

A Thermal Map for All Streams in the State of Idaho

Dan Isaak
322 E. Front Street, Suite 401
Boise, ID 83702
Telephone: 208-373-4385
Email: disaak@fs.fed.us

The aquatics community within the state of Idaho has amassed significant amounts of stream temperature data through their collective monitoring efforts in past decades. As part of a larger regional effort, the NorWeST project funded by the Northern Pacific and Great Northern LCCs has developed a comprehensive, interagency stream temperature database for Idaho that consists of data from >6,000 unique sites and >17,000 summers of monitoring effort. Those data were used with spatial statistical network models to develop an accurate, high-resolution (1 kilometer) stream temperature model ($R^2 \sim 90\%$; $RMSE < 1^\circ C$), which was then used to predict consistent sets of historical and future climate scenarios for all of Idaho's streams in the USGS 1:100,000-scale NHDPlus hydrography layer. This poster depicts a historical composite scenario that represents the average August temperature from 1993-2011. The data for stream climate scenarios are available as ArcGIS shapefiles for download from the NorWeST website (www.fs.fed.us/rm/boise/AWAE/projects/NorWeST.html). Daily summaries (min/max/mean) of the temperature data used to develop the temperature model for Idaho are also available through the website if permission was given for their distribution. All data distributed through the website are attributed to the original source agency and contributing biologists/hydrologists in metadata files. More details regarding the NorWeST project are described here <http://greatnorthernlcc.org/features/streamtemp-database>.

Type of Presentation:

Poster Presentation