

# Miracle Wetland the Ramsar sites "Nakaikemi-Shicchi"

Mt. Tezutsuyama

Mt. Nakayama

Ushirodani valley

Mt. Miyama

Visitor center



The red line shows the registered area under the Ramsar Convention, and the Class II Special Zone of Echizen Kaga Quasi-National Park.

## Unique worldwide, a hundred thousand year history of peat sediments

Nakaikemi-Shicchi is located in the east of Tsuruga City, which is the central part of Fukui Prefecture. The wetland is about 25ha-size, surrounded by mountains. Since its landscape, it is defined as a sac-like waste-filled valley according to topographical classification, and an approximately 40m deep peat sediments\* is found, which represents a record of the nature for a hundred thousand years. This type of peat layer cannot be seen in other areas of the world, and is identified as an important field scientifically, where history of nature's changes and climate change can be observed. The wetland and the surrounding mountains of total 87ha was registered as protected area under the Ramsar Convention\* in July 2012. The area is also conserved as the Echizen-Kaga Kaigan Quasi-National Park in Japan.

### \* Peat sediments

This is made from undegraded plants. Usually, the depth of this sediments around 3-5m, however Nakaikemi-shicchi has 40m deep peat sediments.

### \* The Ramsar Convention

It is an intergovernmental treaty, the official name is "The Convention on Wetlands of International Importance especially as Waterfowl Habitat." The aim of the treaty is the conservation and wise use of wetlands for not only waterbirds but also all aspects.

# Biodiversity Hotspot



## The Oasis of over 3000 species

Nakaikemi Shicchi is a small wetland, however there lives approximately 3000 species including those of endangered. It welcomes us with different faces throughout the four seasons. Sawaoguruma (*Senecio pierotii* Miq.) covers the field in spring, lily flowers like Mizutoranoo (*Eusteralis yatabeanus*) and Mizuaoi (*Monochoria korsakowii*) start blooming in summer. In autumn there gathers migratory birds as stopping points, and chorus of Montane brown frog (*Rana ornativentris*) can be heard in early spring. With its unique landscape and the stable water supply from the surrounding mountains, rich water environment such as rice paddies, water corridors, and footpath has been maintained for long through agriculture of local communities. Luckily, because of the deep soil of the wetland, introduction of machines and land reform weren't so stressed, and Nakaikemi Shicchi is now a treasury of so many endangered species.



Various species can be found throughout the four seasons in the wetlands and rice paddies (in the picture is Mizutoranoo (*Eusteralis yatabeanus*))



**Pygmy waterlily** (*Nymphaea tetragona*) and **Water Clover** (*Marsilea quadrifolia* L.)

**Japanese yellow bunting** (*Emberiza sulphurata*)  
Bird, which is listed as Vulnerable(VU) on the IUCN Red List. Its inhabitancy is only found in Japan, and Nakaikemi-Shicchi is a crucial stopping point for migratory birds worldwide.



# Beautiful Dragonflies

## Various water environments and surrounding mountains

In Nakaikemi-Shicchi, 72 species of dragonflies have been observed, which is over 60% of those, that are found in mainland Japan. There is no other place in Japan where over 70 species can be found in one place. Especially the periods through late-June and early-July, around 30 species can be seen in a day with a mixture of spring dragonflies and summer dragonflies. Why is it that Nakaikemi-Shicchi is such a spot for these species?

The answer is hidden in the abundant water environment and the surrounding mountains. Natural habitats of dragonfly larva differ between species: Standing water like ponds, lakes and wetlands, and living water such as rivers, and irrigation ditches, and Nakaikemi-Shicchi consists of both types. The forests and mountains surrounding not only recharge water resource for the wetland, but also dragonflies' foods like small insects and become their nests. The fact that Nakaikemi Shicchi has these critical aspects for the life of dragonflies is enriching both the quantity and quality of dragonflies.



Nakaikemi Shicchi and its surrounding mountains (taken on April 28, 2014)



**Tyoutonbo** (*Rhyothemis fuliginosa*)  
With beautiful wings, it flies like a butterfly. Can be seen all around the wetland.



**Kitonbo** (*Sympetrum croceolum*)  
A meadowhawk newly found as the 71st species. Its orange wings are the distinctive features.



