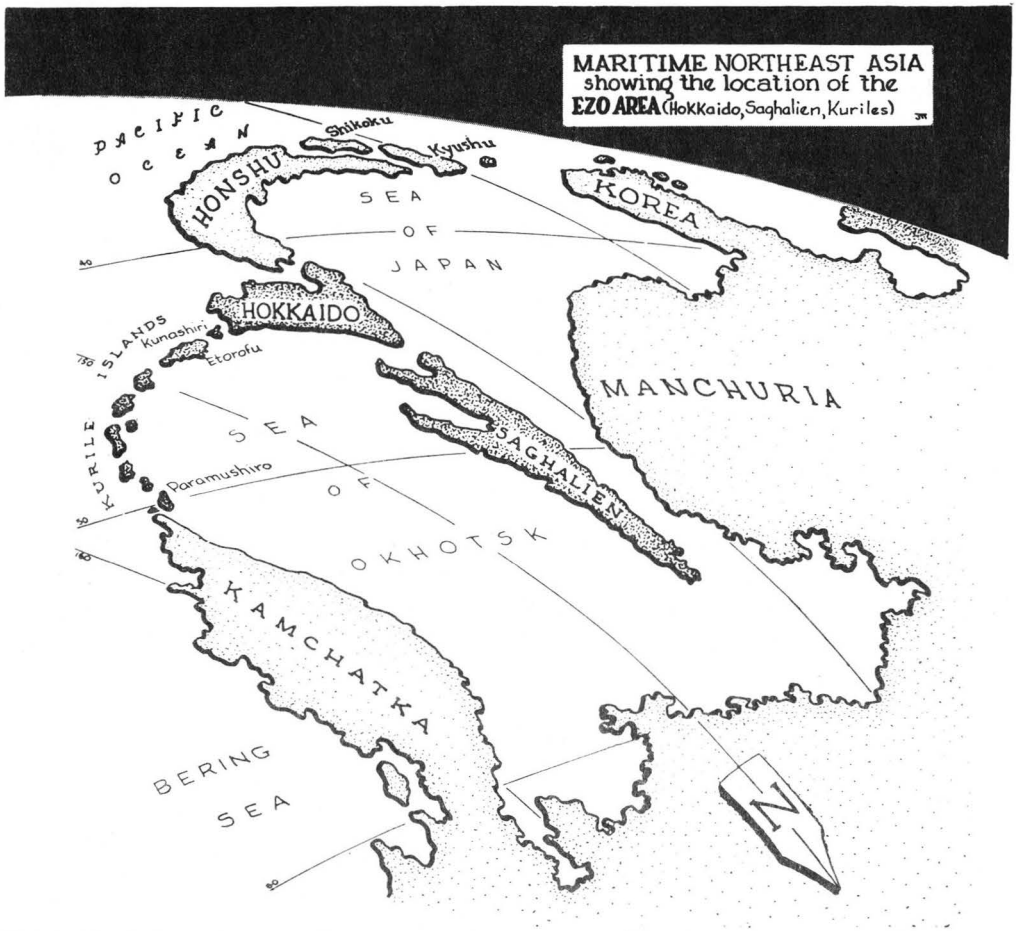
North Sea Road

by Gary Snyder

北海道

including the Phytogeography of the Islands of the North Pacific
by Misao Tatewaki

NORTH SEA ROAD
by Gary Snyder



Hokkaido is in an intermediate zone ... between the Siberian subarctic and the warm-temperate of most of Japan. The west coast looks at maritime Siberia; the south coast to Japan and the North Pacific – warm and oceanic – the north coast is the Sea of Okhotsk – frozen in winter – Siberia and the north; Kamchatka; finally the Bering Sea. If it wasn't for the Russians, Japan would have let it be. Today it is the Alaska/California of the world's third largest industrial-economic power. Choices and moves are yet to be made; clear-cutting and all that taken for granted – Hokkaido stands to be the home of the fast-breeder reactor. Where the main article of trade was once hawk-feathers, and the God of it all, the Bear.

This so-called Ezo Island is located more than ten thousand ri away. Whoever is born on this island possesses an immense natural power. The hair grows upward and the light of the eyes is like the golden morning sun. Their angry shouting frightens the animals. They hunt and eat animals of the mountains and fields as well as fish. They indulge in fine wines and beautiful women and live lavishly. It is a strange country of no law and dissolute habits.

