

# Biodiversity of Manukau mangroves; Whats really in there?

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## Abstract

The accelerated seaward growth of the mangrove *Avicennia marina* subsp. *australasica* over the last century has altered the ecology of estuarine and coastal ecosystems throughout North Island, New Zealand. Expansion has created a myriad of real and perceived social-ecological issues regarding the future of the local communities who live in these areas and potential impacts to New Zealand biodiversity. As a result, there have been many applications submitted to regional councils for their removal. However, the social-ecological problems and associated affects aren't but nicely understood and there are sizable expertise gaps. Further studies is essential for making knowledgeable and evidence-primarily based totally decision-making across the elimination and maintenance of those mangrove systems. Whilst there was a robust attempt to quantify benthic network compositional extrade following mangrove status quo and next elimination, there's a loss of long-time period tracking of different businesses of organisms, mainly terrestrial vertebrate and invertebrate species. This studies provides the findings of included biodiversity surveys amassed at 4 webweb sites in mangroves of Manukau Harbour (March-Apr 2018). Aim: To look at what biodiversity of species exists at fragmented mangrove webweb sites in Auckland.

Mangroves develop withinside the inter-tidal area, among the excessive and occasional tide. Thus, they offer a habitat for roosting and replica of terrestrial, coastal and marine biodiversity. Besides the real mangrove species, partner flora just like the Meswak and Sea Purslane develop in the direction of the land farfar from the water frame to keep away from extra salinity.

By arresting the wind and tidal force, mangroves offer a secure nursery for aquatic creatures to breed. The hatchlings thrive withinside the meals chain of mangroves surroundings and go back to the open seas as adults. Several species of crab, prawn, lobster, fish, snake and others take refuge here. Reptiles, birds and mammals are key hyperlinks withinside the mangrove meals chain. Adaptive mammals like jackal, mongoose, wild boar, civet, otter, etc. may be noticed in undisturbed mangroves.

Methods: A variety of various non-invasive strategies had been hired to document presence/absence facts of reptiles, mammals, fish and birds making use of mangroves. Insects and spiders had been captured and preserved for identity and destiny research. Results: All organizations of organisms had been observed apart from reptiles; skink became located on the marsh-mangrove edges. The maximum fragmented patch of mangrove had the maximum species in phrases of bugs and spiders and hen species. The threatened hen the Banded Rail became gift at 50% of the webweb sites. There had been full-size variations among the webweb sites doubtlessly pushed with the aid of using the proximity and connectivity to close by forested habitats. Conclusion: Sites range in phrases of biodiversity and so every webweb page wishes to be monitored long-time period earlier than any removal. The fairly fragmented webweb page ought to be preserved and guarded because of its healthful and excessive ecological functioning, inclusive of habitat for shortfinned eels and juvenile yellow-eyed mullet. The outcomes of those checks have the capacity to be applied in coverage for mangrove biodiversity tracking which can be carried out throughout New Zealand and to mangroves internationally.

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