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A review of the Fitzroy River, Western Australia sawfish project and the implications of its findings in regards to anthropogenic disturbances

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Given the Critically Endangered status of the euryhaline freshwater sawfish (*Pristis pristis*), it is vital to understand how modifications to its habitat may impact its fitness. The Fitzroy River, Western Australia, which arguably houses one of the largest assemblages of juvenile *P. pristis* in the world, is under constant threat of mining, water abstraction, irrigation and hydroelectric damming proposals. Beginning in 2002, this study has monitored changes in relative abundance, movements and population dynamics of *P. pristis* in the Fitzroy River using catch, fishing effort and tagging data from 381 *P. pristis*. Results from this study demonstrate that the movements, areas occupied and make-up of this assemblage change seasonally and/or annually and also vary ontogenetically. Recent investigations have shown that relative abundance of young of the year in upstream freshwater pools is significantly related to the total discharge of the preceding wet season. In years with large wet seasons, this can lead to large numbers of YOY in pools downstream of barriers, increasing intraspecific competition and decreasing the fitness of individuals. Installations of fishways may be a means to prevent such a build-up, and current investigations are assessing the potential impact of fishways on YOY *P. pristis*.

*Keywords*: Sawfish, *Pristis pristis*, barrier, river, Western Australia, euryhaline

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