

## Encroachment

Florida Conservation Foundation spokesman Bill Partington says after the last dusky seaside sparrow dies in Florida, "The lesson that people need to learn is that we must not destroy habitat."

It is just a simple matter. All we must do is learn the lesson that we must not destroy habitat. But destroying habitat is one of the consequences of humans absorbing those areas that have supported other species. It is what we do best. It is inevitable that an increasingly larger human population will steadily encroach upon those areas which provide a habitat for endangered species. We must continually have more space for our agriculture, industry and homes. We are the dominant species on the planet, at the moment. We use the land and resources as though only we have the right to them. Our arrogance is one of our most enduring, if least endearing, characteristics. But, of course, human life is sacred, so we must take over those areas which support life which is not sacred, or perhaps sacred to a lesser degree. Coexistence with other species is possible, but not if we continue to increase our population as we have in the past. In the past we have always chosen to remove the native human and non-human inhabitants in usurping areas which were to be our new "living room."

Our incessant proliferation requires constant encroachment upon our neighbors, human and non-human. The present situation is not without precedent. Past history has documented conflicts grounded in such encroachment. The settlement of the planet is a story of conflict resolution by migration to other areas when the homeland became overcrowded and differences of opinion over land use or manner of living became pointed. The only other options were armed conflict or resolving the dispute by turning to some higher authority for a decision. Our history is filled with examples of both armed conflict and the need to resolve issues in some less costly manner that led to our systems of law.

Today the option of migrating to an unpopulated area is relatively nil. Therefore, when we do not opt for armed conflict, we attempt to resolve our disputes by means of lawsuits to obtain damages for encroachment. The use of the lawsuit to rectify damage caused by pollution has increased and become an everpresent fact of life. Canada seeks means to legally halt the spread of acid rain "allegedly" caused by industrialization in the United States. In turn, the United States is "concerned" about heavy metal contamination of U.S. lakes and rivers, a consequence of waste discharge into streams by Canadian industry. Toxic wastes such as TCE, PCB and dioxin are examined to establish whether or not they are causal agents for leukemia and other cancers. More obvious industrial accidents become the focus for lawsuits of international scope, with damages reaching billions of dollars. The companies in these stereotypical legal battles do not admit guilt. They settle the suits with vast amounts of money, or contend for years in the courts. The costs of these settlements or legal battles become part of the cost of doing business. As always, the final payment comes at the individual level. In governmental transactions the taxpayer covers the costs. In lawsuits against business organizations the consumer and stockholders make the payments. So if you are a taxpayer, consumer or stockholder or any combination thereof don't be surprised at the bite on your wallet. The cost of doing business continually rises as the legal entanglements grow.

That such lawsuits will increase with population growth is assured. The demand for industrial goods rises with the increase in the number of people. This demand fuels the need for more industrialization which creates more waste. As people are affected by this waste they seek redress in

the courts. These plaintiffs are caught between the need to rectify the damage done to them and the unpopular position of taking on industry which provides a living for their neighbors and may provide their own living. As the need for more jobs fuels the need for more industry, people are faced with the choice of having a job or a safe environment. The decision to support industry and development now becomes ambivalent as the by-products of that development destroy the lives of its recipients. If a judgment is in favor of the plaintiffs in the case, they still have an empty victory. Friends and employers are alienated, people are not restored to their former potential, land is not restored to its former capability of providing for humans and other organisms that count upon it for their sustenance, and lives and/or "habitat" cannot be replaced.

Aside from the lawsuits stemming from the effects of toxic materials, increasing litigation resulting from population stress is manifest in numerous other areas. Water, mineral, timber and land use can be arbitrated rationally when demand is reasonable. When demand exceeds availability, such arbitration is devoid of solutions. Compromises are reached, but their impact is inevitably temporary. The attempt to adjudicate multiple claims on the resources in question is costly and endless. The complexities involved in dealing with our present population promote such a demand for intricate systems of laws and regulations. There is no possibility of finding simple solutions to the problems created by the interactions of over five billion people. So we continue on with our present system of disputing in local, state, national and international courts to determine who is rightfully entitled to utilize the resources of the earth, and who is culpable for damage to the planet and its inhabitants.

