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THE AMERICAN OYSTERCATCHER (*HAEMATOPUS PALLIATUS*) IN THE NORTHERN BAHAMAS

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Abstract: The American Oystercatcher (*Haematopus palliatus*) is known to nest sparingly in the Caribbean into the southern and central Bahamas. However, details of its Caribbean breeding distribution, including that in the northern Bahamas, remain unclear. This study documented the oystercatcher's previously unappreciated status as a breeding resident in the northern Bahamas and also confirmed breeding in the Exumas of the central Bahamas. The presently known breeding distribution in the Bahamas excludes the extreme northwestern islands, creating a distributional a gap between the population in North American and that of the Bahamas. Intriguingly, the gap appears to correspond to the path of direct influence of the Florida Current (Gulf Stream). Birds found in this study during the summer breeding season in the northern Bahamas were only on rock shores, and nests similarly were placed above rocky shorelines. In its predilection for rocky shores, the population appears similar to oystercatchers in the West Indies and dissimilar to those in Florida. If birds nesting in the Bahamas population are considered part of the Caribbean population, total numbers there would constitute a significant portion of the currently estimated regional total. Bahamian oystercatchers were once considered their own subspecies based on bill size differences. Additional study of the taxonomy, food habits, habitat use, and more details on breeding distribution is desirable. However, current understanding of morphological and habitat differences as well as the distributional gap from the North American population suggest that the Bahamas population deserves explicit attention in conservation planning.

Key words: Abaco, American Oystercatcher, Berry Islands, breeding range, conservation, distribution, Exumas, Florida, Florida Current, Grand Bahama, Gulf Stream, *Haematopus palliatus*

Resumen: EL OSTRERO (*HAEMATOPUS PALLIATUS*) EN LA REGIÓN NORTE DE BAHAMAS. Se conoce que pequeñas cantidades de Ostrero (*Haematopus palliatus*) crían en en las regiones sur y central de Bahamas. Sin embargo, permanecen sin esclarecer detalles sobre la distribución de las áreas reproductivas en el Caribe, incluyendo el norte de Bahamas. Este estudio documenta el estado del Ostrero como residente de cría en el norte de Bahamas y también confirma la cría en las Exumas de las Bahamas centrales. La distribución reproductiva actualmente conocida en Bahamas excluye las islas noroccidentales más extremas, creando un espacio de distribución entre la población de Norteamérica y la de Bahamas. Intrigantemente, el espacio parece corresponder al paso de la influencia directa de la Corriente de la Florida (Corriente del Golfo). Las aves encontradas en este estudio durante la etapa reproductiva de verano en Bahamas del norte estuvieron solamente en costas de roca y similarmente, los nidos estuvieron ubicados sobre orillas rocosas. La predilección por orillas rocosas hace a la población similar a la de ostreros de las Antillas y diferente a las de Florida. Si las aves que crían en la población de Bahamas son consideradas parte de la población caribeña, los valores totales constituirían una porción significativa al estimado total regional. Los ostreros bahamenses fueron considerados una subespecie basado en diferencias en el tamaño del pico. Son convenientes estudios adicionales de taxonomía, hábitos alimentarios, uso de hábitat y más detalles sobre la distribución de cría. Sin embargo, el conocimiento actual de la morfología y las diferencias de hábitat así como el espacio en la distribución de las poblaciones de Norteamérica sugiere que la población de Bahamas merece una atención explícita en la planificación de conservación.

Palabras clave: Abaco, Ostrero, Islas Berry, rango de cría, conservación, distribución, Exumas, Florida, Corriente de la Florida, Gran Bahama, Corriente del Golfo, *Haematopus palliatus*

Résumé : L'HUITRIER D'AMERIQUE (*HAEMATOPUS PALLIATUS*) DANS LE NORD DES BAHAMAS. L'Huîtrier d'mérique (*Haematopus palliatus*) est connu pour nicher sporadiquement dans la Caraïbe jusqu'au sud et au centre des Bahamas. Toutefois les informations sur son aire de reproduction y compris dans le nord des Bahamas restent imprécises. Cette étude traite du statut encore peu connu de l'huitrier comme espèce sédentaire nicheuse du nord des Bahamas. Elle confirme également sa nidification dans les Exumas au centre des Bahamas. L'aire de nidification actuellement connue aux Bahamas exclut les îles de l'extrême nord-ouest, créant une discontinuité entre la population nord-américaine et celle des Bahamas. Curieusement, celle-ci semble correspondre à la zone l'influence directe du courant de Floride (Gulf Stream). Les oiseaux observés dans le cadre de cette étude pendant la saison de nidification estivale au nord des Bahamas ont été observés seulement sur des rivages rocheux et les nids étaient placés sur le haut des rochers de la rive. Par cette préférence pour les milieux rocheux, la population semblait similaire à celle des Antilles et différente de celle de Floride. Si les oiseaux nicheurs des Bahamas étaient considérés comme faisant

