

BBB BioBlitz

Bulletin Number 2

Beach to Boomanjin and Birrabeen

26th September 2016

Updating arrangements and involvements for the first Fraser Island (Kgari) BioBlitz to occur from 28th November to 4th December. Because there are so many matters participants might like clarified before this great event comes off, we are planning to Email participants and potential participants newsletters.

Two Months to Go: with only two months to go to the start of the BioBlitz, it is now Go-Go-Go to have all of the multiple arrangements in pace for this special event to probe and learn more about K'Gari's ecosystems.

The organizing team: John Sinclair is the event organizer on behalf of the Fraser Island Defenders Organisation. His principal role is in dealing with the logistics of getting people to where they need to be and ensuring that people are well catered for. **Dr Kim Walker** is part of the University of the Sunshine Coast that is a major sponsor for this event and which will host the free barbeque dinner on Saturday 3rd December to wind up the event. Kim's primary role as is Coordinator is to facilitate the field work and to ensure that all of the data resulting from this BioBlitz is recorded and available for future reference. A third and vital member of the organizer team is **Diane Crighton**, the resident Dilli Village Caretaker who is ensuring that everyone gets the accommodation requested.

Registrations: Two months out from the BioBlitz we have heard from and of many who are planning to participate but who have not yet registered. This poses problems for the outcome of the BioBlitz if we don't know how well some disciplines are going to be covered. It poses another more critical problem logistically. Chef Graham McPherson needs to order all of the food to be consumed during the BioBlitz a week beforehand.

***Don't leave it to the last minute to register.
No meals can be provided for anyone who has
failed to register before 21st November.***

Wider Public Interest: While specialists are busy seeking species there will be a team of Fraser Coast artists seeking to capture BioBlitz activities visually for an anticipated exhibition next year

As well you might find a radio journalist wanting to interview people about what they are doing, why they are doing it and finding out more about particular specialities of the participants.

BYO: (a) Alcohol: BYO assumes a new significance because the nearest shop to Dilli Village is Eurong (12 kms away) where alcohol may cost twice as much as the same drop costs on the mainland. No food or drinks are sold at Dilli Village which is a warning to be well stocked up with whatever beverages you may want before and/or after dinner. However be warned

that if you want your drinks cold (e.g. cold beer) you will also need to provide your own means of chilling it because all of the refrigeration capacity of the Dilli Village kitchen is needed for food.

(b) H2O: the water at Dilli Village is not certified potable. This means that bioblitzers will need to be prepared to provide their own potable water. There is some relief on offer. We are planning to have adequate bulk supplies (20 litre containers) of potable water on hand from which bioblitzers can recharge their personal water-bottles.

Getting there: Most people are anticipating getting there on Monday 28th November when there is a 1.30 pm low-tide (the optimum time for beach travel) especially if they are travelling from Brisbane or the Sunshine Coast. See the tide tables for the rest of the week

For those without a 4WD: FIDO's Landcruiser wagon and Mike West's Range Rover between them can take up to 10 passengers. Both vehicles will go up in convoy with a trailer leaving 94 Bennetts Road Camp Hill Brisbane about 8.30 am on Monday 28th November. They can pick up people and their luggage up along the way, have lunch at Rainbow beach and take advantage of the 1.30 pm low tide to travel up the beach to Dilli Village. On Sunday 4th December they will depart Dilli Village after lunch and anticipate being back in Brisbane by 7.00 pm. So far only two of those 10 seats have been claimed. Anyone wanting transport to the island should notify John Sinclair as soon as possible (bioblitz@fido.org.au) to claim one of the remaining seats.

For those without a 4WD who are travelling at other times they will need to make their own way to the Inskip Point or Mary River barges. If John Sinclair has been notified in advance he can arrange for you to be picked up when the barges land on Fraser Island to be taken to Dilli Village.

