



# DIVISION: CONNOISSEUR CRITTERS

Some carnivores have particularly specialized traits for acquiring, chewing, or digesting their meals. Similarly, some herbivores can safely consume high levels of toxins.

## Key Adaptations for Tournament:

### Adaptation 1:

- *Massive herds of females to lesson chance of individual dying.*

### Adaptation 2:

- *Large muscular hind limbs that allow them to evade predators without leaving the bounds of the arena do to low endurance.*

### Adaptation 3:

- *Big horns rigged horns that are long and strait and good for stabbing things that don't like being stabbed.*

## Biome: Geographic Range & Habitat:

- *Grasslands and flood plains below*
- *The Sahara desert.*

## Diet & Trophic Level:

- *They are primary consumers who eat grasses*

## Size:

- *~ 207 pounds for males*

## Summary:

- *large groups of absolutely heroic killing machines with head knives and highly muscular calves that act like pistons to impale their countless enemies.*

# Kob

(*Kobus kob*)



# Catfish

(*Peckoltia greedoi*)



## Key Adaptations for Tournament:

### Adaptation 1:

- *Have external spines and whiskers which are venom.*

### Adaptation 2:

- *They can lock their spines and fins out in order to serve as protection.*

### Adaptation 3:

- *They have great auditory sense and are able to communicate with each other.*

## Biome: Geographic Range & Habitat:

- *Inland and Coastal waters of all continents except for Antarctica.*

## Diet & Trophic Level:

- *Other fish, Mollusk, Crayfish, Snails, Insects, clams, algae, etc.*

## Size:

- *Certain Species can grow up to 15 feet long (up to 440lbs)*

## Summary:

- *Description*

## Key Adaptations for Tournament:

### Adaptation 1:

- *They have webbed feet and hooked claws.*

### Adaptation 2:

- *They display aggressive behavior during defense.*

### Adaptation 3:

- *They have a large curved beak.*

## Biome: Geographic Range & Habitat:

- *They can be found in the open ocean and disperses widely at sea.*
- *They nest on treeless northern islands with little to no vegetation.*

## Diet & Trophic Level:

- *They eat fish, other birds, insects, small mammals, berries, and are considered scavengers.*

## Size:

- *They measure 20 – 23 inches and have an average 49 – 55 inch wingspan.*

## Summary:

- *Great Skuas are likely to win a battle due to it's aggressive behavior and it prefers to be in the open ocean.*

# Great Skua (*Stercorarius skua*)



## Key Adaptations for Tournament:

### Adaptation 1:

- *Long, sharp front teeth to assist in eating things like twigs, leaves, and bark.*

### Adaptation 2:

- *Sharp claws to climb trees*

### Adaptation 3:

- *Quills that cover their head, back, and tail to serve as a defense mechanism from predators.*

## Biome: Geographic Range & Habitat:

- *Can be found in a range of habitats such as, forests, grasslands, deserts, and mountains.*

## Diet & Trophic Level:

- *A large variety of vegetation such as plants, shrubs, and leaves, they also chew on animal bones to provide them with a natural source of salt. 2<sup>nd</sup> trophic level.*

## Size:

- *25-36 inches (60-90 centimeters)*

## Summary:

- *The third largest rodent, covered with quills and they are nocturnal herbivores.*

# Porcupine

*(Hystrix cristata)*



## Key Adaptations for Tournament:

### Adaptation 1:

- *Quills that cover the entire body (except the underbody). They are modified hairs that form sharp spikes at the ends. They are a defense mechanism against predators*

### Adaptation 2:

- *Their sharp claws and tails give them the ability to climb trees. This helps them find food sources and safety from predators.*

### Adaptation 3:

- *Porcupine fur colors sometimes match the environment that they are in, giving them a natural camouflage. This gives them protection from predators.*

## Biome: Geographic Range & Habitat:

- *Porcupines can live in many different habitats; grasslands, mountains, and forests.*

## Diet & Trophic Level:

- *The porcupine diet is mostly herbivorous, eating mostly leaves, bark and fruits. Occasionally they will eat insects or bones they come across. They would be considered primary consumers.*

## Size:

- *24-33 inches (60-83 centimeters)*

## Summary:

- *Porcupines are large rodents often found in forests and grasslands. They are (mostly) herbivores and have a coat of quills on their bodies for protection.*

