Subject: RE: The Effects of Mountain Biking on Wildlife and People -- Bay Area Backroads

Date: Mon, 29 Mar 2004 11:11:52 -0800 **From:** "Ernie Crist" <ernie_crist@dnv.org>

To: "Mike Vandeman" <mjyande@pacbell.net>, <Matthew.Archer@cgs.ac.edu.au>

CC: "Mayor and Council - DNV" <Council@dnv.org>, "FONVCA (E-mail)" <fonvca@fonvca.org>, <Cagebc@yahoo.com>, <m.bragg@shaw.ca>, "Senior Management Committee" <managecomm@dnv.org>

Dear Mr. Vandeman:

Thank you for your email concerning this issue.

I had actually forgotten that in Europe where biking is not only popular but actually encouraged, Mountain Biking in forested and other ecologically sensitive areas is prohibited altogether.

In another environmental issue, it may be of interest that in all developed countries the treatment of sewage and run off waters has been subject to tertiary treatment while in Canada we are still debating whether we should go from primary treatment to secondary treatment. In some cases we are still pouring raw sewage into the oceans and rivers which is truly disgraceful.

We don't have the money we are told.

This has little to do with Mountain Biking of course, it does show however, that when it comes to environmental responsibility and awareness, we are still very backward. There may be a connection with this mind set and the attitude of some Mountain Bikers insisting as they do, not only to bike in forested areas close to residential areas but do so in District Parks itself.

In this connection it is of interest that of all the emails I have received, the most abusive, insulting, in poor taste and threatening, came from Mountain Bikers who do not live in the District of North Vancouver but insist nonetheless that District taxpayers not only accommodate them but also pay for the expenses.

Instead of making Mountain Biking with its massive environmental and financial implications at least a regional responsibility, the District of North Vancouver has of this moment accepted exclusive responsibility not only for the environmental implications within municipal boundaries but also for its costs within Municipal boundaries.

Yours truly,

Ernie Crist.

----Original Message----

From: Mike Vandeman [mailto:mjvande@pacbell.net]

Sent: March 29, 2004 7:00 AM

Subject: The Effects of Mountain Biking on Wildlife and People -- Bay

Area Backroads

Can you please share this message with all appropriate and interested parties?

Please don't allow mountain biking in on our trails! There is absolutely no good reason to allow bikes off of paved roads. And NO wildlife habitat (natural area) should be destroyed to create bike paths. Mountain bikes, especially, use tires that are designed to rip up the soil. At least a hiker can step over a small animal or plant that happens to be on the trail. Bikers cannot! Just the other day I saw a ringneck snake that was killed by a mountain biker. In Black Diamond Mines Regional Preserve in Contra Costa County (CA), one of the largest Alameda whipsnakes ever seen, a female, was killed by a mountain biker. That is a federally endangered species! Bikers are welcome to WALK our trails, just like everyone else. I see no reason why they should be allowed special privileges, especially ones that are harmful to wildlife, wildlife habitat, and people.

Bicycles aren't human, and have NO right to be in our natural areas. Please

help keep bikes and other vehicles off of our trails! Mountain biking GREATLY increases maintenance costs, as well as degrading the environment, endangering wildlife and other trail users, and driving both of them out of the parks. I don't understand why mountain bikers can't WALK, just like everyone else? Why whould they be given special treatment?! There is no justification for allowing VEHICLES in recreation areas. They are INCOMPATIBLE with the protection of wildlife and wildlife habitat, and discriminate against walkers, because they make it very difficult and unpleasant to walk on trails. They also destroy the experience of wild nature that most people go there to enjoy.

The preservation of our scanty remaining wildlife habitat is our top priority. Mountain bikes (and other ORV use of wildlife habitat) should be restricted to PAVEMENT! Wildlife and wildlife habitat are too valuable to be used for a frivolous, destructive sport like mountain biking. It doesn't belong off of pavement! Here is the Yosemite National Park Bike rule, from their web page (in the Yosemite Visitor Guide), http://www.nps.gov/yose/trip/guide/:

"Bicycles (including mountain bikes), in-line skates, scooters, and strollers must remain on paved roads and designated paved bike paths. They are not allowed on hiking trails or anywhere off-pavement."

