



INFORMATION SHEET

Location

The Ghost Bat Blitz base camp will be located in Pine Creek, Northern Territory. Pine Creek is a small town located on the Stuart Highway, 225 km south of Darwin. The famous Kohinoor adit, home to the largest-known ghost bat colony, is located just on the outskirts of town. The town is also a well-known spot for spotting hooded parrots, and, after a long hiatus, [northern quolls](#) have been recorded close to town! Despite its size, the town has quite a lot of amenities, including a small supermarket, two service stations, two pubs and several cabin and campground accommodation options. More information about the town can be found [here](#).

Field survey activities will occur in the township and the surrounding region within a 100 km radius. A small number of sites will be accessible by 2WD via bitumen roads, but most require travel on small dirt tracks and 4WDs.



Pine Creek is in the tropical north. The Blitz is being held at the start of the dry season. Temperatures at this time of year are usually in the low 30 C° during the day and around 20 C° during the night. It is usually dry (i.e. no rainfall) but can remain quite humid. Heat stroke is a danger in the Top End, so sun protection and hydration are very important.

Some walking (likely less than 1 km from the track) may be required to reach survey sites. In some cases, the exact location of a potential roost is not known and some area searching will be required. Some of the landscapes we will be working in will be challenging and may include 4-metre-high grass, unstable ground, hills, and open and unmarked mine shafts.

Getting to Pine Creek

Attendees who choose to fly will need to fly into Darwin Airport and then drive south to Pine Creek. The drive takes approximately 2.5 hours. Attendees may also choose to drive from their location in Australia.

To find the camp, you will need to take the first right turn into Pine Creek (heading south) from the Stuart Highway onto Main Terrace. Continue on Main Terrace for approximately 800 m, and you will see demountable buildings on the right-hand side. The driveway into the camp is on the right after these buildings. The camp is marked on Google Maps as Crocodile Gold Pine Creek Camp ([-13.819792, 131.831097](#)).

Accommodation

The mining company Agnico Eagle is sponsoring the Ghost Bat Blitz by providing 50 ensuite single rooms in a mining camp that is located within the township. The camp will be the HQ for the Ghost Bat Blitz and will be unoccupied except for the ABS and a small number of kitchen and cleaning staff.

Each room contains a single bed, desk, chair, TV, fridge, toilet and shower. Bed linen, pillows and towels will all be provided. Each room is air-conditioned. A communal TV room will also be available for guests to use. For liability reasons, the on-site swimming pool will be closed during our stay.

Alternative accommodation, including cabins and campsites, is available within the town. If you are not staying at the camp, you will also not be included in the group catering. If you plan to attend the Blitz BUT NOT use the camp facilities, please get in touch with the organising committee directly and do not register through the Eventbrite platform.

Food

As part of the expression of interest survey released in December, we asked if attendees would prefer group catering or self-catering, and indicated that the decision would be decided based on majority rule. The majority of the respondents voted for group catering. If staying at the camp, self-catering will not be a possibility as we will not have use of the kitchen.

Food will be cooked by the camp chefs each day and served in the camp dining room. Dietary requirements will be catered for. Breakfast will be a continental assortment of cereals, breads and spreads available from 07:30-10:00. As we will be working at night and likely heading out to our sites in the late afternoon, the more substantial meal will be lunch, while dinner will be smaller. Lunch will be a hot buffet and a selection of cold dishes served from 13:00-15:00. Dinner will be an assortment of breads and fillings, salad items and any leftover lunch portions, which can be packaged up during the lunch service and taken into the field.

To reduce waste, at the start of the trip, attendees will be provisioned with one reusable container that they must reuse throughout the trip. Attendees are also welcome to bring their own reusable container(s).



Timing

The Ghost Bat Blitz will occur between Friday 12 May and Thursday 18 May 2023. If you are joining us on a later date or leaving earlier, please let the committee know so we can plan accordingly. The registration cost for shorter stays will remain the same.

Sunrise is at 06:53 (first light 06:31), and sunset is at 18:23 (last light 18:46).

An approximate trip itinerary is provided below:

