

Killdeer Nesting on Graveled Roofs

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The Killdeer probably benefited by low energy agriculture, with its pastures and fallow fields. Now squeezed between total crop cover and urban development, it seems to be taking to roof-top nesting on a large scale. On July 9, 1973, I became aware of Killdeer activity in the vicinity of the three principal buildings at the Virginia Institute of Marine Science. This plover often frequents the adjacent river beach in winter, but is uncommon in the area in summer, except in small towns and near flat-topped buildings. By July 12, the adult Killdeers were indeed worthy of the name *Charadrius vociferus*; their cries sending me to the roof of Maury Hall where four active young were running about.

After several photographs were obtained by Kenneth Thornberry, the young were caught with his assistance and released on the nearby lawn while an adult flew over. The chicks cried excitedly as they struggled through the grass, but became quiet and nestled down as soon as an adult landed and called. In early September, three grown Killdeers appeared in a group on the same lawn and I hoped they were birds I had rescued.

On the roof they had run like ostriches, but their downy wings were unable to cope with the 16-inch parapet. Even had they been able to vault this, they might have landed on concrete 20 feet below. A. C. Bent (1929) was the first to report the roof nesting of this "most widely distributed and best known of our shorebirds," when he ended his nesting account of this species with "The most unusual case . . .;" the finding in 1925 near Lincoln, Nebraska, by Gayle Pickwell, of a nest "on the gently sloping and graveled roof of a race-track grandstand, some 50 feet above the ground. The eggs were laid in a slight cup-shaped depression among the crushed stones." Later "the young were found on the ground near the building while still but feeble walkers. In what manner the old ones transferred them from the roof was not observed."

Observations of wild and pen-reared Killdeer by Emma Davis (1943) indicate that the precocial young are never fed by the parents. Roofs

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Photos / Barry Kinzie.



hazardous to young Killdeers ought to be checked for nests in April through mid-June. Since Davis reported hatching of a clutch to take up to 16 hours and the young not eating until 2 days old, it would seem best not to move the young until at least one day after hatching. If ground dangers were great, they could be protected there by a plastic or metal fence which would allow the adults to brood the young; a period found by Davis to be 23 days.

Since 48 years had intervened between Pickwell's find and mine, the phenomenon should have been well known. F. R. Scott, Regional Editor of *American Birds*, knew of no literature but did forward a letter from Bill Open-gari, Roanoke, Va., who had often observed Killdeers on flat roofs in that foothill city. Moreover, he knew a teacher, Barry Kinzie, who had photographed a nest and young on the roof of Breckenridge Elementary School, Fincastle, Va. In this case, the nest was on a slight mound of lighter colored gravel. The young were hatched the first week in May and left within two days. Mr. Kinzie observed one jumping off the roof but never saw the family again.

It is possible that hundreds of people have observed Killdeer nesting on roofs. Scott learned that Mitchell Byrd had found a young bird on a high roof at the College of William and Mary in 1973, but thought it too common an occurrence to report. Mary Pulley, Redart, Va., knew of a nest on the Annandale, Va., liquor store many years ago.

Since Killdeers can scarcely survive in developed areas except by nesting on flat roofs, it is perhaps fortunate that nearly all new buildings lack parapets. On older parapet roofs, concerned

birders might carry the young to safety.

The Killdeer is not alone in roof nesting. Nighthawks have done so since at least 1869 (Armstrong, 1965). Dr. Henry M. Stevenson has informed me of rooftop nesting by terns in Florida. Francis M. Weston reported that a colony of Least Terns first found nesting on the graveled roof of the Pensacola Municipal Auditorium was still used in 1964. In 1969, Albert F. McGowan reported a large colony of Least Terns and six Common Terns nesting on the roof of a department store in Pompano Beach.

Increasing control of the land may deprive the Killdeer and Nighthawk from nesting in many areas unless they utilize graveled roofs. Addition of some finer gravel in a few places on a roof might aid the birds. In order to determine the extent of roof nesting by the Killdeer, I would appreciate hearing from anyone who has observed this habit.

REFERENCES

- Armstrong, J.T. 1965. Breeding home range in the nighthawk and other birds; its evolutionary and ecological significance. *Ecology* 46:619-629.
- Bent, A.C. 1929. Life histories of North American shorebirds, Part II. U.S. Nat. Mus. Bull. 146 (Dover reprint), 412 p.
- Davis, E.D. 1943. A study of wild and hand reared Killdeers. *Wilson Bull.* 55:223-233.
- McGowan, A.F. 1969. Common Terns, *Sterna hirundo*, nesting on roof in Pompano Beach. *The Florida Naturalist* 42: p. 172.
- Weston, F.M. 1965. A survey of the birdlife of North-western Florida. *Bull. Tall Timbers Res. Sta. No.* 5: p. 66.