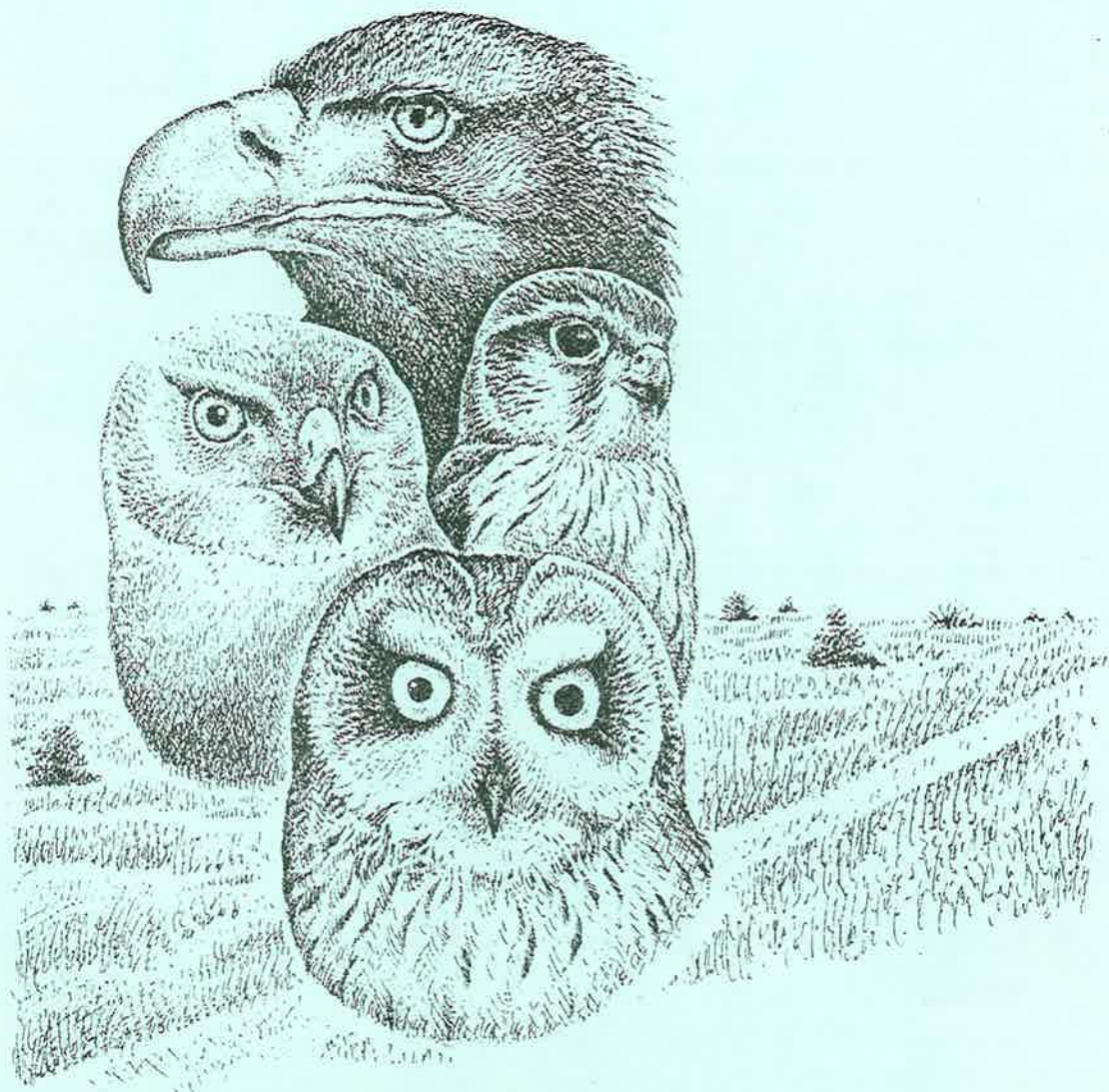


Ignoring nature:
"The Acclimation Land Plan
of Watarase Marsh"



**The Council of the Inhabitants of the Tone River
area for the Protection of Watarase Marsh**

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Ignoring nature : "The Acclimation Land Plan of Watarase Marsh"

Watarase Marsh is located in the lowest reaches of the Watarase River, close to the junction with the Tone River. This Watarase Marsh stretches over four adjoining prefectures which are Tochigi, Gunma, Saitama and Ibaraki. It has an area of about 8150 acres covered with reeds. Originally this area was a village of farmers and inland fishermen. But the Japanese government needed to construct something to calm the violent anti-copper-pollution movement which arose from the pollution by the Ashio copper refinery.

Therefore, the Watarase flood control area was constructed by a compulsory measure in 1907. After some time ditch reeds have grown all over this polluted area. At present about 620 species of plants are growing and reviving nature. There are 21 plants of endangered species and vulnerable species.

About 200 wild birds such as the wader, the crane, the eagle and the hawk have been found in Watarase Marsh, and in this marsh the birds breed, pass the winter, or stay for a while. There used to be the Spotted Greenshank which is rare world-wide and the White Stork. Because of the "Acclimation Land" Plan to construct many golf courses and other leisure areas, part of this marsh has been made and the other parts are under the plan, for a golf course. Therefore some habitats for valuable wild birds are in danger. If this big development plan is carried out, the precious land will be greatly damaged.

The international conference of the countries who are in agreement with the Ramsar Treaty will be held in a year. The Japanese government is considering appointing some important wetlands in Japan as protected areas. We strongly hope that Watarase Marsh will be one of those areas.

