, Keepers handled this project with grace and an openness to learn. All keepers were able to make correct assessments on the subjects observed.





Reptiles and Amphibians

The Junior Keepers are fortunate to learn onsite at Safari West, where there is an extensive collection of animals to learn from, but sometimes the Junior Keepers need specialized help.

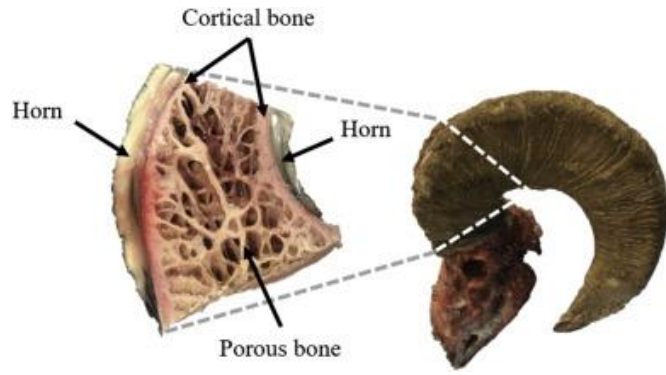


Zoey Haines, a Junior Keeper graduate, and one of the Board of Directors for the Petaluma Wildlife Museum was able to partner with us for hands on learning about reptiles and amphibians from the invasive to the endangered.



Reptiles and Amphibians

This collaboration not only taught about animals outside our collection, but also showed the Junior Keepers they can reach achievements as young as 19 years old (the age Zoey was when she joined the Board of Directors for the museum). This collaboration also publicly amplified both our program and theirs.



Horns and Antlers

One of the first subjects Safari West's tour guides review in training is horns and antlers. With 10 different species of Antelope to learn from, it was important the Junior Keepers understood the three primary uses of horns, how they differ from a rhino's carotina and the difference between Cervidae and Bovidae. The Junior Keepers were tested in the field on these concepts and were expected to be able to identify the primary use of each species horns. Junior Keepers were also allowed to be hands on, engaging with the various horns in the lab for a better look.





Animals vs Environment

Identifying an animal in the field is more than knowing its name, its understanding how its biome correlates to its body. This means being able to identify an animal's natural environment based on its coat, horns, and other physical attributes. The keepers were then tested in the field and expected to be able to deduce where an animal was from. Some keepers could identify the biome before they even remembered the animal's name!



FIELD NOTES

DATE: June 18 2024

S M T W T F S

SPECIES: Common Eland

MAMMAL REPTILE/BIRD/FISH

NOTIBLE FEATURES Large, Duhb, Stripes

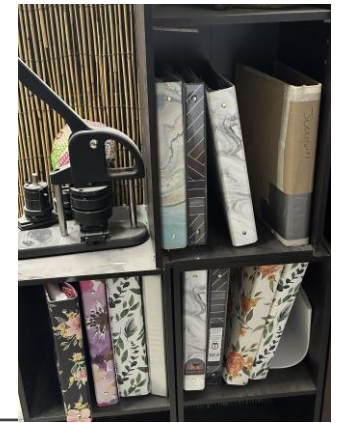
HORNS Self Defense + Curling
YES NO

NOCTURNAL/CREPUSCULAR DIURNAL

DIET: Grasses

OBSERVATIONS

- Don't move fast often
- Interested in truck
- Like the shelters
- Nursery Herds
- Stripes more prominent on young



Field Guides

Taking field notes is a big part of this program. It's fun to go see animals, but documenting what you find and relating it back to the lessons learned is where the learning really takes hold. These are the tools we took into the field to document our observations. Lessons on specific species from our collection and testing on previous lessons all took place at Safari West and were documented in the field guides.



Outreach

Junior Keepers Learn to make an impact

Conservation Fusion



Kate Fox, Safari West's Conservation Specialist, reached out to the Junior Keepers in need of help. *Conservation Fusion* is an organization located in rural Madagascar with the goal of educating children on the wildlife in their own back yards. Did you know? Many indigenous children in Madagascar never get to go for bushwalks or see the wildlife they live with in their region.

