

# Otter Adaptations Challenge: Part 2



## Up for an additional challenge?

Use the information below, as well as your own otter knowledge, to **COMPARE** and **CONTRAST** the challenges of river otters in the Adirondacks with river otters that live in a different environment.

North America is made up of very different habitats and climates, however North American river otters can be found across the continent! **Each population of otters faces their own unique challenges and environmental conditions which can lead to different body types or behaviors.** For example, in the Adirondacks, river otters are typically larger than river otters found in warmer climates in North America.

Southern Range

Northern Range



This difference in body size can be attributed to two scientific principles: Allen's and Bergmann's rules.

- **Allen's Rule:** Body shape and appendages are long and thin in warm climates and more rounded and compact in cold climates.
- **Bergmann's Rule:** Body size is large in cold climates and small in warm climates.

Round forms and larger bodies are helpful in cold climates as they have less surface area in comparison to their volume, which means that less heat is lost.