

## INSTITUTO POLITÉCNICO NACIONAL CENTRO INTERDISCIPLINARIO DE CIENCIAS MARINAS



## Repositorio Institucional

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## Outstanding appearance of *Ruppia maritima* along Baja California Sur, Mexico and its influence in trophic networks

Jorge Lopez-Calderon, Rafael Riosmena-Rodríguez, Juan M. Rodríguez-Baron, Javier Carrión-Cortez, Jorge Torres, Alf Meling-López, Gustavo Hinojosa-Arango, Gustavo Hernández Carmona & Jaqueline García-Hernández

Human impact and global warming are driving major modifications to the world's ecosystems, the coastal zone being one of the most damaged. Seagrass meadows constitute coastal communities that have experienced great losses worldwide. The dominant seagrass in the meadows of the Pacific coast of North America is Zostera marina. There is evidence that Z. marina has been replaced in some places by the opportunistic seagrass Ruppia maritima with important implications for the trophic connections of local ecosystems. In México, there are few reports on the distribution and loss of seagrass meadows. Here, we report on the importance that R. maritima has gained in three wetlands of northwest México, replacing Z. marina and modifying local trophic networks. We made extensive samplings on Z. marina and R. maritima meadows, recording shoot density and marking their spatial distribution with GPS. We included information on the presence of R. maritima at other wetlands of northwest México from historical reviews and current sampling. R. maritima was recorded in 29 localities, 3 of which are new records. Their shoot density and spatial coverage were highest in late fall and decreased in late spring, while Z. marina meadows increased after the reduction of R. maritima meadows. R. maritima now constitutes a primary food source for green turtles in the sampled wetlands, something unprecedented a few years ago. Improvement of wetland management plans is needed to stop environmental degradation, R. maritima invasion, and the loss of ecosystem functions.<br/>
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Palabras clave: marine protected areas, Invasive species, aquatic plants, sea turtles, eelgrass, Wigeongrass

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