This is the third update from the field team delivering the Palmerston Island Rat Eradication in the Cook Islands. The project is funded by the New Zealand Ministry of Foreign Affairs and Trade through the MISCCAP programme. The planning and operational delivery of the eradication project is led by the New Zealand Department of Conservation, in collaboration with the Cook Island's National Environment Service, Ministry of Agriculture, the NGO – Te Ipukarea Society, and the Palmerston Island community. The project has been in planning stages for 18 months and the operational delivery is being carried out by the field team and community over August/September period.

Kia Orana from Palmerston Atoll,

I write this on a relatively relaxed day, as we are waiting to kick-off the first baiting application tomorrow, with our preparations being complete. We had the ability to stream the All Blacks vs South Africa game this morning, and although we did not enjoy the games outcome – we enjoyed the company of the school and some of the community joining us to watch.

This week we completed several major milestones, including finishing the grid layout for both operational areas (Home Island and Cooks motu); completing the baiting tray layout in all buildings on Home Island; and removing the last of agricultural produce that could be available as alternative food for rats. The grid layout consist of more than 2,011 baiting points across ~70 hectares, and consists of over 40 kilometres of cut track to bait these points. I have a very vivid memory of the flush of relief on Alanna's face (which was reflective of all of us!) when we told her that that was the last line to cut.

There are 577 bait trays inside, under floors, and in roof cavities of the 109 buildings on Home Island so that no home-range of any individual rat will go without bait. Grown fruit or vegetables that are potential food sources for rats have been harvested and stored on Home Island. Full credit to the field team and the community to reaching this point, which puts us in an excellent position to start applying bait.

One issue which did arise this week was discovering that a proportion of our rodent bait had molded. It is a challenging logistical exercise to get bait to Palmerston and keep it in good condition. Manufacturers only produce bait at certain times of the year, and the challenge is to transport and use bait as close to manufacturing date as possible, whilst using the very limited logistical chain to get it to Palmerston. All through the process the bait must be kept dry and in stable temperatures to avoid sweating of the bait. For Palmerston this involved:

Moving 6 tonnes of bait in 10kg sealed buckets from Wanganui to Auckland by road -> loading it into a 20 foot insulated container to travel by boat for several weeks to land in Rarotonga -> followed by several days at sea on the deck of a boat between Rarotonga and Palmerston -> to being unloaded by hand to small boats that navigated the shallow passages of Palmerston -> where it is again unloaded by hand to a tractor and trailer -> then unloaded by hand to its final storage place on pallets under the shade of an open ground floor shelter with plenty of air flow.

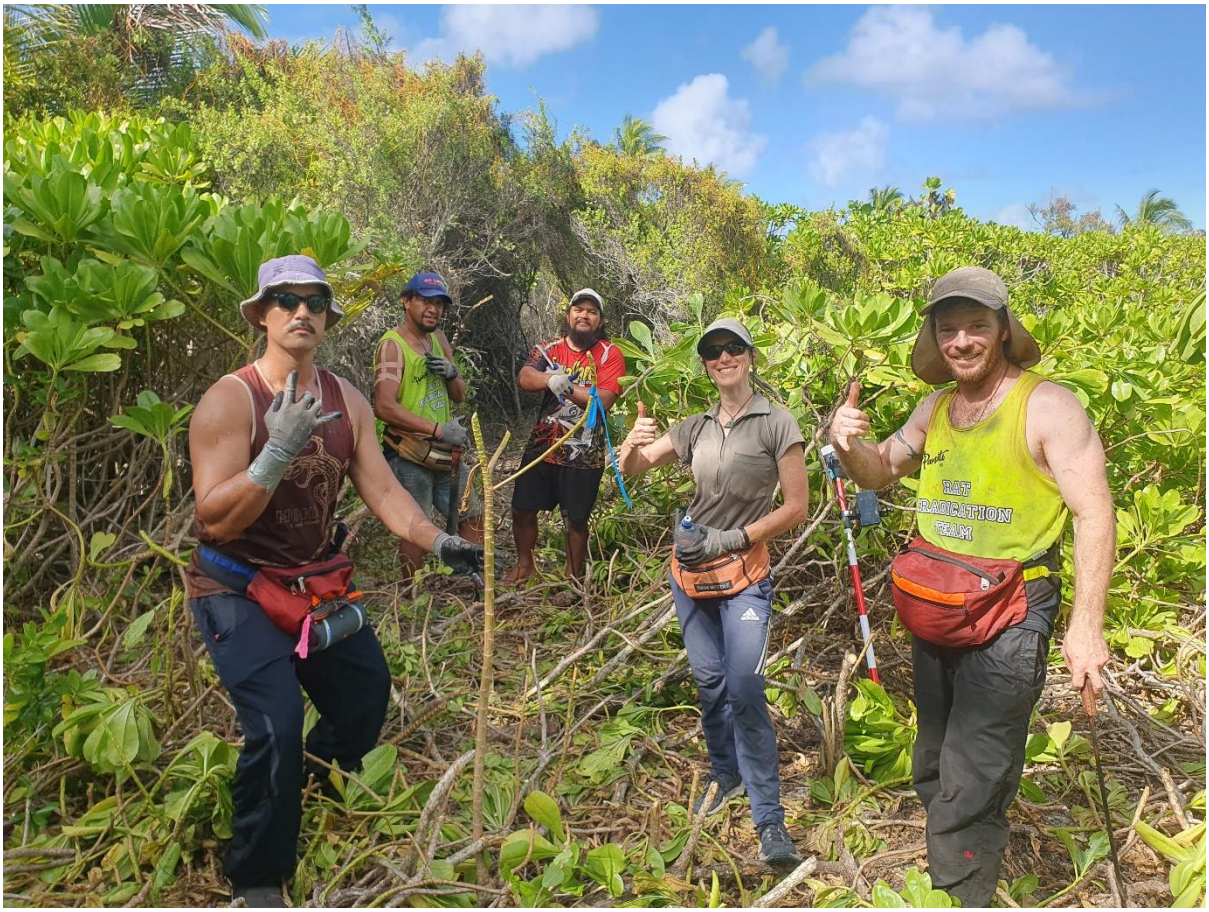
We do know that rats eat moldy bait, but the aim is to keep bait as palatable as possible to have the best chance of every rat consuming a bait. Fortunately, due to contingency planning - we have enough bait in excellent condition to do the first application, and are likely to have enough for the second application as well. The team went through the process of identifying and sorting which buckets potentially had issues, so that we can prioritise the best bait for the 2 applications.

