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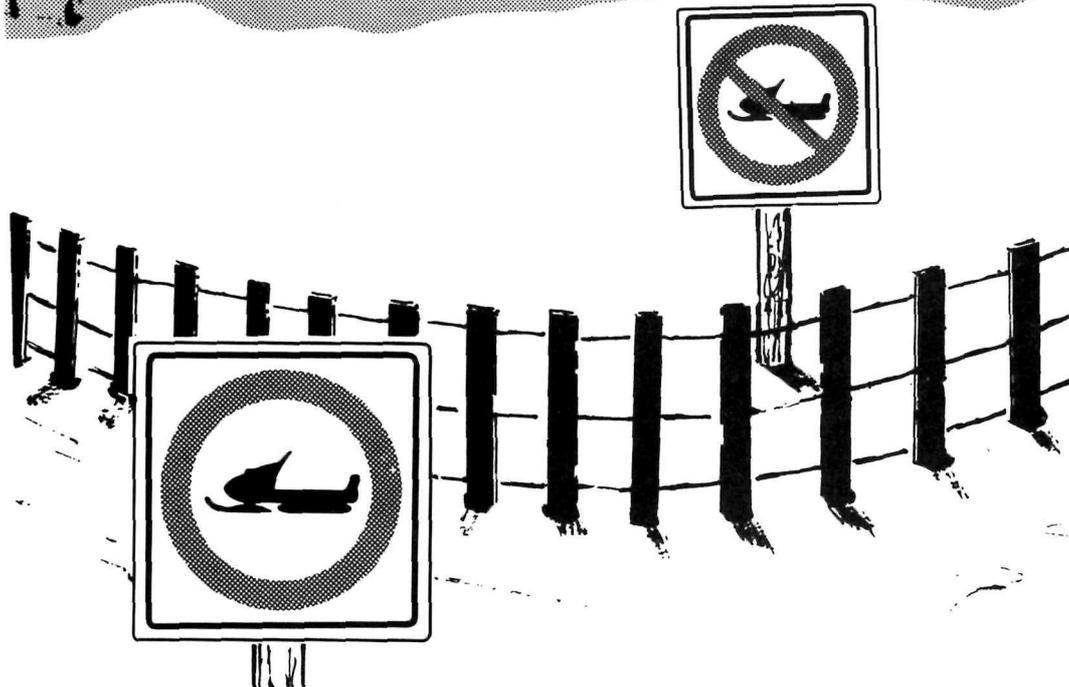
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"It is a commentary on our national character and our general intrigue with technology that few State or Federal agencies now take a hard line against off-road vehicle use in favor of exclusive rights for the traditional outdoor pursuits. So, the most that nonmotorized creatures have usually been able to ask for is a public policy favoring recreational diversity," says Malcolm F. Baldwin in the Conservation Foundation publication *The Off-Road Vehicle and Environmental Quality*, published in 1970.

On the one hand are the millions of individuals and families whose recreational activity revolves around some form of off-road vehicle (ORV), be it snowmobile, all-terrain vehicle (ATV), dunebuggy, trail bike, 4-wheel jeep or hovercraft. These people and the organizations which represent them insist that the country belongs to all. They purport that they are disturbing no one in their pursuit and that any country which encourages outdoor activities should encourage **all** outdoor activities. Included in the argument is the statement that ORVs have brought about a return to family-oriented gatherings. Families now enjoy camping, trail biking and snowmobiling together.

On the other hand there are conservation groups which are protesting that the nation's wildlands are being ravaged by ORVs. To support this thesis, the conservationists cite examples of dune areas which have been closed to ORV traffic due to almost complete destruction of the ecology. One example frequently cited by conservationists in their fight against the snowmobile is that of a secluded trout area which was "fished-out" by anglers using snowmobiles to get there.

One of the points of commonality among ORV recreaters is the frequent use of public land for their activities. The National Park Service, as cited by the Conservation Foundation, generally restricts ORVs to existing park roads, but it takes a different attitude toward snowmobiles. The snowmobile and the large, 12-passenger snow "cat," for example, are immensely popular in Yellowstone National Park where they opened up the winter season to 10,000 visitors in 1968-69, compared with the dozen or so tourists who came a decade earlier. Yet the Park Service has sought to control snowmobile use. Snowmobiles may be permitted only on approval of the superintendent of a park and on routes which he may so designate. The regulations also require mufflers and prohibit reckless driving, excessive speed, or operation of snowmobiles by persons under the age of 16 unless supervised by adults.

continued

The general policy of the US Forest Service differs from that of the National Park Service by encouraging maximum use of forest lands for recreation with as few restrictions as possible, according to the Conservation Foundation. Most of the USFS preserves (over 180,000,000 acres) are in the snowbelt, and snowmobilers have available the unplowed portion of additional trails. In the national forests of the East where the land is less open than in the West, there are about 1,000 specifically designated snowmobile trails.

The Forest Service is generally still promoting snowmobile use, the Conservation Foundation says, although the vehicle's incompatibility with other uses is recognized as a growing problem which might be met by zoning certain areas out of bounds. Under USFS regulations, cross-country and trail travel by motor vehicles can be prohibited to protect the forests and to promote valid public purposes in the forests.

To solve the myriad problems created by the ORV pursuers, Baldwin suggests that State and Federal land management agencies immediately inventory public lands which are ecologically fragile or are important wildlife habitats. Entry of off-road vehicles to these areas should be prohibited by regulations, in some cases permanently, and in others during certain periods. "For ecological as well as law enforcement purposes, such zoning procedures are far more realistic than wildlife harassment prohibitions and hunting restrictions.

"There is a need," Baldwin says, "for national legislation requiring specific, uniform standards for all ORVs comparable to present national regulation of safety and pollution connected with recreational boating and on-road vehicles. It seems only a matter of time before such legislation is introduced and passed."

One of the outcomes of the burgeoning use of ORVs was the 1971 symposium on the vehicles held at Michigan State University. Commenting upon the symposium, Dr. Ross D. Netherton, chief, division of research and education of the Bureau of Outdoor Recreation, said: "We have verified that there are clear and present dangers to natural resources, to the ecosystems of wildlife, and to the quality of the environment through the use of these vehicles if we fail to understand and reflect in our planning and management processes those things which must be regarded as imperatives for the next century. This is a sobering thought, but it is true that if we make management mistakes today in dealing with our environment it will indeed take a century for nature to fully reverse the consequences."

Dr. Netherton also raised several significant questions concerning the ORVs themselves. "Should there be investment of public funds in development of trail facilities for ORVs and other special recreation vehicles? How shall demonstrably excessive damage to natural resources and wildlife habitat be dealt with? How shall irresponsible behavior in outdoor recreation areas or environmentally sensitive areas be controlled? Shall rangers be turned into policemen? Shall areas not capable of being policed be closed to public access? What responsibility do public agencies have for the safety of ORVs and their users? If there is a responsibility, where does it stop? Does it include prescribing standards for equipment? Rules of operation? Rescue patrols?

In response to the negative aspects of the vehicles, Malcolm Baldwin says: "One effective tool against vandalism, as well as against other unlawful activity, is adequate vehicle identification by large numbers on the side of the vehicle. Not only can such identification aid law enforcement officers and witnesses, but, since the vehicle itself is an object for theft, this may also benefit the owner.

"Snowmobile identification in some form is required in many states. Vehicle registration numbers painted on both sides of the vehicle may be the most satisfactory answer to this problem.

"However, effective enforcement is expensive. For proper equipment (planes, snowmobiles, etc), trail construction and maintenance, and individual vehicle testing (for safety and noise levels), the enforcing agency will require a substantial, steady source of funding. The most logical source of revenue is from vehicle registration fees—the user paying the cost of his undesirable effects—rather than through a general taxation."

Commenting upon the costs to the public, Baldwin finds it peculiar that the hidden social costs of ORVs are not reflected in the market place. "It is ironic that their use is so dependent on the availability of public land," he says. "It is appropriate that a Federal excise (luxury) tax be levied on off-road recreational vehicles as part of a new public policy that recognizes their frivolity and costs and the need to channel capital resources (public and private) toward less demanding recreational interests and toward the solution of serious public problems. Funds collected from the tax could be devoted to the construction of special ORV facilities and the enforcement of ORV regulations."

Perhaps the most intriguing question about the future of off-road recreational vehicles was posed by Dr. Netherton to the participants of the MSU symposium. Dr. Netherton asked: "In trying to accommodate special recreation vehicles in off-road areas, will the prospect for developing normal expectations of environmental amenities in these areas have to be sacrificed?"

In an attempt to provide an overview to the situation, Dr. Netherton quotes former BOR Director, Douglas Hofe, Jr.: "The nation's resources should be managed to provide outdoor recreation opportunities for all Americans. To some this may sound like the promise of a peaceable kingdom where lions and lambs live together—where there will be coexistence of both the ORV enthusiast and the ecology protectionist. But in reality, this premise conceals a tough issue of national environmental policy, namely: How much known damage to our environment through degradation of our surroundings, destruction of our resources, and human injury in order to accommodate these vehicle users and their activities are we willing to take? And where the damages are now known, how much calculated risk are we willing to take?"

The two-headed ORV snake has raised itself to be seen. On the following pages are representative champions pleading their side's cause.

— Chas R. Redmond III



SNOWMOBILES

LOVE'EM OR HATE'EM

*Copyright 1972 by the National Wildlife Federation.
Reprinted from the December-January issue of NA-
TIONAL WILDLIFE Magazine.*

By James D. Perry

Snowmobiling has certainly proved its popularity. A more pertinent point is: What substantive purpose does snowmobiling serve? Do we really need it?

In answer, one might point to the fact that snowmobiles are widely used by State and Federal conservation departments, law enforcement agencies, utility companies, ski-hill, rescue teams, etc., for a large variety of worthwhile purposes.

Admittedly, however, it is the recreational role of snowmobiles that is the center of controversy. In that respect, the key factor, it seems to me, is the American family. We are frequently told that the family is in serious trouble and that families must seek more "togetherness," and participate in more activities that all members can share. This is only one of the rewards snowmobiling offers — a chance for every family to have a wonderful time *together*.

Continued on page 7

By Les Line

If it were within my power, the abominable snowmobile would be banished forever from private ownership for recreational purposes. I would also favor banning its equally obnoxious relatives — the trail bike, the airboat, the all-terrain vehicle (ATV), and the newest born of the mechanized terrors, the personal hovercraft.

To be sure, there are legitimate uses for the snowmobile — in search and rescue operations, in game and fish patrols, for wildlife research and timber management, for exploration, to run traplines.

Even so, it is a rare instance when a team of strong malamutes, or a pair of snowshoes and a bit of muscle-power, wouldn't do the job nearly as well — and more reliably. Cheaper too!

And shed a tear for the legendary sled dog. Even the Royal Canadian Mounted Police has retired its last teams in favor of rubber treads.

Continued on page 8

Furthermore, it allows families to do this outdoors. It often means that they go to places they would never otherwise see — to lakes, woods and wilderness areas.

So much for the general background. Now what about controls? Are they effective? Do we need more of them?

I should first point out that snowmobile regulation is primarily in the hands of the individual States, so controls vary widely. This is probably a good thing, since conditions also differ greatly.

In addition to State regulations, there are also local ordinances, and the various snowmobile clubs have their own rules for members.

What emerges is a very mixed pattern of controls. Nonetheless, there are certain basic issues — and consequent accusations and denials — that are of general concern.

Noise Should be Regulated

One of the most frequent criticisms of snowmobiles is their noise. Many people feel it is an unnecessary annoyance to human beings and a real threat to wildlife.

This is a legitimate concern; I think noise should be regulated. I believe every snowmobile should be inspected for this purpose before it is registered. Fortunately, snowmobile manufacturers are already making progress in producing quieter machines. The 1971 models were 20 percent quieter than those of 1970, and the 1972 models will be 25 percent quieter than those of '71.

