# BIRD COLLECTIONS IN THE UNITED STATES AND CANADA

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This survey was initiated in 1966 as a project of a subcommittee of the A.O.U.'s Committee on Research, at that time chaired by Paul H. Baldwin. The subcommittee consisted of the authors and Ralph J. Raitt. In 1968 the project was separated from the Committee on Research and the temporary Committee on Collections was established, with the present authors as its members. This paper is the final report of the committee.

In the past, many studies utilizing museum materials have been handicapped by ignorance of the existence of potentially important specimens. We hoped, by means of this survey, to enable future workers to take full advantage of all available material. The objectives of the survey were to determine the locations of collections of ornithological material with research potential, particularly skins, skeletons, fluid-preserved specimens, eggs, and nests; to assess the sizes and particular geographic or systematic strengths of the various collections; to locate former private collections; to learn what collections include holotypes, and who is responsible for the collections. These basic points are generally well-known for the larger institutions that specialize in maintaining research collections, but not for many smaller collections containing valuable material. The survey was inspired by and patterned after a series made of mammal collections (see Anderson et al. 1963, J. Mammal. 44: 471–500).

A survey form was prepared for distribution to all known holders of bird collections and to institutions and individuals that we felt might have such collections. Recipients were asked first to categorize their response by marking one of the following:

- A. If you have no collection of bird specimens, or fewer than 25 (all local) please check here. Then complete item 15 only, and return.
- B. If you have fewer than 200 specimens, primarily local, for exhibition or teaching purposes, please check here. If there are specimens of particular interest, such as rare, extinct, or exotic species, state records, historical specimens, etc., please list these on reverse. Then complete items 11–15 only, and return.
- C. If you have more than 200 specimens, please complete the rest of the form.

The following 15 questions were asked:

1. Approximately how many specimens of birds are there in your private or institutional collection, in each of the following categories? Study skins, skeletons, preserved in fluid, mounted birds, egg sets, nests.

- 2. Does the collection include any type specimens (holotypes)? If so, how many? Has a catalog or list of these been published? Please give citation. Number added since catalog?
  - 3. What geographic areas are most well represented in your collection?
  - 4. What systematic groups are most well represented in your collection?
- 5. Are special preparations represented? (give approximate numbers if convenient). Injected anatomical preparations, known age specimens, domestic birds, mounted skeletons, other.
  - 6. Are original field notes preserved with the collection?
- 7. Are card files maintained to facilitate finding specimens of certain systematic groups? Certain geographic areas? Other categories?
- 8. Does your collection include specimens previously cited in the literature as being in a different collection (for example, a formerly private collection now in an institutional collection)? What collections have been combined with yours?
- 9. Is it usually necessary to make arrangements in advance to use the collection? Is someone usually available to aid an investigator wishing to use the collection? May the collection be used other than normal working hours, as on evenings and weekends?
- 10. Are specimens loaned for study? Skins, skeletons, fluid-preserved, eggs, nests? (This presumes that loans are usually made to institutions rather than to individuals, that the cost of shipping both ways will be borne by the institution requesting the loan in writing, and that adequate insurance will be carried. The loan of type specimens is not expected.)
- 11. Is there an organized nest records scheme or banding program associated with the collection?
- 12. Does the collection include files of original photographs? original paintings? tape recordings?
- 13. Do you consider this primarily a teaching, reference, exhibition, or research collection?
  - 14. Who is directly in charge of the collections? (title and address).
  - 15. Form completed by (name, title, address, and date).

Survey forms were sent to 1,456 institutions and individuals, beginning in May 1969. Sources utilized in compiling the list of addresses included the "Directory of bioscience departments in the United States and Canada" compiled by the A.I.B.S. (1967, Rheinhold Publ. Co.) and the "Museums directory of the United States and Canada" (1965, Amer. Assoc. of Museums). The Division of Wildlife Refuges of the U.S. Bureau of Sport Fisheries and Wildlife and the Office of Natural Science Studies of the National Park Service provided us with lists of refuges and parks known to have collections. Survey forms were also sent to all other persons and institutions known or suspected by the committee members or colleagues to have collections. A number of recipients of the forms suggested others to whom forms should be sent. Announcements of the survey published in journals brought a few additional requests for forms.

A total of 860 individuals and institutions returned completed forms to us, a return of 59 percent. A brief check revealed that most of the

forms not returned had been sent to small institutions and we assume that most of these lack collections.

In compiling this report from returned survey forms, we have attempted to condense a great deal of information into a relatively small space by using a telegraphic style and omitting minor aspects. Collections were divided into three categories by size: (I) containing more than 1,000 research specimens (study skins, skeletons, and fluid-preserved); (II) between 200 and 1,000 research specimens; and (III) fewer than 200 research specimens.

Principles and procedures followed in compiling the results were (numbers correspond to the questions asked):

- 1. Number of specimens.—Most of the numbers reported are *estimates*. Minor holdings are not included; i.e. fewer than 25 skins, skeletons, and fluids are not listed and fewer than 50 mounts, egg sets, and nests are omitted. All numbers are rounded to the nearest 5.
- 2. Holotypes.—Thirty-three collections reported holding holotypes. No collection with fewer than 10 holotypes had published a catalog of them; collections with more than 10 are noted "no catalog" or a publication citation is given. This item is omitted for collections not reporting holotypes.
  - 3. Geographic areas.—Cited as reported on form.
- 4. Systematic groups.—Special holdings are reported; otherwise collections are assumed to be of a general nature.
- 5. Special preparations.—Noted if the respondent gave an indication of the number in each category; omitted if categories were merely checked or if fewer than 10.
- 6. Field notes.—Cited here if the category was checked; details are included if given. It is likely that some respondents confused field notes with label data on specimens.
  - 7. Files.—Reported as given on form.
- 8. Collection components.—Although we requested just the names of collections previously cited in the literature as being elsewhere, some respondents listed the separate components of their collections. These have been included in our report except for a few instances where respondents were apparently listing collectors' names rather than collections.
- 9. Use of collection by visitors.—It is always courteous, and often necessary, to make advance arrangements to visit a collection. Virtually all collections indicated that if advance notice were given visitors would be welcome, someone would be available to help, and the collection might be used outside normal working hours. Readers are reminded that college or university collections might not be available in summer, and that collections in parks and field stations, etc., might be closed in winter. Only special comments are given for this item in the compilation. Prospective visitors and those writing for information about a collection or requesting loans should address their inquiries to the title of the person in charge of the collection. Letters addressed solely to the name of the respondent listed in this report could be delayed if that person were no longer associated with the collection.
- 10. Loans.—Most institutions are willing to loan skins, skeletons, and fluid-preserved specimens, but not mounts, eggs, or nests. Institutions not willing to loan specimens are noted.

11. Associated activities.—Collections with associated nest record schemes, banding programs, etc., are so reported.

- 12. Photographs, paintings, tape recordings.—Reports of these holdings are given in the detail supplied on the forms.
- 13. Purpose.—Categories are listed as on the survey form unless the respondent ranked them differently.
- 14, 15. Responsible persons.—If only one name is given it indicates that the respondent is directly in charge of the collection. If two names are listed, the first is of the person in charge, the second is of the respondent.

Dates the forms were completed are omitted. Most were filled out during the summer or early autumn of 1969. Corrections received through September 1972 have been incorporated, but we have made no special effort to bring information up to date.

Many respondents with smaller collections noted specimens of particular interest. Twenty-two type III collections supplied such information, most replies indicating a mounted Passenger Pigeon (usually without data) or other extinct species. Space limitations preclude listing this information here, but it was compiled and is available from any of the authors and will be filed permanently in the Royal Ontario Museum.

## RESULTS

To our knowledge, the only previous compilation of information about ornithological research collections is that presented by J. L. Peters (1933, pp. 131–141 *in* Fifty years' progress of American ornithology 1883–1933, Lancaster, Pennsylvania, Amer. Ornithol. Union). Peters briefly discussed 28 institutional or private collections with more than 5,000 specimens and mentioned four others with fewer specimens. By contrast, the present survey reveals the existence today of 37 collections of more than 10,000 study skins. Three private collections Peters mentioned have since been incorporated into institutional collections.

# STUDY SKINS

The holdings of 283 institutions and private collections reporting specimens in this category total 4,001,175. The 20 largest collections of skins are as follows (the parenthetical number indicates the relative position of the collection in Peters' 1933 listing):

(1)	American Museum of Natural History	900,000
(2)	National Museum of Natural History	400,000
(6)	Field Museum of Natural History	300,000
(3)	Museum of Comparative Zoology	300,000
(11)	University of Michigan	200,000
(4)	Academy of Natural Sciences, Philadelphia	160,000
(5)	Carnegie Museum	150,000
(7)	Museum of Vertebrate Zoology	150,000

(15)	Royal Ontario Museum	105,000
(16)	Los Angeles County Museum	90,000
(8)	California Academy of Sciences	84,000
(—)	Peabody Museum, Yale University	80,000
(—)	Moore Laboratory of Zoology	67,000
()	Louisiana State University	65,000
(14)	National Museum of Canada	58,000
(20)	University of Kansas	40,000
(19)	San Diego Natural History Museum	37,000
<b>(1</b> 3)	University of California, Los Angeles	36,500
(18)	Denver Museum of Natural History	35,000
(22)	Cornell University	34,200

The 10 largest collections of study skins contain approximately 69 percent of the total of skins reported; the 20 largest contain approximately 82 percent.