**Aoyanma** (*Aeschnophlebia longistigma*)  
Nakaikemi-Shicchi's symbolic dragonfly, which lives around ponds and wetlands. Was seen in 2014, for the first time in two decades.



# Ushirodani valley

## Gateway to the nature and culture

Ushirodani valley is the gateway to the wetlands, which is an environment of 400m-long narrow valley. There gathers abundant spring water from the mountains around, and contains different characteristics from the large wetlands. Rare species of freshwater bivalve, algae, and Japanese firefly (*Luciola cruciata*), which only lives in limpid water streams are seen, and as the only outlet of waters within the wetlands, it plays an important role as the corridor for dragonflies, fishes, and other wild animals. In the greenwoods and causeway, seasonal lily flowers and colorful fruits welcome us.



**Ushirodani valley** Used to be beautiful paddies, however now is a fallow field. Maintenance of paddies and the wetlands are being conducted by the local communities.



**Nihon-kawatonbo** (*Mnais costalis*)  
The abundance of this limpid-stream damselfly features the fauna of Ushirodani Valley.



**Schlegel's green tree frog** (*Rhacophorus schlegelii*)  
Pass between the wetlands and forests.



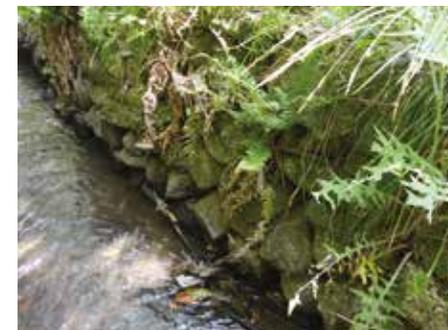
Stone statue, as the ancient guardian of Nakaikemi Shicchi always filled with an offering by local communities.



Abundant water flowing from the mountains



There is stable water environment in the valleys, which become an important habitat for Japanese fire belly newt (*Cynops pyrrhogaster*), Montane brown frog (*Rana ornativentris*), Japanese firefly (*Luciola lateralis*).



Stonewalls, maintained by people's efforts



**Family of Japanese serow** (*Capricornis crispus*)  
Was seen during camera trap investigation



**Mt. Miyama located in the southern part of Ushirodani valley**  
Important water source of the wetlands



# Development issues in Nakaikemi shicchi

## ■ The protected area which overcome the conflict face a new problem again!

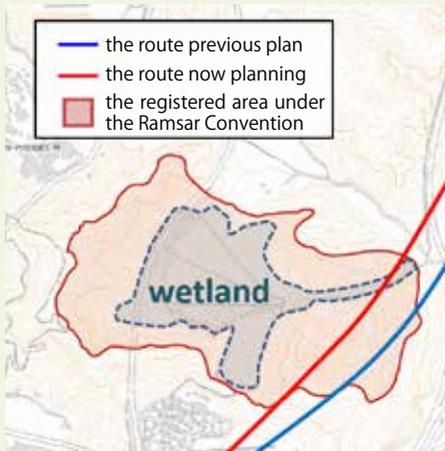
Yet the importance of Nakaikemi shicchi have been recognized, it was in danger by a construction project of natural gas station in 1992. In response, environmental conservation movement had happened by group of local residents, biologists, and NGOs. Whence, the project was cancelled in 2002 and almost all parts of the site became public land of Tsuruga city.

In 2005, the site became one of a important area of the National nature monitoring survey project and citizen and NGO based surveys have started. Finally, Nakaikemi shicchi successfully designated as a wetland of international importance under the Ramsar Convention in July 2012. However, transport construction agency announced newly approved railroad construction plan, in which Hokuriku bullet train supposed to pass through designated area just after the designation, August, 2012.

## ■ The construction plan of bullet train and its issues

Hokuriku bullet train connects Nagano station to Tsuruga station for 353km and the operator of this construction plan is Japan Railway Construction, Transport and Technology Agency (JRTT). The route construction plans proposed in March 1996

for Hokuriku bullet train in this area was passed though much outward (The blue line on the left figure). However, newly revised plan was released in August 2012 and the proposed route will pass through more inward of Raamsar site about 150m(The red line on the left figure). This route will completely pass through Ushirodani valley and mountains around the site so that we concern that negative environmental impacts on area will be greater than ever on accompanied by constructing operation.



The plan of route Hokuriku bullet train (The figure used map of Geospatial Information Authority of Japan.)



