

KEYS TO SUCCESSFUL EMPATHY BUILDING:

- Use names & pronouns
- Provide accurate information
- Model empathy
- Bring attention to the animal's perspective
- Tell a story

TOGETHER WE CAN MAKE THE LVZ'S MISSION A REALITY!

Our zoo relies on the help of individuals like yourself to help spread the story of our animals to our zoo guests. It's your job to provide accurate information while spreading empathy within our zoo community. Every time you connect with a guest, you give an animal one more informed conservation advocate!



EMPATHY IN ACTION

WE ALL LOVE FOOD

Our porcupines enjoys a variety of foods as part of their everyday diet, including apples, yams, bananas, romaine lettuce ends, and carrots. He also receives rat and mouse grain as well as leaf eater mini biscuits.

WE ALL GET CHECK-UPS

Just like how we go to the doctor's, our porcupines get regular check-ups with our veterinary staff to make sure they are staying strong and healthy.

WE ALL LIKE TO PLAY

Just like us our porcupines like to play! We provide them with plenty of enrichment to keep them busy. This could mean putting jolly balls, paper bags, boxes with diet inside, and much more in their habitat for them to explore.

WE ALL LIKE TO BE COMFORTABLE

Our porcupines are mostly nocturnal and like to sleep during the daytime. Keepers provide them with a hide box that they can hang out in and catch some z's when they want to.

BASIC ANIMAL BEHAVIORS:

ANTICIPATION

You may occasionally see us pacing back and forth along by the entry door. This is because we are anticipating food coming and can't contain our excitement!

SCENT MARKING

In case you didn't know, this is my space! You may spot us peeing all around our habitat throughout the day as porcupines like to scent mark either to mark territories or let males know its time to mate!

SLEEPING

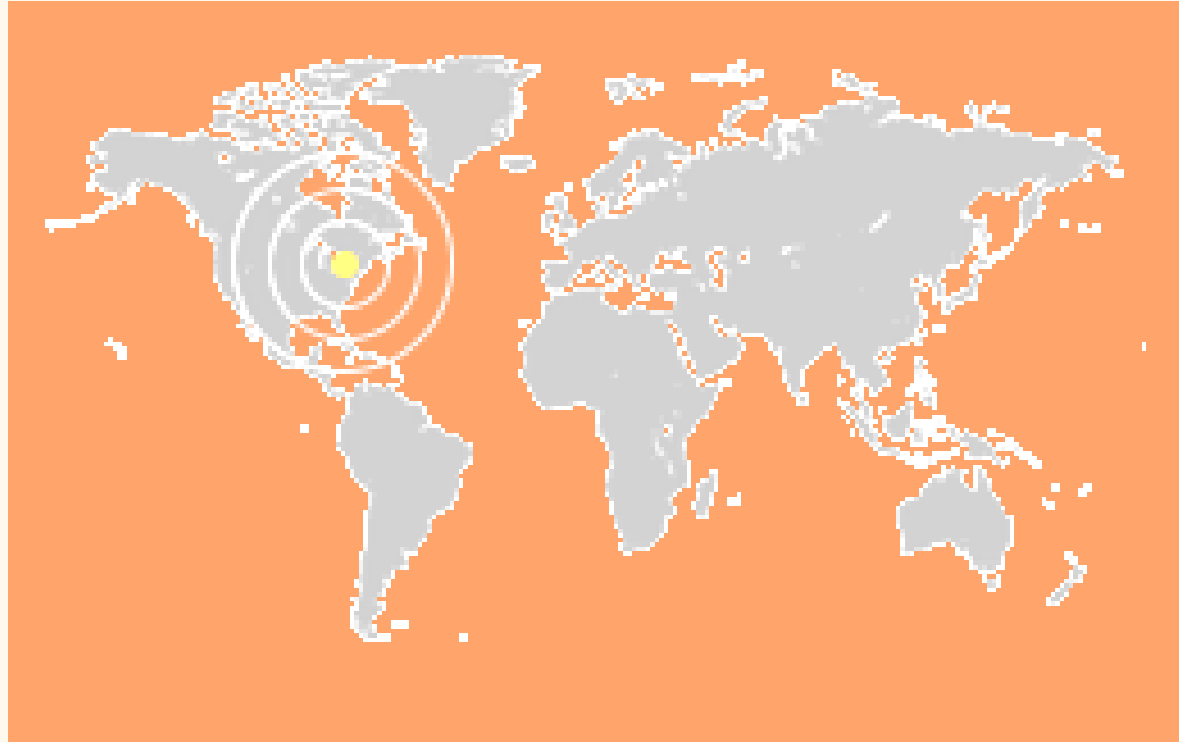
I am mostly nocturnal so you won't see us being very active during the day. In fact, you're more likely to spot us taking a nap inside our hide instead.

