

Boulder River--Three Fingers Area **By John Warth**

natural history writings. Large organizations are dedicated to gaining knowledge of and assuring protection of wildlife and other manifestations of nature. These include Defenders of Wildlife, The Audubon Society, and the National Wildlife Federation, and of course all other conservation groups give natural aspects of the environment prime importance. Their publications are fonts of natural history illustration and writing. Perhaps it is the conservation movement itself that is drawing young writers to nature-ink.

Natural history is not languishing for want of literature or concern, it is true. It can reasonably be asked why, then, am I concerned for its future? I would answer thus: Natural history today is riding the crest of the conservation movement. It was launched to that position by three factors: A new feeling for the land engendered in some by the crimes of laissez-faire despoilation; the writings and exemplary actions of John Burroughs, John Muir and their contemporaries; and by the prominent position once held by nature study in the public schools. It is different now. Great, dynamic naturalists we have. Reaction to destruction and endangerment flourishes. What has altered the scene is the passing of nature education, and I submit that it is this vacancy which threatens the fabric of the conservation-natural history symbiosis. In other words, nature study has peaked on the power of a grown generation's education; it can only decline without a fresh start. Given that decline, serious damage to the health of the conservation movement could result.

I cannot deny the great benefit that students headed for professional biological work can derive from preparatory schooling rich in modern biological concepts. But how much more the majority of elementary and high school students would gain from school exposure to real nature, to acquaint them not only with the internal workings of organisms, but also with the role, the beauty, the diversity, and that intrinsic aesthetic worth of living things of which I spoke earlier. We know that man cannot live apart from nature. We cannot, however, expect others to feel this way if their education leads them to believe that nature is to manipulate but not to know.

I wrote the bulk of these thoughts as I was sitting in Denny Park, a tiny but dear spot of green and autumn red in the center of busy, noisy downtown Seattle. The fall colors denoted something more to me than a chemical succession, and I experienced a most wonderful sensation when a wintering Hermit Thrust suddenly appeared on the patch of lawn among foraging Fox Sparrows. Just then a group of tiny children entered the park from one side. They paraded through, kept in rigid file on the pavement by teachers in front and behind. A little boy stooped to pick up a splendid maple leaf, and raised it toward his teacher with an excited "Look!" Blank-faced, the teacher took the leaf and herded the child along without reply. I thought, can that child's nature wonder survive, or will it vanish like the summer green of the maple leaf? And when he is grown, will he care if a forest is saved?

A LIVEABLE ENVIRONMENT VERSUS NOISE POLLUTION

Unwanted sound--noise--is an environmental pollutant with deleterious effects upon our physical and mental well-being which are only beginning to be fully documented; but there is no longer doubt that curbs and restraints must be placed on public noise making and further, that steps must be taken to reduce noise in the total environment.

Impressive facts are beginning to accumulate as research doctors are compiling clinical data on noise as a factor in environment. Industry has already begun a movement toward lessening noise in the work environment because such research has proven that high noise levels do impair efficiency.

Increasing deafness in the general population has been noted by Dr. John D. Dougherty of the Harvard School of Public Health, who has stated that ". . . community noise levels are causing hearing loss." Household appliances are as guilty as the truck in the street, power mowers, construction noise and every kind of noise to which we are constantly exposed.

The French scientist, Vladimir Gavreau, head of the Electroacoustics and Automation Laboratories of the French National Scientific Research Center, has been conducting research with "infra-sounds"--vibrations in the air below the threshold of hearing. He speculates that unheard infra-sounds in big cities, generated by heavy machinery, ventilating fans or other sources, may help cause "allergies, nervous breakdowns and other unpleasant phenomena of city life."

Dr. Samuel Rosen, a New York medical doctor and expert in noise, has classified noise as "one of our most severe health hazards" and has done research on the effects of noise for some years. His research has shown that noise, whether intermittent or prolonged, has definite harmful effects on blood circulation and these adverse effects continue for some time after the noise has stopped. Dr. Rosen has also stated that noise is a factor which may be involved in arteriosclerotic heart disease and that "The Chronic Noise Syndrome" will one day be recognized--"At an unexpected or unwanted noise the pupils dilate, skin pales, mucous membranes dry; there are intestinal spasms and the adrenals explode secretions."

Other measurable physiological considerations such as rise in blood pressure, increase in pulse rate, increased sweating and sudden bodily muscular contractions are an alarm reaction to sudden conditions of which sound is one. The factor of annoyance from noise has been found to be individual and psychological and not easily measurable or predictable.

