



CONSTRUCTION INCLUSTRY: A Paltway for lovasive Alien Species!

Biodiversity Corner

By: Dr. Ulrike Krauss

In Small Island Developing States (SIDs) many building materials are imported from overseas and St. Lucia is no exception. What many people don't realise is that there is a high risk of exposure to invasive alien species (IAS) that may be introduced into St. Lucia.

Large scale projects like the construction of maritime canals have caused the migration of fish from one ocean to another, endangering many local and endemic species. But not only marine species travel along these manmade pathways. During the late 1960's an exotic grass, Saccharum spontaneum, was introduced to the Panama Region. Ships that carried construction equipment for the U.S. military along the Panama Canal had spread the grass along the canal banks. The fast-growing grass is useless to farmers and wildlife; it burns easily and has evolved into an uncontrollable problem.

A broad range of plants, insects and reptiles as well as pathogens (disease causing agents) have travelled as hitchhikers to new territories on imported construction materials, such as sand and lumber, as well as or dirty heavy dufy equipment.

In 2010 the Ministry of Agriculture, Lands, Forestry and Fisheries (MALFF) returned a consignment of lumber that arrived from Honduras, Central America. Even though it did not pose a risk to plant or human health, the lumber was infested with minute brown scavenger beetles (Lathrididae), which mainly feed on decaying wood.

Native to the Bahamas, Cuba and Little Cayman the Cuban Brown Anole (Anolis sagrei) is assumed to have arrived in Saint Lucia and Grenada on construction lumber shipped in from Florida, where the lizard is exotic, but common. A way to reduce the risk of importing stowaways that colonize the bark or the portion of wood immediately below the bark is by the removal of bark from round wood.



Anolis sagrei has hitched a ride into Saint Lucia on construction materials. It is now competing with our indigenous Anolis Iuciae. (Photo: (Photo: Nate Wood, Durrell Wildlife Conservation Trust)

An unidentified sandfly species (Ceratopogonidae), which is much smaller than those commonly known from Saint Lucia, became a major nuisance in several parts of the island in recent years. Suspicions are that the new sandfly was accidentally imported from Guyana or Trinidad, where Saint Lucia procures much of its construction sand. A pre treatment of the sand with heat and insecticides can prevent this problem but is often not done.

In Saint Lucia, heavy duty equipment that was previously involved in earthwork is often leased from abroad. While the import of soil is strictly regulated, soiled machines, which may be contaminated with weed seeds, insects and microorganisms, do not receive comparable quarantine checks, when it should be common sense that imported, used heavy duty equipment must be cleaned of visible dirt, to avoid unwanted hitchhiker seeds.

Three exotic grass species, originally from the United States and some of the northern islands in the Caribbean, were introduced to the vicinity of the Le Paradis hotel complex development site, presumably along this pathway. The same species are found on a disturbed site obliquely across the East Coast Road, to which soil movement during excavation took place. Saint Lucia is now inspecting all arriving heavy duty machinery and does not permit entry unless it is found to be free from soil and plant material.

As many invasive plants are pioneering species, which rapidly colonize areas of non-vegetated and disturbed soil, construction sites provide suitable conditions for their spread. It is therefore recommended to replant excavated areas with preferably native vegetation as soon as possible after disturbance.

North American grasses established in Saint Lucia in the vicinity of a major hotel development may have been imported on used heavy-duty machinery (Photos: Nate Wood, Roger Graveson, www.saintlucianplants.com)

Given our limited resources for Invasive Alien Species (IAS) management, the private and the public sector need to partner and develop a Voluntary Code of Conduct (VCoC) that guides responsible behaviour within the sector and fosters ethical business transactions.

Let's all do our best to prevent the entry of Invasive
Alien Species into our beautiful St. Lucia.



Eragrostis cilianensis