Our "Council of the Inhabitants of the Tone River Area for the Protection of Watarase Marsh" is against the development of Watarase Marsh, which would endanger the nature and lives. We have been trying hard to protect the nature here.

The IWRB have enlisted Watarase Marsh as one of the important wetlands in Asia. We believe that Watarase Marsh is one of the internationally important lands.

We strongly hope that Watarase Marsh will be one of the appointed wetlands of Ramsar Convention. Because we want to maintain the wetland of Watarase until 21st century.

A History of Watarase Marsh

Watarase Marsh is officially called in Japanese "Watarase Yusuichi", Yusuichi meaning an area for flood control. It was created by Japanese government about eighty years ago.

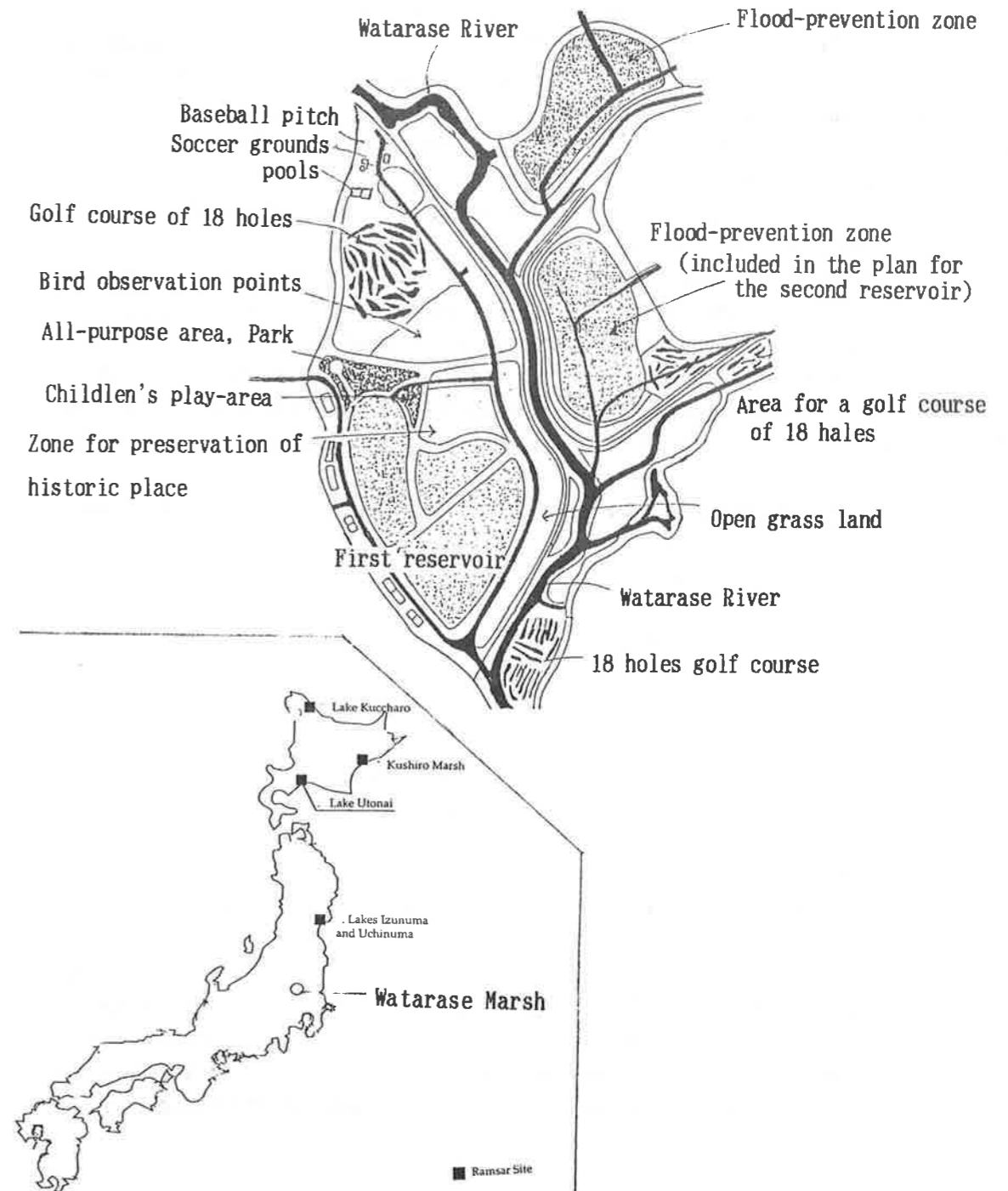
In this area there used to be a village, the Yanaka Village with 450 house-holds mainly consisting of farmers and inland fishermen. But in 1877 a copper refinery was constructed in Ashio, an upstream town, and in about 1885 it began to contaminate a great number of downstream area and a lot of people died because of contaminated rice and water. This caused a great anti-pollution movement led by Shozo Tanaka who is now regarded as one of the earliest and greatest anti-pollution movement leaders in the world.

To calm the violent movement, the Japanese government produced the Watarase Yusuichi plan to get rid of the pollutant by changing the course of River Watarase into Lake Akama and at the same time to control the flooded water by making the area a temporary reservoir. For this purpose the government began to purchase land from villagers in Yanaka. Tanaka was against this plan, regarding it as a mere means of avoiding the closure of the copper refinery, and began a protest movement. In order to evacuate the villagers opposed to this plan, the government used force and destroyed their houses. The protest continued, but after Tanaka's death in 1913, the protest became weak and in 1917 the last villagers left their homeland and the government's plan was completed. Later Lake Akama was buried by mud carried by the Watarase River and the area turned into a large marsh.