Conservation Fusion



Kate needed educational visual aids to send to Madagascar. After teaching the kids about the program as well as the lemurs we're trying to protect, she had the kids hard at work preparing the visual aids to be used out in Madagascar.

State Government Outreach

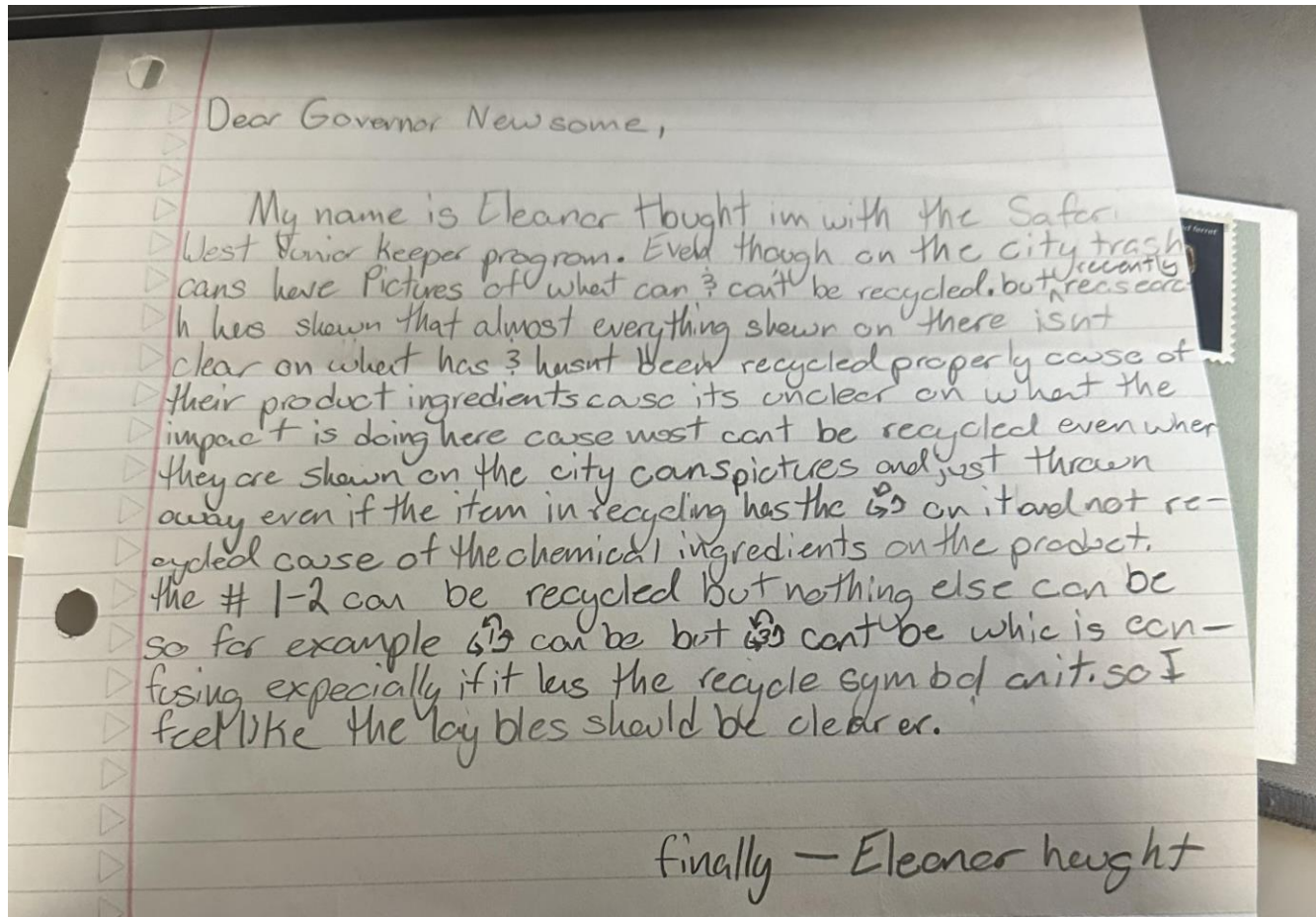


Working with partner organizations is a great way to get good work done. But what do you do when you see something that needs to be done outside of a conservation scope?

You contact local government!

