Summer Water Temperatures in Spring/summer Chinook Spawning Areas

Ryan N. Kinzer

Research Division, Department of Fisheries Resources Management

July 12, 2021

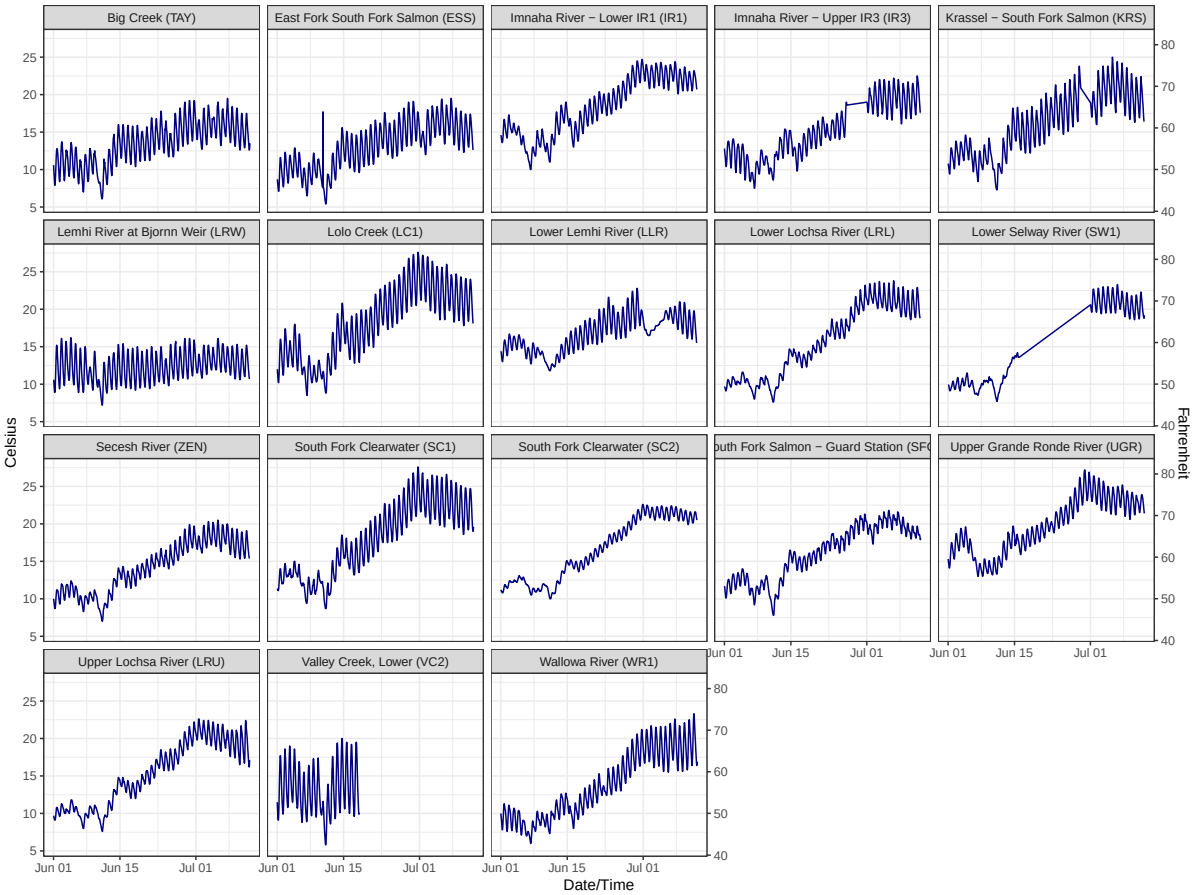

Figure 1: *Hourly water temperature recordings observed at in-stream PIT tag arrays.*

