

the **N**ature

National Park Service
U.S. Department of the Interior



of Sound

“Natural sounds are part of the special places we preserve. Rustling winds in the canyons and the rush of waters in the rivers are the heartbeat and breath of some of our most valuable resources.”

—Director Robert Stanton, National Park Service

Listen Up!



When you visit a national park, you enter a world of memorable sights. When you listen to a park, you enter a world of inspirational sounds.

Think about what you want to see on your visit, and imagine what you hope to hear too. Search for special sound environments, just as you might seek an outstanding view. Although they may not be marked on a map, soundscapes are great points of interest.

During your park visit, walk on a wooded trail sheltered by silent green leaves, or find a place where a sense of history still whispers in the wind. Try to locate other park areas where you may encounter birdsongs, rushing water, the sounds of changing weather, or natural quiet.

Soon you will discover that complete park experiences feature both sights *and* sounds.

What is a Soundscape?

Soundscapes are acoustic (pertaining to sound) environments. People experience soundscapes by hearing, rather than by seeing. Soundscapes may include both **mechanical** and natural sounds. They may vary in their character from day to night, and from **season** to **season**.

Natural Soundscapes are park resources that may include the sound created by wind, flowing water, crashing waves, mammals,

birds, insects, and other biological and physical components.

Natural Ambient Sound Levels are the natural soundscape conditions that exist in a park in the absence of any human-produced noise. This is sometimes referred to as *natural quiet*.

Acoustic Ecology



National parks include a symphony of natural sounds that is a rich natural resource important to ecological communities.

In the wild, sound is a matter of life and death. Birds, insects, mammals, and amphibians rely on complex communication networks to live and reproduce. In habitats where wildlife vocalizations signify mating calls, danger from predators, or territorial claims, hearing these sounds is essential to animal survival.

Research in **bio-acoustics** (*bio*=life, *acoustics*=sound) is an important tool for defining the health of natural habitats. Scientists can discern details about animal populations and behavior by recording sounds in the wild. Such bio-acoustical recordings are used in a variety of ways, including bird censuses, bat echolocation studies, and marine mammal surveys.

People and Sound

The national parks were established "to conserve the scenery, the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations"

*National Park Service Organic Act
August 25, 1916*

If you live or work near a highway, railway, airport, or another busy place, you know human-made sounds, especially noise, too well. The contrasting quiet and inspiration of park soundscapes is important to you.

Part of the National Park Service mission is to protect soundscapes so you can hear sounds as a park's founders intended.

Both the sounds of the wild and the sounds meaningful in historic settings are protected in the National Park System. In sites where music, language, and history help people understand our national heritage, park soundscapes may include jazz music, battlefield sounds, or the songs of indigenous people.

Listening Tips

A captivating world of sound exists in national parks. Some areas stir with orchestrations of birdsongs. Others remain so quiet you can hear your heart beat.

Find a place to appreciate natural sounds on your visit and try to understand how your presence affects natural sound environments. Here are some tips to help you hear natural sounds more clearly and to become a better listener:

- Turn off your wristwatch alarm or leave your watch behind in a safe place. Wear clothing made without noisy synthetic fabrics, Velcro, and snaps. Ties and buttons make less noise. Dress warmly enough to stay still comfortably.
- Walk slowly and smoothly. Wildlife may interpret jerky movements or sneaky actions as predatory behavior. Avoid eye contact if you encounter wildlife. You will usually be invisible to wildlife when you remain motionless, or make an effort to blend

into your environment. For example, try sitting at the base of a tree with one knee bent.

- Look for objects that resemble the shapes of ears and musical instruments. Listen to how the sound quality changes as you approach the surface of these objects. Hollow tree trunks, cliff bases, and forest clearings are examples of places that increase your hearing abilities by extending the shape of your outer ear.
- As an interesting alternative to photography, use a field tape recorder to preserve precious memories. When you listen to park soundscapes through a pair of headphones, the sounds are amplified and no longer subtle.

Source of listening tips information:
Gordon Hempton, The Sound Tracker,
www.soundtracker.com



Sound Advice

Take these actions to help protect national park sound environments:

- Be aware of campground quiet hours provided in park information. Keep voices low and vehicle engines turned off so everyone can better hear and enjoy natural sounds.
- Be considerate of other park visitors when talking, starting vehicle engines, or using audio

devices. Many people visit national parks to escape the sounds of modern civilization.

- Speak quietly and turn off vehicle engines to observe wildlife. Human-made sounds can disrupt wildlife behavior.
- Use alternate methods of transportation, such as shuttles, where available. Choose transportation with the least impact on natural quiet.