I would add, however, that I think the menace of noise to wildlife has sometimes been greatly exaggerated. It should be considered in context. I've lived in the North Wood all my life and worked in logging camps where we did our cutting with chain saws that make a great deal more noise than snowmobiles. There was no discernible adverse effect on wildlife. In some cases, the noise even attracted deer, rather than driving them away.

As I have said, the biggest problem with snowmobiles is the snowmobile operator. And contrary to what you might think, teen-agers are not the principal offenders. Individuals between 20 and 40 are.

The person who probably causes more problems than anyone else is the individual who is out to race his neighbor through the woods. He likes to buy a larger, faster machine each year just to beat the neighbor on Sunday. Fortunately, his numbers are limited.

The "Litterbug" is a Problem.

He is the same kind of person who will litter a highway. Or a beach. The mess he creates is no greater nor less than the one we face with regard to highways and beaches.

If anything, we are in better shape in regulating snowmobilers. About half of them belong to clubs, and these organizations have done a great deal to control littering. The clubs require that every time there is a cook-out or some such activity, the litter be hauled away immediately or burned on the spot. Many trails have refuse cans to help prevent littering.

Frankly, there are several other problems related to snowmobiling that I think are considerably more urgent.

One problem is the concern expressed by ecologists that snowmobiles may harm soil and foliage, as well as wildlife.

I've already stated what my attitude is about wildlife, but I should add that there is a great deal of research now underway to give us solid answers to all the questions that have been raised about wildlife protection. This is also true concerning soil and foliage.

State legislatures are aware of this research, and doubtless they will in due course initiate any additional controls that appear needed. My only reservation about such regulations is that they be *reasonable*. Unfortunately, many people who talk ecology have never lived in a snowbelt and don't know the situation there.

Operating controls is another problem area. There are two factors here: *Where* snowmobiles should be permitted to operate. And *when*.

There is a definite trend toward designated trails for snowmobiles, and I'm all for it. For one thing, trails are safer. If you happen to get hurt, someone is almost sure to find you. Or if you're lost, you can find your way home.

In regulating the hours of snowmobile use, I think we need to be stricter in some cases than we have been. In my own hometown, I proposed that snowmobile use be confined to the period between daylight and about 10 p.m., and until midnight on weekends. I do not think we should have snowmobiles running around at 2 a.m., disturbing people who have to get up and go to work the next morning.

There is another, particularly undesirable aspect of this. There are groups of snowmobilers who use their vehicles to run from tavern to tavern at night. That's how many of the accidents take place and there should be strict controls to prevent this.

In the early 1960s, the main emphasis in snowmobiling was on racing; the United States Snowmobile Association was originally established as a racing organization. Now, however, the emphasis is changing. Recreational snowmobiling for the family is coming into its own. I think these recreational aspects and benefits should be developed further — and with greater emphasis.

Vehicle Inspection, Driver Standards

I think every snowmobile should be inspected by a licensing agency before it can be put to use. Among other things, this would guarantee that it conforms to established noise level standards.

Regarding the matter of driver standards, the only regulations we now have at the State level are those that govern the minimum age at which a person can operate a snowmobile. Since many youngsters now receive classroom instruction in snowmobile operation, we might so certify them. Eventually, all states might want to require certification.

I hope it is clear from what I've said that a great deal of conscientious thought has been given by snowmobilers to the question of controls. We are entirely in favor of them — so long as they are *reasonable*.

Personally, moreover, I have no objection to *further* controls. In some cases, as indicated, I think we need them. But I also think they should be implemented by people who know what they're talking about and are consequently fair and reasonable.



"The Snowbelt," courtesy of Dr. James D. Perry. This map conforms to US Weather Service 36" snowfall contour lines.

Perhaps it was inevitable, albeit regrettable, that progress — or what passes for progress today — should doom the traditional means of cross-country travel in the frozen North. But to label as recreation that madness which each winter consumes a large part of the populace across the American snowbelt is to make a travesty of the word *recreate*: To refresh the spirits through the influence of pleasant surroundings. Snowmobiling qualifies as recreation as much as a Fourth of July drive on that suicide strip known as the Long Island Expressway.

It is fantasy to think that the snowmobile is a passing fad, or that it will be legislated out of existence. Considering the wealth and power of the snowmobile industry — and the vociferousness of the millions of snowmobilers — it may be fantasy to expect that reasonable restraints will be put on the vehicles' use. Manufacturers want no restrictions that will hinder sales. Owners want no restrictions that will hinder what they consider sport. But controls — strict controls — there must be. Or the North Country will soon rue the day the snowmobile was born. Consider, then, the major problems — and what could be done about them.

Poor Snowmobile Safety Record

One hundred people will die this winter in snowmobile accidents. Another 15,000 will be seriously injured. Snowmobilers will plunge through the thin ice of lakes and rivers and drown. They will ram into trees, cars, trucks, even trains. They will be decapitated by drift-hidden fences. They will be stranded without survival knowledge or gear, and freeze to death when their machines break down miles from the nearest road.

Laws should restrict the operation of snowmobiles to licensed drivers at least 16 years old who have had several hours of supervised instruction and have passed a

strict examination.

Concerning snowmobile noise, a representative of the snowmobile industry said, "These machines could be half as noisy with a little extra cost, but they wouldn't sell — the American male just does not want a quiet snowmobile." What he does want is the feeling of power offered by a 500-pound machine propelled by a roaring two-cycle engine.

Engine noise in one test varied from 86 to 136 decibels. A Boeing 707's roar registers 150 decibels, a high-steel riveter 130 decibels, a revving motorcycle 110 decibels, a cocktail party 55 decibels.

State laws should be passed limiting total noise output to 70 decibels at a distance of 50 feet. All machines before being licensed annually, would have to pass a noise test while running at full throttle. Finally, local ordinances should be passed, restricting the running of snowmobiles to certain hours and certain places, and no closer than a half mile to any place of residence.

Snowmobile apologists answer complaints about trespass and vandalism by arguing that a very few "rotten apples" have given their sport a bad name. That's a tired old defense, and patently hollow. If only five percent of the three million snowmobilers are rotten, that's 150,000 misfits — criminals, in many cases — who ransack back-country summer cabins, smash fences, rout farm animals, run down family pets, destroy whole Christmas tree plantations, wreck golf greens, strew trash.

Landowners are helpless. Law enforcement officers are few and powerless. In one populous upstate New York county there is one conservation officer for one million people. And how to trace the owner of a rampaging snowmobile?

For a start, a uniform licensing system should be in force in every snowbelt State. The annual fee per machine should be \$50, with this money earmarked for law

enforcement use. All snowmobile operators should have liability insurance. Snowmobiles should be identified with one-foot-high numerals painted on the sides. Violators should be vigorously prosecuted.

Wildlife, Fish and Habitat

Shooting game from snowmobiles is illegal but widespread. Worse, however, is the winter-long harassment of wildlife by thrill-seekers. Some snowmobilers get their kicks by running down deer in deep snow, by chasing coyotes or foxes to their death.

Entire herds of big game have been routed from sheltered wintering areas. Exhausted elk die of exposure or starvation. Panicked does lose their unborn fawns. Packed snowmobile trails let wild-roaming killer dogs reach deeryards. Seedling trees are crushed. And what is the importance to wildlife of simply the *quiet of winter*, free of the clattering of man's monstrous machines?

Fish do not escape the snowmobile's impact. Once-isolated lakes, now accessible to the go-go carts, are cleaned out of stocks of trout in days. On just one wilderness lake in Minnesota, reached in summer only by a day-long canoe paddle with several portages, 67 snowmobiles and 120 fishermen were counted on the ice on a single January day.

Clearly, the only answer is an outright ban on snowmobiles in vast areas that are vital wildlife and fish habitat. As a second step, the possession of any firearm on a

snowmobile — loaded, unloaded, or even dismantled — should be prohibited.

Who Owns the Woods?

Does the mere purchase of his contraption give a snowmobiler free rein to run anywhere and everywhere? What of the rights of the snowshoe hiker, who can no longer find the winter solitude he seeks? What of the cross-country skier, who discovers his carefully prepared trail ripped apart by corrugated tracks?

Regrettably, the snowmobile is here to stay. And unless the machine and its users are put in their place, the nonmotorized outdoorsman will soon be permanently displaced. Without exception, snowmobiles — and all other off-road vehicles — must be kept out of official wilderness and primitive areas.

Elsewhere their operation should be restricted to certain unplowed forest roads and to designated snowmobile trails. No cross-country snowmobile travel should be allowed on any parklands or public forests.

Congress, meanwhile, should promptly impose a ten-percent excise tax on all off-road vehicles. Added to the Land and Water Conservation Fund, this revenue would be used by Federal and State agencies to provide harmless facilities for the use of these machines, and pay the cost of their regulation.

James D. Perry

Dr. James D. Perry is president of Gogebic Community College in Ironwood, Michigan. Listed in WHO'S WHO IN AMERICAN EDUCATION for 1970-71 and 1963-64, Dr. Perry is president of the central division of the United States Snowmobile Association. He has also served as Legislative Chairman of the Wisconsin Association of School Administrators; Wisconsin State Ski Meet Manager and Chairman of the Ski Rules Committee; member of the Board of Directors, Educational Television in Duluth/Superior; and as a member of the Advisory Council of the Wisconsin Interscholastic Athletic Association.



Les Line

Les Line has been editor of AUDUBON, the magazine of the National Audubon Society, since 1966. Prior to his present position Mr. Line was chief photographer and outdoor editor for MIDLAND DAILY NEWS in Michigan; photographer-reporter for BIRMINGHAM ECCENTRIC, a weekly paper in suburban Detroit; and for Grand Rapids Press. As a journalist in Michigan, Mr. Line won many awards for news photography and conservation reporting. He is co-author (as photographer) of two juvenile books— PUFFIN ISLAND and MYSTERY OF THE EVERGLADES





THE OFF-ROAD EXPERIENCE

By Frederick M. King

Adapted from an article which appeared in INDIANA MOTORCYCLING NEWS, June 1972, published by the Indiana Motorcycle Association, Bloomington, Indiana.

What is off-road motorcycle riding? There are several possible ways to categorize the variants of off-road riding. I have chosen a competitive—noncompetitive distinction. Competitive riding includes motocross, hare scrambles, enduros, hill climbing and other forms, while non-competitive riding is largely what is known in our recreation as "trail riding." Some of these forms of off-road motorcycling are appropriate on public lands, and some not. Generally, and with some exception, we don't believe that competitive events are an appropriate public land use, except for enduro riding which under controlled conditions and certain circumstances may be compatible with the resource and forest activities and goals.

Of course, motorcycle organizations would like to have all forms of off-road motorcycling accommodated in national forests, but we realize that this simply isn't practical under the circumstances. Since it isn't, we all realize that we are going to have to develop some priorities, which take into account the kind of riding that will serve the needs of the greatest number of people or recreationists. The most popular off-road motorcycle activity today is recreational trail riding. More, public land is uniquely well-suited to this recreational form, for as we shall see, a sizeable land base is required to support any significant trail riding recreation.

What is trail riding? It can be understood only in terms of the rider, the bike, the riding experience, the popularity and the needs of the recreation today.

The Rider

The assumption that anyone on a motorcycle is a "B" movie thug is given the lie daily as men from all walks of life discover the freedom, adventure, and exhilarating outdoor's experience of trail riding.

According to surveys conducted by several leading publications and reprinted in the Motorcycle Industry Council's report of September 15, 1971, the average motorcyclist is in his mid-20's, married and has two children. The same survey showed that the major occupational groupings of riders are semi-skilled/skilled labor - 20%; professional - 16%; managerial-proprietor - 12%; and student - 12%.