The team and community have been ready and prepared to apply bait since Wednesday – but given there were significant chances of precipitation on Thursday night, we delayed baiting to ensure a longer weather window which will provide the best longevity for the bait, and therefore exposure to rats. Bait buckets have been strategically cached on our baiting lines and baiting lines delegated to the team, so that on baiting day – grid points can be seamlessly baited continuously without having to go back to collect more bait. The extra time has allowed the team to have some well-earned rest days, catch up on a few 'nice to do' jobs, and remove a few more of the last remaining wild chickens.

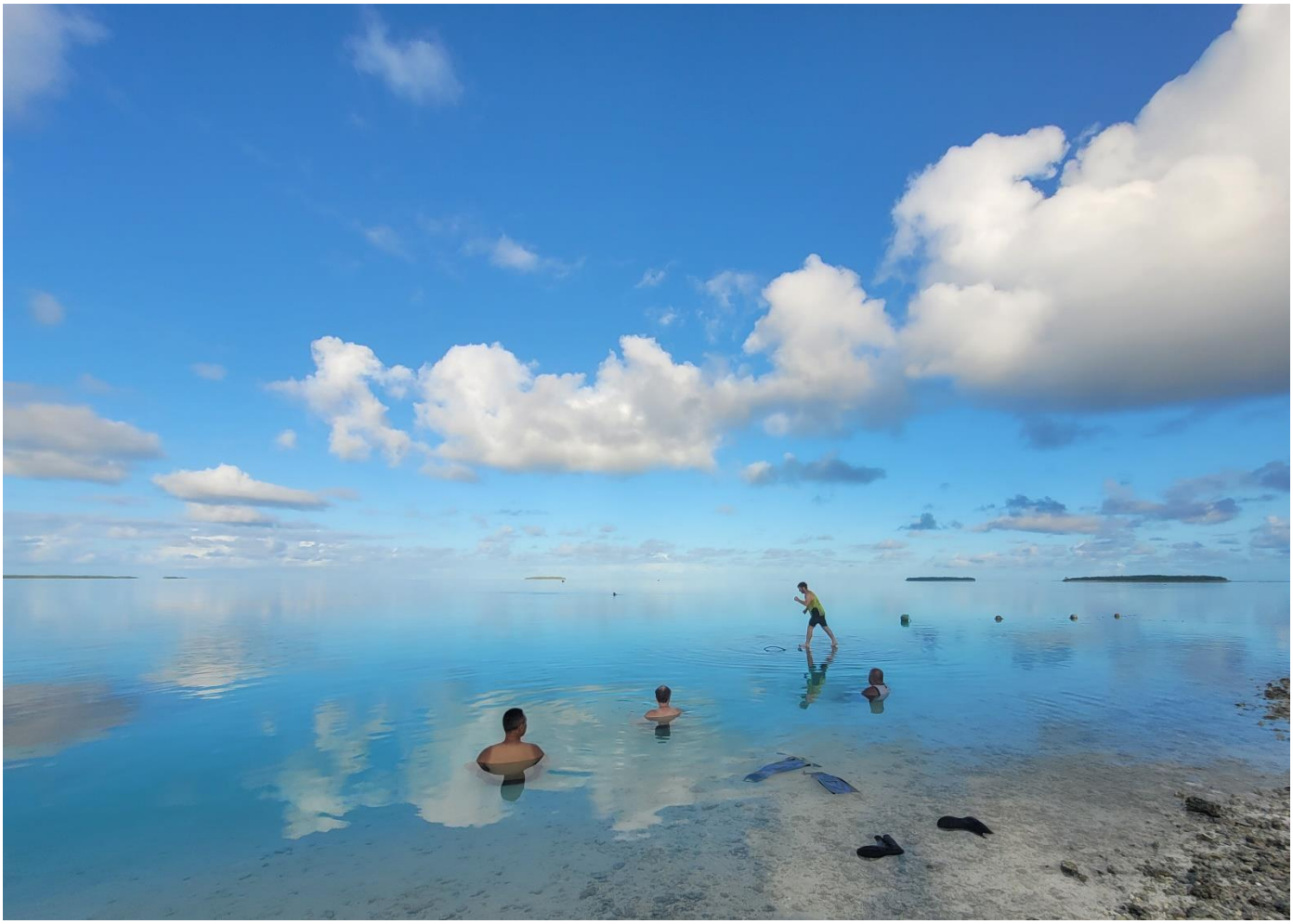
Some down time has allowed us to enjoy some early morning fitness sessions with the team and the community; end of day volleyball; helping with subject tutoring for some of the seniors at school; and having solid plans and systems in place for next week.