partie de la population caribéenne, les effectifs présents représenteraient une proportion significative du total régional actuellement estimé. Les huitriers des Bahamas ont déjà été considérés comme une sous-espèce distincte en fonction des différences de taille du bec. Une étude complémentaire portant sur la taxonomie, les habitudes alimentaires et l'aire de reproduction précise est souhaitable. Toutefois, les connaissances actuelles sur les différences morphologiques et l'habitat ainsi que sur la discontinuité de la répartition par rapport à la population nord-américaine suggèrent que la population des Bahamas mérite une attention particulière dans la planification de la conservation.

Mots clés : Abaco, aire de reproduction, conservation, courant de Floride, distribution, Exumas, Floride, Grand Bahama, Gulf Stream, *Haematopus palliatus*, Huîtrier d'Amérique, îles Berry

The breeding range of the American Oystercatcher (*Haematopus palliatus*) is extensive, including much of the oceanic coastlines of the Western Hemisphere. Along the Pacific coast of the Americas, it nests from Baja California through central Chile (and the Galápagos); along the Atlantic coast, it nests south of Massachusetts, USA, in North America to central Argentina in South America; within the Gulf of Mexico and Caribbean, its overall nesting range includes the Caribbean coasts and offshore islands of Central and South America, Greater and Lesser Antilles, and the Bahamas (American Ornithologists' Union 1998, Raffaele *et al.* 1998).

The understanding that the species has an extensive range in the tropics is somewhat misleading, as within that range it is quite patchily distributed, some details of which remain unclear. Despite being common on much of the Atlantic coast of North America (Nol and Humphrey 1994, Davis *et al.* 2001, Wilke *et al.* 2005), the species nests only as far south as central Florida (Stevenson and Anderson 1994). It is known to breed in the Greater Antilles on Puerto Rico (occurs but not proved to be breeding in Cuba), in the Lesser Antilles on Guadeloupe, St Lucia, St Barthelme, Grenadines, and perhaps St Martin, in the Virgin Islands on St. Thomas, and in the Bahamas on the southern and central islands and Andros (American Ornithologists' Union 1998, Evans 1990, Raffaele *et al.* 1998). It is considered to be only a "spotty breeder" elsewhere in the Greater and Lesser Antilles, and in the northern Bahamas (Raffaele *et al.* 1998). Despite the lack of records, the species is thought likely to breed more widely in the West Indies than is presently documented (Raffaele *et al.* 1998).

Information from the Bahamas is particularly limited. Its recognized status as a regular resident in the central and southern Bahamas is based on few records and its status as a "spotty breeder" in the northern Bahamas is based primarily on the record from Andros. Nonbreeding (perhaps vagrant or wintering) individuals are reported rarely in the northern Bahamas (Bimini, Abaco, Andros, and recently Grand Bahama; Brudenell-Bruce 1975, White 1998, 2002, Hallett 2006, B. Purdy and L. Manfredi pers. comm.). Thus, its full breeding range in the Bahamas, especially the northern Bahamas, remains unclear as is the case for much of the Caribbean.

Seasonal range shifts of this species also remain unclear. Along the Atlantic coast of North America, those oystercatchers nesting in the north of the range shift southward, some forming wintering flocks especially in Virginia and the Carolinas of the USA (Nol and Humphrey 1994, Brown *et al.* 2005, Sanders *et al.* 2004). More southerly-nesting birds are thought not to migrate. But individuals and flocks, some quite large, are reported periodically in Florida, demonstrating at least occasional seasonal movements into that area (Stevenson and Anderson 1994). Wintering birds are also reported from the USA Gulf of Mexico coast to southern Mexico and Central America (Nol and Humphrey 1994, AOU 1998). Occasional records of birds in the Bahamas in winter may be attributed to birds from North America, although this has not been proven. That North American birds winter elsewhere in the Caribbean also is suspected, but not proven.

