

# Florida Field Naturalist

PUBLISHED BY THE FLORIDA ORNITHOLOGICAL SOCIETY

VOL. 29, No. 3

SEPTEMBER 2001

PAGES 75-112

Florida Field Naturalist 29(3):75-80, 2001.

## AMERICAN OYSTERCATCHERS NEST ON GRAVEL-COVERED ROOFS IN FLORIDA

NANCY J. DOUGLASS<sup>1</sup>, JEFFERY A. GORE<sup>2</sup>, AND RICHARD T. PAUL<sup>3</sup>

<sup>1</sup>*Florida Fish and Wildlife Conservation Commission  
3900 Drane Field Road, Lakeland, Florida 33811*

<sup>2</sup>*Florida Fish and Wildlife Conservation Commission  
3911 Highway 2321, Panama City, Florida 32409*

<sup>3</sup>*Audubon of Florida, 410 Ware Boulevard, Suite 702  
Tampa, Florida 33619*

**Abstract.**—During a statewide survey of gull, tern, and skimmer colonies in Florida from 1998-2000, we found American Oystercatchers (*Haematopus palliatus*) nesting on 3 gravel-covered roofs, and possibly on 3 others, in the Tampa Bay area along the central Gulf coast. The only previous report of roof-nesting American Oystercatchers in the United States was from a single site on the Atlantic coast of Florida in 1988. We suspect use of roofs for nesting by American Oystercatchers is primarily a response to loss of traditional nesting sites as a result of increased human disturbance and predation. High productivity of undisturbed nesting sites, availability of gravel roofs, and presence of birds that recognize roofs as nesting sites may also be contributing factors.

American Oystercatchers (*Haematopus palliatus*) nest in a variety of coastal habitats (Nol and Humphrey 1994), but in the southeastern United States they most often nest on bare sand or shell substrate in open, sparsely vegetated beach or dune habitat, including barren islands of dredged material (Bent 1929, Lauro and Burger 1989). Less often, nesting occurs in marsh vegetation and tidal wrack (Frohling 1965, Lauro and Burger 1989, Shields and Parnell 1990), on forested islands of dredged material (Toland 1992; R. T. Paul, unpubl. data), or among large rocks on breakwaters (J. A. Gore, unpubl. data).

In the Netherlands and Scotland, the closely-related Eurasian Oystercatcher (*H. ostralegus*) occasionally nests on roofs of buildings (Bourne 1975, Mills 1978, Tekke 1978, Munro 1984) and roof-nesting has been well-documented for several larids (e.g., Fisk 1978, Gore

1991, Sprandel et al. 1998) and plovers (e.g., Stoner 1937, McGowan 1969, Wass 1974, Fisk 1978). American Oystercatchers have been reported once with young on a roof (Paul 1988). During a statewide survey of roof-nesting larids in Florida, we incidentally encountered oystercatchers. Here we verify use of roofs by nesting American Oystercatchers and list reports from multiple locations in Florida.

#### METHODS

The Florida Fish and Wildlife Conservation Commission (FWC) surveyed gull, tern, and skimmer colonies from 15 May through 30 June of 1998-2000 throughout coastal Florida. That project involved recruiting a network of volunteer observers to report use of roofs by nesting terns (*Sterna* spp.) and Black Skimmers (*Rynchops niger*). Volunteers were provided with locations of buildings known to have previously supported nesting colonies based on occurrences compiled from published reports, unpublished FWC occurrence reports, and personal communications. In addition, volunteers were asked to report other buildings where they saw terns or skimmers flying above the roof. Volunteers did not go onto roofs but observed from the ground or adjacent structures for at least 15 minutes to determine if the roof was occupied. Unexpected reports of oystercatchers nesting on roofs prompted us to solicit additional information from observers and from unpublished communications. In the second and third year of the project, FWC biologists attempted to confirm the presence of reported roof-nesting oystercatchers by accessing the roofs or by viewing them from adjacent buildings.

#### RESULTS

We confirmed American Oystercatchers nesting on roofs at 3 locations and suspected nesting at 3 other locations. Listed below are observations for each site from the 1998-2000 survey as well as information collected from earlier years:

1. In 1993, a pair of American Oystercatchers nested on a flat gravel roof at the Hyatt Regency Westshore Hotel in Tampa, Hillsborough County, about 30 m from the shoreline of Old Tampa Bay. Two young hatched and one fledged in mid-May (H. Gartlgruber, pers. comm.). In 1995, R. T. Paul and A. F. Schnapf observed 1 American Oystercatcher chick, estimated to be 3-4 weeks of age. They noted the roof was about 10 m square, covered with light brown "pea gravel" (about 1 cm diameter), and bordered on two sides by a wall about 30 cm high. The nest site was a slightly raised mound (<5 cm) of gravel about 15 cm in diameter and about 1 m from a wall. In 1996, at least one young was produced (H. Gartlgruber, pers. comm.) and in 2000 a pair of American Oystercatchers again nested on the roof (R. Clark, pers. comm.; N. J. Douglass, unpubl. data).
2. B. Isaacson observed American Oystercatchers nesting on the roof of the Palms of Pasadena Hospital, Pinellas County, about 200 m from the Intercoastal Waterway, for several years prior to

our survey and in 1997 she saw 2 recently fledged young on the edge of the roof. On 18 May 1998, she found 1 adult in incubating posture on the roof and on 18 June observed an adult with 1 chick. In April 1999, she saw American Oystercatchers on the roof, but in early May they were not observed. A pair, assumed to be the same birds, appeared shortly thereafter on a nest in a gravel lot across the street.

