国立大学法人
岩手大学
IWATE UNIVERSITY

DeterCam

DeterCam Case Study

Iwate University

Target: Asian Black Bear Deterrence

Project Overview

DeterCam cameras have been deployed at several field locations in collaboration with Iwate University and Associate Professor Yamauchi, a researcher specialising in Asian black bears, to monitor and deter bears and evaluate the system under real-world wildlife conditions.

Challenge

Asian black bears are increasingly observed in areas close to agricultural land and human activity in the Tohoku region. There is a need to explore non-lethal and non-contact technologies that can detect bears and potentially influence their behavior before they enter areas where conflicts may occur.

Solution / Deployment

DeterCam units have been deployed across three sites in Morioka City and Hanamaki City to monitor and deter Asian black bears. The locations were selected in collaboration with Iwate University, drawing on its expertise in bear behaviour and movement patterns to focus on areas with a higher likelihood of bear activity.

Objective

The field trial aims to evaluate DeterCam's ability to detect Asian black bears and collect data on their behavioral responses to automated deterrence stimuli under real-world conditions.

Key Findings / Observations

Based on field observations and discussions with Iwate University, the deployment configuration was reviewed, and several DeterCam cameras have been relocated and optimized to improve the likelihood of detecting bear activity. The project remains ongoing, and data collection will continue at the optimized locations

Going Forward

The DeterCam cameras are scheduled to remain in operation until early December. As Asian black bears typically become more active in preparation for hibernation, the project will continue monitoring the sites with the expectation of capturing detection and deterrence events during this period.

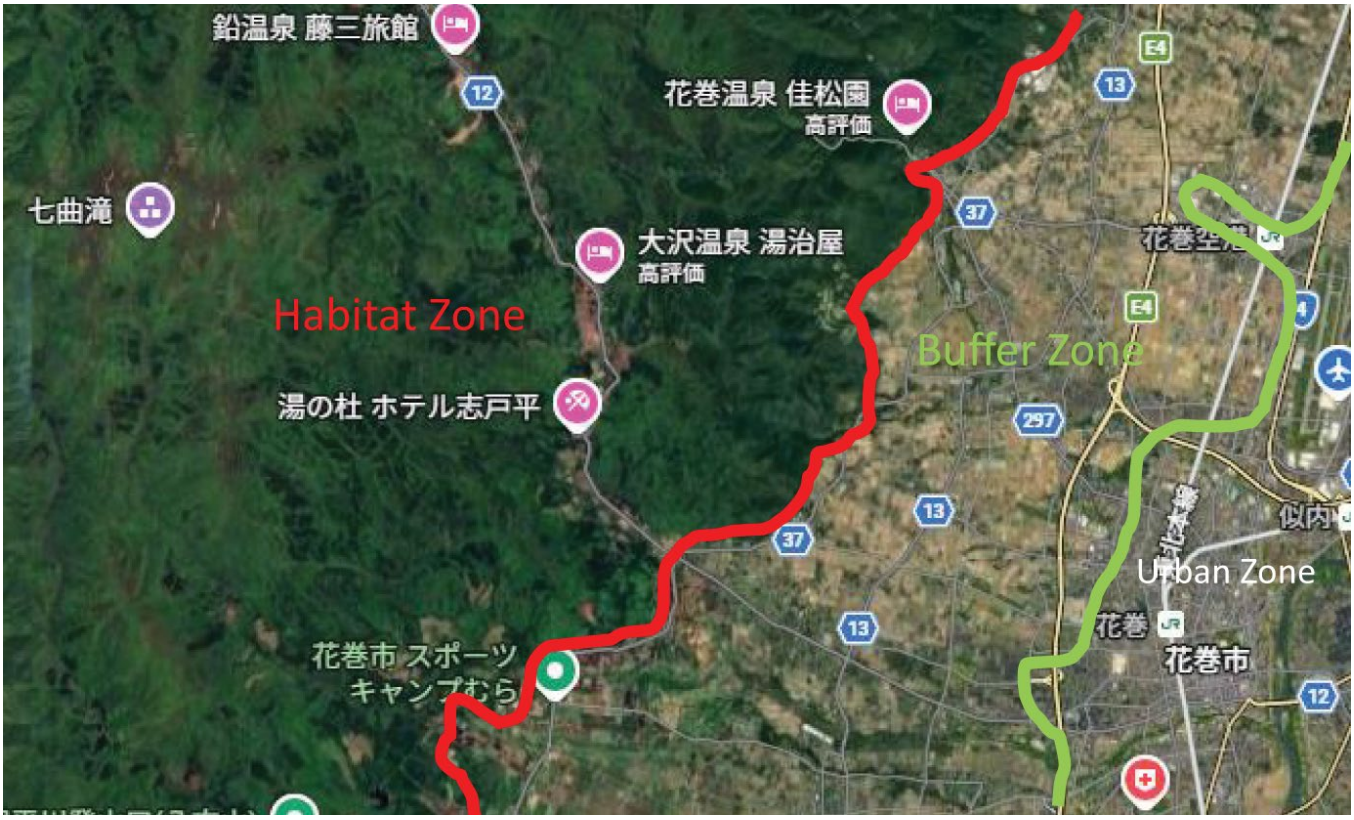
If a sufficient number of detection and deterrence events are recorded, it is expected that Iwate University will analyze the collected data and prepare a report based on the findings.

Iwate University

Demonstration Sites

The Shizukuishi River is used by bears to move from habitat zone into buffer zone and toward the urban zone. Takida Bridge in Morioka City is located at the boundary between buffer zone and urban zone. Iwate University has already installed seven cameras at this location.

Near the entrance from the habitat zone into the buffer zone, there are two pig farms in Hanamaki City. Although electric fences were installed, bears entered through gaps and killed some of the pigs.



Somewhere along the boundary between habitat zone and buffer zone in Hanamaki City.

Deployed by Leading Organisations

Iarnród Éireann Irish Rail

LNER
LONDON NORTH EASTERN RAILWAY

NetworkRail

TRANSPORT FOR LONDON

BRITISH TRANSPORT POLICE

HITACHI
Inspire the Next

Department for Transport

Keolis Amey
DOCKLANDS

DLR

SNCF

ascendi

قطارات الاتحاد
Etihad Rail