The plan of Ministry of Construction.

"The Acclimation Land Plan of Watarase Marsh" was published by the Ministry of Construction to the people in the four neighbouring prefectures' October 1987. The Tone River Construction Office explained that the plan had been made by the demand of the local people. In January 1988, the official explanation meeting was held. And in May, the preparation meeting of the joint venture of the local government and private business were held. Following this meeting, the Foundation for the Promotion of the Acclimation Land Plan of Watarase Marsh was launched. But the general public only learned of the particulars and details of this plan by mass communication just recently. Formally it is said that the procedure of establishing this foundation depended on the petition of the local people, but the details of this procedure are not clear.

Outline of Watarase Marsh Acclimation Land Plan



The details of plan and golf course.

The details and circumstances of the above plans are still unclear.

We give an outline of this plan based on the information that was gathered by our group.

This plan consists of two parts (refer to chart 1). One of these has already been completed. This is the first reservoir which cost around 2 million dollars. Moreover, this construction was done as a public enterprise. Another one will be done by the joint venture of the local government and public business. It is called the Foundation for Promotion of the Acclimation Land Plan of Watarase Marsh.

This funds is around 8 million dollars. The construction of facilities was supposed to be done gradually.

The plan states that the purpose is to provide the place of leisure and the occasion of natural and historical experience for the local people and the people in the metropolitan area. It also says that it is based upon such a social demand like the reduction of working hours and it states that they create a space for the recreation center surrounded by water and greenery. In April 1991, this recreation place was opened. But there are some doubts remaining.

Let us examine the actual situation. This plan divides the reservoir into eleven zones.

Three of them – the lake zone, the preservation of history zone and the childrens' square zone – are included in the public enterprise. After the accomplishment of this construction, the maintenance of these facilities will be transferred to the joint venture of the local government and private business. And the Ministry of Construction is also planning to construct the second reservoir in the water zone.

And the other zones such as sports zone, camping zone, multipurpose water zone and the natural observation zone will come under the jurisdiction of the joint venture of the local government and private business. Among them the sports zone is the biggest one with golf course, tennis courts and pools. And the main facilities are the golf course (three places).

The profit from these facilities is going to be spent for the cost of construction of the baseball ground and the campsite which are being planned to be built on the second stage. Two of the golf courses have already been completed as the Koga City Golf Course, as the Watarase Country Club golf courses. But strangely, the name of the Foundation for

the Promotion of the Acclimation Land Plan of Watarase Marsh is not mentioned anywhere in the want ad for the staff of the golf course; there is only a private company name. This fact shows the character of this plan.

	Whole plan	The first stage	The second stage
Funds	0.9 billion(dollars)	0.6 billion	0.3 billion
Period	10 years	5 years	5 years
Public works	Historic zone Children zone Multipurpose water zone, etc.		
The joint venture works (0.8 billion dollars)	tennis court baseball ground soccer ground pool, campsite golf course	board sailing tennis court pool golf course	tennis court baseball ground soccer ground pool, campsite

(chart 1)

The problem of this plan and the present situation.

(1) Natural destruction named adaptaion to new environments

The Watarase Marsh has abundant natural surroundings and greenery. And the vast area of reeds is remarkable. This area was chosen one of the finest places in Tochigi prefecture and has a high reputation for natural environment all over the country. It has become an invaluable asset to our country.

Lots of animals and plants are growing in this vast reed field. About 200 species of wild birds such as the heron, the goose, the duck, the wader, the crake, the eagle, the hawk and the owl have been found. And 330 species of plants live in this field. There are lots of endangered species and vulnerable species. Formerly these wild living things inhabited the country all over but in recent years, the number of them

is dwindling as habitable surroundings have been decreasing. Therefore, this area is one of the most precious places in Japan.

According to a report of the Present Condition of Japanese Precious Plants, which is written by the Japanese Natural Preservation Association, the wetland of Watarase Marsh is the habitat of wild water birds as well as a botanical propagation area and the International Natural Preservation Association urgently appeals to the people for protecting this area. But now the construction of golf courses is destroying a part of the wild bird's nesting places and this construction has a bad influence on other places. And in the wetland of the flood control area, the phenomenon of dehydration is going on.

In addition to the above comments, this report says that many peculiar plants remain in the flood control area and lots of endangered ones are found also in these places. But engineering works are crushing such places. Therefore, these plants are dwindling rapidly. As pointed out in this report, the site on which the second reservoir is expected to be built is the place where peculiar plants grow thickly.

(2) Destruction of historic spots.

It is declared that the purpose of the historic preservation zone is the reconstruction of the former village, Yanakamura. But the real situation is utterly different from the catchphrase. The reeds growing thick in the field have been crashed by bulldozers and turfs have been laid in the flat places. The side walks in this area are all paved with small stones and decorated with flower beds. A mock private house which was made of concrete stands alone in the field as the former village office. The places of the former temple and shrine ruins have been barely kept as the ruins preservation group held out to the end against the Ministry of Construction's plan. But you can go there even if you wear high-heeled shoes. A few years ago, thickets of reed which were over one's head were growing in this Watarase Marsh and one could see the real remains of the former village. But now, one can not see such scenery. And yet the official statement is declaring that they will hand down this historic place to the future.

