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Knowledge and functional management outside Dronning Maud Land (DML)

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Knowledge about ecosystem functions and about the extent of human activities and influences is critical to good management, and scientific data about changes in the different components of the ecosystem is essential for any functional management of an area. A white paper about Norwegian policies and interests in the Antarctic (Meld. St. 32 (2014–2015)) states that a sound knowledge base is essential for the Antarctic Treaty parties to manage the environment of the treaty area responsibly and effectively. Norway adds to this knowledge base through research. Research is also essential for meeting Norway's obligations under the Environment Protocol and the CAMLR Convention. Despite the extensive research carried out in the Antarctic, there are still significant gaps in our knowledge as to which species are present, where they are found and how abundant they are. We also know little about the effects of the combination of stresses on the environment etc. Our view of the status of environmental values in the Antarctic is therefore incomplete. Because the base of information for managing Antarctic resources is limited, annual quotas are often set using a precautionary approach. Furthermore, MPAs can be important means of conserving natural assets and ecosystems, and may also be a tool for the sustainable management of marine resources. The white paper emphasises that decisions to designate MPAs should rest on solid science; their purpose should be clearly defined and their protective measures should be effective, targeted and suitable for long-term protection of the natural environment and ecosystems. Thus, it is essential for any functional management of an area or activity, to development and implement good procedures for how to identify knowledge gaps and how these should be given priority and finally filled. Therefore, the Norwegian Polar Institute has started a process in which we assess the existing knowledge on the status of environmental values, identify knowledge gaps and give advice on future research, mapping and monitoring needs outside DML. This process will be presented at the MEASO 2018 Conference.