

and returns again in September. Even before the snows have melted and the meltwater rills rush to the valley below, some flowers, such as the Snow Lily (*Erythronium grandiflorum*) and Western Anemone (*Anemone occidentalis*), are poking their heads above the icy carpet to bask in the life-giving sun.

The flowering of the meadows occurs in two stages called bloom waves. The first bloom wave consists of flowers predominantly yellow (Snow Lily) and white (Western Anemone). The second bloom wave incorporates blue (Lupine), red (Indian Paintbrush)

and deeper yellows (Ragworts and Golden Fleabane).

To the alpine adventurer, each turn in the trail, each new rocky ledge, each new spongy bog, brings the thrill of discovering new truths in the never ending drama of nature. Who would not marvel at the delicate pink cups of Alpine Bog Laurel (*Kalmia polifolia*) cradled in a cushion of dew-laden moss or the tiny yellow bells of Mountain Heath (*Phyllodoce glanduliflora*)? What dull soul could fail to be thrilled at the discovery of a sparkling mountain brook whose banks were carpeted with the glorious crimson of Lewis' Monkey Flower?

The Blue Jay Bookshelf

BREEDING BIOLOGY OF CALIFORNIA AND RING-BILLED GULLS: A STUDY OF ECOLOGICAL ADAPTATION TO THE INLAND HABITAT. 1970. By Kees Vermeer. Canadian Wildlife Service Report Series, No. 12. The Queen's Printer, Ottawa. 52 pp. \$1.25.

The Canadian public should be gratified to see each new number in the Canadian Wildlife Service's Report Series. This is an opportunity for the taxpayer to find out more about the work of the Service which he supports, and, especially, to learn more about the wildlife of his country and the facts about it that have been established by the Service's research. The most recent report, No. 12, has the added interest for *Blue Jay* readers of being the work of Kees Vermeer, to whom the Saskatchewan Natural History Society presented its 1970 Cliff Shaw Memorial Award for significant contributions to the *Blue Jay*.

The brief abstract at the beginning of the report indicates the nature of the study and its results (with an accompanying résumé in French to alert French-speaking Canadian readers to the value of the publication). Vermeer's study of the California Gull and the Ring-billed Gull at Miquelon Lake, Alberta in 1964 and 1965 set out

to determine incubation periods, factors affecting choice of nest sites, reproductive success, feeding habits and growth rates, with the objective of learning whether these two species exhibit special adaptations to breeding in the interior. At each point, comparisons were established between these two inland species and the Glaucous-winged Gull, a marine species. After two seasons of investigation, Vermeer concluded that there are few basic differences between inland-breeding gull species and marine forms. The apparent adaptation to breeding in an inland habitat, he observed, is a shortened breeding season, marked by a compressed pre-egg period, a short laying period, and little repeat laying.

Vermeer's study and subsequent report is a straight-forward, informative piece of biological investigation, needing (to my mind) no further justification. However, it is typical of our current pre-occupation with the environmental crisis that the foreword should reiterate the theme: "The most important and useful reason for studying gulls lies in their value as indicators of the health of the habitat. . . . As gulls nest in colonies, changes in breeding populations can be readily detected and related to levels of chemical contamination. Ecological research on colonial birds is therefore valuable

to monitor the effects of chemical pollution on the environment."

It seems to me unnecessary to place this particular study in such a "perspective", although it gives the writer an opportunity to tell us that a recent study (now in press) made by Vermeer and others on organochlorine residues in aquatic birds in the Canadian prairie provinces showed that California and Ring-billed Gulls are among the most contaminated.—*Ed.*

ECO-CATASTROPHE. 1970. By the Editors of *Ramparts*. Harper and Row, New York.

This book consists of a collection of eleven articles reprinted from *Ramparts* magazine. Like many collections, it is a mixed bag, the quality of the articles ranging from poor to good. Three of the articles ("The Eco-Establishment" by Katherine Barkley and Steve Weissman, "Why the Population Bomb is a Rockefeller Baby" by Steve Weissman, and "The Making of a Pollution-Industrial Complex" by Martin Gellen) are representative of criticism, by the so-called New Left, of the current wave of concern about environmental deterioration. The articles espouse the predictable point of view that problems of environmental contamination and over-population are products of the capitalist free enterprise system and will cease to exist in the People's Paradise to come. They suggest further that pollution abatement and population control are capitalist plots from which huge profits will be made. Like most articles of this type they contain an element of truth but make for dreary reading because of the paucity of real information and the overwhelming cynicism of the authors. The Editors of *Ramparts*, by the way, in their prologue to the book, leave no doubt where they stand—squarely behind the philosophy expressed by Barkley, Weissman, and Gellen.

