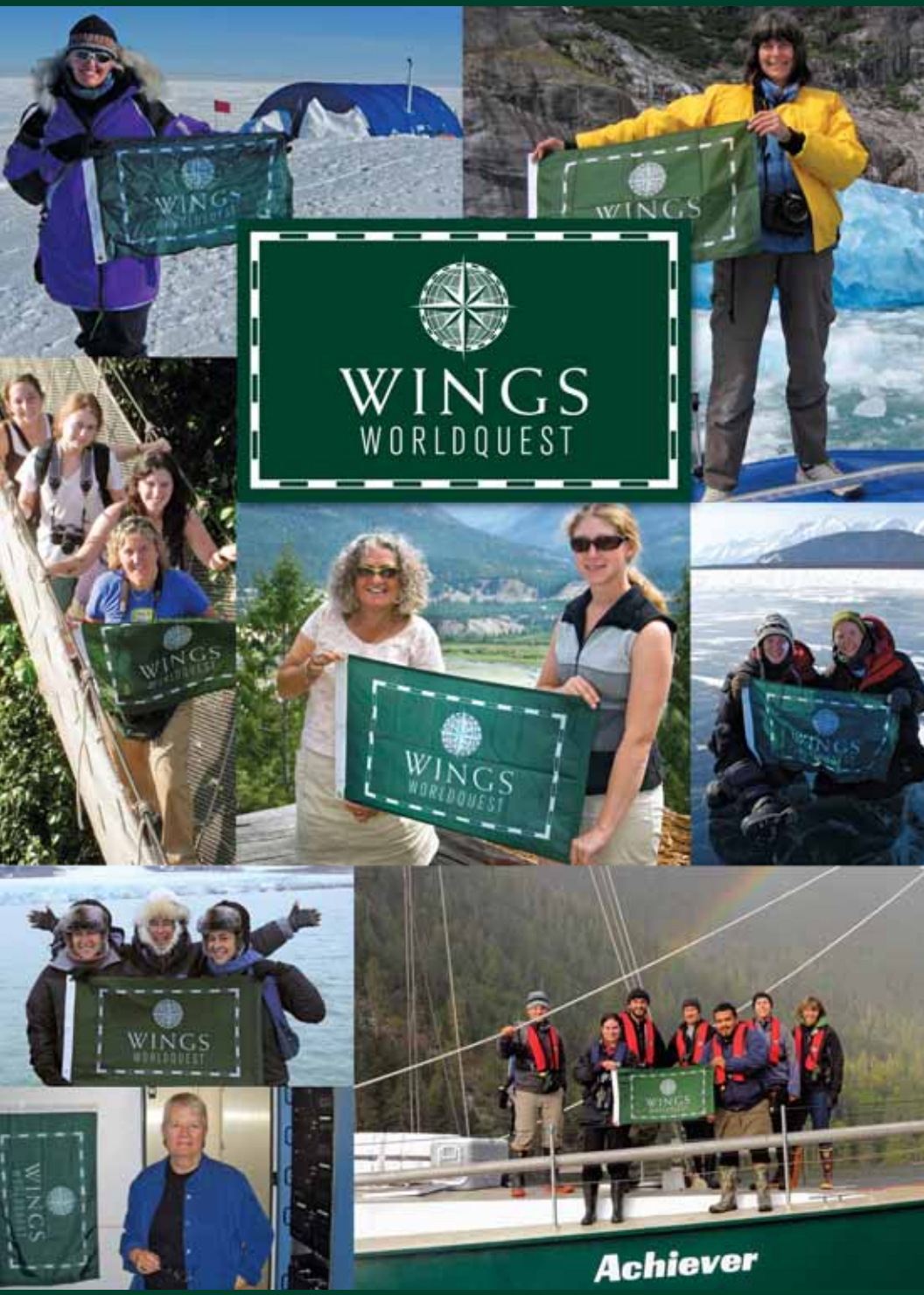