# SKELETONS

A total of 142,150 skeletal specimens was reported by 89 collections. The 10 largest collections, which contain approximately 70 percent of the specimens, are:

National Museum of Natural History	25,000
University of Kansas	15,000
University of Michigan	11,100
Museum of Vertebrate Zoology	9,000
Pierce Brodkorb (private collection)	8,000
American Museum of Natural History	7,000
Royal Ontario Museum	7,000
Peabody Museum, Yale University	6,000
Museum of Comparative Zoology	5,200
University of Florida, Florida State Museum	3,000
University of Miami	3,000

# FLUID-PRESERVED SPECIMENS

The number of specimens in this category, reported by 49 collections, was 52,025. The 10 largest collections, which contain approximately 86 percent, are:

National Museum of Natural History	18,000
Peabody Museum, Yale University	8,000
American Museum of Natural History	5,000
Royal Ontario Museum	3,000
Carnegie Museum	2,500
University of Kansas	2,000
Museum of Vertebrate Zoology	1,700
Washington State University	1,500
Field Museum of Natural History	1,400
Bernice P. Bishop Museum	1,000
Cornell University	1,000

# EGGS AND NESTS

Details of egg and/or nest collections were given for 153 collections. Reported were 634,840 sets of eggs and/or nests. The 10 largest collections in this category are:

Delaware Museum of Natural History	150,000 sets of eggs
Western Foundation of Vertebrate Zoology	110,000 sets of eggs; 12,000 nests
Florida State Museum	50,000 sets of eggs; 500 nests
National Museum of Natural History	46,000 sets of eggs; 3,800 nests
San Bernardino County Museum	25,000 sets of eggs; 3,000 nests
Field Museum of Natural History	25,000 sets of eggs; 200 nests
American Museum of Natural History	18,000 sets of eggs; 5,000 nests
Clemson University	15,000 sets of eggs
Museum of Vertebrate Zoology	13,000 sets of eggs & nests
Royal Ontario Museum	12,000 sets of eggs; 3,000 nests

# DISCUSSION AND RECOMMENDATIONS

This survey has revealed the existence of something over 4,000,000 specimens of birds (excluding eggs and nests) in collections housed in the United States and Canada. This number seems impressive until one realizes that a substantial proportion of these specimens were collected long ago and either lack adequate data or are in such poor condition that their value for research purposes is minimal; they are chiefly useful as exhibit or teaching materials. In addition, the North American collections contain many thousands of some widely distributed, abundant species, but few or none of other, rarer, forms. Further, the 4,000,000 specimens of all birds in the world amassed into collections in the past century pales to insignificance when one considers that hunters may take more than 4,000,000 Mallard Ducks (a single species) annually in the United States alone, or when one considers the annual toll of birds striking TV towers, picture windows, and other man-made obstacles. The impact of the scientific collector in the past century has been minor. indeed.

Parkes (1963, Living Bird 2: 121–130) has discussed ways in which the study of museum collections increases our knowledge of birds. Studies of museum material are necessary prerequisites to certain studies in the field. Yet the basic biological facts of such phenomena as molt, plumage sequence, pterylography, and anatomy are lacking for many species because there are too few specimens in museums to permit thorough studies. Frequently requests to a museum for routine information reveal that specimens of the necessary age, sex, season, and/or locality are not available.

The continued addition of well-documented and well-labeled pertinent specimen material to North American museum research collections is necessary for the continued growth of the science of ornithology and for a continued increase in our knowledge about birds. Some of the material added to collections may be derived from the salvage of birds that die naturally or accidentally, but some specimens, especially those needed to solve particular biological problems, must be collected deliberately.

**Recommendation 1.** The growth of collections of birds for scientific and educational purposes should continue in accordance with provisions of state and federal conservation laws. Collecting regulations that interpret these laws realistically should be sought through consultation between the responsible government agencies and representatives of scientific ornithological organizations such as the A.O.U.

As an increasing number of colleges and universities add courses in ornithology to their curricula, the demand increases for the establishment of small collections to serve as teaching aids. Exhibit museums show a similar potential for growth, with a corollary demand for specimens suitable for mounting and display. Institutions of both kinds serve many worthwhile purposes, but individual zeal for beginning, rounding out, or completing such collections may result in undue pressures on some groups of birds.

**Recommendation 2.** New collections should be established only after thorough consideration of the need, the purposes to be served, and the probable continuity of the collection. The scope and growth of such new (and many extant) collections should be no greater than is consistent with their immediately foreseeable needs.

Just as the establishment of new collections is sometimes justified and necessary, the need for phasing out of collections no longer needed or used must be recognized. Institutional staff members may change research interests or may be replaced by persons with other interests. Under such circumstances, collections established for reasons no longer pertinent may be relegated to conditions of care and housing that are less than satisfactory, if not detrimental. Some may even be discarded or junked. Although these possibilities are greatest for small collections in small institutions, they are not so restricted. Lack of funding, interest, or insight may force even a major collection into dead storage and eventual deterioration.

**Recommendation 3.** Institutions that maintain collections should employ, as curators or research workers, persons whose interests are collection-oriented, and should be prepared to allot sufficient funding for the growth, use, and maintenance of the collection.

**Recommendation 4.** Collections no longer used, needed, cared for, or wanted by an institution should be transferred to another institution. Holders of private or semiprivate collections should make adequate provision for the eventual transfer of such collections to an institution where proper care can be assured.

Type specimens (holotypes) hold a special place of importance in systematic ornithology. These specimens must be properly housed and cared for and made available for study as the need arises. In lieu of a recommendation concerning the care of holotypes, we endorse Article 72 of the International Code of Zoological Nomenclature, which states (in part):

"Holotypes...are to be regarded as the property of science by all zoologists and by persons responsible for their safe-keeping...A zoologist who designates a holotype...should deposit it in a museum or other institution where it will be safely preserved and will be accessible for purposes of research...Every institution in which types are deposited should (1) ensure that all are clearly marked so that they will be unmistakably recognized; (2) take all necessary steps for their safe preservation; (3) make them accessible for study; (4) publish lists of type-material in its possession or custody; and (5) so far as possible, communicate information concerning types when requested by zoologists."

The recommendations presented above are the views of the authors and do not necessarily represent or reflect official policies of their employing institutions or of the A.O.U.

# ACKNOWLEDGMENTS

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## United States Collections

#### Alabama

- I. UNIVERSITY OF ALABAMA, Mus. Nat. Hist., University 35486. 1,000 skins, 200 egg sets; Alabama; some field notes; teaching, reference; H. T. Boschung, Director.
- II. AUBURN UNIVERSITY, Dept. Zool. Entomol., Auburn 36830. 250 skins; Alabama; marsh and shorebirds; teaching, research; J. L. Dusi, Prof.

STATE CONSERVATION DEPARTMENT, Game & Fish Div., Montgomery 36104. 750 skins; Alabama; field notes; Kenneth Underwood collection; teaching, research; R. W. Skinner.

III. BIRMINGHAM-SOUTHERN COLLEGE, Birmingham 35204. FLORENCE STATE UNI-

VERSITY, Florence 35630. WHEELER NATIONAL WILDLIFE REFUGE, Decatur 35601; banding program.

# Alaska

I. University of Alaska Museum, College 99735. 3,000 skins; north and central Alaska; waterfowl, shorebirds, alcids; some field notes; systematic files; reference; B. Kessel, Curator; L. J. Rowinski, Director.

## ARIZONA

I. NEOTROPICAL ORNITHOLOGICAL FOUNDATION, 1719 N. Huachuca St., Tucson 85705. 2,350 skins, 2,000 egg sets, 200 nests; 1 holotype; U. S., Samoa, Mexico, some Central America, Argentina; field notes; systematic files; Richard S. Crossin, Lawrence N. Huber (part) collections; some tape recordings; reference, research; R. S. Crossin, Trustee.

MUSEUM OF NORTHERN ARIZONA, Flagstaff 86001. 2,500 skins, 200 skeletons; northern Arizona; passerines; some field notes; systematic, geographic files; banding program; research; S. W. Carothers, Curator Zool.

PRESCOTT COLLEGE, Prescott 86301. 1,600 skins, 2,800 skeletons, 100 egg sets; southwestern U. S.; feather library (detached feather collections of 450 individual birds); field notes; systematic files; Lyndon L. Hargrave, Johnson-Simpson-Werner (formerly at Arizona State University), Phoenix College (part) collections; teaching, research; L. L. Hargrave, Asst. Prof. Ethnobiol. and R. R. Johnson, Assoc. Prof. Biol.

REA, AMADEO M. (Private Collection), Prescott College, Prescott 86301. 2,000 skins, 200 skeletons; southern California, central Arizona; corvids, tyrannids, icterids, mimids; field notes; San Luis Rey College collection (entire Rea collection formerly at St. John's Indian School, Laveen); banding program; tape recordings; research; A. M. Rea.

SOUTHWEST ARCHEOLOGICAL CENTER, Box 1562, Globe 85501. 240 skins, 740 skeletons; 10 holotypes; Arizona; waterfowl, hawks, passerines; 350 feather micro-slides, 400 feather sample packets, some anatomical preparations, known age, spreadwings; field notes; systematic files; research; Chief, Preservation Lab.; C. R. McKusick, Archeologist.

University of Arizona, Dept. Biol. Sci., Tucson 85721. 9,750 skins, 500 skeletons, 100 fluid, 300 egg sets, 150 nests; southwestern U.S., northwestern Mexico; some field notes; systematic files; Herbert Brown, Lawrence N. Huber (part), Gale Monson (Arizona, part) collections; nest records scheme, banding program; teaching, reference, research; S. M. Russell, Curator.

H. ARIZONA STATE UNIVERSITY, Dept. Zool., Tempe 85281. 400 skins; Arizona; parids; teaching; H. H. Hanson; L. T. Merkle, Curator Mammals.

