Pigeon Mountain
Thirty Years of Noninterference

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Abstract

Cave Management by noninterference has been the policy of the Georgia Department of Natural Resources for the last 30 years on the Pigeon Mountain Area. As a state-owned wildlife management area, multiple use is encouraged as long as it does not conflict with the primary purpose of the site. Caving is just one of the many activities on the area. Pigeon Mountain is part of the Cumberland Plateau and caves occur in abundance. Ellisons Cave, the deepest in the Eastern U.S., draws cavers to its deep vertical shafts while Pettyjohns Cave with its multi-level muddy passages draws 10,000 visitors per year. Cave use data from a simple registration process has been in place since 1980 and shows remarkable trends. Management problems have been minimal and partnerships with cave groups have proven to be beneficial.

"We are the government and we are here to help." Cave Management and noninterference means that only the most minimal intrusion into the recreational cavers' experience is allowed. Cave locations are not disclosed, no cave maps are displayed, and there are no signs directing visitors to the caves. Bureaucratic rules must be extremely simple and only user monitoring takes place.

Pigeon Mountain located in northwest Georgia is a projection of the Cumberland Plateau and over 40 known caves occur in this site. The Georgia Department of Natural Resources, Wildlife Resources Division, began purchasing this land in 1970 and currently owns over 14,000 acres. The area is managed as a wildlife management area with its goal of wildlife enhancement and the protection of scenic, geologic, and biotic resources. Multiple use is allowed as long as it does not conflict with the primary purpose of the area. The area is not a park, there are no developed facilities, and access is permitted 24 hours per day year round. Staff consists of one ranger. Approximately 100,000 people visit the area each year with caving as one of the categories of users.

The two caves that receive almost all of the use are Ellisons and Pettyjohns Caves. Ellisons Cave is the deepest cave in the Eastern United States at 1,067 feet total depth. Numerous vertical shafts are attractive to the experienced vertical caver. Fantastic Pit at 586 feet is the deepest, followed by Incredible Pit at 440 feet. The cave is 12 miles long and multiple entrances actually allow a "through the mountain" trip. The cavers can enter on the east side of the mountain and exit on the west. The cave was known to early settlers but exploration past the first thousand feet of known cave began in 1969. The walk to the entrance is a one-mile hike with an elevation gain of over 800 feet. Pettyjohns Cave is 100 yards from a gravel road. Known since a publication in 1837, Pettyjohns has one entrance and it is the highest point in a system of 240 feet of depth with a length of 6.5 miles. Pettyjohns is known for its wonderful brown mud and its jungle gym climbing passages. Places like the pancake squeeze, tobacco road, the echo room, Z bends, and the waterfall entice cavers into the far reaches of Pettyjohns.

Cave management by the Department of Natural Resources simply did not exist prior to 1977. The Georgia Cave Protection Law (OCGA 12-4-143) was enacted in 1977 providing legal protection to Georgia's caves. Pigeon Mountain was a remote place with little public use,a small network of jeep roads, and no cave related problems. That all changed on March 3, 1979, when a professor and several college students were trapped by high water in Anderson Spring Cave. The resultant rescue effort

and media event prompted a new look at cave management by the Department of Natural Resources. Being primarily wildlife professionals, several cave organizations and cave experts were consulted for formation of a cave management plan. Several options were explored ranging from no access with cave gates to simply do nothing and see. Supervisor Collins and Area Manager Rogers decided to begin a simple caver registration program similar to their hunter registration system. This system, which began in 1981, consisted of simply filling out a card and depositing it in a box located near the cave entrance or trailhead. This system went unchanged until the form was revised in October of 1994 to actually make the process easier for the visitor.

These cards can provide valuable information to the cave manager. Besides the usual name and hometown a few other pieces of information are asked. A blank for NSS yes or no indicates affiliation. Cave rescue is a complex problem and the overdue caver is a common problem. A phone number, vehicle description, planned itinerary, and planned exit time are extremely valuable information to have when dealing with an overdue caver. The perforated checkout stub can be matched by number to the cave card and show that the party has actually left the cave. With the vehicle description, the parking lot can be checked for the missing party. This simple system can prevent endless cave searches or simplify them immensely. Cards are collected monthly and tabulated. A total number of visitors, a total number of trips, percentage of trips indicating yes on NSS, are the only data currently evaluated.

What do the cards show us? Pettyjohns Cave has only 15% of trips indicating NSS affiliation. Yet Ellisons Cave shows the inverse with 73% indicating yes. Visitation trends and totals are most interesting. (These indicate actual card counts. Standard trail registration percentage is 60% when the observer is undetected. If caver numbers are enlarged by 40% the visitation reaches staggering proportions for a wild cave. In data collected by very visible volunteers at the Pettyjohns site a 74% registration rate was observed so the 60% figure is reasonable.

