

Aliens of Xamayca

a newsletter on non-indigenous species in Jamaica

The Ornamental Fish

Koi

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Common name: Koi

Scientific name: *Cyprinus carpio*

The Koi or carp as commonly called is one of many freshwater ornamental fish reared in Jamaica. The body of the carp is elongated and somewhat compressed with thick lips. They have two pieces of barbels at the mouth and shorter ones on the upper lip.

Koi have various coloration, patterning and scalation. They are often observed with colours such as white, black, red, yellow, blue and cream. Although the koi is a hardy fish and can tolerate a wide variety of conditions it generally favours large water bodies with slow flowing or standing water and soft bottom sediments.

Carp are benthopelagic, living on the bottom or mid-waters of a body of water, but search for food in the middle and upper layers of the water body. They are most active at night and feed little at low temperatures. Carp are omnivorous, feeding on both plant and animal material. They consume water insects, zooplankton, the stalks, leaves and seeds of aquatic and terrestrial plants and decayed aquatic plants.

These beautiful fish are mostly used for decorative purposes in outdoors ponds or water gardens however they have the potential to become invasive when introduced into freshwater systems.

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"Let's Eat It to Beat It"

Lionfish



Recipes



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CURRIED LIONFISH

Ingredients

- 1 lb. Lionfish fillet
- 2 Tb sp curry powder
- 1 clove garlic, chopped
- 1 sweet pepper, sliced
- 1 onion, chopped finely
- 2 Tb sp of butter
- 1 cube fish bullion
- 1/3 cup Coconut juice
- 1/4 cup water
- A dash paprika
- 1/2 tablespoon ground ginger

Method

1. Slice the Lionfish fillets into two-inch steaks.
2. In a saucepan brown over medium heat the curry, onions, garlic, fish bullion, butter, and paprika.
3. Then add the green peppers, coconut juice mixed with water and finally the fish steaks. Lower heat, cover tightly and simmer for about 12-15 minutes. Do not stir.

ESCOVEITCHED LIONFISH

Ingredients

- 1 lb. Lionfish
- 1 Tb sp. lemon juice
- 1 cup vinegar
- 1 tsp sugar
- 2 onion, cut in rings
- 1 tsp pimento
- 2 Scotch Bonnet peppers
- 1 cup carrots, chochos (julienne)
- 1/2 cup cooking oil
- 1/2 tsp salt
- 1 tsp black pepper

Method

1. Season the fish with salt and black pepper.
2. Fry fish in cooking oil until both sides crisp. Set aside in a bowl.
3. Sauté in 2 tbsp oil carrots, chochos, pimento, onion rings and hot pepper
4. Pour 1/2 cup of water combine with vinegar and sugar into sautéed vegetables.
5. Simmer until ingredients are tender, pour escoveitch sauce over fish.

Recipes prepared by:

Brown's Town Community College

Endorsed by:

UNEP/GEF/CABI/NEPA Mitigating the Threat of Invasive Alien Species in the Insular Caribbean Project



FRESHWATER INVASIVE ALIEN SPECIES

When plants and animals have been introduced by human actions to areas where they do not naturally occur there is the potential for these organisms to extend their range and become established in new territories. Organisms such as those below, if remain unchecked and without natural predators have the potential to become invasive if they are able to shift the ecological balance in the ecosystem in which they are becoming established.

RANIDAE

Scientific Name: *Lithobates catesbeianus*

Common Name: North American bullfrog

Native Land: Central and eastern United States

DESCRIPTION:

- Largest North American frog which lives in permanent and temporary freshwater bodies.
- Individual female can lay up to 20,000 eggs.
- Bullfrogs were imported for commercial production as food (frog legs), and have been inadvertently introduced along with fishes raised in hatcheries where bullfrog larvae are abundant.

IMPACTS:

The Bullfrog is a voracious predator ranging up 20cm in size. Adults consume any animal that can be swallowed, such as snakes, birds, fish, crayfish and other frogs. Due to their appetite animals that share certain habitats with the bullfrog may become endangered; extinction could ensue.