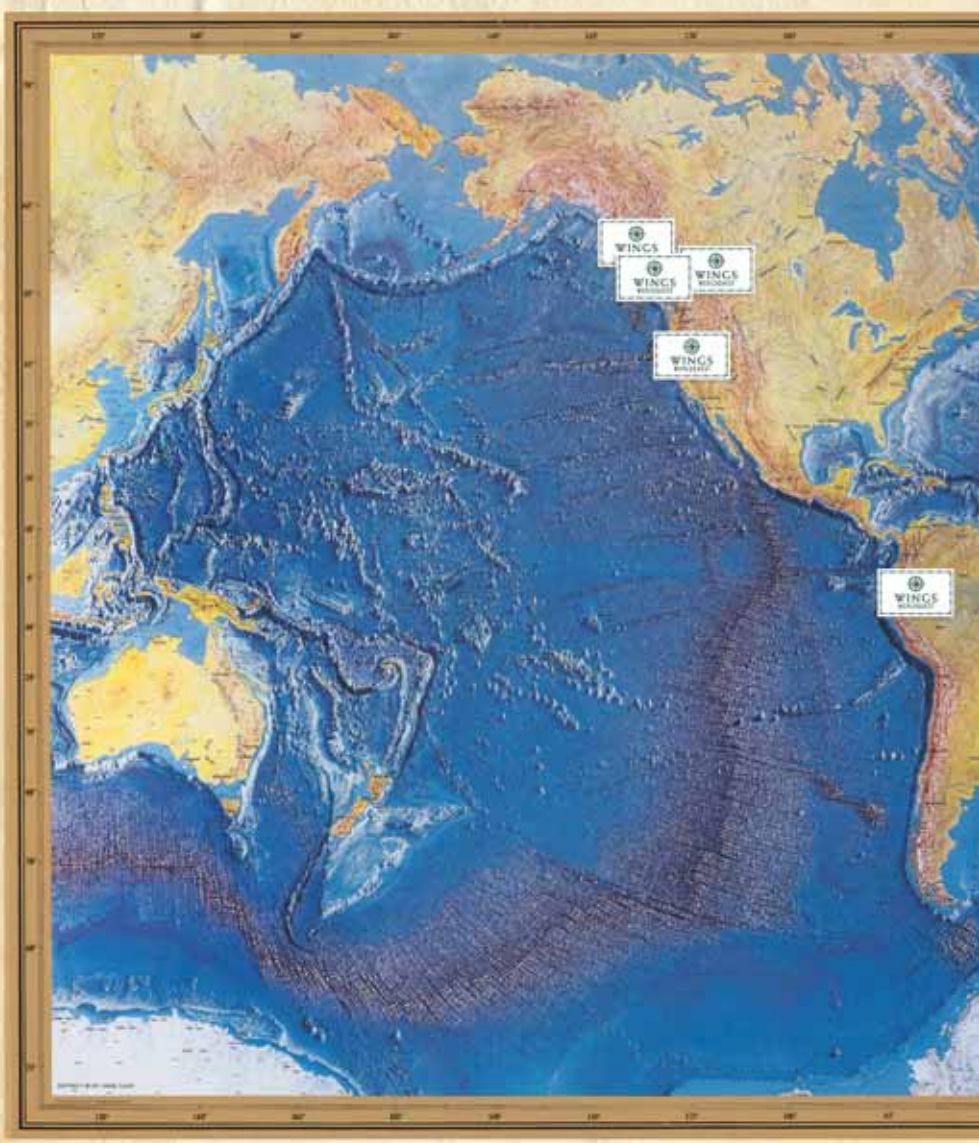
2008 FLAG EXPEDITION REPORT



