

E-4 Study of Essential Factors for Preservation of
Wildlife in Nansei Islands

(FY 1986-1990)

Nature Conservation Bureau, Environment Agency
(Entrust Organ)
World Wide Fund for Nature Japan

The objective of wildlife conservation is, as described in Longterm Vision for Environmental Conservation (Environment Agency, 1986), coexistence of humanbeings and wildlife. This should be the fundamental principle to prevent anthropogenic extinction of wildlife species.

Organisms often evolve into special, endemic forms on isolated islands. The Nansei Shoto Islands are recognized worldwide as a region whose fauna and flora has an exceptionally high degree of endemism. On the other hand, the fragile island ecosystems of the Nansei Shoto are vulnerable to changes which could lead to species extinction.

The Nansei Shoto Islands have been inhabited since prehistoric age. Until a few decades ago, the lifestyle of the people had been in harmony with the natural environment. However, critical changes in the natural environment have resulted from continuing development, and traditional lifestyles have largely been forgotten in recent years.

In order to prevent the anthropogenic extinction of endemic species or entire biological communities, there is an urgent need to establish a policy and procedure for wildlife conservation in the Nansei Shoto Islands.

Wildlife conservation can only be achieved through continual efforts to address threats to species and ecosystems and through the implementation of sound policies, which need to be supported and accepted by the local inhabitants. The main objective of this research is to establish the scientific basis for the ecological evaluation of the region's fauna and flora. In addition to the main objective, this project should give rise to a working network of researchers, make the local inhabitants more familiar with wildlife conservation, and provide the framework for an effective program for wildlife conservation.

As a conclusion of this five-year survey, it is desired that biosphere reserves should be established on main islands to secure wildlife and ecosystem. The reserves consist of a core zone that is perfectly preserved from human activities except some scientific monitoring of natural environmental changes and a buffer zone around it. It is also desired that a reserve is formed as an entire watershed ecosystem unit, i.e., from mountain tops to river mouths and shall waters of coral reefs. There each species maintains its populations naturally without human influences. At present natural protection areas and wildlife reserves are already established in the Nansei Shoto Islands, but it does not seem that the management system are properly functioning to meet the need to conserve wildlife. It is essential to promptly establish biosphere reserves meeting MAB Plan and Wildlife Centers that function as the core of conservation, management, education, survey and public relations.

Member of Study

Makoto Numata
Shojiro Asahina

Sadao Ikehara

Shun'ichi Ueno
Keiichi Shimabukuro
Hideo Tagawa
Tadashige Habe
Nobuyuki Yonekura
Kazuhiko Ninomiya
Yukio Murata
Shigeki Komori
Hidenori Kusakari

Syukutoku University
National Institute of Health
(honorary member)

University of the Ryukyus
(professor emeritus)

National Science Museum
University of the Ryukyus
Kagoshima University
Tokai University
University of Tokyo

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