The remaining articles are much more reasonable and responsible. The book draws its title from the lead article by Paul Ehrlich "Eco-Catas-

trophe!", a science fiction scenario describing the destruction of mankind resulting from the misuse of pesticides and the failure to limit population. Like all good science fiction, the article contains sufficient truth to fall within the realm of possibility.

Murray Bookchin ("Toward an Ecological Solution") pleads for a replacement of "the current destructive social system with a humanistic, ecologically oriented society." There is no doubt that a new social-environmental philosophy is required but philosophers have been pointing this out for generations. What is really needed is a plan for altering our system of education in a way that will bring this change about peacefully. Bookchin emphasizes the idea, originating with Desmond Morris and others, that modern society is too complex and present social groups are too large to permit sympathetic interchange between people. He suggests a decentralization to something approaching tribalistic society. Again, this seems to be vital, if we are to prevent the self-destruction of our society from frustration with modern bureaucracy, but clear means of reversing this trend are not offered.

Roger Rapoport ("Catch 24,400") deals with radiation leaks from United States Atomic Energy Commission plants and with the controversial subject of cancer incidence and radiation. It is a frightening indictment of present radiation controls.

George M. Woodwell ("Science and the Gross National Pollution") is a respected ecologist who has studied the ecological effects of radiation and the circulation of DDT in the biosphere. His brief contribution is critical of science which, since the Second World War, has been by and large a servant of industry, producing new products without consideration of their ecological impact. After several decades of increasing specialization in science we find that a broader view of man and environment is necessary. Woodwell asks "How do we make the transition from unrestrained growth

to limited growth, even to stability in many segments of national economies—a stability dictated by the dimensions of the earth?” We must find a way.

Harvey Molotch (“Santa Barbara: Oil in the Velvet Playground”) provides a detailed account of the struggles of a group of Santa Barbara residents who tried to prevent the pollution of their beaches with oil. Their struggle to induce politicians to enforce pollution controls and their subsequent failure will be all too familiar to conservationists who have tried to plead their case against the combined interests of industry and government. This is one of the best articles in the collection.

Oil exploration and transport in the Arctic have been important subjects of recent debate in the conservation field. Barry Weisberg’s article, “Raping Alaska,” provides a review of the problem in Alaska. The writer itemizes damage already done to the tundra and speculates about the extent of damage to be caused by the construction of the Trans-Alaska Pipeline Systems (TAPS). Not mentioned is the fact that ecological studies to estimate the probable extent of the damage and to recommend procedures that will minimize the dangers are well underway, financed by TAPS. Whether such studies would have been undertaken without the kind of public pressure exemplified by Weisberg’s article is another matter. One thing is clear. The United States, facing increasing shortages of petroleum, will develop and transport oil on the Alaskan North slope, regardless of the opposition of conservationists.

It only remains to attempt to ensure the best possible deal for the environment.

“California Water Plan” by Gene Marine is concerned with water shortages in over-populated and ever-expanding southern California. Real estate developers are a powerful lobby, and diversion of northern California rivers to provide water for the further growth of smog-choked Los Angeles seems inevitable. Lest this article seem divorced from the Canadian scene, the reader might review the proposed NAWAPA Plan for Continental Water Diversion (Bulletin of the Atomic Scientists, 1967, vol. 23, no. 7, pp. 8-7). Part of the Nawapa Plan involves diversion to the United States through the Souris River. In Saskatchewan we face a problem which is similar to that of the California water shortage. Should we divert water from the Peace and Athabasca Rivers, thereby causing ecological damage, to sustain the growth of population in southern Saskatchewan, particularly Regina? Or would it be more sensible to encourage the industrial development of northern centres, where water is more abundant?

The final article in the collection, “Trouble in Paradise” by Sol Stern, deals with the difficulties encountered by a few California residents who are attempting to revert to a simpler rural life away from the polluted and crowded city.

Eco-Catastrophe is a collection worth reading. The interest of the book is enhanced by the lithographs and woodcuts of M. C. Escher.—D. H. Sheppard, Regina.

Letters and Notes

SUMMER AROUND SPRING CREEK

Last summer was one of the most enjoyable summers of my life, as I spent it exploring and studying the wildlife around Spring Creek. My study area is a mile section of the creek which flows just to the south of our house on Normandy Drive. This

section is located between Seventh Avenue and the Canadian National Railway overpass on the edge of the city.

After the spring runoff the shallower parts of the creek dry up, leaving a series of ponds which support a variety of wildlife. Two of the larger ponds are my main study areas.