Grand Canyon National Park, Grand Canyon 86023. 700 skins; northern Arizona; Fringillidae; reference, research; Chief, Environmental Activities and Systems; L. M. Hinchliffe, Curator/Librarian.

KINGMAN HIGH SCHOOL, 515 W. Beal St., Kingman 86401. 325 skins; Mohave County, Arizona; teaching, reference; B. F. Musgrove, Head, Sci. Dept.

NORTHERN ARIZONA UNIVERSITY, Dept. Biol. Sci., Flagstaff 86001. 600 skins; northern Arizona; banding program; teaching, reference, research; R. P. Balda, Asst. Prof. Biol.

ORGAN PIPE CACTUS NATIONAL MONUMENT, P. O. Box 38, Ajo 85321. 230 skins; southwestern Arizona; desert passerines; no loans; reference; R. L. Cunningham, Chief Park Naturalist.

III. ARIZONA-SONORA DESERT MUSEUM, Tucson 85703. IMPERIAL NATIONAL WILD-LIFE REFUGE, Yuma 85364. Levy, Seymour H. (Private Collection), Tucson 85705; Anatidae and Galliformes; most of remainder of original collection at Natl. Mus. Nat. Hist., Washington, D. C. Petrified Forest National Park, Holbrook 86025. Saguaro National Monument, Tucson 85719.

#### ARKANSAS

II. UNIVERSITY OF ARKANSAS, *Dept. Zool.*, *Fayetteville 72701*. 950 skins, 1,500 egg sets, 500 nests; Arkansas; 200 freeze-dried specimens; systematic files; W. H. Deaderick (skin), H. E. Wheeler (egg and nest) collections; photos; teaching; D. A. James, Prof. Zool.

#### CALIFORNIA

I. California Academy of Sciences, Golden Gate Park, San Francisco 94118. 84,000 skins, 1,000 skeletons, 600 fluid, 1,000 mounts, 6,100 egg sets, 710 nests; 34 holotypes, no catalog; North America, Panama, Galápagos, Hawaii, Manchuria, East Africa; Procellariiformes, Anatidae, Charadriiformes, Geospizinae; sclerotic eye rings, microscope slides of eyes; field notes; systematic files; W. Otto Emerson, Anatole S. Loukashkin, J. and J. W. Mailliard, James Moffitt, G. F. Morcom, Wood Slonaker, H. S. Swarth, and Stanford University collections; 5,000 photos, 4 paintings; research; R. T. Orr, Chairman, Dept. Ornithol. Mammal.

California State University, Hayward, *Dept. Biol. Sci.*, *Hayward 94542.* 1,050 skins (plus 50 partials), 110 mounts, 75 egg sets; western U.S.; teaching; H. L. Cogswell, Prof. Biol. Sci.

CALIFORNIA STATE UNIVERSITY, LONG BEACH, Dept. Biol., Long Beach 90840. 3,500 skins, 400 skeletons, 50 fluid, 60 mounts; southern California, Joshua Tree National Monument; systematic files; reference; S. L. Warter, Curator Birds.

CALIFORNIA STATE UNIVERSITY, SACRAMENTO, Dept. Biol. Sci., Sacramento 95819. 1,300 skins, 250 skeletons, 210 mounts, 130 egg sets, 90 nests; central California, some Mexico; systematic files; teaching; M. D. F. Udvardy, Prof. Biol. Sci.

California State University, San Diego, Dept. Zool., San Diego 92115. 2,500 skins, 200 skeletons, 50 fluid, 150 egg sets, 50 nests; southern California, some Costa Rica, Panama; systematic files; teaching; G. Collier, Assoc. Prof. Zool.

CALIFORNIA STATE UNIVERSITY, SAN FRANCISCO, Vert. Mus., Dept. Ecol. Syst. Biol., San Francisco 94132. 7,000 skins, 500 skeletons, 300 fluid, 50 mounts, 50 egg sets, 50 nests; central California, Nigeria, Azores, Galápagos; Passeriformes; field notes for recent material; systematic, geographic files; Chase Littlejohn collection (part); photos, tape recordings; reference, research; R. I. Bowman, Prof. Biol.

CALIFORNIA STATE UNIVERSITY, SAN JOSE, Biol. Dept., San Jose 95114. 2,965 skins, 205 skeletons, 320 mounts, 435 egg sets; California; Passeriformes; systematic files; Beck and Breme collections; all purpose; G. V. Morejohn, Prof. Zool.

Humboldt State College, *Dept. Wildl. Mgmt.*, *Arcata 95521.* 3,000 skins, 25 skeletons, 250 mounts, 200 egg sets; northwest California; systematic, geographic files; banding program; teaching; S. W. Harris, Assoc. Prof. Wildl. Mgmt.

Los Angeles County Museum of Natural History, 900 Exposition Blvd., Los Angeles 90007. 90,000 skins, 2,500 skeletons, 100 fluid, 1,000 mounts, 2,000 egg sets, 500 nests; 2 holotypes; South America, Africa, North America; Nectariniidae (Africa); 50 mounted skeletons; some field notes; systematic files; Allen Hancock Foundation, University of Southern California, George Willett (Alaska) collections; research; Curator Ornithol.; K. E. Stager, Senior Curator Ornithol.

MOORE LABORATORY OF ZOOLOGY, Occidental College, Los Angeles 90041. 67,000 skins, 2,000 skeletons, 250 fluid, 570 egg sets/nests; about 70 holotypes, catalog; Mexico, Ecuador, Honduras, Costa Rica; neotropical passerines, terrestrial non-passerines; field notes of Chester Lamb, J. W. Hardy and recent students, some expeditionary notes of R. T. Moore; species files; Rosenberg collection (humming-birds); 200 photos, paintings, tape recordings; reference, research; J. W. Hardy, Curator.

Museum of Vertebrate Zoology, University of California, Berkeley 94720. 150,000 skins, 9,000 skeletons, 1,700 fluid, 13,000 egg sets and nests; 174 holotypes, no catalog; western North America; passerines; field notes; Ralph Ellis, Milton Ray (part), Allan Brooks collections; many photos; research; N. K. Johnson, Curator Birds.

POMONA COLLEGE, Dept. Zool., Claremont 91711. 1,800 skins, 220 mounts, 2,100 egg sets; North America, British Honduras; passerines; H. Arden Edwards (egg), Coe College (part) collections; banding program; teaching; W. O. Wirtz, II.

SAN BERNARDINO COUNTY MUSEUM, 2736 Court St., Rialto 92376. 7,000 skins, 600 mounts, 25,000 egg sets, 3,000 nests; North American skins, worldwide eggs; field notes; systematic files; Wilson C. Hanna, Eugene Cardiff collections; some photos; all purpose; E. A. Cardiff, Curator Birds.

SAN DIEGO NATURAL HISTORY MUSEUM, Balboa Park, P. O. Box 1390, San Diego 92112. 37,000 skins, 500 skeletons, 50 fluid, 500 egg sets, 300 nests; 18 holotypes, catalog: Trans. San Diego Soc. Nat. Hist., 15: 133-139 (1968); western U. S., Baja California; some field notes; Stanley G. Jewett, Lawrence M. Huey collections; 100 photographs, some paintings by A. B. Brooks; research; J. R. Jehl, Jr., Curator Birds and Mammals.

Santa Barbara Museum of Natural History, 2559 Puesta del Sol, Santa Barbara 93105. 1,600 skins, 450 mounts, 6,000 egg sets, 1,000 nests; southern California; Lawrence Stevens egg collection; teaching, reference, exhibition; W. G. Abbott, Curator Birds and Mammals. Note: Most of a collection of 4,500 skins and a similar number of eggs was destroyed by fire in 1962; field notes for that collection are still available.

University of California (Los Angeles), Dept. Zool., Los Angeles 90024. 36,500 skins, 2,800 skeletons, 75 fluid, 110 egg sets; 179 holotypes, no catalog; western North America, western Mexico, Central America; field notes; systematic files; D. R. Dickey, L. H. Miller, R. B. Cowles collections; 4,500 photos, 6 paintings; teaching, research; T. R. Howell, Prof. Zool., and J. G. Miller, Senior Mus. Scientist.

UNIVERSITY OF CALIFORNIA (SANTA BARBARA), Dept. Biol. Sci., Santa Barbara 93106. 2,800 skins, 360 fluid, 75 nests; California, Alaska; Fringillidae, Picidae; rapid data process cards, systematic and geographic files; Barbara B. DeWolfe, John Cushing collections; banding program; 1 painting, tape recordings, sound spectrograms, 16 mm color film library on local species; teaching, reference, research; J. Bennett, Senior Mus. Scientist.

WESTERN FOUNDATION OF VERTEBRATE ZOOLOGY, c/o E. N. Harrison, Suite 1407, 1100 Glendon Ave., Los Angeles 90024. 25,000 skins, 300 mounts, 110,000 egg sets, 12,000 nests; 6 holotypes; skins: Mexico, western U.S., Colombia, Kenya; eggs: worldwide but especially Palaearctic, Mexico; some field notes; systematic files; incorporates 43 separate egg and nest collections and 6 skin collections; nest records scheme; paintings, edited film, prints, slides; research; E. N. Harrison; Lloyd F. Kiff, Curator.

II. BLEITZ WILDLIFE FOUNDATION, 5334 Hollywood Blvd., Hollywood 90027.

400 skins; Ecuador, Peru, western U. S.; Trochilidae, Thraupidae; field notes; banding program; 20,000 photos, tape recordings; research; D. Bleitz, President.

