

A Preliminary Nesting Survey of Least Terns and Black Skimmers in the East

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Illuminating the tern's dependence on man-made habitat: spoil banks and development dredging, and the skimmer's comparative scarcity.

Least Tern on nest. Photo/ Allan D. Cruickshank from N.A.S.

INTRODUCTION

Species which depend on bare sand for nesting such as the Least Tern (*Sterna albifrons*) and Black Skimmer (*Rynchops nigra*) occupy a precarious niche in the environment. Beach erosion has considerably reduced the amount of natural sand which remains above high tides. Human populations are growing and spending more time at the beach where dogs, children, motorcycles, and beach buggies have made most of the remaining beaches intolerable to seabirds. Man has offset the loss of habitat to some extent with the activities of his bulldozers, draglines, and dredges, but often the bare sand he creates is also attractive for various recreational activities. These activities may not be evident in May when the birds choose the site for nesting, but increase severalfold when school lets out for the summer.

Bare sand has the advantage that no time interval, such as for vegetative succession, is required to make it acceptable for nesting. But because of vegetative succession, bareness is a temporary condition, which means that sand-nesting birds must move on every few years to unfamiliar and perhaps unsafe habitats.

The weather is never kind to species which nest on the ground, and bare sand is worst of

all. Bare sand washes and blows readily during summer thunderstorms, forcing adults to abandon eggs and young to preserve their own lives. Fortunately, these species are well adapted to living under adverse conditions, and even though disaster strikes in some form almost every summer, the birds are so persistent in re-nesting that they almost always have some success. Yet, the long-term population trend seems downward, and with most workers reporting that nesting success was unusually poor in 1972, the decline seems pronounced enough to warrant increased attention.

METHOD

All these problems pointed up the need to make a survey of these sand nesters—a survey that could easily be repeated in two or three years to determine trends. Obviously, a complete survey of the Gulf and Atlantic coasts was impossible, so what this author and his wife attempted to do was make a *repeatable* survey, which with the time and resources available meant a driving survey, along every likely road near the beach and inlets from Mississippi to New Jersey. The following listing

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tells the story of what we found, admittedly poorly sampled in Georgia, S.C., and Virginia, augmented by reports of additional colonies by cooperators as noted.

RESULTS

Mississippi (May 8, 1973)

Biloxi: Least Terns were barely beginning to nest on May 8, with two small colonies totaling 20 pairs on dredging spoil near Daco Plant and one colony of 20 pairs on the public beach. About 200 additional birds were feeding along the beach.

Pascagoula: A large colony of 100 pairs of Least Terns, many with eggs, and 50 pairs of Black Skimmers on dredging spoil at The West Bank Shipyard. Jim Keeler reports similar colonies in this vicinity in other years.

Alabama (May 7, 1973)

Perdido Inlet: eight pairs of Least Terns in a borrow pit.

Florida, Gulf Coast (May 8-14, 1973)

Pensacola: Thirty pairs of Least Terns on a canal development spoil, on the bay side of the beach.

Destin: Three development spoil colonies totaling 35 pairs of Least Terns, vulnerable to disturbance. One nest in a paved street. Two unusual natural dune colonies totaling 15 pairs, 2 miles west of bridge. Some nests had three eggs.

Port St. Joe: Dredging spoil colony of 15 pairs of skimmers, 60 pairs of Least Terns, 25 pairs of Sandwich Terns, and some Laughing Gulls. Only the Least Terns had eggs.

St. George Island: Twenty pairs of Least Terns and 100 pairs of skimmers on a spoil island near the mainland. Thirty Least Terns loafing on the causeway, may nest nearby later. J. Kight reports 10 pairs of Least Terns on the west tip in June.

New Port Richey: Twenty pairs of Least Terns and 100 pairs skimmers on Gulf Harbor Development spoil.

Tampa-St. Petersburg: Twenty pairs of skimmers and 10 pairs of Least Terns near the east end of I-75 causeway; 400 pairs of Least Terns in four colonies south of St. Petersburg from the west end of Pinellas Bayway to DeSoto State Park. A huge Laughing Gull colony nearby may threaten the terns. Twenty-five pairs of Least Terns and a few skimmers on the causeway at the south end of Skyway is doomed by cars and fishermen. K. von Schmidt reports 100+ pairs of Least Terns on a dredging spoil near Palm River.

Casey Key, north of Venice: Five pairs of Least Terns on the beach being guarded by a local resident.

Gasparilla Island: Thirty pairs of Least Terns in two colonies on dredging spoil islands near the causeway.

Cayo Costa Island: Mike Fogarty reports 100 pairs of Least Terns on a barrier island near the north end.

Ft. Myers: Perhaps 100 pairs in two colonies on dredging spoil islands east of the old bridge.

Marco Island: Fifty-100 pairs of Least Terns on the canal development spoil near an old access road, with some skimmers on the south tip.

Florida Keys (May 15, 1973)

Key Largo: Two colonies of Least Terns totaling over 200 pairs on hard coral development spoil.