Date	Time	Activity	Comment
Fri 12 May	12:00	Check-in at camp	
	14:00 – 16:00	Introduction Session	At this session, we will run through camp rules, hand out team folders, and demonstrate equipment use and data collection techniques. Have lunch before or bring to session.
	17:30 - Late	Kohinoor adit ghost bat flyout and then harp trapping for reference call collection (not ghost bats).	Gather at camp and head out to Kohinoor as one group, learn a bit about the adit, set up equipment for colony count, and watch the flyout. Afterwards traps that were set up prior to the flyout in the surrounding area will be checked for other bat species. Traps packed up before we head back to camp.
Sat 13 May	10:00-12:00	Turn in your reference calls in the dining room	
	13:30-14:30	Lunchtime Talk: Ghost Bats – Nicola Hanrahan and Laura Ruykys	Grab your food and learn about emerging research and assessment processes/decision making from a government perspective
	16:00-00:00	Survey ghost bat roost sites	
Sun 14 May	10:00-12:00	Ghost bat data download, refreshing equipment	
	11:00-13:00	ABS Financial Annual General Meeting	
	16:00-00:00	Survey ghost bat roost sites	
Mon 15 May	10:00-12:00	Ghost bat data download, refreshing equipment	REST DAY. Attendees free to explore the surrounding area e.g. Umbrawarra or Southern Kakadu
Tues 16 May	10:00-12:00	Refreshing equipment Review ghost bat video footage from sites	
	13:30-14:30	Lunchtime sponsor demos: Faunatech – Harry Rust Titley – Julie Broken-brow	
	16:00 - 00:00	Trapping other species for reference call collection	A team will be required to stay out in each area or head back out before sunrise
Wed 17 May	10:00-12:00	Turn in your reference calls in the dining room	
	13:00-15:00	Pizzas at the Lazy Lizard Tavern!	
	16:00 - 00:00	Trapping other species for reference call collection	A team will be required to stay out in each area or head back out before sunrise
Thurs 18 May	09:00 – 11:00	Turn in your reference calls in the dining room	
	No fixed time	Room check-out, return to Darwin	

Some terms and conditions

Attendees must agree to the camp policy and will be expected to sign it upon arrival. The camp policy can be reviewed [here](#).

In order to handle bats during the field trip, attendees will need to have been vaccinated against Australian Bat Lyssavirus (ABLV). Furthermore, their titre levels must have been checked within the last two years and must be sufficiently high for the person to be deemed to be immune. Alternatively, if unvaccinated (either through not having the vaccination or from not having had titre tested in the last 2 years), attendees will not be able to handle bats.

Call playback to survey for ghost bats may only be used by authorised people during the trip, where 'authorised people' are as defined by the organising committee.

The use of live trapping equipment (mist nets, harp traps, similar) at the entrances of Ghost Bat roosts is not permitted. Furthermore, call playback is not to be used for the purpose of capturing Ghost Bats. In other words, trapping of Ghost Bats will not occur. Therefore, there will be no opportunity for handling or obtaining close-up photographs of Ghost Bats. Rather, we will use acoustic and video-based survey methods for this species. This is to prioritise the welfare of the Ghost Bat, which is sensitive to disturbance.

Data obtained by attendees during the trip (including acoustic, video, photographic and morphometric data) will be collected under permits for two specific projects: a Charles Darwin University-based project to collect information about Ghost Bat distribution and population size, and an NT Government project to collate reference calls for NT bats. If attendees wish to use data for any purposes other than the specified projects, they must discuss options with the organising committee.

We will be following [Wildlife Health Australia](#) and [IUCN Bat Specialist Group](#) recommendations around the use of PPE when trapping bats. These recommendations are to protect both the people handling the bats and the bats that are being handled from ABLV and other viruses. Those handling bats or working in close quarters to the bats (for example, taking morphometric measurements/genetic samples) will be required to wear gloves and face masks.

Registration

Registration for the Ghost Bat Blitz and Financial Annual General Meeting will cost \$200 per person, plus a nominal fee for use of EventBrite. The \$200 is to cover the cost of buying the food. Spaces are limited, so please register as soon as possible on [EventBrite](#).

We are currently awaiting confirmation on whether children are permitted to stay at the camp. We expect to find out in the coming days. If you are planning on bringing a child, please get in touch with us via email prior to registering.

As part of registration, you will be asked to list any dietary requirements and any other accommodations that you may require. Please make sure to fill these out accurately so that we can plan accordingly.

Please also indicate on the registration form if you plan on bringing your own vehicle and how many passengers you can accommodate outside of any partners/others who are already coming in your vehicle. Any extra passengers ride-sharing in vehicles will be expected to share the cost of fuel for the trip.

Some of the survey work will be conducted in challenging conditions. During registration, we ask that attendees rank their remote field experience from 1-3, ranging from no experience to some experience to very experienced. Skills that are considered under remote field experience include 4x4 driving, navigation using a GPS, and walking in hot conditions. This ranking will not be used to exclude anyone; rather, it will just be used

to make sure that the experience required is present in each team. The Blitz is a great opportunity to learn about and experience the Top End, so all are welcome.

Vehicles

Attendees must organise their own vehicle transport for the trip. Pine Creek is accessible by 2WD but most of our survey sites will require a 4WD for access. There are a number of vehicle hire companies in Darwin and rates range from approximately \$150 – \$320 per day. A selection of companies, their approximate rates and promotion codes are given below. Note that rates are subject to change based on the insurance chosen when the vehicle is booked etc. There are also other companies such as Thrifty, Hertz and Europcar that attendees can approach, but we do not have promotion codes in place with them. Be aware that many of the big national hire vehicle providers limit the kilometres to 100 km a day so try to go with an option that offers unlimited kilometres. Also, be aware that May is the peak tourism season in the NT; as such, attendees are strongly encouraged to book any hire car as soon as practicable. Months in advance is a minimum!

