Mountain Grassland Restoration



Designation: Biwako Quasi-national Park Location: Maibara City, Shiga Prefecture Year Initiated: 2008

Mt. Ibukiyama Nature Restoration Council

To restore the degrading Mt. Ibukiyama's mountain grassland (flower meadows), the Council is developing a locally-driven program. All local stakeholders work together for vegetation management, by removing shrub and alien species and establishing rules for resource use.



Ko-ibuki-azami (*Cirsium confertis-simum*)

Mt. Ibukiyama

Goal Restore the Early 1970s mountain grassland (flower meadows)



Mt. Ibukiyama is a 1,377m altitude mountain that rises on the border of Shiga and Gifu Prefectures. Being a treasury of plant life, the mountain nurtures about 1,300 species among 2,300 in Shiga. The mountaintop area develops flower meadows, supporting nine endemic species, including Ruri-toranoo and Koibuki-azami, and many other alpine and sub-alpine species, such as Ibuki-toranoo and Sankayo (Diphylleia grayi). This meadow area is designated as a national place of scenic beauty. The mountain slope between the trail's third to eighth stages has been used as hay fields. However, along with changes in the agricultural production and lifestyles, such agricultural landuse has declined. Mt. Kirigamine is now a tourist spot where about 0.3-million



Ruri-toranoo (*Pseudolysima-chion subsessile*)



lbuki-toranoo (*Pseudolysima*chion subsessile var. ibukiense)

people a year visit using a highway completed in 1965 or hiking trails from the foothill.

Since 1990s the mountain grassland has shown some alterations. From the summit area and hiking trails, non-native dandelions (Taraxacum officinale) and hay grasses have invaded into the grassland, causing declines of native dandelions (Taraxacum sp.) and other endemic species. Shrub and Japanese pampas grass (Miscanthus sinensis) are also overgrowing, owing to diminished grass harvesting. Therefore, a preservation and restoration mechanism has been developed, which ensures proper resource use by tourists and others as well as controls alien species and vegetation change.

Appro<u>aches</u>

- Remove shrub, alien species and other undesired plants to rehabilitate the mountain grassland (flower meadows) →①②③
- Ensure proper resource use and establish rule $\rightarrow 34$

In Mt. Ibukiyama, private groups and other interests have engaged in restoration, by removing dwarf bamboo, Japanese pampas grass, shrub and alien species and by other activities. Along with these efforts, other strategies under planning include field verification of rare plant distribution and fence installation to prevent alien species overgrowth.

Controlling vegetation change by removing unwanted plants

To control dwarf bamboo (Sasa kurilensis), Japanese pampas grass and other weeds infesting the former hay field, a mountain grassland rehabilitation program is being developed. In this program, local private groups take the initiative in mowing grasses and sowing herb seeds.



Related Web Sites

Mowing dwarf bamboo.

Mt. Ibukiyama Nature Restoration Council: http://www.pref.shiga.jp/d/shizenkankyo/ibukiyama/index.html

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2 Removing non-native dandelions and other alien species

The Council is planning weed control such as removing non-native dandelions and other alien species spreading by hikers and tourists.



Non-native dandelions infested the mountaintop area.

3 Fencing to deter human passage

Alien plants can invade and spread from hikers footprints. Therefore, together with specifying areas available for tourists and other users, fence construction to prevent alien species overgrowth and other weed control measures are being developed.

④ Establishing rules for park use

The Council is planning management strategies such as conducting patrol to prevent trampling and digging meadow plants, and setting rules for resource use.