(3) The problem of golf courses.

Another peculiarity of these historic preservation zone park and golf courses is that these places are located on the flood adjustment site.

Watarase Flood Control Area was constructed for the flood control. Therefore, the heavy rain causes floods in these zones. In 1990, one golf course was submerged by a flood, and reconstruction of this course cost 7.6 million dollars. There are lots of problems surrounding the flood plain's golf course. For instance, because lawns are fond of dryness, harmful insects and other disease of plants tend to destroy the lawns of the marsh area.

Consequently, large quantities of soil improvement chemical products and insecticides are sprayed in these flood plains. This means that agricultural chemicals directly contaminate the Watarase River and the Tone River which are the sources of drinking water. This is a very dangerous situation. This plan is ignoring nature completely.

(4) The perils of copper poisoning effluent

Actually this area is a copper-poisoned district. Earth and sand have been carried by flood and piled up. As a result mine pollution has been settling on the wetlandbed for many years. And reeds have been spreading their roots firmly on this land.

These reeds have prevented sludge and mine pollutant from flowing out.

The construction of these facilities can cause the situation of poisoning again. It is said that outflow of mine pollution is still continuing from the sediment piled site of the Ashio copper refinery.

(5) The cause of stinking water - the artificial lake -

The lake zone (the first reservoir) has an area of about 4.5 square kilometers. And it is to accommodate yachts, canoes and windsurfing on the surface of the lake. This lake is the reservoir of running water of the metropolitan area. But the water quality of this lake is awfully bad from home sewerage.

It is said that the water of this lake changes once a year. But two years ago, a lot of algae appeared in this lake because of the unusually hot temperature and as a result many dead fish floated in the lake.

The musty running water became a big problem in the metropolitan area at this time. And the cause of this musty water was the first reservoir water. And a lot of algae produces various materials which change into trihalo-methanes in running water. Trihalo-methanes cause cancer.

This area had a rich natural ecological system years before and had a close relationship between the human and natural life. There used to be

natural lakes, but now the bank of the artificial lake is covered with a concrete layer. The construction of this lake is the result of ignoring the ecological system. Therefore lots of problems are caused by it. This is one of the answers to human beings who have been ignoring the ecological system.

(6) The problem of the plan as measures for the promotion of the region.

Most of the local people have looked forward to the Acclimation Land Plan under the slogan of the promotion of the region. But a business slump is anticipated in the future and this plan is falling short of local people's expectations. It seems that the Acclimation Land Plan is destroying irreplaceable rich nature, polluting water and menacing human beings. This place is commonly regarded as the starting point of the environmental pollution of modern Japan. We cannot approve this plan as adaptation to new environments. This plan is only satisfying the demand of leisure industries.

At present the destruction of the natural ecological system is becoming more serious. Around 100 species of plants are becoming extinct everyday. The destruction of the earth's ecological system has been spreading rapidly. What will come next? We must realize that the wetland's ecological system is important for the earth's ecological system and protect the wetlands. We hope to keep Watarase Marsh as a real eco-museum.

It in so doing would be possible for the human to coexist with the animal life and the vegetable life.



CHECK-LIST OF THE BIRDS
OF WATARASE MARSH 1992

Takehiko Takamatu

ORDER GAVIIFORMES

Family GAVIIDAE

Gavia stellata RED-THROATED LOON

ORDER PODICIPEDIFORMES

Family PODICIPEDIDAE

Podiceps ruficollis LITTLE GREBE
Podiceps nigricollis EARED GREBE
Podiceps auritus RED-NECKED GREBE
Podiceps cristatus GREAT CRESTED GREBE

ORDER PROCELLARIIFORMES

Family PROCELLARIIDAE

Calonectris leucomelas STREAKED SHEARWATER

ORDER PELECANIFORMES

Family PHALACROCORACIDAE

Phalacrocorax carbo GREAT CORMORANT

ORDER CICONIIFORMES

Family ARDEIDAE

Botaurus stellaris BITTERN
Ixobrychus sinensis CHINESE LITTLE BITTERN
Ixobrychus eurhythmus SCHRENCK'S LITTLE BITTERN
Nycticorax nycticorax BLACK-CROWNED NIGHT HERON
Butorides striatus GREEN-BACKED HERON
Bubulcus ibis CATTLE EGRET
Egretta alba GREAT EGRET
Egretta intermedia INTERMEDIATE EGRET
Egretta garzetta LITTLE EGRET
Ardea cinerea GRAY HERON
Ardea purpurea PURPLE HERON
Ardeola bacchus CHINESE POND HERON

