

## **WATER SAMPLING TO CONFIRM MORETON ISLAND CANE TOAD FREE**

*We acknowledge the Ngugi Traditional Owners and all Quandamooka People on whose country of Mulgumpin this research took place, and offer our respect to their Elders of the past, present and future.*

As part of Brisbane City Council's Cane Toad Campaign to maintain the Cane Toad Free Status of Moreton Island, extensive water sampling of the island's waterways has been undertaken. Sampling was carried out in accessible locations to the proximity of townships and campsites – some of where past individual cane toad discoveries were made - as well as the major water bodies of Blue Lagoon, Spitfire and Eagers Creeks, North Point to Yellow Patch watercourse, Dog Creek, and creeks from the Bulwer to Cowan Swamp. All sample locations were confirmed by GPS coordinates.

High autumn rainfall - particularly on the north of the island - had many creeks on the western beach between Cowan and Bulwer as well as onto the ocean beach, running during, or just prior to sampling.

Equipment necessary for sampling was collected from the Port of Brisbane Micat Ferry Terminal office on the 11<sup>th</sup> June, 2021. Water sample collection was done on the 14-17<sup>th</sup> June, with samples returned to the Tangalooma Ferry Terminal at Pinkenba on the 18<sup>th</sup> June for pickup and sending for analysis.

Over 40 water samples were taken by syringing water expelled through filters, or Control Samples of water poured into test tubes. All samples were either kept cool or refrigerated as required. This sampling can determine if there is a presence of cane toads in island waterways.



***Water sampling beachside creeks on the western beach***

**Day 1: Monday, 14<sup>th</sup> June**

12° -21° Fine and sunny

The weekend prior was the coldest June weekend in south-east Queensland for seven years. With a suitable low tide on the ocean beach, the drive was made to the township of Kooringal at the southern end of the island. Kooringal appeared to be drier than the north of the island. There were no areas of ponding about the township. Nearby low lying Teatree areas were checked, but those holding water were not easily accessible. A sample was taken from the watercourse adjacent to Kooringal Airstrip.

Driving north back up the ocean beach, a number of locations were sampled around Eagers Creek. This waterway runs from Mounts Storm and Tempest to Eagers Swamp. Sampling was done at areas of ponding and creeks running out over the beach.

**Day 2: Tuesday, 15<sup>th</sup> June**

14°-22° Morning storm cleared to a fine and sunny afternoon

The severe morning storm delayed proceedings. Comboyuro Point was checked. The lagoon behind the campground toilet blocks and ponded areas around the campsites were not easily accessible. Vegetation regrowth since the 2019 bushfires has been significant.

Control sampling was done in bushland at the mouth of Dog Creek. This is an extensive waterway on the northwest of the island – draining from swampland north of Bulwer and surrounding areas from Comboyuro Point into Dog Creek – with much of this low lying land subject to seasonal inundation.

Following this, creeks on the western beach – mainly adjacent to campsites – were sampled. The creek north of Bulwer, then to the south of Bulwer where sample sites were referred to by the Queensland Parks and Wildlife Service (QPWS) numbered campsites.

CB3 – CB11 resulted in another five sites being sampled before the end of the day. Some of these creeks were still running. All these waterways drain from the Bulwer to Cowan Swamp.

**Day 3: Wednesday 16<sup>th</sup> June**

14° -23° Heavy morning fog cleared to a fine and sunny day

Waterways from North Point Campground to Yellow Patch were sampled. This watercourse from the campground to Yellow Patch Campsites holds water all year round. During seasonal inundation, many deep waterholes hinder vehicle movement along the tracks. Until recently, a number of these creeks had been flowing to the beach.

Control sampling was done along the access track from the beach to North Point Campground before returning to the ocean beach. Another control sample was taken at Spitfire Creek – a lengthy waterway draining from the near inaccessible Lake Jabiru and low lying areas behind frontal sand dunes south of Cape Moreton.

As one of the most popular visitor sites on the island, the remaining control sample was done at Blue Lagoon. The last sample for the day, at the creek adjacent to Bulwer track, completed sampling of all creeks flowing to the ocean beach.

