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NAADS

Weeds in Lowland Rice Field



NaCRRI
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TABLE OF CONTENTS

	Page
1. Cyperus iria L.	1
2. Cyperus difformis L.	2
3. Fimbristylis miliacea (L.) Vahl	3
4. Cyperus corymbosus Rottboell	4
5. Fuirena ciliaris (L.) Roxb.	5
6. Scirpus articulatus L.	6
7. Echinochloa crus-galli (L.) P. Beauv.	7
8. Echinochloa colonum (L.) Link	8
9. Typha angustifolia L.	9
10. Paspalum distichum L.	10
11. Cynodon dactylon (L.) Pers.	11
12. Ischaemum rugosum Salisb.	12
13. Nymphaea nouchali Burm. f.	13
14. Sagittaria guayanensis H.B.K.	14
15. Marsilea crenata Presl	15

16. Pistia stratiotes L. 16
17. Azolla pinnata R. Br. 17
18. Commelina diffusa Burm. f. 18
19. Commelina benghalensis L. 19
20. Ipomoea aquatica Forsk. 20
21. Ipomoea cairica (L.) Sweet 21
22. Sphenoclea zeylanica Gaertn. 22
23. Ludwigia octovalvis (Jacq.) Raven 23
24. Eclipta prostrata L. 24
25. Enhydra fluctuans Lour. 25
26. Ceratopteris thalictroides (L.) Brongn. 26

1. Cyperus iria L.



Common name

USA rice flatsedge

Japan kogomegayatsuri

Type: Annual sedge

Characteristic:

Yellowish open flower.

Stems are slender and 20 to 60 cm long.

Habitat: lowland rice fields, open wet areas.

Reproduction: This weed reproduces from seeds.

Each plant may produce up to 5,000 seeds.

Ecology:

The plant may rapidly spread because of its abundant seed production.

Can be very competitive for nutrients

2. Cyperus difformis L.



Common name

USA smallflower umbrella sedge
Japan tamagayatsuri
France souchet ptites fleurs

Type: Annual sedge

Characteristic:

Flowers yellowish, very numerous, and crowded in ovoid masses.

Habitat: swamps, lowland rice fields

Reproduction: This weed reproduces from seeds.
Each plant may produce up to 50,000 seeds.

Ecology:

The plant may rapidly cover the ground because of its short life cycle (make seeds one month after germination) and abundant seed production.

The weeds do not shade rice plants, but may compete for water and nutrients.

This weed cannot tolerate deep flooding, and may be controlled by water management.

3. Fimbristylis miliacea (L.) Vahl



Common name

USA globe fingerush

Japan hideriko

Type: Annual herb
(occasionally perennial)

Characteristic:
The plant is glabrous and about 60 cm tall.
Spikelets are 2.5 to 3.5 mm long, globose to ovoid and reddish brown.

Habitat: marshes, wetland rice fields

Reproduction: seeds

Ecology: Produces many seeds, which germinate throughout the ye
Can become a dominant weed within a short time.

4. Cyperus corymbosus Rottboell



Common name

??

Type: Perennial sedge

Characteristic:

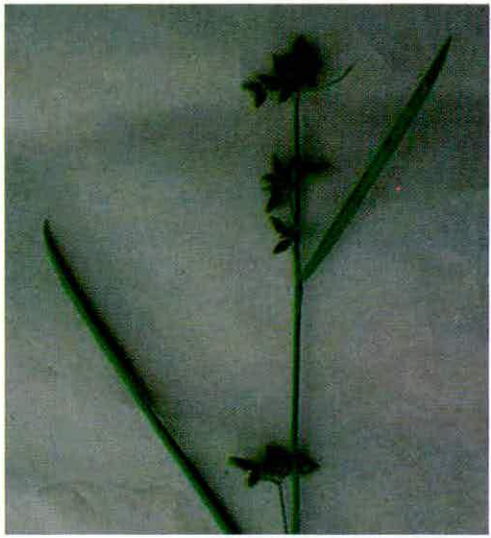
The plant spreads a long rhizome and forms communities.

Stems arise from rhizomes and are 1 to 2 m long, dull triangular and 3 to 4 red brown sheaths at the base. Inflorescence are terminal. Spikelets are linear, 5 to 18 mm long and 10 to 15 spikelets arranged in clusters form a spike, 2 cm long. Stigma of floret has 3 lobes and scales are reddish brown.

