

Approach to the Development of a Comprehensive Classification System for Mapping Coastal Environments of Great Abaco Island, Bahamas

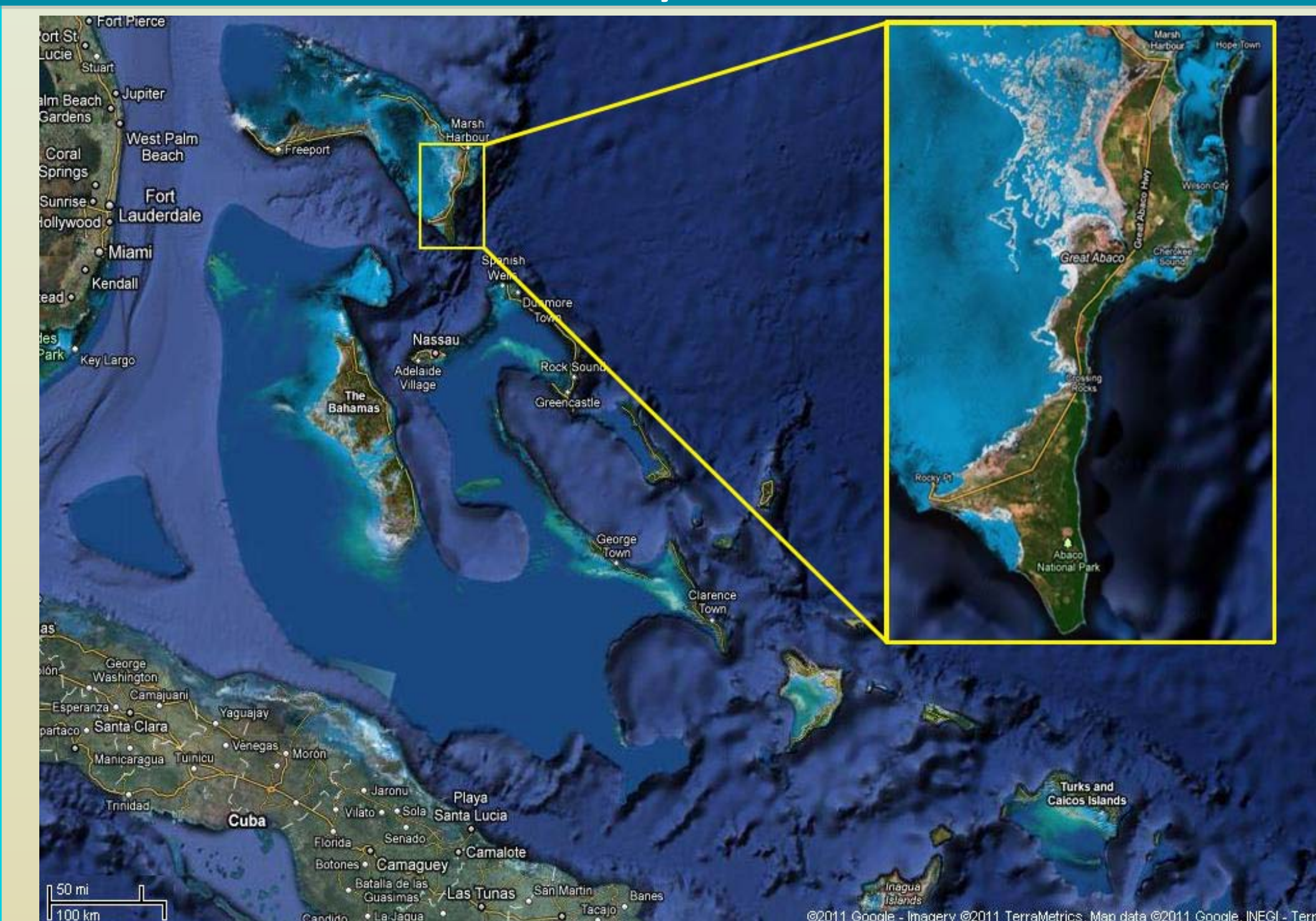
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Introduction