Family CICONIIDAE

Ciconia ciconia WHITE STORK

Family THRESKIORNITHIDAE

Platalea minor BLACK-FACED SPOONBILL

ORDER ANSERIFORMES

Family ANATIDAE

<i>Anser albifrons</i>	WHITE-FRONTED GOOSE
<i>Anser fabalis</i>	BEAN GOOSE
<i>Branta bernicla</i>	BRANT
<i>Cygnus cygnus</i>	WHOOPER SWAN
<i>Cygnus columbianus</i>	WHISTLING SWAN
<i>Tadorna ferruginea</i>	RUDDY SHELDUCK
<i>Aix galericulata</i>	MANDARIN DUCK
<i>Anas platyrhynchos</i>	MALLARD
<i>Anas poecilorhyncha</i>	SPOT-BILLED DUCK
<i>Anas crecca</i>	GREEN-WINGED TEAL
<i>Anas formosa</i>	BAIKAL TEAL
<i>Anas falcata</i>	FALCATED TEAL
<i>Anas strepera</i>	GADWALL
<i>Anas penelope</i>	EURASIAN WIGEON
<i>Anas americana</i>	AMERICAN WIGEON
<i>Anas acuta</i>	PINTAIL
<i>Anas querquedula</i>	GARGANEY
<i>Anas clypeata</i>	SHOVELER
<i>Aythya ferina</i>	POCHARD
<i>Aythya fuligula</i>	TUFTED DUCK
<i>Aythya marila</i>	GREATER SCAUP
<i>Bucephala clangula</i>	COMMON GOLDENEYE
<i>Mergus albellus</i>	SMEW
<i>Mergus serrator</i>	RED-BREASTED MERGANSER
<i>Mergus merganser</i>	COMMON MERGANSER

ORDER FALCONIFORMES

Family ACCIPITRIDAE

<i>Pandion haliaetus</i>	OSPREY
<i>Milvus migrans</i>	BLACK KITE
<i>Accipiter gentilis</i>	GOSHAWK
<i>Accipiter nisus</i>	EUROPIAN SPARROW HAWK
<i>Buteo lagopus</i>	ROUGH-LEGGED BUZZARD
<i>Buteo buteo</i>	COMMON BUZZARD
<i>Butastur indicus</i>	GRAY-FACED BUZZARD-EAGLE
<i>Aquila chrysaetos</i>	GOLDEN EAGLE
<i>Circus cyaneus</i>	NORTHERN HARRIER
<i>Circus melanoleucos</i>	PIED HARRIER
<i>Circus aeruginosus</i>	MARSH HARRIER
<i>Haliaeetus albicilla</i>	WHITE-TAILED EAGLE

Family FALCONIDAE

<i>Falco peregrinus</i>	PEREGRINE FALCON
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Falco subbuteo
Falco columbarius
Falco tinnunculus

HOBBY
 MERLIN
 EURASIAN KESTREL

ORDER GALLIFORMES

Family PHASIANIDAE

<i>Coturnix coturnix</i>	COMMON QUAIL
<i>Bambusicola thoracica</i>	BAMBOO PARTRIDGE
<i>Phasianus colchicus</i>	COMMON PHEASANT

ORDER GRUIFORMES

Family GRUIDAE

<i>Grus japonensis</i>	JAPANESE CRANE
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Family RALLIDAE

<i>Rallus aquaticus</i>	WATER RAIL
<i>Porzana pusilla</i>	BAILON'S CRAKE
<i>Porzana fusca</i>	RUDDY CRAKE
<i>Amaurornis phoenicurus</i>	WHITE-BREASTED WATERHEN
<i>Gallinula chloropus</i>	COMMON GALLINULE
<i>Fulica atra</i>	EUROPEAN COOT

ORDER CHARADRIIFORMES

Family ROSTRATULIDAE

<i>Rostratula benghalensis</i>	PAINTED SNIPE
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Family CHARADRIIDAE

<i>Charadrius hiaticula</i>	RINGED PLOVER
<i>Charadrius dubius</i>	LITTLE RINGED PLOVER
<i>Charadrius placidus</i>	LONG-BILLED RINGED PLOVER
<i>Charadrius alexandrinus</i>	KENTISH PLOVER
<i>Charadrius mongolus</i>	MONGOLIAN PLOVER
<i>Eudromias morinellus</i>	DOTTEREL
<i>Pluvialis dominica</i>	LESSER GOLDEN PLOVER
<i>Pluvialis squatarola</i>	BLACK-BELLIED PLOVER
<i>Microsarcops cinereus</i>	GRAY-HEADED LAPWING
<i>Vanellus vanellus</i>	LAPWING

Family SCOLOPACIDAE

<i>Arenaria interpres</i>	RUDDY TURNSTONE
<i>Calidris ruficollis</i>	RUFIOUS-NECKED STINT
<i>Calidris subminuta</i>	LONG-TOED STINT
<i>Calidris temminckii</i>	TEMMINCK'S STINT
<i>Calidris acuminata</i>	SHARP-TAILED SANDPIPER
<i>Calidris melanotos</i>	PECTORAL SANDPIPER

