





OUTLAW. RENEGADE. BRUTE FORCE. The names of these popular ATVs may simply be a marketing gimmick to attract the attention of young buyers, but they also say something about the vehicles' capabilities. These are not machines designed to be driven leisurely over groomed trails like golf carts; they are built to take on nature—and win. The oversized studded tires, powerful torque, and waterproof engines can go anywhere, do anything. And therein lies the problem.

In 2003, then chief of the U.S. Forest Service, Dale Bosworth, named unmanaged recreation one of the four top threats to national forests, right up there with habitat fragmentation, invasive species, and wildfires. He singled out off-highway vehicles in particular. "OHVs are a great way to experience the national forests, but because their popularity has increased in recent years, we need an approach that will sustain natural resource values through more effective management of motor vehicle use," he said. "The Forest Service wants to improve its management by balancing the public's enjoyment of using OHVs with ensuring the best possible care of the land."

His statement wasn't a surprise to the Izaak Walton League and other groups that have been keeping tabs on the OHV phenomenon since the 1970s. League members feel so strongly about the issue that they address it in the League's official policies, saying, "Off-highway vehicle use on federal lands should be prohibited except where and when expressly permitted," and "The League opposes the use of vehicles in streambeds."

League members are not anti-OHV. In fact, a 2005 survey found that about one fifth of them own ATVs and more than 80 percent own four-wheel-drive trucks. The problem is not the vehicle, but the user. Driven responsibly, OHVs can be both useful tools and fun toys. Driven irresponsibly, they can be disruptive and destructive to wildlife and habitat.

As director of the League's wilderness and public lands program, I constantly deal with issues involving OHVs in my home state of Minnesota. I've seen resource damage caused by OHVs firsthand, and I've talked with riders, policymakers, environmentalists, and others on both sides of the issues. In an effort to develop a broader perspective, I began researching the issue on a national scale. I found that there is plenty of evidence to support better management of OHVs on public lands.

Increasing Numbers

The Forest Service estimates that the number of OHV users grew from 5 million in 1972 to 51 million in 2004. That is more than the number of anglers estimated by the American Sportfishing Association that same year. And while the number of hunters and anglers is decreasing each year, the number of OHV users continues to increase. Several states, especially in the West, have seen enormous spikes in OHV registration within just the last decade. Registration in Arizona, for instance, has increased from 49,282 in 1998 to 237,953 through June 2007.

Of all visits to national forests, an estimated 11 million of them involve OHV use. Along with these increasing visits to public lands comes an increasing number of violations. Nationally, in 2005 alone, more than 5,400 OHV riders were caught breaking the law on federal land managed by the Bureau of Land Management, compared to roughly 900 incidents involving drug enforcement, the next highest category. And, according to an article by the National Association of Counties, local and county law enforcement officials in Illinois, Wisconsin, West Virginia, and Florida are increasingly spending their time dealing with off-road vehicle related issues.

Unfortunately, the public land agencies have not reacted fast enough to deal with the OHV explosion. There are not enough designated trails to accommodate riders, and as a result they have sought out their own places to ride-some of which are in America's most sensitive wilderness areas. In these vulnerable spots, even one irresponsible rider can cause tremendous damage. And without enough field officers to enforce existing regulations, one rider can quickly become many.



Treading Heavily

One state wildlife agency director told us, "There seems to be a misconception that just because you own a piece of equipment that can go almost anywhere, that you are entitled to go almost anywhere, including public land dedicated to wildlife management. This needs to change."

He and other land managers cite habitat degradation and wildlife disturbance as the biggest problem with OHVs. They can cause severe soil erosion, for instance. One study showed soil erosion rates along OHV trails as high as 209 kilograms per square meter per year in Ohio's Wayne National Forest alone. The vehicles can also carry non-native invasive species—one of the Forest Service's other four main threats—into new areas, as has been documented in Wisconsin's Chequamegon National Forest and other public lands. All of these impacts can lead to overall habitat degradation.