A recent income survey of riders showed that the average rider's income is substantially higher than the mean. Rider households surveyed had investments in motorcycle recreational equipment averaging \$3,500.00. And surveys, as well as observation, show that trail riding is a family recreation, and a growing one. One recent poll showed that 77% of responding households had more than one trail rider. The same survey also showed that

riders are found in significant numbers among other forest users—their most significant hobby interests after motorcycling were hunting, fishing, and camping.

Motorcycling cuts across every socio-economic, vocational, behavioral group. The percentage of its participants from each socio-economic group is about the same as that which each group represents in relation to society's whole, although there appears to be a somewhat higher percentage of recreational riders among middle and upper middle classes because of the cost of the recreation.

The Off-Road Bike and Equipment

The trail bike is a specialized type of motorcycle, conceived and designed for off-road, but *not off-trail* use. Typically, it is very narrow and light weight, between 180 and 280 pounds, with an engine displacing seven to 30 cubic inches, developing between eight and 33 horsepower. It is highly maneuverable and sophisticated in design, with weight, ground clearance, suspension, steering geometry, wheel and tire design and size, and power curve designed to enable its rider to traverse a variety of terrain safely and with relative ease.

Although trail bikes are designed for use on man-made ways other than maintained roads, they are *not* suited to indiscriminate cross-country brush busting or marsh cruising. Trail riders need trails to enjoy trail riding. A new rider may try the off-trail challenge, but the typical results are predictably discouraging. Exhausted, brush whipped and stone bruised, he returns to the established trail.

Trail bikes are not mini bikes, but full-size motorcycles, albeit comparatively light in weight. While full-size, they are not the kind most often seen on public roads, streets and highways. These "road" bikes are much heavier, weighing between 350 and 750 pounds, and cannot be ridden safely or easily and therefore should not be permitted on trails not comprised of public roads, streets or highways. Neither are trail bikes typical "hill climb bikes" which ordinarily are heavier and more powerful with correspondingly great resource damage potential.

Finally, trail bikes cannot be meaningfully compared to other forms of off-road vehicles. They are not as heavy or bulky as four-wheeled vehicles and are considerably easier to maneuver and control. And trail bikes have little in common with ATV's: The "go anywhere" advertising (promoting ATV sales) . . . simply does not apply to motorcycles in the typically heavily wooded national forests of the eastern region.

The Riding Experience

The evolution of our nation's artisan-craftsman socio-economic character into a mechanized-automated industrial life style has led many to seek recreational experiences, both creative and active. Trail biking can be both. And it is as much a recreation in the traditional and best senses as hiking, back packing, horseback riding, canoeing, mountain climbing, hunting, fishing and boating. It requires strength, skill, balance, coordination and sharp perception. And it is recreational in the most fundamental and meaningful sense: It refreshes and restores body and mind.

Hunting, fishing, camping and skiing share a common denominator with trail riding, evidenced by, among other things, the fact that in a recent survey, the majority of trail riders listed these other recreational preferences second only to trail riding. Common to trail riding and these recreations are the larger outdoor values. Accordingly, one not unexpectedly finds that a significant number of yesterday's hikers, mountain climbers, back packers, outdoorsmen and horsemen are some of today's trail riders.

David Sanderson, editor of the Indiana Motorcycling News, the news organ of the Indiana Motorcycle Association, recently made some perceptive comparisons between trail riding and traditional forest recreations in testimony before the Hoosier National Forest Off-Road Vehicle Task Force. Sanderson is a PhD candidate in English at Indiana University, a part-time teacher there, and a motorcyclist of eight years who has ridden extensively in Hoosier and other national forests. He has been deeply involved in a number of traditional outdoor recreations,

Photo by Bill Reaves



including membership in the Appalachian Mountain Club and has extensive camping, hiking, mountain climbing, canoeing, rock climbing and downhill skiing experience. He put it this way:

"This many-sided interest in the out-of-doors has given me what seems to be a rare kind of insight into the problems we are facing. . . . You see, many people oppose motorcycle trail riding partly—or even mostly—because they feel that it is not a legitimate recreational pursuit, that it does not offer the kind of outdoor experience that traditional recreations like hiking offer. Well, it does. I've done both, and I know. The rewards. . . (of) trail riding in Hoosier National Forest are no less than the rewards I get from hiking the Appalachian Trail in Maine or skiing in the New Hampshire Mountains. And the rewards are in many cases the same: Trail riding demands physical strength and stamina, like hiking; it demands lightning reflexes and excellent balance and coordination, like skiing; and it involves a process of challenging and exploring not so much nature as oneself, like mountaineering.

"The confusion and misunderstanding about trail riding I see in so many advocates of traditional recreation stems partly from the fact that they have never tried it, of course, and also from the fact that they fail to understand the unique nature of the vehicle involved. Typically, discussions opposing trail riding lump all motorized vehicles together, a classification whose only real basis is that they all use internal-combustion engines. Well, any analysis which fails to differentiate (among) the varying experiences offered by these vehicles and (among) the vehicles themselves is simply a failure.

"Recently I. . . heard someone speak disparagingly of 'being propelled along' through the woods by a motorcycle. Well, this picture of trail riding simply has no relation to the real experience. The constant necessity for controlling and balancing the machine as it moves over varying terrain means that trail riding involves the whole body, like skiing or rock climbing, and that it is a very intense physical experience. No conscious 'steering' is done as the rider moves along the trail; instead he 'reads' the terrain ahead, picking his route as the white water canoeist does, and guiding the bike along the chosen path by using it as an extension of his body, constantly moving to shift his weight as he accommodates the motorcycle to the terrain.



Photo by Bill Reaves



Photo by Bill Reaves

"Any attempt to deal with the problems of trail riding which does not take into account the value and legitimacy of the outdoor experience offered by trail riding and the nature of this experience is. . . misdirected and probably doomed to failure. There are many other factors which will affect the solutions to these problems; but to ignore one so basic and important as the one I have been discussing represents a major error."

The trail biking experience fills the senses with the sights, sounds, smells and touch of nature and the outdoors. As one writer said:

"Instead of insulating its. . . (passenger) like a car, a. . . (bike) extends him into the environment, all senses alert. Everything that happens outdoors. . . the inflections of the terrain, (the flight of a bird). . . the opening and squeezing of space, the cold and the heat, the stinks, the noises and silences. . . the biker flows into. . . in a state of heightened consciousness that no automobile driver. . . (in his shroud of steel and glass, and few others) will ever know. . . Leonardo da Vinci remarked 500 years ago, if you are alone, you are your own man. Biking is one of the (best and) most delightful expressions of this fact. . . One possesses one's own and unique experience."

This facet of the riding experience has been described another way in the prose of the Motorcycle Industry Council's full-page advertisement reminding riders of their responsibilities to themselves, others, and our resources and environment:

Make the world go away.
This is for you. You who leave steel and concrete highways behind.
With trails to ride, and peace to find.
Out here loneliness. With rivers, hills and love to find.
You with cluttered, hyped, and noisy places to forget.
Out here freedom.
And a man can look at who he is.
For here - you can make the world go away - and leave you.
To your bike, and trees, and mind - alone.

Not social? Some may think not. But this aspect of trail riding is a "charm against the Group Man" and the isolation and depersonalization of tightly structured urban-industrialized living.

Trail riding is a medium through which one may express his individuality and satisfy the fundamental competitive desire by mastery of his machine and successful accommodation of nature's obstacles. And because trail bikes are vehicles of time-space compression, the recreation affords a wholesome opportunity to many, who would not otherwise have one, to see and be with nature and things natural. And for all its participants, it is a healthy opportunity to see more of the world around them.

These are some of the reasons trail riding has become the recreation of today and its significant popularity will continue to grow.

Conclusion

Finally, a few words about our Federal policy vis a vis trail riding.

Our Federal policy orders administration of the national forests "for outdoor recreation, range, timber, watershed and wildlife and fish purposes" under principles of "multiple use and sustained yield of the several prod-

ucts and services obtained" from them.* Recreation has a place of particular prominence in our policy. The policy affirms the knowledge of our experience: It recognizes the centrality of man in our earth environment and the indispensability of recreational experiences to his welfare. For man must be periodically refreshed and restored in body and mind, recreated; he must undergo recreation, or he will physically and spiritually atrophy.

Congress has explicated its multiple use directive in part in terms of "management of all the . . . renewable surface resources . . . in a combination that will best meet the needs of the American people", management with "sufficient latitude for periodic adjustments in use to conform to changing needs. . .", and management including the "construction and maintenance of . . . trails. . . essential (to) . . . recreation and. . . (the goal of) intensive use. . .".** The recreational experiences for which our national policy declares the forests shall be administered are multiple, diverse and relevant ones; no single recreation or type, but "multiple" and "intensive use" - multiple recreations and forms. And relevant ones as well, ones which "meet the needs" of our citizens as needs may change from time to time. It is this objective national policy administered with reasonable and informed discretion by objective professional trustees—not individual or special interest preference—to which all of us have been committed.

These are the parameters within which we must make our judgments. Within their limits, trail riding is recreational, significant and valuable. And the prominence of recreation in our national forest administration policy is matched by the prominence of trail riding in today's recreation. For trail riding is today's recreational wave and it will be tomorrow's as well. Appraisals of recreation appropriate and feasible in the national forests must be made in the full light of these facts.

*16 U.S.C.A. §§ 528-29.
**16 U.S.C.A. § 531.
***16 U.S.C.A. § 532.

Frederick M. King

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Photo by U.S. Bureau of Outdoor Recreation



Courtesy U.S. Dept. of the Interior, Bureau of Land Management

*From AUDUBON, the magazine of
the National Audubon Society;
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By Jack Hope

The boy rode expertly. He gunned the small motorcycle across the sagebrush flat, throttled down as he came to a hill, and shifted his weight to provide more traction as he urged his machine up the slope. At the top he briefly disappeared from view, then came into sight beyond the dry creek bed, the throttle open again, a red cloud of dust fanning out behind. He vaulted a mound standing up, landing the snarling motorcycle on its rear wheel, buckling his knees at the right instant to absorb the shock. Then he reclimbed the hill, circling, sliding, sending up red flashes of dirt as a mourning dove flushed from the ground and retreated low over the sagebrush.

Eventually the boy tired of his sport and headed back toward the campground, where I stood watching. He rode up to me, stopped, and removed his crash helmet. He was a cute-looking kid, with a tanned face and a bright smile.

"Hi. Did you see me go over that ramp?"

I nodded toward the motorcycle. "What do you call that thing?"

"It's a Trail 70. A Honda."

"It looks dangerous. And it's noisy."

"It makes a helluva noise," he said enthusiastically.

"You put up a dove out there. How do you know it didn't have a nest? You could've crushed it."

"There's plenty of doves. Besides I'm careful."

"Isn't it illegal to ride that machine around here?"

The boy shook his head. "This is national forest. You can ride them anywhere you want."

"Even off the trails?" I asked, knowing he was stretching the truth.

The boy turned uneasily on his motorcycle seat and glanced back toward the place where his family was camped. "My father says you can. He says if they didn't want us to ride, they'd put up a sign."

Out in the sagebrush another engine roared. A crash-helmeted man, about forty years old, steered a large motorcycle in our direction. He wore a white t-shirt,

blue-and-white striped pants, cowboy boots, and large sunglasses.

"That's my father."

The man smiled as he stopped, and gestured toward his son.

"Rides pretty well for a nine-year-old, doesn't he?"

Nine! I pictured future generations being born with wheels instead of feet, with four-cycle engines filling the space within the cranium, a drive chain running down the spinal column, exhaust pipes protruding from the ears.

"I was going to wait another year, but all his friends have 'em. So I figured he'd better have one too."

"Well," I began awkwardly, "I was about to tell your boy he'd be

a lot better off walking instead of riding a machine."

The man was visibly annoyed. "C'mon Billy," he said. "We got to go."