I think that mountain biking is very unfortunate for the wildlife, and for anyone who values the land. I don't understand why we would want to devote ANY natural areas to such a destructive sport as mountain biking, which not only drives out the wildlife, but also the elderly and anyone else who goes to parks for peace and quiet and the enjoyment of un-degraded nature? Alternating hiking and biking may help solve the user conflict, but it does NOTHING to protect the wildlife from mountain biking.

We do NOT have to accommodate every destructive hobby that people are able to think up. If you WERE so obligated, I would ask for equal access for my hobby of bulldozer racing.

We can all walk (or use a wheelchair). That is the ONLY way that we can all have equal access: restrict park use to walking and wheelchairs. Not only does that allow everyone to use the parks freely, without fear of being injured, but it makes the trails MUCH easier and cheaper to maintain! Unless you have an endless supply of money and time and people to maintain your trails, you should restrict them to MINIMAL IMPACT RECREATION ONLY.

Please make sure that our few remaining natural parks don't become open to mountain biking and other "industrial grade" recreation. Mountain bikers are pressuring land managers all over the world to let in mountain bikes. Such recreation is a major threat to our scanty remaining wildlife habitat. Park after park has come to the conclusion that it is too expensive and dangerous to allow off-road biking, as well as destructive to the parks, whose ecosystems are IRREPLACEABLE. See also http://home.pacbell.net/mjvande

The Effects of Mountain Biking on Wildlife and People --Why Off-Road Bicycling Should be Prohibited Michael J. Vandeman, Ph.D. May 31, 1997

Mountain biking is a relatively new sport. According to a mountain biking (MTB) web page (http://www.mtb-bike.com), "The commercial Mountain Bike evolution didn't start until 1974 and its first production bikes didn't appear in stores until about 10 years later". (Lower gearing, fat, knobby tires, sturdier construction, but particularly the sealed bearing -- which could be ridden in dirt without getting destroyed -- are what made "mountain" (offroad) bicycling possible.) Partly for this reason, and partly because the MTB is, from one point of view, just a special case of an ORV (off-road vehicle), environmentalists and scientists have been slow to study and recognize the special threat that the mountain bike represents to wildlife. Although there are many studies of ORVs, I am not aware of any solid scientific studies

specifically on MTBs and their effects on wildlife.

To most environmentalists, bicycles have always been the epitome of good. We are so used to comparing bikes to cars, that it never occurred to us that the bicycle would be ever used for anything bad. Indeed, replacing motor vehicles with bicycles deserves our adoration. But anything can be used for good or evil, and using bikes to expand human domination of wildlife habitat is clearly harmful.

Human beings think they own every square inch of the Earth, and that they therefore have the right to do what they want with it. This is, of course, absurd. It is also the reason that we are losing species at an unforgivable rate: we have crowded wildlife out of its habitat. Even in our parks, where we have vowed to protect wildlife, it is not protected from hikers, equestrians, park "managers", firefighters, mountain bikers, airplanes, helicopters, cars, roads, concessionaires, or biologists. Thus, the primary reason that mountain bikes are harmful to wildlife is that they, like other technological aids (cars, skis, rafts, rockclimbing equipment, etc.), make it much easier for people to get into wildlife habitat.

(Sadly, most people have forgotten that the only thing that makes parks worth visiting is the wildlife that live there: it is

precisely the wildlife (and paucity of humans) that make a park a

park. Without wildlife (i.e., all nonhuman, nondomesticated species

-- plants as well as animals), the parks would be boring piles of bare rock.)

Biology

First and most obvious, mountain bikes kill organisms that live on and under the soil: "When it comes to pure recreational destructiveness, ... off-road vehicles (ORVs) far surpass powerboats. ... It is a rare environment indeed where a vehicle can be taken off-road without damage. ... Standard ORVs with their knobby tires are almost ideal devices for smashing plant life and destroying soil. Even driven with extreme care, a dirt bike will degrade about an acre of land in a twenty-mile drive. ... Not only do the ORVs exterminate animals by exterminating plants, they attack them directly as well. Individual animals on the surface and in shallow burrows ... are crushed. ... One great problem with ORVs

is that they supply easy access to wilderness areas for

unsupervised people who have ... no conception of the damage they

are doing" (Ehrlich and Ehrlich, pp.169-171; emphasis added).

(Although mountain bikes were hardly known when this was written, it is obvious that the same applies to them.)