Uncertainty in range is mirrored by uncertainty in taxonomy. For example, the species status of the dark oystercatcher on the North American Pacific Coast has been confusing in part because it hybridizes with the white-bellied form in Baja California (Jehl 1985, American Ornithologists' Union 1998). Pertinent to this study, the population in the Bahamas was once considered to be an endemic subspecies, *H. palliatus pratti* (Peters 1934), based on its larger bill size compared with the North American population, although recent treatments have tended to not recognize it as such. Other populations in South America and the Galapagos are recognized as subspecies.

The purposes of the present study were to better characterize the breeding status of the species in the northern Bahamas and, based on available information, offer suggestions as to the distinctiveness of the population and its conservation.

METHODS

American Oystercatchers were inventoried along the shores of the northern Bahamas in June of 2002 to 2006, 2008 and 2009. The area is extensive, including the main islands, smaller offshore islands (called 'cays'), and larger rocks in the island groups of the Abacos, the Biminis, the Berrys, and Grand Bahama. The methods and extent of coverage of the 2002–2006 survey are described in detail in Kushlan and Steinkamp (2008). Given the study area's size and short time span for the survey each year, areas were covered sequentially over the years of the study. In 2009, data on habitat use was obtained in the Berrys and in the Exumas. Observations were made in June because this is several months after North American birds have begun nesting, making it likely that the birds observed were Bahama residents. Also, June is the midpoint of the reported May–July breeding season in the Caribbean (Evans 1990, Raffaele *et al.* 1998), making it likely that adult birds observed were part of the breeding population. The expected breeding season for the Bahama population was confirmed during the study by our finding nests with eggs in June.

Observations were made by boat and by land. All accessible shorelines on the main islands and offshore cays and rocks were surveyed by boat at close range. When oystercatchers were found, a search for nests was made on foot. The methodology was the same as used by Douglas (2005) in Florida. Due to the lack of sightings on the original survey, the offshore cays of the Biminis and Grand Bahama were resurveyed in 2008 and 2009. Confirmation of the breeding status in the Exumas, in the central Bahamas, was also accomplished in June 2009. Oystercatchers were quite obvious on the shore and seemed deliberately to make themselves apparent when approached by boat or on land, standing high, calling, flying away, and when approached on land making distraction displays. Information from published and unpublished sources is reviewed to supplement our original observations made in this study (White, unpubl. bird observation data). Place names follow Lewis and Lewis (2006).

RESULTS

Summer records of the American Oystercatcher in the Bahamas from this study and from other sources are shown in Fig. 1. Oystercatchers were located during the breeding season at ten sites in the

