



Noosa Biosphere® Reserve Foundation Ltd

## **MEDIA RELEASE**

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### **Protecting Noosa's Pandanus with science, collaboration and action**

A project to research and protect Noosa's iconic Pandanus has prevented widespread dieback by combining science with community action.

Coastal ecologist Joel Fostin received grant funding from the Noosa Biosphere Reserve Foundation (NBRF) to survey and treat Noosa's Pandanus population and widely share knowledge on guarding against harmful insect infestations.

A survey of the 4,200 Pandanus plants along the Noosa Shire coastal zone and Noosa National Park revealed low and decreasing population numbers and heavy infestations in high profile areas.

Acting Mayor Frank Wilkie said pandanus in Hastings St, Noosa Main Beach and Peregian Village were especially found to be heavily affected by leaf hopper outbreaks.

"Infection rates at Main Beach were found to have skyrocketed from zero trees in 2016 to 22 affected Pandanus in 2018," Cr Wilkie said.

"All of which would certainly be in a critical state had it not been for Joel's intervention under this project put forward by the Peregian Beach Community Association (PBCA).

"One of the great spin offs from this project has been Noosa Council funding Noosa & District Landcare to sprout hundreds of Pandanus seeds for future replanting to help restore populations."

Dozens joined Joel in hands-on mitigation work with damaged plants, revegetation and regeneration work including plantings and direct seeding of over a thousand seeds.

"Thanks to the support of the NBRF, I was able to collaborate with Council, QPWS and educate members of the community on the threats to Pandanus populations, how to protect and how to restore them," Joel said.

Mr Fostin said the resilience of the Shire's pandanus population was largely due to the previous replanting efforts of local bush care groups.

"Many of the surviving mature Pandanus are so damaged their fruit production is extremely low and the stress greatly reduces the reproductive capability," Joel said.

"Most of the healthy plants found adjacent to beach access tracks were planted some 15 years ago, however they have not yet reached reproductive maturity."

Mr Fostin's report noted Pandanus leaf hopper induced dieback plus competition with invasive weeds and grass species have caused drastic changes to ecosystems and the abundance of native plant species, including Pandanus.

"If not for the planting and weed control efforts of bush care groups, things would be much different.

"The growth and spread of existing and newly emerging weed species far exceeds the amount that is currently being controlled. This is evident when you step into the untouched areas away from beach access tracks," Joel said.

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Mr Fostin's field surveys found the majority of original Pandanus communities across the Shire's coastal foredune areas were either decimated, reduced or compromised.

"Previous sandmining, damage from fire events, high weed competition and two decades of unmitigated leaf hopper outbreaks has resulted in the loss of most naturally occurring Pandanus," he said.

Direct action mitigation methods of leaf stripping and natural biological control were undertaken across the Shire to restore and prevent further damage.

Mr Fostin estimated losses of more than 50,000 Pandanus across South East Queensland in the last six years.

"Pandanus are more than just an aesthetically pleasing coastal icon, they have a deep indigenous cultural heritage, provide incomparable habitat for wildlife and irreplaceable ecosystem services.

"For the sustainability of Pandanus and our coastal ecosystems, it is abundantly clear that more directed hands are needed to repair, protect and maintain these threatened ecosystems.

The Pandanus leaf hopper cannot be eliminated and although introduced, paradoxically they actually increase coastal biodiversity. When we understand and assist nature's balance, dieback and ecosystem damage can be avoided.

"This NBRF-funded project has generated a momentum of research, action and collaboration against the continued spread of the Pandanus leaf hopper across Eastern Australia," Joel said.

Peregian Beach Community Association auspiced the grant submission.

"Joel had the necessary expertise and initiative to seek PBCA's support to secure NBRF funding. His ability to communicate, educate and enthuse communities across the Shire, alongside his practical hands-on approach, ensured the project's success beyond the original concept, including the discovery of a new insect species!" said PBCA's Environment Co-ordinator, Rochelle Gooch.

Findings from this project will be contributed to ongoing research through online government database resources as well as a Pandanus dieback education Facebook page.

Mr Fostin is hoping to gain funding to conduct bi-annual monitoring and a mass replanting exercise.

The full report is available at [www.noosabiosphere.org.au](http://www.noosabiosphere.org.au).

### **About Noosa Biosphere Reserve Foundation**

The Noosa Shire as a region is distinct from other, more developed urban areas on the Sunshine Coast in Queensland and elsewhere in Australia, and has achieved global recognition for the high values of its natural environment. In 2007, this exceptionalism was internationally recognised with the United Nations Educational, Scientific and Cultural Organisation (UNESCO) consenting to the designation of our Shire as the Noosa Biosphere Reserve under its Man and the Biosphere program (MaB). The Noosa Biosphere Reserve Foundation is entrusted by UNESCO and Noosa Council to protect our global status as a biosphere reserve. [www.noosabiosphere.org.au](http://www.noosabiosphere.org.au).