"This's a free country," he yelled to me as he revved up his engine. "Some people like to walk, and some like to ride. We like to ride."

At that he and Billy gunned their father-and-son machines and sped off, side by side.

Frustrated, I stood thinking of the various sorts of purgatory to which certain people could be subjected: 100-mile motorcycle rides with a prickly-pear cactus fastened to the seat; filling in eroded trail bike ruts with a teaspoon. But I couldn't decide who

—in addition to Billy's father—would be made to suffer the punishment. The president of the Honda company? The Madison Avenue people who write the trail bike ads? The bureaucrats of the U.S. Forest Service? The inventor of the wheel? Who indeed?

For the off-road recreational vehicle clearly has taken America by storm. Little more than a decade ago, the machines collectively referred to as ORVs were non-existent, or at least were not manufactured for recreational use. Today there are more than 4 million of their kind: 2.5 million trail bikes (small or lightweight motorcycles designed for use in rough terrain); 1.4 million snowmobiles; 200,000 dune buggies



Courtesy U.S. Dept. of the Interior, Bureau of Land Management



(dune buggy = an old Volkswagen chassis + a new fiber glass body + variations thereof); and 50,000 all-terrain vehicles (ATVs) that are either bathtub-shaped or flat, supported by either balloon tires or by a cushion of air that carries the vehicle over land or water.

And within five years, according to a government estimate, we can expect about six million more off-road vehicles to be in use in this country.

The definition of an off-road vehicle is somewhat arbitrary—and generally determined by controversy. The four types mentioned have provoked the most debate. These machines are characterized by recent and rapidly growing popularity, by their capacity to travel over unpaved landscape, and by a price tag that is within the grasp of most Americans, ranging from \$250 for the least expensive trail bike, to \$1,000 for a snowmobile or dune buggy, to \$1,500 for a balloon-tired all-terrain vehicle or the cheapest air-cushion "hovercraft." Most expensive of all vehicles capable of off-road travel are four-wheel-drive jeeps, and pickup trucks costing upwards of \$3,000. All ORVs, of course, are powered by internal-combustion engines.

The rapidity with which the industry is developing indicates that within two or three years new or crossbred machinery will be added to the ORV category. Kits for converting snowmobiles with summer wheels are already available. And the companies have worked feverishly to produce miniature versions of some of their vehicles. Like the "Kitty Cat" snowmobile, a tiny machine designed for tiny children. (A recent advertisement pictures a five-year-old boy seated at the wheel of one of these motorized "toys.")

The most positive characteristic of off-road vehicles is that they are truly fun to operate. They are capable of speeds ranging from 15 to 80 miles per hour, and they provide the user with feelings of power, excitement, and control—sensations that, as the ad writers know only too well, appeal to most of us. And since the first of these vehicles hit the commercial market in the late 1950s, they have been embraced by a diverse segment of the American public, ranging from beach-combers in

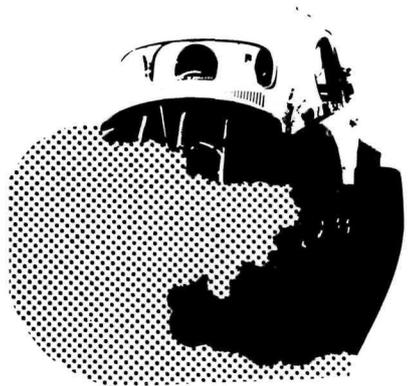
Southern California to conservative pillars of the church in Salt Lake City; from 4-H leaders in upstate New York to night-cruising deer poachers in northern Michigan.

But against the fun provided by those 4 million ORVs must be weighed a frightening list of grievances. For, by eliminating the need for physical effort in cross-country travel, by dramatically increasing the distance a man may cover in pursuit of his recreation (or in pursuit of anything else), these machines have created an ominous set of social and environmental problems.

Although half of the states have passed legislation regulating the use of some form of off-road vehicle, most of the laws are directed solely toward the snowmobile. Oregon and North Dakota are the only states requiring a driver's license or permit to operate an ORV, and this restriction is limited to snowmobiles. In most places, an eight-year-old may legally operate an off-road vehicle. And as some parents have learned, too late, an eight-year-old can also be killed by the machine. Nearly 90 people die each year in snowmobile accidents alone. Data gathered by a Maine official indicates snowmobiling is 60 times more accident-prone than hunting (roughly 300 accidents per 20,000 snowmobilers versus 50 accidents per 200,000 hunters). In addition, many thousands of serious spinal injuries are attributable to the jarring ride of this machine.

The lack of legal attention to ORVs—and the lack of comprehensive statistical information on the extent of their use and misuse—is testimony to the fact that lawmakers and law enforcement agencies are inadequately prepared to cope with the off-road vehicle. As in the case of the automobile, our technological inventiveness has outstripped our ability or willingness to deal with these machines in a rational manner.

The ORV laws that have been enacted are superficial. In general, they require a small state registration fee (usually \$5 or less), put an age minimum on operators (sometimes 16 years, sometimes 14, sometimes 10, sometimes none at all), and are directed largely toward protecting the ORV user from himself. There are seldom provisions to safeguard the environment or to buffer that 98



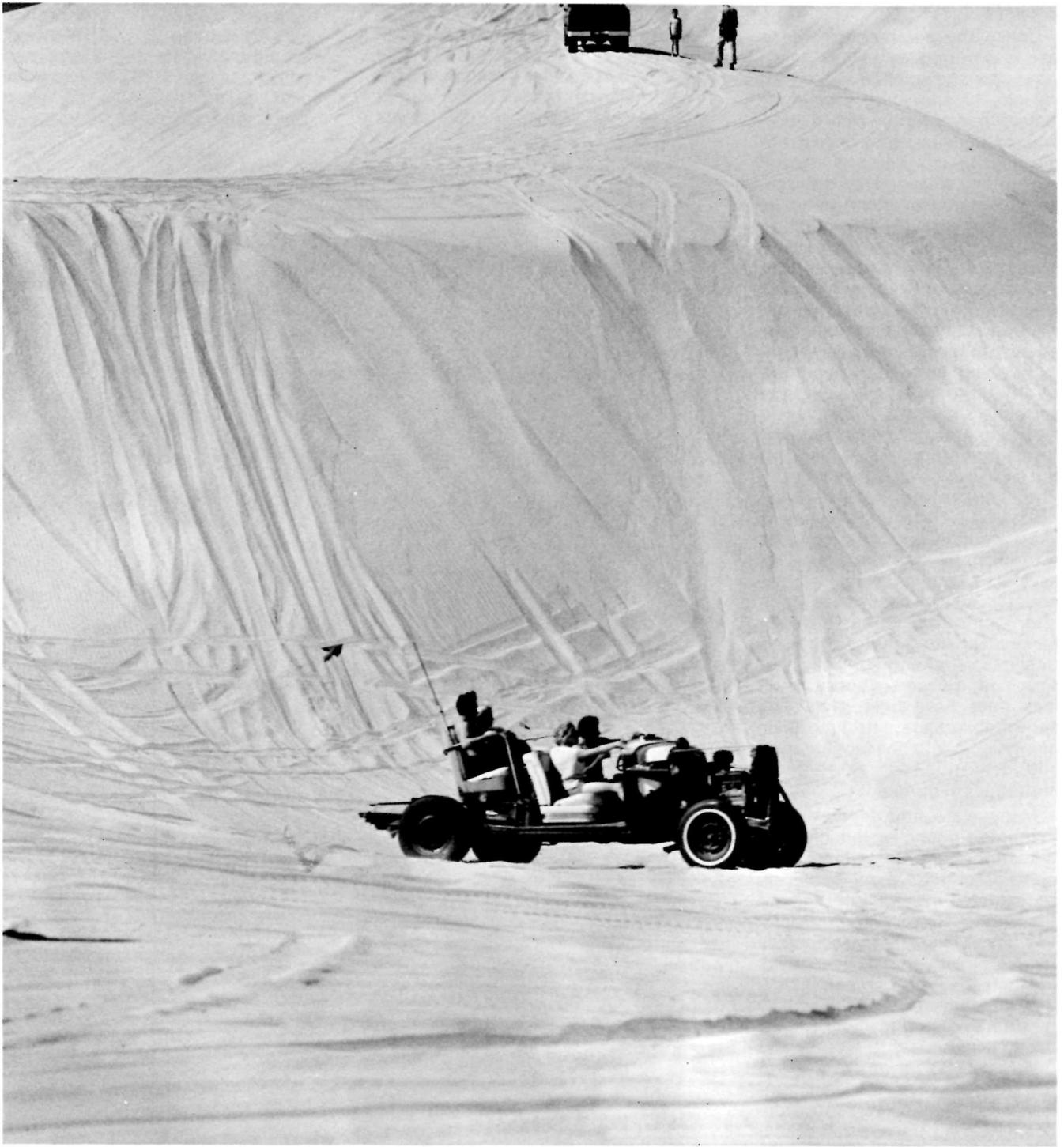


Photo by Martin Litton

Dune buggy on the Nipomo Dunes of Southern California.

percent of the public that does not own ORVs from the 2 percent that does. Often, the legal and administrative burden of coping with off-road machines falls upon such understaffed state agencies as departments of natural resources or park and forest commissions.

Unlike the automobile, whose use is confined largely to roadways, the snowmobile, all-terrain vehicle, or trail bike can travel almost everywhere—and does—making their use and impact impossible to monitor and control by normal means. Law enforcement officers can attend to only a small fraction of the offenses committed by ORV owners. Consequently, individuals whose summer cabins have been vandalized by winter snowmobilers, whose cattle have been stampeded by trail-bikers, or whose privacy has been invaded by operators of any off-road vehicles have resorted to somewhat misanthropic tactics to protect themselves from their tormentors. In New England the ORV has given new life to the “No Trespassing” poster business, and signs printed in recent years contain special bold-letter warnings to snowmobilers. In several Western states back-country hikers have piled logs into “motorcycle traps” (really blockades) along foot-paths used by silence-shattering trail bikes. In New York, growers whose Christmas trees have been stolen by snowmobilers are patrolling their plantations with loaded firearms and delivering thieves to local authorities at gunpoint.

Many state and federal land-managing agencies initially welcomed the new recreational vehicles, permitting them to range unrestricted over vast portions of the public domain, printing leaflets advertising the opportunities for motorized tourists to “cruise to their hearts’ content.” Now they find themselves in the embarrassing and politically awkward position of having to restrict and police vehicle usage in order to reduce vandalism and environmental damage. ORV users have committed a bizarre array of illegal and irresponsible acts on public lands, ranging from the theft of outhouses in Southern California to the destruction of ancient Indian petroglyphs in several Southwestern states, from the “rustling” of moose calves in Wyo-

ming to the stealing of the brass bar rail from the well-known ghost town of Garnet, Montana. (The rail was installed in 1867 and stolen in the winter of 1969-70.)

Last spring two men were found guilty of chasing and running over coyotes with snowmobiles in Grand Teton National Park in Wyoming. It was the fifth such incident at that park in 1971. The U.S. Forest Service no longer permits snowmobilers to enter areas in the national forests

where game animals winter. Rangers often have found the carcasses of winter-weakened deer and elk that apparently had been shot or run to death in the deep snow by snowmobilers.

As any trail-biker or snowmobiler will point out, the majority of the acts of vandalism are committed by a minority of ORV users. But this is irrelevant. A lone man on any of the ORVs can do a great deal of damage in a very short time. And given the shortage of

Buggy driver on Oklahoma's Little Sahara white sand hills.

Courtesy Oklahoma Dept. of Industrial Development and Parks



enforcement personnel, the growing number of ORVs, and the lack of restrictions upon their use, the chances of arresting or preventing this damage are almost nil.

