A SELECTED BIBLIOGRAPHY OF THE LIFE REQUIREMENTS OF COLONIAL NESTING WATERBIRDS AND THEIR RELATIONSHIP TO DREDGED MATERIAL ISLANDS

by

Mary C. Landin

Environmental Laboratory
U. S. Army Engineer Waterways Experiment Station
P. O. Box 631, Vicksburg, Miss. 39180

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SUBJECT: Transmittal of Miscellaneous Paper D-78-5

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1. The report transmitted herewith represents the results of one of a series of research efforts (work units) undertaken as part of Task 4F (Island Habitat Development) of the Corps of Engineers' Dredged Material Research Program (DMRP). Task 4F was part of the Habitat Development Project of the DMRP and had as its objective investigating, evaluating, and testing methodologies for habitat creation and management on dredged material islands.

2. Island habitat development has been studied by the DMRP throughout the United States through an evaluation of vegetation succession and animal use of existing dredged material islands. The most significant wildlife aspect of these islands is their use by colonial nesting sea and wading birds (such as gulls, terns, egrets, herons, ibises, and pelicans). This wildlife resource, although generally inadvertently created, presents a significant opportunity for habitat management and development which is consonant with continued dredged material disposal.

3. This report (Work Unit 4F04) presents an extensive bibliography of pertinent research on the life requirements of colonial nesting waterbirds in the United States and their relationship to dredged material islands. Additionally, selected references regarding vegetation and soils on dredged material islands are presented.

4. The bibliography supplements a series of research efforts produced by the DMRP under Task 4F. A national perspective is presented in Technical Report DS-78-18, entitled "Development and Management of Avian Habitat on Dredged Material Islands" (4F03), which synthesizes island habitat research in New Jersey (4F01D), the Great Lakes (4F01A), North Carolina (4F02), Florida (4F01C), Texas (4F01B), the Pacific Northwest (4F01E), and the Upper Mississippi River (4F01F).
This document presents an extensive bibliography of pertinent research on the life requirements of colonial nesting waterbirds in the United States and their relationship to dredged material. An additional bibliography of 181 references pertaining to the vegetation and soils on dredged material islands and environmental impacts of dredged material deposition on waterbird habitats is also presented. Selected references from Canada, Europe, and Africa that pertain to related waterbirds or those introduced to the United States (Continued)
20. ABSTRACT (Continued).

States are included. This report provides the reader access to little-known sources and gives localized data on waterbird species that are not otherwise readily available. References from years 1844 to 1978 are included.
PREFACE

This report was written as part of Task 4F, entitled "Island Habitat Development," of the Habitat Development Project (HDP), Dredged Material Research Program (DMRP), for the Office, Chief of Engineers, at the U. S. Army Engineer Waterways Experiment Station (WES), Vicksburg, Mississippi.

Manager of Task 4F was Ms. Mary C. Landin, who prepared this report. Work progressed under the general supervision of Dr. H. K. Smith, Manager of the HDP, Dr. Roger T. Saucier, Special Assistant for the DMRP, and Dr. John Harrison, Chief, Environmental Laboratory.

Commander and Director of WES during the preparation of this report was Colonel John L. Cannon, CE. Technical Director was Mr. F. R. Brown.
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PART I: INTRODUCTION

1. Colonial nesting waterbirds are recognized as a unique group of nongame migratory species that have definite and often limiting habitat requirements. Historically, populations of the colonial waterbirds covered in this report numbered in the tens of millions, existing throughout swamps, marshes, lake and river systems, and coastal areas. In south Florida alone, waterbird populations have declined from 2,500,000 in 1870 to 1,500,000 in 1935, 300,000 in 1960, and finally to 150,000 in 1974 (Crowder 1974). Initial population declines resulted primarily from shooting the birds to obtain feathers for the millinery trade. Declines of the past 60 years have been the result of man's destruction of their feeding and nesting habitats. In recent years this decline has been slowed and stabilized somewhat, but some species are still experiencing habitat loss and will continue to do so unless steps are taken to prevent further inroads by man. Adult population levels of these species in the United States are presently estimated at no more than 5,000,000, even though these species are now protected by Federal law.

