

Ocean Sampling Day Moorea - 24h of Tiahura, CRIOBE

The fifth of June was not only the day of the Venus voyage and the 2012 pilot for the 20th of June, it was also the day when Dawn Field together with Veronique Berteaux-Lecellier and Patricia Wecker decided, that one sampling point would not be enough and a 24h survey should be made to help broaden our knowledge on the microbial diversity in Moorea.

You could call it scientific passion or CRIOBE spirit, but by the next day we had a team of colleagues that were ready to support this project and would spend a whole day and night sampling.

Target site:

Tiahura, CRIOBE's long-term monitoring station. This site has a record history of more than forty years as well as a live probe that was installed at 20m depth in 1999 (<http://biomex.univ-perp.fr/CRIOBEData/>).

Logistics:

Tiahura is situated on the outer slope at the western end of the north shore of Moorea, only 20min away from the CRIOBE station. Luckily, The Intercontinental Moorea Resort&Spa (www.intercontinental.com) is located directly on the opposite side of the Tiahura pass in the lagoon. We were quite fortunate, because the Resort supported us by providing a bungalow, which reduced the boat time to 5-10min, which of course made our sampling and filtering easier.



5 o'clock in the morning and a long day ahead, Tiahura, and our "Field-station": a bungalow at the Intercontinental Moorea Spa and Resort

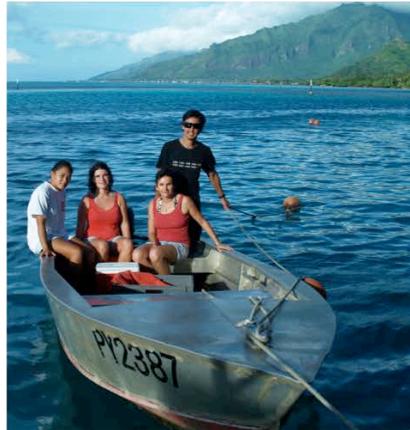
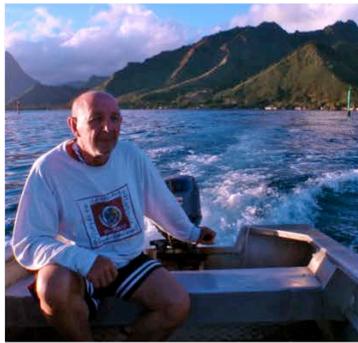
We formed three teams consisting of a Skipper and a Technical Assistant on board the sampling boat.

Team I, 2h until 7h: René Galzin and Véronique Berteaux-Lecellier

Team II, 8h until 16h: Pascal Ung and Mélanie Vaira'a

Team III, 17h until 1h: Yannick Chancerelle and Patricia Wecker

The 20th of June was supposed to be a pitch black new-moon-night and the pass is not marked. Therefore, to navigate securely, René, Yannick and Pascal had to light the way with special lights and glo-sticks from the bungalow, through the channel, along the corals and through the pass to our target Tiahura..



Sun-set over Moorea, Rene Galzin (Team 1) stirring Alu 5 in direction to Tiahura. Melanie, Patricia, Veronique and Pascal are ready to sample, and Yannick Chancerelle (Team 3) is securing the night shift with his Poti marara (a traditional polynesian boat for fishing MahiMahi (dolphinfish) and Tuna).

Measurements:

The weather was on our side. It is winter in the southern hemisphere, therefore the sea was calm and we were able to sample 4 times 1L of surface water in acid cleaned plastic bottles every hour, which were immediately stored on ice. In addition, we took samples for the analysis of inorganic nutrients and recorded physical parameters.

Patricia and Melanie filtered all samples by using Sterivex 0.22µm filters (Millipore) directly at the bungalow. Filters were sealed, instantly frozen and stored in liquid nitrogen until we got back to the station. Filters were finally stored at -80°C at CRIOBE and are ready to be sent off. Nutrients will be analyzed at CRIOBE.



Filtering at the field station: Morning has broken and Patricia is happily filtering, Skipper Pascal is supporting Melanie around lunchtime, and Melanie and Patricia are filtering and preparing bottles for the final hours.

Comments:

Thank to OSD and Dawn for giving us the opportunity to carry out this sampling. Filtering has a new meaning for me. It was an interesting day and a good experience for all of us. We are looking forward to the summer solstice 2012 (20th of December) maybe with Part II of the 24h of Tiahura. No full moon but at least a waxing one!

In the mean time, sampling will be continued monthly by the CRIOBE technician Benoit Espiau.

Food and moral support:

Pauline Bosserelle, Julie Petit, Ludovic and Enoha Lengagne.

We thank the Intercontinental Moorea Spa&Resort (www.intercontinental.com) for their support.

Patricia