

## **Behavior of humpback whale groups around Abrolhos Archipelago, Bahia, Brazil.**

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The waters surrounding Abrolhos Archipelago, Brazil, serve as one of several winter grounds for southern-hemisphere humpback whales (*Megaptera novaeangliae*). To document the chronology of humpback behavior around Abrolhos, five years (1998-2002) of visual-scan data obtained from July through November were analyzed. During 1-hour scan, observers visually tracked all groups within 5nm and nearly 360° around a land based theodolite station to determine group size, composition and behavior. A total of 710 scans were analyzed, comprising 3050 groups of whales. Seven group categories were observed: lone, dyad, trio, trio+(more than 3 adults), moc(mother and calf), moce (mother and calf and 1 escort), moce+ (mother and calf and more than 1 escort). Six behavioral states were defined: swimming, milling, logging, active (more energetic behavior), surface swimming and tail-up. Temporal ordination of group categories were observed along the seasons. Initially dyads and trios were more common, being replaced by lones and trios+ and then by those groups including a calf. Active is more frequent among moce+ and trio+ groups; logging, tail-up and surface swimming instead, among moc and moce. Development of tourism, vessel traffic and exploitation of oil fields in this region have caused concern over disturbance effects to breeding and nursing whales. This study provides baseline information to detect possible changes of whale behavioral pattern in the local population over time.