Some voices, of course, are not heard. Specifically, the poverty-stricken human inhabitants have few advocates. Animals and trees cannot take anyone to court, and, as one astute observer has noted "fish don't vote." Those who attempt to represent the rights of non-human species are considered meddlers in an otherwise cut and dried economic system. But the complexities created by trying to sort out the claims upon our resources affect all of us. We pay the costs of time involved in court decisions, of lawyers' fees, of judicial officials' salaries and of insurance. As the population of humans increases we can expect that these complexities will increase. The more there are of us, the more we will continually step on each others' toes.

People call out for legal reforms, and there are many areas needing reform which have little to do with population, but other areas have much to do with our excessive human biomass. Legal professionals can assign culpability to polluters, determine how it affected their clients and the amount necessary to repay their clients for its effects on their lives, but the final result is that the pollution continues unless it becomes too costly for the company involved. If it becomes too costly the company eliminates that part of its operations or goes out of business, often in bankruptcy so that restitution of the land or people involved is not addressed. In a world of over five billion potential consumers, an unprofitable division is no great loss and can be absorbed. When financial settlements are obtained, the money does not really cover the losses. How can anyone be compensated for the loss of their livelihood, as happens with oil spills which can destroy commercial fishing for years, or toxic waste which destroys water access? Though a company may pay for someone's living expenses, the destruction of a way of life is overlooked because it cannot be replaced.

An area where an excessive human population plays a more direct and obvious part is the continual encroachment on the habitats of other species. We operate as though habitat were an entity in and of itself which we can "create" at any time. Rather than preserving habitat, we continually note that other species are declining to the point of extinction. The mountain gorilla is killed for

souvenirs, though it is one of our closest anthropological relatives. The encroachment on its living area for farmland makes it unlikely that it would thrive in any case. Similar encroachment for farmland or more industrial space destroys the habitats of orangutans, chimpanzees and monkeys in various areas of the world. Dolphins are caught along with tuna so that we may have the tuna on our grocery shelves, and the dolphin population decreases. The whale is harvested in numbers that threaten its population. Our priorities in regard to intelligent species seem a bit odd. We send out signals to other planets in case we are contacted by intelligent extraterrestrials. All the while we are obliterating life forms on our planet that are closest to ourselves in intelligence. Perhaps if we contact the intelligent extraterrestrials they will tell us how not to destroy habitat.

There is sympathy for the animal species that we have surmised to have great intelligence, such as non-human primates, whales or dolphins. There is sympathy for other animals who face extinction such as panda bears, snow leopards, tigers and other animals which capture our fancy. Campaigns are mounted to save these species, but it is doubtful that we can maintain these species or others that are not as appealing to us, because we continue to engage in the great experiment to see how many humans can be supported by the carrying capacity of the earth. Some population experts assert that 5 billion or 6 billion people may be the utmost number that this planet can support. Other estimates run from 7 billion to the incredibly optimistic--- 40 billion!, but the point is moot when we examine the present circumstances of both humans and other species. The activities of 5 billion people are causing the equivalent of genocide in waves of animal populations, plant species and human cultures.

Our expanding population makes it necessary to find new technological "solutions" of increasing complexity to deal with problems which are, in many ways, a result of our expanding population. Of course, technology can be beneficial. Using our medical technology coupled with our transportation technology, we can transport food or vaccines to any point on the globe if we choose. We can sometimes temporarily save a wild animal by removing it from the effects of our encroachment to some other area. We can free a few whales. In a singular fashion we can do spectacular things which seem to show that, once again, there are no limits to our ingenuity and our ability to solve problems in the short term. But the effects of our expansion are not singular or short term. They are interrelated and their combined long-term effects form a disturbing picture.

For example, because we have expanded into the habitats of wild animals in so many ways, animals such as species of monkeys in Malaysia, grizzly bears in Montana, or pandas in China (to name only a few) are crowded out. So we seek to recreate habitats for wild animals. But our efforts, though laudable, are unlikely to be successful in the long run. A graphic example of the historical impact of population expansion is the decline in the United States of caribou. The last remaining herd of caribou in the lower 48 states numbers about 30 animals, living in the Pacific Northwest. The caribou, once plentiful in the northern United States, disappeared from New England by 1908 and from the Great Lakes states by 1940. Similar declines in species are inevitable, given the manner in which we are overwhelming our ecosystems. Seven hundred eighty-six animals are listed as endangered species. The elephant population in Africa has been halved in the last 10 years, and, according to an international conference held in Nairobi in November, 1988, "the elephant will disappear from the continent within the next 10 years, if the present rate of decline is allowed to continue." President Daniel arap Moi, declaring Kenya's wildlife an essential part of its heritage, has ordered poachers shot on sight. (22) Though we may shoot the poachers on sight, however, it will serve no purpose in the long run. Our population expansion will eventually doom the elephant.