But far more serious is the fact that use of ORVs by large numbers of people can create environmental havoc. In Humboldt National Forest in Nevada officials had to post "No Vehicles" signs within a hilly region where hunters using jeeps and all-terrain vehicles had caused an estimated \$50,000

worth of damage to soil and vegetation. The hunters tore down the signs and drove into the area anyway. At 80-acre Pierz Lake in Minnesota, where summer canoeists were once rewarded for their six-hour paddle with a catch of two-pound trout, a troop of 120 snowmobilers virtually cleaned out the lake in a single winter's day, packing out 556 pounds of fish. And in repeated hill-climbing expeditions in California's Panoche Hills, a 1,200-acre area ad-

ministered by the Bureau of Land Management, trail-bikers stripped away 60 percent of the vegetation.

In an attempt to control the use of off-road vehicles, some land-managing agencies ironically have invested tax dollars in ORVs of their own. New York State's Department of Environmental Conservation purchased a fleet of 43 snowmobiles for use in the Adirondack Forest Preserve. The machines are used both for routine work and to patrol the activities of snowmobilers: Some of the "routine" work could more properly be traced to the advent of the snowmobile. In an article in the department's magazine, *The Conservationist*, Conservation Officer Louis Fendrick writes of the pleasures of shooting foxes from a snowmobile as part of the state's predator control program.

Moreover, the U.S. Forest Service, the Bureau of Land Management, and state agencies have spent time and money in the development and maintenance of thousands of miles of ORV trails. Costs of trail construction vary greatly, but one federal land manager cited a typical expense of about \$2,000 per mile in preparing a pathway for trail bikes. Snowmobile trails are less costly to build since the surface need not be especially smooth, but they must be frequently groomed in winter to smooth out ruts and "moguls" at an estimated cost of \$200 per mile per year.

And the wants of ORV users do not stop at the facilities already provided. Snowmobilers' associations demand more, better maintained, and more accommodating trails, with eight-foot-wide bridges across waterways, with snowbanks at road crossings cut back "at least 500 feet in both directions," with grades and slopes of no more than 25 percent, with one-way traffic only, with trail widths no less than ten feet, with "warm-up and test areas" near the beginning of trails, with parking lots for the autos and trailers that bring the snowmobiles, with spur trails into "interesting areas," with "occasional open areas for frolic and rest," with nearby lodges and restaurants, with warming shelters and camping facilities, and with access routes to first aid, fuel supplies, telephones, and repair shops. One snowmobilers' group complained that the trail situation



on public land is "totally unrealistic unless trail opportunities are greatly expanded." Yet an upstate New York snowmobiler blithely testified before a legislative committee that: "The cost to the state's taxpayers in welcoming this new wholesome outdoor sport is practically nothing, because no special facilities are needed."

Trails for off-road vehicles have been built in a well-meaning attempt to confine the machines to relatively small and patrollable areas. And well-meaning vehicle users usually stay on these trails. But in California's Sequoia National Forest, there were so many motorcyclists using established trails that heavy erosion resulted; the loose mountain soil, powdered by ORV tires, washed downhill into nearby waterways, damaging the spawning grounds of golden trout. The area was closed to further ORV use.

All-terrain and four-wheel-drive vehicles have similar erosional effects, except in areas where rainfall is light. There, their tracks persist as unesthetic reminders for years. In the Southwest the ruts caused by four-wheel-drive military vehicles in 1942 during World War II maneuvers are still visible. All-terrain vehicles also damage aquatic vegetation. Dune buggies cause little ecological disturbance on flat, sandy beaches. But when driven a few yards inland, they disrupt the stability of seashore dunes by destroying their vegetative cover.

Snowmobile treads snip the terminal buds off snow-buried evergreens, disfiguring the trees and retarding growth. Damage to public and private timberlands has occurred from Maine to Oregon. But no one has projected the impact of thousands of errant snowmobilers on lumber or pulp production.

Snowmobiles exert more subtle pressures upon the environment. Resource managers report that the snow compacted by these machines forms icy blocks, reducing the soil's capacity to absorb moisture during the spring thaw, causing rapid runoff and erosion. Dr. Phillip Corbet, a Canadian wildlife specialist, reports that compaction also destroys the snow's capacity to insulate against the cold and to accommodate the burrows of small rodents that live beneath the snow's sur-

face. Not many people would notice the disappearance of a million mice. But eagles, hawks, owls, coyotes, bobcats, and foxes would.

Noise is the most commonly cited ORV offense. A snowmobile emits about 82 decibels of racket at 50 feet—equivalent to that of a jackhammer or chain saw—and can be heard two miles away. Manufacturers could easily muffle the noise, but they fear it would hurt sales. For noise gives a feeling of power. Federal officials are urging that levels be reduced to 73 decibels at 50 feet, and a few states have passed such legislation—but laws of this sort are difficult to enforce.

More critical is the fact that snowmobiles and trail bikes operate in areas where noise is an abnormality. It is doubtful that anyone would pay attention to the sound of a snowmobile at the corner of 42nd Street and Broadway in New York City. But in a state park in New Hampshire the effect is shattering—to human ears, and to animals' nervous systems as well.

In winter most browsing and grazing animals are in poor physical condition; they live largely on the body fat stored during summer months and cannot tolerate extreme exertion. Most females are pregnant. Based upon a new study of snowmobilers' harassment of elk and deer in southeastern Idaho, wildlife biologists estimate that an *hour's* exposure to a snowmobile drains these animals of as much energy as a *week's* normal winter existence. Once harassed by the machines, they will break into a "panicked run" while the snowmobile is still three-quarters of a mile distant and out of sight; noise alone can do the damage.

The off-road vehicle has spread the problems of litter and pollution to areas that five years ago knew neither. The amounts of paper, bottles, tin cans, and exhaust fumes distributed by ORVs and ORV users have not been quantified. The Bureau of Land Management, a federal agency that administers 453 million acres of public domain, notes simply that vehicle users make a "significant contribution" to the 50 million pounds of litter that the agency annually removes from its lands, and cites both exhaust and dust pollution caused by ORVs as "sig-

nificant but undetermined."

ORV owners are often portrayed as a breed unto themselves, as a cut-throat band of barbarians divorced from the mainstream of society. But they are really only *Homo sapiens* with wheels, no more or less inclined to litter, poach, or vandalize than any other group. In fact, some vehicle clubs have taken commendable steps to patrol the activities and clean up the litter of their members. Unfortunately, self-patrol cannot make a dent in the tremendous number of problems caused by ORVs. Only dedicated and well-organized clubs can effect any sort of useful patrol. At this point, only a small percentage of all ORV operators belong to clubs, and even in those areas where clubs do patrol, land managers report that vehicle-caused problems are increasing.

More important, most damage done by ORVs is not intentional but simply a result of normal, legal vehicle operation. Most ORV owners do not deliberately pollute or litter or damage trails and stream banks. They do not purposely disturb wintering wildlife, or intentionally reduce the suitable living space for such wilderness species as cougars, wolves, and grizzly bears. They do not choose to intrude upon the non-motorized recreation of hikers, campers, canoeists, or snowshoers. But they do. Such problems cannot be patrolled against.

Likewise, many of the social costs attributable to the ORV cannot be quantified. A woman living near Schenectady, New York, writes: "It is impossible to enjoy a quiet afternoon in the country when all one hears is the roar of snowmobiles. Needless to say, I am hoping for a snowless winter." What does it "cost" to know that there is no way of escaping a sight or sound that you detest? What does it cost a hiker who has climbed miles into the wilderness to suddenly hear the steady roar of a trail bike? What does it cost any of us to know that, since the 1968 snowmobile expedition to the North Pole (the first land expedition to reach the top of Earth since 1909), there is virtually nowhere one can go without encountering an internal-combustion engine?

Perhaps the most frightening aspect of the off-road vehicle is its capacity to influence thought. In

many ways the impact of the ORVs parallels that of the automobile. Both contribute to the notion of the inseparability of man and machine. And both raise the question of whether we are really capable of controlling our vehicles, or whether the vehicles assume power of their own.

For most Americans the off-road vehicle did not become a personal reality until about 1968. Yet ORV owners and their clubs intimate that motorcycles and snowmobiles are as essential to the American way of life as public education or freedom of the press. They refer to their machines with such affectionate (and nonmotorized) nicknames as "buggy" or "sled" or "bike". And snowmobilers remark that before the machine their lives in winter were drab and dismal. One president of a snowmobile club in Eagle River, Wisconsin, musing on his fate if he were deprived of his

machine, posed the question: "What would we be able to do around here except sit in front of the television?"

Some ORV owners go so far as to contend that their machines are necessary for cultivating an appreciation of nature. A strange thought, insofar as the ORV is designed to isolate its user from one of the primary realities of nature—the need for physical effort. And while there are few people who would deny a mechanical assist to anyone who is truly incapable of locomotion, 50 percent of our population is now under the age of 28, and most Americans can manage self-propulsion. In any case, 210 million people mounted on snowmobiles would probably have a hard time finding any nature to appreciate.

Indeed, riding an ORV is one of the least independent, least rugged of all outdoor activities. Yet many advertisements for these

machines imply the opposite. Consider this slogan: "Ready to make molehills out of mountains? Here's a bike from the Yamaha Enduro series that's blazing new trails through wilderness and back country across the land." Or: "Fun is there for whoever is alive enough to go after it. The new way to find it in the winter-time is with an Evinrude Skeeter." And for the man who wants to get back to nature the easy way: "The Honda Mini Trail 70. All the fun of back-packing without sore feet."

Some of the ads are strangely contradictory, urging one to "run away from civilization" or to "get away from it all" on your motorcycle or snowmobile, showing photos of neatly attired young couples who "ride rough" through woods, streams, and fields without so much as getting dusty.

And accommodation of the private recreational vehicle on public land places the Forest Service

Trail bikes give easy access to old mines in the historic Sweetwater Mining District, Wyoming.



Courtesy Wyoming Recreation Commission.

supervisor or state park commissioner in a curiously contradictory position. Although entrusted with protecting public resources, he condones a sport that creates unsolvable esthetic and ecological problems. By constructing trails and publishing booklets that encourage motorized recreation, he actively promotes an activity that is directly and indirectly resource-consuming.

In an attempt to establish some sort of unified federal approach to the off-road vehicle, Secretary of the Interior Rogers C. B. Morton appointed an interdepartmental task force whose report is due soon. To date, the federal agencies that have had the fewest problems with ORVs are those that have imposed the strictest controls upon their use. The National Park Service has adopted the general position that while the ORV is an acceptable means of transportation *into* a park, it is not an appropriate instrument for an off-road environmental encounter. Within natural areas of the National Park System, ORVs are usually restricted to paved auto roads (or to paved, snow-covered auto roads in winter) and are not permitted on hiking trails or in the back country. The ORV is regarded by the National Park Service as no more sacred than the automobile.

Questions of the right to recreational use of public lands have been brought into sharper focus by the advent of the off-road vehicle. The legal rule of thumb says that all of us have an equal right to use the country's commonly owned land, providing we do not infringe upon the rights or activities of other users, or do not diminish the value of the recreational resources.

But the ORV operator is many times more capable of infringing or diminishing than the man who walks, snowshoes, paddles, or skis cross-country. He can cover twenty times more land—or water—in a day than the man on foot or in a canoe, and thus will interfere twenty times more with the recreational opportunities of other land users—by getting first pick of campsites and fishing spots, by frightening away wildlife others might have seen, by reaching more places more quickly. He interferes with those seeking solitude by leaving highly visible and persistent reminders of his passing. Since he can carry at least

twice as much gear, he leaves twice as much litter. And because of the weight and horsepower of his machine, and the volume and constancy of its sound, land managers have estimated that the motorized outdoorsman can cause 200 times more physical damage to the landscape and can create 100 times more noise than the walker.

Translating these factors into a policy decision, a land manager might decide to either limit ORV use to a given number of acres, or to completely prohibit their use. What factual information is available clearly favors the latter course. For there are no solutions to the problems created by the ORV; we can tolerate the machines only if we are prepared to accept a steady, rapid decline in both the quality and the effective size of our recreational environment.

