Can we tell if a plant or an animal will be an invasive species?

It may be possible to tell that a species is likely to be invasive, for example because it has been a problem elsewhere. However it will be difficult to say with certainty that a species will not be invasive. A species in it's natural place is not considered invasive may behave differently in a new environment.

Can we get rid of invasive species?

We may try to control invasive species by using traps, poison or burning etc... However it is often difficult to get rid of them when the

y become too many and have taken over large areas.

We can control invasive species by:

- Use local plants and animals instead of introduced species.
- Domesticated animals (e.g. cattle and pigs) should be kept within well secured fences.
- Do not let pets (dogs and cats) be free hunters in the wild
- T H I N K!...Before importing a life plant or an animal into Vanuatu or to your island:
 - 1. Find out detail information about the species
 - 2. Check Quarantine procedures on importation of plants and animals.
- Contact the Quarantine & Inspection services or the Environment Unit if any unusual plant or animal seen in your place.







Carp Fish

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Introduced Invasive species an environmental problem in Vanuatu

Many introduced plants and animals have been brought to Vanuatu for many reasons. Most are really beneficial. However some introduced species have become environmental problems.

They may:

- Take over our local plants and animals (e.g. Mynnah Bird)
- Damage our crops (e.g. African snail)
- Go wild and damage our forests (e.g. wild bullocks)
- Spoil our rivers and lakes (e.g. water weeds)
- Be a nuisance (e.g. fire ants)

These plants and animals are called invasive species and are growing environment problem in Vanuatu.

WHY?

Because in a new environment there is:

- Lack of predator
- Good supply of food, nutrients, water and plenty of space
- Suitable climate for the plants or the animals to reproduce fast and spread.

With the increasing demand of trade between continents and islands, more and more foreign plants and animals were purposely brought into Vanuatu for agricultural, forestry, fisheries purposes, medicine, food, appreciation of beauty (e.g. house decorations, pets), biological controls (e.g. mosquito fish), etc.. Some insect pests and parasites have been accidentally brought into Vanuatu through shipment of cargo and imported plants or animals.

A foreign plant or an animal that is brought into a new place where it had not occurred before is known as **an introduced or an alien species.**

When an introduced species is not well managed they become wild, they take over native animals and plants and cause change to an area, we say they are *invasive*.

What are the invasive plants and animals in Vanuatu?

Invasive species are found within almost all groups of plants and animals that occur in Vanuatu and elsewhere.

Invasive Species Groups	
(Fungi, Bacteria and vi- ruses).	There are reports within some islands in Vanuatu of fungal attack on taro and Citrus plants. There is a recent fungal attack on banana stem reported in Noumea. The fungi causes rot at the base of banana stem and within weeks the plant dies. Fungal attacks on garden crops may affect food production.
Plants	A number of introduced water plants were used in home decorations. However those seen in the wild covered water bodies, reduce stream flow and disrupt water supplies to communities and causing turbidity in water (e.g. Blu Hol on Santo) A variety of grasses (Nil grasses, Elephant grass, Cotton flower grass etc.) were introduced to improved cattle pasture have grown out of cattle areas into gardens, playgrounds and resider tial areas that they become undesirable weeds. Several introduced vines (e.g. American rope, Bik Lif) may have brought into Vanuatu during world war are now widespread and formed major vegetation throughout the islands. They sup press regrowth of tree forest and cause loss of native wild life. Some trees and shrubs introduced for forestry and agricultural purposes (e.g. Wild peanut, Wild Guava, Prickly Pico plant, Cassis, Cordia) are taking up agricultural areas and reduce native wild life. Some domesticated home gardens plants, such as orchids, were introduced and are potential invasive species
Insects	Insects pests that were accidentally introduced damages agricultural crops (e.g. Rose Beetles fruit flies) The little Red Fire Ants was another accidental introduction is spreading within the Islands in the BANKS. The ants gives horrible sting to people and can cause blindness and even death to larger animals including native birds and invertebrates.
Snails	The introduced African snail is a pest to garden crops and is now widespread in Vanuatu. It's predator snail was introduced as a biological control, feeds other native snails including those that are endemic, resulting in loss of native wild life and loss of their diversity.
Larger animals	A number of fishes were introduced for fishery (e.g. Tilapia, Carps) or to control malaria (e.g. mosquito fishes) took over water bodies causing turbidity in water and feed on native fresh water species. The introduced Indian Mynah bird is most widespread within the southern and central island in Vanuatu. They take over native bird areas by destroying their nests and eggs Rats were accidental introductions. They are pests to agricultural crops and carriers diseases Early settlers brought in animals (e.g. cattle, pigs, goats, cats, chickens and dogs) for food, pets and hunters for their survivals. Some of the animals were not well managed that they be come wild (<i>Feral</i>) and become problems. Feral pigs, cattle, goats tramp and graze on forest plants and garden crops that may result desertification in some areas. Their manure deposits in water cause algal growth that makes water bodies look dirty. Feral and domesticated cats and dogs kill native birds, reptiles and insects, which leads to great loss of native wildlife throughout the islands. Frogs are widespread through out the islands and feed on native insects.