Biodiversity conservation in social-ecological systems: "Mapping the local discourses on biodiversity conservation in Singaporean mangroves".

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Background

Continued urban development and increasing demand for fresh water have led to a drastic decline of Singapore's mangrove area. Although the need for effective conservation remains urgent, the lack of agreement on 'what matters' in conservation inhibits and paralyses the debate on defining social and ecological 'effective' biodiversity conservation.

Aim of study

1. Outline and analyze all the existing viewpoints on mangrove biodiversity conservation.

2. Elucidate potential areas of consensus or dis-consensus in order to locally increase effectiveness of biodiversity conservation (win-win situations)

3. Contribute to the research of a widely applicable biodiversity conservation methodology within terrestrial and aquatic social-ecological systems.
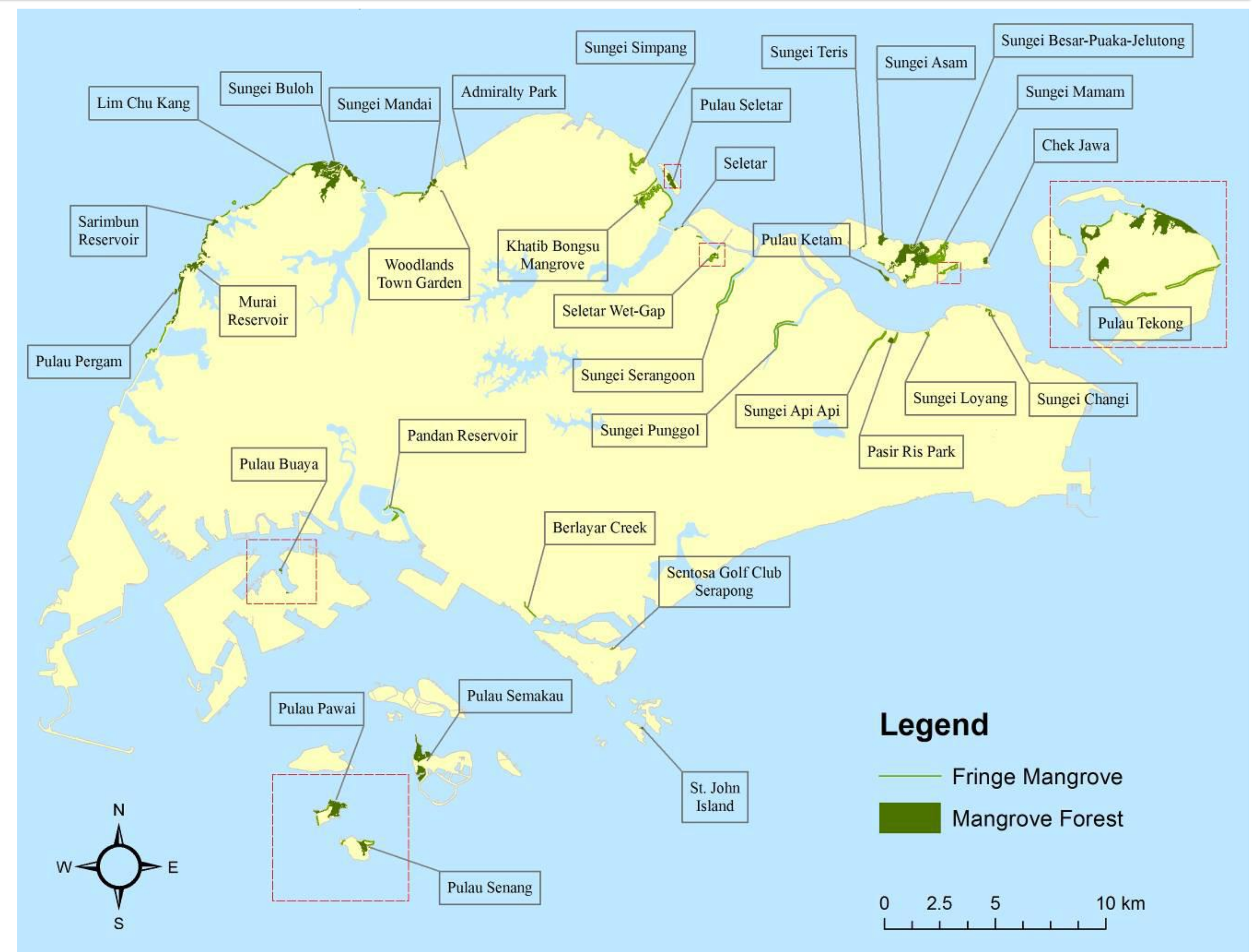

Fig. 1: Current mangrove extent in Singapore (Yee et al., 2010).

Material & Methods

The analytical framework we apply, entails evidence-based conservation. It also considers the plurality of discourses and their value as source of knowledge with regard to BD (inclusive conservation). To map and analyze discourses we will make use of the Q-methodology. This method involves 5 steps, and allows us to uncover people's subjectivity (opinions, viewpoint, beliefs etc.) concerning biodiversity conservation without using prearranged categories.

Concourse

Step1: Defining the concourse
• Literature study

Step2: Development of the Q-sample: representative illustration of the concourse by 30-50 statements

Q-set

P-set

Step3: Selection of the P-set: identifying stakeholders.

Step 4: Q-sorting: rank the statements accordance to the person's point of view.

Q-sorts

Discourses

Step 5: Analysis and interpretation:
• factor analysis
• Rotation