



Frequently Asked Questions

Q: What is a weed?

A: For a gardener, a weed might be a misplaced plug of grass. For a corn farmer, a weed may be a clump of nightshade. Weeds are those plants that harm the native plants, animals, and communities.

Q: What is an invasive species?

A: Invasive species are those which spread from human settings (gardens, agricultural areas, etc.) into the wild. Once in the wild, invasive species may continue to reproduce, and displace native species. Biodiversity suffers. Invasive species are usually non-native, i.e. they were first introduced into an area by humans.

Q: What is a non-native species?

A: This depends on where you are. In the USA, non-native species are typically defined as those that arrived since the time of European contact. But on closer inspection, the issue is actually much more complicated. For example, humans may transplant USA species to regions outside of their native range, but which are still within the USA. For example, a California poppy growing in Alabama would be considered a non-native plant.

Q: Are all invasive species non-native?

A: Not always. Occasionally a native plant may start acting like an invasive species. Usually this is because of some human-caused habitat change. One example would be a change in water quality because of agricultural runoff; another might be the abnormal suppression of fire. In these situations, fixing the underlying environmental problem would be the best solution.

Q: Are all invasive species plants?

A: No. In fact, some of the worst invasive species are animals. The effects of hemlock woolly adelgids, zebra mussels, brown tree snakes, feral pigs, and many other non-plant invaders are devastating to native biodiversity.

Q: How do invasive species harm biodiversity?

A: Dense growths of non-native weeds can displace the native plants that once provided food and shelter for the native animals. As weed populations rise, native species populations fall. The worst weeds even change the character of the entire habitat by changing important processes like fire, nutrient flow, flooding, etc. Invasive animals like rats can attack roosting birds, eating the eggs and chicks.

Q: Why do invasive species sometimes reproduce so rapidly?

A: Recall that the invaders are usually non-native species. Free from the herbivores and parasites which keep them in check in their native range, they reproduce rapidly. They increase their numbers, unfettered by natural controls. They displace the native plants. When the populations of native plants are reduced, the animals that depend upon them may perish. The functions of the entire ecosystem are disrupted. Invasive species are truly a form of biological pollution.



Q: How do invasive species behave in their native lands?

A: In their native habitats, these species are quite often found in small, well-behaved populations. This is because they occur with other organisms that keep the plant populations in balance. It is not until the species are removed from their habitat that their invasive characters emerge.

Q: Plants and animals move around naturally---isn't the arrival of new species a natural process?

A: It is true that organisms do change their ranges, usually over periods of thousands of years. We are not concerned with these slow changes. The invasions we are worried about are the ones that humans have caused, and which are resulting in the suffering in our native biodiversity.

Q: Doesn't the addition of a non-native species increase biodiversity (i.e. species diversity)?

A: No. Consider, for example, the rosy wolfsnail of the southeastern USA. This was introduced by humans to Hawai'i, Mauritius, and other islands in the Pacific and Indian Oceans. Global biodiversity did not benefit by this introduction. The rosy wolfsnail began killing native snails. Ultimately, it was responsible for driving to extinction dozens of snail species. Both local and global biodiversity suffered. Invasive species are usually existing perfectly well in their native lands. Introducing them to new habitats does them no good, and risks the integrity of native ecosystems.

Q: Why not just let them be?

A: If the non-native species do not harm the native biodiversity, we do not expend our precious resources of money, staff, and volunteers in fighting them. But if the non-native species do harm the biodiversity of our preserves, we are compelled to take action. If we did nothing, we would be less effective at our work.

Q: How do you control invasive species?

A: We encourage preserve managers to include many tools in their toolboxes. Consider methods used against non-native, invasive plants. Sometimes such weeds can be best controlled by hand-pulling, other times by pulling with mechanical tools. Sometimes a pulled weed rapidly grows back from the root system, presenting an even worse problem the next season. In this sort of situation, judicious application of an appropriate herbicide is often the best remedy. Many habitats are best treated by using controlled burns, flooding, or other natural habitat processes. Biocontrols have also been used with success.

Q: Is invasive species removal the complete solution?

A: No. Restoration is usually a necessary feature of invasive species management. We feel it is important to keep the focus on managing the land for biodiversity, and not just against invasive species.

Frequently Asked Questions courtesy of the Nature Conservancy's Global Invasives Species Team.