

# International Collaborative Management of Bear-Human Interactions on the Tatshenshini and Alsek Rivers, Canada and the United States

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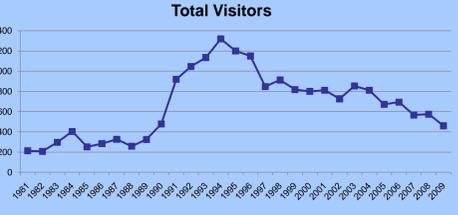


## Study Area



The Alsek and Tatshenshini Rivers (red lines) flow through the largest protected terrestrial ecosystem in the world — a UNESCO World Heritage Site encompassing Kluane National Park and Reserve (KNP), Tatshenshini-Alsek Provincial Park (TAPP), Glacier Bay National Park and Preserve (GBNP), and Wrangell-St. Elias National Park and Preserve. The Alsek and Tatshenshini Rivers provide outstanding wilderness opportunities for river-based recreation, primarily rafting. Grizzly bears (*Ursus arctos*) and black bears (*U. americanus*) occur along both rivers with the former generally being more common. Four agencies (Parks Canada, B.C. Parks, U.S. National Parks Service [NPS], and Yukon Territorial Government [YTG]), each with their own mandates and priorities, are responsible for conserving grizzly bears and managing bear-human conflicts along these rivers, which flow from outside to within park boundaries. Management of these rivers is challenging due to their remote location, limited access and multiple jurisdictions through which they flow.

## Visitor Use



Number of visitors deregistering at Dry Bay, Glacier Bay National Park and Preserve, U.S.A. In all three parks, visitor use peaked during the mid-1990's, and has decreased since 2000 (1981-2009, n=19367).



## Food Storage

- In 2007 the Alsek Bear Group recommended the following food storage guidelines for all three parks:
  - Whenever campers were away from camp or sleeping, food and trash must be:
  - 1) In a Certified Bear Resistant Food Container. OR
  - 2) In a secured dry box (latches shut), cooler (strapped closed), or rubber tote (strapped) in a pile surrounded by an activated electric fence that adheres to US Forest Service specifications (Karsky et al, 2007). OR
  - 3) Hung in a tree at least 10 feet from the ground and 4 feet away from the tree trunk or any branch.

➢ Compliance is low. There are currently few commercially made certified bear-resistant food containers designed specifically for rafting.

➢ The US Forest Service has helped develop specifications for portable electric fences for food storage, but fences are subject to malfunction and human error.

➢ **Progress: Commercial rafting guides and Park rangers and biologists began field trials on prototype bear-resistant dry boxes and coolers in 2008. Concurrently, Colorado River and Trail Expeditions designed bear-proof dry boxes that have been fabricated, tested and approved. More info at: <http://www.crateinc.com/crate/page.php?page=aboutcrate&subsection=bearbox>**

Standard food storage dry boxes and coolers are NOT bear-resistant.



Most rafters leave food and waste unattended in dry boxes and coolers on the rafts tied to shore for the night. There have been few incidents involving bears obtaining rafters' food, presumably due to large group sizes and clean camp practices. However, most managers and bear experts agree that it is only a matter of time before bears will discover unsecured food in rafts.



Electric fences are a possible solution. However, e-fences require rafters to remove all of their food from the rafts, a chore that most guides and private rafters claim is unreasonable.

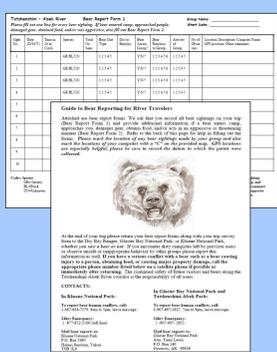
## Bear Observation Forms

➢ Bear reports from river users are essential for managers to respond to bear-human conflicts, reduce conflicts through proactive management, and to gain biological information about bears along the river corridor.

➢ Prior to 2006, each agency had unique ways of collecting this information and report return was low.

➢ In 2007 a comprehensive bear sightings and interaction data form was developed and an incentive program to encourage response was initiated. So far, voluntary response rates have increased from 48 % to 80%.

➢ Much of the success of this program can be attributed to having an NPS volunteer in Dry Bay all summer collecting forms and distributing reward baseball caps developed for the program.

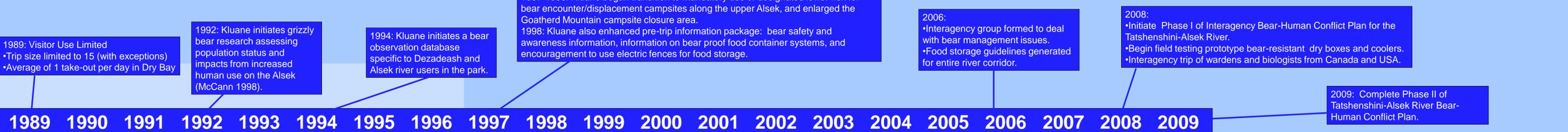


## 2007-2008 Bear Report Results



2007 and 2008 bear reports were entered and analyzed in an Alaska Bear Human Information Management System (BHIMS) database (Wilder et al. 2007).

## Timeline – Research & Management



## Recommendations

1. Support development of bear-resistant food containers for rafts.
2. Continue bear report incentive program.
3. Continue the collaborative database for analyzing campsite use, bear sightings, and bear-human interactions.
4. Develop a multi-agency booklet for visitors which includes bear educational material, agency regulations and recommendations, bear and trip report forms, and a single map of the entire watershed.
5. Complete the Tatshenshini-Alsek River Bear-Human Conflict Plan.

1993: Tatshenshini Alsek Park and Glacier Bay National Park join Wrangell-St. Elias and Kluane National Parks in the World Heritage Site.

1996:
 

- Requirement for rafters to remove human waste from the park
- Closure of the Goatherd Mountain campsite in Kluane due to bottleneck bear movement corridor.
- Requirement in Kluane prohibiting rafters from leaving their rafts unattended while hiking.

1996-1999: Risk assessments of bear-human interaction at campsites on the Alsek and Tatshenshini rivers completed for BC Parks, Smithers; U.S. National Parks Service, Yakutat; Parks Canada, Haines Junction; Yukon Department of Renewable Resources, Whitehorse (Wellwood 1997; Wellwood and MacHutchon 1999a, 1999b, 1999c; MacHutchon 2000a, 2000b)

## Campsite Risk Assessments

➢ Risk assessments of bear-human interaction at campsites on the Alsek and Tatshenshini rivers were completed for all three parks between 1997 and 2000.

➢ Management outcomes from these risk assessments have varied between parks reflecting the different management objectives, mandates, and priorities of each jurisdiction.

**Key Issues: Individual staff & members of the rafting community have played an important role in collaborative initiatives to date. Solutions must continue to be logistically feasible, economical and collaborative. An Interagency Bear-Human Conflict Management Plan will help ensure that current improvements to collaborative bear management in the region continue long term.**

