The contemporary animal liberation or animal rights movement (ALARM; we are modifying the acronym used by Vance 1992) is derived from antivivisectionist organizations that emerged in Europe and North America during the 1800s (Sperling 1988). The term “animal rights” is more commonly used in the United States, whereas the label “animal liberation” is preferred in Europe and elsewhere. In the U.S., the ALARM has taken over many well-established animal welfare organizations and has diverted their functions and resources away from welfare and toward opposition to all animal use by humans. By this means, the ALARM is now masquerading behind a facade of animal “protectionism” and is making inroads into the environmental movement as well (Strand and Strand 1993).

Members and supporters of animal “protection” organizations are not all of the same mold. They have been classified into three groups by Jasper and Nelkin (1992): welfarists, pragmatists, and absolutists. The welfarists are concerned about animal well-being and would not be keenly supportive of animal “rights.” The pragmatists believe that animals should have rights, but they recognize that some use of animals by humans will be necessary for the foreseeable future. The absolutists, who have also been called fundamentalists (Galvin and Herzog, Jr. 1992) are the extremists of the movement, who insist that all human use of animals must stop immediately.

Most of the pragmatists are probably omnivorous but the absolutists are likely to be strict vegetarians or vegans. They consume no animal products whatsoever—no dairy products, eggs, or even honey — and they eschew all use of animals for clothing, even silk, since its production involves killing worms. These fundamentalists and some of the pragmatists believe that all animals have equal rights (or that they deserve at least equal consideration to humans) and should not be exploited by humans. Others are somewhat less global in their “sphere of compassion” and include only vertebrates, or vertebrates and the motile invertebrates, such as shrimp, lobsters, and octopuses. Ingrid Newkirk, cofounder and national director of People for the Ethical Treatment of Animals (PeTA) suggested that animals with a face deserve equal moral consideration because they can look back at us (Hitt et al. 1988) However, she is not particularly clear about animal classification, having described lobsters as “vertebrates who feel pain” whose “pregnancies last 9 months” (Newkirk 1990).

Moral Dilemmas for ALARMists

Animalist fundamentalists typically claim that they will not even kill a mosquito that lands on them. Even the most devout will at least try to brush it away, however. Of course, this act of kindness allows the insect to “bite” another victim, and mosquitoes can spread disease. In some parts of the U.S., for example, these insects are the vectors for the spread of the virus that causes encephalomyelitis, which can be fatal. In other parts of the world mosquitoes carry the malaria parasite, which, according to the World Health Organization, infects more than 200 million people every year and kills up to two million annually. By not killing mosquitoes, and even protesting against insect eradication programs, the animal protectors are increasing the risk of infection of other animals and humans, even of themselves. This does not generally constitute an ethical problem for them, however, because their fundamentalist tunnel vision allows them to ignore the consequences of their inactions.

Another type of relationship between species presents the fundamentalist with an ethical dilemma that is not so easy to ignore. What will they do if their pets (or “companion animals,” to use their preferred term) become infested with parasites, such as heart worms or tape worms or fleas or ticks? The absolutist may try to solve the problem of fleas by combing the insects out of the fur and releasing them somewhere else. Corralling fleas would not be easy to do, but even if this procedure were successful, it would likely pass the parasite on to another host. The other infestations would be more problematic: The worms and ticks that have embedded their heads in their host cannot be readily removed without killing the invaders. Do these parasites have as much right to life as cats and dogs? Do the pets have the right to live free from parasite infestation?

Illusions of a Cruelty-free Lifestyle

Many animal activists feel self-righteous because they believe that by being vegans and avoiding the use of animal products such as leather, fur or wool, they can live without harming animals. However, this belief can only be maintained by a firmly held ignorance of basic biological principles and of the realities of modern agricultural practices. The biological principle they choose to ignore is that all animals live at the expense of other life forms. Herbivores consume plants to survive and the carnivores and omnivores eat the herbivores. No animal can live without causing the death of others. Even herbivores cause other animals to die because of the competition for living space. An unavoidable truth in biology is that when one species successfully occupies an ecological niche, it does so at the expense of other species.

The agricultural practices about which ALARMists choose to remain oblivious include the fact that the initial clearing of land for cultivation typically includes felling trees, removing the stumps, cutting down bushes, and removing boulders. Any remaining vegetation is usually burned, then the ground is tilled for the planting of crops.
Some animals will be killed outright by all of these activities, and many more will suffer from the loss of their natural habitat. The displaced animals will try to colonize suitable niches elsewhere, but these are likely to be occupied already. Thus, a considerable amount of fighting, suffering, and death will result from the displacement of the survivors.

After crops are planted and start to grow, a new habitat is created, to which other species will adapt. However, in order to maximize crop yield, chemical fertilizers, weed killers, and pesticides are usually applied. These chemicals kill many of the new inhabitants of the cultivated fields and other animals “downstream” in the ecosystem. Those that survive the chemical assault are subjected to additional threats and traumas during harvesting, which will kill some of the animals outright and will deprive those that survive of the habitat to which they have adapted. With each new crop that is planted, the cycle of killing and displacing animals will be repeated. Although “organic” farming, which does not use chemicals, may kill fewer animals than do more conventional methods, the death toll will still be considerable.

