



# Utsukushigahara

**Goal** Restore the historical subalpine grassland that existed before its conversion to hay fields in the 1950s, in part of the Utsukushigahara Highland

**Designation:**  
Yatsugatake-Chushinkogen  
Quasi-national Park  
**Location:**  
Matsumoto; Ueda; Nagawa,  
Nagano Prefecture  
**Year Initiated:** 2005

**Utsukushigahara Nature  
Conservation Council**

The issue is diminished native subalpine vegetation by the re-vegetation with non-native forage species and infestation of dwarf bamboo. The Council works on preservation and restoration of the native grassland ecosystem.



Utsukushigahara, located on a plateau at 2,000 m high, is home to about 80 subalpine plant species. An expanse of the native grass fields had been developed in the Highland long time ago through cattle grazing and grass harvesting. However, such traditional native grassland has been deprived due to re-vegetation with non-native forage plants and invasion of the dwarf bamboo (*Sasa kurilensis*) and woody species. The Utsukushigahara native grassland is ecologically valuable because of its scarcity as a subalpine grassland ecosystem and its biological diversity, and therefore its conservation is important. While working on restoring native

subalpine vegetation, a management program is being developed to sustain the grassland ecosystem.



The gunbaizuru (*Veronica onoei*) that survives in a hay field.



A native species, the fireweed (*Epilobium angustifolium*), sporadically occurs among dwarf bamboos.

## Approaches

▶ Work with volunteers to restore subalpine grassland vegetation → ①②③

Site selection and development of an implementation plan are underway along with opinions by Utsukushigahara Nature Conservation Council, while restoration techniques are being studied by Nagano Environmental Conservation Research Institute. Ongoing field works include removing non-native hay grass and dwarf bamboo and fencing to protect subalpine vegetation from grazing and trampling by cows and humans.

### ② Removing bamboo grasses and alien plants

To enhance native plant emergence from seed bank, the Council and volunteers are working together to remove non-native grasses and dwarf bamboos. At the same time, locally adapted restoration methods are being identified based on the monitoring data on emergence and growth of native vegetation.



Non-native grass removal by volunteers

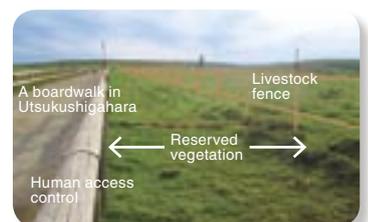
### ① Preventing surface soil erosion

In the sites where cattle or human trampling have destroyed subalpine cover, plastic sheeting and other erosion control have been implemented to prevent top-soil erosion and to create soil conditions suitable for sprouting from native seed bank and of wind-dispersed seeds.



### ③ Installing fences

After soil preparation and weed control, the sites were fenced in two rows to prevent cow grazing (the right fence) and human access (the left fence).



A zone reserved for vegetation recovery and fences for livestock enclosure and human access control