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Although Iowa is rich in past and present activity of eminent biologists and natural historians, a comprehensive inventory of the state's biological resources has never been assembled. With ever-increasing demands on the land and an obvious decline and loss of many habitats and species, the need for such an inventory is urgent. The biological uniqueness or rarity of a particular habitat cannot be fully evaluated without state-wide data for that habitat and the species in it.

A state-wide biological inventory must begin with a synthesis of current knowledge. To this end, and with the support and encouragement of many Iowans, the Conservation and Preserves Committee and the sections of Botany and Conservation of the Iowa Academy of Science organized a symposium, "Perspectives on Iowa's Declining Flora and Fauna," for the 92nd annual meeting of the Academy, held at Simpson College, April 18, 1980. Articles in this issue are based on presentations by the authors at that symposium.

These articles present perspectives of some of Iowa's most noted authorities on native animals and plants. With the recognition that data in many areas are limited, and that occurrence patterns are ever-changing, the authors were asked, "On the basis of present information, what is your view of the status and future prospects for Iowa's native biological resources?" They also were asked to document, to the extent possible, the history of each resource from settlement to present. Their responses are intended to point out the weaknesses and strengths of current knowledge and thereby provide a guide and stimulus to future study.

Space and time placed restrictions on the subjects covered by this symposium and its publication. Thus, only the major vegetation ecosystems and the vertebrate animals are treated. Notably included in this issue is the first complete listing of vertebrate animals occurring in the state of Iowa. It is hoped that this will soon be supplemented by a similar listing of plants and invertebrate animals as well as more detailed surveys of plant and animal communities.

Separately, these papers document staggering changes in each of the principal groups of vertebrate animals and major plant associations. Together, they illustrate the interdependence of the habitat and its inhabitants, and the effects of man's activities on both. One overwhelming factor has affected all natural communities in Iowa — the conversion of more than 90% of the original landscape to agriculture and urban use. Such massive change could not help but effect dramatic changes in the quantity and variety of native species. Neither could it have been otherwise in a state possessing Iowa's high percentage of top grade agricultural soil. It may be legitimately lamented, however, that larger tracts of marginal agricultural productivity have not been retained in woodland, weltand, and prairie.

World demand for food as well as economic pressures require a careful accounting of the assets to be derived from areas set aside or managed for the benefit of native biological resources. Such accounting is dependent upon a knowledge of the history, current status, and probable future of these resources, as is documented in this symposium. Some of these assets are clearly economic in the form of timber value, recreation dollars and food harvested as fish and game. Less direct, but also of economic value, are the preservation of native genetic material and natural biological systems, against which man-developed systems can be measured, and from which both knowledge and biological organisms may be extracted to meet future needs.

The asset of native ecosystems which is perhaps of greatest value is also the most difficult to measure — that of heritage and aesthetics. Iowans are proud of their state, as well they should be, for it is as rich in history as it is in current productivity. The vast prairies which produced rich black soil, the fine hardwood forests which provided building materials and fuelwood, and the rivers and wetlands which provided transportation and teemed with waterfowl played integral roles in this history, molding the character of the settlement and later development that became Iowa. Yet today, we see almost nothing of the species and ecosystems that greeted the first settlers. Not only have the prairies and most of the forests been replaced by introduced rowcrops, but the weeds that fill the fence rows and compete with the crops are also largely foreign invaders. Highway rights-of-way and lawns are carpeted with introduced grasses, and cities and farm lots are planted primarily with tree species and selected varieties not native to Iowa. Along with the introduced vegetation have come introduced birds, mammals, and fish, many of which are Iowa's most frequently seen animals and most troublesome pests. Only the forests of Iowa's bottomlands and sharply dissected uplands present a readily visible ecosystem where the dominant components are species originally native to the state. But even here, nativeness is only superficial, for all too often, most of the native understory and its associated fauna have been removed through grazing.

With this dramatic change of characters on Iowa's landscape, it is of little surprise that records indicate a decline in numbers of most of the original species and complete disappearance of others. More than ever, Iowans today express concern for the preservation of their heritage. They recognize that heritage, like aesthetics, is a vital component to the quality of our being. Thus it is in the interest of all Iowans at this time to make this accounting of that part of native Iowa which still remains, and to encourage the most careful planning for future developments affecting our native flora and fauna.

It has been a privilege for me to share in the development and publication of the symposium on "Perspectives on Iowa's Declining Flora and Fauna." Thanks are due to Dean Roosa and David Roslien for their key roles in its organization, to the participants for the excellence of their contributions, and to Nels Lersten and Robert Hanson for their encouragement, patience, and cooperation in making this publication a reality. Grateful acknowledgement is also extended to the personnel of Simpson College for their technical support and excellent facilities which contributed greatly to the success of the symposium.