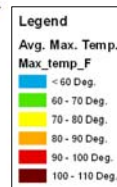
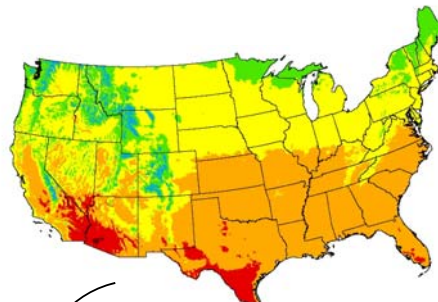
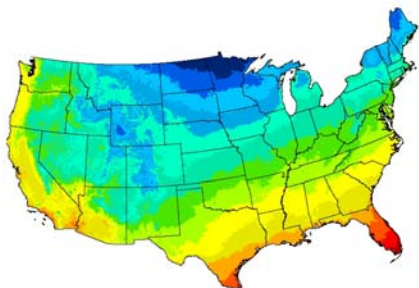
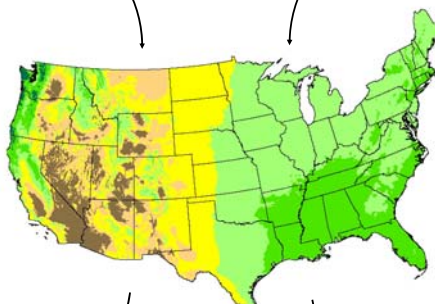
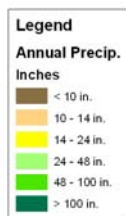


Delineation of Provisional Seed Zones for Native Plants

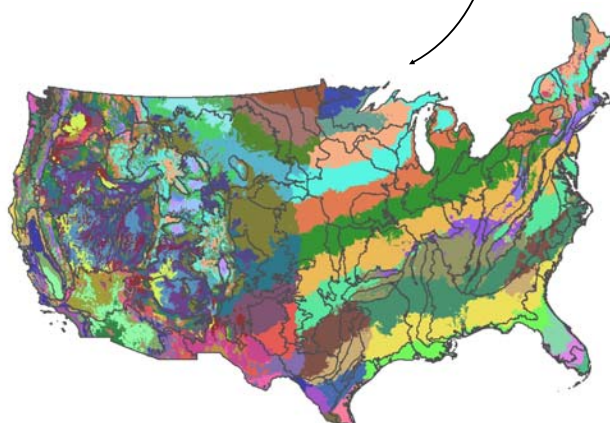
Andy Bower, Brad St. Clair, Vicky Erickson



**GIS
Union
of
Layers**



Overlay Omernick's Level III Ecoregions



Minimum Temperature - Precipitation Zones
(For trees, shrubs, and woody plants)



Maximum Temperature - Precipitation Zones
(For grasses and herbaceous plants)

INTRODUCTION

Deploying vigorous, well adapted, and ecologically appropriate plant materials is a core component of a successful restoration project. The key to identifying appropriate plant materials (e.g. seeds) lies in understanding the genetics of adaptation through common garden studies. However, restoration practitioners often deploy plant species on the landscape for which no seed transfer guidelines have been established through genetic research. So what are practitioners to do when no seed transfer guidelines have been established for a species of interest?

SEED ZONE = an area within which plant materials can be transferred with little risk of being poorly adapted to their new location

Provisional seed zones were delineated by combining:

- Climate variables important to population adaptation
 - ✓ Winter Minimum Temperature or Annual Mean Maximum Temperature
 - ✓ Annual precipitation

Overlay Omernick's level III ecoregions as "soft" boundaries to account for potential ecological differences

- NOT based on plants or genotypes
- Intended as guidelines for species for which there is currently no data available on genetic diversity and local adaptation
- Microsites must be appropriate for the species (e.g., use riparian species on riparian sites, not dry upland sites)
- Provisional seed zones are a "starting point"
- Local and species specific knowledge are important in adjusting zones

GIS LAYERS AVAILABLE AT:

<http://www.fs.fed.us/wildflowers/nativeplantmaterials/rightmaterials.shtml>