



Background

The Inventory and Monitoring Program (I & M) was established in 1992 and was expanded in 2000 as part of the National Park Service's (NPS) Natural Resource Challenge, a nationwide effort to revitalize and expand the natural resource programs in NPS units. The goal of the I & M Program is to improve park management through greater reliance on scientific information. Its purpose is to provide consistent information about natural resources within national parks, including species diversity, distribution, and abundance; and to determine the current condition of our park resources and how they change over time. The primary objective of the I & M Program is to collect, organize, and make available natural resource data and to contribute to the Service's institutional knowledge by facilitating the transformation of data into information through analysis, synthesis, and modeling.

The 270 national park units are organized into 32 I & M Networks based on ecoregions, and Alaska has four such networks: Arctic, Central Alaska, Southwest Alaska, and Southeast Alaska. Each network supports a core, professional staff who conduct the day-to-day activities of the network and who collaborate with staff from network parks and other programs and agencies to implement an integrated long-term program to monitor the highest-priority vital signs. Network staff are involved in numerous activities and functions, such as organizing and cataloging data; performing data

analysis, synthesis, and modeling; and providing data and expertise to park planners. Network personnel are also occasionally called upon to provide data and expertise for resource assessments and resource stewardship strategies, and to contribute to performance reporting.

Inventories

Twelve baseline inventories have been identified as the minimum set of information needed to effectively manage and protect natural resources within national parks, and baseline natural resource information is being collected for each national park. The inventories include natural resource bibliographies, base cartographic data, geologic maps, soils maps, weather data, air quality, locations of air quality monitoring stations, water body locations and classification, water quality data, vegetation maps, species list of vertebrates and vascular plants, and species distribution and status of vertebrates and vascular plants of high priority to each park.

Methods for collecting and managing inventories are compatible throughout the National Park Service. In Alaska, a unique regional management approach is used for the base cartography, soils, and vegetation inventories. Due to the large area covered by national parks in Alaska, a higher level of efficiency is achieved by managing these three inventories regionally. The nine other inventories are managed through a combination of national, network, and park efforts.

Arctic Network

Bering Land Bridge National Preserve	2.7 million acres
Cape Krusenstern National Monument	650,000 acres
Gates of the Arctic National Park and Preserve	8.5 million acres
Kobuk Valley National Park	1.8 million acres
Noatak National Preserve	6.6 million acres

Central Alaska Network

Denali National Park and Preserve	6.1 million acres
Wrangell-St. Elias National Park and Preserve	13.1 million acres
Yukon-Charley Rivers National Preserve	2.5 million acres

Southwest Alaska Network

Alagnak Wild River	31,000 acres
Aniakchak National Monument and Preserve	600,000 acres
Katmai National Park and Preserve	4.2 million acres
Kenai Fjords National Park	700,000 acres
Lake Clark National Park and Preserve	4 million acres

Southeast Alaska Network

Glacier Bay National Park and Preserve	3.3 million acres
Klondike Gold Rush National Historical Park	13,000 acres
Sitka National Historical Park	110 acres



Monitoring

Parks are organized into networks based on ecologic and geologic regions. The networks share expertise across parks and other partners to monitor a small number of selected indicators, or “vital signs”, of the condition of park resources over time. Network monitoring efforts are based on extensive and thorough planning and development processes that provide the foundations of each program. The intensive development phase is used to select vital signs and to develop the operational plans used to implement the monitoring over the long term. Each Vital Signs Monitoring Plan must be peer-reviewed and finalized before monitoring activities begin. In addition, each monitoring effort within a network adheres to strict guidelines for developing and following monitoring protocols. Protocols are peer reviewed and include monitoring objectives, rigorous sampling design, standard operating procedures, databases, and analysis and reporting procedures.

Vital signs monitoring networks are overseen by a Board of Directors consisting of the park superintendents and the Regional and Network I&M Coordinators. This ensures relevance to managers at the local level and enhances collaboration across program areas. Technical committees consisting of park resource managers and staff provide technical guidance, design and implementation. Strong accountability is maintained through annual reporting and work plan review and approval by the Board of Directors and national office. Details about the vital signs being monitored by each Network can be found on the Network web pages (see right box).

Pictured opposite page: Snow-cored dirt-cones, shown here in the caldera at Aniakchak National Monument, form when snow is unevenly covered by wind blown dirt. The dirt then insulates the snow and causes uneven melting patterns.

Alaska I & M Contacts

For more information about inventory and monitoring activities in Alaska, visit any on the following web pages:

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