900 spider holes

A clue of what might be found during the BioBlitz has already been provided by a group of University of Queensland biology students who were assigned to comb the 6.3 km of Great Walk between Dilli Village and Lake Boomanjin within 3 metres either side of it in July 2016. They found 900 holes made by Funnel-web spiders. That survey within the study area provides a glimpse of what might be found with more intensive searching.

Tide Times for 2016 BBB BioBlitz

These are provided to help people know the optimum times for beach travel (Green highlight)

Monday 28th November: 0028 0.42 — 0721 1.89 — 1324 0.62 — 1909 1.46

Tuesday 29th November: 0056 0.40 — 0751 1.95 — 1400 0.60 — 1943 1.44

Wednesday 30th November: 0127 0.39 - 0823 1.98 - 1439 0.59 — 2017 1.42

Thursday 1st December: 0200 0.41 — 0856 1.99 — 1521 0.59 — 2055 1.40

Friday 2nd November: 0234 0.46 — 0931 1.98 — 1605 0.61 — 2134 1.37

Saturday 3rd December: 0309 0.52 — 1009 1.93 — 1651 0.64 — 2218 1.33

Sunday 4th December: 0348 0.60 — 1051 1.86 — 1740 0.66 — 2310 1.29

GPS, maps and data: GPS references are very important especially for future researchers following up this data. If you have a tablet or smartphone equipped with both GPS and cameras anything in doubt can be captured on camera in the field and then at night projected on to the large Apple TV screen you help identify it. If the specimen needs to be recorded the GPS on the photo will provide more comprehensive data. If anyone needs a map to carry in the field, the best map to use is the map of Fraser Island Great Walk. Over-the-phone sales of this good quality topographic map of the Great Walk can be secured by calling 13 QGOV (13 74 68).

<http://www.nprsr.qld.gov.au/parks/great-walks-fraser-island/pdf/fraser-gw-topo.pdf>

Recording the Data: The data collected will be recorded by University of the Sunshine Coast librarians and included in Wildnet and the Atlas of Living Australia. While Wildnet records Butterflies and dragonflies, it doesn't at present record invertebrate data but that will be recorded and sent to ATLAS for state-wide access. QPWS has provided a two lists from Wildnet. One lists all of records from within the study area while the other lists all of the species recorded from Fraser Island. These lists can be made available to anyone needing to prepare.

The Starting Point: Past Wildnet observations from the study area provide a good starting point. The task of the Bioblitz is to determine that all previous species listed are still there and then discover new species that may have been previously unrecorded:

- 8 species of amphibians (frogs)
- 59 species of birds;
- 25 species of reptiles ;
- 35 species of mammals;
- 6 species of fish;
- 157 species of vascular plants;
- 30 species of fungi.

The Bioblitz is privileged to already have a number of specialists registered in areas not covered by the listings on Wildnet. So far we have a range of invertebrate specialists from ants and collembolan to butterflies, spiders and dung beetles. The BioBlitz offers a unique opportunity to peer much deeper into

the Fraser Island ecology than has happened previously

As indicated there is enormous scope to add to the lists with diligent observation. For example, Wildnet lists only six species of freshwater fish from the study area. Yet Australian Bass that are easily seen in Gerrawea Creek aren't yet on the list.

Gophers: There are volunteers to assist specialists to carry out their survey and field work. They can deliver the field researchers to their study sites and physically assist them with their work. We anticipate that much observational work will be accomplished walking along the length of the 50 km of defined roads and tracks. The gophers can take the researchers to start at one end of a track and pick them up elsewhere at a pre-determined rendezvous. Researchers need physical assistance setting up equipment and maybe even observations. It will help if we know specifically the type of assistance required before we get there so that we can assign the most appropriate gophers to help.

Listening posts: FIDO has provided the QPWS with five "Listening Posts" on permanent loan. These will help the QPWS to detect the presence of secretive rare and threatened species of birds and frogs. These are due to be located in the field prior to the BioBlitz and the data from them will be available to bioblitzers to let them assess the wildlife calls in the vicinity of these listening posts.

