

1. ACTUAL VEGETATION
2. DISTRIBUTION OF ANIMALS

1. Actual Vegetation

Japan's territory, although limited in area, stretches over a wide range. Climatologically, most of the territory is in the temperate zone, some belonging to the subtropical and subarctic zones. As there are mountains more than 3,000 meters in height, the territory presents a variety of botanical patterns as a whole.

Since many human beings have lived for years in a limited national land, the destruction of nature—particularly, of the vegetation which covers the ground surface—is conspicuous, the survival rate of natural vegetation accounts for less than one-fourth of the national land.

The littoral areas in the Kyūsyū and Sikoku regions, those west to the Kantō Region in Honsyū Island and also those in the Tōhoku Region belong to the *Camellietea Japonica* Region. This region used to be occupied by evergreen broad-leaved forests, but the survival rate of natural vegetation in this region stands at about 4% at present.

The southwestern part of Hokkaidō, the entire area of the Tōhoku Region and mountains (excluding the subalpine and higher zones) of the Tyūbu Region, and highlands, more than 700-1,000 meters above the sea in Kinki, Kyūsyū and Sikoku regions, where the temperature rises above 10°C on the monthly average for four to six months, belong to the *Fagetea crenatae* Region according to the classification of vegetation. Even in this region, the survival rate of natural vegetation stands at less than 30%.

Potential natural vegetation is the vegetation in which a region of artificially affected vegetation would eventually end up, if it was hypothesized that man's influences could be removed.

Salient Points of the Legend and Map Compilation

This map was edited on the basis of the 1:200,000 scale Actual Vegetation Map prepared by the Environment Agency on the basis of a survey conducted in 1973-75 as part of the Report of Natural Environment Conservancy Survey.

The classification of vegetation is conducted by (1) the physiognomical method or (2) the phytosociological method. The physiognomical method is based on the concept of the plant formation and established by Griesebach. This methodology makes it possible to express to some extent the correlations between the classification of vegetation and other phenomena of the ground surface without knowledge of plant communities. On the other hand, the phytosociological method was established by Braun and Blanquet. In this methodology, the plant communities are classified into community units of varying classes on the basis of their floristic composition.

The system of vegetation classification for the Environment Agency's map of actual vegetation is based mainly on the phytosociological method.

In compiling actual vegetation, attention was focused on the following points:

1. With respect to the number of vegetation classifications, attention was paid to the regional features of vegetation in classifying phytosociologically affined plants into 58 categories, as vegetation throughout the nation is subdivided into about 450 categories according to the Environment Agency's vegetation map.
2. The plants, small in area, which are distributed in linear or dotted patterns are indicated with small symbols. Arrangements were made so that these symbols were placed near their approximate location.
3. Most of the subalpine and lower regions are occupied by afforestation and cultivated lands, with the consequence that practically no natural vegetation is distributed. If attempts were made to compile a map on natural vegetation, substitutional vegetation and afforestation land according to the omission standards for generalization, it would become impossible to delineate natural vegetation. While arrangements were made so that attempts could be realized to make progress from a map of actual vegetation to that of potential vegetation, the omission standards for total delineation were altered to raise the degree of omission in the order of (1) natural vegetation, (2) substitutional vegetation and (3) afforestation and cultivated lands. For example, attempts were made to use, as far as possible, the natural vegetation which even if small in area, exists in an afforestation land. Attempts were also made as far as possible to omit the portion where part of an afforestation land wide in area is entangled in complicated patterns with natural vegetation.
4. In giving priority to the adoption of vegetation between class regions such as the *Vaccinio-Piceetea* regions and the *Fagetea crenatae* and *Camellietea japonicae* regions, it was decided as a rule to give precedence to vegetation of the cold area in the mountains than that of the temperate area, and to vegetation of the temperate area than that of the cold area

in the littoral districts.

Sources

1. Environment Agency, 1:200,000 scale Actual Vegetation Map (by prefecture), 1975.
2. Environment Agency, Report of Natural Environment Conservancy Survey, 1976.
3. MIYAWAKI and OKUDA, Potential Natural Vegetation Map of Japan, 1975.

2. Distribution of Animals

Most of Japan's national land belongs to the temperate zone, but the fauna are relatively rich in variety and the indigenous species are numerous.