GNAWING

You may see us gnawing on various things around the habitat. I'm looking for salt! Porcupines have a strong taste for salt and it provides nutrients that we need to live a healthy life. We'll gnaw on bones, antlers, wood or anything else with salt residue on it!

THE NORTH AMERICAN PORCUPINE

Erethizon dorsatum



WHERE DO THEY LIVE:

North American porcupines can be found in a wide variety of habitats in North America including dense forests, tundra, grasslands and desert shrub communities.



WHAT DO THEY EAT:

What are your favorite foods?

Their diet changes seasonally. During the winter, they will mostly eat evergreen needles and the inner bark of trees. During the warmer months, they will mostly eat berries, seeds, grasses, leaves, roots and stems.



FAVORITE SNACKS AT THE LVZ:



BANANA



APPLE

Average lifespan in the wild: 10-18 years

Average lifespan under human care:

Length

2-3 ft

Weight

11-30 lbs



North American porcupines are the second largest rodent found in North America, coming in second to the North American beaver. Porcupines can be 2-3 feet in length and weigh around 30 lbs. Males are typically larger than females. They have a thick underfur that's brownish-yellow to black in color with long, wiry guard hairs.



Their long claws, pebble-textured soles, and excellent sense of touch allow the porcupine to navigate trees easily. They use their back feet to anchor themselves to the tree while their quills act as additional support to keep them from sliding down. Stabilization from their back feet and quills frees up their front hands to grasp on to stems, bark, and leaves for eating.



Like other rodents, porcupines have two large incisors that will grow throughout their lifetime. They use these incisors to gnaw off bites of food. Their constant gnawing helps keep them wear them down to a useable level. These incisors are bright orange!



HOME LIFE:

North American porcupines are mostly...

SOLITARY

although they may den with other porcupines in the winter.

- Porcupines typically mate in the fall and early winter.
- Females announce their readiness to mate by scent marking and high-pitched vocalizations. Porcupine will have extensive vocalizations, a courtship dance, and the male will usually shower the female with urine before mating.
- After a 7 month gestation, the female will give birth to 1 porcupette. Their quills will be soft when they are born but will harden quickly.
- For the first 6 weeks, the porcupettes will be hidden on the ground during the day while the mother sleeps in a tree nearby. At night, they will reunite on the ground and the porcupettes will travel from tree to tree as their mother climbs the tree in search of food.
- Porcupettes will be weaned at about 6 months old and leave their mother.



WHAT MAKES THEM UNIQUE:

What keeps you safe?

Porcupines are covered in around 30,000 quills on their back, sides, legs, and tail! These quills will be 2-3 inches long, hollow, and loosely attached to their skin. Having hollow quills actually makes them quite buoyant and is one of the reasons they are good swimmers. Because the quills are only loosely attached, they are able to come off easily when they come in contact with a predator. It is a myth that they are able to "shoot" their quills.

A porcupine will always choose to retreat first. If a predator continues coming closer, the porcupine will give ample warning by chattering its teeth, releasing an unpleasant odor, and raising its quills. The porcupine will contract muscles at the base of each spine of the quills to make them stand upright, which makes the animal look large and dangerous. If the predator does not heed these warnings and comes close enough to the porcupine to touch the quills, the quills will snag into the predator's skin.



CONSERVATION STATUS:

LEAST CONCERN

Porcupines are facing threats from hunting.

North American porcupines are currently listed as least concern by the IUCN red list. While not threatened, these animals do still face threats from overhunting by the agriculture and timber industries due to their possible destructive behaviors.