The sonic boom, striking without warning, is presently the greatest potentially dangerous addition to the noise pollution in our environment. In 1963 when the super-sonic transport program was first proposed there was immediate protest, and it continues, gathering momentum as progress in the program graphically shows up the many disadvantages and harmful effects of the sonic boom. The public is beginning to revolt against the planes which the designers and engineers are building which contribute so greatly to noise pollution problems.

There are at the present time 199 super-sonic transport planes on order here and abroad. The Federal Aviation Agency believes, based on extensive studies, that there is a market for 1,200 of the SST's unless the sonic boom keeps the plane off most overland routes. In this case, orders would sharply drop.

According to General McKee, who commands the FFA, sonic booms differ with each plane as well as with altitude, atmospheric conditions and other variables, so it is possible that even though an acceptable test plane is developed, the succeeding ones may be increasingly offensive and it is reasonable to assume that after testing is concluded, the SST's will no longer operate under testing conditions and the "variables" will become greater factors in their flight.

During a New York State hearing on jet noise, Dr. Howard Bogard, chief psychologist at the Queens Hospital Center, has told several ways in which noise can seriously affect mental well-being: "A person who is under personal stress and who is subjected to a barrage of noise will be further aggravated by the noise; his ability to cope with his personal problem will be lessened. The noise could trigger this person into a neurosis. Without the noise he might be able to deal adequately with his problem. . . ."

We cannot escape the sonic boom. If it is not stopped entirely or strictly regulated, the populace of the entire world will be subjected to the devastating effects of the boom many times a day . . . and night.

Several countries and states have enacted laws aimed at controlling noise in the environment. The sonic boom itself was declared an "unlawful public nuisance" by a vote of 6-1 of the city council in Santa Barbara, California, with fines up to $500 or 60 days in jail as penalties. Nationally, Congressman Theodore R. Kupferman has introduced a bill, H. B. 14602, that would establish an Office of Noise Control within the Office of the Surgeon General. The bill would allocate funds for control, prevention, and abatement of noise, and for research.

Recently Stewart L. Udall, Secretary of the Department of the Interior, has created a committee to study noise pollution and the effects of the sonic boom. The public is beginning to demand a "liveable environment" and governmental bodies are becoming aware of the role they must play. The Transportation Department, the newest chair in the President's Cabinet, must by law consider the "social environmental impact" of its actions.

On September 9, 1967, the Sierra Club adopted a resolution joining in the protest against the sonic boom led by Dr. William A. Shurcliff, a Harvard physicist who is Director of the Citizens League Against the Sonic Boom. For action information, write him at 19 Appleton Street, Cambridge, Massachusetts 02138.

--Lucy Cable

WESTERN AUDUBON CONFERENCE

The Western Conference of the National Audubon Society will be held on April 6 - 9, 1968 at Asilomar; Pacific Grove, California. The theme of the conference is "Playing Russian Roulette with Nature." The conference will feature nationally known speakers in areas of air, water, land and wildlife conservation. Registration forms and further information may be obtained by writing:

National Audubon Western Conference
P. O. Box 3666
El Monte, California 91733

CONSERVATION AND NATURAL HISTORY

By - Bob Pyle

The entirety of conservation is uniquely and deeply intertwined with natural history. So closely juxtaposed are the two that they are actually interdependent on one another. To say this implies that conservationists are, or should be, naturalists, and the reverse, so that my premise may be familiar to many readers: Natural history is waning in the face of modern, mechanistic biology, and if the trend continues, conservation will have suffered greatly.

Natural history and biology are no longer one and the same discipline. At the advent of organized thinking about life they were, and they continued as such until the present century. Linnaeus, Darwin, then Muir, each representing one of the three major centuries in the history of modern biology, were themselves biologists supreme and at the head of the mainstream of biological science for their respective eras. But they were described just as aptly by the term naturalist. Their biology was concerned with the discovery, description, and interpretation of the life forms about them.