What cave management problems to these numbers divulge? At Pettyjohns actual polishing of the entrance has occurred. The surface looks like a polished grave stone. If each visitor leaves the cave with an average of one pound of mud smeared on his body the average yearly mud removal can be calculated in tons. At Pettyjohns the typical caver has a flashlight and no other equipment. In fact not everyone entering the cave has a light. Observations show that about 85% of the people entering the cave have a light, only 10% have a helmet. With their unfamiliarity with the technology of caving, these cavers are also unaware of the conservation needs of caves. Litter, graffiti, and alcohol use are common though illegal. One benefit of all of these people is an expansion of the food base for cave creatures. These problems are addressed by education efforts at the sign-in kiosk. NSS brochures are kept available. Clean up trips by cave clubs pick up litter and scrub the walls. A unique approach is to place a gasoline generator near the entrance and run heavy duty wire over a thousand feet into the cave to power a disk grinder with a wire brush attachment. The Southeastern Cave Conservancy, Inc. spent a total of 31 weekend days in an educational program in 1993 and 1994 that introduced cavers to responsible caving.

Ellisons Cave is protected by the technology required to explore its depths. Prior to 1993 long ropes were routinely left hanging or stashed in Ellisons. Knowledge of the "courtesy ropes" became widespread in the caving community. This practice was then prohibited, this limits trips now to people willing to drag a 600-foot rope up the mountain and into the cave.

It would seem that with all of the people going into Pettyjohns and the extreme nature of Ellisons that cave rescue would be an everyday occurrence. The truth is that rescue is rare. In Ellisons there have only been five rescue events since 1969. That is one every six years. Three were injuries, one was a search, and one was a body recovery. In this system the injury rate is one accident per 1,760 users. In contrast, the NOLS caving program shows one evacuation per 411 user days. Pettyjohns cave with its huge numbers of unprepared cavers should be a cave rescue nightmare but it is not. Since the cave card program began in 1981 there have been four rescues and no deaths. Three were falls requiring evacuation and one was assistance with a dislocated arm. This results in an injury rate of one per 9,629 users or once every 4.7 years.

In conclusion, 30 years of cave use on Pigeon Mountain has shown that a noninterference policy works. As a result a tremendous amount of recreational caving opportunity has been provided, the cave resource has not suffered unduly, safety has not been compromised, and taxpayer money has been wisely spent. Partnerships with cave organizations and cave experts has been the key to making this system work. The Department of Natural Resources would

especially like to acknowledge the help of the following:
Walker County Fire-Rescue Cave and Cliff Division
The National Speleological Society
The Southeastern Cave Conservancy, Incorporated
The Dogwood City Grotto of the NSS
The Chattanooga Grotto of the NSS
The Pigeon Mountain Grotto of the NSS
The Lost Mountain Grotto of the NSS
The Georgia Speleological Survey of the NSS

Bibliography:

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Smith, Marion 0. *The Exploration & Survey of Ellisons Cave, Georgia.* Smith Print and Copy Center, Birminghain Alabama, 1977.

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CAVE USER REGISTRATION FORM
Pettyjohn's Cave

Fill out this form completely, do not leave spaces blank without explanation.

No. 1000

TOTAL NUMBER CAVERS THIS CARD ☐

NAME OF ALL CAVERS THIS GROUP_____

_____

HOMETOWN_____ NSS: _____ YES _____ NO

PHONE NUMBER ( ) _____

ENTRY DATE: _____ ENTRY TIME: _____ A.M. _____ P.M.

PLANNED FINAL EXIT TIME (and date if NOT same as entry date) _____A.M. _____P.M.

PLANNED ITINERARY WHILE IN CAVE (PLACES, ROUTES, SCHEDULES): _____

_____

IMPORTANT _____
VEHICLE LICENSE NUMBER MAKE MODEL COLOR

(over)

Check Out Form - Pettyjohn's Cave
Please Deposit checkout form in box.

No. 1000

Final Exit Time: _____ A.M. _____ P.M.
ACCIDENT REPORT (List names of person(s) injured, type of injury, and location of accident):

Remarks:

IN CASE OF EMERGENCY CALL 911

IN CASE OF EMERGENCY NOTIFY:

_____
Name and Telephone Number

_____
Address

BY SIGNING THIS REGISTRATION THE USER CERTIFIES THAT:

He/She has read, and understands and agrees to comply with the rules and regulations and requirements for use of Pettyjohn's Cave.

He/She is aware of the hazards invovled in cave use, including serious injury or death.

He/She accepts reponsibility for the safety of self, and, if acting as the leader of a group, the individuals in the group; and relieves the State and its employees of any liability or responsibility of any kind as provided in the Cave Protection Act of 1977. (GA. Laws 1977, p.833, as amended).

