

# Global warming heats up SMU

by Jennifer Seamone

"Look in the papers, what we see is garbage, communicators don't get it right", said Dalhousie Oceanography professor Owen Herzman during a three-day Pollution Conference at Saint Mary's University.

Five guest speakers were invited to present findings and thoughts on environmental problems to a concerned and interested group of students and professionals over the

weekend. The heated and controversial debate focused on the Green House Effect or global warming and its long and short term effect on the atmosphere and ecosystem.

Opinions among the scientists and professionals involved in the conference covered a broad range, but one fact all agreed on was the lack of accurate and competent coverage by the media.

Fingers were repeatedly pointed at popular CBC science writer David Suzuki for his outdated and one-sided coverage of global

warming. "Two years ago", explained Allan Clark from the Bedford Institute of Oceanography and department of Fisheries and Oceans, "Suzuki used information that was out of date and radical and this year re-ran the show even further out of date. Now a book is written on it, and it's crap."

He has lost credibility as a scientist, said Barry Hargrave from the Marine Biology department of Oceans and Fisheries, "but Suzuki is trying to educate in his own way.

He's a good teacher. People who grandstand like that lose credibility with scientists, but he does want a new stewardship of the planet, a caring for all things in the future."

It seems that finding one concrete answer to the question of global warming is next to impossible. Even the scientists cannot agree on who, what, where, when and why.

One possible solution described by Allen Clark, is to educate the public about the role and possibilities of scientists. "Science is not

exact, it is about probability and acts out scenarios. Scientists are not experts with all the answers, they can only help find possible solutions", he said.

In his ten minute address, Clark called for greater awareness from people and the need to throw away the Judeo-Christian Myth of humans being apart from nature. "Too many people believe their activities are separate from the environment", said Clark. "Humans are part of the natural system, you cannot separate the two."

Dr. Charles Lin, a meteorologist from McGill who spoke Friday Night, was reluctant to confirm an increase of global warming for the future, because he said, we just don't know enough about carbon cycles to make predictions. However, he did confirm that carbon ice core results taken in Siberia indicate that temperature changes over the last 160,000 years have mirrored changes in the carbon cycle.

Bill Richards of Environment Canada presented shocking statistics on global warming, predicting an increase in precipitation of 9.8 per cent, a rise in sea levels of 6 cm per decade, and a 3.6 per cent rise in temperatures. He confirmed that 1990 was the warmest year on record, and the top six warmest years have been recorded since 1980.

Richardson said the majority of our environmental problems are caused by human beings. If all the natural causes of global warming happened at once, which is unlikely, it would result in a 12% overall change in atmospheric carbon content, but that is the lowest effect of man-made global change", he said.

Although Richardson admits there is no concrete proof of global warming, he said there is fairly credible data that can be used as the basis for policy making.

It appears to be extremely difficult for scientists to come up with corresponding data, but there was a consensus reached over the weekend. There has been and will continue to be an increase of carbon dioxide emissions into the air. Divergence in opinion occurs, however, over the amount and the damage that increased gases in the atmosphere will cause. The greatest obstacles come in policy-making when leaders are expected to make wise responsible decisions about spending money and creating programs for environmental safety, but as Hurtsman points out, the lack of data and knowledge on global warming makes these decisions difficult.

The problems are not only environmental but economic, political, and social, said Hurtsman. "We all want a new stewardship of the planet."

## Environmental casualty of the war

by Lilli Ju

Who hasn't heard about the "massive oil slick" or "the acts of environmental sabotage and terrorism" in the Persian Gulf? How could anyone have not? Media coverage of the war in the Gulf has suddenly become environmentally oriented due to the dumping of millions of barrels of oil into the Persian Gulf and the burning of Kuwaiti oil installations.

The media was quick to cover these events, sending a slew of journalists to track down every environmentalist analyst and specialist to document each's profound insight and comments on these events. All of this was then regurgitated and presented to the public. CNN reported a few days after the oil was dumped that "pollution like this now endangers all of the Persian Gulf." And how many times did you hear George Bush say "Saddam Hussein continues to amaze the world"?

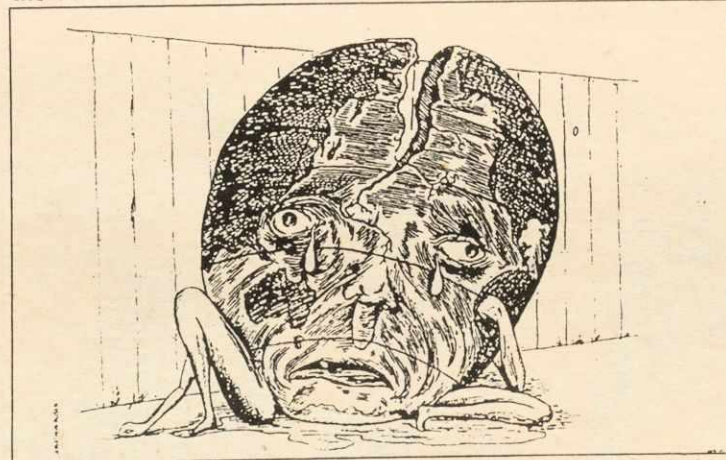
In our own little corner, we saw External Affairs Minister, Joe Clark, saying such things as "[there are] no limits to what this man will do...[making the] environment, too, a hostage and casualty in this war." As well, Environment Minister, Robert deCotret added that dumping of millions of barrels of oil was "an unprecedented act of environmental terrorism."

