

# Using Dogs to Locate Recent, Historic and Prehistoric Human Remains in Challenging Geographies

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# Canines Solving Mysteries

Canines are being used to solve geographical mysteries involving lost, missing or murdered persons, and to protect cultural environments. This can present unique challenges.

## Recent projects include:

- Tropical island in the South Pacific
- The wilds of Alaska
- The blistering deserts of Southern California
- After massive wildfires



# Preparation is Critical

- Research climate
- Research requirements for international travel
- Consider potential hazards
- Prepare safety equipment
- Condition handler and canine
- Train in similar conditions
- Plan for the worst, and hope for the best



A wide-angle photograph of a tropical beach. The foreground is a sandy beach with some small rocks. The water is clear and turquoise, extending to a line of palm trees in the distance. A small dog, possibly a Border Collie, is standing in the shallow water, wearing a white and green patterned vest. The sky is blue with scattered white clouds.

# The Search for Amelia Earhart

TIGHAR and National Geographic  
June-July 2017

# Search for Amelia Earhart



Six months of veterinary preparation for travel to Fiji and the Republic of Kiribati, and quarantine in Fiji



# Search for Amelia Earhart



Special arrangements to fly with our dogs in-cabin on Fiji Airways



# Search for Amelia Earhart



Shipboard doggie relief area



Can dogs find old burials in a tropical climate?

The answer is yes!

# Search for Amelia Earhart



Island Access





# Search for Amelia Earhart



## Search for Amelia Earhart



Piper alerting at the Seven Site on Nikumaroro where Amelia Earhart may have perished. All four canines alerted in this area. Soil and tree samples were taken.

Piper and Marcy alerted on what is believed to be a previously undiscovered prehistoric burial ground.



## Search for Amelia Earhart



Adult coconut crabs are about 1 meter (40 inches) from leg tip to leg tip and weigh about 4.5 kg (10 pounds) and can exert a force of 3,300 newtons (about 742 pound-force) with their pincers.

## Potential hazard?



A black and white dog stands on a pebbly beach next to the ocean. The beach is covered in small, dark and light-colored pebbles. The ocean is blue with gentle waves lapping at the shore. In the distance, two people are walking on the beach. The sky is clear and blue.

# Protecting Prehistoric Burials

Alaska

October 2014

# Protecting Prehistoric Burials



## Challenges:

- Site access
  - bush plane
  - ATV
- Terrain
- Weather
- Vegetation

# Protecting Prehistoric Burials



Access and  
Wildlife Protection

# Protecting Prehistoric Burials



# Protecting Prehistoric Burials



Flagged Canine Alerts



Test pit proof  
of in situ  
cremations







otillo Valley Desert  
Southern California  
May & July 2012

# Ocotillo Valley Desert



Hundreds of wind turbines were installed in the Ocotillo Valley, a known trade route for thousands of years. An untold number of cremation burials were impacted.

# Ocotillo Valley Desert



Working with  
Native Monitors

# Ocotillo Valley Desert

## Hazards





Shade is hard to  
find in the desert





# California Wildfires

Ongoing

Photo: Camp Fire Nov.2018

# California Wildfires



## Cremaains Recovery Team

Recovering previously cremated remains after catastrophic wildfires

## California Wildfires



The thought of their loved one's remains going to a toxic landfill is completely devastating



Recovery of those remains is life-changing





**“Amazing. In a matter of seconds,  
“Piper” closed a wound that no one  
else could.”**

# California Wildfires

## Canine – Archaeologist Teamwork



The dogs find and  
the archaeologists recover



# California Wildfires



Hazards

## California Wildfires



Cremains change color in a wildfire. Texture is granular, with fragments of bone and teeth.

Identification tags contain the number of the crematorium and the specific number assigned to the deceased



At the end of the day ...

Dogs can be critical for:

- Native tribes
- Law enforcement
- Search & Rescue/Recovery
- Archaeologists
- Cultural anthropologists
- Cemetery managers
- Churches
- Park management
- Grieving loved ones

Questions?