The Study Site: We have put up a new topographic map on the web site that gives distances. We estimate that the area within the study zone is 50 kilometres. The widest east west distance (Eurong to Lake Birrabreen is 5 kilometres) that sets up a study area of approximately 50 square kilometres. The site has a number of roads and tracks through it. We are arranging for volunteer gophers to deliver the experts to chosen destinations and to pick them up later at a mutually agreed predetermined rendezvous.

Maintaining Good Equipment & Field Hygiene:

While undoubtedly all scientist and researchers involved in the BioBlitz the matter of field hygiene are already acutely aware of the need to scrupulously avoid introducing pathogens into new sites on our clothing we wear or the equipment we take into the field, the QPWS has asked us to pass on the following information:

The main issues for the Bioblitz would be contaminated traps, clothing, shoes and vehicles that may cause weed, parasite, disease introduction and/or spread (Myrtle rust, Chytrid fungi etc.) to and throughout the island and survey area. It is preferable and in the interest of good hygiene practices that all vehicles coming to the island utilise the wash-down facilities at Maryborough, Hervey Bay or Rainbow Beach before they come over.

We need to highlight to the participants and make sure that all clothing and field equipment is clean and that any equipment that comes into direct contact with animals in particular, such as traps and nets, should be disinfected, prior to arrival on the island. If people have concerns about chemical contamination from disinfectants, then disinfectants such as ethanol can be used, or the disinfectant can be rinsed off using freshwater once the researcher is on the island. The rinse water would either need to be disposed of on the island away from any sensitive area, or disposed of in the sewage system.

References specific to amphibians and aquatic areas are in the attached document and the following web link <http://www.environment.nsw.gov.au/resources/nature/hyprfrog.pdf>.

Permits: FIDO is still working on securing relevant permits from QPWS to cover all participants to enable the collection of relevant specimens. Details of these permits will be included in a future newsletter.

Catering: We have arranged for a most experienced chef, Graham McPherson who regularly caters at Dilli Village to provide meals **at \$45/person/day**. This is very reasonable. It allows more time for interaction with other participants and removes all of the hassle of people needing to self-cater. Those who wish to self-cater will need to be self-contained with cooking and eating utensils and refrigeration.

Diet: Graham is experienced in catering for dietary preferences. If you or any of your team have dietary preferences and specifically things you can't or won't eat (e.g. meat) please send us an Email at least a week ahead of the BioBlitz so that Graham can address this. Please don't wait until you arrive to announce special dietary preferences.

Dilli Village Amenities: Some participants were unaware of the amenities at Dilli Village for accommodation and for handling the various specimens that might be brought in. We have attempted to cover this with a PDF on line: <http://fido.org.au/Documents/Dilli%20Village%20Amenities.pdf>

The Evening Programs: For some biologists the nights are going to be busy as this is when so much of the fauna is awake and most active and this is when some of our group will be on the prowl to see what might be discovered. There may be an opportunity for some more adventurous to join these nocturnal forays.

For those who want to spend their evenings in Dilli Village these are many ways to be entertained. This event is attracting many people from diverse disciplines. Other bioblitzers will be interested to hear from some specialists. We will be inviting 15-20 minute presentations from bioblitzers who want to expand on their special interest on the South deck between dinner and 8.00 pm. The topics may range from frogs to soil ecology and spiders to fungi. After 8.00 the deck will be made available for those needing to access the screen for on-line identification.

There is bound to be some hidden entertainment talent amongst such a large group. This is an invitation for anyone with musical talent to bring their instruments. We also understand that a quiz-master may be in attendance. So after dinner there will be an entertainment program on the east deck.

Please be prepared.

Communication: Dilli Village is a campus of the University of the Sunshine Coast and has great internet connections. However mobile telephone reception is not strong but it is stronger for Telstra than any other carrier. The reception improves by taking the short walk to the beach that is in clearer range of Rainbow Beach towers.