# Porcupine

*(Hystrix cristata)*



## Key Adaptations for Tournament:

### Adaptation 1:

- *Rough skin on the bottom of their feet to provide friction, good for climbing.*

### Adaptation 2:

- *Strong claws that enable them to climb trees and grip branches.*

### Adaptation 3:

- *Excellent hearing and sense of smell to detect predators.*

## Biome: Geographic Range & Habitat:

- *A tree-dwelling marsupial of coastal eastern and southern Australia.*

## Diet & Trophic Level:

- *Feeds on leaves of certain eucalyptus trees. In the 2nd trophic level.*

## Size:

- *60-85 cm*

## Summary:

- *is an arboreal herbivorous marsupial native to Australia. It is the only extant representative of the family Phascolarctidae and its closest living relatives are the wombats.*

# Koala

*(Phascolarctos cinereus)*



## Key Adaptations for Tournament:

### Adaptation 1:

- *Thick fur to coat them in varying temperatures as well as repel water.*

### Adaptation 2:

- *Sharp and padded paws that assist them in gripping onto and climbing trees.*

### Adaptation 3:

- *Curved spines to support their weight while on trees*

## Biome: Geographic Range & Habitat:

- *Are found in forests, grasslands, and farmlands*

## Diet & Trophic Level:

- *Herbivores that primarily consume leaves off certain eucalyptus trees. 2<sup>nd</sup> trophic level.*

## Size:

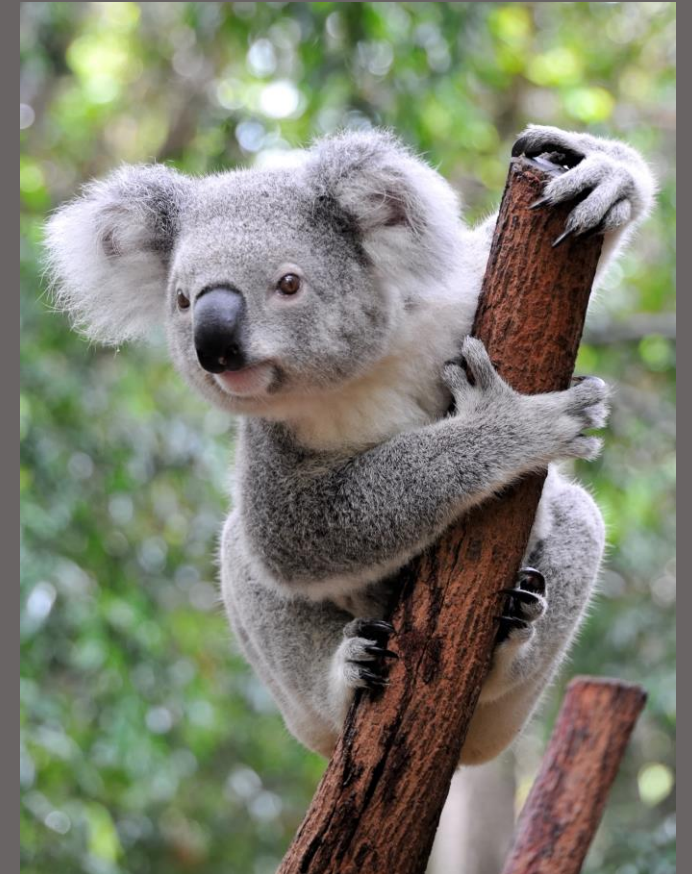
- *24-33 inches (60-85 centimeters)*

## Summary:

- *Arboreal herbivorous marsupials known for their symbolism in Australia.*

# Koala

*(Phascolarctos cinereus)*





## Key Adaptations for Tournament:

### Adaptation 1:

- *They have large protruding eyes to use all available light to see at night.*

### Adaptation 2:

- *Their movement is quadrupedal.*

### Adaptation 3:

- *They have a long tongue to obtain food.*

## Biome: Geographic Range & Habitat:

- *Ranges from dry deciduous forest to rainforest*

## Diet & Trophic Level:

- *Are producers who feed on tree gums and sap*

## Size:

- *Are typically 12oz and 11-15 inches long*

## Summary:

- *The lemur is mostly likely going to win due to its ability to see at night and its movement being quadrupedal*

# Fork-marked Lemur

*(Phaner)*



## Key Adaptations for Tournament:

### Adaptation 1:

- *Pitcher plants produce nectar ,from glands near the plant's lid, that helps to attract insects and other animals.*

