

NON-NATIVE SPECIES DEFINITION USED BY THE HEINZ CENTER FOR THE NON-NATIVE SPECIES INDICATORS

The Heinz Center's [The State of the Nation's Ecosystems project](#) has developed a suite of indicators that focus on non-native species in the United States. The indicators are intended to provide greater consistency across ecosystems and taxonomic groups than those reported in the 2002 *State of the Nation's Ecosystems* report. Below the definition of *non-native species* used by the Heinz Center for its non-native species indicators is described.

Definition

The term *non-native species* used by the Heinz Center describes all non-native species, not only those that are considered “invasive.” For the purposes of the Heinz Center, *non-native species* includes plants, vertebrates, invertebrates, and pathogenic organisms that affect plants, animals, and humans, and are defined as organisms that are not indigenous to the ecosystem to which they were introduced and which are capable of surviving and reproducing without human intervention.

Executive Order 13112 and the National Invasive Species Council Management Plan ([NISC, 2001](#)) define “invasive species¹” and “alien species².” [The Heinz Center Non-native Species Task Group](#) adopts the definition of “invasive species” from the Executive Order and Plan, and its definition of “non-native species” is functionally equivalent to the Executive Order and Plan definition of “alien species” **with one important exception: the definition excludes species that are not self-sustaining; i.e., that cannot survive without human intervention.**

The Definition of Non-Native Species Used for the Heinz Center Non-native Species Indicators:

- **Includes all self-sustaining non-native species, not just those identified as “invasive.”** Many management efforts focus on the subset of non-native species identified as *invasive*. However, because information is often not available to determine whether a species is harmful, and because some species may not exhibit harmful traits for years or even decades, the Heinz Center believes that tracking all non-native species is warranted. However, the Heinz Center does recommend that reporting distinguish between invasive and other non-native species, where possible.

¹ Executive Order 13112 defines an invasive species as follows: “an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Section 1(f), EO 13112.

² Executive Order 13112 defines “alien species” as follows: “with respect to a particular ecosystem, any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem.” Section 1(a), EO 13112.

- **Excludes introduced organisms that cannot survive without human cultivation or care (e.g., managed livestock and crops).** The Heinz Center does not intend the indicators to focus on the myriad of agricultural and ornamental species that do not spread, invade, or otherwise create problems. Therefore, it believes that species that are grown or raised for human use or consumption in areas dedicated to such purposes (e.g., croplands, pastures, plantation forests) should not be included, although feral and free-ranging domesticated animals such as swine, horses, burros, feral cats and other species that survive and spread independently would be covered.

Nonetheless, the Heinz Center recognizes that a small percentage of species that initially require human support (e.g., honeysuckle - *Lonicera* spp., butterfly bush- *Buddleia davidii*) may build up sufficient populations to increase invasion opportunities.

- **Includes species that originate outside of the U.S., as well as U.S. species that are expanding beyond their historical range.** Both human and natural factors can cause a shift in a species range. The Heinz Center intends to include those species in which human intervention has been a significant factor, and not those in which natural changes are primary. The Heinz Center also recognizes that this distinction may not be straightforward and may in fact be a combination of natural and human factors.
- **Excludes organisms that are pathogenic only to humans.** Although certain disease agents may originate from outside of the U.S., this report will not focus on those that are exclusive human pathogens. However, those non-native pathogens that infect both humans and other species, such as West Nile virus, would be included.