

## MARSH NESTING BY AMERICAN OYSTERCATCHERS IN NORTH CAROLINA

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**Abstract.**—We document three instances of American Oystercatchers (*Haematopus palliatus*) nesting on mats of dead plant stems (wrack) on saltmarsh islands in North Carolina. Marsh nesting by this species had not been previously reported outside New York and New Jersey. The recent use of this atypical nesting substrate may be a response to reduced availability of traditional bare sand and shell substrates brought about by increasing human use of beaches and changes in the way dredged material is disposed.

### ANIDAMIENTO DE *HAEMATOPUS PALLIATUS* EN MARISMA DE CAROLINA DEL NORTE

**Sinopsis.**—Documentamos tres ocasiones en las cuales parejas de *Haematopus palliatus* anidaron, en colchones de tallos de plantas muertas, en marismas de Carolina del Norte. El anidamiento del ave en marismas no había sido informado fuera de localidades de Nueva Jersey y Nueva York. El uso reciente del sustrato atípico antes descrito, puede ser en respuesta a la reducción de áreas tradicionales con sustratos de arena o conchas, debido al incremento del uso de playas por parte de humanos y cambios en la forma en que se dispone de material dragado.

In the southeastern United States, American Oystercatchers (*Haematopus palliatus*) typically nest on bare sand or shell substrates in open coastal habitats, such as barrier-island beaches and oystershell banks (Bent 1929, Rappole 1981, Tomkins 1954). In this note, we document three instances of nesting by oystercatchers on an atypical substrate for this region—wrack in saltmarshes. To our knowledge, these represent the first records of marsh nesting by American Oystercatchers along the Atlantic Coast south of New Jersey (Frohling 1965, Lauro and Burger 1989).

We discovered the first nest on 31 May 1988 at Middle Marshes in Back Sound, Carteret County, North Carolina (34°42'N, 76°37'W). The nest, which contained two eggs, was simply a depression on top of a driftline of dead smooth cordgrass (*Spartina alterniflora*) culms. This wrack line was 2–3 m wide and about 50 m long, and had been washed up along the edge of a shrub thicket. No patches of bare sand or shell were present on the island. The nearest such habitat was on Shackleford Banks, about 1.5 km to the south.

The second nest, also at Middle Marshes, was found by Walker Golder and Hal Bain on 25 May 1989. This nest was located near the 1988 nest site and also held two eggs. These similarities suggest that the same pair of oystercatchers may have built both nests.

We found the third nest on 31 May 1989 on Swan Island in southwestern Pamlico Sound, Carteret County, North Carolina (35°05'N, 76°25'W). Swan Island is a low, natural estuarine island covered mainly by marsh grasses and a few shrubs. As on Middle Marshes, bare sand and shell substrates were lacking, and the nest was placed on a mat of dead plant stems that had washed up in the marsh.

Marsh nesting by oystercatchers may be an adaptive response to reduced availability of bare sand or shell nesting substrates (Frohling 1965, Lauro and Burger 1989). American Oystercatchers now nest regularly on salt-marsh islands in New Jersey and New York (Lauro and Burger 1989), where heavy human use of barrier islands apparently has forced them and other species from their traditional beach nesting sites (Erwin 1980, Frohling 1965). In North Carolina, beach fronts also are being used increasingly for homes and recreation. As a consequence, the amount of undisturbed beach habitat is decreasing, and many traditional beach-nesting species, including the American Oystercatcher, have shifted in large part to nesting on dredged-material islands in the estuaries (Parnell and McCrimmon 1984, Parnell and Soots 1979, Parnell et al. 1986).

But even here, suitable nesting habitat may be limited. Island surfaces recently created by the deposition of dredged material mimic natural beach habitats, but rapid encroachment by vegetation, especially on diked islands, reduces the time that bare and sparsely vegetated substrates are present (Soots and Parnell 1975). With regulations now requiring the diking of most islands prior to spoil deposition, the temporal availability of suitable nesting substrates will likely decrease. And the increasing use of dredged material to renourish beaches means that fewer dredged-material islands will receive the fresh deposits needed to set back plant succession (Parnell et al. 1986).

The ability of American Oystercatchers to nest successfully on wrack may help to prevent their decline as the availability of traditional sand and shell substrates dwindles (Frohling 1965, Lauro and Burger 1989).

#### LITERATURE CITED

- BENT, A. C. 1929. Life histories of North American shorebirds, part 2. U.S. Nat. Mus. Bull. 146.
- ERWIN, R. M. 1980. Breeding habitat use by colonially nesting waterbirds in two mid-Atlantic U. S. regions under different regimes of human disturbance. *Biol. Conserv.* 18:39-51.
- FROHLING, R. C. 1965. American Oystercatcher and Black Skimmer nesting on salt marsh. *Wilson Bull.* 77:193-194.
- LAURO, B., AND J. BURGER. 1989. Nest-site selection of American Oystercatchers (*Haematopus palliatus*) in salt marshes. *Auk* 106:185-192.
- PARNELL, J. F., AND D. A. MCCRIMMON, JR. 1984. 1983 supplement to atlas of colonial waterbirds of North Carolina estuaries. UNC Sea Grant Publ. UNC-SG-84-07.
- , R. N. NEEDHAM, R. F. SOOTS, JR., J. O. FUSSELL III, D. M. DUMOND, D. A. MCCRIMMON, JR., R. D. BJORK, AND M. A. SHIELDS. 1986. Use of dredged-material deposition sites by birds in coastal North Carolina, USA. *Colonial Waterbirds* 9:210-217.

- , AND R. F. SOOTS, JR. 1979. Atlas of colonial waterbirds of North Carolina estuaries. UNC Sea Grant Publ. UNC-SG-78-10.
- RAPPOLE, J. H. 1981. Management possibilities for beach-nesting shorebirds in Georgia. Pp. 114-126, in R. R. Odum and J. W. Guthrie, eds. Proc. nongame and endangered wildl. symp. Ga. Dept. Nat. Res. Tech. Bull. WL 5.
- SOOTS, R. F., JR., AND J. F. PARNELL. 1975. Ecological succession of breeding birds in relation to plant succession on dredge islands in North Carolina. UNC Sea Grant Publ. UNC-SG-75-27.
- TOMKINS, I. R. 1954. Life history notes on the American Oyster-catcher. *Oriole* 19:37-45.
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