

Primary Sponsor:
Yamaguchi Prefecture

Tidal Flat Restoration

**Designation:**

None

Location:Yamaguchi, Yamaguchi
Prefecture**Year Initiated:** 2002**Fushino River Estuary and
Tidal Flats Nature Restoration
Committee (as of March 2009)**

The Committee works on restoration and maintenance of Fushino River estuarine and tidal flat habitats.

Date Established: 1 Aug. 2004

Members: 57

Date Issued the Overall Plan: 31 Mar. 2005

Date Issued the Implementation Plan:
In preparation

Fushino River Tidal Flats

Goal**Restore 'sato-umi', a shoreline habitat where people can enjoy natural resources in a sustainable way through continuous proper management**

The Tidal Flats, downstream of the Fushino River, is a stopover site for migratory birds flying to various destinations and is listed in the Japan's 500 Important Wetlands. It is also home to the threatened horseshoe crab (*Tachylepus tridentatus*), all of which makes the area as a country's critical estuarine habitat.

The Tidal Flats, however, has experienced various alterations - suspended silt inflow; oyster overpopulation due to enrichment of the estuarine water; mud flat compaction because of less frequent clam dredging; and a marked decline of eelgrass (*Zostera marina*) beds. Towards restoration and preservation of the Fushino River Estuary and Tidal Flats, various efforts are in progress.

Approaches

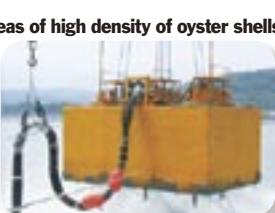
- ▶ Improve the substrate environment by crushing oyster shells and modifying sediment texture
- ▶ Establish a mechanism for the sustainable tidal flat management



Horseshoe crab



Plowing and sand addition method



Shell crushing and plowing method



Working on parallel ridge tillage



Fencing with thick bamboos

Primary Sponsor:
Saga Prefecture

Wetland Restoration

**Designation:**

None

Location:

Karatsu, Saga Prefecture

Year Initiated: 2002**Kashibaru Wetlands Nature
Restoration Committee
(as of March 2009)**

The Committee works on returning the altered wetland environment due to natural transition to the healthy one.

Date Established: 4 Jul. 2004

Members: 36

Date Issued the Overall Plan: 26 Jan. 2005

Date Issued the Implementation Plan:

● 31 Mar. 2005 (Kashibaru Wetland Area, sponsored by Saga Prefecture)



Accumulation of sphagnum moss is converting the wetlands to uplands

Kashibaru Wetlands

Goal**Restore the wetland vegetation that existed in the late 1950s and re-establish a healthy relationship between human activity and the environment**

Bekkotonbo dragonfly

Approaches

- ▶ Removing vegetation in a step-by-step approach
- ▶ Removing invaded shrub trees
- ▶ Relocating the road that bisects the wetland (under consideration)



Dredging and vegetation removal were implemented



Increased open water has restored diverse vegetation

Kashibaru Wetlands has an area of 120-ha and is the bounty of important wetland plants and insects, where continuous management has controlled the vegetation's natural. However, the Wetlands has suffered a reduction of open water area and conversion to uplands because of being bisected by the road constructed in 1971 and cessation of field burning and sphagnum moss (*Sphagnum palustre*) harvest. Therefore, wetland restoration is in progress to return the wetland environment under alterations, such as the infestation of a few plant species and accumulation of dead plants, to the traditional one.

Areas for restoration**Related Web Sites**Fushino River Estuary and Tidal Flats Nature Restoration Committee: <http://eco.pref.yamaguchi.lg.jp/fushino/index.html>