## The Freshwater Grayfish of Lamington National Park and the Battle between Glants and Dwarfs

The Lamington Crayfish Euastacus sulcatus

Euastacus sulcatus is a giant spiny crayfish that grows to a huge size weighing up to 1 kg but very slow growing, with the larger animals being 20-40 years old. They are a flowing stream crayfish well distributed in all the local creeks of Lamington National Park. When small they are vulnerable to predators and just about everything loves eating crayfish so their chance of survival is extremely small with less than 1 per five thousand surviving the 7-10 years needed to reach adulthood. Once adults their thick, hard armoured shell protects them from all predators. The large adults dominate the flowing streams and the largest animals take by force the best creek real-estate, forcing smaller crays and other species into the creek margins. Being unafraid of anything including people, you will see them wandering the clear stream pools searching for food. It's usually their large white claws that you will see first as even with a vivid blue colouration on the body they tend to blend in with the background, rocks, logs and sediments. Not only within the creeks, both day and night bushwalkers report finding crayfish wandering around the forest floor, mostly using the same walking tracks as the bushwalkers. They are an extremely aggressive species, moving relatively slowly both in water and on land, but can be extremely fast with an explosively aggressive action when provoked. If one bails you up on a walking track, take care, they raise their claws and hiss at you and if they manage to latch on be aware their claws are extremely powerful. Just get a quick photo and steer wide, please don't handle them. Like all species in the National Park they are protected so please look but don't touch.

Adult female crayfish are the engines that drive the whole stream ecology, for 20-40 years or more the females will release hundreds of juveniles/year into the stream and these small tiny crayfish are the food source for all our other native, fish, reptiles and mammals that live in the National Park. If anything happens to an adult female, the consequences are felt thought the food chain for the next 10 years so please help protect these amazing iconic giants. All *Euastacus* freshwater crayfish are protected in Queensland under the Fisheries Act 1994 and Fisheries Regulation 2008, regardless of size. The catching or possession of these crayfish is totally prohibited. If you see illegal fishing occurring REPORT the activity to your local fisheries office or call the 24-hour Fishwatch hotline on 1800 017 116 (toll free within Queensland) or report it immediately to your nearest National Parks Ranger. If you find abandoned nets or traps, please remove them and dispose of them responsibly.

Embezee's crayfish is a dwarf species that is very different to its giant neighbour. This crayfish is tiny only weighing a maximum of 25 grams. They are a cryptic species that needs to hide from everything and are forced into the smaller flowing streams where they can avoid the giant crayfish that take the prime creek real-estate and will eat them if they get a chance. They are a rare and endangered species that is only found in the smaller streams of Lamington National Park.

They are a deep burrowing species without any spines for protection that spend their lives within their burrow systems only occasionally venturing out to find a mate. The females of this species are slow growing taking around 7-10 years to reach sexual maturity but unlike their giant neighbours they only have very small batches of eggs. The largest giant females can have 900 eggs but the largest dwarf will only have 30 eggs. This low reproduction rate, limited habitat areas and slow growth means these are a very rare crayfish that you are unlikely to encounter. Even though you can't see them it's good to know they are within the Park and successfully, winning the battle for survival despite all their disadvantages.

Embezee's Crayfish Euastacus binzayedi