We hope this update has found everyone well. By our next time of contact, the first application of bait and subsequent bait availability monitoring should be complete.

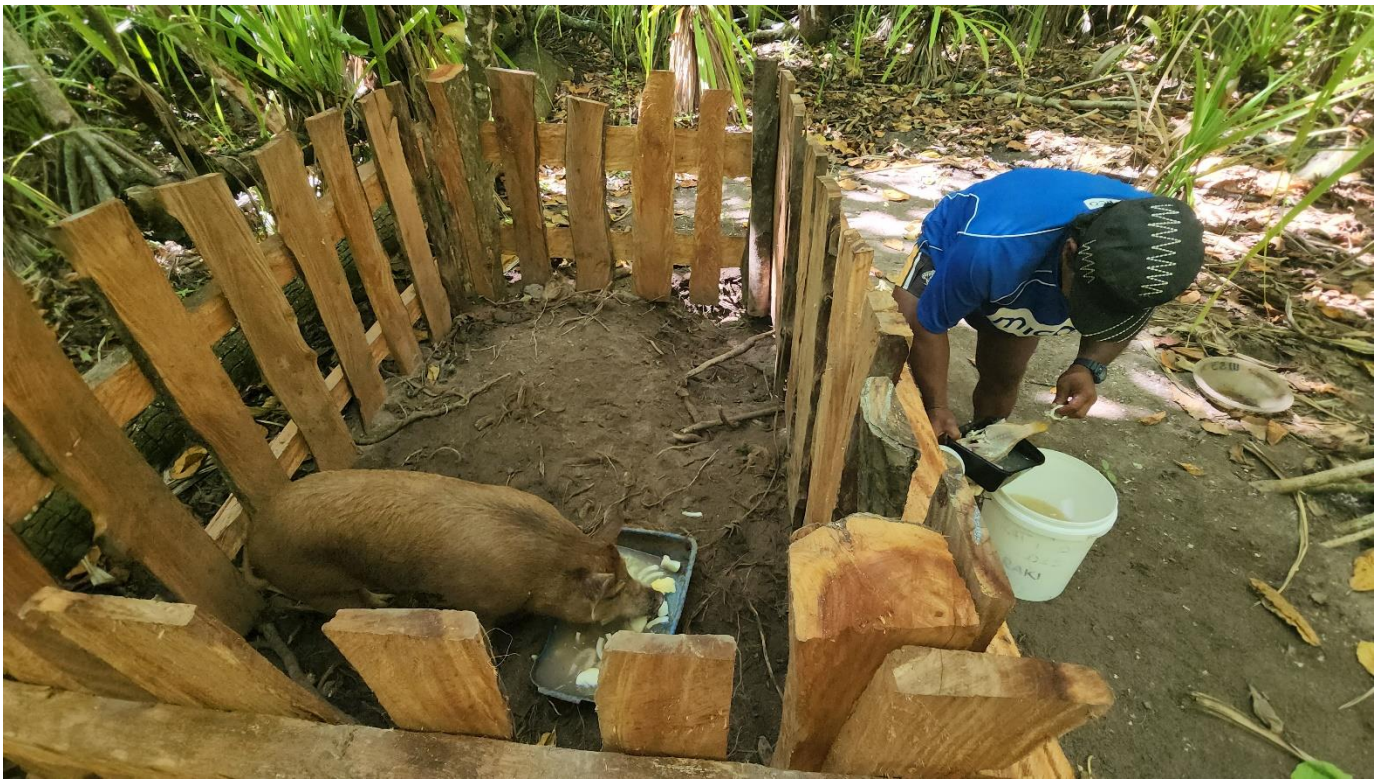
Em and the RAT team



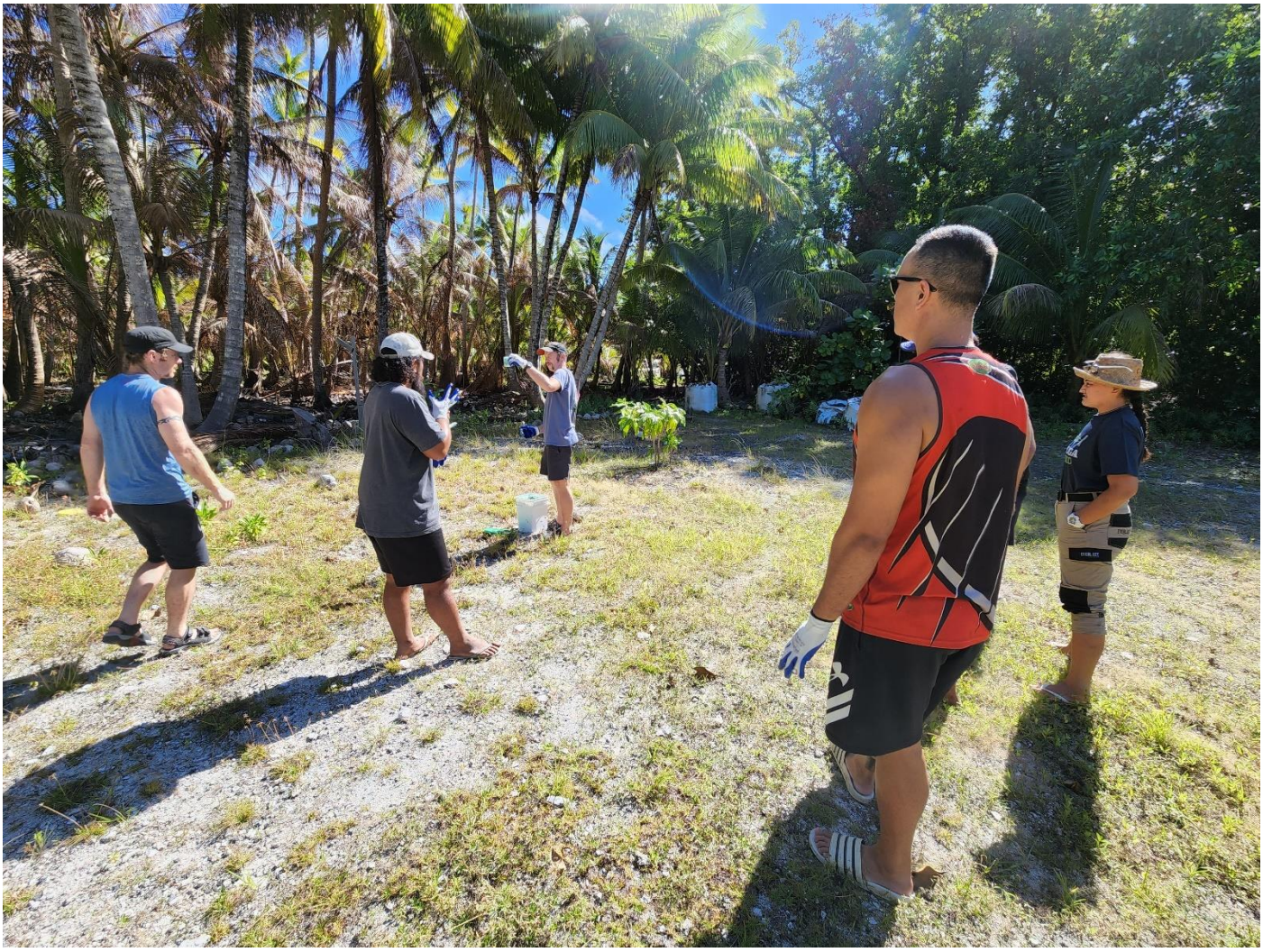
Above: Last of the hot days cutting tracks on the motu, and still smiling