### Adaptation 2:

- *Pitcher plants have a high tolerance range, which means it likely can survive in various environments.*

### Adaptation 3:

- *Its stem grows across the ground and will climb anything it comes in contact with, which can help to hold the pitcher stable and allow the plant to capture more prey.*

## Biome: Geographic Range & Habitat:

- *They are found in Mount Kinabalu, Borneo and Mount Tambuyukon, Borneo. They, like other nepenthes species, are found in highlands.*

## Diet & Trophic Level:

- *Eats small insects, rats, lizards, birds and frogs; secondary and tertiary consumer.*

## Size:

- *It can grow up to 6 meters tall.*

## Summary:

- *The pitcher plant is a carnivorous plant found in the highlands of Borneo that has a high tolerance range. They consume small insects, and have been known to trap rats, lizards, birds and frogs through the use of their nectar, and the liquid inside their*

# Pitcher Plant

(*Nepenthes rajah*)



## Key Adaptations for Tournament:

### Adaptation 1:

- *The bees have long tongues to reach nectar.*

### Adaptation 2:

- *They have hairy legs to collect pollen.*

### Adaptation 3:

- *The bees can bite and use toxins on prey and predators and even humans.*

## Biome: Geographic Range & Habitat:

- *They live in urban grasslands, gardens, and woodlands.*

## Diet & Trophic Level:

- *The Bees are a primary consumer of nectar and pollen*

## Size:

- *13-16 mm*

## Summary:

- *Bees use the hair on their body to deliver pollen and tongues to collect nectar. They also have defensive measures to ensure population*

# Hairy-legged Bee

*(Centris spp)*



## Key Adaptations for Tournament:

### Adaptation 1:

- *Long tongues allow them to be great at acquiring nectar.*

### Adaptation 2:

- *Hair appendages help to spread around pollen.*

### Adaptation 3:

- *Can suppress flight behavior to prevent death by overheating.*

## Biome: Geographic Range & Habitat:

- *Found in arid landscapes of Southwestern United states. (Solitary bees)*

## Diet & Trophic Level:

- *Feeds on flowers --> Primary consumers.*

## Size:

- *Medium sized with males and females being about 10-13 mm in size.*

## Summary:

- *Serve a big role in their ecosystems as main pollinators and help surrounding vegetation to*

# Hairy-legged Bee

*(Centris spp)*



## Key Adaptations for Tournament:

### Adaptation 1:

- *Has venom in its saliva, which allows them to kill larger prey.*

### Adaptation 2:

- *The ability of echolocation, which helps the shrew hunt at night.*

### Adaptation 3:

- *Has long tails that aids them to travel along rocks.*

## Biome: Geographic Range & Habitat:

- *Native to the Nearctic region. Lives in grasslands, old fields, fencerows, marshy areas, and deciduous & coniferous forests.*

## Diet & Trophic Level:

- *They are carnivores and eat insects, earthworms, snails, and other shrews. They are considered secondary consumers.*

## Size:

- *108 – 140 mm*

## Summary:

- *The northern short-tailed shrew is a small animal*

# Northern Short-tailed Shrew

*(Blarina brevicauda)*



# Northern Short-tailed Shrew

(*Blarina brevicauda*)



## Key Adaptations for Tournament:

### Adaptation 1:

*Venomous saliva*

*-Used for subduing prey*

### Adaptation 2:

- *High metabolic rate*
- *-Allowing constant foraging*

### Adaptation 3:

- *Ability to tunnel*
- *-Allows for protection and shelter*

## Biome: Geographic Range & Habitat:

- *Found across Northern America, ranging from southern Canada to the eastern U.S. They inhabit multiple environments, including forests, grasslands, and wetlands.*

## Diet & Trophic Level:

- *Their diet mainly consists of insects, earthworms, small rodents and plant matter. As primarily carnivores, they are secondary consumers.*

## Size:

- *Adults typically measure 10 to 14 centimeters and weigh between 10 to 20 grams.*

## Summary:

- *The Northern Short-tailed Shrew is native to North America, and is a small mammal with venomous saliva used for hunting. With a diet consisting mainly of insects and small rodents, they are secondary consumers and play an important role in controlling populations.*

