
PHANTOM BUGS!

PHANTOM JUVENILE ANT

COMBAT TIPS

- Use Venom Blasts to break past the Phantom Ant Queen's Phantom Barrier.
- Careful! For when she creates Ant Mounds, they spawn in Phantom Ants!
- Watch out for her tail attack, which creates a dangerous shockwave from anywhere in the arena.
- Remember that you can also dodge projectiles by jumping over them!

STICKY NOTE

The Phantom Queen Army Ant is so awesome! I bet if I posted a video of her online it would get a ton of views!

PHANTOM ANT

COMBAT TIPS

- Ants shoot either three Blasts at once, or one Blast every second.
- Avoid the Unstable Blasts, but try to catch the Phantom Blasts!
- Don't get too close, or they'll knock you back! Scary!

STICKY NOTE

I think Phantomization really lowered these guys' IQ. That's okay, I still love them.

PHANTOM QUEEN ANT

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PHANTOM BEETLE

COMBAT TIPS

- Beware their charge attacks! Time your dodge roll to avoid them.
- They do get stunned when they charge into walls...
- Their heads seem really sturdy... hit them on their behinds instead.

STICKY NOTE

The crystals sticking out of these guys are really interesting. I wonder if Opus messed up his magic a bit when he made them?

PHANTOM BEE

COMBAT TIPS

- Freeze them in place with Stun Blasts.
- Phantom Honey Bees are versatile in their attacks, but they don't have much health.
- Watch out for their different attack patterns.

STICKY NOTE

So small but so deadly?!

PHANTOM QUEEN BEE

COMBAT TIPS

- When the Phantom Queen retreats into a hive to heal, stop her by destroying it.
- Don't destroy too many hives at once though, as that spawns in a lot of Phantom Bees.
- Remember to Dodge Roll to avoid attacks.
- Remember that different Phantom Blasts have different effects!

STICKY NOTE

The Phantom Queen Bee isn't as in charge of the hive as you might think. Worker Bees can choose to replace her at any time!

COLLECTIBLE BUGS!

ARMY ANT

Eciton burchellii

ABOUT ARMY ANTS

Army Ants are a category of ant species that go on aggressive group raids.

While other species send individual ants to find food, Army Ants travel in MASSIVE groups that overwhelm their prey, and are the only type of ants to have soldier ants.

I think they look awesome, but my friend Leland is afraid of their big mandibles.

ARMY ANTS IN THE ENVIRONMENT

Army Ants serve the environment as both predators and prey.

They help keep the populations of other insects, and the greater food chain as a whole, in check.

They are one of the primary insect species responsible for maintaining the stability of temperate rainforests!

STICKY NOTE

Sometimes I wish I was as small as an ant, because then a cake would be the size of a BUILDING!

QUEEN ARMY ANT

Eciton burchellii

ABOUT QUEEN ARMY ANTS

The Queen is responsible for laying eggs that give rise to all members of the colony. She produces thousands of eggs every single day! In return, the worker ants provide her with food and care.

If the Queen dies, the entire colony will probably die too, because Army Ant colonies don't usually have replacement Queens. I guess she does have like a million bodyguards, but that still sounds pretty risky to me.

STICKY NOTE

I wonder if the Queen ever wishes she could go outside?

ATLAS BEETLE

Atlas Beetle | *Chalcosoma atlas*

ABOUT ATLAS BEETLES

Atlas Beetles are huuuuge!

Because they can lift things that are hundreds of times their own weight, they're named after the Greek myth Atlas who was cursed to hold the world for eternity.

Also, be warned, their larvae are very grouchy. I would recommend not touching them because they'll probably bite you :(

ATLAS BEETLES IN THE ENVIRONMENT

Atlas Beetles are very beneficial for their native environments.

They're mostly scavengers, eating what other creatures avoid. So they really help to clean up rotting fruits and trees and such!

Their poop also makes great fertilizer.

STICKY NOTE

I tried to bring one home once to keep as a pet, but my mom didn't let me :(

HONEY BEE

Western Honey Bee | *Apis mellifera*

ABOUT HONEY BEES

Honey bees live in colonies made up of their Queen, tens of thousands of female workers, and a few thousand male drones.