WINGS WorldQuest, Inc.'s mission is to celebrate and to support extraordinary women explorers by promoting scientific exploration, education, and conservation.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2008 was a great year for exploration.

The WINGS WorldQuest flag moved ever farther into little known places, accompanying bold and insightful women on quests to expand our understanding of this mysterious planet. In a time when finite resources are in peril, ecosystems are on the brink, cultural traditions are threatened, and the earth's climate is in flux, we need these voices from the edge to help us find the best pathways to the future. We are pleased to present the following reports:

- Conservation photographer Alison Jones, Founder and Director of WINGS-sponsored No Water No Life, brought Flag# 13 into the Upper Columbia River Basin.
- Conservation biologist Heather Bryan took Flag # 17 to British Columbia's Great Bear Rainforest to study wolves, a vital and misunderstood carnivore.
- Photographer and Arctic explorer Rosemarie Keough carried Flag #17 to the Inside Passage, documenting the northwest coast of North America.
- Felicity Aston carried Flag #15 on the first all-women crossing of Siberia's frozen Lake Baikal, documenting the fragile UNESCO World Heritage site.
- Fine Art photographer Rena Bass Forman carried Flag # 19 to Northern Svalbard to capture the last glimmer of light before the descent of the long Polar Night
- Botanist Margaret Lowman carried Flag#16 to the Peruvian Amazon, researching medicinal plants while on the longest canopy walkway in the world.
- Geophysicist Robin Bell led a team carrying Flag #7 to East Antarctica to research the Gamburtsev Mountains, a chain buried deep beneath the ice.
- Jill Tarter, Director of the SETI (Search for Extraterrestrial Intelligence) Institute, flew Flag #7 at the inauguration of the Allen Telescope Array in California.

This report is a collaboration of Julie McNamara, Hadley Jensen, Ashley Cross, Terry Williams, Susan Colacello and designer Dave Green. We thank Fiona Schiano-Yacopino for again granting us the privilege to use WINGS Fellow Marie Tharp's map of the World Ocean Floor. We especially thank the explorers for carrying our flag and providing us with images and stories from their expeditions. For more on our flag and education programs, please visit our website: www.wingsworldquest.org.

– Milbry Polk
Executive Director and co-Founder, WINGS WorldQuest

BRITISH COLUMBIA EXPEDITION

Tracking wolves in the Great Bear Rainforest

As first light crept onto land during the last days of September 2008, Heather Bryan, with WINGS WorldQuest Flag #17, and her co-workers loaded into a small research vessel. They traveled up the rocky shore of British Columbia's Great Bear Rainforest peering through binoculars for signs of wildlife. Gulls, bald eagles, and other birds in the estuary fed on the pulse of nutrients left by spawning salmon, and bears were seen feeding hungrily on the fish carcasses, too. Once on land, the research team split into groups to search for elusive tracks, hair, and feces, all indications that wolves and other animals roamed the territory.

Raincoast's team displays WINGS WorldQuest Flag #17 on board their research vessel the "Achiever". Photo by Paul Paquet.

THE GREAT BEAR RAINFOREST: A STRONGHOLD OF PRISTINE HABITAT FOR WILDLIFE

The sparsely populated central and northern coasts of British Columbia make up the largest remaining expanse of coastal temperate rainforest in the world. The area known as the Great Bear Rainforest is home to unique wildlife including a population of Gray Wolves that is genetically and ecologically distinct from wolves elsewhere. The wolves that inhabit the Great Bear Rainforest are highly adapted to their maritime habitat. They readily swim among the constellation of islands in the region, traversing waterways of up to 13km. Their diet consists largely of Sitka Black-tailed Deer, but is supplemented by a number of marine resources, including salmon, seals, whale carcasses, and crustaceans and other marine invertebrates. Coastal wolves' use of marine resources has led to them recently being considered among 'Canada's marine mammals.'

The team's trip crossed paths with a variety of wildlife, including these sea lions. Photo by Heather Bryan.

WHO
Heather Bryan

WHAT
Collecting data on the activity and health of wolves

WHERE
Great Bear Rainforest, an archipelago located on the central coast of British Columbia, Canada

WHY
To understand the role of disease distribution over time in wolf populations

FORECASTING DISEASE

Although many diseases provide natural checks and balances in ecosystems, so-called 'emerging' or 're-emerging' diseases are considered among the top threats to conservation worldwide. Diseases that affect wildlife can also be harmful to domestic animals and humans. In coastal British Columbia, rapid increases in human activities, such as logging and tourism, may introduce new diseases or alter existing disease dynamics, especially in remote locations. The primary goal of Heather's research was to collect baseline data on disease in wolves that could be used to monitor changes in disease distribution over time. This will provide critical background data to alert researchers to new disease events and patterns that could threaten or harm coastal wildlife, domestic animals, or humans. Information collected on disease status will complement a long-term dataset being collected by scientists from the Raincoast Conservation Foundation on wolves, other wildlife, and coastal rainforest habitat. Their dataset spans nearly 20 years and includes information on the distribution, genetics, diet, and habitat requirements of wolves. The knowledge will be used to inform advocacy campaigns and management strategies for coastal wildlife and their habitat in local communities and government. An important part of this work is to heighten awareness of the area and its conservation issues through outreach programs to the public, including ecotourist groups visiting the region.