He/She agrees to return to the cave Check Point Location and deposit a Pettyjohn's Cave User Checkout Form as soon as possible after exit from the cave.

Date:_____ Signed: _____

PIGEON MOUNTAIN CAVE USER REGISTRATION FORM

Fill in the form completely, do not leave spaces blank without explanation. For additional space use back of form.

NAME OF USER: _____

ADDRESS: _____

_____

NAME OF CAVE(S) TO BE ENTERED: _____

_____

ENTRY DATE: _____ PLANNED ENTRY TIME: _____a.m. _____p.m.

PLANNED FINAL EXIT TIME (and date if NOT same as entrydate) _____a.m. _____p.m.

PLANNED ITINERARY WHILE IN CAVE(S) (places, route(s), schedule(s), include entry/exit times for each cave if more than one cave is to be entered): _____

_____

_____

_____

VEHICLE PARKING AREA USED: _____

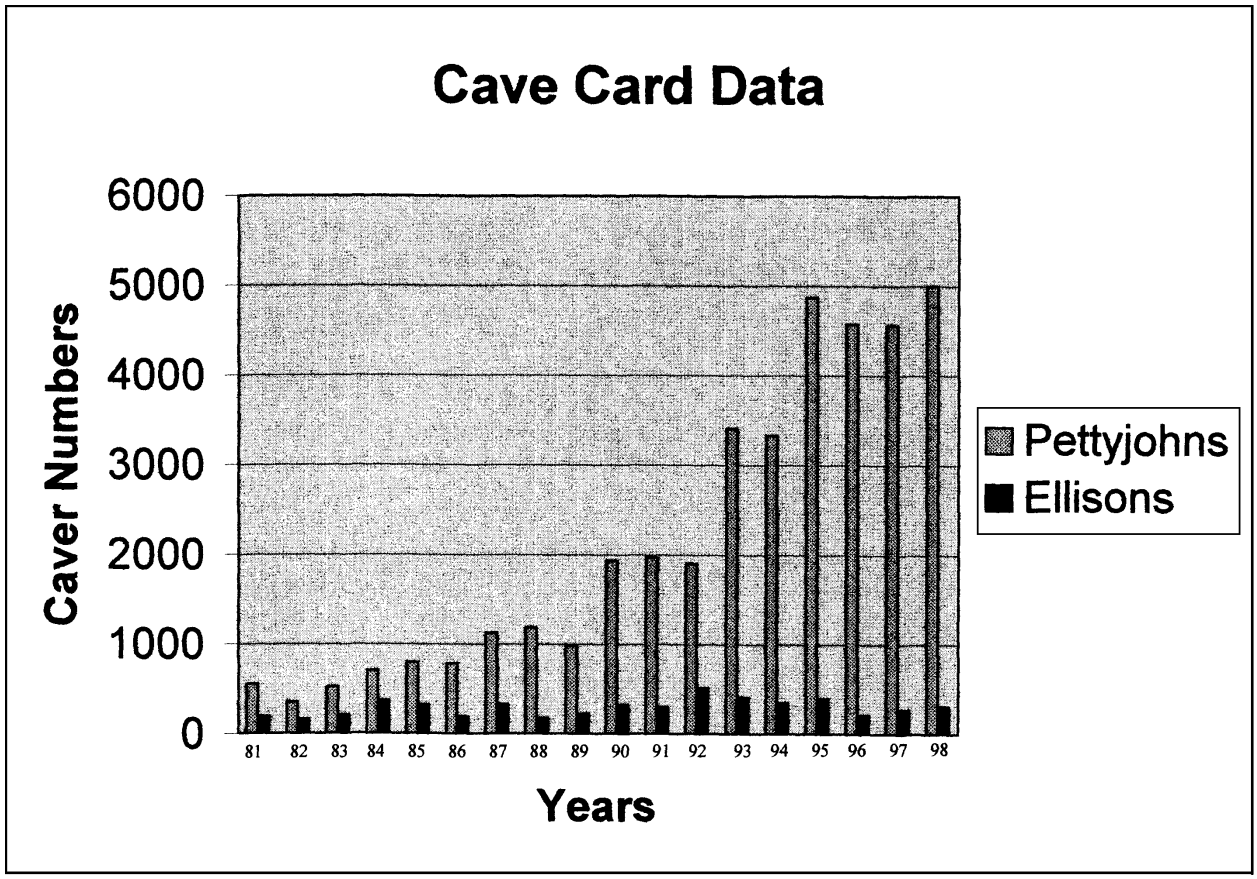
_____

VEHICLE LICENSE NUMBER MAKE MODEL COLOR

(OVER)