Salient Points of the Legend and Map Compilation

This map shows the scope of geographical distribution of animals.

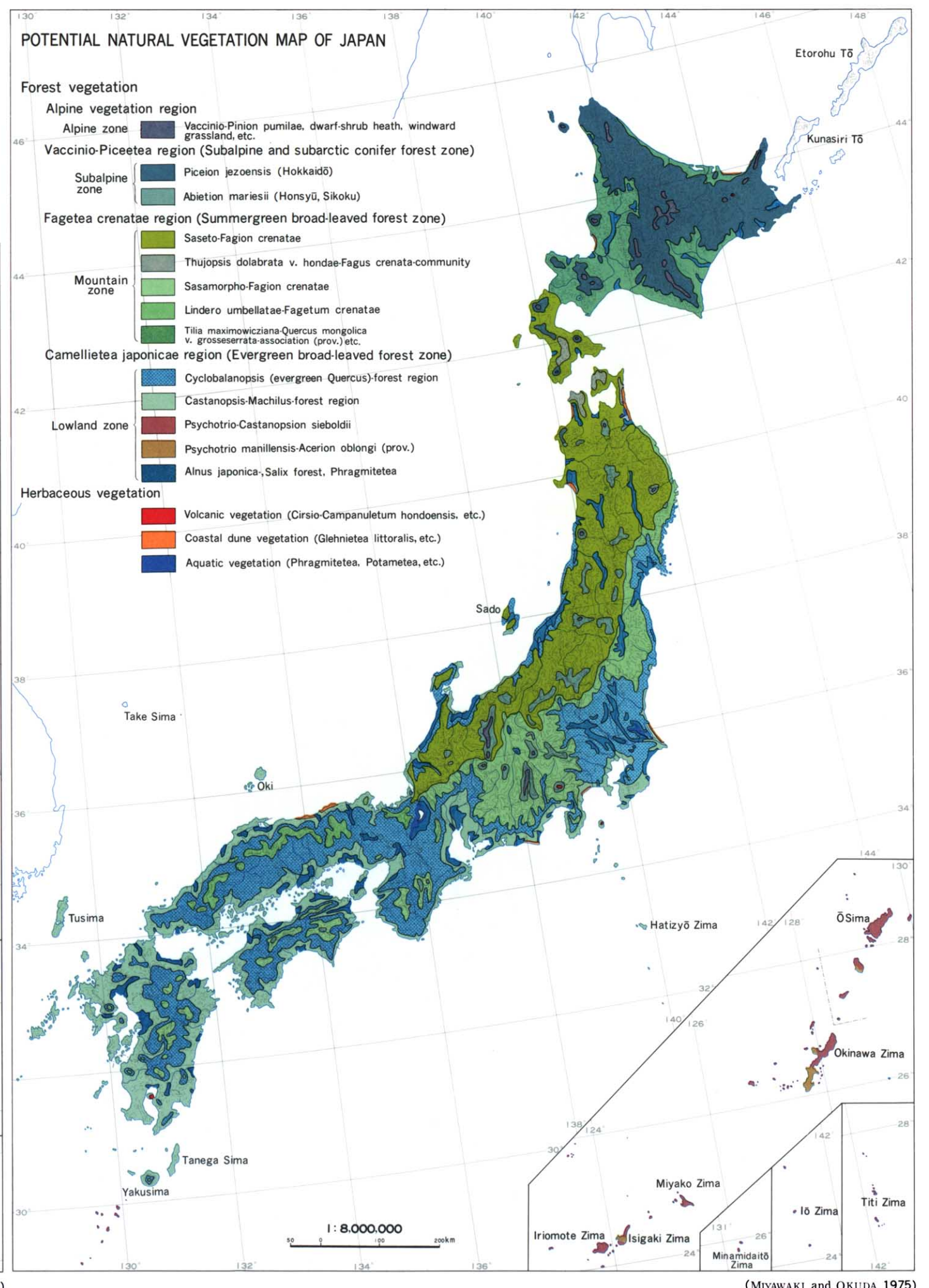
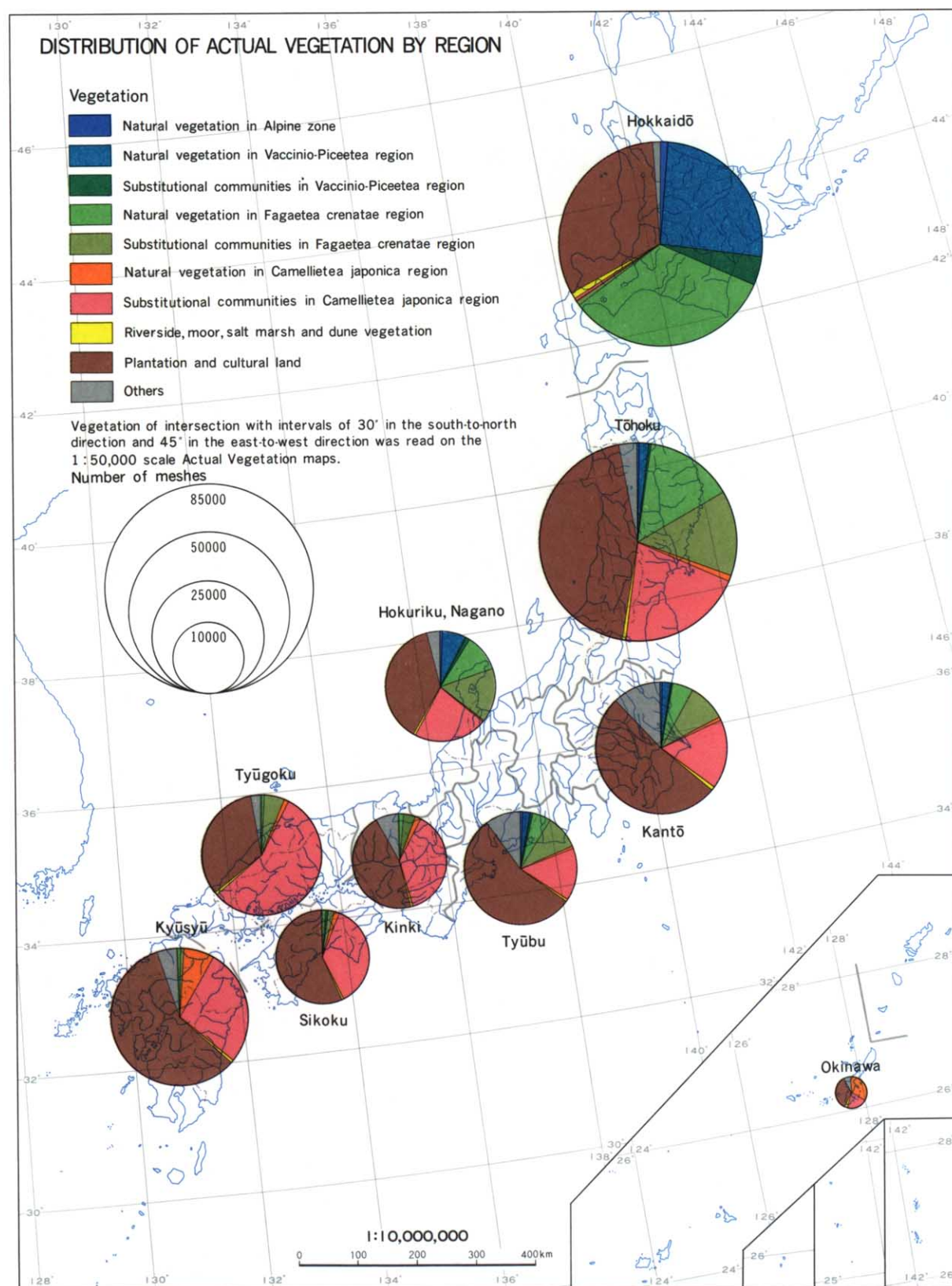
The distribution, as is used in zoology, represents the geographical distribution of animals in some instances and their ecological distribution in others. The ecological distribution suggests the habitats of animals—e.g., running water and still water, sunny grasslands, trees on forest boundaries.