However, most mass media coverage is accompanied by some degree of "media hype" which often neglects to give a wholly complete and accurate picture of such situations. Environmentalists, even before January 15th, predicted that any outbreak of war would create some sort of environmental impact. And they were right.

As Dr. Bill Freedman, an environmental ecologist and Biology professor at Dal would tell you, there are a number of other environmental impacts due to warfare in general. In fact, Freedman devoted a whole chapter dealing with

the "Ecological Effects of Warfare" in his book *Environmental Ecology* (1989).

Concern for the environment began with the burning of Kuwaiti oil wells and storage tanks (since Jan. 22) which created a thick, black smog and showered Iran with "black rain." It was feared that drinking water would become contaminated and agriculture in the area would be affected. Even climate changes were cited. However Freedman states that, overall, the effects would be "minimal and manageable" and the proposed climate changes were overblown, since he did not think the "oily soot will be lifted high enough...even in a worst case scenario" to create any more than "local weather effects."



With the deliberate dumping of oil in the Gulf, global attention abruptly turned from the theatre of war to a threatened environment. This oil slick, now the largest one in history, originated at the Sea Island Terminal off the coast of Kuwait. The first evidence of damage was observed in the northern coastal town of Khafji, Saudi Arabia, where images of oil-drenched, struggling cormorants and sounds of waves of oil 'glugging' onto shore were witnessed by the world. The U.S. reacted immediately with air strikes to diminish the oil flow and by sending a team of advisors to the area. Canada, too, said that it would help. (Already B.C.-made

"booms" and "skimmers", found effective with the Exxon Valdez spill, are on their way to the area.)

Freedman commented that with such a "humungous quantity of oil," it was very "fortunate that it has stayed offshore"; however, eventually southern Arabic coastlines and low-water ecosystems will be directly endangered. In an area important to migratory and indigenous birds, the short-term effects will be catastrophic. Rather than attempting a clean-up like the one with the Exxon Valdez, Freedman said that we should "write the place off for a number of years" and "optimize the natural degradation of the oil." Desalination plants should be protected by setting up booms

around the area, and as much of the coastline as possible. Efforts to contain or skim the oil would be a "waste of time and money." The cost of cleaning up the Exxon Valdez spill was in the vicinity of a billion dollars. The cost of cleaning up the Gulf would be astounding.

Any lost natural habitat and wildlife in the area would be recovered by "succession," a gradual rebuilding and restoration process; but inevitably some species would be lost to extinction.

In a lecture given by Dr. Freedman last Wednesday, Jan. 30, for the President Leadership Class, a number of other environmental impacts were discussed. Freedman

backed up his talk with references to wars in the past. The "legacy of unexploded munitions (duds)" creates a "lingering hazard on the landscape." In the past, on average, 10% of munitions remained unexploded. In particular, mines left and forgotten in former battlefields have been known to maim and injure innocent people, even over 40 years after a war. An estimated half a million Iraqi mines are now being used in the Gulf war.

Disturbances caused by explosions destroy cities, fields, natural ecosystems, and so on; during WWII coastal France and Belgium, once rich in agriculture were converted into a "gooey and sticky" mudfield. Similarly, Kuwait's rich natural resources could be needlessly wasted.

Fear of unconventional warfare, chemical and nuclear, have brought up other concerns. In the case of chemicals, the full extent of their impact is not known. It is possible that they may remain harmful in the air for an extended period of time, but will be most likely dispersed naturally. Vietnam and WWI saw the use of such chemicals as agent orange (a herbicide used to remove forage) and mustard gas (a nerve gas).

Freedman did not dismiss the possibility of nuclear arms being used, stating that one should "always expect the unexpected." In the event that nuclear weapons are used, he believes that any exchange would be short and limited. He commented that the impact on Hiroshima and Nagasaki (the only deliberate offensive nuclear attack in history) represent "relatively small explosions...(compared to)...the potential yield in today's weapons... which could fundamentally change the biosphere."

Overall, the potential environmental impact of this particular war, happening right now in the Gulf, cannot be accurately predicted. It will all depend on the possible scenarios that the war will bring out.