ORV associations argue that

opposition to their sport is partially based upon backpackers' selfish wishes to "have the outdoors all to themselves." They're right. Unfortunately, all of us—hiker and machine operator alike—seem to develop possessive attitudes toward things that are impossible to possess.

But while this is an interesting commentary on human nature, it has no meaning in terms of resource management. With a growing population and a declining pool of open space, each new use of land must be carefully justified. And the burden of proof rests upon the shoulders of the off-road vehicle enthusiasts and the ORV industry.

As more people want to do more things on the same acre of land, the man mounted on a machine inevitably becomes less of an asset. And by comparison, the man on foot becomes infinitely more valuable.



Jack Hope

Jack Hope has been a field editor for AUDUBON since 1970. A former senior editor for NATURAL HISTORY, Mr. Hope has contributed several notable articles on park matters including Central Park and the Mineral King controversy. He is the author of PARKS IN PERIL, an analysis of our National Park System and its management scheduled for publication this October. Mr. Hope is a contributing editor to BACKPACKER magazine and writes for a number of other periodicals including HARPERS and SMITHSONIAN.

A STATUTORY GUIDE—

SNOWMOBILES

AND OTHER

OFF-ROAD VEHICLES

To provide for the registration and regulation of snowmobiles and other off-road vehicles and the manner of their use.

DECLARATION OF PURPOSE

The rapid growth in numbers and use of snowmobiles and other off-road vehicles and their increasing impact upon other aspects of the public interest are matters of concern to the Legislature and to the people of the state.

The design, propulsion and capabilities of off-road vehicles continue to change and become more versatile, and their full recreational potential may require operation on or across public property, rights-of-way or highways. Unsafe, inappropriate and inconsiderate operation of off-road vehicles are already a matter of public record and concern as are the adverse effects of improper use upon fish and wildlife and their habitat. The use of off-road vehicles on public lands that have important natural, wild forest or wilderness values is destructive to and incompatible with such values. The use of off-road vehicles has infringed on the enjoyment by the people of the use of public land and of other forms of recreation and on the enjoyment of private land and property by the owners thereof.

Therefore, in order to promote the safe use of snowmobiles and other off-road vehicles, to protect the fish, wildlife and other natural resources of the state, to guarantee the availability of various forms of recreation to all citizens in an environment of diversity and quality, the following law is enacted:

I: DEFINITIONS

Off-road vehicle: An off-road vehicle is any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, snow, ice, marsh, swampland or other natural terrain. It includes, but is not limited to, four-wheel-drive or low-pressure-tire vehicles, motorcycles and related two-wheel vehicles, amphibious machines, ground-effect or air-cushion vehicles, and any other means of transportation deriving motive power from any source other than muscle or wind; except that such term shall exclude any registered motorboat, any military, fire or law enforcement vehicle, farm-type tractors and other self-propelled agricultural equipment used exclusively for agricultural purposes, any self-propelled equipment for harvesting and transportation of forest products, or for earth moving or construction while being used for these purposes on the work site, and self-propelled lawn mowers, snowblowers, garden or lawn tractors or golf carts while being used exclusively for their designed purpose.

This statutory guide to ORV regulations was first published as an appendix to a 1970 booklet produced by the Conservation Foundation entitled "The Off-Road Vehicle and Environmental Quality." The booklet is currently being updated. Information about the booklet may be obtained from the Foundation at 1717 Massachusetts Ave., NW, Washington, DC 20036.



Photo by Cecil W. Stoughton, NPS

Snowmobile: A snowmobile is any off-road vehicle that is less than 40" wide and no heavier than 500 pounds and is designed for and used exclusively for travel over snow or ice.

2: REGISTRATION

All off-road vehicles operated within the state, and not registered under the motor vehicle law, shall be registered with the State Department of Motor Vehicles after (date) except for vehicles operated exclusively on the owner's property. Registration shall be for a period of three years. Registration certificates and numbers shall be provided to the applicant for a fee. The fee for registration of a snowmobile shall be \$30 for three years.

Revenues from registration fees shall be allocated to the Department of Motor Vehicles to cover registration costs, for use in the enforcement of this act and for compensation for damage to private property when the identity of the vehicle or operator cannot be determined, and after official verification and appraisal of the damage. Regulations to carry out this section shall be issued by the Commissioner of Motor Vehicles within four months of passage of this act.

3: VEHICLE IDENTIFICATION

Every off-road vehicle operated within the state after (date) shall display its registration number in plainly distinguishable characters no less than three inches high. The method of identification display for various types of off-road vehicles shall be determined by appropriate regulations of the Department of Motor Vehicles. The identification number shall be the permanent number for the vehicle.

continued

4: LICENSING

- (a) No one shall operate an off-road vehicle anywhere in the state without a license from the state (or, if a nonresident, from the state of his residence) to operate that particular class of off-road vehicle. Regulations for classifying off-road vehicles and for licensing drivers shall be made by the Department of Motor Vehicles within 6 months of passage of this act. The minimum age for a snowmobile operator's license shall be 12 years and new applicants shall be required to have had four hours supervised instruction by a qualified instructor and shall demonstrate by examination an adequate knowledge of laws, regulations, safe operating procedures, and equipment.
- (b) No person shall operate an off-road vehicle on, across, or within ten feet of any public road, street or highway unless licensed to operate a motor vehicle in this state. No nonresident of this state shall operate an off-road vehicle on, across, or within 10 feet of any public road, street or highway unless he is duly licensed to operate a motor vehicle in the state or country of his residence.

5: NONRESIDENTS

Registration of any off-road vehicle in any other state or province is valid in this state for a period of 20 days from the time of arrival into this state, provided that vehicle identification meets the requirements of Section 3 of this act.

6: TEMPORARY PERMITS

In lieu of permanent registration, nonresident owners of off-road vehicles may secure temporary permits and vehicle identification numbers for 15 days upon application to offices of the Department of Motor Vehicles. The fee for temporary permits shall be \$5.

7: TAXATION

Off-road vehicles shall not be subject to personal property or ad valorem taxes, but shall be subject to all general sales taxes of the state.

8: DEALERS

- (a) All dealers of off-road vehicles shall be registered annually with the State Department of Motor Vehicles. Registration certificates shall be made available to a dealer for the fee of \$25 for one year.
- (b) The dealer shall have the affirmative duty to register the vehicle, affix the required identification number of the vehicle, and transfer the fee to and record the registration with the state. For this service the dealer may charge the purchaser a reasonable fee as established by the regulation of the Department of Motor Vehicles.
- (c) A dealer shall maintain his off-road vehicles in a safe condition. No dealer shall lease or otherwise make available for use an off-road vehicle to a person whom he has reason to believe is incompetent to run such vehicle in a lawful manner. No dealer shall make available or sell an off-road vehicle unless the user or purchaser has a valid license or user permit for that vehicle.
- (d) All dealers shall carry liability insurance or have proof that the user of his off-road vehicle has vehicle liability insurance.

- (e) All off-road vehicles provided for temporary use by a dealer shall be identified in accordance with regulations issued under Section 3.

9: OWNERSHIP TRANSFER

Within 15 days of the transfer of ownership, or part ownership, other than a security interest, or the destruction or abandonment of an off-road vehicle, written notice shall be given to the Department of Motor Vehicles in such form as the Department shall prescribe.

10: NOISE AND EXHAUST

No off-road vehicle may be operated in this state if it makes unusual or excessive noise or if it emits obnoxious exhaust fumes.

No new off-road vehicle or snowmobile manufactured after (date) may be sold in the state unless certified by the manufacturer to conform with the noise level limitations of this section.

An off-road vehicle that produces a sound level of 73 decibels or more on the "A" scale at 50 feet shall be deemed to make an unusual or excessive noise. Sound pressure levels in decibels shall be measured on the "A" scale of a sound level meter having characteristics defined by American Standards Association S1.4-1961 "General Purpose Sound Meter." Measurements of sound pressure level shall be made in accordance with applicable measurement practices outlined in the "Procedure for Sound Level Measurement of Snowmobiles" used by the International Snowmobile Industry Association, January, 1969, or such other source of standards for measurement of sound level as the Department of Motor Vehicles may adopt.

11: OPERATING RESTRICTIONS

No off-road vehicle shall be operated at any time

- (1) without working headlights, tail-lights, brakes and proper mufflers and other silencing equipment meeting the requirements of Section 10 of this article
- (2) in a reckless or careless manner
- (3) in a manner dangerous to person or property
- (4) while the operator is under the influence of intoxicating drugs or beverages
- (5) in any manner intended or to be reasonably expected to harass, drive or pursue any wildlife
- (6) on any private property without permission of the owner of the land or his agent
- (7) in a nursery or planting area, without permission of the owner or his agent
- (8) during the hours from one-half hour after sunset to one-half hour before sunrise without displaying a lighted headlight, lighted tail-light, and illuminated identification number.
- (9) Nothing in this section shall abrogate any existing rights of any private person arising out of or resulting from the use of an off-road vehicle by any other person.

12: SANITATION

No person shall litter or dispose of trash or garbage on public land or rights-of-way.

13: HUNTING AND USE OF FIREARMS

Firearms or other instruments used to hunt shall not be carried on any off-road vehicle in other than an unloaded and enclosed condition.

14: LIABILITY

- (1) The provisions of the state Motor Vehicle Financial Responsibility Act shall apply to off-road vehicles and their operations, and the application of such laws shall not be restricted to public roads but shall be of general application.
- (2) The operator and owner of an off-road vehicle shall be responsible and held accountable to the owner of any lands where trees, shrubs, crops or other property have been damaged as a result of travel over their premises.
- (3) Nothing in this section shall abrogate any existing rights of any private person arising out of or resulting from the use of an off-road vehicle by any other person.

15: ACCIDENTS

Any accident involving an off-road vehicle that results in personal injury or death or property damage over \$50 shall be reported to the Department of Motor Vehicles in a manner determined by regulations of the Department.

16: SNOWMOBILE HIGHWAY USE

Snowmobiles shall not be operated on public roads and highways, except in these instances:

- (1) Unplowed town and country roads—Snowmobiles may be permitted to operate on unplowed town and country roads.
- (2) Crossings—Snowmobiles meeting the requirements of this act may cross public highways, roads and streets, as directly as possible, preferably at right angles, and in all such crossings must yield the right-of-way to other vehicles. Snowmobiles shall not cross limited access highways. All crossings permitted must be made in safety and in a manner that does not interfere with motor vehicle traffic.
- (3) Unloading—Snowmobiles may operate off and alongside a public highway, road or street for limited distances from the point of unloading from a motorized conveyance to the point at which the snowmobile is intended and permitted to be operated, whenever it is otherwise impractical to reach such an area.
- (4) Margins of Plowed Roads—Snowmobiles may operate along unplowed margins of plowed roads when the terrain permits such operation in safety and without the necessity of entering any traffic lane.

17: ZONES OF USE

- (1) No off-road vehicle shall operate on any state land, except on public roads, or except as otherwise provided in this section.
- (2) Special snowmobile trails on any public land may be so designated only when the state or other public agency having jurisdiction has determined by its own studies and by suitable determination of public opinion, after notification and public hearing, that natural, fish and wildlife, and other recreational, aesthetic and public values will not be adversely affected thereby.
- (3) The Department of Conservation or other public agency having jurisdiction, shall specify by regulation the weather and trail conditions that will permit proper use of such trails by snowmobiles.

18: MUNICIPALITIES

Incorporated towns and municipalities shall have the authority to adopt ordinances regulating time periods or zones of use for off-road vehicles, not inconsistent with state laws and regulations.

19: PENALTIES

Violation of any section of this act shall be considered a misdemeanor punishable by a fine of \$50 to \$100 and/or imprisonment up to 90 days, except when illegal operation of an off-road vehicle results in damage to a person or to property, and the penalties of other laws of this state with respect thereto shall be applicable.