The Fraser Island Repository: The University of the Sunshine Coast is in the process of establishing the most comprehensive Repository of Fraser Island (K'Gari) data to be held at the Sippy Downs Library. Anyone who has data that can enhance this holding is encouraged to discuss it with the librarians who will be present at the BioBlitz

Please don't hesitate to contact us at bioblitz@fido.org.au if you have queries.

Dr Kim Walker, (USC) Coordinator
and **John Sinclair AO** (FIDO)

Fraser Island (Kgari)'s Wildlife Status

By John Sinclair AO

It is vital that we start to gain better hard data on K'Gari's natural resources particularly its wildlife to have a better picture of its natural health. That is the underlying rationale for FIDO's initiative in sponsoring the BioBlitz based at Dilli Village from 28th November to 4th December.

I have been visiting Fraser Island (Kgari) for more than 60 years. During that time based on a very subjective assessment I am convinced that the populations of many once common species has declined during that period. The fish abundance has declined; the numbers of black swans, pied oyster-catchers, pipits, honeyeaters, and many other birds have declined; seeing ghost crabs is now a rarity; snake populations have plummeted as have frogs as their place is usurped by cane toads. There is firm evidence of the decline of dugongs and the extirpation of some wildlife such as quolls.

generous federal funding K'Gari where management is run on a shoe-string budget that can't afford to undertake annual wildlife surveys.

The decline in wildlife in our major best-protected natural areas just goes to show that humans have to do more to save our wildlife than just relying on establishing national and marine parks. It demonstrates that we need to address the organic reasons our wildlife is disappearing during our watch. Some of it is unquestionably due to climate change; other reasons include the introduction of foreign and pest plants and

animals, inappropriate fire regimes, pollution is also taking a toll by poisoning and transforming the purity of our planet's air and water; overharvesting, and habitat modification, fragmentation and destruction are exacerbating the situation.

50 km of clearly defined tracks intersect the 50 km² defined Dilli Village BioBlitz study area. During this most ambitious exercise in citizen science, those tracks will be traversed



Flying Foxes over Great Sandy Strait near McKenzies Jetty C1920

The most telling evidence of the decline of wildlife is in the photo taken in the McKenzies Jetty area about 1920 showing the evening exodus of flying foxes heading off in the evening to forage for food. There has been no explanation of what happened to those flying foxes although their habitat on the island remained largely intact. Goodness knows how other species have so dramatically declined their pre-contact populations were even noted or recorded. This surviving photo is the only record.

For 25 years I made annual safaris to Australia's most iconic World Heritage areas including the much better funded Kakadu and Uluru-Kata-Tjuta National Parks as well as the Great Barrier Reef. These three World Heritage sites are fall within the administration of the Commonwealth Government and are held up globally as models of good management yet despite this the loss of more than 50% of the Great Barrier Reef corals, The alarming decline of Kakadu's wildlife and the reduction of mammal species in the Uluru region from 46 to 21 has shown up in the well resourced annual audits of wildlife in these parks. If such losses can happen despite more

by botanists, mycologists, zoologists, ornithologists, herpatologists, soil ecologists, limnologists, arachnologists, and a range of other specialists, both amateur and professional to discover what might cross those tracks. This should establish a set of data that can be used as a basis for comparison when those same tracks are walked again with a similar set of expert eyes in the future. It is only then there will be conclusive and objective data to show how well Fraser Island (Kgari) is being managed.

The elongated study area from the beach to Lake Birrabeen stretches north from Dilli Village to Eurong and inland to Lake Birrabeen 5 kilometres due west of Eurong, samples every major ecosystem on K'Gari from rainforest to heath except for the estuarine environment. It incorporates some fens and even the Wungul sandblow. It includes all six dune systems as defined by a CSIRO soil studies team back in the 1970s and one of that CSIRO team will be joining the 2016 BioBlitz. It will provide the baseline study that can be replicated in the future so that we know much more about any ecological changes occurring on K'Gari.