Above: After work soak on an amazing calm day in the Lagoon – James walking on water

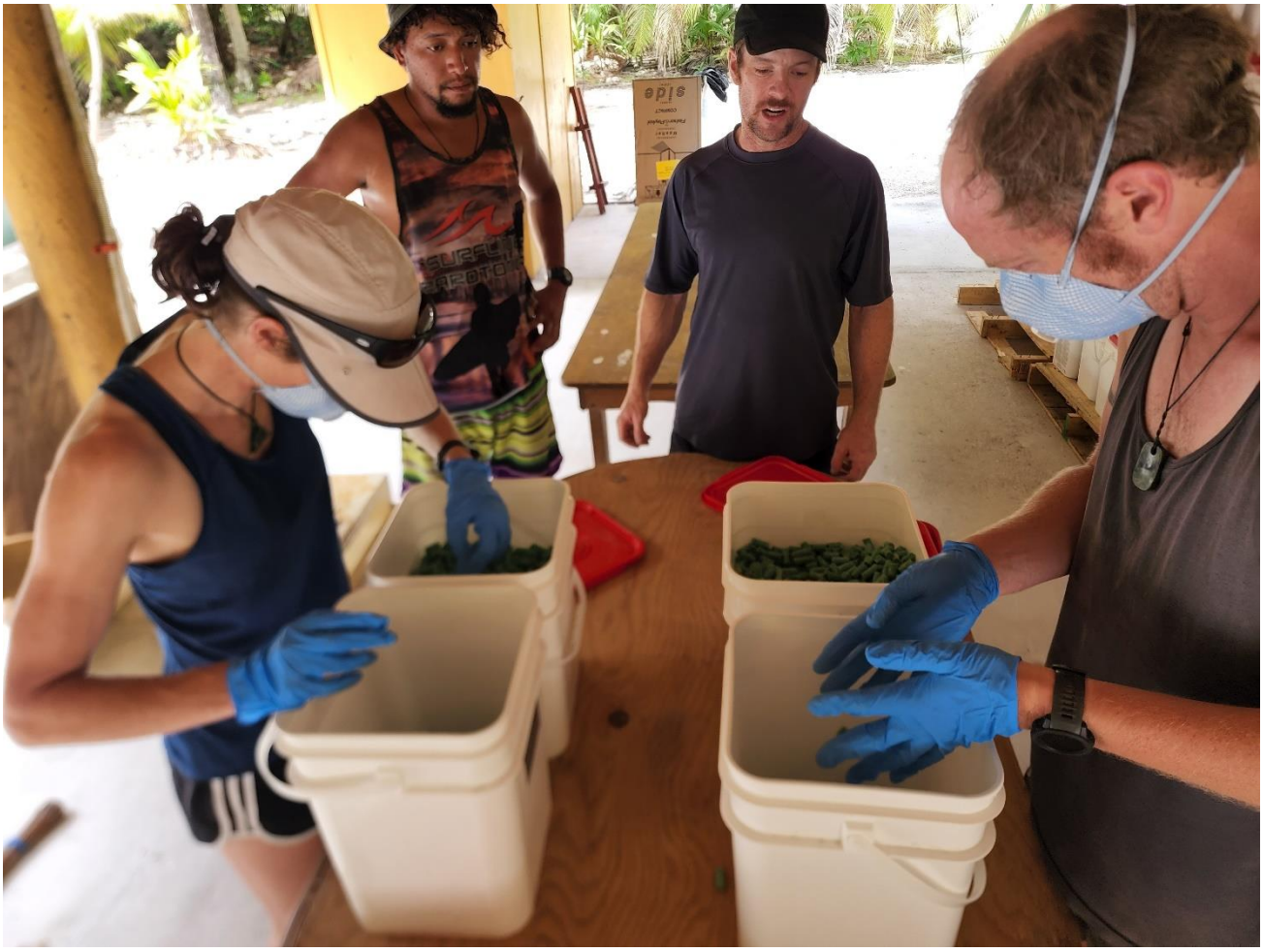


Above: Eddie feeding his pigs on Primrose Islet in newly constructed pens. In order to prevent pigs eating bait during the eradication, 12 of the 17 pigs on Home Island were culled (and to be replaced by the project at a later date) and 5 were shifted to Primrose where they are feed and watered regularly.

