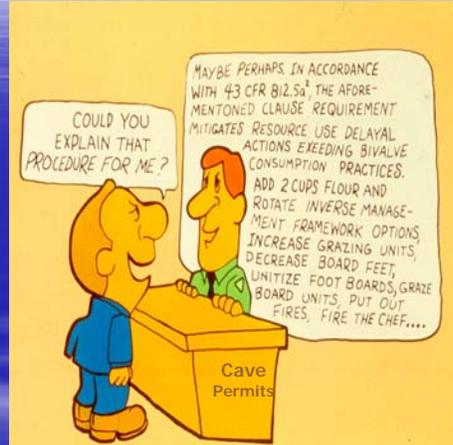


Conservation Methods



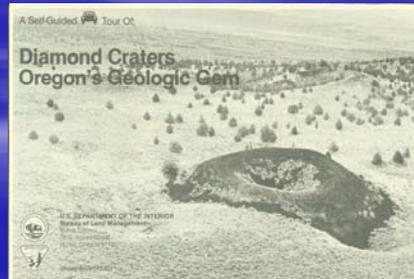
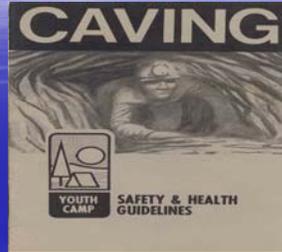
David Kampwerth, *Karst Biologist*
U.S. Fish & Wildlife Service

Methods To Conserve Cave Resources

- Administrative Actions
- Regulatory Actions
- Physical Means
- Education & Outreach

Administrative Actions *Least Stringent*

- Signs
- Patrols
- Provide educational tours
- Brochures
- Public contacts
- Public involvement
- Special project regulation
- Cave map deletions
- Cave removed from maps
- Cameras



Regulatory Actions *Most Stringent*

- Requiring permits
 - Based on numbers and/or season
- Passage of laws
- Law enforcement
- Special rules
- Trip leaders & guides
- Withdrawals
- Other designations



Group Size

- Carrying capacity
 - use vs abuse
 - protection vs access
- The cave comes first, start conservatively, control with permits
- Variables: season of use, type of use, type of user, cave hazards, cave contents
- What is the ideal number of visitors to a cave per day/month/year?

Physical Means

- Cave closures
- Road closures
- Trails to caves
- Fence/gates
- Passage closures & interior gates
- Cave trail construction
- Hiding entrances



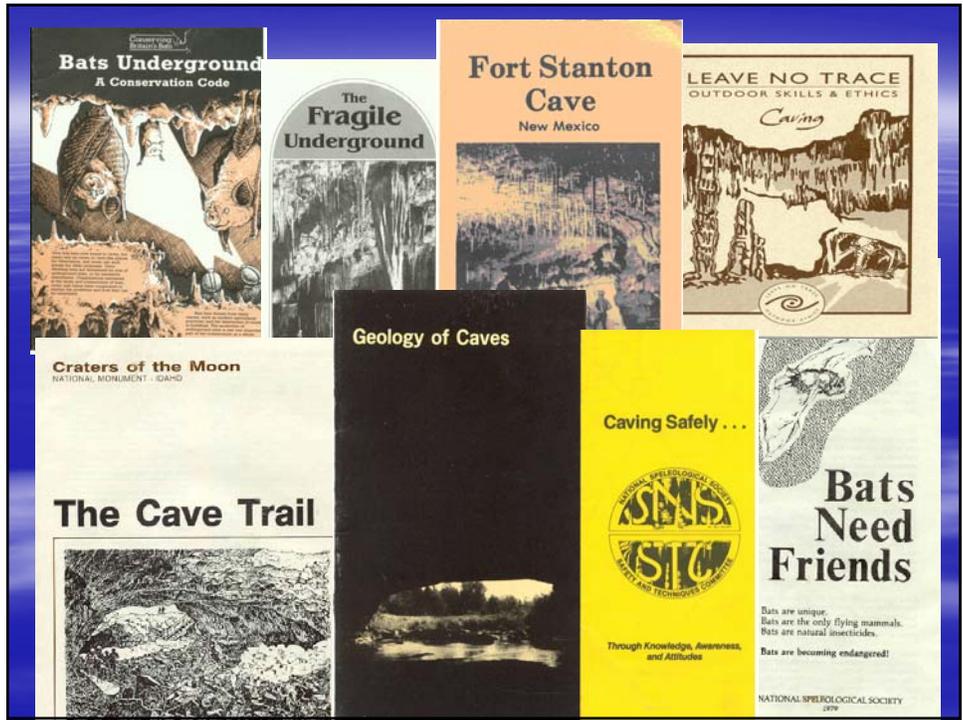
Managing Access Points

- The more difficult it is to reach a cave the less likely it will be impacted
 - Parking area design
 - Trails design
 - Entrances