CALIFORNIA STATE POLYTECHNIC COLLEGE, Biol. Sci. Dept., San Luis Obispo 93401. 300 skins; San Luis Obispo County; ducks; teaching, exhibition; A. I. Roest, Prof. Biol. Sci.

California State University, Los Angeles, *Dept. Zool., Los Angeles 90032.* 780 skins, 50 skeletons, 290 egg sets; southern California; F. Mucke, C. C. Lamb (part), S. Stuart Rowley (part), F. E. Kleinschmidt Alaska Expedition collections; teaching, reference; W. R. Hanson, Prof. Zool.

CALIFORNIA STATE UNIVERSITY, SAN FERNANDO, Dept. Biol., Northridge 91324. 360 skins; southern California; teaching; G. F. Fisler, Assoc. Prof. Biol.

Loma Linda University, University Mus. Nat. Hist., Loma Linda 92354. 685 skins, 215 mounts; western U. S., Thailand; teaching, reference, exhibition; E. A. Haskins, III, Curator.

PACIFIC GROVE MUSEUM OF NATURAL HISTORY, 165 Forest Ave., Pacific Grove 93950. 200 skins, 500 mounts; central California coast; Rollo H. Beck Monterey Bay collection; exhibition; V. L. Yadon, Curator.

QUAY, WILBUR B. (Private Collection), Dept. Zool., University of California, Berkeley 94704. Collection of avian tissues and brains; serially sectioned series from about 100 brains.

ROTARY NATURAL SCIENCE CENTER, Oakland Park Dept., City Hall, Oakland 94612. 765 skins, 160 mounts; northern California; waterfowl; B. C. Cain Boy Scout "Museum" collection; waterfowl banding program; teaching, exhibition; P. F. Covel, Park Naturalist.

SAN DIEGO COUNTY DEPARTMENT OF AGRICULTURE, 5555 Overland, San Diego 92123. 220 skins; San Diego County; no loans; reference; K. H. Baker, Asst. Agr. Commissioner.

Santa Rosa Junior College, Santa Rosa 95404. 100 skins, 800 mounts, 290 egg sets; southern California, Nevada, Philippines; Chester Edge Healdsburg, Robert M. Moratto collections; teaching, exhibition; D. I. Patchett, Curator.

SESPE MUSEUM OF COMPARATIVE OOLOGY, 1498 Old Telegraph Road, Fillmore 93015. 1,930 egg sets, 1,110 nests; North America; all purpose; S. B. Peyton.

SONOMA STATE COLLEGE, Dept. Biol., Rohnert Park 94928. 690 skins, 50 egg sets; central California; teaching; J. R. Arnold, Prof. Biol.

University of the Pacific, Dept. Biol. Sci., Stockton 95204. 400 skins; California; teaching; L. Christianson; M. D. Arvey, Chairman.

III. BIG BASIN REDWOODS STATE PARK, Big Basin 95006. CHICO STATE COLLEGE, Chico 95926. COLLEGE OF MARIN, Kentfield 94904. COLLEGE OF NOTRE DAME, Belmont 94002. DEATH VALLEY NATIONAL MONUMENT, Death Valley 92328. DIABLO VALLEY COLLEGE, Pleasant Hill 94525. HASTINGS NATURAL HISTORY RESERVATION, Carmel Valley 93924. JOSHUA TREE NATIONAL MONUMENT, Twentynine Palms 92277. KERN COUNTY MUSEUM, Bakersfield 93301. LASSEN VOLCANIC NATIONAL PARK, Mineral 96063. LA VERNE COLLEGE, La Verne 91750. MESA COLLEGE, San Diego 92111. MILLS COLLEGE, Oakland 94613. OAKLAND MUSEUM, Oakland 94604. SANTA CRUZ MUSEUM, Santa Cruz 95060. TULE LAKE NATIONAL WILDLIFE REFUGE, Tule Lake 96134. YOSEMITE NATIONAL PARK, Yosemite National Park 95389.

# Colorado

I. COLORADO STATE UNIVERSITY, Dept. Zool. and Dept. Fishery and Wildl. Biol., Fort Collins 80521 (data for two collections combined). 3,150 skins, 110 skeletons,

200 fluid, 595 mounts, 230 egg sets; Colorado, Rocky Mountains; Anseriformes, Galliformes, Columbiformes, Passeriformes; 250 known age, 10 mounted skeletons; some field notes; systematic files; Osterhaut, Longwell collections; nest records scheme, banding program (both Dept. F. & W. B.); 1,000 photos, some paintings, 50 recordings; teaching, research, reference; P. H. Baldwin, Prof., Dept. Zool.; R. A. Ryder, Prof., Dept. Fishery and Wildl. Biol.

Denver Museum of Natural History, *Denver 80205*. 35,000 skins, 2,000 mounts, 2,000 egg sets; Colorado, Alaska; sea birds, waterfowl; journals of Alfred M. Bailey; geographic files; photos and paintings from Bailey, "Birds of Colorado"; exhibition, research; R. J. Niedrach; A. M. Bailey, Director.

DENVER WILDLIFE RESEARCH CENTER, Bur. Sport Fisheries and Wildl., Bldg. 16, Federal Center, Denver 80225. 1,100 skins, 1,120 skeletons; western U. S.; no loans; reference, research; R. B. Finley, Jr., Chief, Sect. Upland Wildl. Ecol.

UNIVERSITY OF COLORADO, Mus., Boulder 80302. 7,000 skins, 500 mounts, 900 egg sets, 500 nests; some holotypes; Colorado, North America; Charles E. H. Aiken collection (formerly at Colorado College, Colorado Springs); research; Curator Zool.; J. R. Rohner, Curator Museography and W. H. Burt, Assoc. Curator Warmblooded Vert.

- II. Adams State College, Biol. Dept., Alamosa 81101. 290 skins, 600 egg sets; Colorado, New Mexico, Florida; DeWitt Ivey (skins), John H. Brandt (egg) collections; no loans; reference, research; V. F. Keen, Assoc. Prof. and Coordinator Biol.
- III. FORT LEWIS COLLEGE, Durango 81301. ROCKY MOUNTAIN NATIONAL PARK, Estes Park 80517. University of Denver, Denver 80210.

## CONNECTICUT

I. Peabody Museum, Yale University, New Haven 06520. 80,000 skins, 6,000 skeletons, 8,000 fluid, 600 mounts, 8,000 egg sets, 500 nests; 78 holotypes, no catalog; Africa, Central and South America, New Guinea, southeast Asia, Philippines, Connecticut; seabirds, waterfowl; 50 mounted skeletons; some field notes; generic, anatomical files; Cleveland Museum (part), H. O. Havemeyer collections; F. L. Jaques paintings; all purpose; C. G. Sibley, Curator Birds; E. H. Stickney, Asst. in Research.

University of Connecticut, Dept. Biol., Storrs 06268. 6,000 skins, 150 skeletons, 150 fluid, 300 mounts, 200 egg sets; Connecticut; Falconiformes, Strigiformes; files for specimens in fluid; J. H. Sage, W. E. Treat collections (the former on extended loan from Wadsworth Athenaeum, Hartford); some photos; teaching, reference, research; Curator; G. A. Clark, Jr., Asst. Prof. Biol.

- II. MID-FAIRFIELD COUNTY YOUTH MUSEUM, Box 165, Westport 06880. 325 skins, 370 mounts; eastern U. S.; Norwalk Historical Society collection; teaching, reference, exhibition; R. E. Rutkowski, Curator Nat. Sci.
- III. BILL MEMORIAL LIBRARY, Groton 06340. CONNECTICUT COLLEGE, New London 06320. LITCHFIELD NATURE CENTER AND MUSEUM, Litchfield 06759; banding program. STAMFORD MUSEUM AND NATURE CENTER, Stamford 06903; 175 skins, 250 mounts, 50 egg sets, 100 nests.

# DELAWARE

I. Delaware Museum of Natural History, *Greenville 19807*. 25,000 skins, some fluid, 150,000 egg sets; some holotypes (Philippine species); North America, central

Pacific, Philippines; field notes; British Trust for Ornithology, E. J. Court, D. J. Nicholson egg collections; some photos; research; J. E. duPont, Director.

II. University of Delaware, Dept. Entomol. Applied Ecol., Newark 19711. 300 skins, 100 mounts, 150 egg sets; Delaware, some Pennsylvania, Florida; warblers; Society of Natural History of Delaware collection; nest records scheme, banding program; teaching, research; R. R. Roth, Asst. Prof.; R. E. Jones.

## DISTRICT OF COLUMBIA

I. National Museum of Natural History, Smithsonian Institution, Washington 20560 (formerly The United States National Museum). 400,000 skins, 25,000 skeletons, 18,000 fluid, 3,000 mounts, 46,000 egg sets, 3,800 nests; 3,475 holotypes, catalog: U. S. Natl. Mus. Bull., 221 (1961), about 20 added; worldwide; some domestic birds, mounted skeletons, subfossils; field notes; includes collections of U. S. Biological Survey (now Bureau of Sport Fisheries & Wildlife, Dept. Interior), A. C. Bent egg collection, many others; photos by A. C. Bent, paintings by Robert Ridgway, L. A. Fuertes and others; research; Supervisor, Div. Birds and Chief, Bird Sect., Bird and Mammal Laboratories, BSFW; R. L. Zusi, Curator and Supervisor.

## FLORIDA

I. Brodkorb, Pierce (Private Collection), Dept. Zool., University of Florida, Gainesville 32601. 3,000 skins, 8,000 skeletons, 20,000 fossils; 38 holotypes of fossils; worldwide; field notes; H. J. Gut (fossil birds); research; P. Brodkorb, Prof. Zool.