Plantation Key, Tavernier: Fifteen pairs of Least Terns on coral spoil.

Long Key: Twenty pairs of Least Terns on north end coral development spoil.

Big Pine Key: Two colonies of Least Terns totaling 50 pairs on coral development spoil.

Cudjoe Key: Two colonies of terns totaling almost 200 pairs on coral development spoil.

Sugarloaf, Saddlebunch, and Big Coppitt Keys: Three small colonies of terns totaling 25 pairs on coral development spoil.

Geiger Key: Sixty pairs of terns on coral development spoil.

Florida, Atlantic Coast: (May 16-17, 1973)

Miami: Many Least Terns feeding in the area, but only two colonies found; 50 pairs on Fair Isle development spoil and 10 pairs on an old vegetated dredging spoil at Virginia Key.

Hallandale: Fifty+ pairs of terns on canal development spoil near the race track.

North Palm Beach: Twenty-five pairs of Least Terns on dredging spoil where the Inland Waterway enters Lake Worth. These were late nesters, most with only one egg.

Stuart Beach: Fifty pairs of Least Terns in two colonies, one on the causeway and one on development spoil in the Indian River. Some were placed between stacked construction materials. These, too, were late nesters.

Vero Beach: Ten pairs of Least Terns on hard-packed development spoil.

Patrick Air Force Base: A small colony of Least Terns in a restricted area.

North Cocoa Beach: Twenty-five pairs of

terns on vegetated development spoil at S Banana River Blvd., 20 pairs on development spoil behind a shopping center at A1A and Hwy. 520. Solid motorcycle tracks were evident in the colony.

Canaveral Channel, Hwy. 401: Four colonies of Least Terns totaling over 100 pairs. Jerry Pace reported 1,000+ pairs of Least Terns and 50 pairs of skimmers in one colony here last year.

New Smyrna Beach: Colony of 300-400 pairs of *albifrons* on new dredging spoil at the north tip.

St. Augustine: 50+ pairs of Least Terns in natural dunes on Couch Island.

Mouth of St. Johns River: Small colony of Least Terns on natural beach and dunes.

Bird Island in Nassau Sound: Large colony of Least Terns (probably 100+ pairs) on natural beach.

Steve Nesbit reports an additional colony of Least Terns in a gravel pit in Duval County.

Georgia (May 17-18, 1973)

Cumberland Island: One hundred + pairs of Least Terns on the south tip beach. Mrs. Masters reports that a large colony on Christmas Creek was only one-third as large as last year. Another small colony did not come back at all.

Jekyll Island: Sixty pairs of terns on dredging spoil near a marina. Mrs. Masters reports many terns abandoned the site and only 28 chicks were found.

St. Simon-Sea Island: Mrs. Masters reports no nesting where there were two small colonies last year.

St. Andrews Island: Mrs. Masters reports a colony here in past years but we could see no activity in May, 1973.

Darien: Ten pairs of Least Terns on Hwy. I-95 spoil.

Savannah: Thirty pairs of skimmers on spoil in the mouth of the Savannah River; 5 pairs of Least Terns nesting on white salt flats in the marsh near Ft. Pulaski!

South Carolina: (May 18-19, 1973)

North of Savannah: Three-hundred pairs of Least Terns on dredging spoil. Also 3 pairs of Black-necked Stilts and 20 pairs of Wilson's Plovers.

Charleston: Thirty-four pairs of Least Terns, 10 pairs of skimmers, 20 pairs of Wilson's Plovers on development spoil off Folly Beach Road. Seventy-five pairs of Least Terns and 15 pairs of skimmers here last year. Ted Beckett reports that 25 pairs of Least

on Sullivan's Island produced no young owing to disturbance. Beckett reports that Bird Key, off Folly Island, has 50 pairs where 100-200 pairs usually nest. This colony and Cape Island were forced to re-nest owing to 25 inches of rainfall in June.

Pauley's Island: Three pairs of Least Terns where 50 pairs raised eight young on the beach in 1972. Much human disturbance

Litchfield Beach: Ten pairs of Least Terns on the south beach. Much disturbance.

Garden City Beach: Twenty pairs of Least Terns on canal development spoil where 50 pairs produced one young in 1972. A fence erected last year to exclude vehicles was recently torn down by vandals.

North Carolina (May 19-21, 1973)

Sunset Beach: Five-hundred pairs of Least Terns, 30 pairs of skimmers on development spoil. Three-hundred-400 pairs of Least Terns and 50 pairs of skimmers very successful last year. Some young Least Terns were already present this year. Attempts to exclude vehicles here were not entirely successful.

Long Beach: Perhaps 20 pairs of Least Terns on dredging spoil. Forty pairs here in 1972 produced few young.

Wrightsville Beach: Two colonies totaling 50-100 pairs of *albifrons* on the dredging spoil. The 100 pairs on Masonboro had no success last year.

Top Sail Beach: Thirty pairs of Least Terns among the dunes where 25 pairs were unsuccessful last year.

Surf City: Five pairs of Least Terns in a graded lot where 25 pairs raised 10 young in 1972. Too much human activity here.