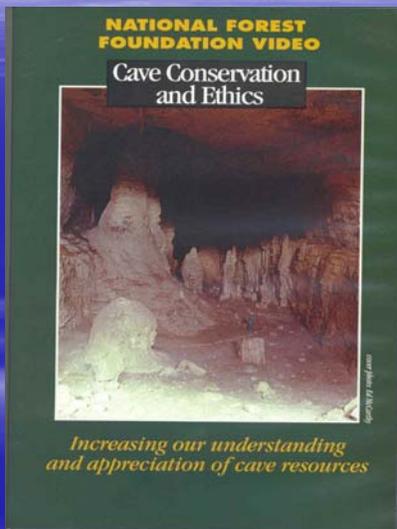
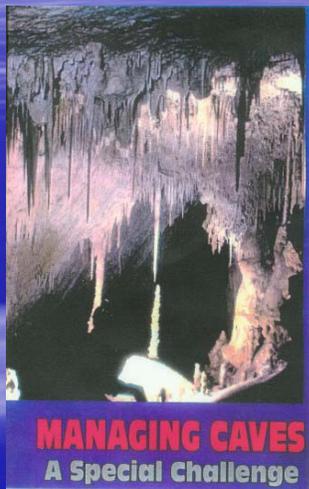


Interpretive Materials

- Provide educational information
- Convey a conservation message
- Outline appropriate behavior
- Identify safety concerns
- Increase quality of an experience



Cave Video's



Ozark National Scenic Riverways



More Than Skin Deep A Teacher's Guide to Caves

This online edition of our teacher's guide to caves is an abridged version of the print edition.

Please contact us for a free copy of the print version. We hope you will take advantage of this resource to provide some advance information to your students before visiting Round Spring Caverns.

Ozark National Scenic River ways also offers a variety of activities for teachers involving subjects other than caves. Please see our Environmental Education page for details.

INFORMATION PAGES	ACTIVITIES
Visiting With Your Class	Comparing Bats & Birds
About National Parks	Make Your Own Cave
How Caves Form	Does It Make Scents? (Bats)
How Stalactites Form	Turmoil in Town (Critical thinking)
The Biology of Caves	Seepy Sandwich (Groundwater)
A Bit About Bats	Making Waves (Bats)
Cave Safety	Clay Cave (Cave Formation)
Glossary of Cave & Karst Terms	Make Your Own Stalactite



Innovative Management

- BLM field staff – by necessity, often self sufficient & use “seat of your pants” approach
- Innovative approaches – volunteers, retiree’s, grants, organizations
- Protect the resource, enhance the experience, protect intrinsic values while competing with commodity programs

News Articles



LAUGHTER — In the gloved hand shown here is a dead young bat still attached, either still attempting to nurse

Endless Cave Damaged; Bats Destroyed By Vandals

By STEVE ALDRIDGE
Daily Press Staff

Cave Specialist, Buzz Hummel said the Daily Press the intruders killed at least 150 bats with a shotgun, a 22 caliber pistol or rifle, and vandalized the cave with the guns and a hand saw, but was found in the cave along with a net.

Hummel said the killers blew into the caves by getting a permit from the BLM. He said people vandalize it like this. I just don't understand the mentality of people who think like that.

Man Rescued In BLM Cave

The Eddy County Rescue Squad was called to a cave on Bureau of

Spelunkers missing in submerged cave

MOUNT VERNON, Ky. (AP) — A diver who had plunged into a submerged cave entrance searching for eight missing amateur spelunkers emerged after six hours today and reported no sign of the explorers.

He didn't find anyone in the cave," said Jim Burch, disaster and emergency services director for Warren County. "Maybe they went to another part of the cave, which is several miles long, to find another entry."

either," he said. Tom Stasbitz, vice chairman of the Greater Cincinnati Grotto Club, identified six of the trapped people, all club members from Cincinnati, as Gary Bush, 45, and Jack Hissong, 45, the co-leaders; Mark Rocklin, 28; Mary Grapoch, 26; Jacques Ramsey, 30; and John Wisner, age unknown. Bush and Hissong have a combined 40 years of experience in spelunking, said Stasbitz, who did not know the identities of the cave was supposed to have a lid over the entrance to keep people out.

Partnerships

- Bat Conservation International
- National Speleological Society
- Cave Research Foundation
- Local Caving Clubs
- Other Agencies
- The Nature Conservancy
- Boy Scouts
- Scientists/Researchers
- National Outdoor Leadership School

- Adjacent Land Owners
- Oil and Gas Companies
- US Marine Corp
- Lions Club
- Rotary Club
- Homeowner Association
- Volunteer Fire Fighters
- Search and Rescue

