

Bear Research Scientists Hold 6th World Meeting

By David M. Graber

Some of us wondered if we could pull it off one more time. How much attention could one small family of mammals possibly command, particularly after some 15 years of intensive research, headline-making management and conservation issues, and 5 international conferences. We had nothing to worry about. After 4 exciting/grueling days of paper presentations, workshops, poster sessions, special sessions, rump sessions, and block-the-hallway sessions, the Sixth International Conference on Bear Research and Management had marked a professional turning point for an organization and a renewed awareness that the study and concern for Ursidae is more urgent than ever.

The small group of biologists that had met in Whitehorse, Yukon, in 1968 to talk about bears; had defined itself in Calgary, Alberta in 1970 and Binghamton, N.Y. in 1974; had grown and formalized itself as the Bear Biology Association in Kalispell, Mont., in 1977 and Madison, Wis., in 1980, was at last a fully mature organization by the time the Grand Canyon, Ariz., rolled around in 1983. In recognition not only of its long-standing representation of Canadian members, but of increasing participation by members working in Asia, Europe, South America, and Mexico, BBA renamed itself the "International Association for Bear Research and Management," (abbreviated acronym: IBA).

Because the study of bears has traditionally been tied to management concerns — bears' roles as pests or threats on one hand and as a diminishing resource on the other — IBA membership and attendance at conferences has always leaned heavily to public resource managers and the biologists who feed them information. That old complaint by managers that the information given them is irrelevant to management or incomprehensible was never uttered (at least in the presence of this reporter) at Grand Canyon.

On the contrary, a significant change was the inclusion of some fascinating new work on the physiology of hibernation and the blood changes associated with pregnancy. Zoo workers presented papers on captive sloth bears (*Melursus ursinus*) and spectacled bears (*Tremarctos ornatus*), species little known from field investigation. A pair of Spanish papers and their accompanying film looked at brown bear (*Ursus arctos*) behavior essentially unknown in this intensely-studied species in the wild.

If there was one topic of exceptional interest, it was concern for the welfare of the Yellowstone grizzly bear (*Ursus arctos horribilis*) population, and continued survival of remnant populations in the Selkirk

Mountains, the Selway-Bitterroot Mountains, the North Cascades, and the Cabinet-Yaak Mountains. Recent population trend evidence suggests a continued decline in numbers, while there have been an alarming number of known and suspected mortalities by illegal taking in lands surrounding Yellowstone National Park. Richard Knight, NPS scientist and Yellowstone Interagency Study Team Leader, did not attend, but Chris Servheen of the Fish & Wildlife Service reviewed research and management programs.

Concern for the lack of quality census data was a recurring theme, as Dale McCullough (U/Cal), Harold Picton (MT/S/U), presented different population models linking population dynamics to climate, food availability, and age/sex composition of the population. McCullough electrified the gathering by proposing, at the conclusion of his technical paper, a simplified management scheme in which bears in the Yellowstone ecosystem would be censused each year by a direct aerial count; which would establish a known minimum number of animals. Whenever that minimum count yielded a number below some predetermined acceptable number, emergency intervention measures would automatically begin.

Actions that have been discussed include the elimination of timber harvests, stock allotments, and all hunting (grizzly bears are, of course, protected from hunting but not from depredation and "self-defense" kills) in the lands surrounding the Park, and artificial carrion feeding at remote sites within the Park. The former actions would presumably reduce the number of mortalities, while feeding would increase fertility, and concentrate bears inside the Park but away from visitors.

McCullough observed that with his system, there would be a strong motivation for National Forest users *not* to kill grizzlies, since a reduced count could jeopardize their operations. The McCullough plan circumvents the present stumbling block that dependable and consistent population figures have not been produced for the past decade; almost invariably population modelers have had to rely on data collected by the Craighead team during the 1960s.

Polar bears were represented not only by some of the finest technical papers of the conference, but also by a meeting of the International Union for the Conservation of Nature and Natural Resources (IUCN) Survival Service Commission: Polar Bear Specialist Group. Representatives of the 5 nations with polar bear populations meet regularly to discuss conservation and management of this animal on an international basis. Thor Larsen, of Norway, pres-

ented a spectacular Norwegian film on the polar bear. In one cooperative venture among American, Canadian, and Norwegian scientist, polar bears were fitted with radio transmitters and then tracked by satellite as they moved with the ice floes.

One arresting commonality of several of the 50-odd papers was how loss of fertile lowland habitat — in Alaska, in Italy, in Canada, in Peru, and in China — to human development had restricted bear to inferior montane habitat and set the stage of bear-human conflicts in which bears always are the ultimate losers. Bernard Peyton, who has been studying the virtually unknown and rapidly disappearing spectacled bear of the Andes, revealed in graphic detail how burgeoning human populations are creeping up the mountain, replacing native forest with corn fields.

George Schaller, project leader of the international giant panda (*Ailuropoda melanoleuca*) research project in China, was at Grand Canyon to find out if the biology of bears may shed light on their mysterious cousin. Schaller's fascinating presentation of the research and conservation problems of the giant panda revealed once more how loss of bottomland to human agriculture had placed the pandas in montane habitat rendered unstable by the bloom-and-die cycles of the bamboo food resource.

Your reporter led a workshop entitled "The Impact of Biologists on Bears," designed to explore the dual phenomena of (1) ways in which research activities modify the ecology or behavior of bears, thus producing spurious results, and (2) ethical responsibilities toward our study subjects since some common procedures — capture, sedation, radio-collars, den visits, tooth extractions — clearly impose some costs on the animals. Participation by an appointed panel and by the conferees as a whole was animated and intense. There was a general feeling that our profession-specialty had matured to the point where a code of ethics and guides to minimize trauma to study subjects were appropriate responsibilities of the IBA.

There was a common thread of concern for the welfare of bears outside North America and Europe. Charles Jonkel (U/MT) is chairman of the IUCN-SSC Bear Specialist Group; he held several sessions discussing ways in which IBA and its members could accelerate the study and protection of spectacled bears, sloth bears, sun bears (*Helarctos malayanus*), Asiatic black bear (*Ursus thibetanus*), and several races of brown bears (*U. arctos*) where their future existence is in jeopardy.

One thing seemed certain at Grand Canyon: the future survival of research and interest in bears is not now threatened.

Graber is a research scientist at Sequoia and Kings Canyon NP and served as IBA Conference Proceedings Editor.