The Junior Keepers were tasked with finding California specific issues that they felt passionate about and voted on which project they wanted to start.

State Government Outreach



Once they all agreed on an issue they wanted to fight, they all wrote letters to the Governor as a team explaining their concerns and proposed potential solutions. The topic they picked was recycling. The Keepers felt despite recycling their whole lives, the impact being made was minimal. Upon further research they found very little of the recycled goods were actually being processed and most was going to the dump! Here you can read some of their concerns and proposed solutions to this issue.

State Government Outreach

Dear Governor Newsom,

I am Gemma, a member of the Junior Keepers program of Safari West. I've been following the expectations of recycling but it has been unclear if any recycling has made an impact. I've been recycling for years only to learn that little to nothing is happening or changing.

According to National Geographic items labeled one and two in recycling are reused while items labeled three through seven are more likely to be thrown into the landfill. The Public should know more about how this system works and what items can and cannot be recycled. This message needs to be known whether through posters or stickers, it needs to be heard.

Dear Governor Newsom,

I am Grant Sherwood. I am a member of the Junior Keepers Program of Safari West. I do recycle as a part of my life. But I don't feel as if recycling is having a big impact. It seems that not everything we recycle ends up in the recycle. I think this is because it can be unclear on what can and can't be recycled. This may be because the recycle symbol doesn't mean it can be fully recycled. I learned that only bottles or objects with the numbers 1 or 2, on the labels can be recycled. No other things can. So for people who don't know this, it can be confusing and they can recycle unrecyclable things. I feel the solution to this should be to make these numbers and labels more clear to people. This should make it more clear to the people on what can be recycled or not.

Kindly,
Grant Sherwood

Public Speaking



If you're going to speak out, you'd better speak loud! The Junior Keeper's worked a lot this season on public speaking. At every Safari West conservation tabling event, the Keepers were out there educating others and encouraging kids to follow their dreams and pursue passions in wildlife.

Public Speaking



This year the keeper's had their first table for "Zookeeper Week". The Keepers created buttons that thanked the Safari West Animal Keepers for all their hard work and presented them with art of the animals they've dedicated their lives to! They educated guests and encouraged them to make gifts for the Animal Keeper team as well!

Public Speaking



The Keepers ran their most important table in September, a table for our donors at the Foundation's Annual Fundraiser. It can be difficult to adjust to a new older audience, but the Junior Keeper's were up to the challenge! Showing what they've learned and entertaining guests, the keepers had a blast meeting after hours!

