

許厝港人造感潮濕地之同功群鳥類棲地適合度探討

A Study on the Habitat Suitability Index for Migratory Shorebird Guild in the Created Tidal Wetland of Xucugang Important Wetland

國立臺灣大學水工試驗所研究員 國立臺灣大學水工試驗所計畫研究專員 國立臺灣大學生態學與演化生物學研究所碩士生 社團法人中華民國溪流環境協會經理 國立臺灣大學生態學與演化生物學研究所教授

黃國文 楊欣樺 曾威捷 林志融 李培芬
Gwo-Wen Hwang Hsin-Hua Yang Wei-Chieh Tseng Chih-Jung Lin Pei-Fen Lee

摘要

許厝港人造感潮濕地原為被佔用之公有土地，經桃園市政府於 2018 年將遭漁塭佔用之公有地約 12.6 公頃收回，並規劃營造為感潮濕地，復育為鳥類喜好之棲地環境。於 2020 年初營造為將近 10 公頃之感潮濕地，此一感潮復育濕地為臺灣第一個大尺度之濕地復育營造案例，為臺灣濕地經營管理之亮點。許厝港濕地剛完工初期僅進行生物及水質監測，而後加入水文環境特性監測。由文獻分析成果得知，目前許厝港濕地內之潮汐水位潮差約為 0.38 公尺、濕地外約為 1.50 公尺；另由全潮測量成果分析，濕地內水體交換率不佳。本研究以 2023 年 1 月至 2024 年 1 月之水鳥同功群調查資料，建置濕地內及濕地外之水鳥同功群棲地適合度指標(HSI)。由分析成果可知，水鳥濕地內之 HSI=1 時之高程約為 0.00 公尺，濕地外之 HSI=1 時之高程約為 0.55 公尺，兩者對應之浸淹時間約為 99%及 61.7%，由於目前濕地外鳥況較濕地內佳，故將建議將濕地內之浸淹機率調整為類似濕地外，以進行濕地棲地品質優化管理。

關鍵詞：人造感潮濕地，同功群鳥類，棲地適合度

Abstract

Xucugang Tidal Wetland, originally occupied public land, was reclaimed by the Taoyuan City Government in 2018. Approximately 12.6 hectares of public land occupied by fishponds were reclaimed and planned to be transformed into a tidal wetland, restored as a preferred habitat for birds. This tidal wetland restoration is Taiwan's first large-scale wetland restoration project, representing a highlight in Taiwan's wetland management. By early 2020, nearly 10 hectares of tidal wetland were created. Initially, only biological and water quality

monitoring were conducted at Xucuoogang, followed by hydrological environmental characteristic monitoring.

Literature analysis reveals that the tidal range within the wetland is approximately 0.38 meters, compared to about 1.50 meters outside the wetland. Full tidal measurement analysis indicates poor water exchange within the wetland. This study used waterbird functional group survey data from January 2023 to January 2024 to establish Habitat Suitability Indices (HSI) for waterbirds inside and outside the wetland. Analysis shows that the elevation corresponding to an $HSI=1$ for waterbirds inside the wetland is approximately 0.00 meters, while outside the wetland it is about 0.55 meters. The corresponding inundation times are about 99% and 61.7%, respectively. Since bird conditions outside the wetland are currently better than inside, it is recommended to adjust the inundation probability inside the wetland to be similar to outside, to optimize wetland habitat quality management.

Keywords: Created Tidal Wetland, Migratory Shorebird Guild, Habitat Suitability Index