

## Supplementary Material 2: Main views of scientists and MPA managers in Project 1 (from Pelletier et al. 2005).

<b>1. A variety of MPAs and MPA managers</b>
<ul style="list-style-type: none"><li>• Several legal instruments entailing different governances (state, region, council, and local stakeholder initiatives)</li><li>• Differing MPA histories: distinct ages, different and evolving management objectives</li><li>• Several levels of management: MPA staff, participatory committees, environmental administration, national agency</li></ul>
<b>2. Scientists with distinct interests about MPAs</b>
<ul style="list-style-type: none"><li>• View 1: MPAs as a laboratory for studying ecological or socioeconomic processes</li><li>• View 2: MPAs as a management instrument within the dynamics of the coastal social-ecological system</li><li>• Contribution to MPA ME assessment for decision-support</li><li>• Expertise provider for MPA activities</li></ul>
<b>3. Existing interactions between MPA managers and scientists</b>
<ul style="list-style-type: none"><li>• MPA scientific committees: an official committee for discussing high-level scientific issues</li><li>• Research projects do not always involve actual interactions with managers</li><li>• Management plans formalize the stakes, goals, and management orientations and are an opportunity for framing science inputs to MPA</li><li>• Private consultants have variable expertise level; MPAs sometimes confuse them and academic scientists</li></ul>

<b>4. MPA manager' perceptions</b>
<ul style="list-style-type: none"><li>• Mismatch in time frames between management and science: MPA projects take years, but management issues may change very shortly</li><li>• Lack of communication on research projects and their outcomes</li><li>• From small MPAs to large parks: MPA are part of the larger picture of coastal management</li><li>• Experienced redundancy between projects</li><li>• MPAs need scientific activities, including research</li><li>• Lack of operational and rigorous outcomes: science from consultants may not meet objectives</li><li>• Need for an operational science-based toolbox for MPA managers</li></ul>
<b>5. Scientists' perceptions</b>
<ul style="list-style-type: none"><li>• Mediating and facilitating structures and organizations are needed</li><li>• Long-term science academic observatories should be mobilized for MPA and coastal management</li><li>• Existing studies and data should be made more accessible to scientists, in particular those conducted by consultants</li><li>• Monitoring should be made more systematic and based on protocols adapted to both assessment and research goals</li></ul>
<b>6. MPA managers' knowledge needs</b>
<ul style="list-style-type: none"><li>• Ecosystem connectivity</li><li>• Better appraisal of the actual vulnerability of protected species</li><li>• Data on uses in and around MPAs: characterization, assessment of pressures. Fishing (professional, recreational, and illegal), diving, boating, and the interactions between them</li><li>• Maps of habitats, biodiversity and uses are indispensable</li><li>• Uncertainties and risks must be quantified and integrated in the assessments</li></ul>