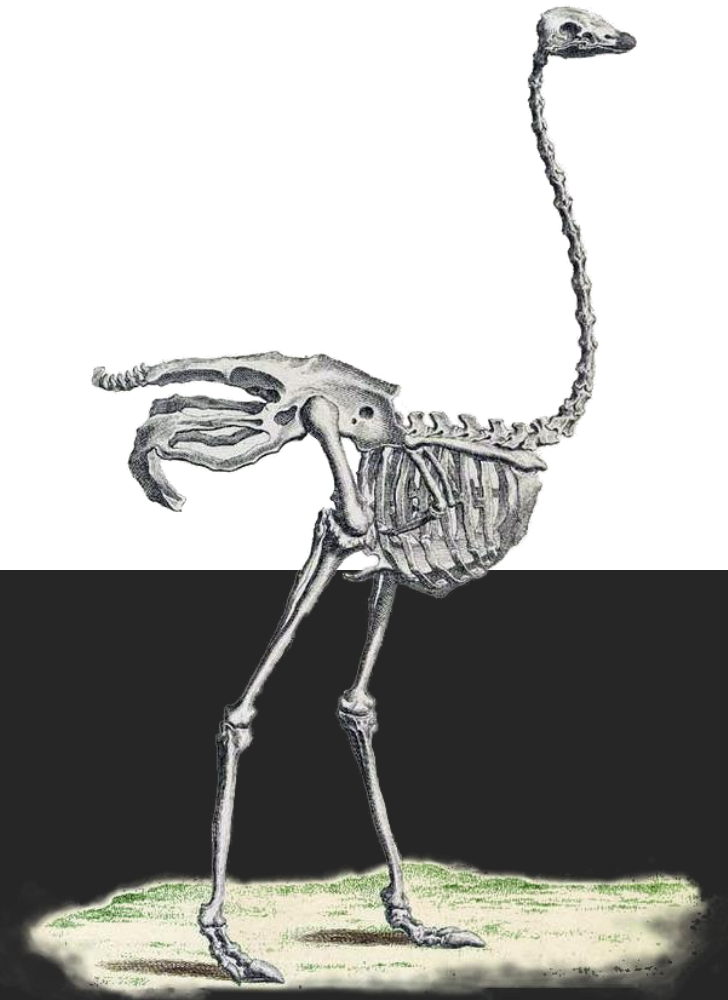
Public Speaking



































The Halloween table was a big hit! The Junior Keeper's ran 3 tables, A game station, a mask making station, and a "Make your Monster" sticker station. When they had a moment to spare, they explored the other exhibits with live bats, reptiles, insects and raptors presented by local conservation groups.

Osteology

Bones, Bones, Bones!



Name: _____

Owl Pellet Bone Chart				
	Bird	Mouse	Shrew	Mole
Skull				
Jaw				
Shoulder Blade				
Front Leg or wing				
Hip				
Back Leg				
Rib				
Back Bone (Vertebrae)				

Super Teacher Worksheets - www.superteacherworksheets.com

Owl Pellets

Owl pellets are a great way to learn about the food chain. The Junior Keepers were tasked with dissecting the small bones from the pellets and comparing them to the bone chart to see what species we can find.





Bone processing

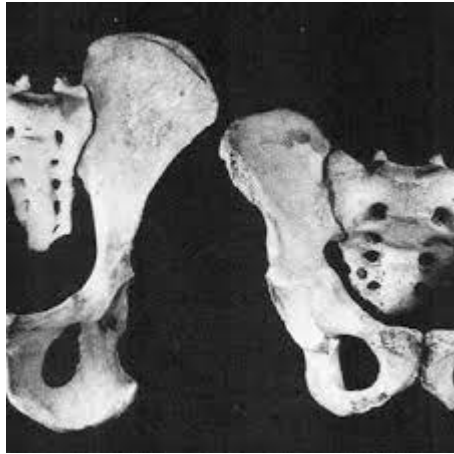
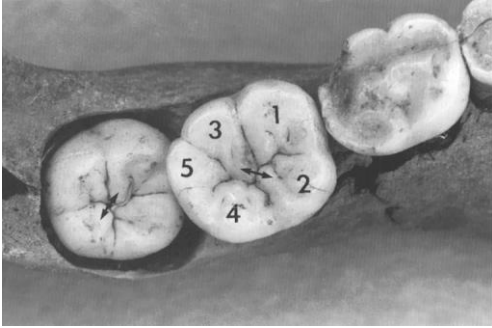
One of the most amazing resources to the Junior Keepers have is Safari West's Osteology Lab! Kirsten Malmquist, the head of Safari West's Osteology Department brought in Roan bones including a whole skull and taught them to safely process them. Once the bones are finished, they will be used by the Junior Keepers for tabling and presentations!





Anthropology

Understanding the Human Animal



What makes a human?

Biological Anthropology is an important science when we're studying primates. Humans are the only obligate bi-ped of the primates, and there are quite a few things that make us special as far as primates go. The Junior Keepers were educated on the features unique to humans as well as their place on the evolutionary tree and tested on it later in the year



Anthropology and Conservation

Cultural Anthropology is a necessary field when you're learning about animals living in tandem with cultures other than your own. The Junior Keepers were educated on the basics in Anthropological mindsets when interacting with indigenous cultures. They were not tested but were instead expected to apply them to their conversations in the lab. We reviewed major corporations and their negative impact on both the environment and indigenous cultures.