RESEARCH RESULTS

Having returned from their expedition, the team will hunker down to analyze the scat samples for evidence of parasites. The information obtained will complete a three-year dataset on parasites in wolves across the coastal landscape. To complement data on parasites in wolf feces, they collected information on disease from domestic dogs during last year's field season. Dogs share many diseases with wolves, and may therefore be considered 'sentinels of disease' in wolves.

Results from their study of disease in wolves and dogs will be published in a scientific journal, as well as on the Raincoast Conservation Foundation's website (www.raincoast.org). As in other years, the team will share information with scientists, First Nations leaders in coastal BC, public health officials, and wildlife veterinarians. Another aspect of their work will be to investigate hormones in hair samples as indicators of the health status of wildlife. Hormones, which are deposited in hair, may provide a window into long-term physiological, social and physical stress perceived by wolves and other wildlife. Their research will contribute to several recent and on-going studies that are developing this potentially valuable, non-invasive technique.

In addition to scientific findings, a rewarding and important part of Heather's work is outreach. Every year, the group makes presentations about wolf ecology to youth groups. Last year they reached an estimated 200 youth, and they plan to continue their educational activities in the coming year.

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A young wolf howls from his rainforest home. Photo by Doug Brown

The log barge seen here is indicative of the increase in human activity in the area. Photo by Heather Bryan.

ABOUT HEATHER BRYAN

Heather is a PhD student at the University of Saskatchewan. Her research interests lie in disease ecology and wildlife health. In addition to research, Heather enjoys sharing her enthusiasm for conservation and ecology with youth through outreach programs. In the spirit of conservation, Heather loves exploring the world's wild and urban places by foot, ski, bike, and paddle.

ADVICE FOR FUTURE WILDLIFE RESEARCHERS

- Put yourself in the tracks of the animals you are studying. You will notice subtle details, such as trails, resting areas, and den sites where you can collect samples. Sometimes you will be rewarded with a glimpse of the animals themselves.
- Be respectful of wildlife in areas where you work. To minimize disturbance, work quietly and efficiently wherever there is evidence of recent wildlife activity. It is also important to maintain a respectful distance when observing wildlife.
- The research team forms the backbone of good fieldwork. Try to select people who have relevant expertise to contribute to the research, but who also work well in teams and are enthusiastic.

EXPEDITION SPONSORS:

WINGS WorldQuest, the Raincoast Conservation Foundation, the Wilburforce Foundation, the Summerlee Foundation, the University of Saskatchewan, and the National Science and Engineering and Research Council of Canada.

EXPEDITION TEAM

Project Leaders:
Heather Bryan, PhD candidate, Univ. of Saskatchewan

Dr. Chris Darimont, Rainforest Wolf Project Co-principal Investigator

Dr. Paul Paquet, Rainforest Wolf Project Co-principal Investigator

Dr. Judit Smits, Veterinary Pathology, Univ. of Sasktchewan

Local Knowledge Expert/ Research Technician:
Doug Brown

Ship Captain:
Brian Falconer

Research Assistants:
Chris Genovali, Rosemary Bryan, Misty MacDuffee, Saffrina Welch, Chris Wilmers

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2008 WINGS WORLDQUEST FLAG LOG

FLAG #13
Alison M. Jones
COLUMBIA RIVER EXPEDITION
Exploring freshwater values
and management solutions

FLAG #17
Rosemarie and Pat Keough
INSIDE PASSAGE EXPEDITION
Capturing a region's natural
and human heritage

FLAG #19
Rena Bass Forman
SVALBARD EXPEDITION
Chasing the Light at
79 degrees North

FLAG #7
Robin E. Bell
EAST ANTARCTIC EXPEDITION
Glacial ice and the mountains
and lakes below

FLAG #17
Heather Bryan
BRITISH COLUMBIA EXPEDITION
Tracking wolves in the Great
Bear Rainforest