## Key Adaptations for Tournament:

### Adaptation 1:

- *Lack of wings to be more efficient in living in the bat's fur.*

### Adaptation 2:

- *Reduced head and eyes to reduce size.*

### Adaptation 3:

- *Highly developed milk glands to increase their ability to stick to the host animal.*

## Biome: Geographic Range & Habitat:

- *Found worldwide in the fur of bats*

## Diet & Trophic Level:

- *Bat flies feed on the blood of bats*

## Size:

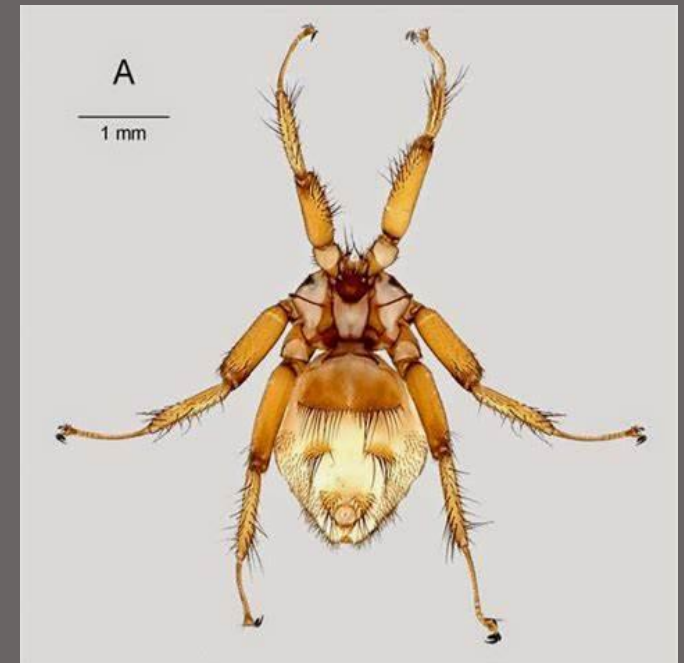
- *1 to 5 mm*

## Summary:

- *Bat flies belonging to the Nycteribiidae family are wingless spiderlike insects with long legs. They are external parasites of bats.*

# Batfly

(Nycteribiidae)



## Key Adaptations for Tournament:

### Adaptation 1:

- *Durable shell that allows the pillsnails to withstand harsh environmental conditions.*

### Adaptation 2:

- *Has estivation, in which the snail pulls itself up to its shell to retain moisture.*

### Adaptation 3:

- *The hairs found on the whorls of the shell pick up forest debris which aids in camouflage.*

## Biome: Geographic Range & Habitat:

- *The pillsnail is endemic to the Wichita Mountains in Oklahoma and tends to live in rocky habitats.*

## Diet & Trophic Level:

- *The Wichita mountains pillsnail diet consists of decaying plant matter, algae, and detritus. They are considered primary consumers in the trophic levels.*

## Size:

- *8.3 mm (average)*

## Summary:

- *The Wichita mountains pillsnail are small animals that are native to the Wichita mountains in Oklahoma and feed on decaying plant matter.*

# Wichita Mountains Pillsnail (*Euchemotrema wichitorum*)





## Key Adaptations for Tournament:

### Adaptation 1:

- *Fully formed lungs allow these snails to breath air.*

### Adaptation 2:

- *The dark brown color of these snails (sometimes a sandy color) allows for camoflage)*

### Adaptation 3:

- *Secretion of mucus allows for movement and protection.*

## Biome: Geographic Range & Habitat:

- *Endemic to the Wichita Mountains area in SW Oklahoma.*

## Diet & Trophic Level:

- *Decaying material, leaf litter, leafy vegetation, etc. decomposers.*

## Size:

- *Being the 2nd smallest species of it's genus with an average diameter of 8.3 mm and an average height of 4.6 mm.*

## Summary:

- *Although small in numbers, their unique adaptations and under the care of the refuge, they are thriving.*

# Wichita Mountains Pillsnail (*Euchemotrema wichitorum*)



# Cobra Lily

(*Darlingtonia californica*)



## Key Adaptations for Tournament:

### Adaptation 1: Carnivory

- *By eating small insect, the Cobra Lily fulfills its nitrogen requirements*

### Adaptation 2: Nectar

- *Lures the insects onto its tongue to trap them*

### Adaptation 3: "Concealing the Exit"

- *Cobra Lillies hide the true exit from their prey in order for them to get confused and fall into the trap.*