Amateur Radio

Learning to track via radio frequency



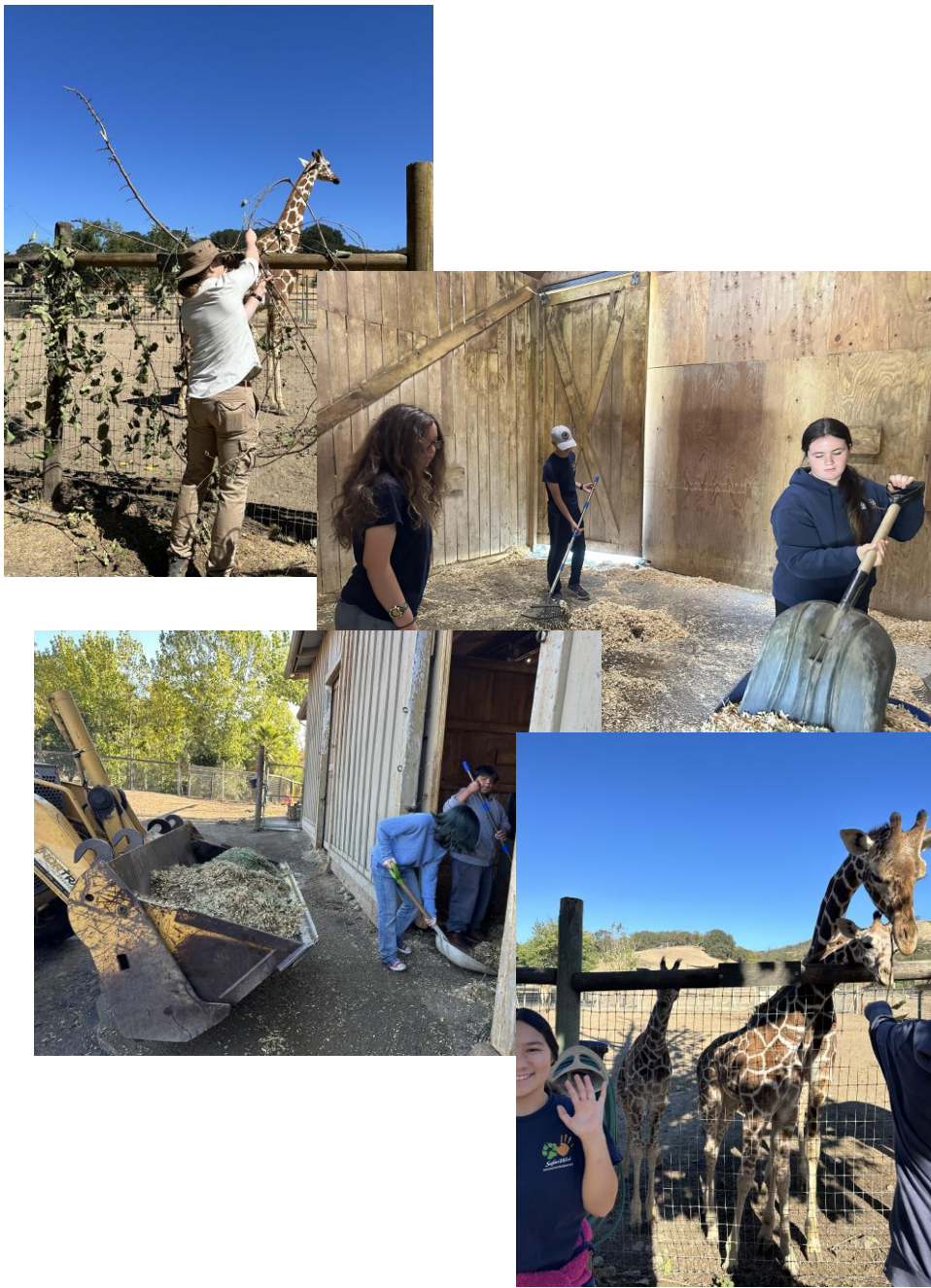
Amateur Radio

Friend of the Keeper's Darryl M. Paul has hosted 3 labs this season in honor of our late Safari West friend Kimberly Robertson. It was such an honor to host him in the lab, especially for the cause. Darryl had the Keeper's learning about radio-waves, building their own antenna, and using the antenna for a "fox hunt". The Keepers learned how to use an antenna to find a transmitter. The Keepers took the antenna in the field and tracked the transmitter. Technology like this is used by many conservations to track wildlife!





Zoo-Keeping Summary



Giraffes

All year the Junior Keepers have been partnering with Safari West's Ellie Gressman in helping muck the Giraffe barn and clear the dry lot. By far this job seems to be both the most work and the most rewarding. One highlight of the Keeper's work was clearing the dry lot of dung and midden so Safari West's baby Giraffe Safiri could take her first steps outside!



