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## Baja California's biological transition zone: refuges for the California sardine

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The information on the transitional areas between the temperate and tropical domains at the southern extent of the California Current System is reviewed and described, particularly searching for the relative isolation or interchange between the western coast of the Baja California peninsula and the Gulf of California, as well as mechanisms that permit the existence of sizeable stocks of California sardine. Biological Action Centers that have high productivity throughout the year, as opposed to the rest of the coastal area, are found in both the western coast of the peninsula at the Sebastián Vizcaíno—Punta Eugenia region and in the Ballenas Channel inside the gulf; these features support large biomasses of sardine throughout the full year and serve as long term refuges during adverse periods. The role of the Sebastián Vizcaino sardine stock as the primary group for expansion is examined.

Palabras clave: Specialist, California Current, California sardine, productivity, interchange, transition zones

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