## Biome: Geographic Range & Habitat:

- *Northern California & Oregon*
- *Grows in bogs and seeps with cold water*

## Diet & Trophic Level:

- *Secondary Consumer*
- *Insects (Ex. Flies, Ants)*

## Size:

- *1-2 feet tall*

## Summary:

- *Carnivorous Californian plants with the ability to consume insects for nutrients to better their survival in nutrient lacking environments*

## Key Adaptations for Tournament:

### Adaptation 1:

- *Their little feet tubules move in unison, allowing for scaling of uneven surfaces alongside the barbed hooks on each end*

### Adaptation 2:

- *The 2 buds on its cheeks spit out sticky, clear weblike tendrils that not only bind its prey, but they do so in a circular motion, totally constraining them*

### Adaptation 3:

- *Their saliva contains pre-digestion enzymes that they inject into their prey before drinking their innards*

## Biome: Geographic Range & Habitat:

- *South America Rainforests to other tropical environments*

## Diet & Trophic Level:

- *Secondary consumers that eat insects*

## Size:

- *From 0.05 to as long as 8.66 inches in length*

## Summary:

- *Slow and careful, an ambush predator that waits for the right time to take the shot and take out its prey*

# Velvet Worm

*(Peripatopsis  
overbergiensis)*



© melvyn

## Key Adaptations for Tournament:

### Adaptation 1:

- *One adaptation is that the parasitic ant relies on their host for resources. They let the host do the gathering of the resources, so that they can use those resources to reproduce and invading their hosts colony.*

### Adaptation 2:

- *Another adaptation is having the ability to manipulate their hosts behavior. This for example causes the host to take care of their young.*

### Adaptation 3:

- *They also have the ability to mimic the pheromones produced by the host.*

## Biome: Geographic Range & Habitat:

- *This organism has the ability to live anywhere because they are dependent on their host ant. So, wherever the ant's nest is, is where the organism lives.*

## Diet & Trophic Level:

- *Their diet consists of insect secretion and larva of the host ant. The parasitic ant is considered a tertiary consumer.*

## Size:

- *They can range from 3 to 3.5 mm long.*

## Summary:

- *The Parasitic Guest Ant is a parasite that feeds off of their host ant, and is about 3.5 mm. They have many adaptations including chemical, behavioral, and caste. They live off of their host for food and habitation.*

# Parasitic Guest Ant

(*Megalomyrmex symmetricus*)



## Key Adaptations for Tournament:

### Adaptation 1:

- Their ability to imitate the chemical Cues of their Host ants, enabling them to infiltrate and assimilate into their host colony without detection.

### Adaptation 2:

- Their ability to manipulate the behavior of their host ants, often compelling them to care for the parasitic ants' brood as if it were their own

### Adaptation 3:

- They can have features that aid in their infiltration such as reduced mandibles for decreased aggression towards host ants' adhesive pads or specialized glands for secreting chemicals to manipulate host behavior, and modified cuticles for better camouflage or resistance to host aggression.

## Biome: Geographic Range & Habitat:

Tropical Rainforest, Temperate Rainforest, desert environments, if suitable host are present.

## Diet & Trophic Level:

The diet of parasitic guest ants typically consists of various resources obtained from their host colonies, such as food, shelter, and even the care provided by the host ants for the parasitic ants' brood.

*Secondary Consumers: They feed on the resources provided by the primary consumers within the host colony*