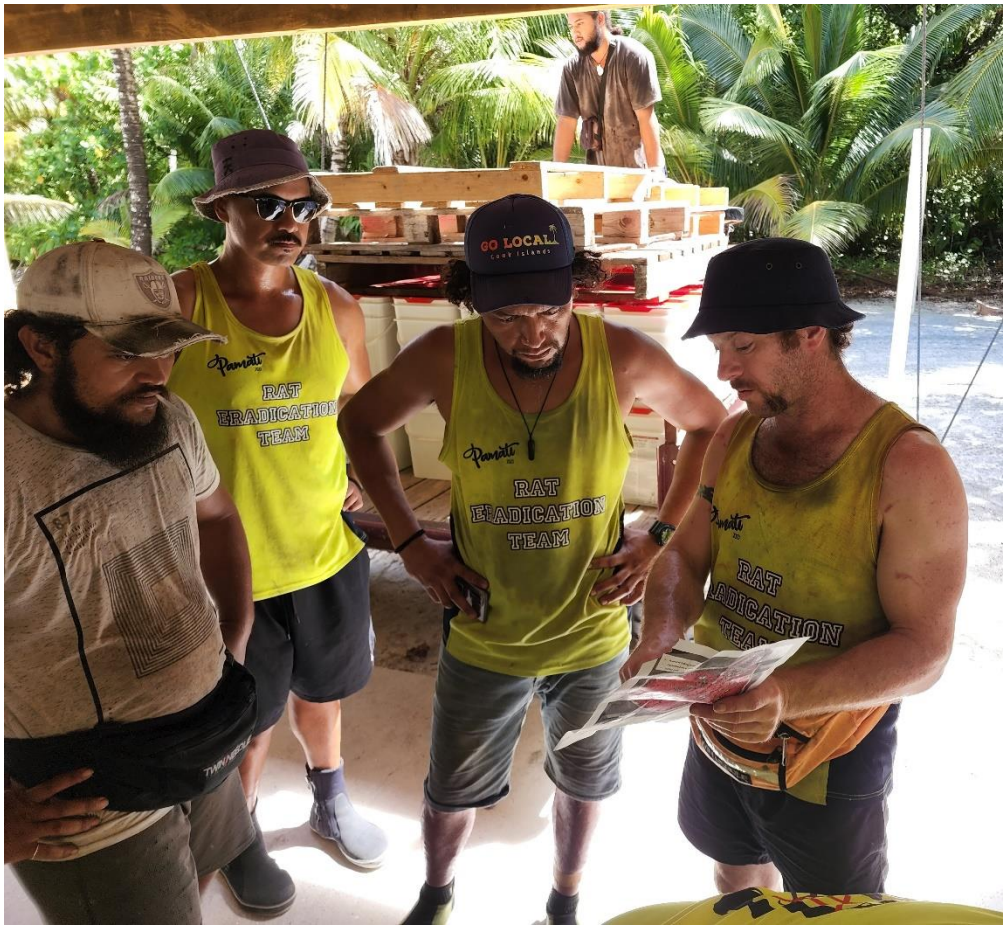


Above: Doing a demonstration baiting run with the grid baiting team for consistency of application