Recently, one of the largest Alameda whipsnakes (a California threatened species) ever found was killed by a mountain biker in Black Diamond Mines Regional Preserve near here. Others have been killed on other East Bay regional parks. Kathryn Phillips in Tracking the Vanishing Frogs described how ORVs crossing creeks

crush toads and their eggs (both buried in the sand). Bikes are generally ridden too fast to avoid killing small animals. Obviously, the animals didn't evolve in the presence of mountain bikes, and can't be expected to deal very effectively with such

3 of 9

quiet, fast-moving objects. Even hikers can kill small animals, if they aren't careful. The one time I went to look for an Alameda whipsnake, I almost stepped on one, which was lying in grass growing in the trail, and didn't move until I had almost stepped on it.

Soils are extremely complex communities of living organisms. They sometimes are very fragile and once destroyed take decades to be recreated (e.g. desert cryptogamic soil). Soil destruction is hastened by acceleration (braking, speeding up, climbing, and turning, which apply horizontal forces to the soil), by tire lugs, which break the surface, and by water, which softens the soil and makes it easier to demolish.

In the Golden Gate National Recreation Area (GGNRA), "park officials noted serious erosion problems on certain steep narrow trails and determined that restricting bicycle use would slow such erosion. [They] noted that on narrow trails bicyclists passing other users would either leave the trail or force the other users off the trail to the detriment of off-trail vegetation and wildlife. ... Downhill bicycle travel on steep slopes is usually accompanied by braking and often by skidding which tends to push dislodged surface gravels into ditches, water bars, and drains. Heavy bicycle use on steep trails usually requires that these ditches, water bars, and drains be cleared more frequently than those used by hikers and equestrians only. ... Park staff and visitors reported that bicyclists on these ... trails often skidded to control their speed, slid off of trails on sharp turns, or cut across off-trail areas at certain 'switch-backs'" (Bicycle Trails Council of Marin v. Bruce Babbitt).

Mud containing seeds and spores sticks to bike tires, thereby often carrying species of plants into areas where they had not existed (becoming "exotics"). This is worsened by the fact that bicycles travel long distances, and are often carried to distant locations (sometimes even foreign countries) by motor vehicle. It is well known that such exotic species can cause havoc when introduced into new habitats.

Most of us were raised to believe that "non-consumptive" recreation is harmless to wildlife. We are taught to enjoy ourselves in nature, guilt-free, as long as we don't directly harm wildlife. However, recent research, and the huge scale of current recreation activities, have discredited this idea. "Traditionally, observing, feeding, and photographing wildlife were considered to be 'nonconsumptive' activities because removal of animals from their natural habitats did not occur... nonconsumptive wildlife recreation was considered relatively benign in terms of its effects on wildlife; today, however, there is a growing recognition that wildlife-viewing recreation can have serious negative impacts on wildlife" (Knight & Gutzwiller, p.257).

In other words, the mere presence of people is often harmful

to wildlife, and the more, the worse. "The notion that recreation has no environmental impacts is no longer tenable. Recreationists often degrade the land, water, and wildlife resources that support

their activities by simplifying plant communities, increasing animal mortality, displacing and disturbing wildlife, and distributing refuse" (ibid, p.3) "Recreational disturbance has traditionally been viewed as most detrimental to wildlife during the breeding season. Recently, it has become apparent that disturbance outside of the animal's breeding season may have equally severe effects" (p.73) "People have an impact on wildlife habitat and all that depends on it, no matter what the activity" (p.157); "Perhaps the major way that people have influenced wildlife populations is through encroachment into wildlife areas"

(p.160). "Outdoor recreation has been recognized as an important factor that can reduce biosphere sustainability.... Indeed, recreational activities, including many that may seem innocuous, can alter vertebrate behaviour, reproduction, distributions, and habitats" (p.169).

Knight & Gutzwiller's book contains numerous specific examples of how these negative effects are created. We may not know what the organisms are thinking, but the effect is that they die, are forced to expend extra energy that may be in short supply, become more susceptible to predation, or are forced to move to less suitable habitat, losing access to preferred foods, mates, nesting sites, etc. Since most of us live safely in the midst of plenty, it is hard for us to understand wildlife's predicament. We are flexible enough to survive almost anywhere; they are not. Often they have no other place to live. None of the existing "studies" on mountain biking evaluate its effects on wildlife. They are usually concerned only with visible effects on the trail. In Tilden Regional Park, there are three separate, heavily used mountain biking trails through the middle of supposedly protected Alameda whipsnake habitat areas!

