

Adaptive Silviculture for Climate Change

Creating robust, science-based examples of how climate change adaptation can be integrated into silvicultural planning and on-the-ground actions

Scientists are working with the USDA Forest Service and a variety of partners in an effort to establish a series of experimental silvicultural trials in distinct forest types across the United States. Each trial will serve as part of this multi-region study focused on understanding and evaluating management options designed to enable forests to respond to a changing climate.

What makes a potential ASCC site?

Since ASCC aims to populate its multi-region design with 4-5 different forest types, sites are designated for inclusion in the ASCC study network when the physical and administrative conditions are in place that will facilitate successful implementation. Some key factors to keep in mind when evaluating a site for potential inclusion in the ASCC network are:

Site project leads and co-leads

While the ASCC PI's lead most aspects of project coordination, the ongoing on-the-ground work at each ASCC site is spearheaded by one or more site lead(s). This person is often a FS researcher accustomed to managing staff and funds for project steps such as field data collection, treatment application and data analysis. A team of co-leads generally facilitates successful achievement of project goals in collaboration with the ASCC PI's.

Acreage needed

The ASCC study design (see figure at right) includes four treatments, representing four broad adaptation options. Ideally, 400 acres of forest of similar condition are needed for ASCC study implementation on a site (4 replicates of 100 acres, which are comprised of ~25 acres of each treatment type). These areas should be operational for treatment implementation within 18 months of designation as an ASCC site.

First step: Workshop

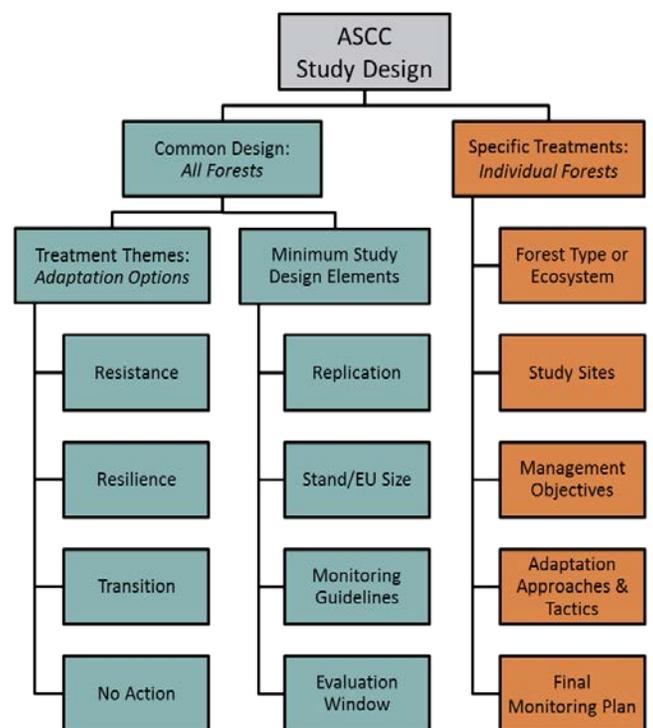
The specific design elements of ASCC implementation unique to a forest are determined in an initial ASCC Workshop organized by the PI's, wherein local managers, scientists, and other stakeholders and experts are invited to learn about and discuss potential local climate change impacts and vulnerabilities. Because this workshop is the kick-off to the ASCC site involvement, it is planned right away, in the first nine months after designation as a site.

Continued implementation & monitoring

Existing funding for the ASCC project covers the initial workshop and treatment design. Some project partners have successfully worked together to secure additional funds for ASCC treatment implementation and data collection (initial and long-term monitoring) in existing sites, a model that works particularly well when the ASCC study approach synergizes with ongoing research initiatives/interests at the site.

ASCC project team deliverables and involvement benefits

The core ASCC team (PI's and supporting researchers) deliver the Workshop, with input and coordination help from the site leads and local experts. Through this long-term partnership, sites and site staff receive project technical support, coaching, data analysis and dissemination/publication support from the core ASCC team.



While some elements of the ASCC research design are common to all participating forests, aspects unique to each forest and forest type (orange) are designed with input from local managers and experts.

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