

First PacMAN Scientific workshop

23-24 November and 30 Nov-1 Dec 2020

[ONLINE]

Meeting Objectives

This meeting will bring together scientific experts who expressed interest in contributing to PacMAN and the project coordination team based at the OBIS Secretariat (Belgium) and the University of the South Pacific (Fiji). The goals of the meeting are to (i) introduce everyone to the PacMAN project, (ii) getting familiar with the projects, networks and systems of the scientific experts and (iii) provide advice on the different elements of the national monitoring plan including technical and scientific aspects, and more specifically “sampling, sample handling, molecular work, data management and policies and bioinformatics pipeline.

We will organize four online sessions which will last a maximum of 2 hours each. Because of the variety of different time zones of the participants, we suggest to hold the sessions between 7-9 PM UTC (which is 8-10 AM + 1 day in Fiji).

Draft Agenda

Session 1: Mon 23 November 2020 8-10.30 pm UTC **Join:** <https://zoom.us/j/97929444850>

- Introduction to PacMAN, coordinating team, scientific experts (max 10 mins presentations of each member, see list below) and exchange of first results of needs assessment, challenges and issues from local stakeholders.

Session 2: Tue 24 November 2020 8-10 pm UTC **Join:** <https://zoom.us/j/99550218282>

- Monitoring plan: based on preliminary stakeholder assessment and shared expertise in the project discuss sampling, sample handling and molecular work.

Session 3: Mon 30 November 2020 8-10 pm UTC **Join:** <https://zoom.us/j/94380394786>

- Monitoring plan: Discuss elements of Data management plan and policies and bioinformatics pipeline

Session 4: Tue 1 December 2020 8-10 pm UTC **Join:** <https://zoom.us/j/95856807924>

- Synthesis, discussion of outcomes, agreement on workplan and wrap-up.

Information for session 1:

To introduce each other and our background we would like each scientific expert to prepare a short presentation (10 minutes max) to introduce yourself and explain your area of expertise, the network or project that you represent, and experience that you can contribute to the project. We will do these presentations live. **If you cannot make it to this first session, we also welcome prerecorded presentations.**

Timeline

8-8.30 Welcome and Introduction

8.00-8.05	Welcome words	Ward Appeltans
8.05-8.10	Introduction to PacMAN	Saara Suominen
8.10-8.15	Introduction to the USP team	Joape Ginigini
8.15-8.30	Overview of stakeholder needs in Fiji	Gillianne Brodie

8.30-9.10 Monitoring design

8.30-8.40	<i>Monitoring design and genetic probes for invasive species in Australia</i>	Nic Bax
8.40-8.50	<i>Molecular tools for detecting marine pests</i>	Craig Sherman
8.50-9.00	TBA	Kevin MacKay
9.00-9.10	<i>Geans Project</i>	Pascal Hablutzet

9.10-9.15 5 minute break

9.15-9.35 ARMS program development

9.15-9.25	<i>Global ARMS Program and Ocean DNA Initiative</i>	Chris Meyer
9.25-9.35	<i>Status update for the European ARMS-MBON</i>	Matthias Obst

9.35-10.15 Data management initiatives

9.35-9.45	<i>Biodiversity Data Management</i>	John Deck
9.45-9.55	<i>Marine Biodiversity Observation Network (MBON)</i>	Frank E Muller-Karger
9.55-10.05	TBA	Neil Davies
10.05-10.15	TBA	Pier Luigi Buttigieg

Information for session 2:

Monitoring plan: based on preliminary stakeholder assessment and shared expertise in the project discuss sampling, sample handling and molecular work. We will start with reviewing again the current knowledge of stakeholder needs in Fiji. This will be followed by an open session and will allow discussion into the major points that are needed for building a functioning monitoring plan. The following questions can be used to guide the discussion:

Timeline

8-8.20 Introduction to USP facilities and sampling possibilities Joape Ginigini

Free discussion on the monitoring plan:

- What are the most important pitfalls that may be encountered during the initial biodiversity survey?
- What are the main recommendations for the initial monitoring plan?
 - Timeline
 - Sampled substrates
 - Analysed marker genes and primers?
- What is the best approach to building an invasive Species reference database
 - Existing databases in the Pacific and sequences?
- Opportunities for collaboration to build a standard method?

Information for session 3:

Monitoring plan: Discuss elements of Data management plan and policies and bioinformatics pipeline. This will be an open session and will allow discussion into the major points that are needed for building a functioning monitoring plan. The following questions can be used to guide the discussion:

- What are the possible approaches to manage data
 - Platforms/existing workflows at research institutions.
- What is needed to incorporate sequencing data to the data management workflow?
 - Data formats, important steps/considerations?
- What are the existing bioinformatics pipelines?
- What are the most important considerations for the bioinformatics pipeline
 - OTU/ASV algorithm?

- What are the policies that have to be taken into account and what are the best options?
 - Data policy
 - Nagoya Protocol
 - Other policies?

Information for session 4:

Synthesis, discussion of outcomes, agreement on workplan and wrap-up. In this session the PacMAN team will discuss a synthesis of the discussions in both sessions 2 and 3. Additions to each report can be made at this point as well as discussion regarding the next steps.