



Yawata Wetlands

Goal Restore the original wetland ecosystem that existed in the 1950s before pastureland development

Designation:
Nishichugoku-sanchi Quasi-national Park
Location:
Kitahiroshima, Yamagata-gun,
Hiroshima Prefecture
Year Initiated: 2003

Yawata Wetlands Nature Restoration Committee (as of March 2009)

The Committee pursues wetland restoration at Yawata Wetlands in Mt. Garyu foothill.
Date Established: 7 Nov. 2003
Members: 31
Date Issued the Overall Plan: 31 Mar. 2006
Date Issued the Implementation Plan:
● 30 Oct. 2006 (Yawata Wetlands Project, sponsored by Hiroshima Prefecture)



Channelized concrete canal in the wetlands



(Photo by Hiroshima Prefectural Forestry Research Center)



Wild iris



The silver-studded blue (*Plebejus argus micrargus*)

The Yawata area forms a valley in north-eastern Hiroshima Prefecture, surrounded by 1,000-m high mountains at an elevation of 800 m. The area contains a number of scattered poor fens, represented by the numagaya (*Moliniopsis japonica*) – maazami (*Cirsium sieboldii*) community. The wetlands also support important wild populations of the iris (*Iris laevigata*).

Wetland habitats for unique communities,

however, show various degradations - progressive desiccation associated with drainage structures for pasture development and road construction; and subsequent invasion of woody species, such as the Japanese red pine (*Pinus densiflora*) and Japanese holly. To preserve and restore the wetland ecosystems, a restoration plan was developed, and actions are underway.

Approaches

▶ Remove man-made alterations during pasture development

The Yawata Project features improvement of hydrology; rehabilitation of wetland vegetation by controlling undesirable species; and preservation of the existing wetlands. The restoration area will be classified into zones of construction types based on degradation such as the absence of wetland plants. For each zone, clearing surrounding woods, removing the drainage canal, installing water-level control levees, and other specific actions will be prescribed.

- A** (Current status) Zones of a completely or nearly devoid of wetland vegetation
(Actions) Removing trees and alien species; installing irrigation canals
- B** (Current status) Zones of remaining wetland plant coverage
(Actions) Clearing trees; filling existing drainage ditches
- C** (Actions) Restoring floods by constructing dams
- D** (Current status) Zones of feasibility testing
(Actions) Monitoring for feasibility testing
- E** (Current status) Zones of intact wetland vegetation
(Actions) Preserving the wetland conditions



① Removing the concrete canal

Stream water and wetland groundwater levels will be increased by demolishing the canal and back-filling the dredged streambed.

② Improving stream flow to more natural forms

Existing straightened stream channel will be modified to have a meandering form similar to the historical one, to create diverse in-stream habitat while ensuring erosion control by stabilizing the riverbanks and bed.

③ Damming stream flow

To increase the area of inundation and reduce streambed slope, stream water surface and wetland groundwater will be elevated by damming stream flow. This will also benefit water resource use and disaster control.

④ Installing irrigation canals

Irrigation canals for directing water from the dams will be constructed to enhance the wetness of the restoration zones.

⑤ Improving road ditches for habitat mitigation

Existing drainage ditches and culverts will be modified to allow animal migration across and along the road.

⑥ Clearing woody and alien species

Invaded trees and alien species will be removed.

Related Web Sites

Yawata Wetlands Nature Restoration Project: <http://www.pref.hiroshima.lg.jp/eco/j/yawata/index.htm>