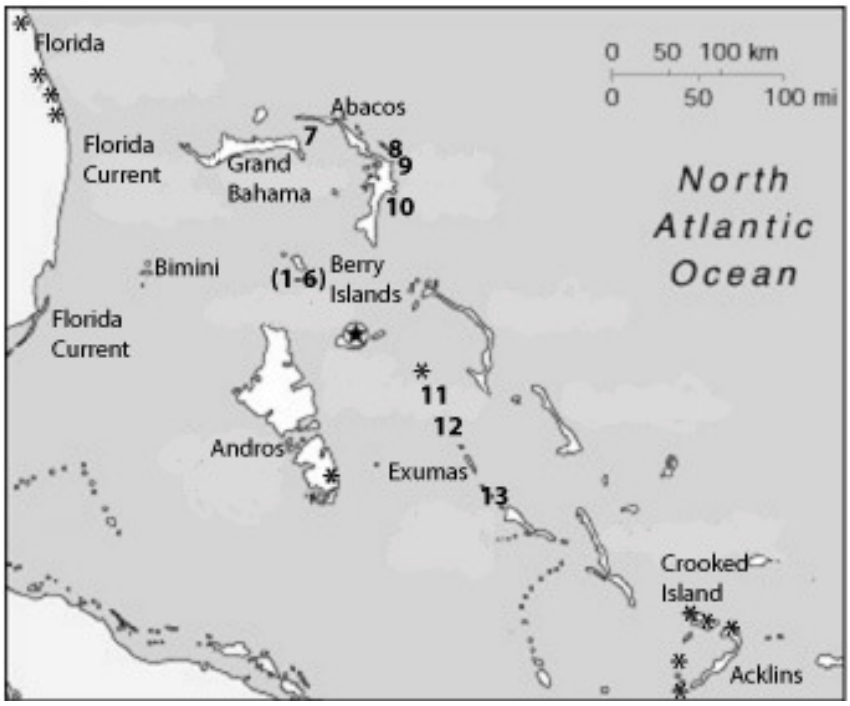

Fig. 1. The Bahamas with southern Florida, showing locations of known American Oystercatchers recorded in summer during the 2002–2009 study period (numbers) and other summer records (asterisks). Numbers key to sites listed in Table 1. Location of the Florida Current (Gulf Stream) is also shown.

Table 1. Records of nests or of pairs of American Oystercatchers observed during the study period (April–July 2002–2006, 2008, and 2009) and from other sources. Numbers key to locations on Fig. 1.

Island or Group / Cay	Location	Date	Source
Berry Islands			
1. Sandy (Bushes) Cay	25° 28.893' N, 78° 00.771' W	2 May 2002	This study
2. Diamond Cay	25° 23.808' N, 77° 52.614' W	22 May 2002	This study
3. Fish Cays	25° 28.564' N, 77° 49.894' W	22 May 2002	This study
4. Market Fish Cay	25° 40.259' N, 77° 45.462' W	23 May 2002	This study
5. Soldier Cay	25° 40.130' N, 77° 45.366' W	23 May 2002, 21 Jun 2009	This study
6. White Cay	25° 36.839' N, 77° 44.144' W	21 Jun 2009	This study
Abacos			
7. Spence Rock	26° 49.297' N, 77° 51.395' W	23 Jun 2004	This study
8. Pelican Cay	26° 25.385' N, 76° 58.767' W	22 Jun 2004	This study
9. Goole Cay	26° 20.661' N, 77° 59.136' W	26 Jun 2003	This study
10. Duck Cay	26° 16.755' N, 77° 05.896' W	23 Jun 2003	This study
Exumas			
11. SW Allens Cay	24° 44.562' N, 76° 50.412' W	14 Jul 2009	This study
12. Bushhill Cay	24° 34.096' N, 76° 47.352' W	13 Jul 2009	This study
13. Whitebay Cay	24° 45.456' N, 76° 49.777' W	15 Jul 2009	This study
Beacon Cay		Apr 1897	Maynard 1919–1920
Andros			
South Andros		1903	Bonholt 1903
South Andros		< 2002	McKenzie
Crooked / Bird Rock		May 1996	Hallett, White pers. obs.
Acklins			
Mira Por Vos Cays		May 1979	Sprunt pers. obs.
Crooked Island		May 1979	Sprunt pers. obs.
Guana Cay		May 1980	Whiting pers. obs.
Atwood Harbor		May 1999	Hallett pers. obs.

northern Bahamas, all in the Berry Islands and eastern Abacos (Table 1). As notable, oystercatchers were not found in the Biminis (South Riding Rock to Great Isaacs), on Grand Bahama, or in the western Abacos. The northwestern-most record in the northern Bahamas was from Spence Rock (site 7, located between Grand Bahama Island and Great Abaco Island), the easternmost was from Goole Cay (site 10, located near the easternmost point of Great Abaco Island). During this study, birds were also confirmed in the Central Bahamas, in the Exumas (sites 11–13). Records from other sources of birds in summer are from Crooked, Acklins, and Andros islands. (Fig. 1, Table 1).

Paired birds were observed only on small rocky cays. They were not found on small rocks or on the shores of the larger islands. Most cays have both rocky shores and beach, and at nearly all locations where oystercatchers were found there were beaches nearby. Nonetheless, observations of habitat use in 2009 showed that of eight sightings of birds, initially all were on rocky substrate.

During the present study, nests were found at Spence Rock and Goole Cay. The nests were located above the tide line on rocky/shelly patches adjacent to rock shore. The nest scrapes contained shells, small rocks, and beach wrack. Both nests contained two eggs. Beaches located near where oystercatchers were found were searched thoroughly, and nests were not found near them.

Given the 10 pairs found, using standard multiples (3 × nests, Clay *et al.* 2009), the population in the northern Bahamas can be estimated to be at least 30 birds. Adding the three nests in the Exumas brings the population documented by the survey period to 39 birds. Of course, these account for only

a portion of the Bahamas population, given that birds from only the northern Bahamas and a small portion of the Exumas are included.

