

Studying Invasive Nilgai in Palo Alto Battlefield

[Palo Alto Battlefield National Historical Park](#)

Visitors to Palo Alto Battlefield National Historical Park may expect open prairies and historic landmarks, but few expect to see a massive antelope crossing the grasslands. Nilgai, a species native to South Asia, are now part of the landscape. Their presence has added a new layer of complexity to managing the park.



Two male nilgai (Boselaphus tragocamelus) in the grasslands of Palo Alto Battlefield. These large antelope can weigh upwards of 600 pounds.

NPS/Helen Dhue

Why Nilgai Are a Concern

Nilgai are [invasive](#) in the United States, and their impacts can affect both the battlefield and surrounding lands. Their grazing may alter plant communities that help maintain the site's historic character, and they may compete with native wildlife, such as white-tailed deer, for food and space. Nilgai can also carry cattle fever ticks, which pose a disease risk to nearby ranching operations.



A male (left) and female (right) nilgai grazing in the park.

NPS

Searching for Answers

Park managers wanted to know how many nilgai were using the park, where they traveled, and which habitats they preferred. To answer these questions, Palo Alto Battlefield partnered with the National Park Service [Inventory and Monitoring Program](#) and researchers from Caesar Kleberg Wildlife Research Institute and DJ&A.



A female nilgai with her young captured by a motion-triggered camera.

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In 2021 and 2022, the team conducted a study to estimate the park's nilgai population and better understand patterns of habitat use. Researchers used motion-triggered cameras to

monitor wildlife. Twenty cameras were placed throughout the park, with two additional cameras rotated through areas where nilgai were known to gather. Together, the cameras captured wildlife activity across a range of habitats.

What the Cameras Revealed

By the end of the study, the cameras had captured more than 23,000 wildlife photos. Most included nilgai, allowing researchers to estimate that about 58 individuals were using the study area.

The cameras also documented many other animals, including bobcats, white-tailed hawks, collared peccaries (also known as javelina), coyotes, and white-tailed deer. Feral hogs, another non-native species, were also frequently photographed, providing useful information for ongoing hog management.



Wildlife documented during the study. Top row (left to right): collared peccary, white-tailed deer, turkey vulture, and bobcat; bottom row (left to right): white-tailed hawk, coyote, raccoon, and nine-banded armadillo.

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Photo patterns showed that nilgai favored areas dominated by invasive grasses and avoided native plants like gulf cordgrass. This suggests that restoring native prairie vegetation could make the park less attractive to nilgai over time.

Shaping the Future

This study provides park managers with critical information to guide future decisions. By establishing a baseline for nilgai numbers and showing where and how the animals use the

park, the findings help managers understand current conditions and track changes over time. Camera data also support other management priorities, such as feral hog management, by revealing where non-native wildlife activity is most concentrated.

As visitors explore Palo Alto Battlefield and reflect on its history, this research helps guide thoughtful stewardship of both the park's historic landscape and its wildlife.

Want to learn more?

Visit the [final report](#) from this study.

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