Extinction of animal species is a well-documented fact. Lesser attention has been paid to the

extinction of plant species. The cutting and burning of tropical forests not only contributes to the greenhouse effect through gases released, it also removes plant species which absorb carbon dioxide, one of the greenhouse gases. Thus this action is doubly defeating, which is bad enough in itself, but an additional factor is that these forests harbor one third of Earth's 30 million plant and animal species. Such losses in the tropics are grave. The plant species in this area produce a great deal of the oxygen in our atmosphere. The plant species are also a storehouse of medicinal herbs which have not been thoroughly examined as to their potential uses. We do know that most of our pharmaceutical compounds have their origins in the tropical forest regions. So losing or extensively damaging these tropical ecosystems will not be just a matter of a few more missing trees.

We have multiple use plans for forests so that they can be simultaneously used for logging, recreation, grazing and maintaining wildlife. Our growing demand for timber and agricultural products, however, take precedence over other uses. The clearcutting, which so often accompanies logging and is inevitable with agricultural expansion, makes other uses impossible. Wildlife moves to other areas, though our encroachment makes it harder for them to find suitable habitats. Predatory wildlife is in constant conflict with humans who usurp their habitats, and the consistent end to any conflict with humans is the death of the "offending" predator.

The clearcutting of forests has other damaging effects on the ecology. Silt washed into streams destroys fish and other organisms. Erosion is caused by removing the old growth which held moisture. Decaying vegetation is not profitable as far as wood products are concerned, but is necessary in the ecology of the forest as it provides food and homes for the network of species which live in the forest. Animals removed from this natural network and placed in zoos do not fare well, and our ability to recreate it is limited. The places where these animals existed naturally are obviously the habitats in which they thrive, and though we cannot return all of the land to other species, it seems that we also should not demand all of the land for ourselves. It is not good for either the other species or for *Homo sapiens*.

In addition, we are basically outstripping the ability of ecological systems to replenish themselves, as a direct result of population growth. Our demands for fish are increasing as the supply is declining worldwide. Demands on our forests, croplands and rangelands are also increasing to the point where the land does not have time to renew. It takes a set amount of time for forest growth to reach the point where harvest is feasible, and when we remove the old growth forest, even with the best intentions of replanting, it changes the ecology. The same is true for rangelands and croplands. When demand is too high and the ecosystem is not allowed to rejuvenate, there comes a time when the ecosystem will support only a fraction of the original demand, and take much longer to replace that which was lost. For example, let us say that your favorite fishing hole supports 100 anglers without any decline of fish. The ability to support this number of anglers is the pond's sustainable yield. Word gets out about this secluded area, however, and 300 anglers begin fishing there. The fish decline rapidly, and for the next 10 years the spot will only support 20 anglers each year. In this simplistic example we are assuming that the overfishing does not change the ecology to the extent that the decline of stocks is not replenishable by natural means. As noted by Lester Brown and Christopher Flavin in *State of the World 1988* "If the demands of a local population surpass sustainable yields, the systems will continue to deteriorate even if population growth stops." (23)

The example does not account for pollution, either. When pollution is added to the equation, we find that the favorite fishing spot is perhaps altogether dead, as are thousands of lakes around the world due to the effects of acid rain. And if a marine habitat is not dead, its stocks may still be

diminished by pollution. Pollution killed nearly a half billion fish in United States waters between 1961 and 1976, and there is little doubt that these reported figures capture only a fraction of the damage being done. (24) There is little evidence to date that we are reversing this decline which is caused by several sources of pollution--acid rain, toxic waste, silt accumulation. Some of the wastes which contaminate our waters could be absorbed if they were not being produced in such large quantities. Others are nondegradable wastes which persist indefinitely, because they are so foreign to the natural environment that no process has evolved naturally to treat them. It is sobering to think that there is now no part of the oceans which is free of pollution. According to the Global 2000 Report, "synthetic organic compounds are ubiquitous in the open ocean, heavy metals have accumulated in the marine food web, and artificial radioactive materials can be found in seawater and nearly all marine organisms." (25) Fish that are not killed directly by our toxins may be rendered unfit for human consumption. Closures of contaminated fishing areas are not unfamiliar in today's world. While we have an expanding population of humans, the combined effect of these factors is that we have a shrinking population of fish.