DISCUSSION

The American Oystercatcher is recognized as a resident nesting species in the Bahamas (White 1998). Brudenell-Bruce (1975) described its distribution status as being resident from Exuma southward and on Andros. Buden (1987) described it as an uncommon to common resident in the southern Bahamas and probably breeding there but with no definite records. White (1998) described it as a readily observed, year-round resident in the central and southern Bahamas, on Eleuthera, Exumas, Cat, San Salvador, Long, Crooked, Acklins, Ragged, and Turks and Caicos Islands. The understanding of the summer/nesting status of oystercatchers in the central or southern Bahamas is actually based on very few observations (Table 1). The number of sightings in the Crooked and Atkins island group suggests oystercatchers are common there. In this study, we confirmed they occur, and we would judge them to be common, in the Exumas. Given the few reports, any future observations of oystercatchers in the southern and central Bahamas deserve to be reported.

In the northern and western Bahamas, the situation has been even less clear. Oystercatchers have long been recorded on Andros, with breeding season collections there over a century ago (Bonholt 1903). More recently, an oystercatcher was photographed on a nest on a cay near South Andros (Table 1, McKenzie pers. comm.). The species has been considered to be a rare permanent resident on North Andros (Osborne and Gering 1997). Elsewhere in the northern Bahamas, previous records of any sort are few. There had been no reports from the Abacos, one report from Bimini (non-nesting, in winter, 1996; White 2002), only one previous (very old) report from the Berry Islands (Maynard 1919–1920), and a recent (March 2009) record of an individual bird at McLean's Town, Grand Bahama (L. Manfredi and B. Purdy pers. comm.). The bird was seen prior to the nesting season but breeding was not confirmed in a focused search the following June. This suggests the bird may have been a North American migrant or it may have shifted from further east. In the same June 2009 survey, no birds were found on nearby Spence Cay, where they had nested previously. Further exploration of this area is desirable. Prior to this study, there had been no observations of nesting in the northern Bahamas. The ten records of pairs, including two nests reported in the present paper, extend the known nesting range of the species northward and westward to the eastern Abacos, cays near eastern Grand Bahama, and throughout the Berry Islands. Based on our experience, the oystercatcher may be considered to be common in the Berry Islands, as its abundance and dispersion was similar to the Exumas, where the species has long been considered common.

The continuing lack of observations of the species in summer from extreme northwestern Bahamas (the Biminis, western Grand Bahama, and northern and western Abacos), despite several years of survey work, is unexpected and suggests that American Oystercatchers may not nest in the area. This distribution gap is mirrored in nearby North America, where American Oystercatchers nest only as far south as Vero Beach (27° 40′ N), a position just north of the northern Bahamas (Robertson and Woolfenden 1992, Stevenson and Anderson 1994, Douglas 2005; Fig. 1). They do not nest in southeast Florida and, in fact, occur only rarely along the Florida Atlantic coast south of their nesting latitude (Stevenson and Anderson 1994). The American Oystercatcher expanded its range in North America northward in the past century (Nol and Humphrey 1994), yet during the same time span did not expand its range southward into southern Florida. Based upon the presently known nesting range in northern Bahamas and eastern Florida, there appears to be a gap in the nesting distribution of the American Oystercatcher encompassing southeast Florida and extreme northwest Bahamas (Fig. 1).

During the survey in the Bahamas, oystercatchers were observed on rocky shores, as were both nests. Oystercatchers and both nests observed were on small cays offshore of larger islands and not on the larger islands themselves or on small rocks. Such habitat choice appears also to be the case elsewhere in the West Indies (Raffaele *et al.* 1998). In this regard, West Indian and Bahamian Oystercatchers appear to differ from birds of the Atlantic coast of North America, which use beaches, mudflats, and coastal marshes, and nest on sand, shell beaches, dunes, salt marsh, and dredge spoil (Lauro and Burger 1989, Shields and Parnell 1990, Nol and Humphrey 1994). The possible distinction in habitat use between North American and West Indian oystercatchers deserves more attention as possibly a distinguishing feature between the two populations.

