A Three-Color Visualization of the Climate of the Coterminal United States for Continental and Multi-Scale Conservation Efforts

Increasing intensities of temperature, precipitation, and Mediterranean Index are shown as increasing intensities of red, green, and blue, respectively.

Average Temperature
Average Precipitation
Mediterranean Index

The Mediterranean Index is defined here as an imbalance of yearly precipitation, with higher precipitation occurring during winter months than summer months. Higher intensities of values are indicated by increasing brightness. Bright colors that approach white indicate high values for all three axes (red, green, and blue), while dark colors approaching black indicate low values for all three axes.

Key

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Discussion

Color ramps show differences in the intensity of raster values as changes in color, but typically along a single axis of value. This map displays three different color ramps simultaneously for three different measurements of climate, along three different axes of value. Because most colors visible to the human eye can be duplicated as combinations of red, green, and blue light, a large amount of information can be communicated in this manner with easy and intuitive understanding by viewers.

Using a combination of three colors allows efficient visualization of three different ranges of value in a single glimpse. Complex visualizations do not have to be difficult to understand, and can add to a sense of information richness. This visualization will be used to support resource planning and management from local to continental scales.

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