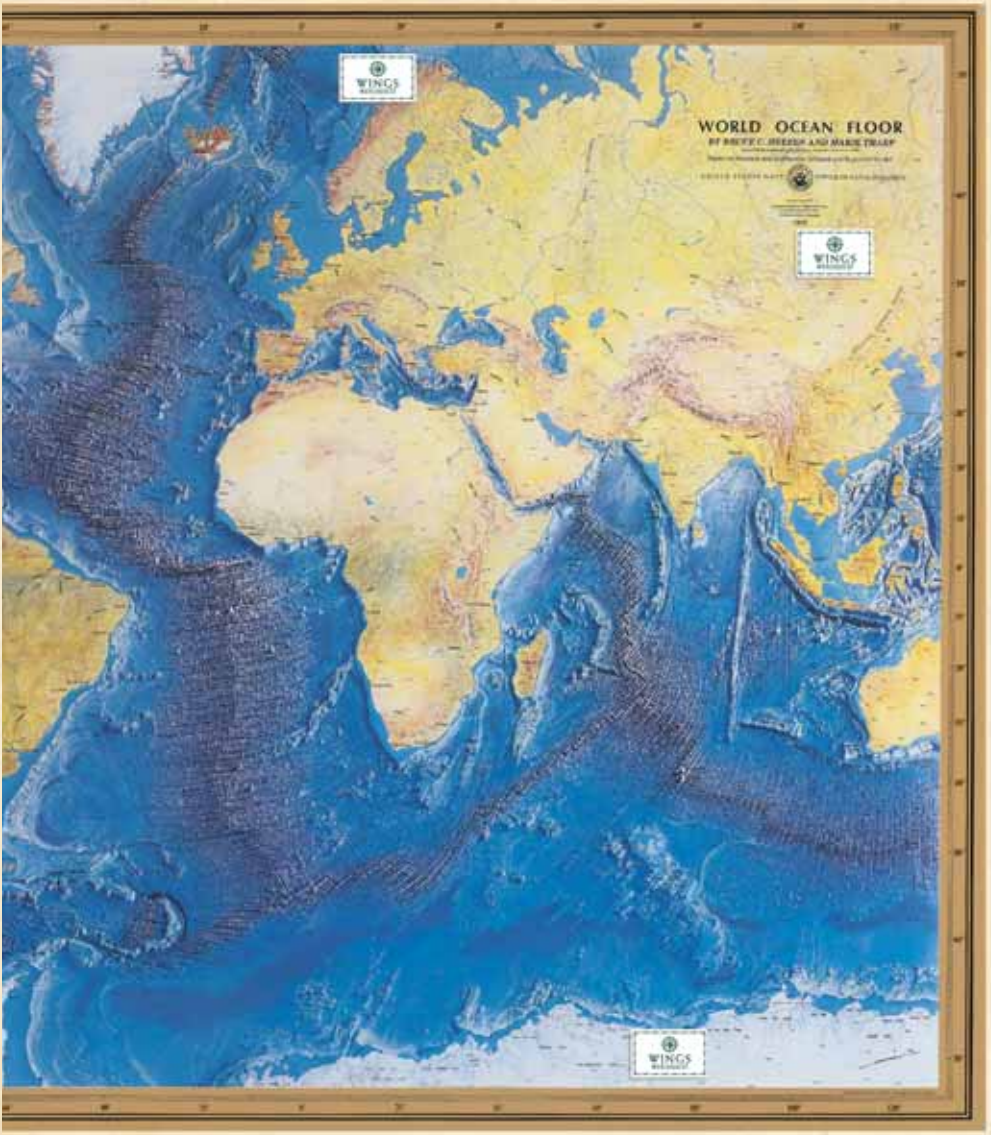
FLAG #15
Felicity Aston and Jenny Pugh
LAKE BAIKAL EXPEDITION
Traversing the world's oldest and
deepest frozen lake on foot

FLAG #18
Meg Lowman
PERUVIAN AMAZON
EXPEDITION
Ethnobotany in the treetops

FLAG #7
Jill Tarter
OUTER SPACE EXPEDITION
Looking for life in the universe

To carry our Flag, the applicant must be a woman who is conducting original field research or documentation and who plans to write reports, make a film, or otherwise share information about the discovery. All must file a WINGSWorldQuest report. WINGS Fellows are automatically eligible; others must apply to WINGS WorldQuest.

Design of the *2008 Flag Expedition Report* by Brightgreen Design, www.brightgreendesign.com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New York, NY 10016
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