Retrieved from : <http://www.issg.org/database/species/ecology.asp?si=80&fr=1&sts=&lang=EN>

ARACEAE

Scientific Name: *Pistia stratiotes*

Common Name: Water Lettuce

Native Land: Tropical Waters



DESCRIPTION:

Is a free-floating aquatic weed found worldwide in rivers, lakes and ponds of temperate and tropical climates. It has a worldwide distribution, but it is commonly believed that it is a native of South America or Africa.

IMPACTS:

- It is a very aggressive invader and can form thick floating mats. Mats clog waterways, making boating, fishing and almost all other water activities, impossible.
- If these mats cover the entire surface of the pond they can cause oxygen depletions and fish kills. Mats eliminate native submersed plants by blocking sunlight, and alter immersed plant communities by pushing away and crushing them. They also alter animal communities by blocking access to the water and/or eliminating plants which the animals depend on for shelter and nesting.

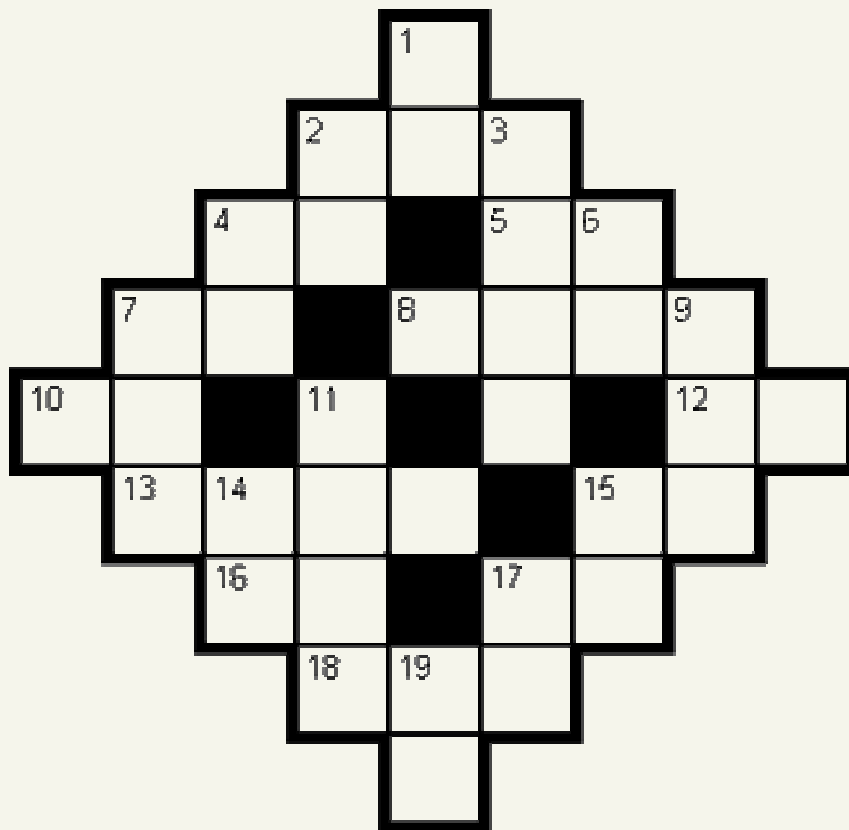
Retrieved from : http://www.dpi.qld.gov.au/documents/Biosecurity_EnvironmentalPests/IPA-Water-Lettuce-PP19.pdf

Contributed by: Damany Calder, NEPA

CROSSWORD

FIGURE IT

Look at the clues below and fill all the numbers you can into the grid. Then start again and use your answers to help solve the other clues.



Across

2. Days in a year
4. Half a century
5. 2 down plus 4 down
7. Six times seven
8. 6284 rearranged
10. Hours in two days
12. Half of 15 across
13. Five times 1225
15. Six times fifteen
16. Number of days in four weeks
17. 4 across plus 14 down
18. Half of 1240

Down

1. Six times six
2. A third of 15 across
3. 2921 doubled
4. Number of weeks in a year
6. 17 across minus 1 down
7. 243 doubled

Down cont'd

9. Half of 1680
11. 2143 doubled
14. A dozen
15. A third of 276
17. Seconds in a minute
19. Hours in a day