Cedar Point: Thirty pairs of Least Terns in two colonies on dredging spoil islands. Similar numbers in 1972 were unsuccessful.

Carteret Bridge: Twenty pairs of Least Terns on vegetated dredging spoil where 50 pairs produced five young in 1972.

Ft. Macon State Park: Lynn Mosely reports 27 pairs of terns had very good success on vegetated dredging spoil.

Beaufort: Seventy pairs of Least Terns in three colonies on dredging spoil on or near Radio Island. John Fussell reports their success is much better than in 1972. He also reports an additional colony of 20 pairs across from the town of Beaufort. Last year's very large skimmer colony across from Morehead City was not seen by us or mentioned by Fussell.

Ocracoke Island: Sixteen pairs of Least Terns on tidal flats with 3 pairs of Am. Oystercatchers. No success last year owing to tides and rain. One hundred thirty pairs of Least Terns in two colonies on north end, the largest of these on a natural beach, the other on dredging spoil. Ferry boat, gulls and rain destroyed this spoil colony in 1972.

Hatteras: Fifty pairs of skimmers, 70 pairs of Least Terns, 150 pairs of Common Terns, 1,000 pairs of Royal Terns on dredging spoil islands near the ferry route. Gull predation probable.

Cape Hatteras National Seashore: More than 300 pairs of Least Terns in eight colonies on the natural beach, mileposts 40.4, 34.5, 26.5, 16.3, 14.1, 9, Oregon Inlet and opposite Salvo Campgrounds. Twenty pairs of skimmers on Pea Island National Wildlife Refuge. Beach buggies and weather prevented their success last year. Most colonies are now in different locations.

Virginia (June 12, 1973)

Hampton: Mitchell Byrd reports 125 pairs of Least Terns on the beach at Grand View Park, with success very good. Byrd also reports Least Tern colonies of 50 pairs on Gwynn Island and two colonies totaling 100 pairs on Craney Island. Heavy rain caused high mortality to the young there. Byrd reported total of 350 pairs of Least Terns on Metomkin, Cedar, Hog, Wreck, Shipshoal, and Smith Islands and at Long Point and New Point Comfort last year, but did not visit these in 1973.

Fisherman Island: Sixty pairs of skimmers, 200+ pairs of Common Terns and some Gull-billed Terns in two colonies. The largest of these was on the beach. Chesapeake Bay was not surveyed.

Assateague Island: The traditional beach colony of 20 pairs of Least Terns and 10 pairs of skimmers not checked. No success last year.

Windmill Point: Nichols reported only two nests last year where there were 24 in 1971.

Maryland (June 13, 1973)

Assateague Island: Last year's unsuccessful colony of 40 pairs of Least Terns was not active.

Ocean city: One hundred fifty pairs of Least Terns on development spoil with only a few nests; probably recently rained out. Only 10 pairs were here in 1972. Chesapeake Bay was not surveyed.

Cambridge Last year's unsuccessful colony of 10 pairs of Least Terns was not visited.

Jane's Island State Park: Only 2 pairs of Least Terns were flying where McNeilly reported a colony last year.

Delaware (June 13, 1973)

Bethany Beach: Five-10 pairs of Least Terns rained out. This colony was down from 25 pairs in 1972.

Indian River Inlet: Forty-50 pairs of Least Terns, with 12 nests and 2 young. Recent heavy rains. Twenty-five-30 pairs had fair success last year.

Broadkill Beach: One pair of Least Terns, presumably where 30 pairs nested last year

Cape Henlopen: The traditional colony was not visited—only 10 pairs of Least Terns nested in 1972.

New Jersey (June 13-14, 1973)

Ocean City: Ten pairs of Least Terns on development spoil.

Brigantine Beach: Seventy-five to 100 pairs of Least Terns on development soil. Only four nests were found in a quick search. This colony must have been recently washed out

Beach Haven: Fifty + pairs of Least Terns on south tip beach.

Harvey's Cedars: Thirty pairs of Least Terns on development spoil. Ten nests found in a quick search.

Seaside Heights: Seventy-five to 100 pairs of terns in two colonies on development spoil.

Mantoloking: Fifty pairs of terns on development spoil between houses. We found 18 nests and 2 young.

Sandy Hook: One-hundred pairs of Least Terns on a natural beach. Twenty pairs of Roseate Terns were loafing there.

Mrs. Fisk says we missed traditional colonies at Stone Harbor, Avalon, and Cape May

For a summary of Least Tern colonies on Long Island, N.Y., in 1973, see *Am. Birds* 27: 850.

SUMMARY

Approximately 5,000 pairs of Least Terns in 103 colonies and 500 pairs of Black Skimmers in 13 colonies were found during 4,500 miles of coastal driving from Mississippi to New Jersey, in May and June, 1973. Less than 20 per cent of these were on natural beaches and dunes; the remaining 80 per cent of the habitat was man-made, mostly dredging and development spoil. Cooperators reported an additional 1,000 pairs of Least Terns in 20 colonies, with nesting success generally believed to be better than in 1972.