<i>Calidris alpina</i>	DUNLIN
<i>Calidris ferruginea</i>	CURLEW SANDPIPER
<i>Calidris canutus</i>	RED KNOT
<i>Calidris tenuirostris</i>	GREAT KNOT
<i>Eurynorhynchus pygmeus</i>	SPOON-BILLED SANDPIER
<i>Philomachus pugnax</i>	RUFF
<i>Limicola falcinellus</i>	BROAD-BILLED SANDPIPER
<i>Limnodromus scolopaceus</i>	LONG-BILLED DOWITCHER
<i>Tringa erythropus</i>	SPOTTED REDSHANK
<i>Tringa stagnatilis</i>	MARSH SANDPIPER
<i>Tringa nebularia</i>	GREENSHANK
<i>Tringa guttifer</i>	SPOTTED GREENSHANK
<i>Tringa ochropus</i>	GREEN SANDPIPER
<i>Tringa glareola</i>	WOOD SANDPIPER
<i>Tringa brevipes</i>	GRAY-TAILED TATLER
<i>Tringa hypoleucos</i>	COMMON SANDPIPER
<i>Xenus cinereus</i>	TEREK SANDPIPER
<i>Limosa limosa</i>	BLACK-TAILED GODWIT
<i>Limosa lapponica</i>	BAR-TAILED GODWIT
<i>Numenius madagascariensis</i>	AUSTRALIAN CURLEW
<i>Numenius phaeopus</i>	WHIMBREL
<i>Gallinago gallinago</i>	COMMON SNIPE
<i>Gallinago hardwickii</i>	LATHAM'S SNIPE
Family RECURVIROSTRIDAE	
<i>Himantopus himantopus</i>	BLACK-WINGED STILT
Family PHALAROPODIDAE	
<i>Phalaropus fulicarius</i>	RED PHALAROPE
<i>Phalaropus lobatus</i>	NORTHERN PHALAROPE
Family GLAREOLIDAE	
<i>Glareola maldivarum</i>	INDIAN PRATINCOLE
Family STERCORARIIDAE	
<i>Stercorarius pomarinus</i>	POMARINE JAEGER
Family LARIDAE	
<i>Larus ridibundus</i>	BLACK-HEADED GULL
<i>Larus argentatus</i>	HERRING GULL
<i>Larus canus</i>	MEW GULL
<i>Larus crassirostris</i>	BLACK-TAILED GULL
<i>Sterna leucoptera</i>	WHITE-WINGED BLACK TERN
<i>Sterna hybrida</i>	WHISKERED TERN
<i>Sterna hirundo</i>	COMMON TERN
<i>Sterna albifrons</i>	LITTLE TERN

Family ALCIDAE
Synthliboramphus antiquus ANCIENT MURRELET

ORDER COLUMBIFORMES

Family COLUMBIDAE

Streptopelia decaocto COLLARED TURTLE DOVE
Streptopelia orientalis RUFOUS TURTLE DOVE

ORDER CUCULIFORMES

Family CUCULIDAE

Cuculus canorus COMMON CUCKOO

ORDER STRIGIFORMES

Family STRIGIDAE

Asio otus LONG-EARED OWL
Asio flammeus SHORT-EARED OWL
Otus bakkamoena COLLARED SCOPS OWL
Ninox scutulata BROWN HAWK-OWL
Strix uralensis URAL OWL

ORDER CAPLIMULGIFORMES

Family CAPLIMULGIDAE

Caprimulgus indicus JUNGLE NIGHTJAR

ORDER APODIFORMES

Family APODIDAE

Chaetura caudacuta WHITE-THROATED NEEDLE-TAILED SWIFT

Apus pacificus WHITE-RUMPED SWIFT

ORDER CORACIIFORMES

Family ALCEDINIDAE

Ceryle lugubris GREATER PIED KINGFISHER
Alcedo atthis COMMON KINGFISHER

ORDER PICIFORMES

Family PICIDAE

Jynx torquilla WRYNECK
Picus awokera JAPANESE GREEN WOODPECKER
Dendrocopos major GREAT SPOTTED WOODPECKER
Dendrocopos kizuki JAPANESE PYGMY WOODPECKER

ORDER PASSERIFORMES

Family ALAUDIDAE

Alauda arvensis SKYLARK
Eremophila alpestris HORNED LARK
Calandrella rufescens LESSER SHORT-TOED LARK

Family HIRUNDINIDAE

Riparia riparia BANK SWALLOW
Hirundo rustica BARN SWALLOW
Hirundo daurica RED-RUMPED SWALLOW
Delichon urbica HOUSE MARTIN

Family MOTACILLIDAE

Motacilla flava YELLOW WAGTAIL
Motacilla cinerea GRAY WAGTAIL
Motacilla alba WHITE WAGTAIL
Motacilla grandis JAPANESE WAGTAIL
Anthus cervinus RED-THROATED PIPIT
Anthus spinoletta WATER PIPIT

Family CAMPEPHAGIDAE

Pericrocotus divaricatus ASHY MINIVET

Family PYCNONOTIDAE

Hypsipetes amaurotis BROWN-EARED BULBUL

Family LANIIDAE

Lanius bucephalus BULL-HEADED SHRIKE
Lanius cristatus BROWN SHRIKE

Family TROGLODYTIDAE

Troglodytes troglodytes WINTER WREN

Family MUSCICAPIDAE

Erithacus calliope SIBERIAN RUBYTHROAT
Phoenicurus aureus DAURIAN REDSTART
Saxicola torquata STONECHAT
Monticola solitarius BLUE ROCKTHRUSH
Turdus dauma WHITE'S GROUND THRUSH
Turdus cardis GRAY THRUSH
Turdus chrysolaus BROWN THRUSH
Turdus pallidus PALE THRUSH
Turdus naumanni DUSKY THRUSH
Cettia diphone BUSH WARBLER
Megalurus pryeri JAPANESE MARSH WARBLER
Acrocephalus bistrigiceps BLACK-BROWED REED WARBLER

Acrocephalus arundinaceus GREAT REED WARBLER
Phylloscopus fuscatus BROWN BUSH WARBLER
Cisticola juncidis FAN-TAILED WARBLER

Family AEGITHALIDAE

Aegithalos caudatus LONG-TAILED TIT

Family PARIDAE

Parus varius VARIED TIT
Parus major GREAT TIT

Family ZOSTEROPIDAE

Zosterops japonica JAPANESE WHITE-EYE

Family EMBERIZIDAE

Emberiza cioides SIBERIAN MEADOW BUNTING
Emberiza yessoensis JAPANESE REED BUNTING
Emberiza fucata GRAY-HEADED BUNTING
Emberiza rustica RUSTIC BUNTING
Emberiza spodocephala BLACK-FACED BUNTING
Emberiza shoeniculus REED BUNTING