The compound effects of these factors is that we also have a shrinking population of most waterfowl. In 1985 the decline in the number of ducks was alarming. Human activities are absorbing wetlands which support ducks. Some are lost due to development, like the marshes in Northern California and New Jersey. Half of the pothole wetlands in North and South Dakota which provide nests for baby ducks have been absorbed through encroachment by agriculture. Canada is following suit as farmers expand to maintain or increase their profits. Nesting areas are increasingly susceptible to predation due to overcrowding caused by habitat loss. Industrial development and farm runoff of chemicals poison marshlands, causing deformities in newborns. Having more ducks on smaller acreages leads to the spread of diseases which further reduce their numbers. We are unsuccessful when we try to limit ducks and other waterfowl to small holding areas because they cannot thrive when their ranging territory is limited. Like most other animals, they require more than just a little plot to maintain their life cycle.

It is easy to dismiss the decline of these species by saying that we may have to get along without ducks or other species if they require too much of our land, but it is, of course, not that simple. The losses of species are also indicative of the ill health of the soil, which is the most important resource in maintaining the populations of humans and other species. Thus, for those who have no great love for wildlife, we have a completely utilitarian reason for wanting to maintain other species: We won't be sustained very long by soil which will not sustain wildlife.

We have established holding areas---zoos and refuges---for the animals we are trying to save. By doing so we can make the specious claim that we have not wiped out yet another species of animal. We can create "living museums" attesting to the glory of what used to be. Our continual encroachment on the lands that provide, or have provided for the existence in the wild of other species make it likely that many of these species will become extinct in the future. Our philosophical rationale for allowing other species to become extinct is secure. We are the dominant species on the planet due to our intelligence. We, above all other species, have the right to live, and the right to live any way we choose. If our lifestyle harms other species, we regret it, but not enough to change. The harm we do to other species is a holocaust we seem to be able to live with. Non-biodegradable plastic kills an estimated 2 million seabirds and 100,000 marine mammals every year when they eat or become entangled in the debris we discard into the sea. Anastasia Toufexis reporting for Time magazine said,

"Sea turtles choke on plastic bags they mistake for jellyfish, and sea lions are ensnared when they playfully poke their noses into plastic nets and rings. Unable to open their jaws, some sea lions simply starve to death. Brown pelicans become so enmeshed in fishing line that they hang themselves. Observers have seen them dangling from tree branches in Florida." (26)

Our fishing practices include nets which drag over 30,000 feet of ocean, ensnaring anything that crosses their path. The world fish harvest has declined in the past few decades and that drop becomes more precipitous with the passing of time. An alarming decline in non-waterfowl bird species, including songbirds, has been noted by researchers. The odd thing is that we have no particular hatred for these species. When we dislike the species we are displacing, our rationale for destroying them seems even more secure. We have consistently labeled such animals as bears and wolves our enemies, while taking larger and larger portions of their natural habitats. Our unreasonable hatred has created myths about these animals as though they were a species : which was going to eliminate us, rather than vice versa.

The Bible exhorts us to go forth and multiply. We've followed instructions explicitly. Without any particular malevolence we have created more and more human beings that displace other species. The lack of malevolence, the joy that is part of the greeting of a new human life masks the reality that the continually expanding human species must squeeze out other species to exist. Animal rights advocates focus on the rights of animals in institutions to a humane existence, and we are not disputing the legitimacy of this goal, but the right of animals to exist free from the inevitable encroachment of the expanding human population is not being addressed. It is doubtful that it will be addressed because our traditions do not revere life other than human life. Domesticated animals are valued for their utility; animals in the wild are not, and so their status is continually subject to our emotional whim of the moment. Added to that whim of the moment is our penchant to displace the humans, animals and plants that obstruct our aims. Our unmanageable population is not the only thing which makes this carnage occur, but it undoubtedly increases the scope of the destruction.

We have removed, both for animals and humans, one of the options to avoid violence---that being the option of flight to an area which is unoccupied by other masses of humanity. Though one can point to large expanses of land which are unoccupied on the planet, such land is either marginal in terms of providing sustenance or other resources, or else plans for development will soon be under way. We are encroaching on land that was in the past considered unfit for development because our technology has now made it possible to temporarily transform marshlands, deserts and other marginal areas for our use, though it means destroying the ecological balance of those areas for a short-term gain. In doing so we destroy the habitats of wildlife, but we must have the land for human expansion. Our history is one of adapting land areas for our support----if we wish to live anything but a primitive existence we must do so, but we have been pushing the limits of expansion for some time.