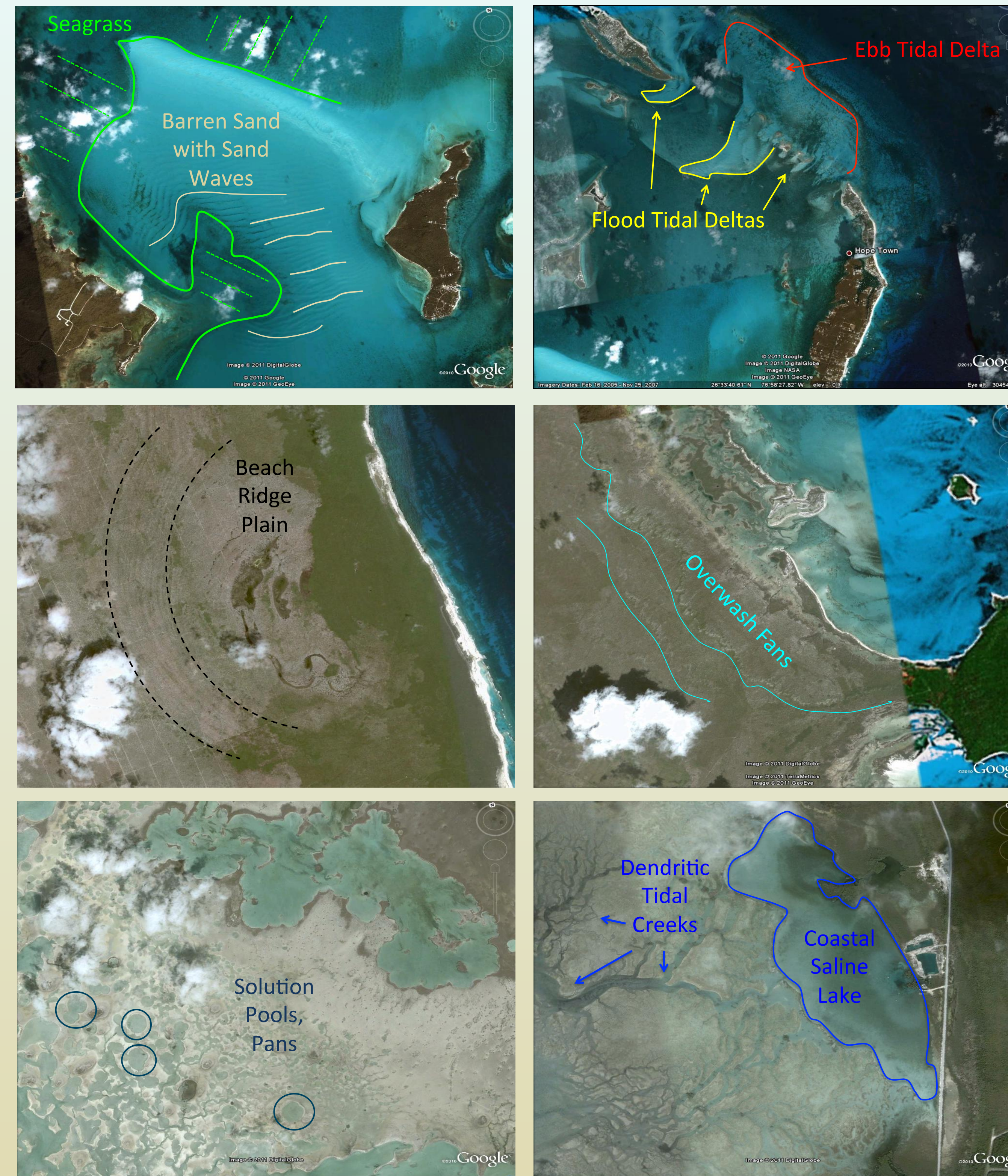
The Bahamian Archipelago exists as a series of carbonate islands and shallow banks comprised of a multitude of diverse sub-tropical coastal environments. Satellite imagery and aerial photography were analyzed to identify, delineate and map the geomorphological features of the coastal environments of southern Great Abaco Island. The final results of the study yielded a new classification system applicable to the area from the adoption of terms from multiple recognized classification systems. This classification system could be utilized in the establishment of effective coastal conservation and resource management plans for other islands in the northern region of the Bahamian Archipelago.