20: ENFORCEMENT

State police, regional state park police, conservation officers, regional and assistant regional conservation officers, forest rangers and all peace officers shall enforce the provisions of this article.

Photo by Cecil W. Stoughton, NPS

continued



Supporting Comments on Proposed Statutory Guide

1. Definition

The definition of off-road vehicle is designed to include all types of vehicles that are used for travel across natural terrain and that may adversely affect the environment or landscape. This definition does not include aircraft of any type and excludes a variety of work and agricultural vehicles when used for their designed purpose on the work site. This is necessary because a number of subsequent sections are applicable only to snowmobile and off-road vehicles designed and used extensively for recreational purposes.

A separate classification for snowmobiles seems necessary because of their number, because their general design has become standardized, because a body of administrative accommodation has developed by land administrators and because they are not usually in contact with the earth and can be operated so as not to cause serious damage.

2. Registration

The principal issue here is whether responsibility will lie with Departments of Motor Vehicles or Conservation departments. Many classes of off-road vehicles, including some snowmobiles, are already registered by Departments of Motor Vehicles (DMV). The functions involved are those performed regularly by the DMV for millions of vehicles. These Departments should be well equipped to undertake and perform economically the relatively small additional task (for the DMV) of registering snowmobiles and other off-road vehicles.

3. Vehicle Identification

This provision is crucial to the enforcement of laws affecting the use of off-road vehicles and snowmobiles. Where the vehicle is registered for highway operation, the regular plates will serve as identification.

4. Licensing

Some snowmobilers have proposed that the minimum licensing age should be 12 years, that beginners between 12 and 16 and perhaps at any age should receive instruction as a requirement for licensing, and that all should be required to pass a test that includes material and environmental considerations. An attempt has been made in the proposed law to respond to this need, but considerable amplification is necessary.

5. Dealers

The dealer will be an important element in implementing provisions of the law regarding identification and required equipment.

6. Noise and Exhaust

This important section would require a reduction in noise level under measuring conditions from an average of about 90 db a year or so ago and from a reported average of 86 db now, to 73 db maximum—a level determined by the New York State Conservation Department to be attainable by manufacturers and to be a marked improvement in comfort. The annoyance threshold for intermittent sounds in communities ranges from 50 to 90 db. Ordinary conversation averages 55 db.

The second paragraph of this section imposes the responsibility of certifying compliance with noise limits on the manufacturer. This should greatly reduce the problem and cost of enforcement.

7. Operating Restrictions

Part 1 is necessary to assure that proper equipment is maintained and that silencing equipment is not removed or replaced. In Part 7 objections have been raised to a blanket prohibition of operation in tree plantations and this has been eased to permit operation with the owner's permission.

Inspection has not been included because of the limited life of these machines—on the order of three years.

8. Snowmobile Highway Use

Opinions differ on whether snowmobiles should be permitted to be operated on plowed roads or on unplowed margins of plowed roads. In some areas such operation affords important opportunities for travel but it raises serious safety questions. On balance, it seems desirable to permit some use of unplowed margins of maintained roads under regulations promulgated by the DMV.

9. Zones of Use

The prohibition of trail bikes, ATV's, etc., on state-owned lands reflects the thesis of the report. Special provision for snowmobile trails recognizes the vehicle's more limited social and environmental effects.

10. Enforcement

This section makes it the duty of peace officers and officials of the Conservation Department having police powers to enforce the provisions of this proposed law.

B. PROCEDURE FOR SOUND LEVEL MEASUREMENT OF SNOWMOBILES

(Endorsed by the International Snowmobile Industry Association)

1. *Scope*—This procedure proposes a method of measuring snowmobile-spectator sound level. It describes the recommended equipment, test environment and procedure for determining this sound level. Briefly, the machine is operated at peak horsepower output, measuring the "A" scale sound level at a distance of 50 ft. as the machine passes.

2. *Purpose*—The purpose of this test is to determine the intensity of sound emitted that might be of concern to spectators.

3. *Equipment*—The following instrumentation is recommended for the measurement:

- 3.1. A sound level meter that meets the requirements of USASI Standard S1.4-1961 Specifications for General Purpose Sound Level Meters.
- 3.2. A sound level calibrator.
- 3.3. Wind screen or nose cone as necessary (See par. 4.1).

4. Procedure

4.1. Test Site - The test area shall be such that the ambient sound level (including wind effects) due to other sources shall be at least 10 db "A" lower than the level of the equipment subjected to test. The area shall be free of large reflecting surfaces (such as sign boards, buildings or hillsides) within at least 100 ft. of either machine or microphone.

4.1.1. The surface of the ground within the measurement area shall be free of powdery snow, long grass, hard surface (concrete, blacktop), loose soil, or ashes, gravel, etc.

- 4.1.2. The surface on which the machine is operated shall be dry and either packed snow or short grass. Other surfaces that may cause unusual drive track drag or noise are to be avoided.
- 4.1.3. Because bystanders may have an appreciable influence on meter response (absorption and/or reflection) when they are in the vicinity of the machine or the microphone, no person other than the operator and observer reading the meter shall be near the machine or the microphone.
- 4.2. Machine Operation - From an approach speed of approximately 10 mph, a wide-open throttle is to be established at 250 ft. from a line through the microphone, perpendicular to the path of the machine. Throttle should be kept open for at least 150 ft. past microphone. If maximum engine power is not developed at microphone line, increase approach speed accordingly.
- 4.3. Measurements
 - 4.3.1. The microphone shall be located 50 ft. from the center line of machine path at a height of 4 ft. above the ground.
 - 4.3.2. The meter shall be set for slow response and the A-weighted network.
 - 4.3.3. The meter shall be read while the machine passes the microphone, at W.O.T.

peak power. The reading recorded shall be the highest sound level obtained for the run. At least three measurements shall be made for the machine passing in each direction. All values should be recorded.

- 4.3.4. The sound level for each side of the machine shall be the average of the two highest readings that are within 2 db of each other. The sound level reported shall be that of the noisier side of the machine.

5. General Comments

- 5.1. It is recommended that only trained personnel take sound level readings and preferably the same person throughout a series of tests.
- 5.2. Instrument manufacturer's specifications for orientation of the microphone relative to the source of sound and the location of observer relative to the meter should be followed.
- 5.3. When a wind screen is required, a previously calibrated wind screen should be used. Further it is recommended that measurements be made only when wind velocity is below 12 mph, and also consistent with 4.1.
- 5.4. Field calibration of meter should be made immediately before or after each series of tests.

Photo by Clyde Blake



ORRV FACILITIES AND LEGISLATION AT THE STATE LEVEL

*From OUTDOOR RECREATION ACTION, Report No. 23,
published by the Bureau of Outdoor Recreation, U.S.
Department of the Interior.*

On February 8, 1972, President Nixon issued an Executive Order requiring each Federal land managing agency to set forth regulations and administrative instructions within six months designating specific areas and trails on public lands where off-road vehicles may be used or are banned. Designations of ORRV areas and trails are to be in accordance with the following:

1. Areas and trails shall be located to minimize damage to soil, watershed, vegetation, or other resources of the public lands.
2. They shall be located to minimize harassment of wildlife or significant disruption of wildlife habitat.
3. They shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
4. Areas and trails shall not be located in officially designated Wilderness Areas or Primitive Areas. They shall be located in areas of the National Park System, Natural Areas, or National Wildlife Refuges and Game Ranges only if the respective agency head determines that off-road vehicle use in such locations will not adversely affect their natural, esthetic, or scenic values.

The President ordered agencies to provide adequate opportunity for public participation in setting regulations and selecting areas and trails. Within one year, each agency head involved is to develop and publish regulations prescribing operating conditions for off-road vehicles on the public lands. These are to be designed to protect resource values, preserve public health, safety, and welfare, and minimize use conflicts.

The President directed the agencies to monitor the future effects of off-road vehicles on public lands, making changes in regulations and area designations as needed.

The Council on Environmental Quality is authorized to maintain continuing review of the implementation of the executive order. Affected land managing agencies are the Departments of the Interior, Defense, and Agriculture, and the Tennessee Valley Authority.

On State and Local Lands

Although Federal areas involve millions of acres of lands, most of the action needed to provide ORRV areas and facilities and to resolve use and user conflicts will need to take place at State and local levels. The following are examples of some of the State approaches to the needs and problems:

Alaska. Chugach State Park, 25 miles south of Anchorage, receives the State's heaviest snowmobile use. The State has opened approximately 50,000 acres of this park to users of these vehicles. The most successful area has been the Bird Creek drainage, where some 50 miles of old logging trails and roads have been closed to all vehicles other than snowmobiles. Contact: Neil C. Johanson, Superintendent of Parks, Division of Parks, 323 E. Fourth Avenue, Anchorage, Alaska 99501.

California. The 1971 Legislature enacted Chapter 1816, creating an Off-Highway Vehicle Fund with proceeds to be utilized by the Department of Parks and Recreation to plan, acquire, develop, construct, maintain, administer, and conserve trails and areas for use by off-highway vehicles. Fifty percent of the fund is for grants to cities, counties and special purpose districts. Local governments are required to finance not less than 25 percent of the cost of off-highway vehicle facilities. Contact: Department of Parks and Recreation, State of California Resources Agency, P.O. Box 2390, Sacramento, Calif. 95811.

STATE LEGISLATION ON OFF-ROAD RECREATIONAL VEHICLES

Colorado. Effective January 1, 1972, Colorado law requires that all self-propelled wheeled and tracked vehicles be registered and licensed by the Division of Game, Fish and Parks. An original license costs \$5; renewals \$3. The money goes into a Parks cash fund. A snowmobile safety course costing \$2 is required of minors 10 to 16 years of age. Contact: Division of Game, Fish and Parks, Department of Natural Resources, 6060 Broadway, Denver, Colo. 80216.

Florida. The Department of Natural Resources has formed a study team to review off-road vehicle problems. It will study possibilities of using powerline rights-of-way along with off-road vehicle parks providing camping, picnicking, and other facilities. Contact: Ney C. Landrum, Director, Division of Recreation and Parks, Department of Natural Resources, J. Edwin Larson Building, Tallahassee, Fla. 32304.

Idaho. The Idaho Park Board has approved a pilot snowmobile project in Ponderosa State Park, opening the park for winter use. Six miles of trails will be maintained for public snowmobiling. Trail route signs have been posted. Tentative plans call for warming huts and use of the park's information center building. Contact: Steve W. Bly, Director, Idaho Department of Parks, Statehouse, Boise, Idaho 83707.

Montana. The State Fish and Game Commission has issued anti-noise pollution regulations to conform to 1971 State Snowmobile Act provisions. The act requires that no new snowmobiles can be sold in the State after June 30, 1972, unless the manufacturer certifies that they produce no more than 85 decibels of sound at a distance of 15 feet. Contact: Wesley R. Woodgerd, Chief, Recreation and Parks Division, Montana Fish and Game Department, Mitchell Building, Helena, Mont. 59601.

Oklahoma. The Little Sahara Recreation Area, designed for and used almost exclusively by dune buggy and trail bike drivers, is located in Northwestern Oklahoma near Waynoka. The area is one of rolling hills and of deep white sand. It includes facilities for camping, hiking, and picnicking for off-road vehicle users. Featured during 1972 will be dune buggy races on holiday weekends. Contact: Kathy Cosgrove, Tourism & Information Division, Oklahoma Industrial Development and Park Department, Will Rogers Memorial Building, Oklahoma City, Okla. 73105.

Wyoming. The State Recreation Commission invests all money received from snowmobile registration above administrative costs in snowmobiling facilities. Of \$22,000 available so far, most of the money has been used for portable sanitary facilities, trail signs, trash barrels, and snow fencing. The Commission receives \$4 of each \$8 registration; the other \$4 stays with the county issuing the registration. Contact: Paul H. Westedt, Director, Wyoming Recreation Commission, Box 309, State Office Building, Cheyenne, Wyo. 82001.