#### **Day 4: Thursday 17<sup>th</sup> June**

17° -24° Fine and sunny

Returning to the western beach, the final day completed sampling of all creeks flowing into Moreton Bay from Bulwer to the Tangalooma Wrecks. On previous Campaigns, single cane toads had been found in some of these locations from campers at CB campsites, at Cowan Waste Transfer Station, and on multiple occasions at The Wrecks Campground.

Low lying areas about Cowan Township were either dry or inaccessible. Sampling was done at creeks north and south of Cowan, along the Cowan Bypass, and at the creek near the Ranger Station. There was no ponded water to sample at The Wrecks Campground or nearby bins where cane toads had previously been found.

#### **Conclusion**

No presence of cane toads was detected during this Campaign. In total 31 syringe samples were taken and 12 poured control samples (three samples in separate locations at four large water bodies). These water samples and equipment to be returned to Brisbane City Council were taken to Tangalooma Resort early on the morning of Friday 18<sup>th</sup> June. They were then taken by ferry back to Brisbane to be collected and sent for analysis. We look forward to the results.

Again, thanks for this worthwhile initiative of the Moreton Island Cane Toad Campaign should go to Brisbane City Council, Tangalooma Resort, Queensland Parks and Wildlife Service, Quandamooka Yoolaburrabee Aboriginal Corporation, Micat/Moreton Island Adventures and Moreton Island Protection Committee.

The possibility of cane toads being found will continue with the movement of waste transfer bins, building and landscape materials, plants, machinery, vehicles, camping equipment and increasing visitor numbers to the island. Public awareness, knowledge, cooperation and the responsibility of all stakeholders, residents and visitors is the key to keeping Moreton Island Cane Toad Free.

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DAY	SAMPLE	CODE	LOCATION	GPS COORDINATES
1	1	KA	Koorungal Airstrip	-27.346068 153.426570
	2	EB12	Eastern Beach Campsite	-27.153744 153.428094
	3	EC	Eagers Creek	-27.147600 153.430002
	4	WB6	Warragamba Beach Campsite	-27.117515 153.438398
2	5	DC	Dog Creek + <b>CONTROL SAMPLES</b> 1a, 1b, 1c	-27.054200 153.317826
	6	BCN	Creek north of Bulwer	-27.071529 153.366205
	7	CCB3	Creek south of Bulwer - Campsite	-27.082749 153.368621
	8	BCS	Creek south of Campsite CB3	-27.084122 153.368801
	9	CNG	Creek near Graves	-27.086737 153.369237
	10	CB8	Creek at Campsite	-27.091507 153.369913
	11	CB11	Creek at Campsite	-27.098650 153.370173
3	12	YP14	Waterhole at Campsite	-27.031318 153.440682
	13	YP1	Waterhole near Campsite	-27.029181 153.446280
	14	YP1C	Ponded water front of Campsite	-27.029229 153.448191
	15	ANPC	Access track beach to NP Camp + <b>CONTROL SAMPLES</b> 2a, 2b, 2c	-27.028255 153.448191
	16	SC	Spitfire Creek + <b>CONTROL SAMPLES</b> 3a, 3b, 3c	-27.071409 153.450837
	17	BL	Blue Lagoon + <b>CONTROL SAMPLES</b> 4a, 4b, 4c	-27.092914 153.440860
	18	BTC	Creek at Bulwer Track	-27.107010 153.440576
4	19	NCB12	Creek north of Campsite	-27.102450 153.370292
	20	CB12-13	Creek between Campsites	-27.105718 153.370208
	21	CB14	Creek at Campsite	-27.107698 153.370134
	22	CB16	Creek at Campsite	-27.109294 153.369909
	23	CC1	Cravens Creek at Cowan Bypass	-27.113328 153.370081
	24	CCB	Creek on Cowan Bypass	-27.117272 153.368474
	25	BC	Creek at Bunker south of Cowan	-27.131940 153.363141
	26	RS1	Creek at Ranger Station	-27.150867 153.367253
	27	RS2	" " " "	-27.151442 153.367301
	28	RS3	" " " "	-27.152058 153.367417
	29	CNC	Beach creek north of Cowan	-27.116990 153.368133
	30	CB19	Creek at Campsite	-27.114987 153.368744
	31	CC2	Cravens Creek behind beach	-27.112853 153.369232