The vegetarian lifestyle is clearly not “cruelely free,” as animal activists wish to believe. There is no such thing as a bloodless veggieburger. The difference between vegetarian and omnivorous lifestyles is simply that in the former, the killing of animals is indirect and unintentional and animals are not intentionally consumed. We fail to see how that makes vegetarianism morally more acceptable than being omnivorous.

The same considerations apply to the practices of avoiding the use of animal hides or hair for clothing. Cultivation of cotton and other fibers for clothing is no less destructive of animals than is the growing of food crops. Furthermore, synthetic fabrics such as nylon, rayon, and those used for fake fur, are derived from petroleum products. The petrochemical industry can have devastating effects on the environment and its animal inhabitants (such as occurred after the Exxon Valdez oil spill in Prince William Sound). No matter what animalists wish to believe, wool, leather, and fur, which are renewable resources, are much more environmentally “friendly” than are the synthetic substitutes (Carman 1990).

Who are the ALARMists?

The largest demonstration ever staged by the ALARMists was held in Washington, DC, on 10 June 1990. Animal activists claim that about 50,000 participated in this “March for the Animals,” but local authorities there estimated the crowd to number about 20,000. This march probably represents the zenith of the contemporary wave of animal activism. A professor of political science and a doctoral fellow in natural resource policy from Oregon State University took advantage of the gathering to distribute questionnaires among the activists and they received a fairly good return. The results of these questionnaires are very revealing about the attitudes and motives of ALARMists (Jamison and Lunch 1992). The data (Table 1) show that activists are overwhelmingly white urban or suburban females, and a high percentage of them are highly educated and have pets. Half of them are liberal in political outlook, are professionals, and describe themselves as vegetarians. However, a most telling statistic is the fact that only 20% of them had children. In a group of similar age in the general population, at least 80% would have children.

It is also significant that 71% of the respondents were born after 1950. Thus, they did not experience the fear of the dreaded infectious diseases, such as polio or diphtheria. By the mid-1950s, such killers were largely eliminated by vaccination programs and by antibiotics. These developments were strongly dependent on animal research (Leader and Stark 1987, Shorter 1987).

The survey by Jamison and Lunch (1992) revealed some other significant insights into the sentiments of the marchers (Fig. 1). More than half of the respondents believed that science has done more harm than good, whereas only about one quarter of them held the opposite view. Contrast these data with the results of a survey conducted by the National Science Foundation of the attitudes of U.S. residents about science: Only 5% of the general public believed that science has done more harm than good, while 58% agreed that science has done more good than harm (Jamison and Lunch 1992). Clearly, fear and distrust of science is an uncommonly prevalent sentiment among animal activists—they are ten times more likely to have such an attitude than is a member of the general population.

Another significant finding of the survey of Jamison and Lunch (1992) was that 56% of the marchers would
not approve of animal research, even if the animals were
not harmed by it. These data illustrate that antiscience and
misanthropic (since animal research benefits humans)
sentiments are held by a majority of the animal activists
whose opinions were gathered at the 1990 “March for the
Animals.” We have previously discussed how statements
made by the leading figures in the movement also reveal
the prevalence of these sentiments (Nicoll and Russell

**Pain and Suffering**

The moral arguments of the ALARMists are based on
the concept of animal sentience. It is assumed that
animals can feel pain and can suffer as we do, and have
an equivalent interest in avoiding such unpleasant
experiences. They are entitled, therefore, to equal moral
consideration. However, as was stated by Edwin Locke
(Locke and Sapontzis 1990), a headache does not provide
the basis for developing moral principles.

It is further argued by some ALARMists that animals do
not differ from humans in ways that meet the “test of
moral relevance” (Rowan and Rollin 1983). According to
the proponents of this “test,” animals have curiosity, kin-
ship awareness, and other qualities similar to those that
we hold in high regard in humans. Thus, humans do not
differ in significant ways from animals. Since all sentient
beings are fundamentally the same, they argue, then
animals deserve the same rights that we normally accord
to humans. This argument, however, fails to make a case
for animals having rights or equal moral status. It merely
makes an association between the (supposed) possession
of certain qualities in common and the possession of
rights. A similar nonsensical argument could be made by
associating having codes of morality with having sex. As
humans and animals both engage in sex, and humans
have developed moral codes to regulate their sexual
conduct, then by this reasoning animals should be subject
to similar moral codes.

