Lessons from the first large FBIP Project

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What is the SeaKeys Project?

SeaKeys is a coordinated, multi-institutional partnership, comprised of a diverse group of scientists, decision makers and the general public.
The SeaKeys project aimed to unlock marine biodiversity knowledge through the co-ordinated mobilisation, capture and dissemination of data, limited and focused new research and innovative knowledge generation, capacity building and information flow approaches.
Key Objective One

• Develop **new collaborations** to improve the co-ordination, management and dissemination of marine biodiversity data, information and knowledge.
Key Objective One
Achievements

• 13 co-investigators,
• >30 collaborations
• 19 new links and collaborations
Key Objective Two

• Unlock priority marine biodiversity records through the collation, verification and digitisation of existing historical and un-captured contemporary data and through citizen science initiatives
Key Objective Two

Achievements

150 815 new records unlocked

- Un-curated Specimen Occurrences from Iziko Museums Collections
- Observational species occurrence records from the UCT Ecological Survey

Citizen Science data - iSPOT
Key Objectives Three

• Undertake *genetic, species* and *ecosystem* research to support systematics, ecosystem description and evidence-based policy and management advice for priority taxa and ecosystems
Key Objective Three Achievements

• SeaKeys coral taxonomy and barcoding is feeding into monitoring for climate change
• Establish historical baselines and measure change in fish assemblages
• Mapping of sensitive taxa feeding into Marine Protected Area design
• Revised national marine ecosystem classification and maps for marine spatial planning include environmental assessments and decision making

Next NBA
Key Objective Four

• Ensure marine biodiversity data and knowledge is disseminated and applied through co-ordinated on-line platforms and application of science based management and policy advice

This objective was less successful due to delays in FBIP platform developments and data dissemination.
Key Objectives Five

• Pilot innovative capacity-building, knowledge generation and information flow approaches to increase, improve and apply knowledge in marine resource and ecosystem management, monitoring, global change management and marine spatial planning.
Key Objective Five Achievements

• 26 post grad students have progressed their studies with 15 completing their degrees to date.
• A total of 22 of the 12 planned workshop and training courses were held during the project.
  – Albe Bosman Wayne Florence – Data Standards and Data Cleaning Workshop
  – Dr David Obura (CORDIO, Kenya) : Coral Taxonomy
  – Dr. Christopher Mah (Smithsonian Institution) : Echinoderm Taxonomy
  – Dr Phil Alderslade (CSIRO, Austraila) : Soft Coral Taxonomy
Key Objective Five Achievements

• **36** species checklists produced - 31 are new and 5 are updated lists = **7 471** species (exceeding the target of 6608)
• A total of **336 online species pages** were compiled and for the SANBI species page platform (250 were planned)
• SeaKeys Bold (Barcoding) project registered (SEAKY) with **131** Barcode Index Numbers
Key Objective Five Achievements

• 42/13 peer reviewed papers,
• 2 Book chapters (additional),
• 28/10 planned popular articles,
• 45 Conference outputs,
• 1 Temporary Exhibition
• 4/4 planned press releases
Challenges/Lessons

• Coordination – Large Project requires almost full time coordinator – PI became the technical lead for Operation Phakisa MPA network during SeaKeys
• Delays and challenges in data management and delivery.
  – development of FBI templates and dissemination platforms
  – challenges in development of checklist
  – challenges in adopting of occurrence record templates
Challenges/Lessons

• Challenges in data quality
• Overestimation of occurrence records
• Unexpected expenses and procurement
• Taxonomic impediment
• Delays due to student protests, illness, technical challenges with DNA extraction or changing circumstances
Key Lesson

“Together we can do more”
– Yonah Seleti, 2017