Chikamatsu, 1685

Sapporo
30. VI. 72

On the main lobby floor of the Prefectural Office-Building is a mural, wrapping around a right angle, maybe 80 feet long in all. Low relief on stone. "Hokkaido's hundred years" ... starting, as such murals do, with the woods, deer, and the natives ... and then pioneers wielding axes, hovering over stumps. Soon there are girls harvesting wheat; haystacks and cows; and finally the bridges, steamships, and airplanes in the sky. One hundred years.

–Japan has no wilderness, but there is much of nature – the weeds come back, the sasa grows in. Virgin/climax. There can be new and coming climax conditions; and semi-permanently arrested phases (like agriculture) – and a new concept of climax: one which accepts the human role provided the human role is within terms of a certain harmony.

ecosystems – proceeding delicately, carefully, to climax. Then, a period of creative ecstasy and winding down again.

Tawara-san: "with almost no more primeval wilderness on Honshu, people are flocking to Hokkaido. They hope to see wild nature. Thus the sightseeing business develops facilities, and commercialism threatens to do in the access and entrance areas to wilderness. We don't say development is entirely wrong, but what for the future? We need a long-range land-use plan."

–– They sell carved bear and actual tanned fawn-skins in the tourist shop, but Sarashina says "Maybe three traditional Ainu left."

The trail leading up to Mt. Tsuguri has stone statues every 50-100 feet along it for a good kilometer. Below the summit one kilometer is a large outcropping called "Fudo Iwa" – Fudo Cliff – And the peak itself is a hard granite blade that stands steeply above the surrounding dense greenery.

thing; it will affect the whole world." That's the work cut out for us Americans. —— the young people of Japan, seeking freedom, suspicious of America; hopeful; playful; good-natured; something will come of it.

Youth Hostel ... seeing three young Ainu men & a girl, pull in, in a sporty little car – we all flash on each other, foreigners together ... the darker skin, thick brow, up-turned nose; & looser, easier walk & gaze ... they are different from Japanese. They are Tibetans, American Indians, Polynesians, "Real People".

moving slowly up the meadows, giving up on "knowing the flowers" – my Japanese, my Japanese books, won't do – "I don't know their names!" – giving up on that, I strolled, and then kneeled, and finally lay down in the mist-wet heather, to look at the alpine flowers and little plants. Just look. clustering, spreading. Some in clumps, some independent plant by single plant. Some past their bloom and fading; some at their prime. Keep looking and they become friends. I see one again, ' "know" it and – hours go by – I've covered an acre on my hands and knees, begin to see. To see the plants for themselves, begin to see I'm crawling on a world of beings in groups and streaks and sweeps of their own making, companionships and distances. Nameless, self complete, independent, fragile, eternal, free. This is the real world.

Its name all unknown
A weed flowers
By the side of a stream
–Chiun

leaving the high rocky rolling upland ridges, we begin to go down, descending the muddy tangled ridge, through swamps on benches and masses of roots.

thinking more on the Kaun-Tomoraushi areas – the wildest part of the mountains. No signs to speak of, no tent areas roped off, only hundreds of old tin cans rusting away.

And, last night's clearing sky – stars, sudden cool breeze from the east like, down from a hole in the clouds –dying fire – full moon.

and Hokkaido rises from the sea floor, angles up to snow.

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PHYTOGEOGRAPHY OF THE ISLANDS OF THE NORTH PACIFIC

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The area of the present study includes the Aleutian, Commander, and Kuril Islands, and Sakhalin and Hokkaido. The area's synecological character and floristic composition pose an important and interesting problem for the phytogeography of the North Pacific Ocean. In these islands, there are the essential lines of phytogeographical demarcation such as Hulten's, Miyabe's, and Schmidt's Lines, and the Kuromatsunai Depression (Fig. 1).

