

When and where international management is needed to save Pacific marine predators

Migratory marine species often face more conservation challenges than non-migratory species simply due to the fact that they may cross many geopolitical boundaries during the course of their migrations. For example, leatherback turtles may hatch on a strongly-protected beach, but then travel through areas and countries where protections are more lax, before finally making it to the high seas where there are virtually no protections at all. Protecting migratory marine species like leatherbacks requires many different countries working together, especially with regard to the high seas, to ensure these species are protected throughout their full migratory ranges.

The authors used tracking data from the Tagging of Pacific Predators project to determine migration ranges for 14 species and the countries responsible for protection within those ranges. With this data, countries can make informed decisions in partnership to offer protections over a species's entire migratory range. The authors were able to determine which EEZs these species visited, the proportion of time they spent in each EEZ and the high seas, and the timing of these visits (Figure 1).

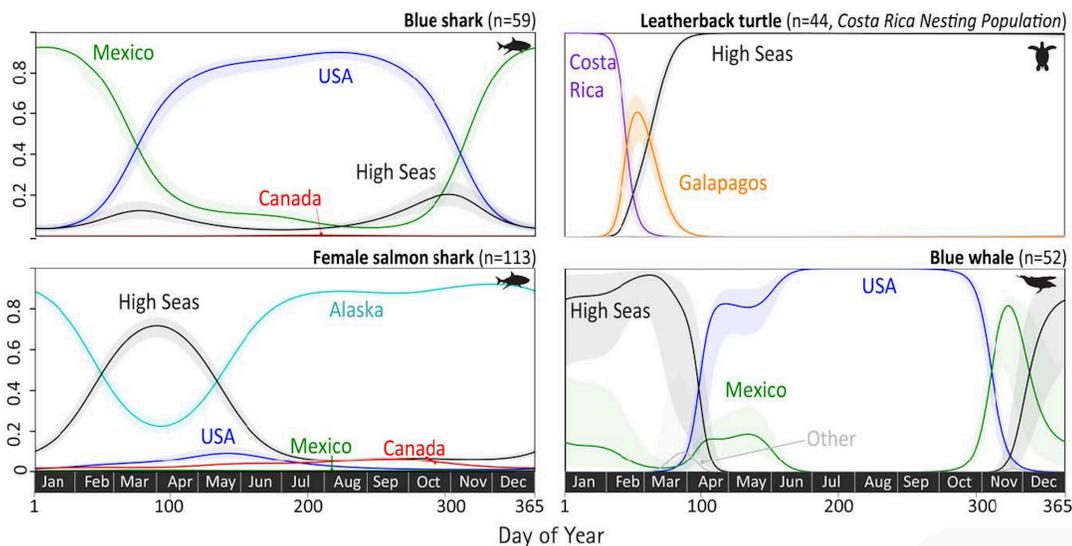


Figure 1. Management zones visited by selected species, and the times of year these visits occur. This is a sample of the data illustrated in Fig. 2 of the full-text document (p. 14).

As shown in the figure above, species like white sharks and leatherback turtles spend the majority of their time in the high seas. This provides further evidence that international cooperation is absolutely necessary to save critically-endangered species like leatherbacks (Figure 2). Models like the Commission for the Conservation of Antarctic Marine Living Resources, and the Northern Fur Sea Treaty, have shown that such cooperation can be achieved.

This is a summary of:
The political biogeography of migratory marine predators

Accessible at:
<https://marxiv.org/3p4eb>

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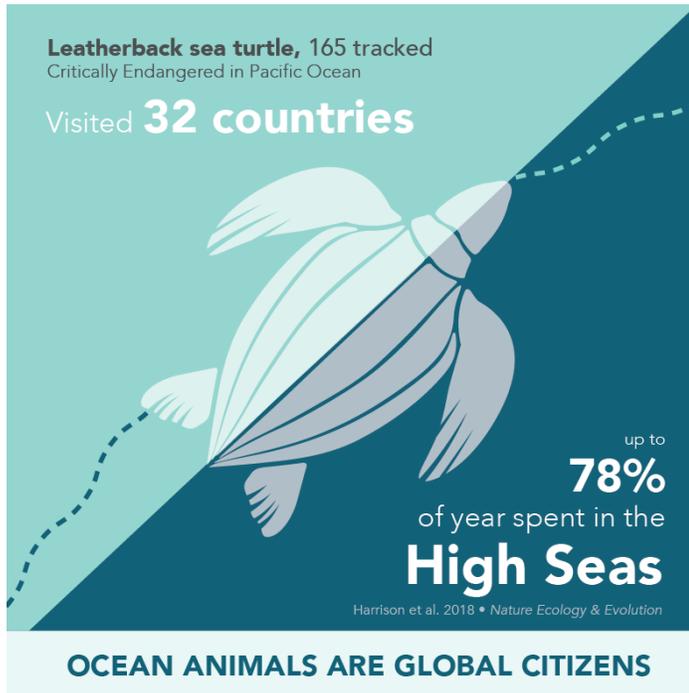


Figure 2. Pacific predators, like leatherback turtles, spend the majority of their time in the high seas.

Interested parties should note that supplementary materials are available in the linked OSF Project to this research: <https://osf.io/c83v9/>. R scripts are available on GitHub: <https://github.com/autumnlynn/political-biogeography>.

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