Animals have their own habits and habitats, bringing about differences in the degree of difficulty of a distribution survey. The number of investigators is also different, depending on the field, with the result that the scope of geographical distribution of animals is not surveyed in a uniform pattern.

In selecting species for this map, the indigenous and rare species and characteristic groups of animals in Japan—the species on which relatively sufficient nationwide surveys have been conducted in the past—were used.

Sources

1. Data from the National Science Museum.
2. Ornithological Society of Japan, Check List of Japanese Birds, 1974.
3. Tomoo FUJIOKA, Butterflies of Japan, 1975.
4. Data from the Environment Agency.



ACTUAL VEGETATION

Natural Vegetation in Alpine Zone

- Alpine Scrub (*Vaccinio-Pinion pumilae*)
- Alpine heathland, wind-exposed grassland and snow patch community

Natural Vegetation in Vaccinio-Piceetea Region

- Picea jezoensis*-*Abies sachalinensis* association
- Abietum mariesii*
- Abietum veitchii* and *Tsuga diversifolia* community
- Taxetum nanae*
- Abietum sikokiana*
- Larix leptolepis* community
- Alno-Betuletum ernanii* and *Sasa spp.*-*Betula ernanii* community
- Quercetum mongolicae undulatifoliae*
- Mixed forest of *Abies sachalinensis*, *Quercus mongolica* var. *grosseserrata*, *Tilia japonica*, etc.

Substitutional Communities in Vaccinio-Piceetea Region

- Sasa spp.* community and plant communities in clear-cut area
- Betula ernanii* community (Secondary forest)

Natural Vegetation in Fagetea crenatae Region

- Sasa kurilenseae*-*Fagion crenatae*
- Sasamorpho-*Fagion crenatae*
- Acer mono* var. *glabrum*-*Tilia japonica* community and *Pterocarya rhoifoliae*
- Abies homolepis* community
- Chamaecyparis obtusa* community, *Thuja sutchuanensis* var. *horndae* community and *Thuja standishii* community
- Pinus densiflora* community
- Salix spp.* forest, *Alnus japonica* community and *Ulmus davidiana* var. *japonica* community
- Natural scrub and natural grassland

Substitutional Communities in Fagetea crenatae Region

- Fagus crenata*-*Quercus mongolica* var. *grosseserrata* community
- Castanea crenata*-*Quercus mongolica* var. *grosseserrata* community
- Betula platyphylla* var. *japonica* community
- Pinus densiflora* community (Secondary forest)
- Sasa spp.* community, *Miscanthus sinensis* community and plant communities in clear-cut area

Natural Vegetation in Camellieae japonicae Region

- Abies firma*-*Tsuga sieboldii* forest region
- Evergreen oak forest region
- Castanopsis cuspidata* forest region
- Machilus thunbergii* forest region
- Pittosporo-Quercetum phillyraeoides*, etc.
- Pinus densiflora* community and *Pinus thunbergii* community (Natural vegetation)
- Rhododendron metternichii* var. *yakushimanum*-*Cryptomeria japonica* community
- Alnus japonica* community and *Salix cheamensis* community
- Cycas revoluta* community and *Livistona subglobosa* community
- Mangrove forest
- Ficus microcarpa*-*Pongamia pinnata* community

Substitutional Communities in Camellieae japonicae Region

- Castanopsis-Cyclobalanopsis coppice*
- Quercus serrata* community
- Pinus densiflora* community and *Pinus thunbergii* community (Intermediate natural vegetation)
- Pinus lutchuensis* community
- Leucaena glauca* community
- Sasa-Bambus* community
- Miscanthus sinensis* (*Miscanthus sinensis* community, *Zoysia japonica* community, etc.)
- Erechtites hieracifolia* community

Substitutional Communities in Camellieae japonicae Region

- Riverside Moor, Salt marsh and Dune Vegetation (Common to each class region)
- Oryzopsis-Sphagnetum* and *Molinopietalia* (*Japonicae*) (High moor and intermediate moor)
- Phragmitetum* and *Potamogetonetea* (Low moor and vegetation in swamp)
- Asteretea tripolii*, etc. (Vegetation in saline swamp)
- Glehnetea littoralis*, *Viscetea rotundifoliae* and *Rosetea rugosae* (Vegetation in sand dune)
- Vegetation in volcanic desert
- Vegetation in coastal cliff
- Vegetation in raised coral-reef

Plantation and Cultural Land (Common to each class region)

