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BIOL-1015-03

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Lab 6

Figure 1. shows the water temperature of Lake George during summer over many years. There is a steady increase in temperature over time.

Chart, scatter chart

Description automatically generated

Takeaway

slope = 0.07827 degrees C per year

p-value < 0.00005

r-squared value = 0.4302

Lake George’s water temperature is increasing.

Figure 2. shows the oxygen concentration in Lake George over many years. There seems to be a slight decline in oxygen concentration over time.

Chart, scatter chart

Description automatically generated

Takeaway

slope = -0.013709 mg/L per year

p-value < 0.5

r-squared value = 0.04775

The low p-value and r-squared value suggest low correlation.

Figure 3. shows the water temperature of Lake Giles over many years. There is a steady decline in the water temperature over time.

Chart, scatter chart

Description automatically generated

Takeaway

slope = -0.04092 degrees C per year

p-value < 0.5

r-squared value = 0.04904

The low p-value and r-squared value suggest a low correlation.

Figure 4. shows the oxygen concentration of Lake Giles over many years. It seems to stay the same over time.

Chart, scatter chart

Description automatically generated

Takeaway

slope = 0.003112 mg/L per year

p-value < 1.0

r-squared value = -0.04914

Low p-value and r-squared value; small correlation.

Figure 5. shows the water temperature of Lake Washington over many years. There is a steady increase in the water temperature over time.

Chart, scatter chart

Description automatically generated

Takeaway

slope = 0.05712 degrees C per year

p-value < 0.05

r-squared value = 0.1632

The p-value reinforces the steady increase in the water temperature.

Figure 6. shows the oxygen concentration of Lake Washington over many years. There seems to be a steady decline in oxygen concentration over time.

Chart, scatter chart

Description automatically generated

Takeaway

slope = -0.022595 mg/L per year

p-value < 0.05

r-squared value = 0.2678

The p-value and r-squared value suggest a relatively high correlation.

Figure 7. shows the water temperature of Lake Annie over time. There is a sharp decline in the water temperature over time.

Chart, scatter chart

Description automatically generated

Takeaway

slope = -0.16877 degrees C per year

p-value < 0.00005

r-squared value = 0.4263

The p-value and r-squared value suggest a high correlation.

Figure 8. shows the oxygen concentration of Lake Annie over many years. There seems to be a decline in oxygen concentration over time.

Chart, scatter chart

Description automatically generated

Takeaway

slope = -0.13498 mg/L per year

p-value < 0.00005

r-squared value = 0.4533

The p-value and r-squared value suggest a high correlation.