The male drones don't have stingers, so don't be afraid of them!

The worker bees communicate with one another by dancing. Often about food, with different dances conveying different information. I think humans should try to do that more too.

HONEY BEES IN THE ENVIRONMENT

Honey bees are the world's most widespread pollinator. Plants are incredibly thankful for the Honey Bee!

Seriously, these guys alone pollinate the majority of the world's flowering plants.

Due to climate change, pesticides, invasive species, and other human influences, the continued existence of Honey Bees is not looking super great...

STICKY NOTE

Apparently when I was a baby, a bee stung me on my HEAD! But luckily I don't remember it.

QUEEN HONEY BEE

Western Honey Bee | *Apis mellifera*

ABOUT HONEY BEE QUEENS

Newborn bees are usually fed royal jelly for a short amount of time. Feeding a larva royal jelly for a long time develops into the Queen Bee!

The Queen Bee's job, as with Ant Queens, is to give birth to new bees.

Multiple larvae are fed to become virgin Queen Bees, but they fight to death until only one remains to grow up into being the true queen! Life as a royal sure sounds intense.

STICKY NOTE

Will eating royal jelly turn me into a queen too?

FIREFLY

Eastern Firefly | *Photinus pyralis*

ABOUT FIREFLIES

Fireflies are a type of beetle, so I think their name is confusing.

Their famous glowing abdomens are used to communicate, with each species using its own unique flashing patterns.

Most of the females can't fly, so if I were to be reborn as a firefly, I would want to be male.

FIREFLIES IN THE ENVIRONMENT

Fireflies are helpful for the environment in multiple ways.

For one, fireflies are important pollinators for flowering plants. And more famously, firefly larvae hunt a ton of different organisms, keeping the balance of nature in check.

Because of this, they're also being considered for use in fighting back against the SUPER duper invasive apple snail.

STICKY NOTE

Sometimes other kids dare each other to swallow the fireflies alive, so they can see the glow go away.

EARWIG

European Earwig | *Forficula auricularia*

ABOUT EARWIGS

Earwigs can be found on every continent besides Antarctica!

They secretly do have wings, which fold up super tight like origami!

It's hard to tell where their head is and where their butt is. But the forceps on their butts aren't just to look cool– They can open and close them to do all sorts of things, like holding prey.

EARWIGS IN THE ENVIRONMENT

Earwigs contribute to the ecosystem by preying on various insect pests, helping to control populations that could otherwise harm plants.

Their role as decomposers is important, as they feed on decaying organic matter, aiding in nutrient recycling.

Additionally, earwigs serve as a food source for other animals, contributing to the overall biodiversity of ecosystems.

STICKY NOTE

My friend Leland once told me that they'll crawl into your ears and eat your brain! My mom says that isn't true though.

DRAGONFLY

Green Darner Dragonfly | *Anax junius*

ABOUT DRAGONFLIES

Dragonflies can be found near bodies of freshwater all around the world. They are very powerful fliers, which is good for them, because that's how they hunt.

They are some of the most effective hunters out of any insects! They can see in 360 degrees, at a much faster rate than humans.

Although... the downside of such awesome vision is that almost all of their brain is dedicated to it.

DRAGONFLIES IN THE ENVIRONMENT

Because they are such impressive hunters, dragonflies are invaluable to maintain balance in the ecosystem. Without them, the numbers of pest bugs would multiply out of control!

Dragonflies are also helpful for scientists as indicators for how healthy an ecosystem is, since they depend on clean water and healthy food chains to survive.

STICKY NOTE

Water naiads are a real thing– that's what baby dragonflies are called!

DUNG BEETLE

Sacred Scarab | *Scarabaeus sacer*

ABOUT DUNG BEETLES

Dung Beetles are multiple species classified into three categories: Rollers, Tunnelers, and Dwellers, based on what they do with dung. That being said, although dung is all they need to eat to live, they do also sometimes eat fruit, mushrooms, or even other insects.

One species is also the only insect known to orient itself by the Milky Way! I don't even know how to do that!

