Southwest Alaska Network
Inventory & Monitoring Program

National Park Service
U.S. Department of the Interior

Alagnak Aniakchak Katmai Kenai Fjords Lake Clark

Brown Bear

Resource Brief
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Importance

Brown bears serve important ecological roles as top predators; specifically, they influence population dynamics of other species and transfer nutrients from spawning salmon to the terrestrial system. Alagnak Wild River (ALAG), Aniakchak NMP (ANIA), Katmai NPP (KATM), and Lake Clark NPP (LACL) support high numbers of brown bears; densities along the coast of KATM are the highest reported in North America. Brown bears are also an economically important resource for wildlife viewing, sport hunting, and subsistence hunting.

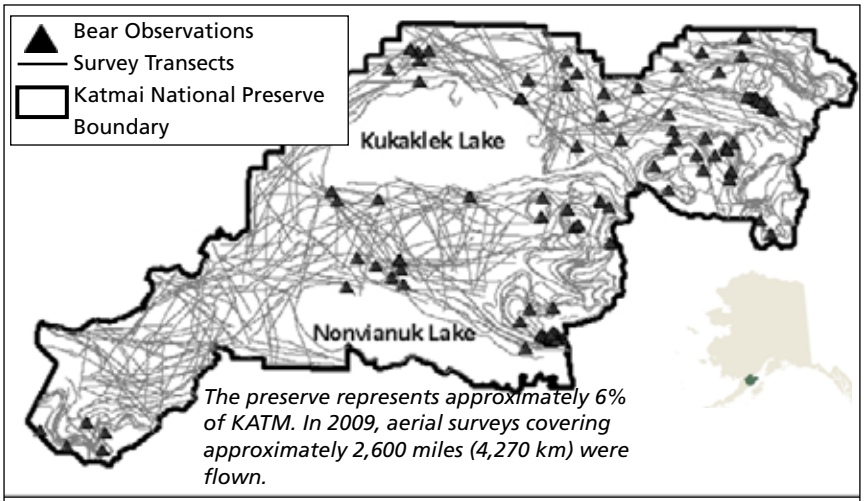
Many visitors travel to KATM and LACL for world-class brown bear viewing opportunities. Bears congregate in high densities along rivers during salmon migration.

Status and Trends

An aerial survey technique developed by the Alaska Department of Fish and Game (ADFG) was used to obtain estimates of 2180 brown bears in KATM during 2004-2005 and of 460 brown bears in LACL during 2003-2004. To date, these are the only parkwide abundance estimates of brown bears currently available for SWAN parks. Due to the high cost and time demands of park-wide aerial surveys, repeat surveys are often cost prohibitive. Instead park biologists focus on targeted surveys in specific areas of ecological and recreational interest. For example, a targeted survey conducted in 2009 in the Katmai National Preserve, an area of high recreational and hunting value, resulted in an estimated abundance of 125 brown bears. This information will be used by park managers to monitor population trends in this high use area. In LACL surveys have been conducted along the coast where brown bears forage in sedge meadows early in the season. These surveys are conducted in late June and mid-July to estimate bear densities during times of peak foraging and identify bear group composition as well as age/sex ratios within these groups. Breeding pairs are more prevalent in the June survey, whereas there are more sows with spring cubs (cubs of the year) in the July surveys. Single bears account for approximately 50% and sub adults range from 10% to 15% of the observations during the June and July surveys.

Discussion

The impacts of increasing visitor use by hunters, anglers and wildlife viewers on brown bear foraging behavior, habitat use, and survival are largely unknown. Coastal sites with expansive salt marshes and salmon spawning rivers are heavily used by bears and humans, creating areas in need of increased management. Future monitoring efforts will focus on designating survey units in KATM and LACL , which will be surveyed on a rotating basis. This will ensure that all areas are surveyed on a regular schedule by spreading the cost of surveying over multiple years. This strategy will support sustainable long-term monitoring and informed brown bear management decisions within these parks.



The preserve represents approximately 6% of KATM. In 2009, aerial surveys covering approximately 2,600 miles (4,270 km) were flown.

Contacts: Buck Mangipane, LACL, buck_mangipane@nps.gov; Tammy Wilson, SWAN, tammy_wilson@nps.gov
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