Lorikeets

Caring for lorikeets has its own set of challenges. It's a small space that needs a lot of cleaning and a LOT of enrichment. Keepers need to have eyes on birds at all times to be sure none escape while also scrubbing all the rocks and branches, sweeping out old food and replacing the enrichment. The birds sure were curious about them and their hard work all season long!



Porcupines and Tortoise

You'll notice no photos of the porcupines on this slide and that's because these animals need all hands on deck! Porcupines Norton and Spike are curious animals and like to swarm the keepers as they sweep, sanitize, re-arrange, feed, water and quill sweep! This means we unfortunately have few if any chances to get a photo. These habitats were incredibly fun to clean and always keep us on our toes. While we're there, we may give the Tortoise the same treatment if the keepers need some extra help!

Cutting grass

Every Junior Keeper's least favorite job, but every Keeper's favorite thing to have done, is grass cutting, an important part of this year's curriculum. The grass itself is used as food for our reptiles and is grown in Safari West's aviary. Cutting keeps the grass low, but most importantly being in the Aviary helps the kids get used to an environment where something is always happening and gives them a sense of awareness.





Enrichment

From Bamboo to brows the Junior Keepers are always ready to provide animal enrichment. One highlight of this is the photo to the left. On our hikes, Keepers often want to bring a large branch back with them. Here we have them filling the bark off so the branch they found can be used as hornbill enrichment!



Animal Encounters

Some animals don't actually need anything more from the Junior Keepers than a visit. Lil the Blue Duiker, pictured here, loves human contact and the Keepers love Lil! This is enrichment for both parties...

Test Results

The Junior Keepers were tested on everything they learned during the year. The test is 30 points with 19 questions.

The Comprehensive tests

On average the Junior keepers scored A 83.33% or a school B+. The lowest score was a 21, a 70% or school C. Nobody received 30/30. The highest score was 29/30, a school A.



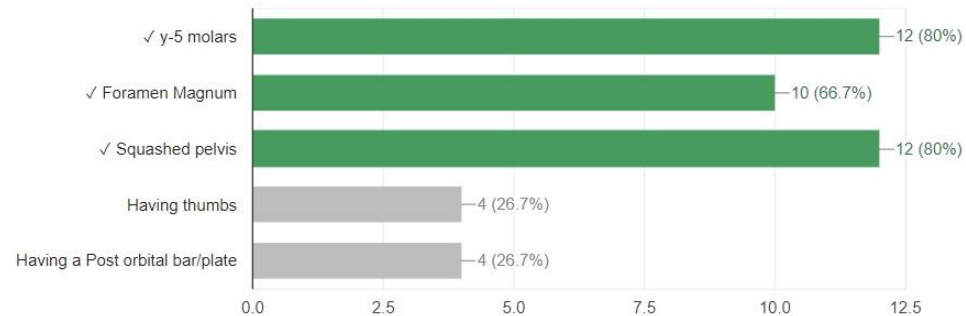
The Comprehensive tests

The two most missed questions were these two Anthro questions. 100% of the Keepers received at least partial credit. 5 Keepers in total got full credit.

Which of the following make us human

[Copy chart](#)

