

THE RELATIONSHIP OF MAN AND NATURE *

To subdue nature, to bend its forces to our will, has been the acknowledged purpose of mankind since human life began, but the time has come for a revision of our conception of the benefits and responsibilities of holding dominion over all other created things. A new spirit is abroad as scientists and laymen realise that man and the rest of nature are united and indivisible.

At a time when great elemental forces are clamouring at the bars of our civilisation we need to discard our ideas of "attacking" the forest, "bringing under subjection" the mighty rivers, "conquering" the mountains, and "subduing" the prairie. Instead, we need to make the most of all nature as an ally.

Mankind is welcome to dominate the other forms of life, provided he can maintain order among the relentless energies whose balanced operation he has disturbed. This is a hard condition. Our past is full of sombre warnings of what happens when we fail to meet it. The evidence is in the remnants of great civilisations buried beneath mud and sand.

Only when we recognise that the study of all living things is a profoundly necessary part of human thought do we reach the moment of truth. Then we realise that we are part of a complex stretching back to the beginning of time and reaching out on every hand to the boundaries of the universe. Every one of us is an actor in a great drama in which each plays his part as both cause and effect.

The forces set in motion by every act of every animal and bacterium, by every inch added to the growth of plant or tree, affect the lives of other creatures. The principles which govern these interrelationships are embraced in the science called ecology, a word coming from the Greek for "home" or "estate". Ecology is the study of how the household of nature is kept in order.

This *Monthly Letter* has to do with renewable resources, the essentials of life. Our primitive ancestors made their way for millions of years before they discovered how to use iron, copper, coal, oil, and gold. But never has man been able to get along without food and water. This is why the relationship

of all living things has urgent meaning for us.

The State of Affairs Today

In a subject so old, so vast, and so continually new, it seems to be impossible to keep science and social life apart. In fact, we should not try to do so. Continuance of our human society depends upon our ability to heed the science of the rest of nature, and live within its bounds.

There are at least three good reasons for surveying the present state of affairs and learning about our natural environment: (1) our advancing technology uses up resources in increasing quantity; (2) our increasing population puts annually greater pressure upon our living space; (3) our continued existence depends upon our keeping our natural environment productive of the essentials of life.

Over and above the slow changes by natural causes such as climate, the earth has suffered measureless destruction of animals and plants by the uncalculating actions of both savage and civilised men. It was destruction of their environment that caused salmon to disappear from Lake Ontario, and the bison to die off our western plains, and the passenger pigeon to vanish from North America. Forests have been burnt up, soil has been washed away, deserts have been produced, and rivers have been polluted. "We have," said Professor A. F. Coventry to the Toronto Field Naturalists' Club, "for a long time been breaking the little laws, and the big laws are beginning to catch up with us."

The Balance of Nature

Nature has its laws designed to maintain balance. If the number of any living species tends to increase out of proportion, some force will arise to control it. There is an equilibrium in undisturbed nature between food and feeder, hunter and prey, so that the resources of the earth are never idle. Some animals or plants may seem to dominate the rest, but they do so only so long as the general balance exists.

These laws cannot be disregarded without disaster. Nature—which is our word for the total of the conditions and principles which

* Reprinted by permission from the *Monthly Letter* (for May 1960) of the Royal Bank of Canada.