We are altering complex ecosystems which are naturally organized for the best possible use. When our livestock graze the land to its surface, perennial grasses are destroyed. They are then replaced by annual varieties of grasses. This simplification of the ecology has its price, as the altered land is more open to erosion. Continued overgrazing repeats the cycle, eventually destroying any defense against erosion. Acid rain or air pollution does not always kill forest vegetation directly. Instead it weakens the vegetation so that it is more susceptible to natural enemies. The ability of these ecosystems to repair themselves diminishes, furthering the ecological decline. To satisfy our demand for food we fill in wetlands throughout the world to "create" farmland, because we are using

more and more land which is naturally suited to agricultural use for our encroachment: homes, business enterprises, highways and other development. Other areas of the earth are natural deserts which we hope to convert to agricultural use due to the necessity posed by overpopulation, rather than leaving them in their natural state.

If we have a future in which there are fewer people, our encroachment on others and the environment will be lessened. If not, the encroachment will increase, though it cannot increase a very long time. The evidence of decline is rampant. Deforestation in Africa and India has become so extensive that people can no longer find firewood and instead burn dung. This practice reduces the amount of natural fertilizer returning to the land, leaving impoverished soil and continuing the cycle that eventually reduces crop yields. There is less food for humans and other species. In addition, the trees that are lost provided a hedge against soil erosion. The lack of tree cover means more soil erosion, which multiplies the problems of a populace trying to make a meager living. The final result is economic impoverishment. The dwindling supplies of wood and dung command higher prices in the market place, and the soil suffers. In many areas of Africa and India, wood gathering has overtaken land clearing as the main cause of deforestation.

The relationship of a growing population to environmental degradation is seldom readily apparent. As our population grows, so do the number of animals that we require. The combination of overgrazing, deforestation and pollutants which weaken or kill plant species compounds, leaving more land at risk of desertification. As we strip the land of its ability to retain moisture, we create new deserts. Australian geographer Jack Mabbutt in 1984 estimated that over a third of the world's land surface is at risk of becoming desert. (27) The spread of desert conditions around the world may also indicate that our machinations are affecting the hydrological cycle, actually reducing rainfall. It is difficult to tell if this is a part of the normal hydrological change which would occur whether there were a large population or not. Soil erosion exceeds the rate of new soil formation on 35 percent of the world's cropland, affecting food productivity worldwide. (28) Reforestation, use of alternative energy sources and restoring vegetation are all factors in halting these declines, but their implementation is futile if our population continues to grow. Once again, we find ourselves "flying blind." But the principle of conserving rather than charging forward at any cost still applies.

In any case, there is no particular rationale for our expanding human population aside from the idea that it is "natural" and that we cannot, or do not, wish to stop our prolific reproduction. Although it seems obvious that there is an ultimate point of saturation beyond which we have irrevocable breakdowns of ecological systems, there has been no recognized disaster that is tied in the public mind to overpopulation, such as the nuclear plant disasters which have soured a great number of people on the feasibility of that power source. It is not a matter of concern in the public mind that large-scale tree decline and death afflicts an estimated 35 percent of Germany's forests and is accelerating rapidly in the northeastern United States, (29) or that every year we destroy 42,000 square miles of tropical forests, leaving the land to become increasingly dry as its absorptive capacity lessens. (30) The average person does not feel any immediate impact as the rain forests of the earth disappear, though they contain half the world's species of plants and animals. At the current rate of destruction the rain forests will be eliminated in less than a century. That the Amazon jungle may be gone within the next few decades does not make an impact, though one quarter of our fresh water on Earth comes from the Amazon area, as does half of the oxygen produced. (This is not solely an example of large agribusiness destroying the land for profit-- 80 percent of the damage done is done by smallholders clearing the jungle for a plot of land. This practice is an exercise in futility as it does not open new, productive crop land. The land cleared is poor soil that only

produces for a few years and is abandoned. Erosion follows the clearing, rendering the land infertile so that more land must be cleared). Even if large-scale forest destruction were to be considered a grave situation by everyone on the planet, it is not likely that it would be connected to the fact that we have too many people. We have only begun to become aware of the magnitude of our environmental problems. We need to become aware of the part greater and greater numbers of people play in the dance of destruction. Perhaps, as William Sloane Coffin has said, "A crisis is never a crisis until it is validated by disaster."