Family FRINGILLIDAE

Fringilla montifringilla BRAMBLING
Carduelis sinica ORIENTAL GREENFINCH
Carduelis spinus SISKIN
Uragus sibiricus LONG-TAILED ROSE FINCH
Pyrhula pyrrhula BULLFINCH
Eophona personata JAPANESE GROSBEAK
Coccothraustes coccothraustes HAWFINCH

Family PLOCEIDAE

Passer montanus TREE SPARROW
Passer rutilans RUSSET SPARROW

Family STURNIDAE

Sturnus philipensis RED-CHEEKED MYNA
Sturnus cineraceus GRAY STARLING

Family CORVIDAE

Garrulus glandarius JAY
Cyanopica cyana AZURE-WINGED MAGPIE
Corvus corone CARRION CROW
Corvus macrorhynchos JUNGLE CROW

LIST OF ENDANGERED BIRDS AND VULNERABLE
BIRDS OF WATARASE MARSH

Endangered

* <i>Ciconia ciconia</i>	WHITE STORK	Kounotori
* <i>Haliaeetus albicilla</i>	WHITE-TAILED EAGLE	Ojirowashi
* <i>Grus japonensis</i>	JAPANESE CRANE	Tanchou

Vulnerable

* <i>Podiceps cristatus</i>	GREAT CRESTED GREBE	Kanmurikaitsuburi
* <i>Pandion haliaetus</i>	OSPREY	Misago
* <i>Accipiter gentilis</i>	GOSHAWK	Ootaka
* <i>Circus aeruginosus</i>	MARSH HARRIER	Chuuhi
* <i>Falco peregrinus</i>	PEREGRINE FALCON	Hayabusa
* <i>Eurynorhynchus pygmaeus</i>	SPOON-BILLED SANDPIER	Herashigi
* <i>Tringa guttifer</i>	SPOTTED GREENSHANK	Karafutoaoashishigi
* <i>Megalurus pryeri</i>	JAPANESE MARSH WARBLER	Oosekka

Rare

* <i>Botaurus stellaris</i>	BITTERN	Sankanogoi
* <i>Ixobrychus eurythmus</i>	SCHRENCK'S LITTLE BITTERN	Ooyoshigoi
* <i>Egretta intermedia</i>	INTERMEDIATE EGRET	Chuusagi
* <i>Platalea minor</i>	BLACK-FACED SPOONBILL	Kurotsuraherasagi
* <i>Branta bernicla</i>	BRANT	Kokugan
* <i>Anser albifrons</i>	WHITE-FRONTED GOOSE	Magan
* <i>Anser fabalis</i>	BEAN GOOSE	Hishikui
* <i>Cygnus columbianus</i>	WHISTLING SWAN	Kohakuchou
* <i>Tadorna ferruginea</i>	RUDDY SHELDUCK	Akatsukushigamo
* <i>Aix galericulata</i>	MANDARIN DUCK	Oshidori
* <i>Anas formosa</i>	BAIKAL TEAL	Tomoegamo
* <i>Accipiter nisus</i>	EUROPIAN SPARROW HAWK	Haitaka
* <i>Numenius madagascariensis</i>	AUSTRALIAN CURLEW	Hourokushigi
* <i>Gallinago hardwickii</i>	LATHAM'S SNIPE	Oojishigi
* <i>Himantopus himantopus</i>	BLACK-WINGED STILT	Seitakashigi
* <i>Glareola maldivarum</i>	INDIAN PRATINCOLE	Tsubamechidori
* <i>Sterna albifrons</i>	LITTLE TERN	Koajisashi
* <i>Synthliboramphus antiquus</i>	ANCIENT MURRELET	Umisuzume
* <i>Streptopelia decaocto</i>	COLLARED TURTLE DOVE	Shirakobato
* <i>Emberiza yessoensis</i>	JAPANESE REED BUNTING	Kojurin

LIST OF ENDANGERED PLANTS AND
VULNERABLE PLANTS OF WATARASE MARSH

1992

Masumi Owada

PTERIDOPHYTA

OPHIOGLOSSACEAE

Ophioglossum namegatae Nishida et Kurita

ISOETACEAE

Isoetes japonica Al. Braun

NAJADACEAE

Najas japonica Nakai

SPARGANIACEAE

Sparganium stoloniferum Buch-Ham.

CYPERACEAE

Cyperus exaltatus Retz. var. *iwasakii* T.Koyama

Eleocharis parviflora Ohwi

ARACEAE

Arisaema heterophyllum Blume

PONTEDERIACEAE

Monochoria korsakowii Regel et Maack

RANUNCULACEAE

Thalictrum simplex L. var. *brevipes* Hara

CRASSULACEAE

Penthorum chinense Pursh

VIOLACEAE

Viola raddeana Regel

UMBELLIFERAE

Apodiocarpum ikenori Mak.

PRIMULACEAE

Lysimachia barystachys Bunge

GENTIANACEAE

Swertia diluta Benth. et Hook fil. var. *tosaensis* Hara

APOCYNACEAE

Amsonia elliptica Roem. et Schult.

LABIATAE

Salvia plebeia R. Br.

SCROPHULARIACEAE

Gratiola japonica Miq.

Centranthera cochinchinensis Merr. var. *lutea* Hara

RUBIACEAE

Galium tokyonense Mak.

COMPOSITAE

Eupatorium fortunei Turcz.

ORCHIDACEAE

Blettila striata Rchb. f.

