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**COVER:** The perennial ice that covers Lake Hoare in Antarctica's Dry Valleys conceals teeming microbial communities that may be preserved for the geologic record. These "living fossils" may be analogous to life before 600 million years ago. See p. 284. (Photo by Gordon Love)

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# LETTERS

## Nix on NO<sub>x</sub>?

In your report of the OTA study showing \$2 billion to \$4.5 billion in crop damage from current ozone pollution (SN: 3/20/82, p. 200), you note that the study is relevant to the current proposal before Congress (HR 5252) to double the nitrogen oxide (NO<sub>x</sub>) standard for new car auto emissions. NO<sub>x</sub> and hydrocarbons are precursors of O<sub>3</sub> formation.

In addition to increasing auto NO<sub>x</sub> emissions, HR 5252 would also repeal the current requirement for states to upgrade their O<sub>3</sub> control strategies in 1982, and extend the deadlines for compliance with the national standards for both O<sub>3</sub> and NO<sub>x</sub> until 1993.

In many large urban centers such as Chicago and the New Jersey-New York-Connecticut urban corridor stationary sources of NO<sub>x</sub> and hydrocarbons contribute as much or more of those pollutants as autos. The effect of extending the statutory compliance deadline and repealing the 1982 state rulemaking deadline will be to postpone for eleven years the control of the stationary source segment of the problem. The House subcommittee has also rejected language that would hold currently regulated stationary sources to their current clean-up schedules. Thus, in addition to allowing more auto pollution, HR 5252 will make it legal for currently controlled sources to remove control equipment until 1993. The bill also repeals the requirement that new sources find offsets, i.e., find reductions in the pollutant among existing sources to offset the added emissions from the new source so as to avoid making dirty air dirtier.

Taken together, the combined effect of these amendments will be to allow air quality to become substantially worse by 1993. It is possible, and perhaps probable in certain regions of the country, that air quality will be worse by 1993 than it was before the Clean Air Act was passed eleven years ago. The only difference will be a law called the Clean Air Act which purports to protect the public, but which in fact legalizes air pollution.

*Robert E. Yuhnke  
Boulder, Colo.*

Marni Holbrook of the Izaak Walton League is quoted as implying that doubling nitrogen oxide emissions would increase ozone. That statement is absolutely untrue—in fact the opposite is true.

The NO emissions from automobiles have a prompt reaction with ozone. The chemical reactions that occur in our atmosphere are much better known now than they were when NO<sub>x</sub> controls were first proposed. It is now known with certainty that NO emissions have a beneficial effect on our air by reducing ozone and some other objectional compounds and end up as fertilizer.

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Ms. Holbrook should do her homework if she is truly interested in improving the quality of our air. She would quickly decide that not only are NO<sub>x</sub> controls horribly expensive, but that they are counter-productive — i.e., the more NO<sub>x</sub> control the more ozone.

*Alvin P. Fenton  
Kohler, Wis.*

## Research funding

Regarding Mr. Rick White's letter (SN: 4/10/82, p. 243) advocating private sector funding for space science: I might point out that the Viking Fund generated \$100,000 in private contributions for continued data reduction from the Viking lander still active on Mars. This figure, which is the highest amount ever raised from private citizens to support a space mission, represents 1/10,000 of the \$1 billion cost of the Viking missions to Mars.

The fact is that the only entity in existence with the monetary wherewithal to fund space science and other scientifically oriented basic research is the federal government. To suggest that Viking Funds as Genentech stock sales could substitute for federal support of basic R&D is ludicrous: The level of investment needed to maintain U.S. scientific leadership can only be borne by the federal government.

Instead of turning to the private sector to fund basic research, the private sector should instead enlighten the budget cutters in Washington that basic research is not an expenditure but an investment in the nation's future.

*Thomas J. Frieling  
Campaign for Space  
Bainbridge, Ga.*

## Canine caveat

Before all your readers rush out to improve their health, physical and mental, by acquiring a pet (SN: 3/27/82, p. 220), this warning: Last year U.S. dog-pounds killed 14 million animals, primarily dogs. The reader would do well to wonder why.

The cliché "boy and dog" needs to be changed to "boy and puppy" given parents' proclivity to take on the young and oust the mature. The effect on the child is severe: it sets up a fear that the parents will oust him or her as they did the pet.

We have a "Throw-away-Pet" society in the United States. Human responsibility to the other animals of the earth needs far deeper analysis than simply the benefits egotistical Homo sapiens derive from their companionship.

*Alice Herrington  
Neptune, N.J.*

In the article, "Ozone Depletion: Estimates Halved" (SN: 4/10/82, p. 244), the WMO/NASA study predicts a 5 to 9 percent reduction in stratospheric ozone over the next century.

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