DUNG BEETLES IN THE ENVIRONMENT

Because they consume and bury dung, Dung Beetles aid the environment in a TON of different ways. Via dung, they spread both fertilizer and plant seeds, which really helps places to regrow.

Some cattle farms also used them to help get rid of all the cow poop!

STICKY NOTE

I think Dung Beetles would be offended if they knew that we think poop is gross.

BUMBLEBEE

American Bumblebee | *Bombus pensylvanicus*

ABOUT BUMBLEBEES

Bumblebees are large, fuzzy, and round! They may look scary due to their size, but they're very unlikely to sting you.

Because they're so fluffy, bumblebees can handle cold temperatures much better than most other bees can. They also differ from honey bees in that they do not communicate through dancing, but instead through the vibrations they make with their wings.

When they find a flower with nectar that they want, they can reach into it with long proboscis tongues.

BUMBLEBEES IN THE ENVIRONMENT

Similarly to honey bees, bumblebees are KEY pollinators for flowering plants, including many of the foods that we eat!

Because they are able to fly in darker places and at colder temperatures than other bees, they are particularly special pollinators in colder and darker places around the world.

STICKY NOTE

They are so round and fluffy, how could anyone be afraid of them?

DAGGER MOTH

American Dagger Moth | *Acronicta americana*

ABOUT DAGGER MOTHS

These moths are small and gray, so I think some people find them boring, but I sure don't. Look closely at their wings, and you'll see such beautiful intricate patterns! I love how their caterpillars look too, so fluffy and yellow.

I have to pet them every time I see one, but am always careful not to touch the black spines because they give people rashes.

DAGGER MOTHS IN THE ENVIRONMENT

Because they eat tree bark, dagger moths are located in a variety of environments, and so are an important part of the food chain. They are hunted by a huge variety of predators, as well as surprisingly important pollinators.

Most pollinators aren't active at night, but moths are!

STICKY NOTE

I like to run through the grass to make them fly up out of it and then catch them in my hands.

JUMPING SPIDER

Regal Jumping Spider | *Phidippus regius*

ABOUT JUMPING SPIDERS

Jumping spiders are tiny ambush predators. Instead of sitting around for prey to get caught in webs, they go out and kill the prey themselves!

Because of how they hunt, jumping spiders have WAY better vision than other spiders. They are also suuuuper smart. Their brains take up so much space that they leak into their legs.

To communicate with each other, they will do all sorts of dances and even sing little spider songs!!

JUMPING SPIDERS IN THE ENVIRONMENT

Because jumping spiders are both predators and prey for so many different species, their place in the food chain impacts a TON of different creatures.

Without them, their predators would struggle to survive as well, and their prey would grow to overpopulated numbers.

STICKY NOTE

I think jumping spiders are the cutest spiders because of their BIG eyes.

PROJECTILES

PHANTOM BLASTS

The bog standard projectile that Phantom Bugs attack people with. Are they made out of bug spit? Or just pure magic?

Grab them out of the air with the Magic Net and throw them right back!

UNSTABLE BLASTS

Watch out for these!! YOU CAN'T CATCH THEM, so just dodge out of the way. So annoying!

VENOM BLASTS

Venom Blasts are powerful! They deal more damage than regular Phantom Blasts, and they're the only thing that breaks Phantom Barriers.

STUN BLASTS

Stun Blasts momentarily freeze whatever Phantom Bug you hit with them... right in their tracks! They also do a normal amount of damage.

INTERACTABLES

CONSTRUCTION BARRELS

I find that these are best used to deal damage to a lot of nearby Phantom Bugs at once. Opus's construction company is really doing a number on the island... but it at least feels satisfying to clean up all their litter.

BLAST BLOOMS

These magically mutated flowers grow Phantom Blasts I guess?? I'm glad Phantom Bugs aren't the only source.

PHANTOM GROWTHS

Hitting these gross things with Phantom Blasts is always a good idea! I swear!

PHANTOM BARRIERS

These annoying magic barriers can only be destroyed with Venom Blasts. They appear as both blockades in the environment and shields around Phantom Bugs. So weird.

JUNK

Random litter from Opus's stupid little project. I'm glad that it's not hard to clean up after, but he's the adult here! He should be cleaning up his own messes!