FLORIDA STATE UNIVERSITY, Dept. Zool., Tallahassee 32306. 2,600 skins, 55 skeletons, many additional skulls, 200 egg sets; southeastern U. S., Panama, Ecuador; systematic files; some photos; teaching, reference, research; H. M. Stevenson, Assoc. Prof. and Curator Birds.

MIAMI-DADE JUNIOR COLLEGE, Dept. Biol., Miami 33167. 8,500 skins; Antillean region; Antillean endemics; some field notes; systematic files; reference, research; A. Schwartz, Assoc. Prof. Biol.

Tall Timbers Research Station, Rt. 1, Box 160, Tallahassee 32301. 2,360 skins; southeastern U. S.; Turdidae, Parulidae, Fringillidae; systematic files; nest records scheme, banding program, study of TV tower casualties; some paintings; research; R. Komarek; V. B. Baker.

UNIVERSITY OF FLORIDA, Florida State Mus., Gainesville 32601. 12,000 skins, 3,000 skeletons, 15,000 fossils, 22 holotypes of fossils, 500 mounts, 50,000 egg sets, 500 nests; southeastern U. S., Mexico, Nicaragua; passerines; some field notes; systematic files; Doe-Parsons egg collection; banding program; teaching, reference, research; O. L. Austin, Jr., Curator Ornithol.

UNIVERSITY OF MIAMI, Dept. Biol., Coral Gables 33124. 5,000 skins, 3,000 skeletons, 100 fluid, 100 mounts, 500 egg sets; Kenya (Lake Rudolf area), southeastern Florida; some field notes; systematic files; J. A. Weber collection (part); research, reference; O. T. Owre, Prof. Biol.

University of South Florida, Dept. Biol., Tampa 33620. 1,000 skins, 2,000 skeletons; Florida; skeletons of Anatidae, Psittacidae; 75 flat skins of psittacids; field notes; nest records scheme, banding program; teaching, reference, research; G. E. Woolfenden.

II. EVERGLADES NATIONAL PARK, P. O. Box 279, Homestead 33030. 200 skins; mainly local, including several state and regional records; 100 photos; reference, research; W. B. Robertson, Jr.

FLORIDA GAME AND FRESH WATER FISH COMMISSION, Gainesville 32601. 220 skins;

Florida; wild turkey, snipe, anatids; in turkey collection are known age, hybrids with domestic stock, anomalies; temporary combination of private collection of Lovett Williams (turkeys) and commission collection; 50 photos; nest records scheme, banding program; research; L. E. Williams, Jr., Wildl. Res. Biologist.

FLORIDA TECHNOLOGICAL UNIVERSITY, Dept. Biol., Orlando 32816. 300 skins, 50 nests; Americas; teaching, reference; W. K. Taylor, Asst. Prof. Biol.

JACKSONVILLE UNIVERSITY, Dept. Biol., Jacksonville 32211. 110 skins (150 skeletons, private collection of T. T. Allen), some fluid; northeastern Florida; TV tower casualties; teaching, reference, research; T. T. Allen, Assoc. Prof. Biol.

III. FLORIDA SOUTHERN COLLEGE, Lakeland 32202. HALLMAN, ROY C. (Private Collection), Panama City 32401. Museum of Science and Natural History, Miami 33129; J. A. Weber collection (part); state record specimens. St. Petersburg Historical Museum, St. Petersburg 33701.

#### GEORGIA

- I. University of Georgia, *Dept. Zool.*, *Athens 30601*. 3,000 skins, 235 mounts, 50 egg sets; southeastern U. S., 200 skins Central America; Fringillidae; 21 specimens Georgia state records; systematic, geographic files; collections of I. F. Arnow, E. E. Murphey, W. J. Hoxie, I. R. Tomkins, A. T. Wayne, all in part; reference; C. W. Dopson, Jr., Curator, Bird and Mammal Range.
- II. GEORGIA COLLEGE, Biol. Dept., Milledgeville 31061. 250 skins; Georgia; teaching, reference, exhibition; D. J. Cotter, Chairman.

PARKS, RICHARD A. (Private Collection), 253 14th St., N.E., Apt. 12, Atlanta 30309. 600 skins; southeastern U. S.; passerines; reference; R. A. Parks.

III. Agnes Scott College, Decatur 35030. Augusta Museum, Augusta 30901; 150 skins, 150 mounts, some eggs; Eugene Murphey collection (part). Brenau College, Gainesville 30501. Denton, J. F. (Private Collection), Augusta 30904. Georgia State College, Atlanta 30303. Georgia State Museum, Atlanta 30334. West Georgia College, Carrollton 30117.

## Hawaii

- I. Bernice P. Bishop Museum, *Honolulu 96819*. 12,000 skins, 200 skeletons, 1,000 fluid, 600 mounts, 150 egg sets, 55 nests; 7 holotypes; Hawaii, Pacific Ocean, Southeast Asia, New Guinea, Solomons; Drepanididae; some domestic birds, mounted skeletons; some systematic, geographic files; H. W. Henshaw, R. C. L. Perkins, G. C. Munro collections; research; A. C. Ziegler, Vert. Zoologist.
  - III. CHURCH COLLEGE OF HAWAII, Laie 96762.

#### IDAHO

- II. IDAHO STATE UNIVERSITY, Dept. Biol., Pocatello 83201. 700 skins, 50 skeletons, 65 mounts, 300 egg sets; intermontane western U. S.; teaching; C. H. Trost.
- III. College of Idaho, Caldwell 83605. Northwest Nazarene College, Nampa 83651.

## Illinois

I. CHICAGO ACADEMY OF SCIENCES, Chicago 60614. 15,000 skins, 50 skeletons, 300 fluid (mostly heads), 600 mounts, 1,200 egg sets, 400 nests; North America; Alaskan shorebirds and waterfowl; some field notes; systematic files; S. S. Gregory, Jr., R. Dean, R. Kennicott, B. T. Gault, A. M. Bailey collections; reference, research; Director; G. Iannarone, Curator.

FIELD MUSEUM OF NATURAL HISTORY, Roosevelt Road at Lake Shore Drive, Chicago 60605 (formerly Chicago Museum of Natural History). 300,000 skins,

2,600 skeletons, 1,400 fluid, 1,500 mounts, 25,000 egg sets, 200 nests; 600 holotypes, no catalog; North America, Neotropics, East and South Africa, Philippines; worldwide; files for fluid specimens, skeletons; H. B. Conover collection (game birds); some paintings; research, reference; E. R. Blake, Curator Birds.

ILLINOIS NATURAL HISTORY SURVEY, Nat. Resources Bldg., Urbana 61801. 2,000 skins, 100 egg sets, 100 nests; Illinois only (collection made since 1957; waterfowl not cataloged or included in totals); no loans; reference; R. R. Graber, H. C. Hanson, and J. W. Seets, Wildl. Spec.; R. R. Graber.

ILLINOIS STATE MUSEUM, Springfield 62706. 2,000 skins, 640 skeletons, 600 mounts, 500 egg sets, 150 nests; midwestern U. S.; some field notes; systematic files, skin and skeleton inventory published 1970; R. Magoon Barnes collection (part); nest records scheme; reference, exhibition, research; J. R. Paul, Curator Zool.

NORTHERN ILLINOIS UNIVERSITY, Dept. Biol. Sci., DeKalb 60115. 4,000 skins, 150 fluid, 50 mounts; midwestern U. S., Florida, Panama; banding program; teaching; W. E. Southern.

PRINCIPIA COLLEGE, Dept. Biol., Elsah 62028. 1,760 skins, 120 mounts, 140 egg sets; eastern North America, Costa Rica; passerines; teaching; J. F. Wanamaker, Chairman.

SOUTHERN ILLINOIS UNIVERSITY, Research Mus. Zool., Dept. Zool., Carbondale 62901. 1,750 skins, 55 mounts, 200 egg sets, 60 nests; southern Illinois; all purpose; W. G. George, Curator Birds.

UNIVERSITY OF ILLINOIS, Mus. Nat. Hist., Urbana 61801. 4,600 skins, 450 skeletons, 500 mounts, 300 egg sets, 50 nests; North America; R. Magoon Barnes collection (part); exhibition, research; D. F. Hoffmeister, Director.

- II. WASSON, ISABEL B. (Private Collection), 606 Thatcher Ave., River Forest 60305. 200 skins; passerines; parts of P. Brodkorb, F. S. Wright collections formerly owned by James S. White; teaching; I. B. Wasson.
- III. BARTEL, KARL E. (Private Collection), Blue Island 60406; banding program. Burpee Natural History Museum, Rockford 61103; 40 skins, 950 mounts, 160 egg sets. Eastern Illinois University, Charleston 61920. Quincy College, Quincy 62301. Western Illinois University, Macomb 61455. Wheaton College, Wheaton 60187; Frank Denton collection.

## Indiana

I. EARLHAM COLLEGE, Joseph Moore Mus., Richmond 47374. 2,900 skins, 500 mounts, 535 egg sets, 100 nests; midwestern U. S.; Passeriformes; systematic files; banding program; teaching, exhibition; J. B. Cope, Director.

INDIANA UNIVERSITY, Dept. Zool., Bloomington 47401. 1,700 skins; Indiana, Illinois, Colorado; Passeriformes; Frank M. Drew collection; teaching, research; C. E. Nelson; C. F. Thompson, Teaching Asst.

PURDUE UNIVERSITY, Dept. Forestry Conserv., Lafayette 479C7. 4,550 skins; Indiana, some general U. S., Australia, Africa, Europe, India, Jamaica, South America; Passeriformes; some field notes; systematic, geographic files; Amos W. Butler collection (Indiana); research; R. E. Mumford.

