

2.6 Climate change and corridors

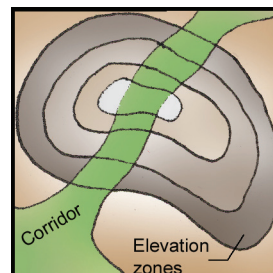
Current and projected climate change may have significant impacts on biodiversity and other resources. Corridors and buffers may potentially affect these impacts in several ways:

1. Reduce greenhouse gases (see sections 4.2, 4.7, and 4.8).
2. Allow species to migrate as climate changes.
3. Protect sensitive areas from increased climatic events such as floods and storm surges along coastal areas.
4. Provide habitat that offers range of microclimate refugia.

Corridors may be of limited value for biodiversity if climate change occurs at a rate too fast to allow for migration and may end up just benefiting species that are highly mobile and adaptable, including invasive species.

Key design considerations

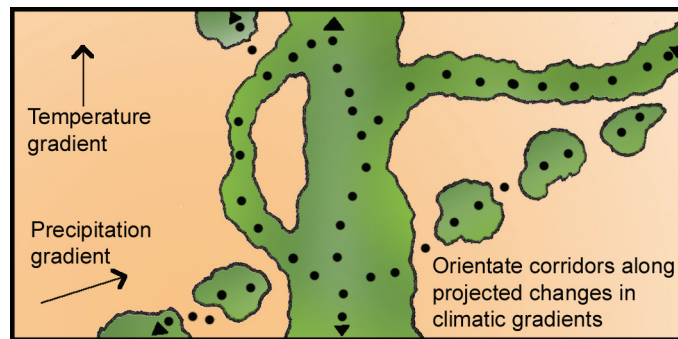
- Corridors for climate change may be best suited for landscapes that are less modified by human development.
- Broad connectivity zones may be more effective than distinct and narrow corridors (see section 2.4).
- A strategy of stepping stones and corridors may offer the most opportunities for dispersal and migration (see section 2.7).
- Corridors that cross elevation zones may allow migration in mountainous landscapes.



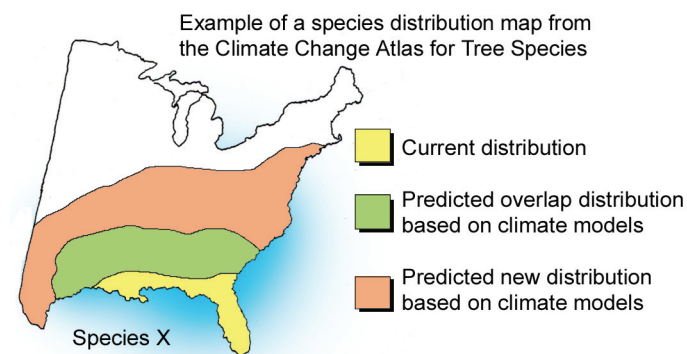
2.6 Biodiversity

Key design considerations (continued)

- Locate corridors and patches to provide climate refugia at multiple spatial scales.
- Include a range of geological substrates and soils to meet different plant requirements.
- Riparian buffers may help mitigate temperature changes in streams due to climate change (see section 2.12).
- Orientate corridors along projected changes in climatic gradients.



When establishing new, long-term plantings, it may be useful to select plants that may be adapted to the changing climate. Atlases of woody plant distributions under modeled climate change can serve as a guide and may offer insight on which species will require more migration to persist. Search the Web for Climate Change Atlas for Tree Species.



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