Wandering Albatross in California.—A Wandering Albatross, *Diomedea exulans*, was discovered by residents of The Sea Ranch, Sonoma County, California, about 60 miles north of San Francisco, in the late afternoon of 11 July 1967. It remained in a field overlooking the sea overnight until the wind freshened in the afternoon of 12 July, when it "stretched its great wings, waddled into the wind, and took off over the bluff and out to sea" (Mrs. William E. Rand, pers. comm.). It was not seen again. This appears to be the first record of this species in the Pacific Ocean north of Panamà, and the first record for North America.

Although no professional ornithologist or person familiar with this species saw the bird in the flesh, it was photographed by several persons, notably Louis McLane, resident architect of The Sea Ranch, and Mr. and Mrs. Rex Hardy of Los Altos, California. Mrs. Hardy and Mrs. William E. Rand of San Francisco prepared written statements of their observations of the bird. Photographs (Figure 1) have subsequently been examined by John W. Aldrich, J. P. Angle, George E. Watson, III, and Alexander Wetmore at the Smithsonian Institution, and by Eugene Eisenmann and Robert Cushman Murphy of the American Museum of Natural History in New York.

There seems to be no doubt about the bird's identification. Its size and the pattern of feathering about the base of the mandibles exclude all but the Wandering Albatross and the Royal Albatross, *Diomedea epomophora*. In only these two species of albatross does feathering extend out over the base of the lower mandible as far as the nostril. The Royal Albatross, in turn, is excluded by a number of other features: the ovoid rather than larger round nasal openings, the vermiculated back, the large amount of black on the upper wing surfaces relieved only by some white on the secondary coverts, the black crown and tail tip, and the absence of a dark line along the cutting edge of the mandibles. I owe these details to Peter Harper, Associate Ornithologist of the Wellington Museum, New Zealand, who examined four of the McLane photographs at the Smithsonian Institution and pronounced the bird a young adult female.

Eyewitnesses reported that the albatross appeared to be alert and without outward signs of ill health, although it showed no fear of persons or dogs. It responded to approach with "a clapping of the bill and a sound I can describe only as a gobble" (Mrs. Hardy, pers. comm.).

While it would be idle to speculate on how this bird reached the coast of California in apparent good health and freedom, the possibility of human agency had at least to be investigated. No North American zoo appears to have kept this species, and Ronald Reuther, Director of the San Francisco Zoological Garden, assures me that escape from a zoo can be ruled out (pers. comm.). I have been unable to learn of Wandering Albatrosses brought to this country for any other purpose and released.

A number of 19th century records exist for the North Atlantic, the best confirmed being a bird ashore at Dieppe, France, in 1830 and another off Antwerp, Belgium, in 1833 (Hartert, 1912–21: 1441). It has frequently been asserted that these North Atlantic records were birds trapped by sailors and carried home to western Europe hence their concentration near busy ports in the final days of sail (Alexander, 1928: 7–8; Jones, 1936). This species is known to follow ships for long distances (Murphy, 1936: 544; Jameson, 1958: 34). As recently as October 1957 a Wandering Albatross was captured ashore alive in Sicily (Orlando, 1958). In recent years a number of records which have accumulated in August within 20 degrees of the equator in the South Atlantic suggest that the species reaches its most northerly distribution during the antarctic winter months (Van Oordt, 1939; Peakall, 1960).

The most northerly previous Pacific Ocean record of the Wandering Albatross, also



Figure 1. Wandering Albatross at The Sea Ranch, Sonoma County, California. Photographs by Louis McLane.

in August, was a bird captured in the Bay of Panamà off Balboa, some 8 degrees north of the equator in 1937 (Murphy, 1938).

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The genetic basis of color differences observed in the Mute Swan (Cygnus olor)¹.—The downy young of the Mute Swan appear in either of two color phases, a white or gray. The white phase was first reported in 1868 among the swans on Lake Geneva, Switzerland (Hilprecht, Hocherschwan, Singschwan, Zwergschwan, Wittenburg Lutherstadt, Die Neue Brehm-Bucherie, 1956); it is usually less common than the gray phase, but becomes more frequent as one moves eastward across Europe, and it is sometimes referred to as the Polish variety. Cygnets with gray down have slate-gray bills and feet; the white phase birds have tan colored bills and feet. The foot color of each phase persists in the otherwise identical white-plumaged adults, and may be used to determine its down color phase. This study was undertaken to determine the genetic basis of the color phase.

Methods and materials.—In 1963 the State Division of Conservation initiated a banding program to determine the status of the Mute Swan in Rhode Island. Nesting sites were watched and location and down color were recorded by the senior author.

In the 1967 hatching season 53 nesting sites were kept under observation. Cygnet data were obtained from only 36 nests; 11 were lost by flooding during adverse weather and 6 were destroyed by predation.

Color phase was observed as soon as possible after hatching to reduce any effect of possible differential mortality. Unhatched eggs were broken and color phase determined on embryos far enough advanced to exhibit down color.

Adult color phase was determined for all nesting pairs, and additional adult data were obtained from previous banding records.

Results and discussion.—The 1967 nesting color phase data summarized in Table 1 indicates that color difference is determined by a single gene and that the gray allele is dominant to white.

Examination of sex data indicated a preponderance of white females. As birds follow an XO method of sex determination, the male being homogametic XX or hav-

¹ Contribution number 1255 of the Rhode Island Experiment Station.