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**DRAFT STANDARD FORM C** **PRELIMINARY CRUISE REPORT**

Cruise name/number: FK171005: Discovering Deep Sea Corals of PIPA

Authorizations:

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| --- | --- | --- |
| Coastal State | Authorization Document Number | National Participant(s) |
| Kiribati | 48/12/738 | Aaranteiti Kiareti |
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Scientist in charge of reporting:

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Brief description of scientific objective:

This is the first deep-water exploration of the atolls, islands, and seamounts of the eastern section of the Phoenix Islands Protected Area (PIPA). There is a good deal of information on the shallow corals reef habitats of the region, with long-term monitoring underway for the past 10-15 years. These reefs are among the most pristine in the world, and have had some protections in place for the past 10 years, and the area went entirely no-take fishing at the start of 2016. The deep-water habitats of the western side of PIPA were first mapped and exploratory dives conducted during the Okeanos Explorer cruise in March 2017. There has been no other deep-water work in the region.

This cruise focused on the mapping, exploration, and sampling of the deep-water corals and their associates on the flanks of the seamounts, atolls, and islands of PIPA. We examined the coral diversity, collecting samples for both genetic and morphological identification. We sampled the symbionts for identification and examined their behavior to elucidate their role in coral ecology. We also sampled the corallivores and the corals that they are preying upon to determine their effects in terms of coral physiology and microbial community structure. Finally, we furthered the development of new submersible technologies through the use of soft robotic manipulators and wavelength-specific lighting and camera systems to improve our ability to interact with and sample these environments.

**Update on anticipated dates for delivery of final results:**

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| Metadata: | Delivered – see link below |
| Raw Data: | Raw video data currently available on YouTube, Raw oceanographic data collected by R/V *Falkor* and ROV SuBastian will be deposited into R2R and MGDS as soon as possible by Schmidt Ocean Institute. Once the data is available links to the data will be available on the website listed below. |
| Processed Data: | Species identifications and abundance data within 1 year. Processed bathymetric data of PIPA will be processed by a third party and made available on MGDS as soon as possible in 2018. |
| Data Analysis: | Analyzed species distribution data available upon publication, within 2 years |
| WODC Data Registration (if applicable): |  |

**Append image or URL illustrating the route of the platform, locations where measurements were taken, and actual cruise track**:

Cruise website, including Cruise track, and Cruise log: <https://schmidtocean.org/cruise/discovering-deep-sea-corals-phoenix-islands/>

(this website will also include all data made publicly available in the future).

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