

Insights on whale shark populations and evidence for their historic rise and recent decline

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A whale shark. Credit: Simon Pierce

In the largest study on the genetics of whale sharks conducted to date, researchers found that the world's biggest fish likely exist in 2 distinct populations with minimal connectivity between the Indo-Pacific and the Atlantic Ocean. The findings suggest that mixing of whale sharks between the Indian and Atlantic was and is rare.

The *Molecular Ecology* investigators also found a significant and likely recent population expansion, but a very recent bottleneck might have gone undetected as genetic diversity at Ningaloo Reef in Australia has declined during 5 consecutive recent years.

In the future, genetic analyses can greatly increase researchers' still very limited understanding of [whale shark](#) ecology and the status of what appears for now to be at least 2 populations.

More information: Vignaud, T. M., Maynard, J. A., Leblois, R., Meekan, M. G., Vázquez-Juárez, R., Ramírez-Macías, D., Pierce, S. J., Rowat, D., Berumen, M. L., Beeravolu, C., Baksay, S. and Planes, S. (2014), Genetic structure of populations of whale sharks among ocean basins and evidence for their historic rise and recent decline. *Molecular Ecology*, 23: 2590–2601. [DOI: 10.1111/mec.12754](https://doi.org/10.1111/mec.12754)

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