II. BUTLER UNIVERSITY, Zool. Dept., Indianapolis 46207. 500 skins, 120 egg sets; central Indiana; field notes; no loans; teaching; C. E. Russell, Prof.

HANOVER COLLEGE, Hanover 47243. 500 skins; Indiana, Mexico; field notes for J. D. Webster skins; teaching; J. D. Webster, Prof. Biol.

III. BALL STATE UNIVERSITY, Muncie 47306; building a collection of African

birds, primarily from Tanzania. Indiana Central College, Indianapolis 46227. Indiana State University, Terre Haute 47809. Manchester College, North Manchester 46962; small collection of Indian birds, E. Shull. St. Meinrad College, St. Meinrad 47577. Taylor University, Upland 46989. University of Notre Dame, Notre Dame 46556. Wabash College, Crawfordsville 47933.

#### Iowa

I. Coe College, Biol. Dept., Cedar Rapids 52402. 2,000 skins, 300 mounts, 400 egg sets; Iowa, some British Honduras, Siam; raptors; teaching; Curator; K. E. Goellner, Prof. Biol.

IOWA STATE UNIVERSITY, Dept. Zool. Entomol., Ames 50010. 1,450 skins, 400 mounts; Iowa, Wisconsin, some Argentina; Anseriformes; systematic files; teaching; M. W. Weller, Professor-in-Charge, Fisheries and Wildl. Sect.

UNIVERSITY OF IOWA, Mus. Nat. Hist., Iowa City 52240. 9,500 skins, 1,500 mounts; midwestern U. S.; some field notes; systematic files; C. M. Jones, F. Bond, D. H. Talbot, Paul Bartsch, R. M. Anderson, I. N. Gabrielson collections; all purpose; W. C. Thietje, Curator.

- II. DAVENPORT MUSEUM, Davenport 52804. 625 skins, 570 mounts (400 U.S., 170 Japan, Europe, South and Central America), 1,500 egg sets, 50 nests; eastern Iowa and western Illinois; Burtis Wilson journals; Iowa Wesleyan College mount collection; films; exhibit, teaching, reference; Janice Hall, Curator Nat. Hist.; P. C. Peterson, Curator Education.
- III. CENTRAL COLLEGE, Pella 50219. CORNELL COLLEGE, Mt. Vernon 52314; includes Morningside College collection. Luther College, Decorah 52101. Museum of History and Science, Waterloo 50701. Sanford Museum, Cherokee 51012. Sogers Museum, Maquoketa 52060. St. Ambrose College, Davenport 52803. Wartburg College, Waverly 50677; some Paradiseidae. Westmar College, Le Mars 51031.

## KANSAS

I. FORT HAYS KANSAS STATE COLLEGE, Dept. Zool. and College Mus., Hays 67601 (data for two collections combined). 2,200 skins, 1,750 mounts; Kansas, some Mexico; some field notes; systematic files; nest records scheme, banding program (both Dept. Zool.); teaching, research (Zool.), exhibition (Mus.); C. A. Ely, Prof. Zool.; M. V. Walker, Director Mus.

Kansas State University, *Div. Biol.*, *Manhattan 66502*. 1,000 skins, 100 mounts; Kansas; passerines; systematic files; teaching; J. L. Zimmerman, Assoc. Prof. Environmental Biol.

SOUTHWESTERN COLLEGE, Winfield 67156. 1,700 skins; Kansas, California, Arizona, Alaska; shorebirds, ducks; some field notes; John Q. Hines collection (California); banding program; reference, research, teaching; M. C. Thompson, Research Assoc.

University of Kansas, Mus. Nat. Hist., Lawrence 66044. 40,000 skins, 15,000 skeletons, 2,000 fluid, 200 mounts, 1,000 egg sets; about 5 holotypes; central and western North America, Mexico; Passer domesticus; field notes; systematic files; nest records scheme; research; R. M. Mengel, Curator Birds.

III. COLYN, JOHN (Private Collection), McPherson 67460. FRIENDS UNIVERSITY, Wichita 67213; 210 mounts, including several large Old World birds. Kansas Forestry, Fish and Game Commission, Pratt 67124. Lawrence High School, Lawrence 66044. St. Mary College, Xavier 66098. Washburn University, Topeka 66621; Goss collection (part). Wichita State University, Wichita 67208.

## KENTUCKY

- I. University of Louisville, *Dept. Biol.*, *Louisville 40208.* 2,800 skins, 250 skeletons (unprepared), 25 fluid, 50 nests; Kentucky, North America; some field notes; Burt L. Monroe, Sr., Robert M. Mengel collections (Kentucky); reference, teaching, research; B. L. Monroe, Jr., Assoc. Prof. Biol.
- II. UNIVERSITY OF KENTUCKY, Dept. Zool., Lexington 40506. 300 skins, 50 mounts; Kentucky; teaching; R. W. Barbour; C. H. Ernst, Curator Vertebrates.
- III. ASBURY COLLEGE, Wilmore 40390. BEHRINGER MUSEUM OF NATURAL HISTORY, Covington 41011. BEREA COLLEGE, Berea 40403. BERNHEIM FOREST, Clermont 40110. KENTUCKY MUSEUM, Western Kentucky University, Bowling Green 42101. KENTUCKY STATE GAME FARM, Frankfurt 40601.

#### Louisiana

I. LOUISIANA STATE UNIVERSITY, Mus. Zool., Baton Rouge 70803. 65,000 skins, 2,600 skeletons. 400 fluid, 800 mounts, 4,700 egg sets, 300 nests; 24 holotypes, no catalog; U.S., Mexico, Central America, western and southern South America, Kenya; field notes; systematic files; W. J. Sheffler, Merriam L. Miles, Hugh C. Land (Guatemala), F. Steinbach (Bolivia, part), William Partridge (Argentina, part), Richard F. Miller (egg) collections; 5 paintings, some photos, tape recordings; research; Curator of Birds; G. H. Lowery, Jr., Director.

TULANE UNIVERSITY, Dept. Biol., New Orleans 70118. 2,500 skins, 100 mounts; Louisiana; Gustave Kohn collection; teaching, research; R. D. Suttkus, Curator and Prof. Biol.

- II. LOUISIANA POLYTECHNIC INSTITUTE, Dept. Zool., Ruston 71270. 250 skins, 60 mounts; northern Louisiana; nest records scheme; all purpose; J. W. Goertz, Prof. Zool. University of Southwestern Louisiana, Dept. Biol., Lafayette 70501. 275 skins, 65 mounts, 100 nests; Louisiana; nest records scheme, banding program; teaching, exhibition; M. B. Eyster, Prof. Biol.
- III. LOUISIANA WILDLIFE MUSEUM, New Orleans 70130. LOYOLA UNIVERSITY, New Orleans 70118. NICHOLLS STATE COLLEGE, Thibodaux 70301. NORTHEAST LOUISIANA STATE COLLEGE, Monroe 71201. NORTHWESTERN STATE COLLEGE, Natchitoches 71457.

## MAINE

I. BOWDOIN COLLEGE, Dept. Biol., Brunswick 04011. 1,500 skins; Maine, Labrador; galliforms, hawks; A. O. Gross, Manton Copeland (part) collections; banding program; 1,000 photos; teaching; C. E. Huntington.

PORTLAND SOCIETY OF NATURAL HISTORY, Maine Audubon Soc., Portland 04103. 1,500 skins, 1,500 mounts, 200 egg sets, 125 nests; northeastern U.S.; birds of prey; H. H. Brock collection; teaching, reference, exhibition; V. A. Stevenson, Curator.

UNIVERSITY OF MAINE, Zool. Dept., and School of Forest Resources and Maine Cooperative Wildl. Research Unit, Orono 04473 (data for two collections combined). 2,300 skins, 25 skeletons, 525 mounts, 160 egg sets; Maine; waterfowl, game birds; systematic files; Anson Allen and Paul Eckstorm collections; teaching; A. A. Barden, Jr., Prof. Zool.; S. D. Schemnitz, Assoc. Prof. Wildl. Resources.

III. ACADIA NATIONAL PARK, Hulls Cove 04644. COLBY COLLEGE, Waterville 04901. FARMINGTON STATE COLLEGE OF THE UNIVERSITY OF MAINE, Farmington 04938. GORHAM STATE COLLEGE OF THE UNIVERSITY OF MAINE, Gorham 04038. MAINE STATE MUSEUM, Augusta 04330.

#### MARYLAND

I. OLSON, STORRS L. (Private Collection), Dept. Pathobiol., Johns Hopkins University, Baltimore 21205. 100 skins, 1,000 skeletons, 30 fluid; Florida; Rallidae; systematic files; reference, research; S. L. Olson.

PATUXENT WILDLIFE RESEARCH CENTER, Laurel 20810. 8,600 skins, 1,350 skeletons, 280 egg sets; Alaska, northwestern U.S.; Ira N. Gabrielson collection; no loans; reference, research; B. Meanley, Biologist.

- II. FROSTBURG STATE COLLEGE, Dept. Biol., Frostburg 21532. 430 skins; eastern U.S.; no loans; teaching; J. R. Snyder, Prof. Biol.
- III. CHESAPEAKE BIOLOGICAL LABORATORY, Solomons 20688. MARYLAND NATURAL HISTORY SOCIETY, Baltimore 21200. MARYLAND ORNITHOLOGICAL SOCIETY, Baltimore 21200.

## MASSACHUSETTS

I. AMHERST COLLEGE, Dept. Biol., Amherst 01002. 1,200 skins; North America, some Europe; a few specimens labeled "Audubon Collection" may have been collected by J. J. Audubon, possibly holotypes; loans not on regular basis; teaching; Chairman; C. T. Collins (California State College, Long Beach, California).