In addition to direct destruction of habitat, OHVs and their network of trails create a disturbance that can affect wildlife. Several studies have examined the effects of OHVs on elk in the West, for example. One paper indicated that elk in the White River area of Colorado moved twice as far from OHV disturbance as from people on foot. Another study from 2004 showed that elk tolerated hikers to within 500 feet, but that elk moved when OHVs came within 2,000 yards of them. Furthermore,



effects of OHV travel near or through streams. The agency found that sediment runoff from OHV trails usually ends up in nearby streams and rivers. This sediment can cover fish eggs, inhibit nest building, and alter the natural flow of water that oxygenates spawning nests and rinses away wastes. A 2005 study documented one storm event that contributed a suspended sediment load of 109 kilograms of sediment from just one OHV trail crossing.

In addition, OHV trail culverts and other stream crossings have been shown to restrict or prevent fish from accessing their spawning grounds. In Montana's Kootenai National Forest, for example, culverts and trails were impairing the ability of threatened bull trout to spawn. When some of those culverts and

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elk tended to walk away from hikers, but ran from OHVs.

Other research has shown that elk tend to avoid areas near open roads, and that vulnerability to mortality from hunter harvest, both legal and illegal, increases as open road density increases. In areas of higher road density, elk exhibit levels of stress and increased movement rates. Road closures allowed elk to stay in preferred habitat longer, rather than being displaced. Closing roads extended the age structure and doubled the bullsto-cows ratio. Elk hunter success almost doubled when open road density was reduced from 2.54 kilometers of road per square kilometer of land to 0.56 kilometers. The irony is that many elk hunters in the West use OHVs when they hunt. So not only are they disturbing the landscape, they are also decreasing their likelihood for success-not just for themselves, but for every hunter.

Troubled Waters

Damage from OHVs is unfortunately not restricted to land. Some riders run their machines along streambanks and even through stream and riverbeds. This can cause a variety of negative impacts, including damage to vegetation, erosion, or loss of trees and shrubs that provide shade for streams and help to regulate water temperatures.

As early as 1985, the Forest Service was documenting the

trails were removed, the area's streams experienced a 48-percent decline in fine sediments and a 16-percent increase in bull trout redds within just five years.

A Blueprint for Better Management

To protect public lands from unmanaged OHV use, public land managers are calling for three things: engineering, education, and enforcement.

Most unauthorized, user-created trails, for example, have never been engineered to minimize their impacts. If the public land agencies would devote more resources to creating authorized trails that are properly engineered, then the OHV pressure could be directed to areas that are less sensitive in terms of wildlife habitat.

Many of the state wildlife directors we surveyed also emphasized the need for better education and enforcement. One fisheries director wrote, "Penalties in existing regulations are not severe enough; enforcement of existing regulations is not given enough priority; and offenders are difficult to capture when observed." Also, offenders often have no regard for the resources they are impacting. A state wildlife director wrote that we need to "increase public awareness of the negative impacts to wildlife habitat." He also suggested that we need to encourage the development of OHV sites on private lands.



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The need for better engineering, education, and enforcement are coming at a time when budgets for such activities have been cut, not increased. Therefore, the realistic approach for now is to work backward, enforcing the existing regulations in order to protect existing resources.

To achieve that, the Forest Service recently issued a rule that OHVs must drive only on specific trails that are designated for such use; in other words, an area is "closed unless posted open" for OHV use. Though the Forest Service rule has some shortcomings, this premise is an essential starting point.

Similar efforts are needed on other federal lands, such as those managed by the Bureau of Land Management. The majority of the 264 million acres managed by BLM is open to crosscountry travel by OHVs. State-owned public lands also need to be protected. Many states are undertaking efforts to build OHV trails. In Minnesota, for example, the legislature directed the Department of Natural Resources to conduct an inventory of all existing trails on the nearly 4 million acres of state forest lands, to reclassify those forests as to how OHVs will be managed, and

to designate specific trails (unfortunately, the legislature later rescinded the "closed unless posted open" policy for three-quarters of the state forest acres).

As a result of all this, a broad mix of conservation organizations all across the nation have become actively involved in OHV issues of planning, trail-siting, and natural resource protection. These organizations range from Trout Unlimited to the Backcountry Hunters and Anglers, from Wildlands CPR to the Rocky Mountain Elk Foundation.

The League's conservation policies on OHVs match the direction in which the Forest Service is heading with its "closed unless posted open" approach. We believe that all users share an interest in protecting our public lands from damage, and we must find solutions that are fair to everyone, whether they use public lands for OHV riding, hunting, fishing, hiking, birdwatching, camping, or simply for finding peace and solitude.

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