Movement, Habitat Use, and Seasonality of Coastal Sharks in the Lower Florida Keys

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Collaborative passive acoustic arrays have provided robust coverage throughout the Western North Atlantic, allowing for the long-term monitoring of sharks with wide scale movement patterns. Through this research, research groups have identified the Florida Keys National Marine Sanctuary as important habitat for several large coastal shark species. In addition, data has revealed that significant numbers of sharks from The Bahamas and East Coast of Florida transit to the Florida Keys, with many continuing to the Gulf of Mexico. The complete drivers of this movement is not fully understood, but seasonality and parturition are significant factors. However, past telemetry data relied heavily upon individuals tagged outside of the Florida Keys, and therefore monitored individuals may have been more transient in nature. In recent years, tagging efforts have focused on the Lower Florida Keys in order to better represent local shark behavior and understand the long-term space use, movement, and distribution of coastal sharks in the area. Sharks have shown a seasonal residency pattern for the area, which peaks in the winter through spring months and is followed by dispersal to both the east and west coasts of Florida. This data helps to improve our understanding of the extent to which the Florida Keys National Marine Sanctuary is used by multiple coastal shark species, and the importance of this area in connecting shark stocks from the Gulf of Mexico and the Atlantic Ocean.