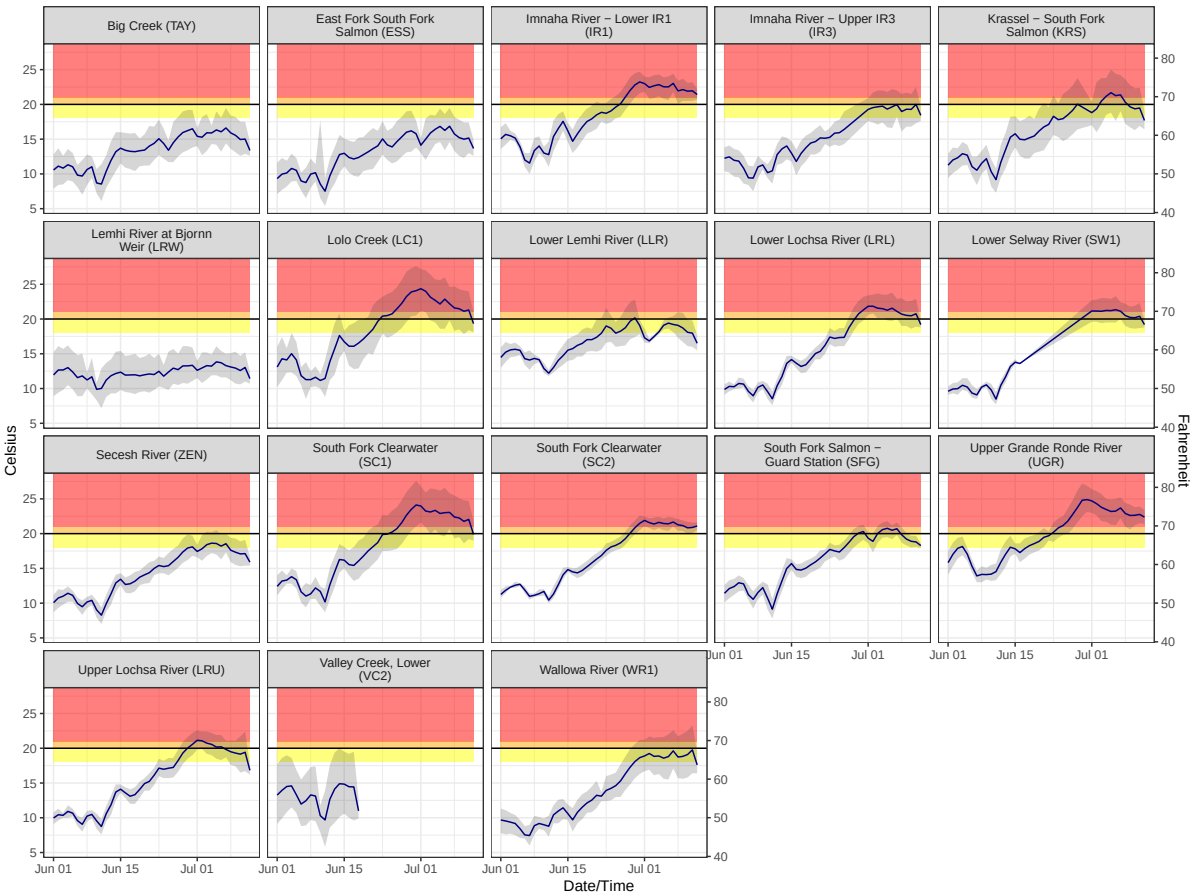

Figure 2: *Daily minimum, average, and maximum water temperatures observed at in-stream PIT tag arrays plotted over EPA constant temperature thresholds (high disease risk: yellow, migration blockage/delay: orange, lethal: red).*

