



## Exotic Animals and Plants

Let's talk about exotic species of plants and animals - species that are not indigenous to a region. Over millennia, animals and plants have evolved together and benefit each other. Introduced non-native species do not support a native food web and often are detrimental to an established ecosystem.

Some of you may know the horror stories of cane toads and pythons invading FL. The poison of a cane toad can send a dog into a seizure, and toads and pythons destroy native wildlife. Having been removed from their native habitat, they often have no natural predators and can out-compete native species that

support the complex food chain in the region to which they are introduced.

How are non-natives brought in? Sometimes naturally, but primarily by people's reckless behaviors or movements. A plant or animal can gain a foothold in an area by wind or ocean currents, but people unwittingly and unintentionally introduce species at an increasing rate. Commerce is one vector: watercraft bilges carry unwanted and unanticipated cargo around the world, for example releasing mussels in many regions. Diseases, mosquitos, bacteria, seeds, eggs, and all manner of things are unintended hitchhikers that travel with people.

And sadly we intentionally introduce exotic pets, animals, and plants all the time. Often the environment isn't the only casualty; remember the woman maimed by her chimpanzee in FL, or the tiger owners in Jackson NJ, or the infant killed by a python, not to mention ferrets who have a propensity for biting and disfiguring infants' faces (Journal of Amer. Pediatrics). Conservation officers in NJ have faced

numerous perilous situations due to pet owners' poor choices: cobras, alligators, panthers, kangaroos, you name it. In CA I saw a woman walking two serval cats, weighing as much as 40 lbs., on a leash. What are people thinking? In NJ it is illegal to have these creatures without a permit and thankfully these permits are extremely difficult to obtain.

In an effort to solve existing problems, many plants and animals have been deliberately imported. Mongoose were brought to Hawaii to kill snakes but now these animals thrive at the expense of native species, taking birds' eggs and killing beneficial wildlife. Feral cats are a domestic species and not part of the native landscape. Carried on ships and introduced to many island communities to kill rodents, they have destroyed entire bird and reptile populations. In fact feral cats are responsible for more extinctions worldwide than any other creature.

I'm well aware that I've lost some of you just at the mention of cats, ferrets, and pythons because you think these are appropriate animals to host. But let me be

very clear: when introduced into our native environment these animals have grave consequences.

Here is the good news: you can choose to be a responsible pet owner and keep your pets confined to your home and not purchase inappropriate (i.e. venomous) snakes and primates (generally illegal in NJ anyway).

Now for introduced plants. A number of categories are ascribed to exotic plants. A plant that is not native is *exotic* and if it runs rampant it is considered *invasive*. A non-native plant that out-competes other plants is called *aggressive*. A few invasive plants that you may know are bamboo, periwinkle, Japanese honeysuckle, English ivy, and Japanese knotweed. Often the name is a pretty good indicator that it is foreign.

While not all exotic plants are invasive, it is nearly impossible to predict which ones have the potential to become a problem – those lacking natural predators and out-competing natural plants that provide resources and nutrients to native wildlife. Many

invasive plants have caused economic problems, through destruction of crops, landscapes, forests, and water environments. Parrot feather and phragmites (common reed) have both had serious negative impacts on our local waterways. And they do not provide proper habitat for fish or animals, thus reducing the numbers of our native species.

Okay, here's the fun part. We can make a difference through what we plant. By choosing native varieties this spring you too can help support local pollinators and other wildlife. Why should you care? Natives provide habitat, food, cover, and breeding areas for indigenous creatures. Native insects have evolved as specialists on specific native plants upon which they're dependent. And insects are the foundation of most species' existence, including people. Native pollinators cross-fertilize our food. Indigenous plants connect all living things in a natural community. They are more adaptive, and once established take less care than exotic species.

Our next article will be a testimonial of sorts by a person

who, over time, has been converting his garden to natives. He will share the experiences resulting from this transformation. And the following week we will give you some insights about the upcoming WheatonArts ECO Fair on May 4<sup>th</sup> and how it can prepare you to begin the same transformation in your own yard.