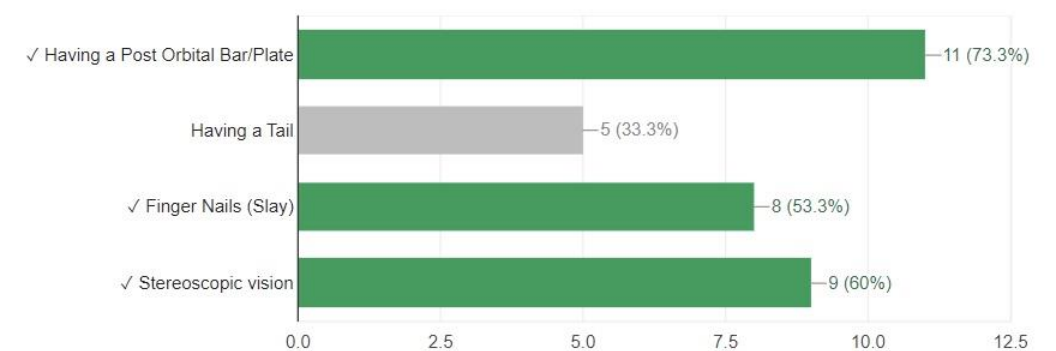
7 / 15 correct responses



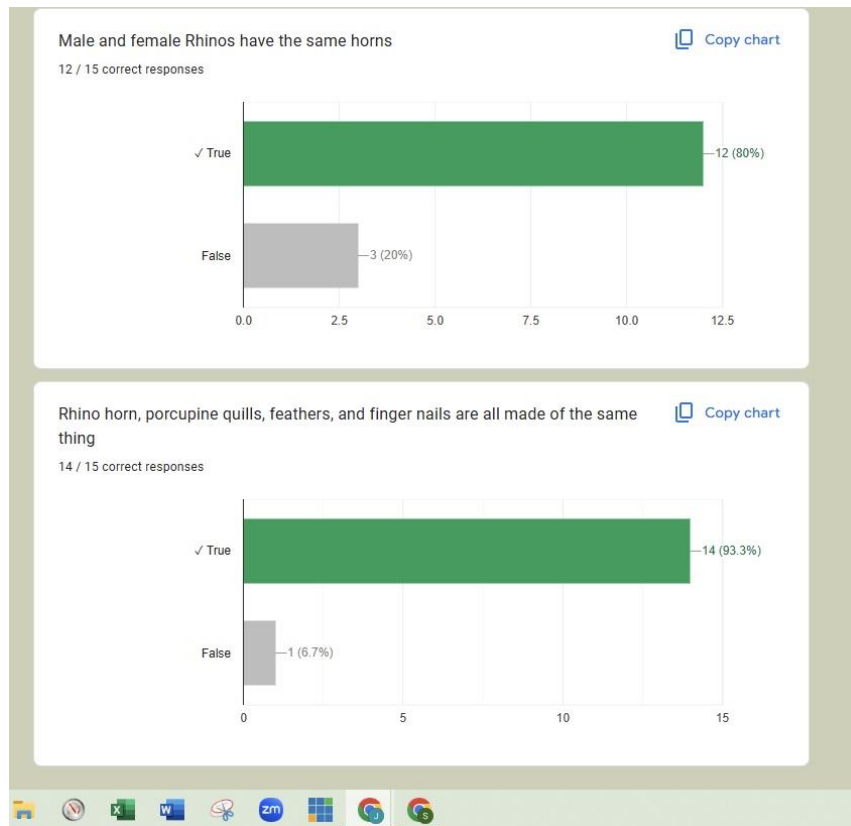
Which of the following makes an animal a primate

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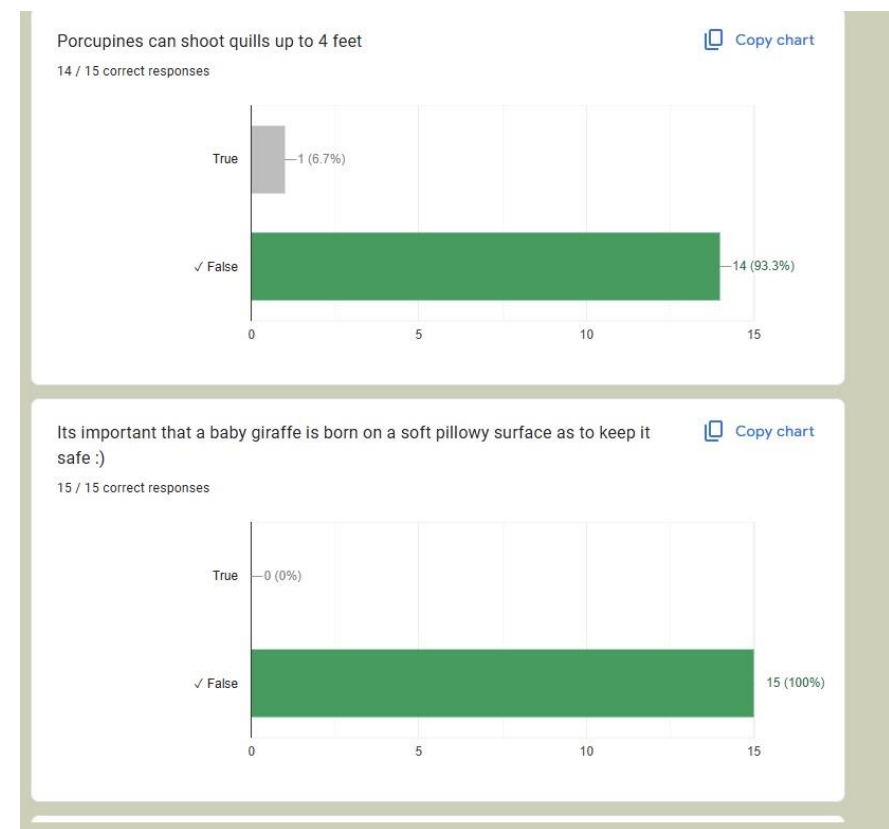
5 / 15 correct responses



