Ensuring Natural Succession Is Simple? Right



13

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Healthy, natural succession: Atlantic white-cedar (Chamaecyparis thyoides) forest and bog in the New Jersey Pinelands

Succession can mean anything from being next in line for a rollercoaster ride to figuring out who will be the next king of England. Ecologists use the term to designate the gradual process of change in vegetational community structure that occurs following disturbances. A single site or an entire ecosystem will progress toward a late-successional stage until another natural or human-induced disturbance occurs. There are, of course, reasons to maintain early successional stages for dependent species, such as bog turtle (Clemmys muhlenbergii), various grassland nesting birds, and butterflies, e.g., Arogos skipper (Atrytone arogos). However, in many cases natural succession is preferred.

Succession should be simple—just let plants grow. One of the easiest ways to restore abandoned agricultural or formerly developed areas is just to allow natural succession to occur. However, invasive species can present a major problem to

natural succession. For example, of the approximately 3,500 plant species found in New Jersey, about 40 percent are invasive and exotic species. Globalization of trade and travel will continue to open pathways for more invasive species. In addition, the distinction between "invasion" by a native species, as part of succession, and invasion by alien species is often difficult to determine. Invasive species can create monotypic conditions, eliminating native plants and thus reducing wildlife diversity.



Many invasive species are very competitive and can quickly capitalize on disturbances, whether natural or human-induced. In New Jersey, multiflora rose (*Rosa multiflora*) is commonly the first plant to invade fallow pastures and fields. Common reed (Phragmites australis), purple loosestrife (Lythrum salicaria), and reed canary grass (Phalaris arundinacea) can rapidly invade disturbed wetland areas. Japanese knotweed (*Polygonum cuspidatum*) is an early invader of disturbed riparian areas. Allowing natural vegetation succession to occur is not as simple as just letting plants grow. The presence of invasives in an ecosystem necessitates careful and knowledgeable management to ensure "natural" succession.

Successful restoration of an area begins with public awareness. Becoming familiar with invasive plant identification is essential in early detection of invasive plant establishment. Early detection, blocking pathways, and control of invasive species



is easier, cheaper, and more successful than implementing management after substantial infestation has occurred. Using integrated pest management is also essential in controlling invasive species. Integrated pest management is simply using the best method for long-term control, which may combine biological, chemical, and/or physical control. Since many invasive species are early colonizers, once native plants are well-established, the threat of colonization by invasive species is reduced. However, follow-up monitoring is needed to ensure

restoration success. Awareness, early detection, blocking pathways, control of invasives, integrated pest management, and follow-up monitoring: these are the building blocks to successful restoration through natural succession.

The U.S. Fish & Wildlife Service's Partners for Fish and Wildlife program can assist private landowners, municipalities, and counties in wetland, riparian, and upland restoration, including invasive species control. The New Jersey Field Office can provide technical and financial assistance toward restoration projects that benefit federal trust resources such as migratory birds. Natural succession can occur, but it often needs some help from active stewardship.

Information on habitat restoration is available by contacting the Service's extensions 46 or 22.



New Jersey Field Office at 609/646 9310.

