

Duzi River free of aquatic aliens
Media release by the Department of Water Affairs and Forestry
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More than 80 Kilometres of the Duzi/Umgeni river systems was invaded by Water Hyacinth, an aquatic invasive alien plant, which potentially threatened the safe passage of an expected 2000 paddlers in the Hansa Powerade Dusi.

According to the *Working for Water Programme's (WfW)*, acting Implementation Manager, Debbie Sharp, "The aquatic weed problems start around the Ashburton area on the Duzi river and were found all along this system to the confluence of the Umgeni river where it is found in patches all the way to upstream of Blue lagoon in Durban". Water Hyacinth seeds can remain viable for up to 20 years, thus increasing the extent of the problem.

Sharp explained, "Water Hyacinth had vigorously invaded more than 80 Kilometres of the Duzi/Umgeni river systems. This was originally more than 100% infested, but is now under control due to the aerial spraying and mechanical control of the weed".

WfW has spent in the region of R1m over the last 4-5 years controlling the problem on the Duzi / Umgeni river systems alone. However approximately 75% of this sum was paid to the contractors and workers drawn from communities that call these river systems home. At present there are 3 contractors and 30 workers who have benefited from 1485 person days of work this financial year from this project alone.

According to contractor Petros Mbongwe, who leads the *WfW* team, responsible for the area from Inanda to Blue Lagoon, Water Hyacinth is extremely difficult to control. "Water Hyacinth doubles in biomass every 5-10 days, thus if left untreated, the infestations would reach 100% in a very short period and negatively impact on the aquatic system. For example, if the infestation is 1ha now, in a week it would be 2ha, in 2 weeks, 4ha, in 3 weeks, 8ha, in 4 weeks, 16ha, in 5 weeks, 32ha etc. Thus this patch of Water Hyacinth would go from 1ha to 32ha in 5 weeks", Mbongwe explained.

Abeeda Kadir, the KwaZulu-Natal (KZN) acting Regional Programme Leader for *WfW* said, "Aquatic Invasive Alien Plants are extremely dangerous because they have a negative impact on indigenous plant and animal life, the presence of IAP's create a suitable breeding ground for mosquitoes and bilharzia carrying snails and if left uncontrolled they hamper and even prevent recreational sports such as fishing, swimming and of course even the Hansa Powerade Duzi".

However due to the intensive efforts of the Department of Water and Forestry's, *Working for Water Programme* it's ready, set, canoe for the 55th anniversary of the world famous Hansa Powerade Duzi.

The *WfW* is recognised as one of Governments most successful Expanded Public Works Programmes. To date, the programme has spent over R2, 3 billion and in 2003/4 created over 33 000 job opportunities

Top Ten Aquatic Invasive Alien Plants in KZN

- Water Hyacinth - *Eichhornia crassipes*
- Water Lettuce - *Pistia stratiotes*
- Kariba Weed - *Salvinia molesta*
- Parrots Feather- *Myriophyllum aquaticum*
- Red Water fern - *Azolla filiculoides*
- Dense Aquatic Weed- *Egeria densa*
- Knotweed Weed - *Persicaria amphibia*
- Pickerel Weed - *Pontederia cordata*
- *Paspalum quadrifellum*
- Giant Spanish Weed - *Arundo donax*.

For more information or **Before and After pictures** contact:

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MEDIA FACT FILE: Aquatic Weeds

Actively thriving colonies of Water Hyacinth may double their numbers every 11 to 18 days. Kariba Weed grows at an alarming rate – in two years it spread from 20 hectares to 40 000 hectares in the Kariba Dam. Even the smallest piece left behind will re-grow. And Water Hyacinth (*Eichhornia crassipes* – category 1) – is such a worldwide problem that a Global Working Group comprising over 30 scientists from 11 countries meets every two years to discuss control options for this single species.

No wonder that a number of aquatic plants have been declared invasive alien plants under the March 2001 amendments to South Africa's Conservation of Agricultural Resources Act (Act No 43 of 1983). Invasive aquatic plants threaten ecosystems when they multiply; an excess of these plants alters the pH of water, kills fish by blocking out sunlight, produces an oversupply of minerals, which in turn increases algal growth.

Pretty water lettuces (*Pistia stratiotes*) floating in suburban birdbaths are already responsible for clogging-up entire stretches of the Lower Sabi River (Kruger Park), Amanzimtoti River (KwaZulu-Natal) and dams around Mafikeng. A Water-Lettuce-eating weevil has been introduced to tackle the lettuce but it takes enormous research, expense and time to clear water bodies and both biological controls and physical methods of removal have to be used. Once plants are in an ecosystem they are an ongoing problem due to their incredible adaptations they employ for survival. For example the seeds of water hyacinth (*Eichhornia crassipes*) from South America can survive for 15 years before germination.

The ability of aquatic weeds to reproduce is astounding. Kariba weed (*Salvinia molesta*), from tropical America (probably introduced for fishponds and aquaria) can double its mat-forming biomass in 4 to 10 days. It encroaches on waterways in Gauteng, Cape and KwaZulu-Natal. Wind, floods, birds, animals and sporting equipment all transport and spread these alien plants to open stretches of water where new colonies are established. Should your fishing tackle be covered with an aquatic weed, just wipe it off carefully onto a piece of newspaper or plastic, roll it up and then pop it into the nearest refuse bin. Resist the temptation to wash it off in a pond of clear water.

Don't buy these aquatic aliens

The following are declared invasive alien plants, and it is against the law to have them in your aquatic gardens.

- Parrot's feather (*Myriophyllum aquaticum*) – category 1 (**remove and destroy**).
- Pickerel weed (*Pontederia cordata*) – category 3 (**may no longer be planted**).
- Water lettuce (*Pistia stratiotes*) – category 1 (**remove and destroy**).
- Water Hyacinth (*Eichhornia crassipes*) – category 1 (**remove and destroy**).
- Kariba weed (*Salvinia molesta*) – category 1 (**remove and destroy**).
- Red water fern (*Azolla filiculoides*) – category 1 (**remove and destroy**).
- Indian Shot (*Canna indica*) – category 1 (**remove and destroy**).

How do aquatic weeds wreck waterways?

- Indigenous plant and animal life are reduced.
- Invaders interfere with water flow in rivers and canals and block irrigation systems.
- Their presence reduces water quality and availability.
- Water levels are lowered by their high evapotranspiration rates.
- Suitable breeding grounds are created for mosquitoes and bilharzia-carrying snails.
- Recreational sports such as fishing, swimming, water-skiing and boating are hampered or prevented by the sheer mass which occupies useful volumes of water.

- Drownings occur as apparently solid mats of invader weeds cover water into which unsuspecting children and animals fall.

Clearing waterways

Aquatic weeds present a problem world-wide and South African scientists are at the forefront of international research. Control has to be ongoing.

Mechanical Control: Small ponds and infestations require labour, seining nets and rakes. In urban areas weeds can be taken to refuse dumps (check with local authority). On farms they should be dried, burnt or buried.

Biological Control: Certain aquatic weeds have natural enemies, insects and or diseases, that only effect a specific weed and can therefore be used as a control method.

Chemical Control: This is best carried out by specialists because you could kill non-target species or pollute the water. One disadvantage of chemical control is the pollution of water by rotting plant residue. Identify the invader correctly by consulting the National Botanical Institute (NBI) or Department of Water Affairs and Forestry.