Rocky shores, apparently favored by Bahamian oystercatchers, constitute much of the typical shoreline of ocean-facing cays in the Bahamas and other

areas in the Caribbean. Thus the lack of availability of appropriate substrate is not an explanation for the patchy distribution of the species in the region, suggesting that there is more to its habitat choice than is readily apparent. Little if anything is recorded about the foraging habits and habitat choice of the Bahamian or West Indian birds. Although Bahamian birds are observed primarily on hard substrates, no studies have yet demonstrated whether they feed on soft substrates like North American Atlantic coast birds or hard substrates like West Indian birds, this being a fundamental ecological division among oystercatchers (Hockey 1996). Study of where and how oystercatchers feed in the Bahamas and the Caribbean may be an important contribution to understanding their distribution and habitat requirements.

The distribution of rocky shores may be offered as an explanation for the distributional gap between North America and the Bahamas, as there are no rocky cays off much of southeastern Florida. However, there are such islands in the Florida Keys and, in any case, oystercatchers do not use rocky shores along the North American Atlantic coast. Furthermore, habitat does not explain the gap in the northwestern Bahamas, as there is no lack of such rocky shores there. However, an interesting observation is that the hiatus corresponds with areas that are directly affected by the Florida Current (Gulf Stream). While causality is unclear, the warm water of the Florida Current could well influence food availability. A study of the foraging and food habits of the oystercatcher in the Bahamas and a comparison of food availability in the western and eastern portions of the Northern Bahamas might address this possibility.

Differences observed between North American and Bahamian oystercatchers, suggested by this study, may have ecological, taxonomic, and conservation implications. With respect to ecology, it seems that Bahamian oystercatchers are more like West Indian oystercatchers than eastern North American oystercatchers in their choice of rocky habitat. Ecologically, Bahamian birds are Caribbean not North American.

With respect to taxonomy, given that the intraspecific systematics of oystercatchers remain unsettled (Hockey 1996, American Ornithologists' Union 1998), the distinctiveness of the Bahamian population should not be lightly dismissed. The Bahamian population apparently has a larger bill, which was sufficient in the past to have supported its recognition as a separate subspecies (*H. o. prattii*; Bond 1956, Buden 1987, Clay *et al.* 2009). The range gap between nesting North American and Bahamian birds lends geographic support to this suggestion. In recent years, most authors have not recognized the Bahamas population as a subspecies, while recognizing as many as five other subspecies (Hayman *et al*. 1986, Nol and Humphrey 1994). A study of the possible morphological and biochemical distinctiveness of the Bahamian nesting population is desirable.

With respect to conservation, it seems clear that American Oystercatchers are not abundant in the West Indies, at least in comparison with eastern North America. The available estimate of the breeding population of the Caribbean is 550 individuals (Boyla and Estrada 2005), although this estimate is highly derived and needs to be treated with caution (Clay *et al.* 2009). Even so, in contrast, the oystercatcher population during the nesting season in Florida alone exceeds 1000 birds (Douglas 2005). Given this contrast and the highly disjunct range as it is currently understood, the Caribbean population is relatively small. If the Bahamas population were considered to be part of the Caribbean population, even the estimate of 30 birds in northern Bahamas notwithstanding, the many more farther south in the country indicate the importance of the Bahamas to the regional population. The high density of sightings in small patches, such as the Berrys, Exumas, and Crooked/Acklins, suggests these are nationally important areas for Oystercatchers within the Bahamas. If the Bahamas population does prove to be disjunct and morphologically distinct from that of North America, its conservation imperative becomes even more compelling. Conservation planning for the American Oystercatcher is well underway (Brown *et al.* 2005, Schulte *et al.* 2005, Clay *et al*. 2009). Given current information, it seems appropriate to plan specifically for the conservation of the Bahamas population. Like elsewhere within the range of the species, the breeding population is no doubt threatened by shoreline development, feral predators, and disturbance (Peters and Otis 2005, McGowan and Simons 2006, Nol and Humphrey 1994, Clay *et al.* 2009). Thus it is critical that such interference be minimized where possible in the Bahamas and that to the extent possible areas of concentration be protected from development. Its patchy distribution in the Bahamas despite superficially abundant habitat suggests that some natural limiting resource, such as food, is a critical issue to conservation. Much remains to be understood about nesting sites and distribution, habitat use, food hab-

its, numbers, and taxonomy; further knowledge of these aspects are important for providing an effective conservation strategy for the American Oystercatcher in the Bahamas.

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