Seagrass monitoring in the marine park

by Dr Cindy Bessey, Parks and Wildlife

Seagrasses are flowering plants found in the ocean that often form dense meadows. These seagrass meadows provide a food source for a multitude of organisms, including fish, birds, and invertebrates. In fact, seagrass meadows are generally more productive than land crops, rivalling even corn and sugar cane in productivity. Seagrass meadows also provide nursery habitat for economically important finfish species, as well as habitat for some endemic and protected species. Seagrasses help to stabilise coastal sediments and play a critical role in maintaining our coastlines.

The Ngari Capes Marine Park contains some of the most extensive temperate seagrass communities on the west coast. The seagrass communities within the marine park are generally undisturbed but globally, seagrasses are one of the fastest declining habitats on earth. Seagrass communities are threatened by human impacts from coastal development, nutrient input from catchment activities, stormwater run-off and sewage discharge, as well as unregulated mooring and anchoring. To ensure the seagrass habitats of the Ngari Capes Marine Park remain healthy, the Department of Parks and Wildlife is establishing a seagrass monitoring program throughout the park.

Parks and Wildlife's Western Australian Marine Monitoring Program (WAMMP) assesses the health of seagrass communities by determining the condition of seagrass at permanent sites throughout the park. Divers use underwater markers to denote transect lines at each site, enabling them to return to the same location over time. Divers then swim along these lines, counting the number of seagrass shoots and taking pictures of the seagrass canopy to determine seagrass cover. Initial surveys establish a baseline for future comparison, which provides scientists and managers with a way to detect any changes in the health of the seagrass over time. In February this year, Parks and Wildlife district and marine staff established seagrass sites at Geographe Bay and Cowaramup Bay. Equipped with dive slates, compasses, markers, hammers, measuring tapes, rulers, cameras, underwater paper and pencils, staff descended to depths of up to 18 metres to survey the seagrass communities of the Ngari Capes Marine Park.

Photo: Cindy Bessey DPaW.

Staff establish a seagrass transect and count the number of shoots during WAMMP monitoring within Geographe Bay.