The best counterpoint to this line of reasoning is probably that published by philosopher Michael A. Fox
(1986), who argued that humans are morally more “relevant”
than animals because of the sum of a number of attrib-
utes, rather than on the basis of one or a few. As far as
we can ascertain, only humans have language, the capacity
to reason, and a conscience, and only *Homo sapiens* has
developed moral codes. In addition, we are the only
species that shows any concern about the welfare of
foreign species. (There are no feline societies for the
prevention of cruelty to small mammals and birds, for
example.) Furthermore, there are large qualitative
differences between us and the “beasts” in attributes such
as tool making, curiosity, etc. Curiously, Fox recanted his
well-reasoned thesis on emotional grounds because he
had not factored in “feelings” (Fox 1988). In any case, we
find the arguments of those who try to prove that humans
are morally more “relevant” than animals as well as the
arguments of those who champion universal equality to
be missing the point (see below).

Furthermore, the concept of rights is an invention of
the human mind that can only be understood by rational,
reasoning beings. It is irrational to apply this idea to
animals that cannot know that such an concept exists

**The Nature of Pain and Suffering**

The argument that humans and animals should be
regarded as morally equal because of a shared ability to
feel pain and to suffer and a common interest in avoid-
ing such discomfort is unsound for several reasons. First,
although it is clear that animals may react strongly to
conditions or stimuli that would cause pain or discom-
fort to humans, it is not possible for us to know what
animals perceive. We do know that humans or animals
with spinal cord injuries that would preclude their feeling
any sensation from their extremities can show withdraw-

able responses to potentially painful stimuli even though no
pain is perceived. These are purely spinal reflexes. Thus,
withdrawal responses do not prove that pain is being
experienced. We also know that perception of pain varies
widely among individuals and even within individuals at
different times. Some people are hypersensitive to pain
at times and others are insensitive. Should the hypersensi-
tive individuals be accorded a higher moral standing than
the average person, and the insensitive ones a lower or
even no moral standing? Such might follow from the
“logic” of those who count sentience as the primary factor
in assigning moral status.

It is also known that our brain plays an important role
in how we experience pain. Some people who suffer from
debilitating, intractable pain are subjected to frontal
lobotomy, which severs the frontal lobes of the cerebrum
from the rest of the brain. Although this procedure does
not abolish the sensation of pain, it is no longer bother-
some to the patients (Ganong 1993). Accordingly, we
cannot know how nonmammalian animals, which have
no comparable brain structure, or nonhuman mammals,
with their rudimentary frontal lobes, may perceive pain.
Clearly, using pain or the presumed ability to suffer as
the yardstick for moral standing is not rational.

One could develop an equally spurious argument for
equality among species by selecting some other criterion,
such as feeling distress when exposed to an environ-
ment with low oxygen tension. Most aerobic animals
(i.e., oxygen users) react to low-O₂ environments with
behavioral responses that clearly show distress or even
panic. Such reactions serve to remove the animal from
the life-threatening condition. Since humans and many
animals (including the complex invertebrates) show this
distress response to O₂ lack, and they all have a common
“interest” in surviving and avoiding such discomfort, then
one could argue that humans and other aerobic animals
must be morally equal. However, to paraphrase Locke
(Locke and Sapontzis 1990), respiratory distress does not
provide the basis for developing moral principles.

**Missing the Point**

As we stated above, both those who believe that we do
not have a right to use animals for our own benefit because
we and they have equal moral “relevance,” and those who
argue that humans are morally more “relevant” because of
certain special qualities, are really missing the point. As
biologists, we find these arguments to be silly because
they ignore some fundamental biological facts. All species must constantly struggle against the forces of natural selection that are relentlessly operating to drive them to extinction. These forces are very effective: The vast majority of all the animal species that ever existed on this planet have become extinct (Purves and Orians 1983). In fact, according to one estimate the extinction rate may be as high as 99.9% (Raup 1991). If the adaptive advantages of a particular species are adequate to cope with the constantly changing challenges of natural selection, it will persist. The adaptive advantages of humans include our ability and need to acquire knowledge about ourselves and about the living and nonliving universe. We use this knowledge to combat threats to our survival, such as microbes, insects, and parasites. It is, therefore, in our own self-interest as a species to protect ourselves and our domestic animals against such threats, which are constantly changing, posing new threats. We acquire the knowledge that we need to protect ourselves by doing research, and some of that research involves using animals. The knowledge gained not only reduces pain, suffering, and untimely death among ourselves and our animals, but it also protects us from becoming extinct. To moralize against humans using our adaptive advantages to protect ourselves as individuals and as a species is irrational and contrary to biological laws. Such philosophizing is akin to moralizing about predation, natural selection, or sexual reproduction. Most rational people would agree that it would be immoral and inhumane not to continue to seek cures and preventives for the diseases and injuries that harm us and our domestic animals, and which threaten our existence as a species. To do otherwise would be unnatural, as well as irrational.

LITERATURE CITED

Cohen, C. 1986 The case for the use of animals in biomedical research.
Galvin, S. L. and H. A. Herzog, Jr. 1992 Ethical ideology, animal rights activism, and attitudes toward the treatment of animals. Ethics Behav. 2: 141-149.