

# Glacier National Park Virtual Field Trip

## Stop 3 - Sperry Glacier: Activity 1

1. What is the average decrease in area *per year* over the time period from 1901 to 1979?
2. Is the rate of decrease constant for the time period from 1901 to 1979? How did you decide this? If the rate is not constant, approximately when was the rate slow and when was it fast? What do these rates of shrinkage indicate about climatic conditions over the period of record?
3. Although the data indicate glacial retreat throughout the 20th century, Johnson (1980) observed rocks moving forward. How can rocks be moving forward while the glacier is shrinking?