LIST OF MAIN INSECTS OF WATARASE MARSH
(including unpublished data)

Hideo Okawa

ODONATA

1. *Ceriagrion nipponicum* ASAHINA
2. *Ischnura senegalensis* RAMBUR
3. *Cercion sexlineatum* SELYS
4. *Copera tokyoensis* ASAHINA
5. *Ictinogomphus clavatus* FABRICIUS
6. *Epithea marginata* SELYS
7. *Libellula angelina* SELYS (***)

This species was collected by late Dr. Tanaka in 1959, but perhaps died out now.

8. *Sympetrum kunkeli* SELYS
9. *Sympetrum uniforme* SELYS
10. *Rhyothemis fuliginosa* SELYS

ORTHOPTERA

1. *Homorocoryphus dubius* REDTENBACHER

HETEROPTERA

1. *Stibarophus* sp. (formerly; *S. formosanus* TAKANO et YANAGIHARA)
2. *Pachybrachius festivus* DISTANT

HOMOPTERA

1. *Gerris esakii* MIYAMOTO (*)
2. *Gerris babai* MIYAMOTO (*)

LEPIDOPTERA

Butterfly

1. *Neozephyrus taxila* BREMER

Moth

1. *Chilio hyrax* BLESZYNSKY
2. *Calamotropha paludella* HUBNER
3. *Uresiphita fusei* INOUE

This species has hitherto been only known in the Itakura Town, Gunma Prefecture which about 7km distance new locality. Probably, the species some of low moor relic in the Kanto plains with *Elaphrus sugai* NAKANE (Coleoptera), etc.

4. *Schoenobius sasakii* Inoue
5. *Senta flammea* CURTIS
6. *Archanara resoluta* HAMPSON
7. *Archanara aerata* BUTLER
8. *Oligia ophiogramma* ESPER
9. *Amphipoea ussuriensis* PETERSEN
10. *Leucania insecuta* WALKER
11. *Xylomonis fusei* SUGI
12. *Melania electaria* BREMER
13. *Zanclognatha lrrchi* SOUTH

COLEOPTERA

Carabidae

1. *Carabus granulatus telluris* BATES
2. *Hemicarabus tuberculatus* DEJEAN et BOISDUVAL
3. *Nebria coreica* SOLSKY
4. *Elaphrus sugai* NAKANE (*

This species is recently described in 1987 from a type locality Watarase marsh and only about distributed in it, so Japanese name "*Watarase-hannmiou-modoki*".

5. *Bembidion atriculatum* PANZER
6. *Pterostichus kajimurai* HABU et TANAKA
7. *Pterostichus bandotaro* TANAKA
8. *Amara* sp.

Undescribed species. Closely allied to *A. simplicidens* MORAWITZ.

9. *Anisodactylus andrewesi* SCHAUBERGER
10. *Trichotichnus kantoonus* HABU
11. *Eochlaenius suvorovi* SEMENOV-TIAN-SHANSKIJ
12. *Chlaenius variicornis* BATES
13. *Oodes vicarius* BATES
14. *Oodes helopioides tokyoensis* HABU
15. *Anatrichis* sp.

Undescribed species. This species was a few collected at one time in the Watarase marsh, and Japanese tentative name "*Watarase-tokkuri-gomimushi*".

16. *Odacantha puziloi* SOLSKY
17. *Odacantha hagai* NEMOTO
18. *Hexagonia insignis* BATES
19. *Lachnoderma asperum* BATES

Dytiscidae

1. *Clypeodytes* sp.

Undescribed species.

2. *Laccophilus hasegawai* M. SATO
3. *Hydaticus pacificus conspersus* REGIMBART (**

Helophoridae

1. *Helophorus auriculatus* SHARP (*

Hydrophilidae

1. *Enochrus haroldi* SHARP

Scarabaeidae

1. *Onthophagus ohbayashii* NOMURA

Buprestidae

1. *Paracylindromorphus japonensis* E. SAUNDERS

Cantharidae

1. *Podosilis omissa* WITTNER

Cleridae

1. *Neohydnum hozumii* NAKANE

Languriidae

1. *Anadastus pulchelloides* NAKANE

Coccinellidae

1. *Micraspis kurosai* MIYATAKE

Tenebrionidae

1. *Leiochrodes convexus* LEWIS

Anthicidae

1. *Anthicus* sp.

Undescribed species.

Cerambycidae

1. *Leptepania japonica* HAYASHI

Chrysomelidae

1. *Donacia hiurai* KIMOTO
2. *Chrysochus chinensis* BALY
3. *Chrysolina virgata* MOTSCHULSKY

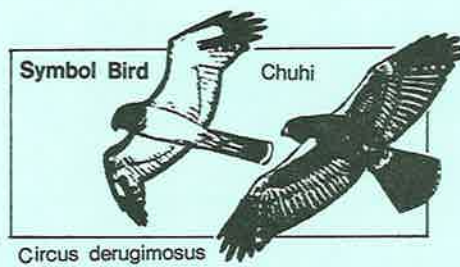
Curculionidae

1. *Limnobaris babai* CHÛJÔ et MORIMOTO
2. *Limnobaris jucunda* REITTER

This list obeyed by Japanese "Red data book" classification which editing of the Environment Agency.

(*** Endangered (** Vulnerable (* Rare

1992.6 「環境と開発に関する国際連合会議」リビア首都に出席



**The Council of the Inhabitants of the Tone River
area for the Protection of Watarase Marsh**

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