Study Area



Source: Google Earth

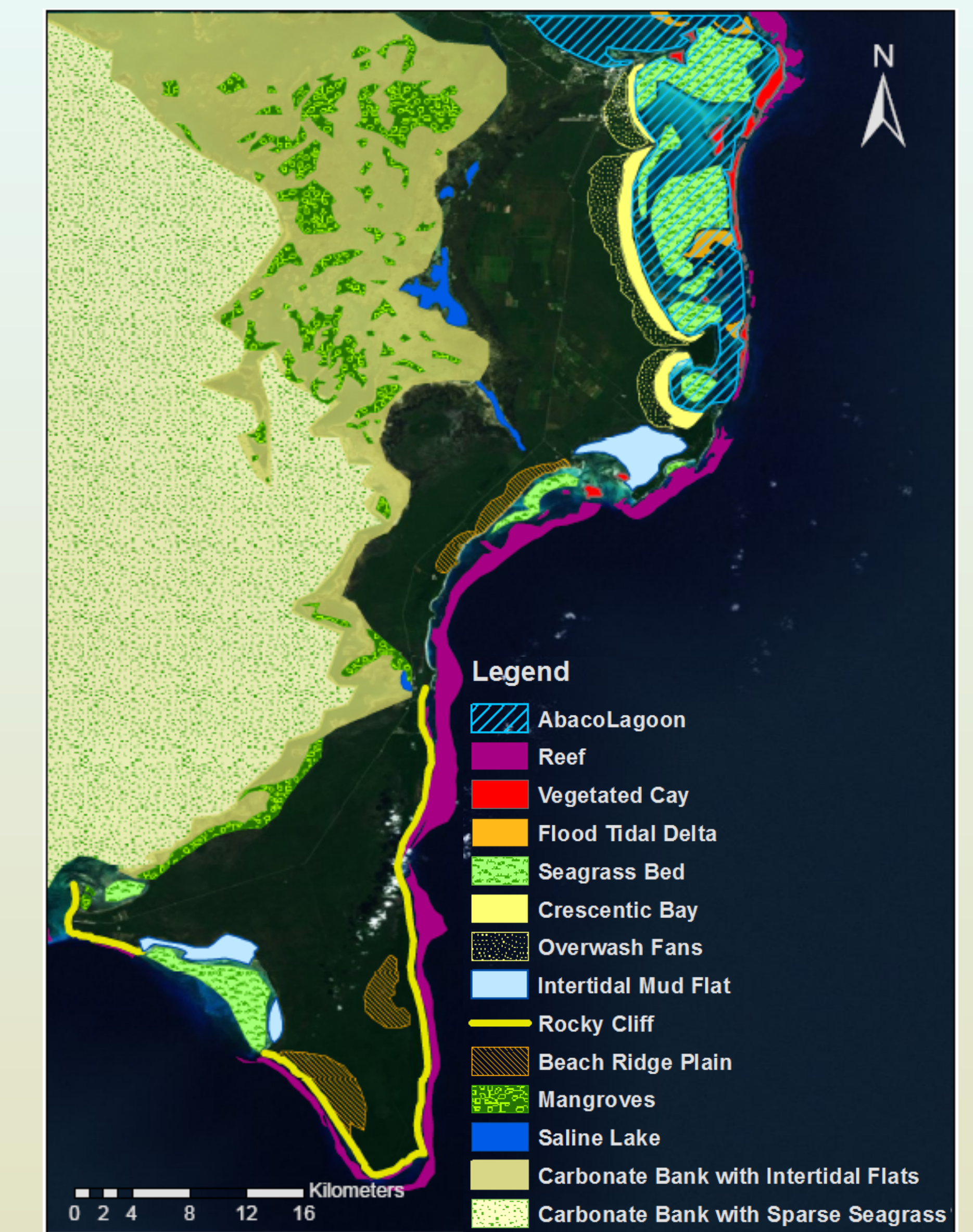
Methodology



Results

- Marine** (Cowardin *et al.*, 1979)
 - Bahaman Reefs (Guilcher, 1988)
 - Submarine Ridge (Storr, 1964)
- Estuarine** (Cowardin *et al.*, 1979)
 - Tidal Deltas
 - Ebb Tidal Deltas
 - Flood Tidal Deltas
 - Tidal Channels
 - Barren Sand (Banks, 1999)
 - Sand Waves
 - Seagrass Beds
- Upland**
 - Island Cays (After Stoddart *et al.*, 1978)
 - Vegetated Cays
 - Sand Cays
 - Great Abaco Island
 - Rockland (Sealey, 2006)
 - Ridgeland (Sealey, 2006)
 - Coastland (Sealey, 2006)
 - Crescentic Bays
 - Overwash Fan, field, splay (Finkl, 2004)
 - Headland Bay Beaches
 - Intertidal Mud Flats
 - Mangroves
 - Beach Ridge Plains
 - Rocky Cliffs
 - Intertidal Carbonate Flats
 - Sand Cays (After Stoddart *et al.*, 1978)
 - Mangrove Cays (After Stoddart *et al.*, 1978)
 - Solution Pools, Pans (Wentworth, 1944)
 - Dendritic Tidal Creeks
 - Saline Lakes
 - Subtidal Carbonate Bank
 - Sparse seagrass beds
 - Barren Sand (Banks, 1999)

Final Map



References

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