Together with Nature

Porcupines have a wide natural range but prefer forest and woodland habitats. They are considered natural developers of the forest and play an important role in these ecosystems. They will prune and trim trees often causing seeds, nuts, and fruits to fall providing food for the wildlife below. By thinning the branches of the trees it allows sunlight to filter through the understory increasing the diversity of plant life on the forest floor.

The most important thing that we can do to help porcupines and sustain their habitats is to "Leave No Trace". Once you leave nature, no one should know that you've been there. This means bringing out anything that you've brought in. Additionally, leaving the environment unaltered is equally important.

LVZ'S PORCUPINES

GAVIN

Male

Birthdate: 4/17/2013

Birth place: Woodland Park Zoo

Description: On exhibit porcupine down at carni corner!

BETTY JR.

Female

Birthdate: 3/23/2023

Birth place: Wildlife Learning Center

Description: Ambassador porcupine living in behind the scenes education building.



A DAY IN THE LIFE OF A **NORTH AMERICAN PORCUPINE** AT THE LVZ

Bright and early in the morning my keepers will check on us to make sure we are healthy and thriving. We tend to get very excited for our keepers to enter our space that sometimes they have to wait to enter until we have calmed down a bit. Since we are free contact and have sharp quills, they need to make sure they are safe when entering. My keepers will spot clean our enclosures, change out waters, and provide our diet for the day. They will also bring in enrichment for us to interact with throughout the day that has my diet hidden inside. Our keepers also do training with us throughout the day to keep us stimulation/enriched. At night, they do one final check to make sure we are content for the night!



HOW WE CARE FOR OUR PORCUPINE:

Who helps you stay healthy?

ENRICHMENT

Enrichment helps keep an animal active both mentally and physically. Our porcupines receives a variety of enrichment that promote cognitive thinking and natural behaviors. This includes, boxes and paper bags with diet hidden inside them, a tire to explore, or even getting misted. In the summer months when Gavin gets hot he absolutely loves being misted with the hose, especially his tummy!

TRAINING

Training is helpful in cooperative care and can help a trainer with a variety of things, such as moving an animal from one area to another or asking for a specific behavior to aid in veterinary and husbandry care. We always use positive reinforcement when training our animals and our animals always have the choice to participate or not. Training not only keeps our porcupines mentally stimulated, but also allows them to assist in their own care voluntarily.

QUESTIONS

Terms and definitions

THE FIVE DOMAINS OF ANIMAL WELFARE

NUTRITION

Suitable species specific diet given in a way to promote natural feeding behavior.

ENVIRONMENT

Animals have an appropriate environment that encourages opportunities to self-maintain and promote ongoing comfort and safety. They must have a suitable space that includes shelter and a comfortable resting area. The animal should have appropriate bedding, temperature, noise level, and access to natural light. If the animal is outside, then it must have access to shelter from the elements as well as access to food and water.

HEALTH

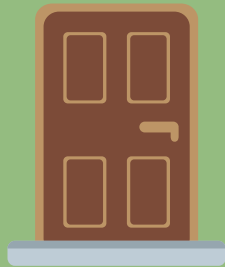
Animals have the opportunity to experience good health through preventative medical plans and lifelong care plans. This includes vaccinations, monitoring, treatments, and medications.

BEHAVIOR

Activities involving variety, choice, and benign challenges are rewarding. Sufficient space, proper facilities and social interactions (if applicable) are provided. The animal can stretch every part of their body, run, jump, and play.

MENTAL STATE

Survival-related negative experiences are minimal, and comfort, pleasure, interest, and confidence are common positive experiences.



SHIFTING

This refers to the act of an animal moving between areas. Our keepers work with our animals to train them how to shift in and out of different spaces for cleaning, training, or veterinary procedures, or emergencies.



SPECIES SURVIVAL PLAN (SSP)

The SSP is essentially online dating for our animals! With guidance from the AZA, coordinators play matchmaker and select 2 individuals from a species that would make a good genetic pair. This means that the offspring produced from this pair will have the most successful chance of survival in the wild. By genetically pairing up individuals we can also ensure that the resulting populations are genetically diverse. SSPs have been highly successful and are important in ensuring that, should anything happen to wild populations that would cause them to become functionally extinct, there are still viable populations in zoological facilities.



