



Digging into sediments and microbes for nature conservation: Identifying the drivers of ecosystem processes for spatial conservation planning



Having performed the field trip in South Africa in May 2018, the team is about to complete the sampling campaign in April (Fiji) and May (Sénégal) 2019. Based on what we obtained thus far, we are excited by the first findings:

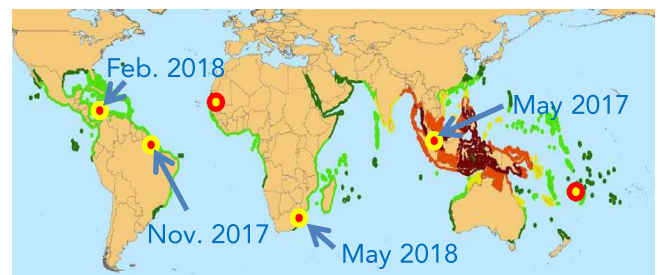
More than 50% of all known bacterial taxa could be identified in mangrove sediments, about half of the OTUs seem to be unknown and previously undescribed.

We observed both species- and site-specific differences in the bacterial community composition in the sediment.

Some bacterial taxa are dominant but relatively inactive, whereas less abundant taxa sometimes are the most active ones.

Among the many ecosystem services mangroves provide, the use of natural resources (here, mostly crabs in Northern Brazil) is often considered less important than coastal protection, "blue carbon" storage, cultural and esthetic values, or nursery functions.

As soon as we will have the complete data set from both -omics and stakeholder-communication at hand, we will try and spatially correlate these findings.



Along with the third internal Workshop (mid December 2018 at IPB, Halle), we presented the concept and approach of DiSeMiNation on the Annual Conference of iDiv. Further plans include questionnaire-based stakeholder-communication during the field trip to Sénégal and a stakeholder workshop in Fiji. First results will jointly be presented at the Mangrove Symposium in Singapore (July 2019), and we hope to have a first policy-brief on regional mangrove use and conservation at hand by then.

"Conservation-omics", the use of multidimensional data in an interdisciplinary approach to knowledge-based spatial conservation-planning, is the overarching aim of DiSeMination to ensure both sustainable use and protection of mangroves worldwide. We are confident that, by the end of the project, we will be able to provide a first roadmap for this avenue.