3. On 18 May 1999, N. J. Douglass and J. A. Gore observed a pair of American Oystercatchers and 1 chick (Fig. 1) approximately 2 weeks of age on the roof of the Patterson Dental building in a business park on the east shore of Tampa Bay, Hillsborough County. The roof was also occupied by a colony of Least Terns. The roof was approximately 100 m  $\times$  30 m, 8 m high, and surrounded by a 25-cm wall. The roof was covered with a shallow layer of light brown "pea gravel." On 26 May 2000, we visited the roof and found only Least Terns present. However, an American Oystercatcher was on a similar building approximately 30 m north of the original site. We located a nest with 2 eggs near the middle of this roof. It consisted of a gravel mound, approximately 4 cm deep, with a shallow depression in the middle.



**Figure 1.** An American Oystercatcher chick found on the gravel roof of a building near Tampa Bay, Hillsborough County, Florida, 18 May 1999.

American Oystercatchers possibly nested on 3 other buildings during our survey. On 16 May 1998, an American Oystercatcher was observed pacing along the edge of a condominium roof on Treasure Island, Pinellas County (H. Warren, pers. comm.). On several dates in May and June 2000, J. Fisher repeatedly observed a pair of American Oystercatchers on a condominium roof in Largo, Pinellas County. On 21 June 2000, N. J. Douglass observed an American Oystercatcher on the roof of another condominium on Treasure Island. Unfortunately, these roofs were not accessible and nesting was not confirmed. No nesting was reported from the Brevard County roof where Johnnie Johnson observed American Oystercatchers in 1988 (Paul 1988).

### DISCUSSION

American Oystercatchers typically add material to line their scrapes (Nol and Humphrey 1994) and both American Oystercatcher nests we examined on roofs appeared as mounds of gravel raised nearly 5 cm higher than the surrounding gravel. These mounds may provide sufficient cushion for American Oystercatchers to incubate their eggs on roofs without cracking them, but observations are needed to determine hatching success rates of American Oystercatchers on roofs. Black Skimmers, which are about half the mass of American Oystercatchers and don't line their nest scrapes, frequently crack their eggs when incubating on gravel roofs because their nest scrapes often extend below the gravel to the hard roof surface (Gore 1987, Coburn 1995). Coburn (1995) found the depth of Black Skimmer nests on roofs ranged from 0.8-3.9 cm, yet nest depth was significantly correlated with hatching success. Thus a small change in depth of gravel at the nest can determine if eggs hatch. Our few observations suggest that the American Oystercatcher can successfully hatch eggs on gravel roofs despite their body weight.

Our observations confirm that American Oystercatchers nest and produce chicks on gravel roofs. Rather than an isolated phenomenon, we believe that roof nesting by American Oystercatchers will become an increasingly common behavior in Florida. American Oystercatchers may be selecting roofs as nest sites for several reasons. First, use of alternate or atypical nest sites may be an adaptive response to loss of traditional nest sites and habitats (Lauro and Burger 1989, Shields and Parnell 1990, Toland 1992). Roof nesting by American Oystercatchers may be a response to the rapid development of and intense recreational pressure on coastal habitats. Toland (1999) found nesting American Oystercatchers in southeast Florida were successful more often on islands that were not frequently visited by humans. Although lack of cover, heat, avian predators, and falls are some of the perils of

roof-nesting, roofs are relatively stable habitats that are also relatively well-protected from humans and most mammalian predators, and we suspect fledging success on roofs is high.

Roof nesting may also be a response of a locally increasing population to saturation of available habitat, regardless of trends in habitat availability. Few quantitative data exist to determine trends in Florida's American Oystercatcher population, but Robertson and Woolfenden (1992) remarked that populations were continuing to recover from their historic low in the mid 20th century. R. T. Paul (unpubl. data) estimated that the number of American Oystercatchers around Tampa Bay doubled in the 1980s following creation of several large dredged-material islands. If traditional nest sites are locally at a premium, gravel roofs might be attractive alternates. Roofs might allow American Oystercatchers to expand their breeding range into areas that currently contain little suitable nesting habitat, such as extreme southwest Florida (Below 1996).