Habitat: canals, lowland rice fields

Reproduction: rhizomes

5. Fuirena ciliaris (L.) Roxb.



Common name

Japan kurotamagayatsuri

Type: Annual herb

Characteristic:

Stems are about 50 cm long.
The tip and upper nodes of the stem bear 3 to 10 spikelets densely.
Spikelets are spindle-shaped and hairy.



Habitat: river banks, pond, grassland, lowland rice field

Reproduction: seed

6. Scirpus articulatus L.



Common name

Type: Annual sedge (occasionally perennial)

Characteristic: Stems are 30 to 100 cm long and upright, tussocky, open, cylindrical. Leaf blades are degenerated and transformed into yellowish brown leaf-sheaths. Oblong spikelets are arranged in clusters.



Habitat: marshes, irrigation canals, lowland rice fields

Reproduction: seeds

Ecology:

7. Echinochloa crus-galli (L.) P. Beauv.



Common name

USA barnyard grass
Japan inubie
France panic, pied-de-coq

Type: Annual grass

Characteristic:
Culms are branched, erect or decumbent at the base and 20 to 250 cm long.
Spikes are 5 to 18 cm long, with many rachis-branches and conical.



Habitat: lowland rice fields

Reproduction: seeds

Ecology: One plant may produce 40,000 seeds. Tillers profusely an germinates throughout the year. Ecologically similar to rice. Durin early vegetative phase, almost indistinguishable from rice plants.

8. Echinochloa colonum (L.) Link





Common name

USA jungle rice
Japan wasebie
France ble de dekkan

Type: Annual grass

Characteristic:
Culms are glabrous, branched and creeping at the base, and 20 to 80 cm long. Foliage is soft and purplish in the lower part. Spikelets are 5 to 15 cm long and do not hang down at ripening.
Habitat: upland fields, lowland rice fields

Reproduction: seeds

Ecology: The species are pleiomorphic and display wide variations. A prolific seed producer; has a short life cycles and can complete several life cycles in a year.
Young plants resemble rice, which makes hand weeding difficult.

9. Typha angustifolia L.



Common name

USA narrowleaf cattail

Japan himegama

Type: Perennial herb

Characteristic:

The plant is 1 to 2.5 m tall.

Leaf blades are linear, glabrous, narrow and obtuse at the tip and enclosing the stem as a sheath at the base.

Flower stalks arise and bear male flowers at the top and female flowers a little below.



Habitat: shallow water of marshes and ponds.

Reproduction: Fragments of subterranean stems and seeds

Ecology: In some areas, pollen and stems are edible and also used as material for mats.

10. Paspalum distichum L.



Common name

USA knotgrass,

Japan kishuusuzumenohie

Type: Perennial grass

Characteristic:

Stems are prostrate at the base and rooting at the nodes.

Leaves enclose the stem at the base to become sheaths and the upper margin of the sheath is covered with white hairs.

Short panicles are dichotomously terminal and spikeletes are borne in 2 rows externally.

Habitat: river banks, creeks, ponds, lowland rice fields

Reproduction: fragments of stolons and seeds

Ecology: The plant invades rice field to become weed, especially in direct-seeded rice fields.

Control by hand weeding.

Control is very difficult because the plant grows fast.

11. Cynodon dactylon (L.) Pers.



Common name

USA bermuda grass,
couch grass

Japan gyougishiba

Type: Perennial grass

Characteristic:

Stems are branched, prostrate and spreading on the ground.

Culms are 15 to 40 cm long.

Spikes are terminal and fingerlike.

Rachises have 3 to 7 branches and 3 to 8 cm long.

Habitat: roadsides, grasslands, upland fields, lowland rice field.

Reproduction: seeds

Ecology:

It is used as a native medicine for cough and kidney diseases.

12. Ischaemum rugosum Salisb.



Common name

USA winkle duck-beak,
saramattagrass

Japan taiwan aiashi

Type: Annual and
occasionally perennial

Characteristic:

Stems are branched at the base and 60 to 120 cm long.

Spikes are dichotomously branched and 3 to 12 cm long.

Two spikelets arise from each node and they are pale yellowish green.