MUSEUM OF COMPARATIVE ZOOLOGY, Harvard University, Cambridge 02138. 300,000 skins, 5,200 skeletons, 500 fluid, 5,000 mounts, 5,000 egg sets/nests; about 1,500 holotypes, catalog: Bull. Mus. Comp. Zool., 70: 147–426 (1930), about 300 added; worldwide; some field notes; systematic, new descriptions files; A. C. Bent, C. H. Batchelder, William Brewster, Boston Society of Natural History collections, many others; paintings; teaching, reference, research; R. A. Paynter, Jr., Curator Birds.

MUSEUM OF SCIENCE, Boston 02114. 14,000 skins, 600 mounts, 1,000 egg sets, 600 nests; New England; systematic, geographic files; New England Museum of Natural History (Boston Society of Natural History) collection; important historical specimens; nest records scheme; reference, teaching, exhibition; R. H. Lutts, Curator Collections. Note: Many specimens, particularly skins, in original collection have been or are being deposited elsewhere.

PEABODY MUSEUM, Salem 01970. 1,175 skins, 2,825 mounts, 460 egg sets, 180 nests; Essex County; C. W. Townsend field notes; systematic files; C. W. Townsend collection (Essex County), portions of other local collections; reference, exhibition; D. E. Snyder, Curator. Note: Worldwide collections disposed of in 1942.

Science Museum, 236 State St., Springfield 01103. 1,820 skins, 1,350 mounts, 1,000 egg sets, 275 nests; New England; some field notes; systematic files; no loans; teaching, exhibition; N. Murray, Curator Mus. Collections.

UNIVERSITY OF MASSACHUSETTS, *Dept. Zool.*, *Amherst 01002*. 1,200 skins, 250 skeletons, 100 fluid, 200 mounts, 3,000 egg sets, 75 nests; New England; 20 woodcock skeletons of known sex and age; most of A. C. Bent's journals; systematic files (skins and skeletons); F. M. Phelps, Seymour F. Hersey egg collections; some A. C. Bent photos; teaching; L. M. Bartlett, Prof. Zool.

WORCESTER NATURAL HISTORY SOCIETY, 21 Cedar St., Worcester 01609. 1,000 skins, 250 mounts, 300 egg sets; New England; field notes; teaching, research; Mrs. G. E. Seelye, Curator.

- II. BOSTON UNIVERSITY, Biol. Dept., Boston 02215. 700 skins, 400 mounts; northeastern North America, Central America; Peabody Museum of Salem (part), Boston College collections; teaching; S. Duncan.
- III. BERKSHIRE MUSEUM, Pittsfield 01201. CLARK UNIVERSITY, Worcester 01610.
  MARIA MITCHELL ASSOCIATION, Nantucket 02554; banding program. MOUNT HOLYOKE

College, South Hadley 01075. Tufts University, Medford 02155. Wheaton College, Norton 02766. Williams College, Williamstown 01267. Worcester State College, Worcester 01602.

## MICHIGAN

I. Andrews University, Biol. Dept., Berrien Springs 49104. 1,200 skins, 100 mounts; Michigan, Peru, Taiwan, India; field notes (Peru specimens only); teaching, reference, exhibition; A. C. Thoresen, Chairman.

CENTRAL MICHIGAN UNIVERSITY, Center for Cultural and Nat. Hist., Mount Pleasant 48858. 4,850 skins, 45 skeletons, 30 fluid, 200 mounts, 110 egg sets, 1,500 nests; central Michigan, Neotropics; Tyrannidae, Fringillidae; field notes; systematic, geographic files; Max Peet collection (part); nest records scheme, banding program; some photos; teaching, reference, exhibition; H. D. Mahan, Director.

MICHIGAN STATE UNIVERSITY MUSEUM, East Lansing 48823. 5,330 skins, 500 skeletons, 300 fluid, 200 mounts, 500 egg sets; Michigan, Mexico; passerines; 50 known age specimens; field notes for Mexican expeditions, 1957-68; systematic files; reference, teaching; Curator Warm-blooded Vert.; R. H. Baker, Director and Curator.

PETTINGILL, OLIN S., JR. (Private Collection), University of Michigan, Biol. Sta., Pellston 49769. 3,000 skins; North America; passerines; teaching, reference, research; O. S. Pettingill, Jr. (Cornell Laboratory of Ornithology, Ithaca, New York 14850.) Note: This collection, presently housed at University of Michigan Biological Station, eventually will go to Cornell University. Specimens now available only in summer.

UNIVERSITY OF MICHIGAN, Biol. Sta., Pellston 49769. 2,000 skins, 150 egg sets, 100 nests; Michigan; field notes; teaching, reference, research; O. S. Pettingill, Jr. (Cornell Laboratory of Ornithology, Ithaca, New York 14850.) Note: Specimens available only in summer.

University of Michigan, Mus. Zool., Ann Arbor 48104. 200,000 skins, 11,100 skeletons, 300 fluid, 300 egg sets, 200 nests; 302 holotypes, no catalog; U.S., India, Assam, Paraguay, Mexico; some field notes; Max Minor Peet collection (part); nest records scheme; some photos, paintings, tape recordings; research; R. W. Storer, Curator.

II. Adrian College, Biol. Dept., Adrian 49221. 600 skins; Michigan, Ohio; teaching; M. L. Peelle, Prof. Biol.

Kellogg Bird Sanctuary, 12685 E. C. Ave., Hickory Corners 49060. (Kellogg Biol. Sta., Michigan State University). 800 skins; Michigan; 50 known age specimens, 200 wings; waterfowl banding; teaching, reference; R. D. Van Deusen, Wildl. Specialist; J. Johnson, Research Aid.

KINGMAN MUSEUM OF NATURAL HISTORY, Battle Creek 49016. "Hundreds" each skins, mounts, egg sets; Michigan, South America; no loans; all purpose; E. M. Brigham, Jr., Director.

MICHIGAN TECHNICAL UNIVERSITY, *Dept. Forestry*, *Houghton 49931*. 400 skins, 175 mounts; Upper Peninsula of Michigan; no loans; banding program; teaching, exhibition, research; N. F. Sloan, Asst. Prof.

WAYNE STATE UNIVERSITY, Dept. Biol., Detroit 48202. 535 skins, 235 skeletons; Michigan; teaching; W. L. Thompson, Assoc. Prof. Biol.

III. Alma College, Alma 48801. Ferris State College, Big Rapids 49307. Kalamazoo College, Kalamazoo 49001. Lake Superior State College, Sault Ste. Marie 49783. Northern Michigan University, Marquette 49855. Olivet College, Olivet 49076; 100 Old World mounts. Seney National Wildlife Refuge, Seney 49883.

## MINNESOTA

I. St. CLOUD STATE COLLEGE, Biol. Dept., St. Cloud 56301. 2,000 skins, 200 mounts, 50 egg sets, 50 nests; Minnesota; Icteridae; Barker collection (part) from Parkers Prairie, Minnesota; banding program; teaching, exhibition; A. H. Grewe.

UNIVERSITY OF MINNESOTA, Bell Mus. Nat. Hist., Minneapolis 55455. 25,000 skins, 500 skeletons, 100 fluid, 50 mounts, 600 egg sets, 300 nests; 2 holotypes; North America, Mexico, Philippines, Korea; Melospiza, Colaptes, Pheucticus, Icteridae, waterfowl; many injected anatomical preparations; research; D. W. Warner, Curator; H. B. Tordoff, Director.

UNIVERSITY OF MINNESOTA, DULUTH, Dept. Biol., Duluth 55812. 1,950 skins, 200 mounts, 75 egg sets; Minnesota, small western collection of F. S. Daggett and A. J. Woolman; teaching; P. B. Hofslund, Prof. Biol.

II. BEMIDJI STATE COLLEGE, Biol. Dept., Bemidji 56601. 175 skins, 135 mummies (mummified with formalin), 160 skeletons, 370 mounts; northern Minnesota; teaching, exhibition; E. B. Hazard.

RAINY RIVER STATE JUNIOR COLLEGE, Biol. Dept., International Falls 56649. 250 skins; northern Minnesota; 200 injected anatomical specimens; teaching; L. Grim, Biol. Instructor.

- St. John's University, *Biol. Dept., St. Cloud 56301*. 200 skins, 25 skeletons, 300 mounts, 100 egg sets (no data on mounts or eggs); central Minnesota; waterfowl, raptors; teaching, exhibition; N. L. Ford, Asst. Prof.
- III. BETHEL COLLEGE, St. Paul 55108. COLLEGE OF ST. BENEDICT, St. Joseph 56374. CONCORDIA COLLEGE, St. Paul 55104. GUSTAVUS ADOLPHUS COLLEGE, St. Peter 56082. KUTZ, GEORGE C. (Private Collection), Stillwater 55082. MACALESTER COLLEGE, St. Paul 55101. MOORHEAD STATE COLLEGE, Moorhead 56560. St. Mary's College, Winona 55987. St. Olaf College, Northfield 55057. Winona State College, Winona 55987.

## MISSISSIPPI

I. Mississippi State University, *Dept. Zool.*, *State College 39762*. 1,000 skins, 500 skeletons, 300 egg sets; Mississippi, some Iowa, Missouri, Florida, Ontario, Kansas; specimen files; nest record scheme, distribution and banding records; some photos; teaching, research, reference; J. A. Jackson, Asst. Prof.

STATE WILDLIFE MUSEUM, 111 N. Jefferson St., Jackson 39212. 4,500 skins, 50 fluid, 500 mounts, 670 egg sets, 50 nests; Mississippi; some field notes; systematic, geographic files; Andrew Allison, Thomas D. Burleigh collections (part), W. H. Turcotte egg collection (on loan from owner); nest records scheme; some photos; research, exhibition; B. E. Gandy, Mus. Director.