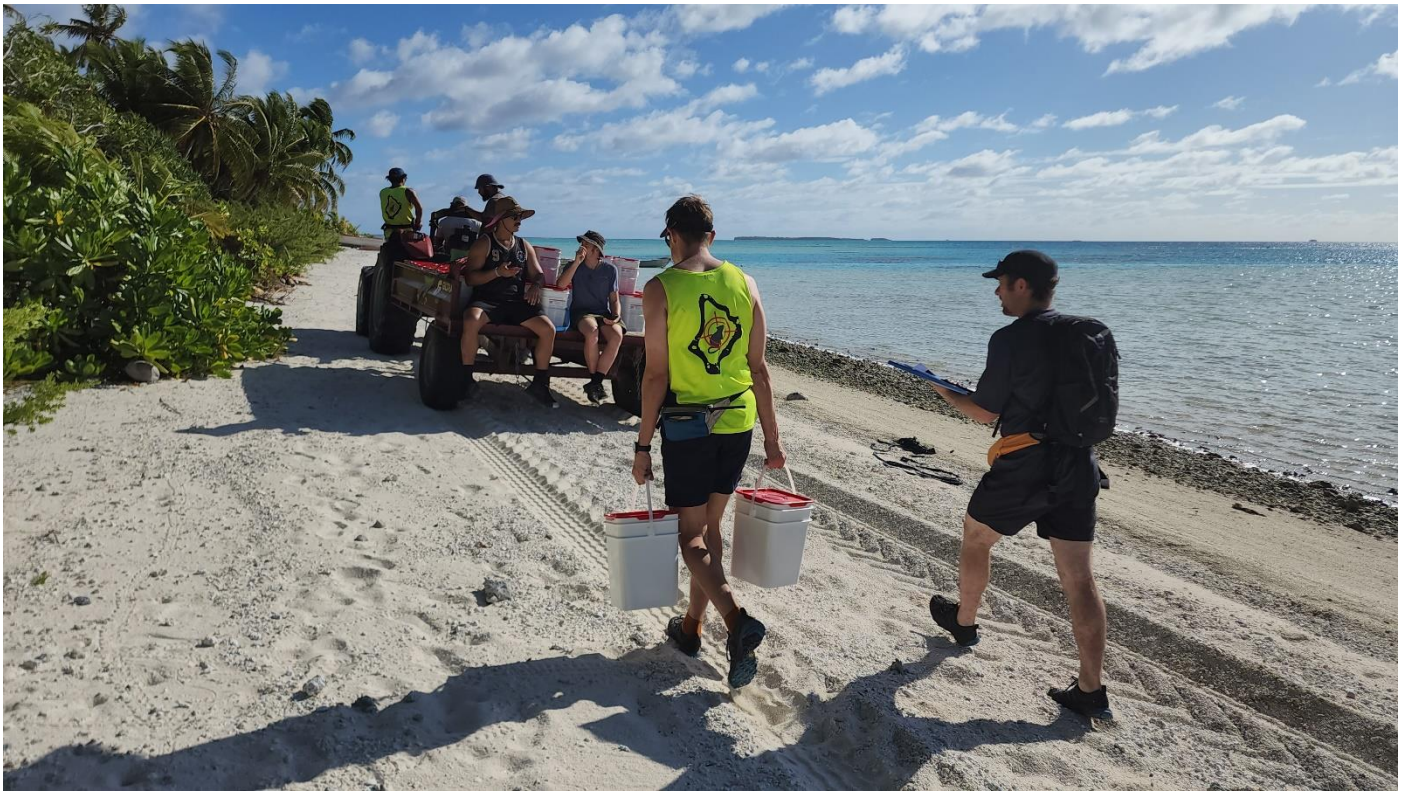
Above: Gathering of the wider community/team to discuss the baiting process and plan prior to the first bait application



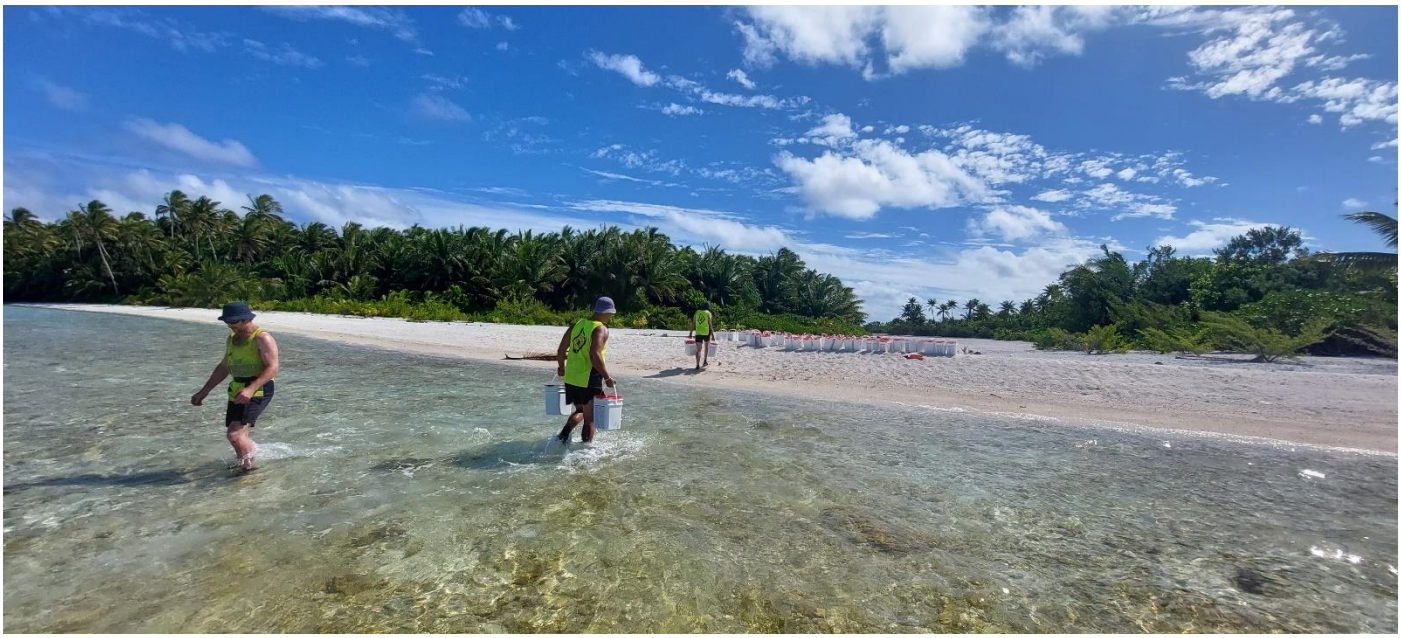
Above: Some of the team checking and priortising bait