## The big concerns on the construction plan of Hokuriku bullet train

- 1 Approval of land development in Nakaikemi-shicchi is most likely to accelerate other developmental activities in protected areas either domestic or international; eventually it will be dangerous threat to the policy for protected areas.
- 2 Destruction of this area will cause some change in its hydrology system and it shall influence in irreversible way for its peculiar formation/preservation functions.
- 3 Land development in Ushirodani valley will not only destroy the unique environment but also cut the connection between Ushirodani and other valleys in Nakaikemi side and it will disturb both animal and plant movements. Furthermore we presume the train route will worsen scenery, cause vibration, noise pollution, and other vast effects falling on environmental education and sustainable use.

The site has been attract attention worldwide recently because it have listed on the “The List of Wetlands of International Importance” in March,2014 which published by Ramsar Convention Secretariat. Also, Mr. Christopher Briggs, Ramsar Convention Secretary-General, visited on 9th of April, 2014 and asked for reporting a progress of the situation.

The operator, Japan Railway Construction, Transport and Technology Agency (JRTT), formed a specialist committee to discuss environmental impacts of construction and a survey plan of impact prediction. First committee meeting was hold in November 16th 2013 with closed doors. Since December, 2013, the one and a half year of

environmental impact assessment has started. The result of impact prediction of newly revised plan will be launched on May, 2015.



Ramsar's Secretary General and Senior Regional Advisor for Asia-Oceania visited the Nakaikemi-shicchi.on April 9, 2014

We NACS-J are working with a group of local residents and asking for the impact prediction of newly revised plan would be done by scientific way with transparency. Meanwhile, we also aim at the revise of the plan.

# The way to solve the issue



## ■ Please take action to conserve Nakaikemi shicchi.

While the construction plan of Hokuriku bullet train progress, this issue has not even known in Japan. The basic activities have been continued such as protection and restoration of various water environments, eradication of invasive alien species, and monitoring survey. However, to stop the national project, The construction plan of Hokuriku bullet train, is not an easy task and cannot be done by only local citizen. We need your help. It is essential to raise the voice against this plan and let them choose the lesser impact route for Nakaikemi-shicchi by strengthening of public opinion against it.

Please take action to conserve the Nakaikemi-shicchi, a world treasure made by a hundred thousand years history.



The volunteer is improving the waterway by traditional technique.



Local NGO is conducting nature monitoring survey.

## Take action Now!

### ■ Let's tweet or post on Facebook about this issue.

### ■ Let's attend symposiums and related events.

#### • The Nature Conservation Society of Japan

<http://www.nacsj.or.jp/katsudo/nakaikemi/>

Some petitions or background of these issues are available.

### ■ Let's visit Nakaikemi-shicchi and join nature watching or conservation activities.

#### • Nakaikemi hito to shizen no fureaino sato

<http://www.city.tsuruga.lg.jp/sypher/www/section/detail.jsp?id=294> (Japanese only)

#### • Nakaikemi Net (NPO)

<http://nakaikeminet.raindrop.jp/> (Japanese only)

#### • Wetland Nakaikemi(NPO)

<http://nakaikemi.com/> (Japanese only)

## The Nature Conservation Society of Japan (NACS-J)

### ■ Who we are ?

We are an independent and advocacy NGO dedicated ourselves to conservation of ecosystem and biological diversity around 60 years.

### Conserving nature 60 years --- A Brief History

- In 1949, to protect the Oze Marsh from hydroelectric dam construction project, our predecessor, "The Oze Marsh Conservation Union", was formed by local biologists and mountain climbers.
- In 1951, The Nature Conservation Society of Japan(NACS-J) was established in order to expand our scope of nature conservation into whole Japan.
- In 1960, our organization became the first incorporated foundation as a nature conservation organization.



### Recent Outcome

- Launching AKAYA project officially (2003)
- Reach total number of NACS-J Nature Conservation Educator over 20,000 (2004)
- Development of citizen-based monitoring tool for Satoyama (2005)
- Convening international symposium "Convention on Biological Diversity - Linking National Biodiversity Strategy of Japan to the World" (2007)
- Joining Count Down 2010 as first IUCN member in Japan (2007)
- 30th Anniversary of NACS-J Nature Conservation Educator training program (2008) and, continue nature conservation activities with kindly supports from our 17,000 members.

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