Although roof nesting is likely a function of opportunistic behavior and the increasing availability of roofs near suitable foraging habitat, there may be a component of learned behavior contributing to a growing phenomenon. The high fidelity that American Oystercatchers exhibit toward nest sites (Nol and Humphrey 1994) means pairs will likely return to roofs to nest each year. Further, even though fidelity to natal sites has not been demonstrated (Nol and Humphrey 1994), birds fledged on roofs may ultimately associate roofs with nesting habitat. If gravel roofs are widely available near foraging spots and most roof nests are successful, roof-nesting may become more common among American Oystercatchers, as marsh-nesting has in some areas (see Lauro and Burger 1989).

Loss of traditional nesting habitat, abundance of gravel roofs along the coast, and presence of birds that recognize roofs as nesting sites may each be contributing to the increase in roof-nesting among American Oystercatchers near Tampa Bay. Although many ground-nesting sites in this area are productive, others have been lost due to destruction of the habitat, increased human-related disturbance, or increased predation. Gravel-covered roofs offer abundant alternate nesting habitat along much of Tampa Bay. If American Oystercatchers continue to nest successfully on roofs in this area, we may see this behavior more frequently in Florida and perhaps elsewhere in the southeast as human activities change the landscape.

#### ACKNOWLEDGMENTS

We thank Gary Sprandel, Lara Coburn, and Ann Schnapf for assistance and Julie Hovis, George Wallace, Doug McNair, and an anonymous reviewer for helpful comments on an earlier draft. We also thank Barbara Isaacson, Monique Abrams, Helen Warren,

Judy Fisher, Heinz Gartlgruber, and the late Johnnie Johnson for sharing their observations.

## LITERATURE CITED

- BELOW, T. H. 1996. American Oystercatcher. Pp. 230-235 in *Rare and Endangered Biota of Florida* (J. A. Rodgers, Jr., H. W. Kale, and H. T. Smith, Eds.). Vol. 5, Birds. University Press of Florida, Gainesville, FL.
- BENT, A. C. 1929. Life histories of North American shorebirds. Part 2. U.S. National Museum Bulletin 146.
- BOURNE, W. R. P. 1975. Oystercatchers on the roof. *British Birds* 68:302.
- COBURN, L. M. 1995. Reproductive success of roof and ground nesting Black Skimmers (*Rynchops niger*) in northwest Florida. M.S. thesis, University of West Florida, Pensacola, FL.
- FISK, E. J. 1978. Roof-nesting terns, skimmers, and plovers in Florida. *Florida Field Naturalist* 6:1-8.
- FROHLING, R. C. 1965. American Oystercatcher and Black Skimmer nesting on salt marsh. *Wilson Bulletin* 77:193-194.
- GORE, J. A. 1987. Black Skimmers nesting on roofs in northwest Florida. *Florida Field Naturalist* 15:77-79.
- GORE, J. A. 1991. Distribution and abundance of nesting Least Terns and Black Skimmers in northwest Florida. *Florida Field Naturalist* 19:65-72.
- LAURO, B., AND J. BURGER. 1989. Nest-site selection of the American Oystercatcher (*Haematopus palliatus*) in salt marshes. *Auk* 106:185-192.
- MCGOWAN, A. F. 1969. Wilson's Plover nesting on roof. *Florida Naturalist* 42:171.
- MILLS, P. R. 1978. Oystercatchers nesting on roofs. *British Birds* 71:308.
- MUNRO, C. A. 1984. Roof nesting Oystercatchers. *Bird Study* 31:148.
- NOL, E., AND R. C. HUMPHREY. 1994. American Oystercatcher (*Haematopus palliatus*). In *The Birds of North America*, No. 82 (A. Poole and F. Gill, Eds.). Academy of Natural Sciences, Philadelphia; and American Ornithologists' Union, Washington, D.C.
- PAUL, R. T. 1988. The nesting season: Florida region. *American Birds* 42:1278-1281.
- ROBERTSON, W. B., JR., AND G. E. WOOLFENDEN. 1992. Florida bird species: an annotated list. Florida Ornithological Society, Special Publication No. 6.
- SHIELDS, M. A. AND J. F. PARNELL. 1990. Marsh nesting by American Oystercatchers in North Carolina. *Journal of Field Ornithology* 61:431-433.
- SPRANDEL, G. L., H. A. BOLTE, AND D. T. COBB. 1998. Gull-billed Tern fledged on a roof in northwest Florida. *Florida Field Naturalist* 26:94-96.
- STONER, E. A. 1937. Killdeer nests on roof of building. *Condor* 39:127.
- TEKKE, M. J. 1978. Oystercatchers nesting on roofs. *British Birds* 71:308.
- TOLAND, B. 1992. Use of forested spoil islands by nesting American Oystercatchers in southeast Florida. *Journal of Field Ornithology* 63:155-158.
- TOLAND, B. 1999. Nest site characteristics, breeding phenology, and nesting success of American Oystercatchers in Indian River County, Florida. *Florida Field Naturalist* 27:112-116.
- WASS, M. L. 1974. Killdeer nesting on graveled roofs. *American Birds* 28:983-984.