



ManaCo | Seascape genomics :

a new tool to support Coral reef
Management

Pointe-à-Pitre, Guadeloupe 15 Mars 2021

ATELIER DE TRAVAIL

Caraïbe



PROGRAMME

9h00 Accueil participants

9h10 Introduction (10 mn)

Dr. Malika René-Trouillefou

Université des Antilles, UMR BOREA, Guadeloupe

MANACO international network presentation

❖ *Session 1 : Présentation de l'état des lieux des récifs dans la Caraïbe*

9h20 Presentation (15 min)

Pr. Claude Bouchon

EcoRecif Environnement, Guadeloupe

Une nouvelle menace pour les coraux de la région Caraïbe : la SCTLD : « Stony Coral Tissue Loss Disease »

9h40 Presentation (15 min) visio-conférence

Dr. Henri Vallès

University of the West Indies UWI, Barbade

État et tendances des récifs coralliens à la Barbade

10h00 Presentation (15 min) visio-conférence

Dra. Dalila Aldana Aranda

Cinvestav IPN Mérida, Mexique

*Research and Advanced Studies of the queen conch *Strombus gigas* in the Caribbean.*



❖ *Session 2 : Suivi, Gestion, Protection des récifs des Antilles*

10h30 IFREMER Martinique (15 min) visio-conférence

Dr. Jean-Pierre Allenou

Dr. Aurélie Boisnoir

10h45 BRGM Guadeloupe (15 min)

Dr. Thibault Laigre

Observation et modélisation hydrodynamique et morpho-sédimentaire des milieux coralliens : suivis et développements en cours en Guadeloupe

11h00 Grand Port Maritime Guadeloupe (15 min)

Dr. Léna Jardin

Dr. Yann Fréjaille

"Life Adapt'Island : travaux en cours concernant la restauration des écosystèmes récifaux ».

11h15 Association Kap Natirel Guadeloupe (10 min)

M. Thibaud Rossard

11h30 Asso Mer Martinique (15 min)

Mme Amandine Limouzin

*Projet de restauration corallienne sur l'espèce *Acropora cervicornis*"*

11h45 Parc National Guadeloupe (15 min)

Mme Simone Mège

"Les missions de gestion au Parc national de la Guadeloupe ».

❖ *Session 3 : Seascape genomics*

14h00 Présentation (25 min)

Dr. Véronique Berteaux-Lecellier

CNRS, UMR Entropie, Nouvelle-Calédonie

Principe et finalités de la génomique paysagère

14h30 Présentation (25 min)

Dr. Gael Lecellier

Université Paris-Saclay Versailles, IRD, UMR Entropie, Nouvelle-Calédonie

La génomique paysagère en aide à la restauration et à la conservation récifale.

15h00 Atelier méthodologique (60 min)

Chaque participant devra se munir d'un ordinateur personnel et d'une possibilité de partage de connexion internet

16h00 Consortium ManaCo Caraïbe

Discussions - perspectives

FOREWORD

In 2016, the International Coral Reef Initiative (ICRI) and the United Nations Program (UNEP) called for innovative projects to counter the global crisis that is striking coral reefs worldwide. It is in this frame that IRD, EPFL and CNRS conceived the SABLE project. SABLE stands for “A Seascape genomics Approach to improve coral reefs conservation strategies against BLEaching”, a method based on the fundamental evolutionary principle of adaptation. In fact, corals already persisting in extreme environmental conditions might survive climate change, and this specific rare kind of corals is likely to exist anywhere around the world. The SABLE project aims at identifying these rare genetic variants making it possible for corals to resist to hot water temperatures and to favor their dissemination among a maximum number of populations. The corresponding proof of concept study was carried out in New Caledonia.

However, a practical application of the concept to conservation strategies is necessary. The goal of the MANACO symposium is to discuss innovation in reef conservation strategies. However, innovation in coral reef conservation can be considered under different perspectives. But innovation also relies in cooperation strategies and SABLE but also the MANACO initiative constitute evidences highlighting the synergistic advantages of international collaboration integrating a wide range of key competences.

The MANACO symposium welcomes coral reefs stakeholders and scientists from all around the world. The organizers hope to set the foundations for future collaborations between the participants and their institutions. Indeed, global challenges like coral bleaching require global responses and the three days of the MANACO symposium constitute an opportunity to define ours.



Véronique Berteaux-Lecellier is a senior researcher at the French National Research Center (CNRS) and is based at the ENTROPIE Unit (CNRS, UMR 250 / 9220 ENTROPIE - IRD), in Nouméa, New Caledonia (France). Her expertise lies in molecular and cellular biology, especially in cell behavior and intra- and inter-organism communication. Her research is focusing on coral comparative genomics and symbiont diversity analysis using cutting-edge technologies.



Stéphane Joost is a senior researcher and teaching associate at the Laboratory of Geographic Information System (LASIG) at the Ecole Polytechnique Fédérale de Lausanne (EPFL). He is the leader of the landscape genetics subunit and he pioneered the field of landscape genomics. His expertise in this research field is consolidated by the substantial number of featured works that described adaptation in numerous different organisms.



Dr. Gaël Lecellier, researcher and tenure associate professor at the University of Paris-Saclay, Versailles (France). Expertise in molecular biology, with focus on cellular genetics and functional genomics.

OBJECTIVES

Goal: promote seascape genomics as a new element in support of reef heritage management.

Means:

- 1- Bring together stakeholders and scientific from South Pacific, North Pacific, Caribbean, Indian ocean and Red Sea islands and territories.
- 2-Create an international consortium to disseminate and develop the approach.

CONTACTS

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