

PELAGIC BIRDS AND WEATHER ALONG THE ALABAMA COAST — A CORRELATION?

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Sightings of pelagic birds along the Alabama coast have increased dramatically in recent years, due primarily to increased forays of birders into the Gulf in search of these wandering seabirds, and to heightened diligence by coastal observers. Some pelagic trips have been outstandingly successful, others quite disappointing. What role, if any, does weather play in bringing pelagic birds to the extreme northern Gulf and adjacent coastal waters? In an effort to answer this question, the author has recorded daily weather conditions at Gulf Breeze, Florida since 1954. Wind direction and velocity are often suspected to be the major weather factors influencing seabird movements in the Gulf. Wind direction and velocity are determined by pressure gradients of high and low pressure cells affecting areas of hundreds or thousands of square miles. Thus, other than localized conditions which exist temporarily and affect relatively small areas in summer, wind direction and velocity at Gulf Breeze should be representative of conditions along the Alabama coast. This has been borne out through weather observations during hawk watches in the fall.

A search was made for all pelagic bird sightings (other than Gannets) after 1961, referred to in Alabama Birds (Imhof, 1976), and all sightings in American Birds 1975 - June 1978. The records used were limited to sightings from coastal waters and within 20 miles of the coast in order to omit those birds that regularly winter or summer farther out in the Gulf. The weather data used included conditions that existed the day of the sighting and the preceding two days, in order to account for birds that may have lingered in the area after certain conditions. The following weather conditions were considered: (1) winds of at least moderate intensity (13 mph or above) with an onshore component (WSW to ESE). Of the 32 days, only 13 days fell into this category. (2) winds with an easterly component (NNE to SSE) and of at least moderate intensity. Only 11 of the 32 days fell into this category. (3) winds with an easterly component without regard to velocity. Only 16 of the 32 days fell into this category.

Although more data and a detailed analysis would be needed to draw a definite conclusion, it appears unlikely that there is a correlation between pelagic sightings and wind direction-velocity conditions along the Alabama coast. Indeed, some significant sightings have occurred under conditions when flat stagnant highs with little circulation and light and variable winds prevailed, such as 6/30/78 when Alabama's first Audubon's Shearwater, Puffinus iherminieri, was found, 8/14/73 when 16 Greater Shearwaters, Puffinus gravis, were seen 9 miles south of Dauphin Island, and 4/6/76 when three Blue-faced Boobies, Sula dactylatra, were observed near Dauphin Island. However, the author has taken pelagic trips 20 miles south of Pensacola under such conditions in August 1974, September 1975 and July 1978 and has seen only one unidentified petrel. Thus birders may not be able to rely on specific weather conditions to bring them pelagic birds.

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