

# Mixing Herp Species: Why You Shouldn't Do It

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Though you may have seen large terrariums housing multiple reptile species in zoos, this type of community terrarium is not safe or practical for the majority of private reptile owners. There are a number of reasons why different species are not compatible, including diseases, habitat requirements, dietary needs and practices, and more.

## Disease

Different reptile species carry different organisms, including different strains of bacteria, viruses, and fungi, to which they have developed a natural immunity. In some cases, the organisms they carry may even be helpful to them.

Organisms that are harmless to one species can be deadly to another, or one species may be extremely susceptible to the organisms the other species is carrying. This is especially true in cases where the two reptiles come from very different environments and areas of the world.

Housing reptiles together can spread illnesses between them that they cannot successfully fight because they have never encountered the other species' organisms before. This is true for both captive born and wild caught reptiles, though it is even more dangerous with wild caught reptiles, as they may also carry parasites they picked up from their prey.

## Toxins

Many amphibians have toxins in their skin that are poisonous to other reptiles. Such species include Bombina toads, Fire-bellied Newts, Fire Salamanders, Cuban Tree Frogs, and more. Not only can these toxins affect other species through direct contact, but they can also build up in the environment as well, making it hostile to other species that live in it.

## Behavior & Stress

Finally, housing multiple species of herps in a single terrarium can be incredibly

stressful for one or all of the species. Large herps can injure smaller ones, either accidentally or on purpose. Some herps are very territorial, and some are just downright aggressive. Being confined in a small space with another herp that it views as a predator is very stressful for a reptile.

Reptiles may not know how to interpret or react to the behavioral displays of other reptiles. They may view something that is actually harmless as threatening or vice versa. There can be obvious bullying going on, or psychological bullying that you may not realize is happening. One species may be diurnal while the other is nocturnal, so they are always disturbing the other species while it tries to rest.

All of these things contribute to high levels of stress for the species in the enclosure, which has a very negative effect on their overall health. Reptiles are very susceptible to stress-related illnesses, and repeated, constant exposure to stress can actually kill a reptile.

### **Size of the Environment**

Some reptile owners consider setting up a community terrarium as a way to conserve room, but that would actually increase the amount of space you would need to devote to your herps. A community terrarium would have to be substantially larger than single species terrariums to allow all of the species to have enough room.

Though different reptile species do live within the same areas in nature, they rarely come in contact with each other. Housing multiple species together in a terrarium that isn't big enough is going to cause territorial issues and a higher risk of injury from fights. A terrarium large enough to allow for proper thermoregulation of multiple species, hunting of prey, and other natural behaviors is going to be too large for someone's home.

### **The Physical Environment**

Different species of reptiles have very different habitat requirements. Reptiles are "ectotherms," meaning that they cannot control or regulate their internal body temperature. This is why maintaining proper temperatures and humidity levels is so important to their overall health. A reptile housed in an enclosure that is too cool or too hot will not eat properly and may not be able to digest food. Improper humidity levels can cause infection, disease, and, in some species, death.

But why does a reptile's physical environment pertain to housing multiple species in one terrarium? Because reptiles have needs that are specific to their species. Reptiles tend to have a wider temperature range in which they can live, while amphibians have a smaller safe range. Some herps are from more arid regions, and they require hot, dry conditions. Others are from tropical regions, and they need hot, moist habitats. Even species that live in the same area in the wild often live in separate microclimates. Attempting to recreate multiple environments within the same terrarium is almost impossible, and it is highly likely that you would have to

compromise the health of at least one species in the enclosure.

Reptiles may also have different lighting requirements. Some reptiles get sufficient Vitamin D3 from their diets, while others use UVB light as their primary source of Vitamin D3. Some herps will need nocturnal or infrared lights in their enclosure at night, and others require complete darkness. Failing to provide the proper photoperiods with the correct light sources for your reptiles can have a number of consequences, including vitamin and mineral deficiencies, lethargy, anorexia, and more.

In addition to concerns regarding temperature, humidity, and lighting, there is also an issue with the setup and accessories in the cage as well. Herps can be aquatic, semi-aquatic, or terrestrial. Terrestrial reptiles can drown if housed near the large areas of water that aquatic reptiles need. Additionally, some herps are arboreal, and will require branches, perches, and other places to hide and bask high in the cage, while others will spend their time on the ground, and will need substrate to burrow into. Substrate, hide boxes, rocks, plants, and other accessories - all of these vary by species, and what is safe or appropriate for one is often not for another.

To provide all of these different types of environments and accessories within one terrarium would require a very large terrarium, and this is neither possible nor practical in the homes of most reptile owners. It can be hard enough to properly set up and maintain a terrarium for a single species, let alone multiple species with different environmental requirements.

### **Food & Feeding**

Daily diet requirements and how each species feeds can also become a problem. Not only will it be difficult to provide a totally different diet each day if one reptile is an herbivore and one is a carnivore or omnivore, but there is always the possibility that one species will become food for another. Most carnivorous reptiles will view anything that moves in their habitat as a meal. Adults may eat juveniles, or they may attack other adults, especially if one species is smaller.

Even if both species eat the same thing, such as crickets, there can still be issues. If one species is significantly larger than the other, the size of the prey they eat will be different. Large reptiles will eat large crickets, while small ones may only be able to eat hatchling crickets. If a small reptile attempts to eat prey that is too large, gastrointestinal blockage can occur.

There is also a concern that if the two species are not equal in size and strength, the larger species may prevent the smaller one from eating by bullying it and keeping it away from the food, whether that food is crickets, pellets, or fresh vegetation. This would lead to the malnourishment and eventual death of the weaker species.

Finally, there may even be an issue with the way that the different species eat their food. Some carnivorous or omnivorous reptiles will wait patiently until prey is near them to strike. Others will run around, attacking prey seemingly at random. These

hunting styles are incompatible, and the reptile that waits for the prey to approach it would not get enough food.

### **In Conclusion**

Yes, zoos can successfully mix species within a single terrarium, but they invest a good deal of time, research, space, and money into it, and they have specialists and veterinarians on hand at all times. Most private reptile owners are not going to have these resources. Keeping two or more herp species in a single terrarium greatly increases the likelihood that there will be serious issues. It is safest for all of your reptiles to house them in single species enclosures rather than a community terrarium.