"Displaced animals are forced out of familiar habitat and must then survive and reproduce in areas where they are not familiar with the locations of food, shelter, and other vital resources.... Hammitt and Cole ... ranked displacement as being more detrimental to wildlife than harassment or recreation-induced habitat changes.... Densities ... of 13 breeding bird species were negatively associated with the intensity of recreation activity by park visitors, primarily pedestrians and cyclists" (ibid, pp.173-4); "off-road vehicles can collapse burrows of desert mammals and reptiles" (p.176).

Sociology

Hikers, especially the elderly, have been abandoning their favorite trails, due to bikers that scare them, hit them, harass them, and destroy the serenity of the parks. Parks are supposed to be a refuge from the crush of humanity and the noise, danger, and artificiality of urban areas. Why bring to our parks the very

things that most people go there to escape?! There is absolutely

nothing wrong with bicycling, in its proper setting (on a road). It is a wonderfully healthful activity. But wildlife is already in

danger due to loss of habitat (worldwide, one quarter of all animals are threatend with extinction, according to the IUCN (International Union for the Conservation of Nature and Natural Resources)). It can't afford to lose any more. And people have very similar needs for being in nature. Our elderly are like wildlife, in that they have nowhere else to go for the experience of nature that they are accustomed to.

By definition, hiking trails are the minimum size necessary for a person to hike (approx. 18 inches wide), since they are supposed to have a minimal impact on the environment. They aren't wide enough for a bicyclist to safely pass a hiker or another bicyclist. Mixing bikers and hikers is dangerous for both. In fact,

mountain biking is also dangerous for lone riders, since hiking trails don't follow a predictable pattern and have very short sight distances (the distance that one can see ahead on the trail). Emergency room doctors report that a large percentage of mountain bikers incur serious accidents.

"The record includes hundreds of letters from park users

recounting stories of collisions or near misses with speeding or reckless bicyclists on all kinds of trails but particularly on steep and narrow trails. Hikers and bird watchers repeatedly told how they have been forced off of trails by speeding bicycles and how they have had their peace and solitude on the trails interrupted by bicycles that -- because they are quiet and fast -seemed to appear out of nowhere and be immediately upon the hikers and other users. Equestrians told how their horses have been startled by speeding or oncoming bicycles and have become restless, on several occasions even throwing and injuring experienced riders. Though most users admitted that the great majority of bicyclists were polite and safety-conscious, letters from hikers, equestrians, bird watchers, joggers, and other users also repeatedly recounted incidents of rudeness, threats, and altercations when they have complained to an offending bicyclist about dangerous conduct. Park staff also reported having received such complaints. ... NPS's [National Park Service's] finding that user conflict and visitor danger would be reduced by limiting bicycle trail access in GGNRA was supported by ample evidence. ... Notwithstanding the responsible user, bicycles are often perceived by other users as a disruptive influence on park trails. Although most of the few reported bicycle accidents in the park involve only single individuals, letters and reports from hikers and equestrians tell of many close calls and confrontational and unsettling experiences". "No single-track trails [in the Marin Headlands] were found suitable for bicycle use" (Bicycle Trails Council v. Bruce Babbitt).

Since bicycles require wider trails, parks now often use bulldozers to create and maintain those trails, vastly increasing their impacts. In Claremont Canyon Regional Preserve in Oakland, California, a new trail was created by means of a "small" (6 foot blade) bulldozer. But it rolled off the trail and had to be rescued by a much bigger bulldozer. The existence of bicyclists on trails also forces park rangers to police the trails using motor vehicles (cars or motorcycles), since it is the only way they can hope to catch them! This also increases negative impacts on wildlife.

Children learn mostly nonverbally (by watching adults and other children). Mountain biking is bad role modeling for them, since it teaches them that human domination and destruction of wildlife habitat is normal and acceptable.

Mountain bikers like to claim that excluding them from trails constitutes "discrimination". They say that other user groups (hikers and equestrians) receive better treatment from land managers. There is no basis for such a claim, since all users are subject to exactly the same rules. For example, on a trail closed to bikes, everyone is allowed on the trail -- only the bikes are

excluded! In spite of what they claim, mountain bikers have never

been excluded from any trail! Even if my way of "enjoying" the wilderness is to race my bulldozer there, I am not allowed to do that. And this is not because land managers like hikers more than bulldozer racers. I am not being excluded from the wilderness; I can go there whenever I want, as long as I don't try to bring my

bulldozer with me. It is only the bulldozer that is excluded, which

is due to its effects on wildlife and people.

