

Conservation of Japanese Azaleas in Yunomaru Highland

In the grasslands of Yunomaru Highland, human activity has created environments for many flora and fauna, including rare and endangered species. As people become more aware of the effects of climate change, it is easy to assume that all human activity leads to habitat loss and damage, but the full story is more complicated.

Yunomaru Highland was originally forested. Amid a boom in pastoral agriculture at the start of the twentieth century, much of the forest was felled to open up the land, where 300 horses, cattle, and sheep were then pastured. The gentle slopes were well suited to grazing livestock. However, Japanese azaleas (*rengetsutsuji*), like other members of the rhododendron family, are poisonous. The animals avoided eating the azaleas and instead ate other, competitor plants.

This led to the formation of widespread azalea groves that bloom reddish orange every year between mid-June and early July. Japanese azaleas have two to eight petals instead of the usual five and their vermilion color

becomes more striking with altitude. The summit of Mt. Yunomaru (2,101 m) is the highest altitude at which the flowers can be found in central Japan, which brings additional attention to these groves as a sightseeing spot. At their most numerous, more than 900,000 bushes are thought to have been found across Yunomaru Highland. In 1956, the Japanese azalea was designated a protected species due to its number and distribution, the color of its flowers, and its relationship to the Yunomaru ecosystem.

Commercial grazing in the Yunomaru area went into decline beginning in 1975. The absence of grazing cattle allowed taller shrubs and trees to regrow, bringing about gradual reforestation. As the azaleas competed for sunlight in the rising forest, their number fell by 78 percent to roughly 200,000 plants.

Recognizing that the loss of the grasslands would lead to the disappearance of the protected azaleas, residents formed a volunteer association to help preserve them. Today, a team of around 30 volunteers, assisted by 30 cattle retained solely for conservation purposes, plays a vital role in preserving 272 hectares of grassland. The volunteers work to clear the area of larch, crab apple, and other tall plants, and the cattle graze on

the rest. Azalea numbers are now closely monitored as part of an ongoing university study, and today more than 600,000 bushes can be found throughout Yunomaru Highland.