Bethel College Mennonite Church Creation Care Committee Creation Stewardship Notes # 9, September 2004

Anticipating that the editors of *National Geographic* would have real environmental concerns does not seem like too much of an imaginative stretch. The September 2004 issue provides just such an emphasis. We usually think of this magazine in terms of the beautiful photography of so many fascinating subjects and places; but just as it has done in certain prior issues, mankind's threat to our environment is highlighted here.

The cover of this magazine has in bold lettering, "GLOBAL WARNING bulletins from a warmer world". The Table of Contents states: "The Heat Is On. There's no question that the Earth is getting hotter – and fast. The real questions are: How much of the warming is our fault, and are we willing to slow the meltdown by curbing our insatiable appetite for fossil fuels?"

There are three sub-stories cited as follows:

"GeoSigns Retreating glaciers, rising seas, and shrinking lakes are some of the global changes already under way."

"**EcoSigns** From penguins to alpine flowers, animals and plants are coping with the heat – or they're not."

"TimeSigns What causes climate change? Could a climate 'flip' happen virtually overnight?"

This 74 page feature article consists, as *National Geographic* stories do, largely of beautiful photographs; these pictures are supplemented by graphs, by statistics, and, of course, by a textual narrative.

Global temperatures fluctuate naturally but over the past century they have been rising at a faster than normal rate. A combination of factors including natural long time cycles involving the earth's wobble (the way the Earth spins unevenly on its axis), on the one hand, and man's increasing actions that raise the carbon dioxide level of the atmosphere, on the other hand, are resulting in global warming at an accelerated pace. Ice melting from glaciers and on the polar continental shelves results in a larger quantity of ocean water. As water warms it also increases in volume. These combined factors will mean that many areas of low elevation will be inundated with seawater – and this can produce unimaginable human misery. (Ronny Jumeau, Minister for Environment and Natural Resources of the Seychelle Islands, said in a recent article in **Our Planet**, "When other countries mess up their parts of what is, after all, our same Mother Earth, they mess up ours too. When the polar glaciers, ice sheets and snow covers melt, the small island developing states at the equator will be the first to be submerged.")

In the GeoSigns section we read, "There are no words . . . to describe how much, and how fast, the ice is changing. Researchers long ago predicted that the most visible impacts from a globally warmer world would occur first at high latitudes; rising air and sea temperatures, earlier snowmelt, later ice freeze-up, reductions in sea ice, thawing permafrost, more erosion, increases in storm intensity. Now all those impacts have been documented in Alaska. 'The changes observed here provide an early warning system for the rest of the planet,' says Amanda Lynch, an Australian researcher . . ."

This warming climate produces other profound results. The habitats of animals and plants change. Migratory patterns change; some of these changes are becoming so rapid that the natural evolutionary process cannot keep up and certain species are in danger of extinction. A statement from the EcoSigns section tells:

"A study of 35 nonmigratory butterfly species in Europe found that in recent decades about twothirds have expanded their ranges northward by 20 to 150 miles. Many plants in Europe flower about a week earlier than they did 50 years ago and shed their leaves in the fall five days later. British birds breed an average of nine days earlier than in the mid-20th century, and frogs mate up to seven weeks sooner. Tree swallows in North America migrate north in spring 12 days earlier than they did a quarter century ago. Red foxes in Canada are shifting their ranges hundreds of miles toward the Pole, moving into the territories of Arctic foxes. Alpine plants are edging uphill and beginning to overrun rare species near mountain summits.

"Although the Earth's climate has always been subject to natural variation, with shifts between cold and warm, the current warming trend has ecologists worried for several reasons. This is the first instance in which humans appear to be accelerating the change, and warming could take place so quickly that species will not have the time to adapt and avoid extinction. And since different species react to climate change in different ways, the natural cycles of interdependent creatures – such as birds and the insects they feed on – may fall out of sync, causing population declines.

"For now, as much of the world warms, animals and plants can try to beat the heat by retreating to higher latitudes and elevations. But such escape routes have limits, some of them imposed by humans. Unlike in past millennia, flora and fauna must cope in a world that is not only warming but is also home to 6.3 billion people."

Bill Allen is editor of *National Geographic*. In his *From the Editor* column he writes:

"After a decade as Editor in Chief, I have a pretty good idea which articles will provoke a lot of angry letters. Whenever we publish stories that challenge widely held beliefs, some readers get mad, and they write to let us know.

"Well, we're about to do it again. We're devoting 74 pages of this issue to a three-part series of stories on global climate change, and I'd be willing to bet that we'll get letters from readers who don't believe global climate change is real, and that humans contribute to the problem. Some readers will even terminate their memberships.

"Why would I publish articles that make people angry enough to stop subscribing? That's easy. These three stories cover subjects that are too important to ignore. From Antarctica to Alaska to Bangladesh, a global warming trend is altering habitats, with devastating ecological and economic effects..

"So I'm asking you – even those of you who don't believe the Earth is getting warmer and that human behavior is a contributing factor – to turn to page 2. This isn't science fiction of a Hollywood movie. We're not going to show you waves swamping the Statue of Liberty. But we are going to take you all over the world to show you the hard truth as scientists see it. I can live with some canceled memberships. I'd have a harder time looking at myself in the mirror if I didn't bring you the biggest story in geography today."

The Creation Care Committee of the Bethel College Mennonite Church recognizes that intelligent, responsible humans must take actions to preserve this beautiful home in which we have been placed. We are pleased to recommend the reading of literature such as that just reviewed. This article is current and should be available at newsstands. It is in the magazine that has just now been published; a copy of this magazine will be placed in the church library for use by church members.