The Comprehensive tests (more stats)



The Comprehensive tests (more stats)

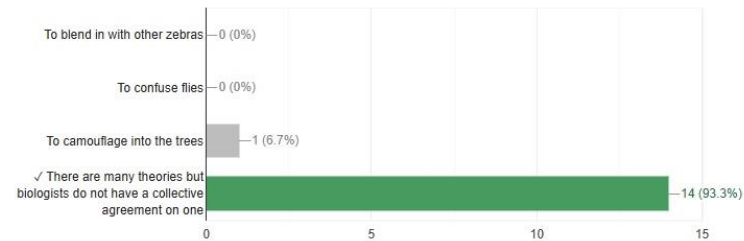


The Comprehensive tests (more stats)

Why do zebras have stripes?

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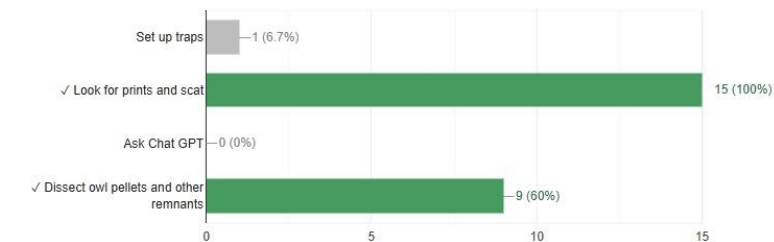
14 / 15 correct responses



If you want to know what wildlife is in your area, a good way to learn is to

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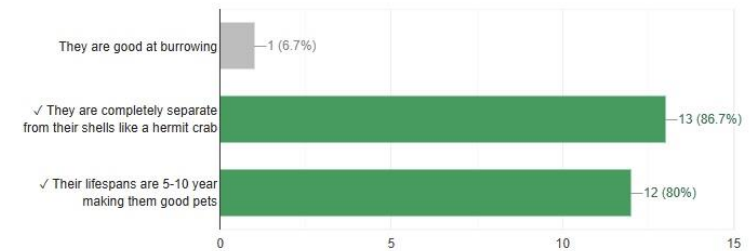
9 / 15 correct responses



Which of the following facts about the African Spurred Tortoise are FALSE

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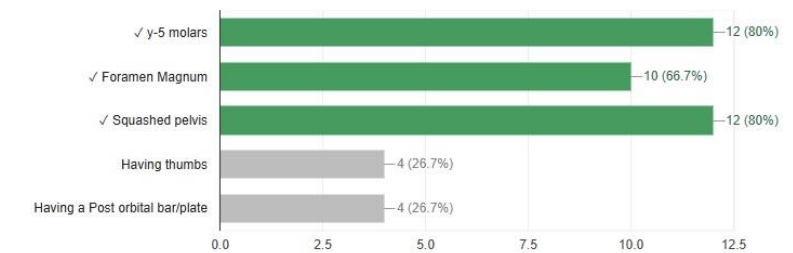
13 / 15 correct responses



Which of the following make us human

[Copy chart](#)

7 / 15 correct responses





Thank you

Your gift supports this annual program for the Junior Keepers.

Safari West

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