The divergence began sometime after Muir, when biologists became interested in the physical and chemical foundations of life, and found they had the tools with which to ply nature for her deep secrets. Today, the divorce is no longer pending. A person can be both a naturalist and a biologist, just as though he could be both a historian and an anthropologist. But men can be found who represent natural history or biology exclusively, and their studies have no more in common than the fact that they both utilize animals and plants as subjects for their inquiry. Examples are easily found, and credible. Donald Culross Peattie wrote:

> "Modern botany has almost ceased to concern itself with living plants. In many places . . . the 'amiable science,' as Goethe called it, is become an affair of titration tubes, spectroscopes, microtomes, chromosomes, and the mathematics of genetics. The botanical faculty are practically vassals of the physics and chemistry departments. Through their mills vegetable tissue passes as the raw materials of the laboratory. It is in many cases of so little apparent moment to know the names or the life habits of the living plant which furnishes forth the experimental material, that it is possible now to be a bespectacled young doctor of botany without having a speaking acquaintance with half a dozen plants where they grow."

The totality of the separation was brought home to me forcefully in a recent conversation with a zoology major at the University of Washington. I told him that I was seeking an education in natural history. "Why then," asked this modern young biologist, "aren't you in the history department, instead of biology?" A zoology major here also at first, I found myself a "nineteenth-century naturalist" in a twentieth-century university. Due to a great preponderance of required chemistry, physics, and molecular biology courses, there was no possibility for nature study as such. Now, because there is no established degree program in natural history, I am left to forage among the excellent nature courses which do exist, but are intended as electives for biochemically oriented botany and zoology majors. Because I would prefer observing frogs and turtles in a marsh to pithing them and recording the reflexes of their dead muscles on a smoked drum, I am a rather cryptic example of the deemphasis on natural history at the bastion of teaching and research, the university.

The purpose of this paper, however, is certainly not to disparage modern biology. The benefits of cellular biology and biochemistry to medicine are multifold, spectacular, and undeniable. In addition, vast quantities of knowledge concerning the basis for life have been gained and proliferated as a result of modern materials and methodology. Twentieth-century biology has acted to explain or elucidate many of the phenomena only observed or described by the old naturalists. So the emergence of modern biology in its own right was a positive occurence. But along with a deeper understanding and more sophisticated studies has come a mechanistic attitude which seeks to explain all factors of life in physical and chemical terms. Whether or not mechanism or vitalism is the answer to the life question (this writer is a professed vitalist) is not at issue here. What does count, concerning conservation, is the effect that this now-predominent mechanistic thinking has on natural history.

Joseph Wood Krutch wrote a marvelous article for the September-October 1967 Audubon entitled "The Demise of Natural History," in which he expands upon many of the ideas expressed here. Let me use some words of his to illustrate my point: "The development of biology during the half-century just past has led it farther and farther away from the methods and concerns of natural history. It has made the biologist less and less a man of the out-of-doors, more and more a man of the laboratories. He has retreated, not only from the woods and fields, but from everything that is, or can be, part of the everyday experience."

Frequently while manning a conservation literature table sponsored by the Conservation Council at the University, I am asked, "What is it you people are trying to save, anyway?" Or, "What GOOD are forests, rivers, and mountains if they aren't being USED?" How familiar these queries, to all of us! And herein lies the basis for my earlier statement, that conservation and natural history are interdependent: Nature subjects must be preserved, obviously, if nature study is to proliferate. And for conservation projects to succeed, especially those not directly related to industrial resources, the public at large must be aware of the values inherent in a sacrosanct natural legacy. These values, necessarily, are not provided by a mechanistic, biochemical approach to life science. They must therefore come from a rejuvinated natural history concerned with living things themselves, their intrinsic aesthetic worth to mankind and their welfare and perpetuation. Modern biologists do not disregard these concepts, and in fact often form a bulwark of support in conservation matters. But it is the naturalist in them that is speaking, most probably, not the professional dissector of the chemical and physical fiber of organisms.

The death knoll has not yet rung for natural history; nor is the bellman ready. In fact, there are a good many persons in America who possess all the requisites, as lovers and learners of nature, to be termed natualists. Some have combined superior intellectual capacity and such empathy for nature as to be not only our most sensitive naturalists, but also our finest biologists--for the two yet have a kinship and can be deployed together wonderfully. I speak of such people as Joseph Wood Krutch, Edwin Way Teale, and Marston Bates; others of this breed were the late Rachel Carson and Olaus Murie. One needs only to explore the well-stocked nature section in bookstores and libraries to envelop himself in the resurgence of pure and introspective

NESTUCCA SPIT CONTROVERSY

BACKGROUND OF RELOCATION CONTROVERSY

The widely publicized controversy over the location of the US 101 highway began in February 1965 when the Highway Commission held its first hearings on a proposed route north from Neskowin along Winema Beach, over Porter Point and then straight down along the 3.7 miles of Nestucca Sandspit to Cape Kiwanda and Tierra del Mar. In early 1966 the State Highway Commission, supported by the Bureau of Public Roads, chose the beach and sandspit route. Bob Straub, then gubernatorial candidate, brought statewide attention to the issue when he led 200 persons in a Mother's Day march along a portion of the route. His opponent, Tom McCall favored the beach route for providing access to the spit which is now served only by a county road. Straub had maintained that access could be improved by other means, and a high-speed highway would be more likely to destroy a beautiful recreation area than increase access for visitors.

