

CASE STUDY

NATIONAL PARKS: NAVIGATING PESTS IN THE WILD

CHALLENGES

Delivering professional pest control services in a national park presents several challenges, the first being you are attempting to prevent and control a wide range of pests in their backyard. The vast and diverse ecosystems found in the millions of acres of national parks are home to a wide range of insects and vertebrate pests. As a result, there is constant pest pressure around lodging, food service and retail outlets within the parks.

In addition to the constant pest pressure, national parks offer additional challenges when it comes to designing and implementing effective pest control programs.

Environmental Challenges

- **Natural Ecosystems:** National parks are dedicated to preserving natural habitats and their pest management programs must be carefully managed to avoid harming non-target species and the environment.
- **Regulations:** Guidelines to protect non-target wildlife from accidental ingestion, requires creativity in selecting options to control pests with. For example, the use of rodent baits is severely restricted as is the use of products containing neonicotinoids (a class of chemistry used widely to control pests in agriculture that certain studies have shown can be harmful to beneficial honeybees).
- **Peak Season Visitors:** The increase of summer visitors generate trash and food waste that attract pests to food outlets or campgrounds.
- **Discreet Services:** National parks require discretion in their pest management provider.
- **Structural Conditions:** Many historic lodging and food service facilities located within national parks provide pests with multiple access points due to their age or preservation restrictions.
- **Building Materials:** The materials used in the original construction of many structures have deteriorated over time, making them vulnerable to pest damage or access.
- **Remote Locations:** Many areas within national parks are difficult to access, making it a challenge for Sprague Route Managers to reach area with pest threats and apply control methods.
- **Weather Conditions:** Extreme weather can promote pest populations. For example, buildings in humid climates may be more susceptible to mold, mildew, and excess moisture, which can attract pests and wood destroying organisms.
- **Seasonal Closures:** Facility closures in the winter months can result in pest populations growing unchecked.

An example of how service restrictions impact even the simplest of pest control tasks happened at a historical lodge in a well-known national park. The exterior wood doors on the nearly 100-year-old lodge were original and many did not close tightly due to warping, aging, etc. This provided the rodents and other pests easy access.

Under normal conditions installing and replacing door sweeps would be recommended, but due to preservation requirements this was not possible. The doors would need to be restored and repaired following strict guidelines – a detailed and time-consuming process – that would leave

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Sprague Route Manager

the lodge susceptible to even more pest threats.

SOLUTIONS

Sprague handles pest management services for several Western U.S. national parks and uses an adaptive approach that balances the need to prevent and manage pest populations while leaving the smallest environmental footprint possible as well as preserving the spectacular beauty of these national treasures.

“We understand the unique environment that we are working in and have developed service protocols to match that,” said Jared Lowrey, a Route Manager for Sprague who services several parks.

The Sprague approach involves using integrated pest management (IPM) best practices, Sprague route managers focus their efforts on intensive pest trapping, physical removal of pests, exclusion (where possible), sanitation and client education.

National parks have many of the same pests in common as other hospitality businesses, flies, stinging insects, carpenter ants, bed bugs, cockroaches, and rodents. And not unlike other hospitality businesses, all the services must be performed with discretion and with protecting visitors, employees, and non-target wildlife in mind.

Preventing Feeding Frenzies

One challenging service was in a park grocery store that was facing roof rat problems. The infestation was so intense when Sprague that arrived on site, store management was throwing away entire racks of potato chips bags because rats were chewing through the packaging. The rats were also leaving droppings behind on the bags and shelving, creating a serious food safety threat.

Lowrey cleaned and sanitized the shelving units and then set out to identify the rat’s access point to the store. Working until the early hours of the morning, Lowrey discovered the rats were accessing the store from the attic, travelling down in a wall void, and entering through holes in the wall behind the shelving units.

He sealed the holes in the walls and set clusters of snap traps in the attic to achieve a quick population control. Once this was done, Lowrey said there was a noticeable drop in rodent sightings, and no more products needed to be discarded.

Before the Chill Sets In

During the winter months, Lowrey said he increases the number of traps installed in structures (many of which close for the winter season) to catch rats hoping to establish a winter home inside a lodge or restaurant.

Another example where creativity is required, is selecting baiting materials in an environment where guarding the free-roaming wildlife is important. At one park, Sprague uses uncommon attractants like beef jerky and cat food for the traps, to void using baiting products that could harm local animal populations.

And like the case with the lodge’s historic doors, aging construction contributed to a rat problem in a hotel bakery kitchen. The rats were accessing the kitchen from behind an old oven that could not be moved. This granted them unfettered access to the kitchen’s abundant food sources. As a result, the rats ignored the food on the snap traps. The rats were finally caught when the kitchen was shut down for remodeling and the competing food sources were removed.

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RESULTS

Despite the unique challenges involved with servicing national parks, Sprague has developed comprehensive pest management programs focused on timely prevention strategies and creative use of the tools at their disposal.

"During peak summer season we service certain parks three times a week due to the high volume of flies and wasps," said Lowrey. "This enables us to keep ahead of it and protect employees and visitors from potentially harmful pests and the food-borne illnesses they can transmit."

Emphasizing exclusion, sanitation, and continual education with park staff on how they can reduce pest conducive conditions, Sprague Route Managers keep ahead of the pests.

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