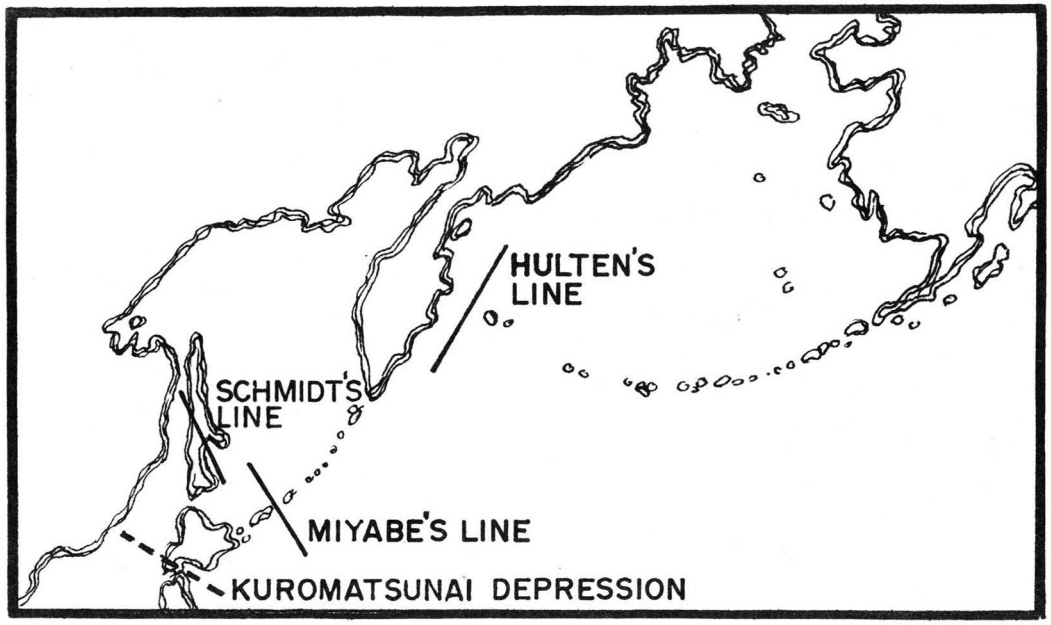

FIGURE 1.–Essential lines of phytogeographical demarcation.

HULTEN'S LINE

In a symposium held in 1961, I proposed Hulten's Line, dedicated to the honor of Professor Eric Hulten who has devoted his efforts to the phytogeography of the Bering Sea region. I also offered the phytogeographical area, "Hultenia," in honor of Professor Hulten for his valuable contributions to floristic research around the Bering Sea. It includes the Commander Islands and the Aleutian Islands. As already described, these two island groups have a similar vegetation which, to a large extent, shows Arctic physiognomy (in spite of Subarctic structures), from the viewpoint of the analysis of its floristic composition. Still, precise study shows that there are four natural phytogeographical areas: the Commander, the Western, the Middle, and the Eastern-Aleutian districts.

The flora of the first district shows the presence of an eastern Asiatic element and the meadow type prevailing along the northern Asiatic Pacific coast. The second district contains a few eastern Asiatic elements. The fourth district is merely an extension of the Alaska Peninsula flora, while the third district is a depauperate extension of the fourth.

MIYABE'S LINE

To the geobotanist, a very interesting problem in the islands of the North Pacific Ocean is the plant distribution of the Kuril Islands. In 1933 and 1947, I announced my opinion concerning Miyabe's Line as one of the most important boundaries between the Temperate East Asiatic Region and the Subarctic Siberian Region. By this line, I separated the southern Kurils from the northern Kurils. The latter includes the middle Kurils, although there are a few intermediate characteristics in plant distribution and the *Sasa* community is distributed as far as Ketoi Island. Examples of the southern elements are *Taxus cuspidata, Ilex rugosa, Ligularia Hodgsoni, Petasites japonicus* subsp. *giganteus,* and *Ephippianthus Schmidtii.* The characteristics to the north of this line of demarcation are summarized as follows:

1. Sudden decrease in flora species (the presence of the flora waterfall), especially Japanese and Japanese–Chinese elements.
2. Lack of *Picea jezoensis–Abies sachalinensis* and *Larix kamtschatica* forests.
3. Lack of climbing plants.
4. Dominance of the Subarctic element.

The difference in vegetation is distinctly accentuated by the forests. The tree vegetation of the northern Kurils is represented by *Pinus pumila* thicket while that of the southern Kurils is represented by *Abies sachalinensis–Picea jezoenisis, Larix kamtschatica,* and *Quercus crispula* forests.

SCHMIDT'S LINE

In 1927, Professor Kudo, as a result of his field study in northern Sakhalin in 1922-1923, endorsed Schmidt's view of 1868 and proposed to name this line of demarcation after him. In 1937, Miyabe and I strengthened the significance of Schmidt's Line by a study of the alpine flora of the central eastern coast of Sakhalin. The botanical characteristics of the area northward from this line of demarcation can be summarized as follows:

1. Sudden decrease in species of Temperate East Asiatic elements.
2. Extensive development of *Larix kamtschatica* forest.
3. In the conifer forests, *Picea jezoensis–Abies sachalinensis* maintains a subordinate rank.
4. Prevalence of peat bogs.
5. Absence of *Sasa* strata.
6. Lack of climbing plants, except *Clematis ochotensis.*
7. Presence of characteristic alpine plants on the northeastern mountains of older rock formation.

