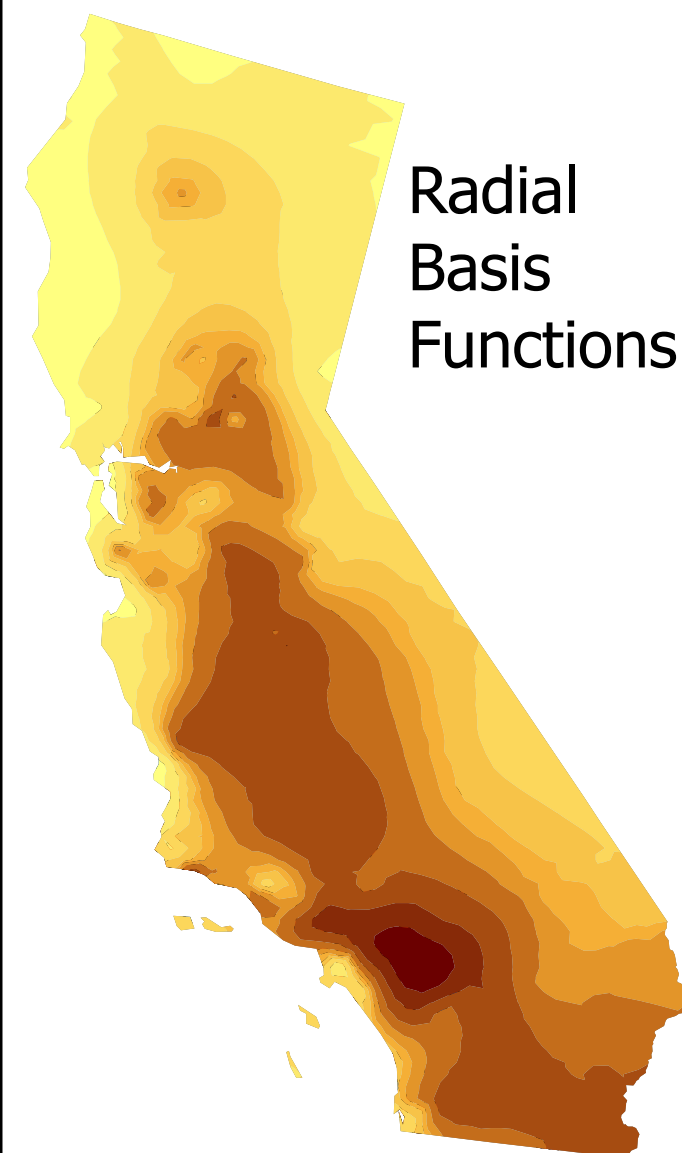
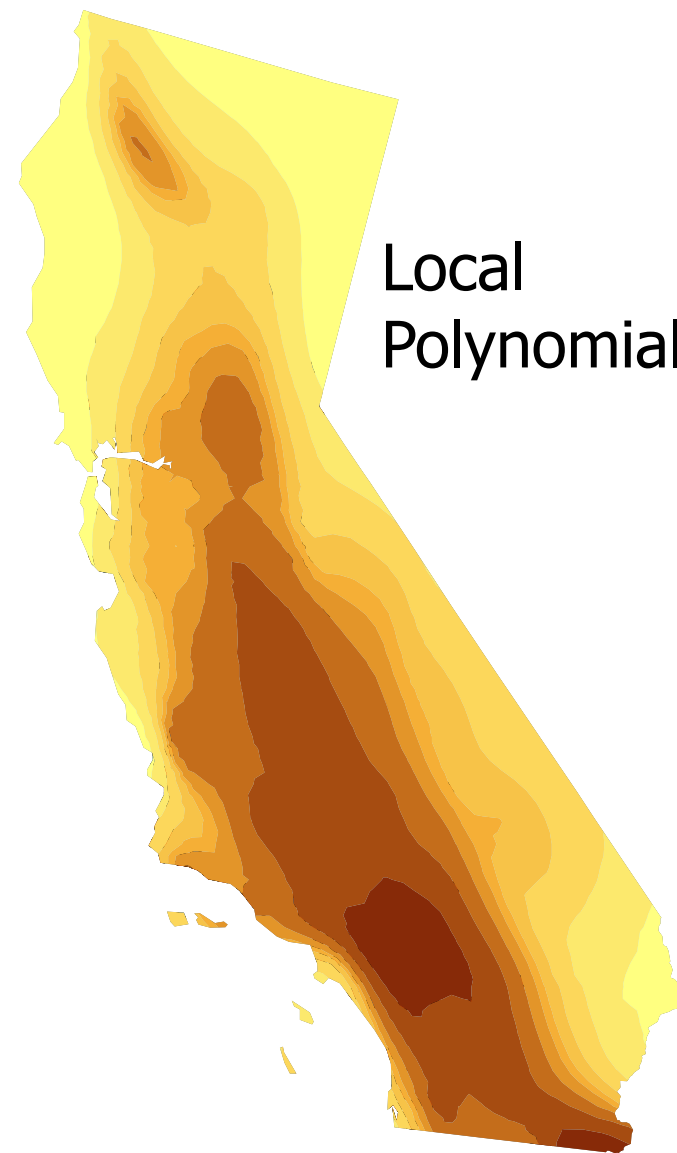
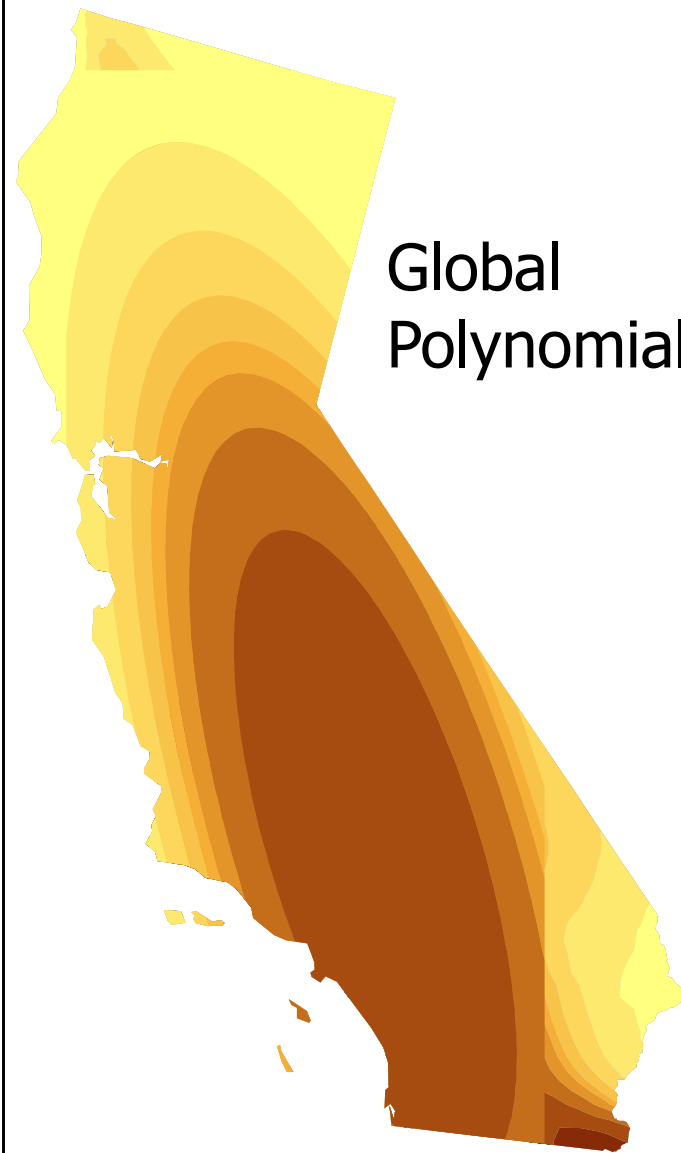
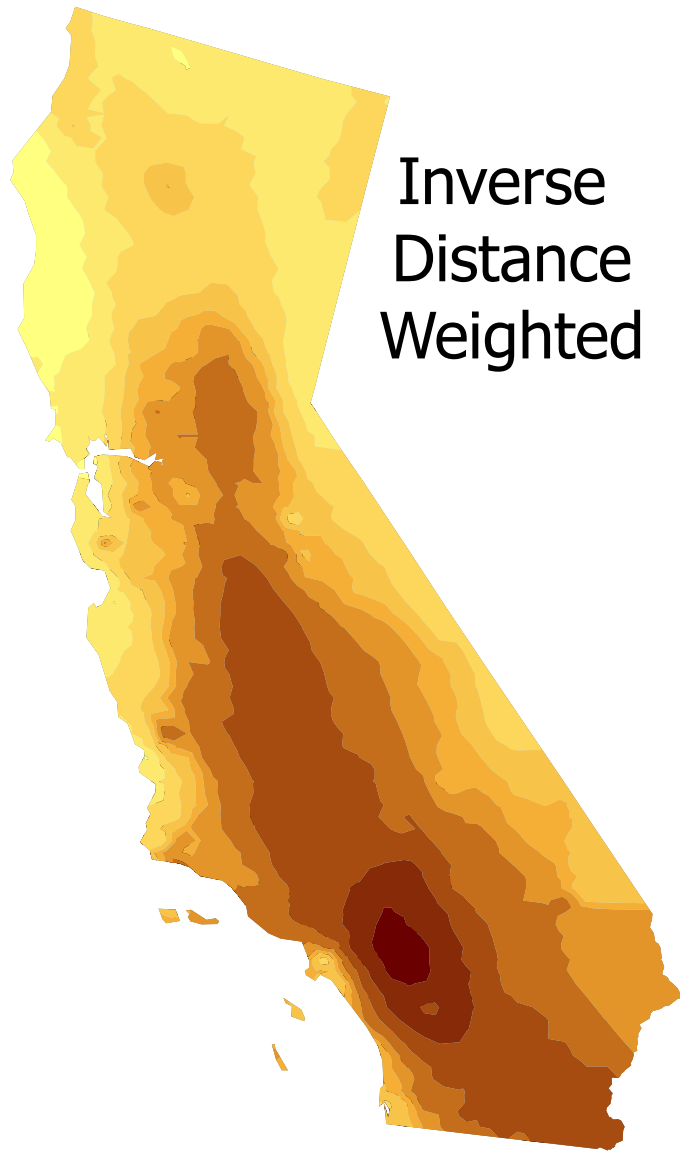
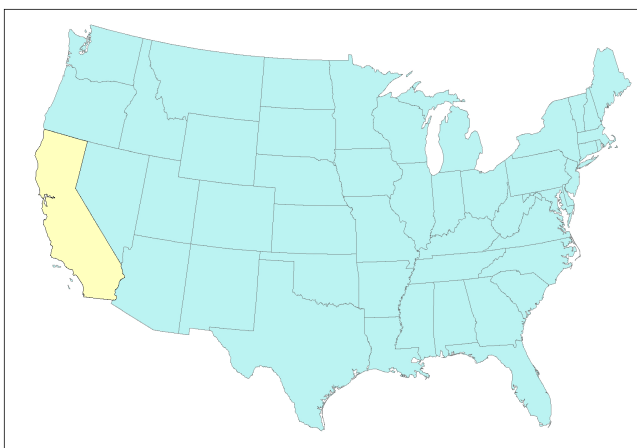


# Ozone Levels in the State of California, Measured using Four Deterministic Interpolation Methods



1:8,000,000



Cartographer: Alanna Pryke  
 Source: ESRI  
 Published: January 22, 2010  
 Instructor: Nicole Rabe, Assiniboine Community College  
 Spatial Statistics, Winter term, 2010

**Deterministic Interpolator:** An interpolation method that uses only the data points to create the surface and does not factor the possibility of error into the equation.

**Inverse Distance Weighted:** The actual points where ozone readings were taken were given the highest weight; predicted values that were closest to the measured points were given higher weight than those farther away.

**Global Polynomial:** A smooth surface is fitted to the sample points. Not all points were considered in the interpolation, just the ones that showed the general trend in the data; fine details are smoothed over.

**Local Polynomial:** More than one smooth surface is fitted to the sample points, based on local variation present in the data. Finding general trends is still the goal, but more than one zone within the data is considered.

**Radial Basis Functions:** A smooth surface is created, much like a rubber sheet that fits to the data points. All of the data is considered but excessive detail is minimized. Also called a "spline" interpolation.

## Legend