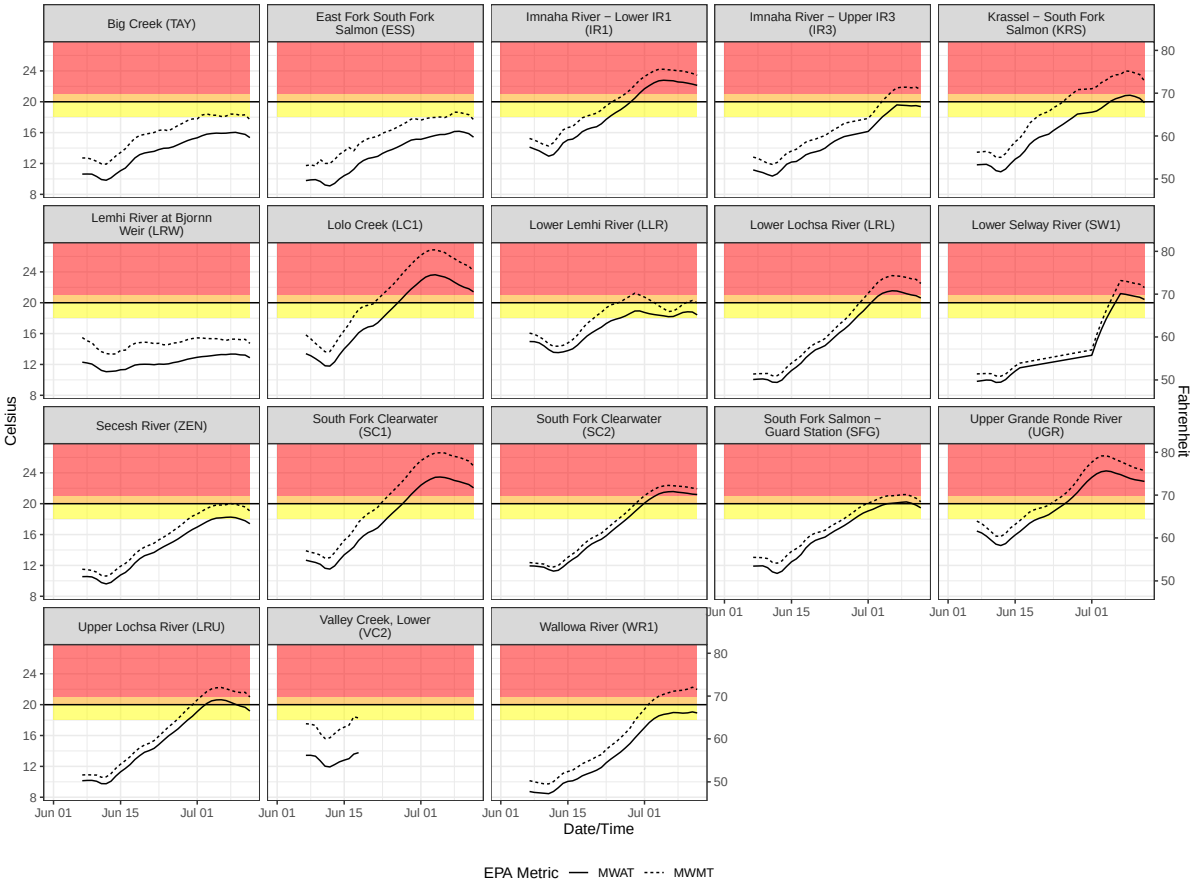

Figure 3: *Seven day moving averages of the average (MWAT) and maximum (MWMT) daily water temperatures observed at in-stream PIT tag arrays plotted over EPA constant temperature thresholds (high disease risk: yellow, migration blockage/delay: orange, lethal: red).*

