

Introducing the Tongass National Forest

On our continent's shimmering western edge lies a mist-shrouded place of emerald islands with towering ancient spruce, rugged mountains, abundant wildlife and fast-running rivers bursting with fish. **It is our Tongass National Forest – America's rainforest in southeast Alaska.** It is a place where we do not have to talk about how things used to be, but can appreciate what we have today. At 17 million acres, the Tongass is America's largest national forest. It still brims



with the incredible bounty it has harbored for thousands of years. Rising majestically from the deep, clear waters of Alaska's Inside Passage, this is a land of huge bears grown fat on salmon, eagles soaring the endless skies, and 800-year-old trees standing silent sentry over a

rich and verdant world. It is a rare place where southeast Alaskans live off the lands and waters, and where visitors and locals alike can still travel over timeless glaciers, fish in pristine streams, or find solace at a remote cabin, immersed in the breath-taking beauty of wild Alaska.

The Tongass Ecosystem

While many people think of the Amazon and sweltering temperatures when asked to envision a rain forest, few people realize that there is a rain forest in Alaska as well. The Tongass National Forest is a temperate rainforest biome, one of the rarer ecosystems on the planet. The widely recognized required characteristics for a temperate rainforest is that the area must receive more than 55 inches (1400 mm) in annual precipitation and have a mean annual temperature between 39 and 54 degrees Fahrenheit.



A map showing the distribution of temperate rain forest across the globe; The

By the Numbers

- The Tongass receives an average of nearly **200 inches** of precipitation a year. **CLASSROOM ACTION:** Assign different cities across the United States for your students to research and determine average rainfall.
- The Tongass is home to all **5 species** of Pacific Salmon. **CLASSROOM ACTION:** See a popular mnemonic for remembering the 5 different species at the end of this lesson. Challenge your students to come up with their own.
- The Tongass is home to the highest density of nesting bald eagles in the world, with an estimated **7,000** eagles in the Tongass. **CLASSROOM ACTION:** Ask students to research what a bald eagle eats.

The Pacific Temperate Forest region is the largest temperate zone on the planet and stretches from California north to Alaska. The combination of mountains and moist ocean air create the moderate temperatures and high rainfall necessary to sustain this type of ecosystem. This rainforest ecosystem supports a mix of both conifers, such as Sitka spruce, hemlock and Douglas fir, as well as deciduous trees like maples and alders. The combination of mild temperatures, rich soil and constant precipitation lead to giant ancient trees – these huge trees attracted loggers beginning in the 1900's, with large-scale logging beginning after the Second World War. With little to no protections in place at the time, a large swath of this ecosystem was lost to axes and saws. In Oregon and Washington, less than 10% of the original coastal temperate rainforest remains. One million acres of the Tongass have been logged already and logging continues today. The good news, however, is that examples of completely intact ecosystems still remain in the Tongass, and we are working hard to protect them so that we do not lose these rare jewels like we did in the lower 48 states.



Why the Tongass National Forest is so Special

The Tongass National Forest is a place where the forest meets glaciers, salmon can be found in the trees and bears outnumber people. This magical place can make you feel as if you have



been transported to another planet. Approximately 1 million visitors experience the forest annually, as cruise ships that come up through the Inside Passage sail right through the heart of the Tongass. Additionally, nearly 75,000 residents call the Tongass home, making it a unique area that balances wilderness and recreation with industry.

Residents and visitors alike appreciate the abundant wildlife of the Tongass. Both brown and black bears can be found in the Tongass, and on Admiralty Island you will find the highest density of brown bears in North America. With more than 1,500 bears on Admiralty Island, they outnumber island residents by 3 to 1. The bears are able to thrive in the Tongass due in part to the abundant food supplies including berries, insects, and most importantly, salmon.

The Tongass is home to all five species of wild Pacific Salmon and have some of the best salmon streams in the world. Every year salmon travel from the ocean back to the fresh water stream where they hatched to spawn and eventually die. This large salmon population not only sustains both a large bear population but a large commercial fishing economy as well. Having long supported the many indigenous people of southeast Alaska, commercial fishing began in earnest in the late 1800's with the building of two canneries which



Black bear cubs playing in a tree. Courtesy of Mladen Mates.

allowed large numbers of fish to be processed. The commercial viability of the area would not be possible without the forest. The trees of the Tongass filter the water into the fresh clean streams the salmon spawn in and provide necessary shade for the young fry to thrive in the cool waters. They also prevent erosion and keep sediment from clouding the waterways. In return, the salmon feed the trees in their own way. After they have finished spawning, many of the salmon carcasses are carried into the forest by bears, eagles or other animals. There they are left to decompose, fertilizing the trees and plants of the Tongass. The Tongass remains one of the few places left where you can see this intact ecosystem play out right before your eyes.



Sea Lions in the mist of the Tongass

A Fun Way to Remember the 5 Types of Salmon Found in the Tongass

The mnemonic below uses your fingers to learn the names of the five species of Pacific salmon which can be found throughout the Tongass.

- THUMB: Chum salmon (chum and thumb rhyme)
- INDEX FINGER: Sockeye salmon (thing about pointing at someone's eye or 'socking' someone's eye)
- MIDDLE FINGER: King salmon (this is the tallest/biggest finger so you know who's king)
- RING FINGER: Silver salmon (think of jewelry and silver rings)
- PINKY FINGER: Pink Salmon (pinky for pink)