## Size:

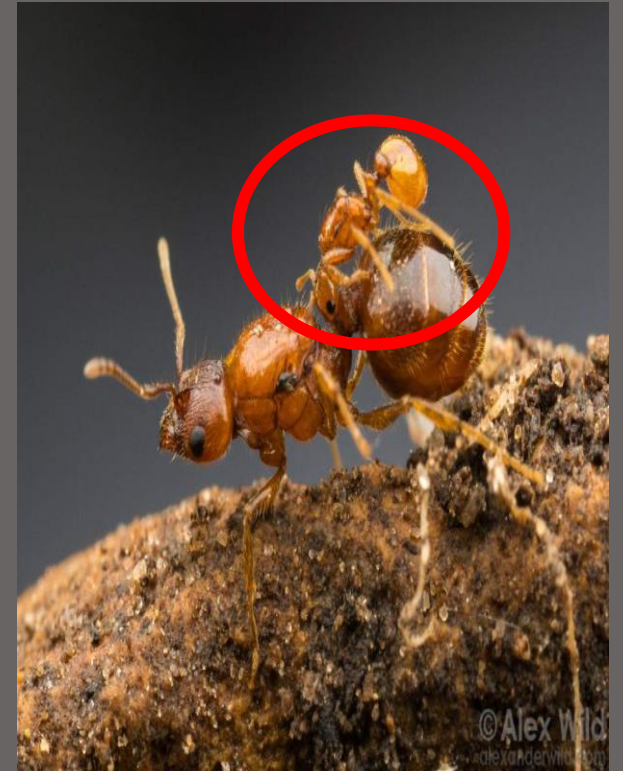
May differ based on the species

Typically smaller than their host ants, ranging from a few millimeters to around a centimeter in length.

## Summary:

- Parasitic guest ants infiltrate host colonies, mimicking their chemical signals and manipulating behavior. They feed on host resources like food and care for their brood, positioning them as secondary consumers, They're generally smaller than host ants ranging from millimeters to centimeters.

# Parasitic Guest Ant (*Megalomyrmex symmetricus*)



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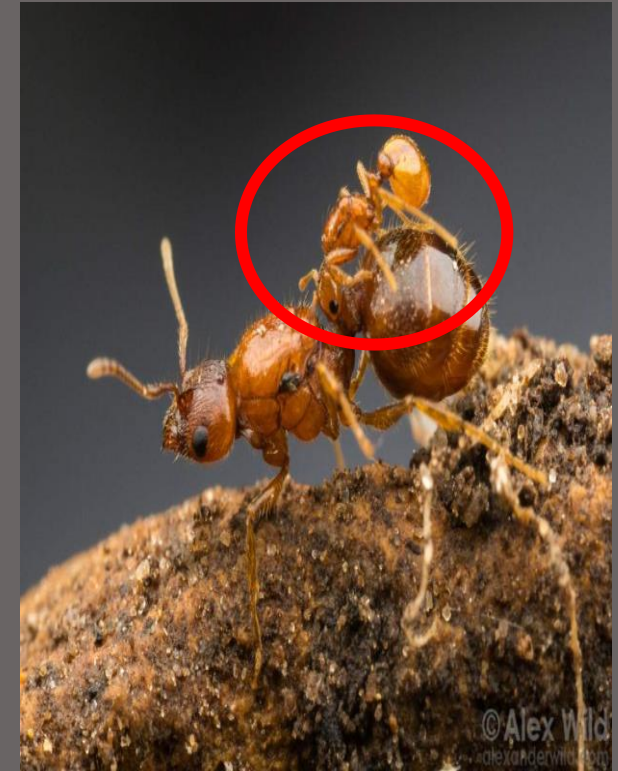
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# Parasitic Guest Ant

(*Megalomyrmex symmetricus*)



## Key Adaptations for Tournament:

### Adaptation 1:

- *Long spines*

### Adaptation 2:

- *Grow in clusters*

### Adaptation 3:

- *Spherical spores*

## Biome: Geographic Range & Habitat:

- *Conifer stumps or logs in North America*

## Diet & Trophic Level:

- *Decomposer causing white rot of conifers (a form of wood decay).*

## Size:

- *10-75 cm tall and wide*

## Summary:

- *Bear's head (*Hericiium abietis*) is an edible mushroom species that grows in compact branched masses with long spines. They usually grow in North America, producing a cream white body up to 10-75 cm tall.*

# Bear's Head

*(Hericiium abietis)*



## Key Adaptations for Tournament:

### Adaptation 1:

- *Long Dangling Spines that are 0.5-1 cm long.*

### Adaptation 2:

- *Ability to decay essential polymers, such as lignin and hemicellulose, in wood.*

### Adaptation 3:

- *Clustered growth.*

## Biome: Geographic Range & Habitat:

- *It is found throughout western North America, from northern California to Alaska. It inhabits conifers stumps and logs.*

## Diet & Trophic Level:

- *Consumes and decays dead or injured wood on conifers, acting as a decomposer.*

## Size

- *Grows to have a fruiting body of 10-75 cm / 4-30 in long and wide, the usually the size of a softball or soccer ball.*

## Summary:

- *Bear's Head is a white spherical parasitic spine fungus that grows in Western North America in clustered formation. It grows on conifers and decays wood.*

# Bear's Head

*(*Hericiium abietis*)*

