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Evaluating the Use of Photo-Identification to Verify Resights and Determine Site Fidelity of Bottlenose Dolphins, *Tursiops Truncatus*, in Beaufort, North Carolina

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EVALUATING THE USE OF PHOTO-IDENTIFICATION TO VERIFY RESIGHTS
AND DETERMINE SITE FIDELITY OF BOTTLENOSE DOLPHINS,
TURSIOPS TRUNCATUS, IN BEAUFORT, NORTH CAROLINA

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Research completed at Beaufort, North Carolina
with Keith Rittmaster and Victoria Thayer

Little is known about the residency and migration patterns, also known as site fidelity, of many species of cetaceans. Photographic identification of individual animals allows researchers to gain knowledge about their migration. The dorsal fin morphology of various species of dolphins can be used to identify individuals photographically. The shape of the dorsal fin, and its distinctive scrapes, notches and wound marks, can be used to identify individual bottlenose dolphins, *Tursiops truncatus*. In this study, photo-identification was used to investigate the site fidelity of individual bottlenose dolphins in the waters surrounding Beaufort, North Carolina. Photographs were taken with single lens reflex motor drive 35 mm cameras using a 70-200 mm lens. Black and white prints of the dorsal fins were made and used to identify and compare individual dolphins. The photographs were catalogued according to the date the dolphin was first seen and given the next number in sequence for ease of reference. The fins were then grouped, according to the location of their most predominant notches, into one of ten categories. The efficiency of this method for photo-identification was also evaluated. One hundred ninety-nine of the 435 fins photographed from January 1986 through August 1990 were catalogued and categorized. Only twenty dolphins were sighted more than once in the Beaufort area during this time. These twenty dolphins followed no discernable pattern of site fidelity. The photo-identification method used, that is categorization by notch location, greatly decreased the search time needed for verifying individual resights. More data needs to be obtained before significant conclusions can be made concerning the site fidelity of the bottlenose dolphins in the Beaufort area. The information gained in this study will facilitate future research in the area of photo-identification.