ENRICHMENT

This refers to the multitude of toys, puzzles, games, special treats and other changes to an animals environment that help encourage natural and healthy behaviors. Enrichment helps satisfy both the physical and psychological needs of animals and gives them choice and control in their environment. Enrichment is essential for proper animal welfare and can come in many shapes and sizes! Examples include, cardboard boxes, jolly balls, novel scents, novel tastes, bubbles, etc.



CHOICE AND CONTROL

Choice and control is a major component of animal welfare. It allows an animal to participate in its own care. We support choice and control by providing conditions in which animals can exercise control and make choices to avoid potential stressors, and make behavior meaningful. We do this through training, enrichment, exhibit space, etc. Choice and control allows our animals to tell us how they are feeling for the day and what they wish to participate in. It helps to build trust between animal and keeper.



PROTECTED VS FREE CONTACT

Protected contact is when the animal and keeper do not share the same space. There is typically a barrier of some sort that separates the animal and staff, and the animal is free to leave that space at will. This is used for our bigger or more dangerous animals, such as our giraffes and otter. Free contact means the keeper and animal can share the same space. During this type of contact, a keeper must rely heavily on their knowledge of animal behavior as well as positive reinforcement training.

QUESTIONS

The AZA and general LVZ animal FAQs

AZA AND ACCREDITATION:

WHAT IS THE AZA?

The Association of Zoos and Aquariums (AZA), founded in 1924, is a non-profit organization dedicated to the advancement of zoos and aquariums in the areas of conservation, education, science, and recreation. It is an accrediting body that holds zoos and aquariums to the highest standards of animal welfare and care.

ACCREDITATION PROCESS

Only **10%**
of worldwide zoos are
currently AZA accredited

The Lehigh Valley Zoo was first accredited in 2006. Every 5 years we are up for reaccreditation and must go through a thorough inspection in order to be accredited again. The Accreditation Commission evaluates every zoo or aquarium to make sure it meets AZA's standards for animal welfare, care, and management. They look at a variety of things, including: habitats, animal

holdings, volunteer and staff training, care facilities, and more! Accreditation is not guaranteed, which is why we have to stay on the ball and constantly strive to be leaders in animal welfare and care.

LEADERS IN CONSERVATION

Conservation is a priority for AZA-accredited zoos and aquariums and a key part of their mission to save species from extinction. Through AZA SAFE: Saving Animals from Extinction and the Species Survival Plan (SSP), AZA accredited institutions are working towards conservation of animals in the wild. When you visit an accredited zoo or aquarium you are supporting conservation research and education. Know Plastics, SAFE, SSP, and PACTS are just a few of the conservation programs we have here at the LVZ. We seek to help guests develop empathy towards animals and become advocates for the conservation of wildlife. By talking with an educator, you are learning all about our animals and how you can help better protect their wild counterparts!

GENERAL LVZ ANIMAL FAQ'S:

WHERE DO WE GET OUR ANIMALS?

- **They're born here.** Several of our animals have grown up at the LVZ, and sometimes they spend their whole life with us. Other times they are sent to other AZA institutions to start their own families.
- **They come from AZA institutions.** AZA zoos and aquariums will disposition animals depending on breeding recommendations, exhibit requirements, surplus, new habitat designs, etc.
- **They are rescued.** Permanent injuries, imprinting on humans, or abandonment can cause an animal to be deemed unable to live on their own in the wild. These animals are often relocated to animal sanctuaries or zoos/aquariums. Many of our bird of prey species are rescued birds that have been injured and can longer be released back out into the wild.

CAN I PET/HOLD/KEEP YOUR ANIMALS?

Although they live under our care here at the LVZ, our animals are still considered wild animals. The animals at the zoo are not the same as the pets you may have at home. While they have a relationship with their keepers and participate in training, our animals are still wildlife and each have a certain degree of contact. There are several animals at the zoo that are protected contact (meaning the staff cannot be in the same space as the animal). This is why we rely heavily on special locking systems, training methods, and degrees of contact in order to ensure the safety of all involved, both human and animal.

DO WE EVER RELEASE OUR ANIMALS INTO THE WILD?

Many of our animals are part of a special breeding program called the Species Survival Plan (SSP). So while the animals under our care at the zoo will not be released back into the wild, there is the potential that their offspring or related family members may be eventually released. The SSP is a backup plan for if something were to happen to wild counterparts and the group is in need of repopulating, /