Habitat: canals, ponds, lowland rice fields

Reproduction: seeds

Ecology: It is a troublesome weed in paddy fields, especially in the direct-seeded rice fields.

Young foliage is used as forage for livestock.

13. Nymphaea nouchali Burm. f.



Common name

USA lotus lily, water lily

Japan urasaki suiren

Type: Perennial aquatic plant

Characteristic:

Leaves with a long petiole arise from tuber in the ground and float on the water surface. Flowers are 8 cm in diameter and fragrant.

Habitat: canals, ponds, lowland rice fields

Reproduction: seeds and tubers

Ecology: The plant grows into stagnant water 0.1 to 2.5 m deep. It is tolerant to a wide range of water pH condition.

14. Sagittaria guayanensis H.B.K.



Common name

USA arrowwhead-lily

Japan nanyou omodaka

Type: Perennial aquatic herb



Characteristic:

Leaf blades float on the water surface and are ovate and rotundate at the tip.
Long scapes emerge from the base and bear 2 to 3 white flowers.

Habitat: reservoirs, lakes, canals, lowland rice fields

Reproduction: seeds

15. Marsilea crenata Presl



Common name

USA water clover, clover fern

Japan nangoku denjisou

Type: Perennial fern

Characteristic:

Rhizomes are slender, bristled, prostrate near the soil surface and branched.
Leaves arise from rhizomes up to the water surface.

Habitat: canals, ponds, marshes

Reproduction: rhizomes and spores

Ecology: It grows fast in rice fields, especially, rice plants are planted in sparsely because of the favourable light condition.

14. Sagittaria guayanensis H.B.K.



Common name

USA arrowwhead-lily

Japan nanyou omodaka

Type: Perennial aquatic herb



Characteristic:

Leaf blades float on the water surface and are ovate and rotundate at the tip.
Long scapes emerge from the base and bear 2 to 3 white flowers.

Habitat: reservoirs, lakes, canals, lowland rice fields

Reproduction: seeds

15. Marsilea crenata Presl



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Characteristic:

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Habitat: canals, ponds, marshes

Reproduction: rhizomes and spores

Ecology: It grows fast in rice fields, especially, rice plants are planted in sparsely because of the favourable light condition.

16. Pistia stratiotes L.



Common name

USA water lettuce

Japan botan ukikusa

Type: Free-floating perennial hydrophyte

Characteristic:

Leaves are yellowish green and form rosettes.

The plant has a large amount of feathery roots in water.

Flowers are bisexual, with a short peduncle in the center of the rosset of the leaves and are not conspicuous.

Habitat: ponds, reservoirs, creeks, lowland rice fields

Reproduction: vegetative offshots connected by stolons and seeds

Ecology: The plant is tolerant to acidic environments (pH4).

17. Azolla pinnata R. Br.



Common name

USA azollz, water fern

Japan aka ukikusa

Type: perennial floating fern

Characteristic:

Foliage changes from green to reddish purple with the season. Stems are thicky and pinnately branched. Small scale-leaves are opposite arranged in two rows and 1 to 1.5 cm long.

Habitat: ponds, reservoirs, creeks, lowland rice fields

Reproduction: vegetatively



Ecology: **Nitrogen**-fixing blue green alge are symbionts in the cavity under the scale-leaves.

The plant is used as green manure. When the plant covers the water surface of the lowland rice fields, fertilizer nutrients are consumed and rice plant undergo lodging.

18. Commelina diffusa Burm. f.



Common name

USA common spiderwort

Japan shima tsuyukusa



Type: Annual or perennial herb

Characteristic:

Stems are glabrous, smooth, 40 to 100 cm long.

Leaves are linear-oblong and dark green.

The plant display morphological variation in the presence of hairs and shape of leaves.

Inflorescence which arises from the leaf axil bears several flowers.

Habitat: upland fields, levees of lowland rice fields

Reproduction: seeds

19. Commelina benghalensis L.



Common name

USA dayflower,
bengal spiderwort
Japan maruba tsuyukusa

Type: Annual or perennial herb

Characteristic:

Stems are 40 to 100 cm long, with many branches, prostrate and rooting at the modes.

Flowers are 1.5 to 2 cm in diameter.