The alpine plants mentioned above belong to the Okhotsk region and Eastern Siberia.

KUROMATSUNAI DEPRESSION

The Kuromatsunai Depression, situated in southwestern Hokkaido, is an important line from a geobotanical viewpoint. It was first recognized by Miyabe in 1935, then by me in 1940 and 1958. The phytogeographical characteristics of this depression can be summarized as follows:

1. The presence of the northern limit of many important Japanese or Japanese–Chinese elements of the typical temperate zone.
2. The representative forests *(Fagus crenata, Thujopsis dolabrata* var. *Hondai* forest, etc.) of temperate Japan are restricted to the regions southward from this depression.
3. *Picea jezoensis,* the most important element of the needle-leaf forest in Hokkaido and southern Sakhalin, does not extend as far as this depression.

INTERMEDIATE REGION BETWEEN TEMPERATE EAST ASIA AND SUBARCTIC SIBERIA

The present region is situated between Miyabe's Line, Schmidt's Line, and the Kuromatsunai Depression and shows a transitional character between the Temperate East Asia and Subarctic Siberia Regions from the viewpoint of geobotany, despite its inclusion in the latter region (in the

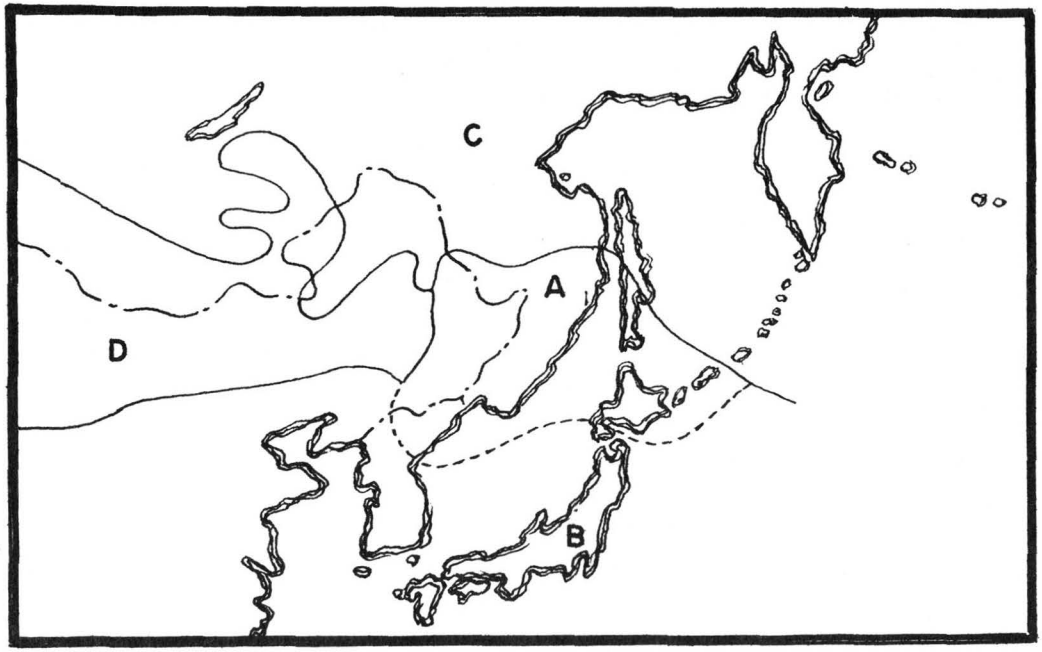

FIGURE 2.–Regions of the northeastern Far East. A, Intermediate Region (Tatewakia); B, Temperate East Asiatic Region; C, Siberian Subarctic Region; D, Eastern Central Asiatic Region.

broad sense). It is well characterized by the vegetation of mixed forests. The fir-spruce forest, composed of Subarctic elements, and summer green forests, composed of Temperate East Asiatic elements, occur side by side. The mixed forests, composed of these elements, are often even found in low land, for instance the *Quercus crispula–Abies sachalinensis, Quercus crispula–Picea jezoensis,* and *Tilia japonica–Acer Mono–Abies sachalinensis* forests. In any case, all these forests show a mosaic arrangement resulting from the intermixture between Temperate East Asiatic and the Subarctic phytogeographic elements. They are also often characterized by the particular presence of well-developed *Sasa* strata in the under layer and rich in climbers. The latter, composed of 18 species belonging to eight families, provides a more southern aspect to the forest. In general, the floristic composition shows a predominance of Temperate elements mixed with Subarctic elements. For the present intermediate area in the Far East, the name "Tatewakia" is applied.