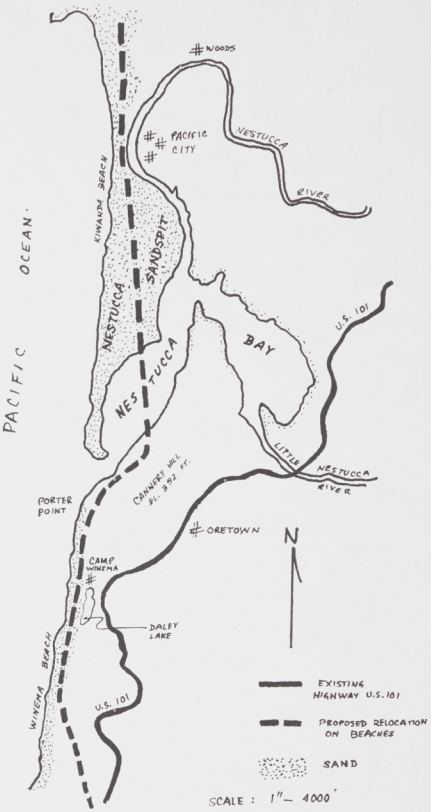
A year later, in July 1967 the Highway Commission reconfirmed its stand. At this point the US Department of Interior denied permission to build the highway over BLM lands on the sandspit since they were dedicated to recreation use only. Governor McCall announced that the issue was closed but then reopened it less than a month later calling for hearings in Tillamook on four routes, two of which were located on Winema Beach and one which continued up Nestucca Sandspit but avoided former BLM lands.

Most public opinion in the state has been opposed to the beach route. The four largest newspapers and largest est TV station have editorialized against the Highway Commission's proposal. The Committee to Save the Beaches, organized in August 1967, provided for a study by a professional polling organization. The results showed that 8.9% preferred the beach route, 59.6% wanted the highway to go through the foothills and 31.5% were undecided. In addition, the Committee gathered 12,500 signatures in less than a month on a petition calling for evening hearings in Portland and the Willamette Valley instead of just at Tillamook. The petition was ignored but served to demonstrate that public feeling was strong.

NOVEMBER HEARINGS AT TILLAMOOK

At the hearings on November 29, 1967, the Highway Commission noted that the least expensive routes were on the beach since public lands are not valued and compensated for as are private lands. The cost differences are relatively small, however, and there was no strong urging that economy should be the overriding factor. It was also noted that if the highway is not placed on the sandspit, the Highway Commission will not build a park. Although many people on both sides of the controversy have favored a park on the Nestucca Sandspit, there are many kinds of parks. The Commission means a highly developed recreational complex with facilities for campers and trailers, extensive landscaping and special activity areas. Others claim that the spit deserves wilderness, that is, roadless protection. Most opponents of the beach highway would probably settle for something in between.

A tally of the testimony indicates that it ran three to two against the beach route. The county commissioners, city officials, port commissioners and chamber of commerce representatives favored the beach routes. The Oregon Coast Association favored the Nestucca Sandspit and also other sandspit locations to the north which have been surveyed by the Commission. Ministers of the Winema Christian camp which serves over 6000 youngerers each summer, expressed their dismay at the prospect of being cut off from the ocean by a highway embankment.



Since the route must be approved by the US Dept. of Transportation as total federal financing is available from Forest Access Road funds, interested persons may write Hon. Alan S. Boyd, Dept. of Transportation, Washington, D.C. Secretary Boyd has indicated that the Department intends to follow those portions of the Transportation Act of 1965 prohibiting highway construction on park and recreation lands, although this does not become law until 1968.

Condensed from an article by Janet McLennan

Typists for the Conifer are urgently needed. If you live in the Puget Sound area and are willing to do nate time typing articles, please phone one of the editors.