partment of Biology, University of California at Riverside. Keith L. Bildstein, a reviewer, provided helpful suggestions concerning the manuscript.—DIANA F. TOMBACK, Dept. Zoology and Entomology, Colorado State Univ., Fort Collins, Colorado 80523, AND JOSEPH R. MURPHY, Dept. Zoology, Brigham Young Univ., Provo, Utah 84602. Accepted 10 Jan. 1980.

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Aerial "play" of Black Vultures.—Occasionally I have seen Black Vultures (Coragyps atratus) engage in playlike, aerial acrobatics at Cerro Verde (13°50'N, 89°38'W; 2000 m elev.), El Salvador. On 15 November 1971, I was present during a violent "Norte," a prolonged windstorm which may attain gale velocity on mountain tops. I noticed, without heeding at first, sounds I attributed to a child tooting a musical toy. Then a trio of Black Vultures shrilled past my head, producing a sound like that of an aeolian harp, caused undoubtedly by wind passing through the feathers of wings and/or tails.

A dozen or more Black Vultures were soaring in the strong upslope winds on the north side of Cerro Verde, being carried upwards as much as 500 m above the summit. From time to time one or more birds "peeled off" to dive precipitiously towards the southeast, the wind behind them. Some leveled off where I could see them; others continued out of sight, descending more than 700 m. Recordings of their sounds, made at the time, suggest diving wire-strutted biplanes of the First World War.

One trio was especially notable, diving again and again as a team. I watched them make some 25 dives, 3 of which ended near me. The birds dove sometimes in V-formation, sometimes in line and attained impressive speeds. They ended the dives in 2 steps: (1) a slight increase in angle of attack which checked their speed slightly and flattened the dive; and (2) a sharp increase in attack angle plus spreading and lowering the tail which forced them into a shallow climb. They then used their forward momentum to circle along the lee side of the mountain into the upward current again. The leader of a dive also led in the following ascent but I could not ascertain whether it retained that position in subsequent dives.

I have heard since, under less favorable conditions, the shrill of diving Black Vultures during strong Nortes. I add only that twice I saw single vultures diving as described above. I noted that a single bird produces several tones, suggesting that several feathers are involved.

Bent (U.S. Natl. Mus. Bull. 167:29, 1938) described similar diving sounds produced by courting Black Vultures. Brown and Amadon (Eagles, Hawks and Falcons of the World, McGraw-Hill, New York, New York, 1968:181) reported sounds like ripping heavy paper as Black Vultures dive for food. The birds at Cerro Verde were not diving for food and did not seem to be courting. Brown and Amadon (1968:101) refer to certain otherwise unclassified aerial maneuvers of falconiformes as communal displays. However, a display implies communication between a sender and an intended observer; this does not apply to lone birds. I have no notion of the incentive which governed the vultures I watched, but to me the exuberant quality of their behavior, so unlike our usual impression of the species, had "all the appearances of play and seemed to serve no other function than the release of pent-up energy" (Pettingill, Ornithology in Laboratory and Field, Burgess Publ. Co., Minneapolis, Minnesota, 1970:254).—Walter A. Thurber, Cornell Univ. Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, New York 14853. Accepted 30 Nov. 1979.