If mountain bikers were actually being discriminated against, they could sue park managers for access to every trail that others are allowed on. On the contrary, the U. S. Court of Appeals for the

Ninth Circuit (Bicycle Trails Council v. Bruce Babbitt) concluded that the National Park Service has the right to ban bikes from trails. "All units of the National Parks [are] to be treated consistently, with resource protection the primary goal". "All bicycle use of off-road areas [is] prohibited unless local park superintendents [designate] particular trails to be open" (bicyclists were contesting this rule). "Routes may only be designated for bicycle use based on a written determination that such use is consistent with the protection of the park area's natural, scenic and aesthetic values, safety considerations and management objectives and will not disturb wildlife or park

resources". "The Park Service is empowered with the authority to determine what uses of park resources are proper and what proportion of the park's resources are available for each use". "The use of bicycles is allowed in park areas under the same basic

conditions as are motor vehicles, i.e. on park roads, in parking

areas, and on routes designated for their use. ... certain

limitations on their use are necessary and appropriate in the interest of public safety, resource protection, and the avoidance of visitor conflict" [emphasis added].

Clearly, bikes are not being banned from trails because land managers like hikers and equestrians more! As people, mountain bikers are indistinguishable from other park users. It is the bikes

that we object to, and not even the bikes, but their presence in

natural areas. Banning bikes is simply a humane way of protecting

our natural areas, while allowing all users equal access to enjoy them. Thus, whether bikers or hikers or equestrians are more harmful to wildlife (they all are, of course) is irrelevant.

Restricting bicycle access is a way of reducing human impacts on wildlife and wildlife habitat.

The Case of Brown's Woods

Brown's Woods, one of the last stands of native forest in central Iowa (southwest of DesMoines), illustrates these issues. It was saved from logging and development in 1972 by the S. E. Polk (High School) Ecology Club and their sponsor, biology teacher, Kirk Brill, for which they won a national award. Motorized vehicles were banned, "because of the threat they posed to the environment and to persons walking there" (Wayne Bills, Polk County Conservation Board (PCCB) Executive Director, 1972). The students worked hard to earn money to build two miles of bike trails through the preserve.

However mountain bikers illegally built 4 1/2 additional miles of trail ("bikers have gouged more than six miles of trail, up to 30 feet wide and a foot or more deep in spots" (Loren Lown, PCCB Natural Resources Specialist, 1996)). Wildlife were disappearing, elderly hikers were driven out, and vegetation was destroyed. "Already the bikers have caused permanent irreparable damage to this pristine area" (Ben Van Gundy, PCCB Director). It was called "ecological vandalism". Last year, once again, Brill and his students were forced to campaign to save the preserve, this time from mountain bikers, and won, getting a unanimous vote of the PCCB for a "total and permanent ban on the use of mountain bikes" in Brown's Woods.

Millions of mountain bikes are being sold every year around the world. Let's not wait till "bikers have caused permanent

irreparable damage" to our other natural areas! We can't eliminate all environmental damage, but we can eliminate frivolous,

unnecessary damage. True civilization is characterized by restraint.

"It is expected that outdoor recreational activity will continue to increase, while the amount of wild land where wildlife may seek refuge from disturbance will decrease" (Knight and Gutzwiller, p.327); "Recreationists are, ironically, destroying the very thing they love: the blooming buzzing confusion of nature.... The recreation industry deserves to be listed on the

same page with interests that are cutting the last of the old-

growth forests, washing fertile topsoils into the sea, and pouring

billions of tons of greenhouse gases into the atmosphere" (p.340;

emphasis added); "Tom Birch ... argues that wilderness managers, charged with incarcerating wilderness, are more concerned with the advancement of their careers through achieving quantifiable goals (number of park visitors, total revenues) and developing park and forest amenities (roads, 'scenic' turnouts, restrooms, paved trails, maps, campgrounds) than with perpetuating the land community of which they are a part" (p.344).

Ideally, we should be working to reduce all human access to wildlife habitat. But at the very least, we should eliminate mechanical access (with the exception of small compromises for wheelchairs).

References:

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I am working on creating wildlife habitat that is off-limits to humans ("pure habitat"). Want to help? (I spent the previous 8 years fighting auto dependence and road construction.)

http://home.pacbell.net/mjvande



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