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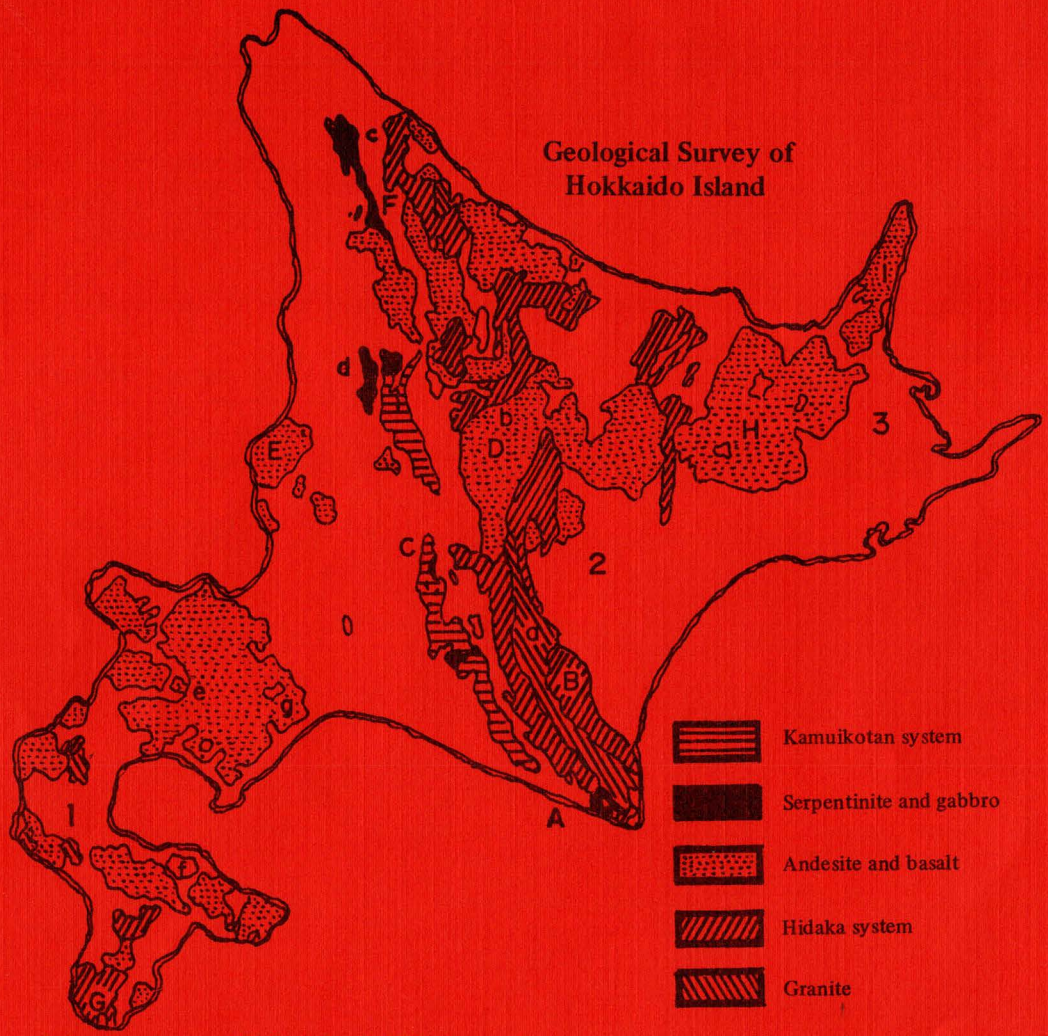

1. Southwestern part; 2. Central part; 3. Eastern part.
A. Apoi massi; B. Hidaka range; C. Yubari range; D. Central highlands; E. Mashike massif; F. Kitame range; G. Matsumae massif; H. Akan massif; I. Shiretoko range; a. Mt. Kamuiekuushikaushi. Mt. Esaomantottabetsu; b. Daisetsu massif; c. Mt. Horonupuri; d. Mt. Shiratori; e. Yezo-fuji; f. Mt. Komagatake; g. Mt. Tarumae.

Maps and Layout by Maurie Heald