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Dolphin Watch: Trends in Indo-Pacific bottlenose dolphin *(Tursiops aduncus)* distribution based on long-term citizen science monitoring in the Swan-Canning River park, Western Australia

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Dolphin Watch was developed in 2009 from a government and university partnership for engaging community in collecting long-term scientific data on Swan-Canning River park bottlenose dolphins; river-health indicators requiring monitoring for securing their future in an urbanised and changing environment. Overall aims of *Dolphin Watch* are to improve the community's awareness and care of the River park, improve the knowledge-base for effective management of resident bottlenose dolphins, and demonstrate it is possible through cost-effective citizen science. The objectives here are to: 1) identify the extent of dolphin distribution within the River park, 2) identify long-term dolphin hotspots and their seasonal use for life processes, and 3) compare presence-only with presence/absence distribution models to explore the potential for presence-only monitoring. To date 1,034 citizen science volunteers have been trained. Over 22,500 monitoring surveys reporting dolphin presence/absence, group size, calf presence, behaviours, search effort, location, date and time have been submitted. Over the last half decade the mean number of dolphins sighted each year has remained stable at between 6-9 sightings day^{-1}. Consistent foraging hotspots were near the Swan River and Canning River entrances and the Narrows Bridge close to Perth's CBD. Dolphins occurred near the Narrows Bridge more often in autumn/winter, and in Fremantle Inner Harbour in autumn/winter/spring than in other seasons. Preliminary tests comparing presence-only with presence/absence models indicate similar outputs across most of their distribution. The program is ongoing; communication of its progress and science outputs benefits other projects worldwide through improved knowledge for designing and managing such programs.

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ABSTRACT BOOK