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## Insights into the underwater diving, feeding, and calling behavior of blue whales from a suction-cup-attached video-imagen tag (Critttercam)

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We examined the underwater behavior of blue whales using a suction-cup-attached video-imaging instrument (CRITTERCAM). We made 13 successful deployments (defined as tag during of >15 min and successful recovery of the tag and data) totaling 19 hours of CRITTERCAMS on blue whales off California and in the Sea of Cortez from spring through fall (26 February to 30 September) between 1999 and 2003. Whale diving depth and behavior varied widely by region and period, although deployments on different individuals in the same area and period often showed very similar feeding behavior. One deployment extending into night showed a diurnal shift in diving behavior with progressively shallower feeding dives as it became dark, with shift to shallow, apparently non-feeding dives during the night. Data and video from tags demonstrated that characteristic series of vertical movements blue whales make at depth are lunges into dense aggregations of krill. These krill were visible streaming by the camera immediately before these lunges and more clearly when the whales' forward motion stopped as a result of the lunge. The progression of events leading up to and during the lunge could be documented from the head movement of whales and occasional views of the expanding throat pleats or lower jaw, and by changes in flow noise past the tag, indicating a rapid deceleration. One set of deployments in the Southern California Bight revealed consistent feeding at depths of 250-300 m, deeper than has been previously reported for blue whales. A loud blue whale vocalization was heard on only one deployment on a male blue whale in an interacting trio of animals.

Palabras clave: ALIMENTACION, ballena azul, marca camara

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