Pigeon Mountain WMA Visitor Use Estimates 2001	
User Activity	**User Numbers**
Cave Exploring	12,500
Rock Climbing	22,000
Bicycling	4,500
Horse Back Riding	4,700
Hiking, Day Trips	14,000
Hiking, Overnight	2,500
Motor Travel	40,000
Camping	10,000
Hunting	4,500
Wildflower Viewing	4,500
Bird-Wildlife Watching	1,500
Butterfly Study	200
Hang Gliding, Parasailing	250
Hossil Hunting	200
Fishing	300
Swimming	500
Civil War Site Tours	250
Astronomy	150
unspecified	1,000
TOTAL	123,550

Pigeon Mountain Visitor Use Estimates 1998	
User Activity	**User Numbers**
Cave Exploring	12,500
Rock Climbing	11,000
Bicycling	4,000
Horse Back Riding	4,500
Hiking, Day Trips	14,000
Hiking, Overnight	2,500
Motor Travel	35,000
Camping	7,000
Hunting	4,500
Wildflower Viewing	2,000
Bird-Wildlife Watching	1,500
Butterfly Study	200
Hang Gliding	250
Fossil Hunting, Geology	200
Fishing	200
Swimming	500
unspecified	1,000
TOTAL	100,850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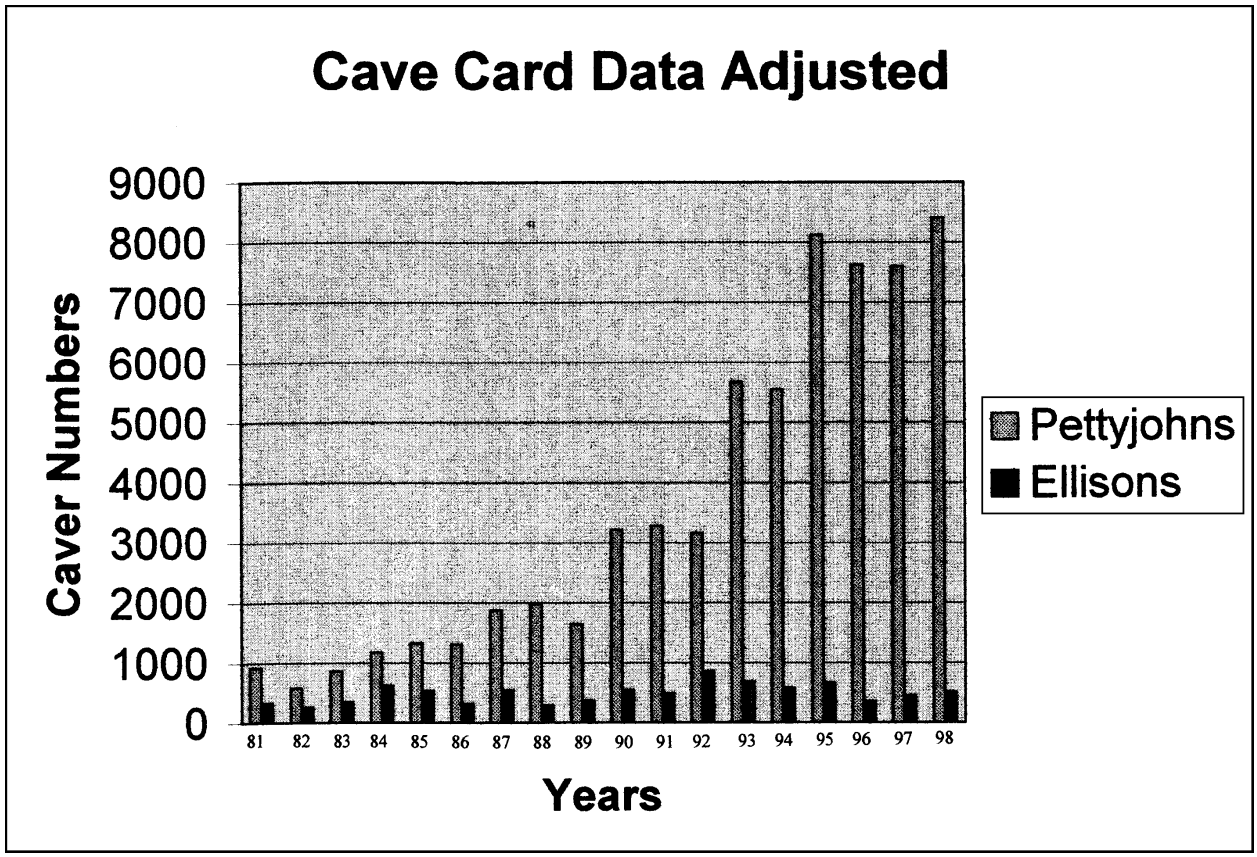
Years
Pettyjohns
Ellisons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Caver Numbers
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81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98
Years
Pettyjohns
Ellisons