Harmful algal blooms (HABs) are an emerging concern for mass stranding and mortality of sea turtles.

**OVERVIEW OF S AxITOXIN**

Saxitoxins are chemicals produced by dinoflagellate species, components of marine plankton communities. Dinoflagellates are central to marine food webs, with their primary consumers including crustaceans, fish, jellyfish, and salps. Secondary consumers that feed on planktivorous species include sea turtles. HABs or red tides are of concern as predators may become poisoned. Paralytic Shellfish Poisoning (PSP) is known from humans and animals including sea turtles that have preyed upon food sources with concentrated chemicals such as saxitoxin. PSP affects sodium ion intake into cells of affected individuals, and can lead to lethargy, disorientation, impaired motor coordination, muscular paralysis, choking, respiratory paralysis, and difficulty with submerging. These clinical signs may be similar to some effects of pathogens such as spirorchiid trematodes. PSP is the most toxic syndrome along the Pacific coast of North America, where additional monitoring is warranted to distinguish it from pathogenic infections.

Preliminary observations suggest that recovery trajectories of sea turtles with PSP may be rapid (hours) relative to spirorchiidiasis rehabilitation (weeks). Short periods in captivity in a resting state, with regurgitation of potentially poisonous stomach contents of gelatinous organisms, may aid in PSP rehabilitation. More research is warranted on this topic.

**NEXT STEPS**

It is important to report apparently sick or dead sea turtles to authorities, and to report suspected algal blooms in the area if mortality is seen. Reports may be made to stranding hotlines: https://www.fisheries.noaa.gov/state-coordinators-sea-turtle-stranding-and-salvage-network

**SUGGESTED READING**