There are 3 petals and the upper two are 5 mm in diameter ultramarine colour. Capsules, about 1 cm long contain 3 to 5 seeds.



Habitat: upland field, levees of wetland rice fields

Reproduction: seeds

Ecology: It is an alternate host of some pathogens and nematodes.

20. Ipomoea aquatica Forsk.



Common name

USA water convolvulus, swamp morning glory

Japan akabana yousai

Type: Annual or perennial vine herb

Characteristic:

Stems are fistulous, spread over the ground or floating on water and rooting at the nodes.

Leaves are alternate, with morphological variations, usually long hastate.

Flower stalk arises from the leaf axil and bears 1 to several flowers. Flowers are funnel-shaped, 4 to 5 cm in diameter and white to purple in colour.

Habitat: canals, ponds, marshes, lowland rice fields

Reproduction: stem fragments and seeds

Ecology: In many countries, the plant is cultivated in the fields and used as a vegetable for Chinese dishes.

21. Ipomoea cairica (L.) Sweet





Common name

USA ivy-leaved morning glory, railway creeper

Japan momiji hirugao, taiwan asagao

Type: Perennial climber

Characteristic:

Stems are glabrous or hairy at nodes, prostrate on the ground or creeping.

Leaves have a long petiole, are alternate, palmately divided into 5 to 7 parts.

Flower stalk, 1 to 8 cm long, arises from leaf axil and bears 1 to several flowers.

Flowers are funnel-shaped, about 5 cm in diameter, usually bluish purple or white colour.

Habitat: wasteland, levees of lowland rice fields

Reproduction: seeds

Ecology: The plant produces flowers throughout the year.

22. Sphenoclea zeylanica Gaertn.



Common name

USA gooseweed

Japan nagabono urushi

Type: Annual herb

Characteristic:

Stems are erect, branched and exude a milky sap from the cut surface. Long flower stalks arise from the tip of stem or at the node, and bear green and conical inflorescence at the end. Inflorescence is about 7.5 cm long.



Habitat: canals, ponds, lowland rice fields, upland fields

Reproduction: seeds

Ecology: In lowland rice fields, it causes major damage and is one of the important weeds of rice.

23. Ludwigia octovalvis (Jacq.) Raven



Common name

Japan kidachi kinbai

Type: Perennial herb

Characteristic:

Stems are irregularly ridged, branched and up to 75 to 150 cm long.

Leaves are narrow lanceolate, with a short petiole and alternate.

Flowers are solitary on the axil, 3 to 4 cm in diameter with 4 petals and yellow.



Habitat: wet area such as edge of ponds, lowland rice fields

Reproduction: seeds

24. Eclipta prostrata L.



Common name

USA eclipta, false daisy
Japan takasaburou
France eclipte droite,

Type: Annual herb



Characteristic:

Stems are 20 to 90 cm long.
Leaves are opposite, 3 to 10 cm and
5 to 25 mm wide.
Flowers heads are about 1 cm in diameter.

Habitat: lowland rice fields, marshes, levees

Reproduction: seeds

25. Enhydra fluctuans Lour.



Common name

Japan mumakikuna

Type: Perennial herb

Characteristic:

Stems are cylindrical, prostrate on the ground, rooting at the node.

The plant is 50 to 60 cm tall. Leaves are sessile, opposite, 5 cm long 1 cm wide, lanceolate, with an acute tip and sparsely crenate.

Sessile flower heads, 1 cm in diameter, arise from the leaf axil.

Habitat: lowland rice fields,

Reproduction: seeds

Ecology:

Young parts of the plant are edible and leaves are used as a medicine

26. Ceratopteris thalictroides (L.) Brongn.



Common name

USA water sprite

Japan mizu warabi,
mizu shida,

Type: Annual or occasionally perennial

Characteristic:

Rhizome is short and aerial part isascendent.

Leaves are fasciculate, soft and the petiole has 4 ridges.

The plant is 10 to 100 cm tall.

Ordinary leaves are sporophylls can be distinguished.

Habitat: canals, ponds, lowland rice fields

Reproduction: spores and adventitious buds formed at the furcate part of pinnate leaf

Ecology: Young plant is edible as a vegetable.

Eichhornia natans





Tapha australis





Mariscus longibracteatus



Nymphaea lotus



Weeds, name not identified





