

PART 1: Discussion questions for Schindler et al (2003) paper

Review the “In a nutshell” the bullet points provided on Page 31.

Explain why Schindler et al describe salmon as “conveyer belts” of nutrients and organic material to freshwater ecosystems, and surrounding terrestrial ecosystems.

How are nutrients from salmon incorporated into stream biota?

How are salmon-derived nutrients incorporated into terrestrial biota?

How do we know that the salmon “conveyer belt” benefits freshwater ecosystems (refer to evidence/examples provided in the paper)?

Describe how carbon and nitrogen isotope analyses are used to quantify the salmon “conveyer belt”. Provide a diagram with arrows to help illustrate.

Explain how/why salmon are referred to as ecosystem engineers.

Answer the question posed by Schindler et al. at the end of Page 34: If salmon disappear from a watershed, how do wildlife and terrestrial ecosystems respond?

How has paleolimnology provided insight into changes in salmon populations over time and space?