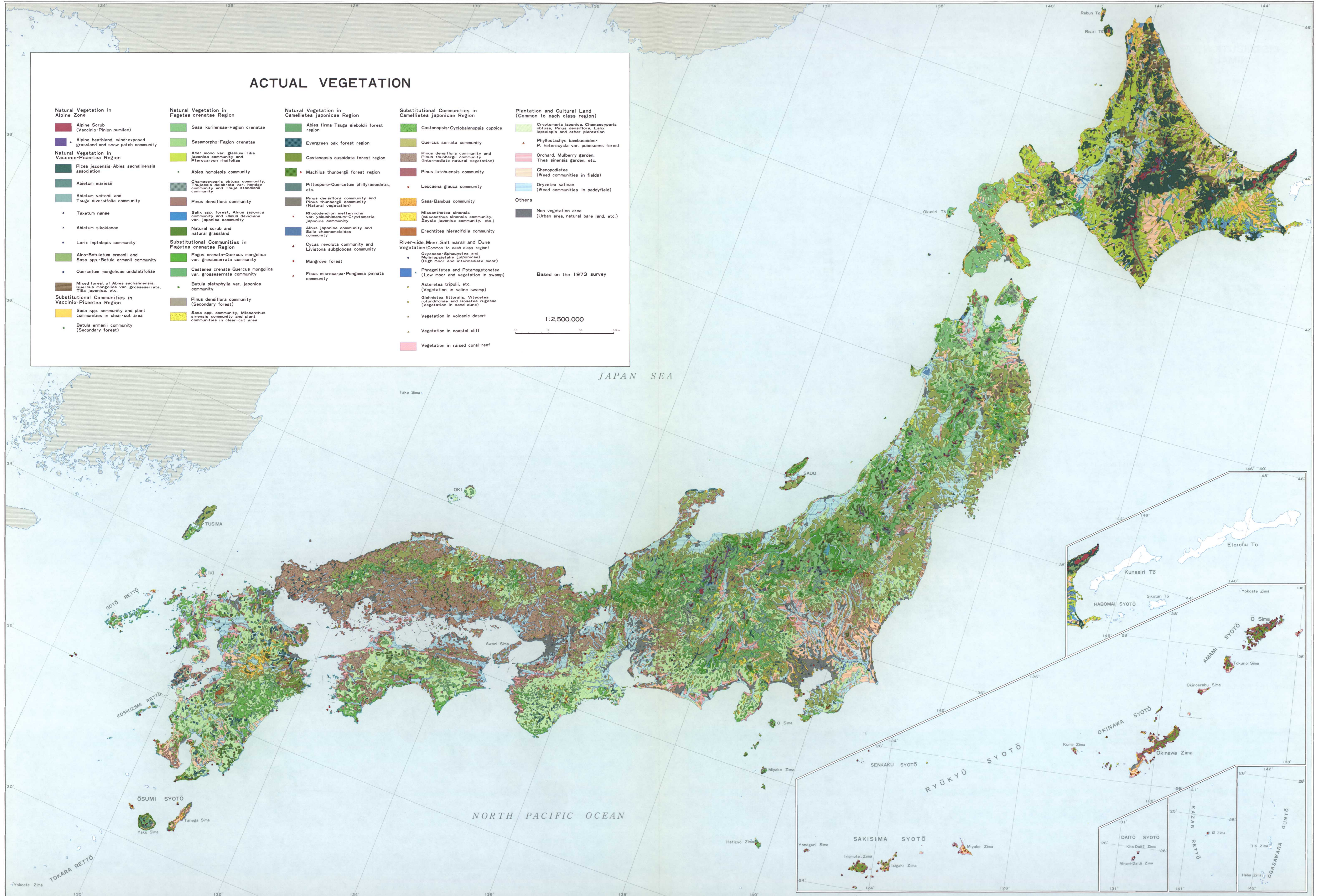
- Cryptomeria japonica*, *Chamaecyparis obtusa*, *Pinus densiflora*, *Larix leptolepis* and other plantation
- Phyllostachys bambusoides*-*P. heterocycla* var. *pubescens* forest
- Orchard, Mulberry garden, *Thea sinensis* garden, etc.
- Chenopodietea* (Weed communities in fields)
- Oryzeta sativae* (Weed communities in paddyfield)

Others

- Non vegetation area (Urban area, natural bare land, etc.)

Based on the 1973 survey

1:2,500,000



DISTRIBUTION OF ANIMALS

1:16,000,000

