

Foundation Species and Dominant Species



Species Modify the Environment

- Foundation species – ecosystem engineers
- Dominant species

Foundation Species

Biologists describe foundation species as “engineers of ecosystems.” The activities of foundation species physically modify the environment and produce and maintain habitats that benefit other organisms that use those habitats. Example: Corals build coral reefs that many other species use.

Great Barrier Reef



Terms of Use: This image is licensed under the [Creative Commons Attribution-Share Alike 3.0 Unported](#) license. It is attributed to [Richard Ling](#) and the original version can be found [here](#).

Foundation Species “Ecosystem Engineers”

The North American beaver is the classic example of a foundation species. Beavers harvest trees, thus removing undergrowth and maintaining an open forest understory.



Terms of Use: This image is licensed under a [Creative Commons Attribution-ShareAlike 2.0 Generic License](#). It is attributed to Flickr user [stevehdc](#) and the original version can be found [here](#).

Foundation Species

Harvested trees are used to build dams, which retain stream water to form a pond, providing suitable habitat for a variety of aquatic organisms and a water source for terrestrial organisms. With beavers, there is an increase in biodiversity and flood control.



Terms of Use: This image is is licensed under the [Creative Commons Attribution-Share Alike 3.0 Unported](#) license. It is attributed to [Walter Siegmund](#) and the original version can be found [here](#).

Other Foundation Species

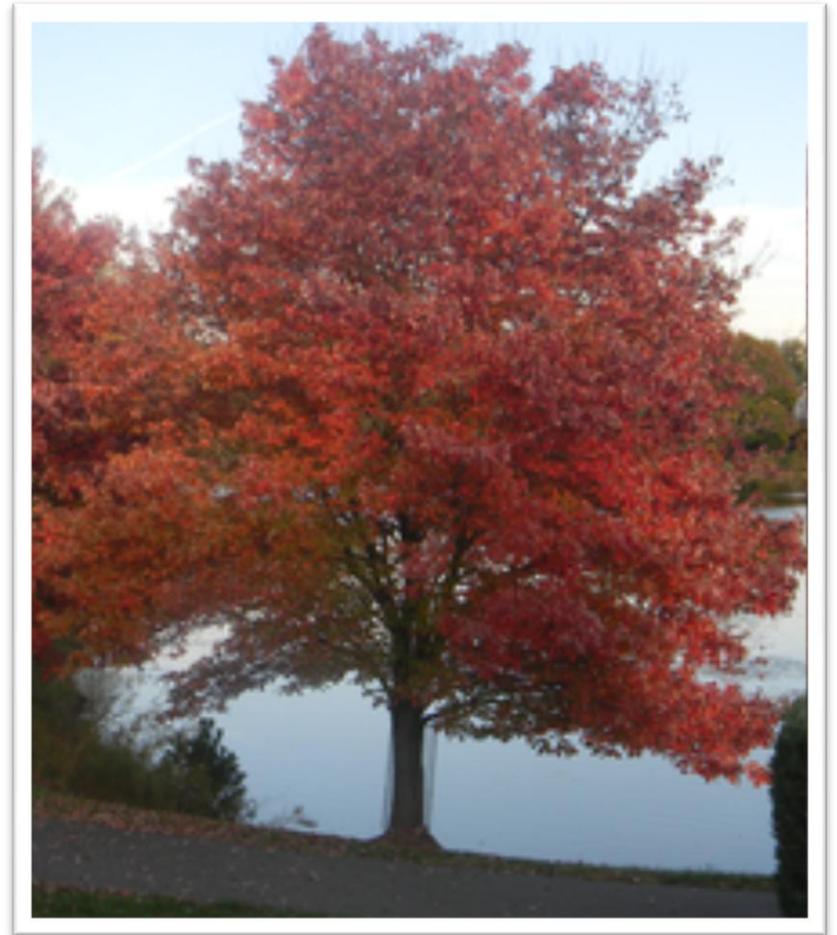
Other organisms that can be considered foundation species include kelp (at right), whose existence provide shelter and suitable habitat for numerous other organisms in marine ecosystems. Kelp forests are physically formed by brown macroalgae.



Terms of Use: The image above is in the public domain.

Dominant Species

The dominant species in a community is the species that is present in the greatest numbers—in other words, the species with the largest population in the community. In the northeastern United States, the dominant species of the eastern deciduous forest is the maple, which is apparent from the predominance of red leaves (maples) in the New England autumn landscape.



Terms of Use: This image is licensed under the [Creative Commons Attribution 3.0 Unported](#) license. It is attributed to Wikimedia user Ftlombardo and the original version can be found [here](#).