It is easy to see these problems as being disconnected from our daily lives, as something that has an effect upon us but is not amenable to change by any action of ours. The reality is that we consume the goods and use the services that eventually create the pollution which damages our environment. The reality is that we produce the children which expand the population. More people produce more increments of pollution which add up to the global crises we now face. More of us will inevitably mean more complexity to govern our behavior toward each other, more legal circumscription in our lives and more unsatisfying "solutions" to problems which cannot be solved by present methods.

We can "buy some time." Better land use would ameliorate many of the problems we face. Conservation practices can ensure that the land will continue to provide sustenance because it is replenished. We can avoid removing land from agricultural use which has the potential for two or more growing seasons a year, though it may have a more "profitable" use. Erosion and deforestation can be lessened by ecologically sound farming practices and recycling paper. Ecologically sound farming practices can also stop the mutation of plants and insects resistant to our chemical pesticides. Conservation techniques which include recycling of wastes and greater efficiency will slow down the pace of our encroachment. We could avoid some of the more obvious invitations to disaster. But we are only putting off the time when we must acknowledge the impact of our population. If we continue to debilitate our natural systems--and unfortunately most evidence indicates that we will continue to do so--those systems will not provide sustenance for our lives.

Writers have been attempting to alert us for decades to the dangers of environmental abuse that inevitably accompany increasing population and industrialization. Such disparate voices as David Packard of Hewlett-Packard computer corporation and Jeremy Rifkin, an ecological activist, have tried to make us aware of this dilemma. But somehow the message does not get through. If our children were being robbed of money daily and consistently it would be the news of the day. But we are ignorant of the theft of their future that is posed by our encroachment. We are too busy keeping an office building from going up across from Walden Pond. We seek to reassure ourselves with small holding areas such as zoos, historical monuments, museums and the like. As long as we have a few shrines to show that we do, after all, wish to preserve our "heritage," then we have done our duty.

There are those who say "It's not that bad" and debate the fine points of our encroachment. The rule of thumb that we ought to apply, however, is not whether the planet is on its last legs, but whether we are doing damage to systems that sustain life on the planet. The argument is not over whether or not we will eventually encroach upon the last bit of wilderness. By the time that would occur, we will have been long gone from the face of the earth. We should not wait until situations reach crisis proportions. We require that possibly harmful drugs are thoroughly tested prior to their being released for general consumption. Sometimes this testing takes years, but it is deemed necessary for the general health and welfare of the populace. The same principle applies to our encroachment. It should not be necessary to wait for action until we prove beyond a shadow of a



doubt that the ozone layer is being depleted, and that depletion will have ill effects. It should not be necessary to wait for action until we prove beyond a shadow of a doubt that nuclear waste is a problem out of control. We should not have to wait until we prove conclusively that the Greenhouse effect will cause unbelievable disaster. The growing world population plays a large part in most of our problems, and the preponderance of the evidence indicates that a radical change is required immediately.

We are giving up our freedom to live a healthful and fulfilling existence in order that we may reproduce indiscriminately. The irony is that we consistently state that our efforts to make a better life are "for the children," whose numbers we refuse to limit. We are educating the children because "they are the future." But the simple truth is that an explosion in the number of consumers naturally is accompanied by an explosion of resource exploitation, pollution and declining environmental safeguards. It won't stop because we drive a little less, eat less beef or put bricks in our toilets. We will have to do something more substantial than that, or else we should prepare the children for the grim and bleak future that is inevitable when more and more people are competing for fewer and fewer resources. Resources are our inheritance and our legacy. They form a trust fund held in common by all species. Environmental damage due to population expansion and the inevitable encroachment that follows eat away at this trust fund, and the combination of the two inevitably leaves less for the future.

But let us not be "alarmist," the word which has been used to describe anyone who brings up these barriers to continual development. It does all depend on your perspective. There were once great forests covering Lebanon, Greece and vast areas of Europe. Population expansion drove the economies of those countries in the same manner that it does today. The great forests were clearcut for the momentary benefit of the growing populations. Now none can remember the landscape of forest which existed, and may never exist again. We have radically altered the planet for our benefit, but all warning signals indicate that we are going too far. The question which faces us is this: When do we sound the alarm?