2. A research effort was undertaken as Task 4F, Island Habitat Development, of the Dredged Material Research Program, sponsored by the Office, Chief of Engineers, and conducted by the U. S. Army Engineer Waterways Experiment Station, to determine the use of dredged material islands by colonial waterbirds. An estimated 2,000,000 of these birds were found to be nesting annually on these islands, and in some regions, waterbirds have been nesting on dredged material islands for as long as 50 years (Anderson 1978, Mills 1934). Several of these species are endangered, threatened, or rare throughout large parts of their ranges. A report has been prepared that synthesizes this research and sets forth guidelines for developing and managing dredged material islands.
(Soots and Landin 1978). The reader is referred to that report for detailed habitat requirements and management techniques.

3. This document is a companion report to Soots and Landin (1978). It presents bibliographies of pertinent research on the life requirements of colonial waterbirds in the United States and their relationship to dredged material islands (and man-made sites) in Corps-maintained waterways. Selected references from Canada, Europe, and Africa that pertain to related or U. S.-introduced waterbird species are listed as well.

4. Sources (total of 181) of these references are from the journals, publishers, institutions, agencies, and environmental publications that are listed in Table 1. The compiled references provide the reader with guidance to little-known sources and give localized data on waterbird species that are not otherwise readily available. References from years 1844 to 1978 are included.
Table 1
Sources of Bibliographical References in the Report

| Alabama Birdlife                                                                 | Country Life in America                                      |
| Adamson Association for the Advancement of Science                              | Cranbrook Institute of Science                                |
| American Birds                                                                  | Davenport Public Museum                                       |
| American Journal of Botany                                                      | Delaware Valley Ornithological Club                          |
| American Midland Naturalist                                                     | Denver Wildlife Research Center                               |
| American Ornithologists' Union                                                  | Dover Reprint Publishers                                      |
| Animal Behavior                                                                 | EBBA News                                                     |
| Auburn University                                                               | Duke University                                               |
| Audubon Field Notes                                                             | Ecological Monographs                                        |
| Audubon Magazine                                                                | Ecology                                                      |
| Audubon Research Reports                                                        | Everett Community College                                    |
| Auk                                                                            | Evolution                                                    |
| Avian Diseases                                                                  | Flicker                                                      |
| Behavior                                                                       | Florida Academy of Science                                   |
| Biological Conservation                                                         | Florida Field Naturalist                                     |
| Bird-Banding                                                                   | Florida Institute of Oceanography                             |
| Bird-Lore                                                                      | Florida Naturalist                                            |
| Bird Study                                                                     | Florida Science                                              |
| Blue Jay                                                                       | Florida State Museum                                         |
| Boston Society of Natural History                                              | Geographic Review                                            |
| Botanical Society of Edinburgh                                                  | Great Lakes Basin Commission                                 |
| British Birds                                                                  | Gulf South Research Institute                                |
| British Columbia Provincial Museum                                             | Hillsborough Community College                               |
| Bureau of Sport Fisheries and Wildlife                                         | Houston Geological Society                                   |
| California Department of Fish and Game                                         | Illinois                                                  |
| Campbell College                                                                | Immersion Science                                            |
| Canadian Field-Naturalist                                                       | Inland Bird-Banding News                                     |
| Canadian Wildlife Service                                                       | Institute of Marine Science                                  |
| Cassinia                                                                        | Iowa Bird Life                                               |
| Central Michigan University                                                     | Iowa State University                                        |
| Chat                                                                           | International Ornithologists Congress                        |
| Chicago Ornithological Society                                                 | Jack-Pine Warbler                                            |
| Coastal Zone Management Journal                                                 | J. Elisha Mitchell Scientific Society                        |
| Coastal Zone Resources Corporation                                             | Klaibird                                                     |
| College of William and Mary                                                     | Linnaean Society                                             |
| Colonial Waterbird Group                                                        | Lon                                                         |
| Colorado-Wyoming Academy of Science                                            | Louisiana Conservation                                      |
| Condor                                                                          | Louisiana State University                                  |
| Cornell University                                                             | Luther College                                               |
|                                                                               | Massachusetts Audubon Newsletter Memoir                      |

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26


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33


PART III: VEGETATION, SOILS, AND ENVIRONMENTAL IMPACTS BIBLIOGRAPHY


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49


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