Some of the best assistance available on meeting the requirements of this relatively new field is to be found in the legislative actions of the States involved. "Outdoor Recreation Action," relying heavily on the tabulation of State legislation reported by the Task Force on Off-Road Recreational Vehicles, presents the following list of State ORRV legislation enacted through the end of 1971.

Alaska. 1968 Law, Chapter 182. Provides for registration and regulation of snow vehicles. Contact: Division of Parks, Department of Natural Resources, 323 E. 4th Avenue, Anchorage, Alaska 99501.

California. 1969 Law, Chapter 1075 (Assembly Bill No. 1407). Provides regulations for snowmobile operation. Contact: Department of Parks and Recreation, State of California Resources Agency, P.O. Box 2390, Sacramento, Calif. 95811.

California. 1970 Law, Chapter 1330 (Assembly Bill No. 2235). Requires snowmobile identification plates.

California. 1971 Law, Chapter 1816. Creates an Off-Highway Vehicle Fund for trails and off-road vehicle areas.

Colorado. 1971 Law, Chapter 62 (Senate Bill No. 64). Provides for snowmobile operation regulations. Contact: Division of Game, Fish, and Parks, Department of Natural Resources, 6060 Broadway, Denver, Colo. 80216.

Colorado. 1971 Law, Chapter 62 (Senate Bill No. 434). Provides for registration of all self-propelled wheeled or tracked vehicles operated for recreation purposes.

Colorado. 1971 Law, Chapter 62 (House Bill No. 1144). Provides for a State Recreational Trails System to serve hikers, bicyclists, horseback riders, and recreational vehicles.

Connecticut. 1969 Law, Public Act 752, S. L. (Chapter 255, Snowmobiles, Sections 14-379 to 14-389, Conn. General Statutes, 1969 Supplement). Provides regulations for registration and operation of snowmobiles. Contact: Department of Agriculture and Natural Resources, State Office Building, Hartford, Conn. 06115.

Connecticut. 1971 Law, Public Act 440 (Substitute House Bill No. 7888). Relieves landowner liability for injury sustained by snowmobile operator or passenger upon landowner's property, unless fee charged for use or injury caused by willful or malicious conduct of landowner.

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Idaho. 1969 Law, Chapter 338 (S. B. 1326). (Chapter 26, Snowmobiles, Sections 49-2601 to 49-2614, Idaho Code, 1969 Cumulative Pocket Supplement). Requirements for the numbering and operation of snowmobile vehicles. Contact: Department of Parks, Statehouse, Boise, Idaho 83707.

Idaho. 1971 Law, Chapter 51 (S. B. 1061). Amended section 49-2608, Idaho Code, to provide that 80 percent rather than the original 50 percent of snowmobile license money be retained in County Snowmobile Funds for use in providing snowmobile facilities and activities.

Idaho. 1971 Law, Chapter 256 (S. B. 1165). Amended Chapter 26, Title 49, Idaho Code, to authorize counties to appoint unsalaried snowmobile advisory committees.

Illinois. 1971 Law, House Bill 288, Revised. Provides for the registration of snowmobiles, for regulations pertaining to operation, and penalties for violations. Contact: Department of Conservation, 102 State Office Building, Springfield, Ill. 62706.

Indiana. 1971 Law, House Enrolled Act No. 1175. Provides for registration of snowmobiles and off-road vehicles. Contact: Department of Natural Resources, 608 State Office Building, Indianapolis, Ind. 46204.

Iowa. 1970 Law, Chapter 1158 (H. F. 77). Provides for registration of snowmobiles. Contact: Iowa Conservation Commission, 300 Fourth Street, Des Moines, Iowa 50319.

Maine. 1969 Law, Title 12, Chapter 304. Provides regulations for registration and operation of snowmobiles. Contact: State Park and Recreation Commission, State Office Building, Augusta, Maine 04330.

Massachusetts. 1970 Law, Chapter 589. Provides regulations for registration and use of certain snow traveling vehicles and certain other recreation vehicles. Contact: Department of Natural Resources, Leverett Saltonstall Building, Government Center, 100 Cambridge Street, Boston, Mass. 02202.

Michigan. 1968 Law, Public Act No. 74. (Enrolled House Bill No. 3575). Provides regulations for registration and operation of snowmobiles. Contact: Department of Natural Resources, Stevens T. Mason Building, Lansing, Mich. 48926.

Michigan. 1971, Public Act No. 74. Amended the 1968 law by imposing new safety and noise level regulations and helping finance trail construction and safety education.

Minnesota. 1971 Law, Chapter 577 (H.F. No. 2822). Provides for registration and operation of snowmobiles. Contact: Department of Conservation, License Center, 625 North Robert Street, St. Paul, Minn. 55101.

Minnesota. 1971 Law, Chapter 946 (H.F. No. 1209). Relates to public recreational use of privately owned lands and limits liability for injury.

Minnesota. 1971 Law, Chapter 280. Creates a new Moose Lake State Recreation Area for motorized vehicle trails.

Montana. 1969 Law, Chapter 326 (House Bill No. 137). Provides for registration, exemptions, transfer of ownership, and operation of snowmobiles; establishes certificates of ownership, fees and charges; and provides penalties for violations. Contact: Department of Fish and Game, Helena, Mont. 59601.

Montana. 1971 Law, Senate Bill 54. Amended and repealed portions of the existing snowmobile law, providing for registration, fees, transfers of ownership, operation on public roads, streets, and highways, and prohibiting wildlife harassment, discharge of firearms from vehicles, noise levels above 85 decibels A scale (dBA) at 15 feet after June 30, 1972, except in organized racing events, and providing for penalties.

Nebraska. Legislative Bill 330, 1971, provides for licensing and registration of snowmobiles. Contact: Willard R. Barbee, Director, Game and Parks Commission, P.O. Box 30370, Lincoln, Nebr. 68503.

New Hampshire. 1961 Law, Chapter 212:34, Liability of Landowners, New Hampshire Revised Statutes Annotated, 1970 Supplement. (Amended in 1969 to add snow traveling vehicles and use of premises for water sports). Provides conditions under which landowner is liable to others for use of his premises. Contact: Fish and Game Department, 34 Bridge Street, Concord, N. H. 03301.

New Hampshire. 1969 Law, Chapter 488 (H.B. 10, Eng. No. 622). Provides for registration and operation of snow traveling vehicles.

New Hampshire. 1971 Law, Chapter 418 (H.B. 908). Limits allowable noise level of all recreational vehicles.

New Mexico. 1971 Law, Chapter 177 (Senate Bill 52). Provides for registration and operation of snowmobiles, sets fees and imposes penalties for violations. Contact: Division of Outdoor Recreation, State Planning Office, Santa Fe, N. Mex. 87501.

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New York. 1970 Law, Assembly Bill 4862-B, Cal. No. 707 (In Assembly February 12, 1970). Amends vehicle, traffic, and conservation laws relating to registration, operation, and control of snowmobiles; repeals Section 375-a of the vehicle and traffic law, in relation to snowmobile equipment when used on public highways. Contact: Division of Marine and Recreational Vehicles, Office of Parks and Recreation, Albany, N.Y. 12226.

North Dakota. 1971 Law, Chapter 385 (House Bill No. 1514). Provides for registration and regulation of snowmobiles. Contact: State Outdoor Recreation Agency, State Office Building, 900 East Boulevard, Bismarck, N. Dak. 58501.

Ohio. Substitute House Bill 214, Laws of 1971, provides for registration and operation of snowmobiles and certain all purpose vehicles. Contact: William B. Nye, Director, Dept. of Natural Resources, 907 Ohio Departments Building, Columbus, Ohio 43215.

Oregon. 1971 Law, Engrossed Senate Bill 286. Creates new provisions for snowmobiles. Provides for registration by Motor Vehicles Division. Requires identification numbers to be displayed on snowmobiles; provides fees, exemptions, penalties; prohibits local regulation; and requires accident reports when snowmobiles involved. Establishes regulations and requirements for use of snowmobiles on and off public roads, and for safety equipment. Contact: Oregon State Highway Division, Highway Building, Salem, Oreg. 97310.

Oregon. 1971 Law, House Bill 1673. Authorizes Game Commission to enter into wildlife conservation agreements with landowner or land management agencies to restrict use of motor-propelled vehicles damaging wildlife or wildlife habitat, and provides misdemeanor penalties for violation.

Pennsylvania. 1971 Law, Act No. 75 (House Bill No. 38, As Amended, Printer's No. 1604). Provides for registration of snowmobiles, fees, certificates of registration, and penalties for violations. Contact : Division State Forest Management, Department of Environmental Resources, Harrisburg, Pa. 17120.

Rhode Island. 1971 Law, Substitute "A," Senate Bill 296, added a Chapter 3.1, "Snowmobiles and Recreational Vehicles," to existing title 31, General Laws, entitled, "Motor and Other Vehicles." Contact: Edward C. Hayes, Jr., Acting Director, Dept. of Natural Resources, 83 Park Street, Providence, R. I. 02903.

South Dakota. 1971 Law, Chapter 182 (S. B. 24) Provides for title registration, annual registration and licensing of snowmobiles and snowmobile dealers. Contact: Department of Game, Fish, and Parks, Pierre, S. Dak. 57501.

South Dakota. 1970 Law, Chapter 176; 1967 Law, Chapter 215. Provides regulations for operation and use of motorcycles.

Utah. 1971 Law, Senate Bill No. 134, Enrolled Copy. Relates to operation of snowmobiles, all-terrain, and other recreation vehicles; provides for registration, operation, administration, and enforcement of regulations; designates areas; provides for development of facilities for use of these vehicles; and establishes fees. Contact: Division of Parks and Recreation, Department of Natural Resources, 1596 West North Temple, Salt Lake City, Utah 84116.

Vermont. 1967 Law, No. 341 (Adj. Sess.), As Amended 1969 and 1971. Provides for registration and regulation of snowmobiles. Contact: Planning Division, Agency of Environmental Conservation, Montpelier, Vt. 05602.

Vermont. 1971 Law, S. 55, No. 95. Regulates the use of certain off-road vehicles.

Washington. 1971 Law, Chapter 29 (Senate Bill No. 156, Engrossed). Provides for registration and regulation of snowmobiles and all-terrain vehicles, and prescribes penalties for violations. Contact: Interagency Committee for Outdoor Recreation, 4800 Capitol Blvd., Olympia, Wash. 98504. Mail address: P.O. Box 1489.

Washington. 1971 Law, Chapter 47 (Substitute Senate Bill No. 372). Provides for registration of all types of all-terrain vehicles and for preparation of State Trails Plan, including inventory of existing trails and potential trail routes within State.

Washington. 1971 Law, Chapter 130 (House Bill No. 1060). Prohibits severance or destruction of existing recreational trails of substantial usage for pedestrians or bicyclists by construction of any limited access highway, unless such trail is replaced by a trail which is acceptable to appropriate trail authority.

Wisconsin. 1969 Law, Chapter 394. Provides for registration of snowmobiles and regulations governing their use and operation. Contact: Department of Natural Resources, Box 450, Madison, Wis. 53701.

Wyoming. 1969 Law, Chapter 214 (Original H.B. No. 261). Requires registration of snowmobiles and provides for annual registration fee. Contact: Wyoming Recreation Commission, 604 East 25th Street, Box 309, Cheyenne, Wyo. 82001.

In addition to the State laws listed, a further source is Jack Hoene, who can provide copies of "Snowmobile Laws 1970-71." His address is the International Snowmobile Industry Association, 5100 Edina Industrial Blvd., Minneapolis, Minn. 55435. His information lists individual laws and specific provisions.