Above: James, Mia, Henry, and John running over the bait caching plan on Home Island

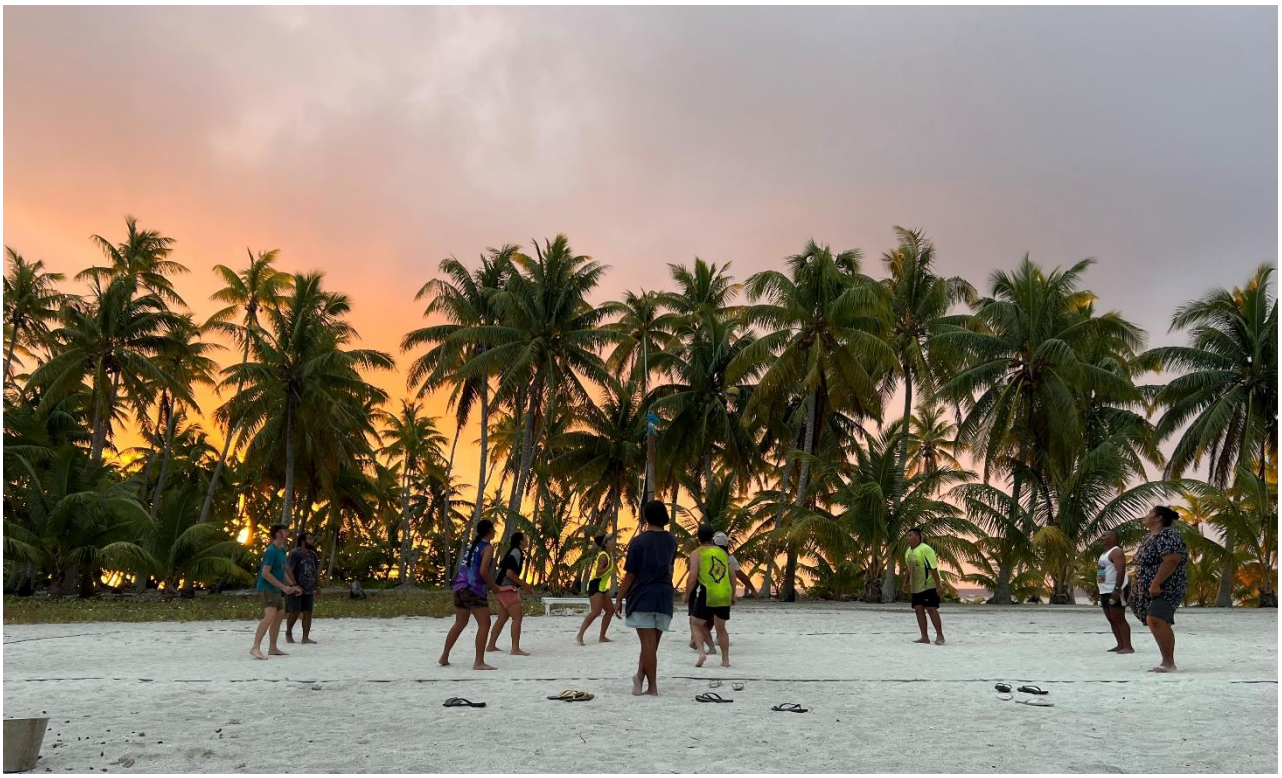


Above: Caching bait around Home Island



Above: Ferrying and caching bait around Cooks motu

Left: Julianna and Michael harvesting the ripe fruits of a starfruit tree to reduce potential food sources for rats



Above: A typical end of day scene, finishing off with a touch of volleyball

Below: The HK (Henry Koteka) 0600hrs fitness class