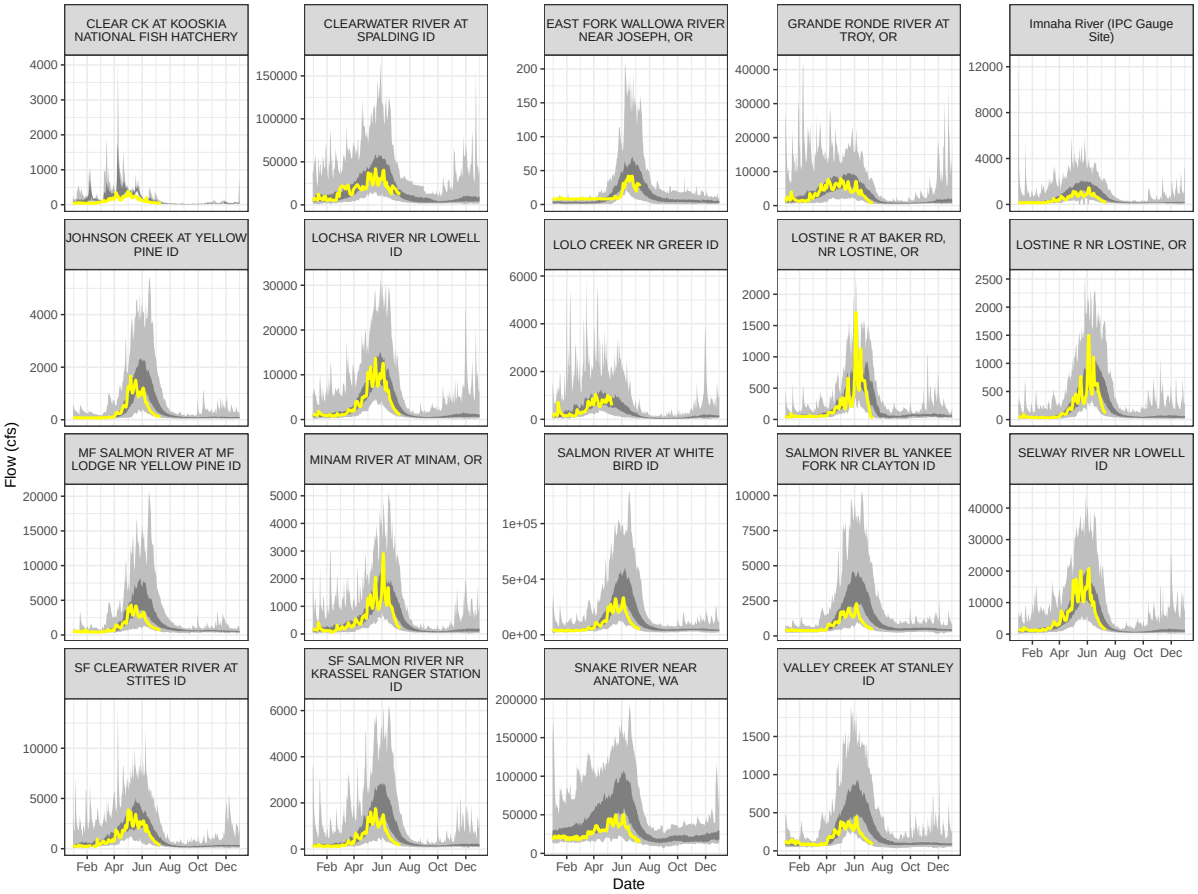

Figure 4: *Water record as recorded at USGS flow gauges; the yellow line shows the daily average for 2021 flows, while the dark band indicates the 25 and 75 percentiles, and the light band shows the 0 and 100 percentiles (i.e., minimum and maximums for the period of record).*

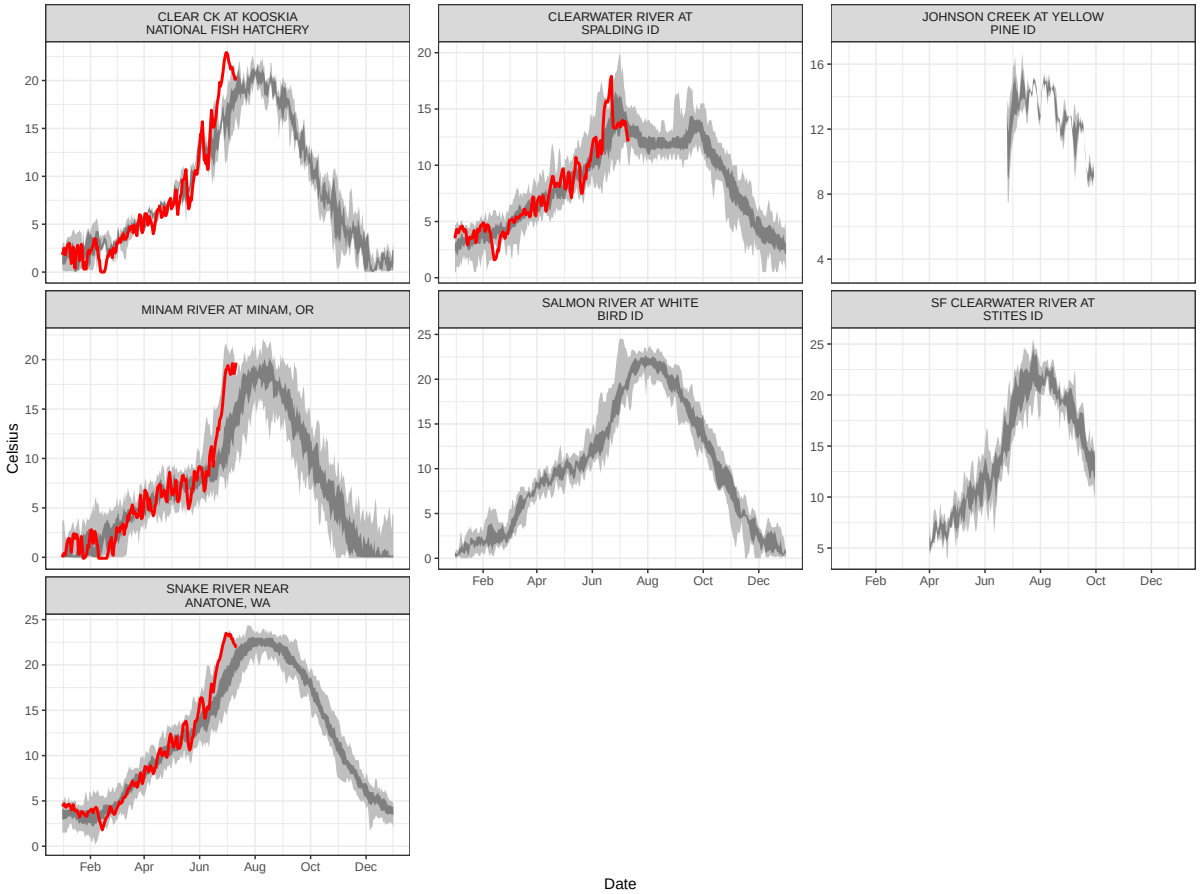

Figure 5: *Temperature record as recorded at USGS river gauges; the red line shows the daily average for 2021 temperatures, while the dark band indicates the 25 and 75 percentiles, and the light band shows the 0 and 100 percentiles (i.e., minimum and maximums for the period of record).*