have not yet been encroached upon. However, the crowded, affluent masses of people in the coastal New England–New York megalopolis could alter the Island with great rapidity and effect drastic changes in its plant and animal life.

For the moment there is a secure reservoir population of the Block Island Meadow Vole. To ensure continued existence of this unique mammal, we recommend that the Rhode Island State Government or national conservation organizations secure as much of the existing Beachgrass and wetland habitats as possible, and maintain them free from disturbance. Some public land set aside as a biological reserve would also ensure continued use of the Island by migrating birds. Block Island is well known among eastern ornithologists for its autumn migration flocks. Without establishment of a comprehensive plan of land-use, we fear that summer cottages will eventually become evenly and densely distributed over the Island, destroying its value and uniqueness as an outdoor biological laboratory and haven for wildlife and humans.

References

- FISHER, JAMES, SIMON, NOEL & VINCENT, JACK (1969). The Red Book: Wildlife in Danger. Collins, London, 368 pp., illus.
- WHITMAN, W. (1966). A Reconnaissance of the Forest and Wetland Vegetation of Rhode Island. MS thesis, University of Rhode Island, Kingston.

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BLACK RHINO RESCUE CAMPAIGN IN RHODESIA

The relocation of wild animals, particularly the rare species, so as to ensure their survival in the long run, is one of the most important tasks of the South African Wildlife Foundation. Grants have already been made towards the re-introduction of 40 white rhinos in the Kruger National Park,* South Africa, and of 56 in the Gorongosa and Maputo Game Parks in Mozambique.

At the request of the Department of National Parks and Wildlife Management in Rhodesia, the Foundation has now resolved to give financial assistance for relocating a breeding herd of black rhino in the Gonare-Zhou Game Reserve.

* See the account in *Biological Conservation* Vol. 2, No. 1, p. 17, October 1969.—Ed.



Fig. 1. An anxious moment as two darted Rhinos slide backwards in the recovery vehicle.



Fig. 2. Rhino in the safety of a corral, fully recovered from the effects of the drug.

The Gona-re-Zhou was proclaimed a game reserve in December 1968. The reserve is situated in the southeast of Rhodesia and borders Mozambique. In the 1,000 square miles (2,590 sq km) of Mopani, thornland, and forests, thousands of head of game live and roam free from the threat of Man. Four of the five largest mammal species in Southern Africa are to be found here, but rhinos are still missing. Because of his muchsought-after horn and meat, the black rhino has been wiped out by poachers in the Gona-re-Zhou area. A few roaming pockets are still to be found in the densest of forests in the general region, but being poor of eyesight and hampered by their bulk when fleeing from hunters, they are doomed in the region if it is not resettled soon.

Some thirty of these animals are being captured by means of drug-carrying darts and reintroduced in the Gona-re-Zhou Game Reserve, which is most suitable for the black rhino. Figures 1 and 2 depict two of the operations involved in such re-establishment.

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WIDE-RANGING DECIDUOUS FOREST BIOME STUDIES IN THE UNITED STATES

A detailed study of the ecology of a major part of the United States, aimed at bringing about better understanding of the interrelationships among air, water, and land resources, is being supported by a \$1.2 million grant from the National Science Foundation.

The grant, to be administered by the Oak Ridge National Laboratory (ORNL) of the Atomic Energy Commission, Oak Ridge, Tennessee, will be divided among research groups at the University of Georgia, Athens; Rensselaer Polytechnic Institute, Troy, New York; the Research Triangle Group (composed of Duke University, Durham, North Carolina, the University of North Carolina, Chapel Hill, and North Carolina State University, Raleigh); and the University of Wisconsin, Madison. Workers from many other institutions will also participate.

Investigators will conduct cooperative fundamental studies of biological processes in natural and man-

dominated ecosystems which represent most of the eastern United States and parts of the Midwest. The area was once occupied throughout by deciduous (hardwood) forest and is generally characterized by similarity in climate, plants, and animals. It now includes much of the nation's prime agricultural land, about two-thirds of the nation's population, and many of its largest cities.

The wide-ranging studies are coordinated as the major research project on the Deciduous Forest Biome of the International Biological Programme. The project is under the direction of Stanley I. Auerbach, Director of the Ecological Sciences Division of ORNL.

Scientists on the project hope to provide basic knowledge necessary to intelligent decision-making in connection with the many problems of Man and his environment. These problems include demands upon the landscape for food, fibre, water, housing, and transportation, as well as related erosion, and water and air pollution.

Involving many scientists working together to determine how the total ecosystem operates, the project will include a broad range of investigations of subjects such as: photosynthesis, radiant energy and growth, animal and plant populations, production of oxygen in lakes and streams, decomposition processes, and human impact on lake drainage basins. Emphasis of the programme will be on the construction of a computer model of regional resources and their interrelationships. Using the model, scientists hope to be able to predict how changes in one component will produce changes in others. Such prediction capability could lead to greater understanding and control of environmental quality.

In addition to Oak Ridge, the research will be conducted at Lake Wingra, Wisconsin, Lake George, New York, and Duke University Forest and Coweeta Hydrological Laboratory (both in North Carolina).

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