Company	Vehicles available	Approx. day rate	When booking mention
NT 4x4 Hire (08) 8941 1199 bookings@nt4x4hire.com.au	Ford Ranger Wildtrax Toyota Prado	\$150-200 (not incl. excess reduction, which is \$33 per day)	Australasian Bat Society (phone or email)
Top End Car Rentals (08) 8947 2846 enquiries@topendcarrentals.com.au	Toyota Prado. Also AWDs such as RAV4, Nissan Xtrails	\$295 for Prado (not incl. excess reduction, which is \$28 per day)	TopEnd10 (can use on website, email or phone)
Australia 4WD rentals 08 79997511 info@australia4wdrentals.com	Hilux Auto 4WD – with rooftop tent. Ford Everest, Toyota Prado and Mitsubishi Pajero	Wide range of prices. We were assured that they would look after us if you mention the ABS	Australasian Bat Society – Nicola Hanrahan (phone or email)

Attendees are encouraged to team up and hire vehicles as a group to reduce the cost for vehicle hire and fuel.

There will be a handful of seats available in other attendees’ personal vehicles. If you are of limited means e.g. student, carer, unemployed or retired and would like to be considered for these, please indicate this during registration. Attendees will likely still be expected to contribute to fuel costs, though a limited number of financial support ‘packages’ from the ABS may be available. Please talk to the organising committee if you’d like to access this.

Blitz aims

1. To survey historical and potential Ghost Bat roosts surrounding Pine Creek to obtain up-to-date data on occupancy and colony sizes. The sites surveyed will be a mix of disused mine adits and natural sandstone caves.

Each team (consisting of 2-4 people) will be assigned a subset of potential Ghost Bat roosts to visit each night. We will collect a flyout video using infrared or thermal footage at each location that looks suitable for Ghost Bat occupancy. Willing attendees may be asked to assist with reviewing footage back at the camp.

We may also use playback survey methodology to detect ghost bats in foraging areas away from roost sites. This is conducted using a set-up of an acoustic lure coupled with an infrared camera.

2. To collect full-spectrum echolocation reference calls for Top End bat species (excluding Ghost Bats). In the NT, we are fortunate to have Damian Milne’s “Key to the Bat Calls of the Top End of the Northern Territory” to use as a reference for identifying our many bat species, and we aim to build upon this resource by collating a full-spectrum call library. The aim is to eventually publish an updated key that is publicly accessible.

Bats will be trapped at several designated sites using harp traps and mist nets. Each bat captured will be identified, sexed, measured, and genetic samples taken. A Cyalume stick will be attached to the back of each bat and when all bat detectors are trained on the bat, the bat will be released and a reference echolocation call collected. All reference calls and associated metadata will be collated onto one central hard drive the morning after each trapping event.

FAGM

The FAGM will be held from 11:00 to 13:00 on 14 May 2023 at base camp. Those who cannot attend the trip in person will be able to join the FAGM through Zoom. A Zoom link will be circulated to all members closer to the date. If any members have topics that they would specifically like discussed, they should get in contact with secretary@ausbats.org.au.

To bring

To get you started, here is a general list of items to bring:

- Field clothing - ideally lightweight, long-sleeved, long pants
- Camp clothing – just comfy!
- Sturdy hiking boots
- Gloves & mask - if you plan on handling bats
- Hat
- Sunglasses
- Water bottle/water bladder
- Gaitors (if you like to wear them)
- GPS
- Bat detectors
- Trapping equipment
- Infrared/thermal cameras
- Reusable lunchbox & coffee cup
- Mosquito spray
- Sunscreen
- Toiletries
- Laptop (to help with reviewing flyout count footage)

For those bringing their own vehicles – items that are desirable include:

- Car fridge
- Water container (10 litres or more is ideal)
- First aid kit
- Vehicle recovery equipment – shovel, trax, snatch straps, air compressor etc.

Roving Team

As some of the sites are located further away from base camp, we are considering having a roving team of 3-4 people who will visit these sites and camp out in a new location each night. Pre-cooked food will still be provided but will need to be heated in the field. Members of this team will need to bring their own camping and cooking equipment, and at least one member will need to be proficient at identifying Top End bat species. If you would like to be considered for this team, please indicate your interest as part of registration.

Contact details of the organising committee

Nicola Hanrahan – nicola.hanrahan@hotmail.com

Laura Ruykys – Laura.Ruykys@nt.gov.au

We are looking forward to seeing you in Pine Creek!

The FAGM organising committee: Nicola, Laura, Damian, Leroy and Lindy