UNIVERSITY OF MISSISSIPPI, Dept. Biol., University (Oxford) 38677. 3,600 skins, 100 egg sets; Mississippi; field notes; systematic files; M. G. Vaiden collection; reference, research; Y. J. McGaha, Prof. Biol.

III. MISSISSIPPI STATE COLLEGE FOR WOMEN, Columbus 39701.

#### MISSOURI

- I. University of Missouri, Dept. Zool., Columbia 65201. 2,800 skins, 50 skeletons, 200 mounts; Missouri; waterfowl; banding program; teaching, exhibition, research; W. H. Elder, Rucker Prof. Zool.
- II. CENTRAL METHODIST COLLEGE, Stevens Nat. Hist. Mus., Fayette 65248. 425 skins, 270 mounts, 90 egg sets, 50 nests; Missouri; 19 state records; exhibition, teaching; F. H. Woods, Prof. Biol. Emeritus, Curator.

CENTRAL MISSOURI STATE COLLEGE, Dept. Biol., Warrensburg 64093. 270 skins, 70 mounts; Missouri; E. H. Gilbert collection; no loans; teaching, reference; O. Hawksley, Prof. Zool.

NORTHEAST MISSOURI STATE COLLEGE, Dept. Zool., Kirksville 63501. 200 skins, 150 mounts; Missouri; teaching, research; J. D. Black, Prof. Zool.

NORTHWEST MISSOURI STATE COLLEGE, Dept. Biol., Maryville 64468. 500 skins; northwestern Missouri; shorebirds, passerines; teaching, reference, research; D. A. Easterla, Asst. Prof. Biol.

SOUTHEAST MISSOURI STATE COLLEGE, Dept. Biol., Cape Girardeau 63701. 285 skins, 220 mounts; southeastern Missouri; Glen Smart collection (part, remainder at University of Missouri); no loans; teaching; P. L. Heye, Assoc. Prof. Biol.

III. KANSAS CITY MUSEUM OF HISTORY AND SCIENCE, Kansas City 64123. MISSOURI STATE MUSEUM, Jefferson City 65101. MUSEUM OF SCIENCE AND NATURAL HISTORY, Clayton 63105. SQUAW CREEK NATIONAL WILDLIFE REFUGE, Mound City 64470. UNIVERSITY OF MISSOURI, Kansas City 64100.

## MONTANA

- I. Montana State University, *Dept. Zool. Entomol.*, *Bozeman 59715*. 1,500 skins, 150 mounts, 200 egg sets; Montana; systematic files; teaching; R. L. Eng, Assoc. Prof. University of Montana, *Dept. Zool.*, *Missoula 59801*. 5,000 skins, 150 skeletons, 50 fluid, 200 mounts, 200 egg sets, 50 nests; Montana; systematic, geographic files; C. F. Hedges, Louis Bishop collections; teaching, research; P. L. Wright, Prof. Zool.
- III. GLACIER NATIONAL PARK, West Glacier 59936. MUSEUM OF MONTANA WILDLIFE, Browning 59417.

# Nebraska

- I. UNIVERSITY OF NEBRASKA, State Mus., Lincoln 68508. 4,000 skins, 500 skeletons, 500 mounts, 1,300 egg sets; Nebraska and Great Plains; systematic, geographic files; August Eiche and John T. Zimmer (part) collections; research; H. L. Gunderson, Assoc. Director and Curator Zool.
- II. DANA COLLEGE, Biol. Dept., Blair 68008. 200 skins; Pennsylvania, western Iowa, eastern Nebraska; Polioptilinae; G. E. Grube, Prof.

UNIVERSITY OF NEBRASKA AT OMAHA, *Dept. Biol.*, *Omaha 68101*. 240 skins; eastern Nebraska; nest records scheme; teaching; R. S. Sharpe.

III. CHADRON STATE COLLEGE, Chadron 69337. CREIGHTON UNIVERSITY, Omaha 68131; collection of bird reproductive tissues: terns, doves, and passerines. Fort Niobrara Refuge, Valentine 69201. Peru State College, Peru 68421. Wayne State College, Wayne 68787.

## NEVADA

I. NEVADA STATE MUSEUM, Carson City 89701. 1,400 skins, 500 mounts, 50 egg sets; Nevada; field notes; systematic, geographic files; 100 photos; reference, exhibition; P. J. Herlan, Curator Biol.

UNIVERSITY OF NEVADA (LAS VEGAS), Dept. Biol. Sci., Las Vegas 89109. 1,000 skins; southern Nevada; field notes; reference; G. T. Austin, Curator Birds.

UNIVERSITY OF NEVADA (RENO), Dept. Biol., Reno 89507. 1,800 skins, 175 mounts, 2,600 egg sets, 50 nests; Nevada, California; systematic files; teaching, reference, exhibition; F. Ryser, Prof. Biol. and Curator Birds and Mammals.

II. BAEPLER, DONALD H. (Private Collection), University of Nevada, Las Vegas 89109. 500 skins; Guatemala, Mexico, Pacific Northwest; Fringillidae; teaching, re-

search; D. H. Baepler, Academic Vice President. Note: Collection housed in Dept. Biol. Sci.

#### New Hampshire

- I. DARTMOUTH COLLEGE MUSEUM, *Hanover 03755*. 2,000 skins, 900 mounts, 500 egg sets; northeastern U.S.; some field notes; teaching, exhibition; R. G. Chaffee, Director.
- II. UNIVERSITY OF NEW HAMPSHIRE, Dept. Zool., Durham 03824. 625 skins, 435 mounts, 240 egg sets; New England; field notes; systematic, measurement data files; Frank Bolles collection of mounts; teaching; A. C. Borror.

## NEW JERSEY

I. New Jersey State Museum, *Trenton 08625.* 1,400 skins, 1,050 mounts; New Jersey, Pennsylvania, Mexico, Colombia; 75 injected anatomical preparations, study skins freeze-dried; nest records scheme, banding program; exhibition, research; D. S. Heintzelman, Curator Ornithol.

PRINCETON MUSEUM OF ZOOLOGY, *Princeton 08540*. 12–15,000 skins, some skeletons and fluids, 1,000 mounts, several hundred egg sets and nests; 1 holotype; New World, Thailand, India, Sikkim, Europe; pheasants, hummingbirds; general catalog; T. S. Gillin, N. C. Brown, H. G. Deignan collections; teaching, reference, research; C. H. Rogers, Curator Ornithol.

II. GARDEN STATE ACADEMY, Sci. Dept., Tranquility 07879. 230 skins, 45 fluid, 100 mounts; North America; no loans; teaching, reference, exhibition; R. D. Brown, Head, Sci. Dept.

PATERSON MUSEUM, 268 Summer St., Paterson 07501. 150 skins, 400 mounts, 235 egg sets; New Jersey, Panama, South America; Thomas Hallinan Panama collection (part) and field notes; no loans; teaching, reference, exhibition; J. Brown, Asst. Curator Sci.

III. TRENTON STATE COLLEGE, Trenton 08625.

## New Mexico

I. New Mexico State University, Dept. Biol. and Dept. Anim. Sci., Las Cruces 88001 (data for two collections combined). 1,300 skins, 25 skeletons, 25 fluid; New Mexico, Mexico; Galliformes; systematic files; teaching; R. J. Raitt, Prof. Biol. and C. A. Davis, Asst. Prof. Wildl. Sci.

UNIVERSITY OF NEW MEXICO, *Dept. Biol.*, *Albuquerque 87106*. 3,000 skins, 600 skeletons, 200 nests; southwestern U.S.; Galliformes; 50 domestic birds; J. Stokely Ligon collection (part) and field notes; nest records scheme; teaching, reference, research; J. D. Ligon, Curator Birds and Asst. Prof. Zool.

WESTERN NEW MEXICO UNIVERSITY, Dept. Biol. Sci., Silver City 88061. 2,000 skins, 100 skeletons; southwestern U.S., eastern Africa; some field notes; teaching, reference, research; D. A. Zimmerman, Chairman.

- II. EASTERN NEW MEXICO UNIVERSITY, Nat. Hist. Mus., Portales 88130. 255 skins; eastern New Mexico; field notes; R. C. Brummett (Carlsbad) collection; nest records scheme; all purpose; Curator; J. A. Patton, Asst. Curator Ornithol.
  - III. WHITE SANDS NATIONAL MONUMENT, Alamogordo 88310.

## NEW YORK

I. AMERICAN MUSEUM OF NATURAL HISTORY, Central Park West at 79th St., New York 10024. 900,000 skins, 7,000 skeletons, 5,000 fluid, 2,000 mounts, 18,000 egg sets, 5,000 nests; about 5,000 holotypes, catalog (of part of Rothschild collection only):

Novitates Zoologicae, many papers by E. Hartert in vols. 25-37 (1918-1931); world-wide; some field notes; systematic files for eggs; Rothschild collection, G. M. Mathews collection (Australia), many others; some photos, paintings, tape recordings; research, reference, exhibition; D. Amadon, Lamont Curator Birds.

BUFFALO MUSEUM OF SCIENCE, Buffalo 14211. 5,100 skins, 40 skeletons, 2,500 mounts, 2,000 egg sets, 150 nests; U.S., Canada, Neotropics, Africa; hummingbirds; teaching, reference; H. H. Axtell, Curator Vert. Zool.

CORNELL UNIVERSITY, Div. Biol. Sci., Ithaca 14850. 34,200 skins, 2,000 skeletons, 1,000 fluid, 1,000 mounts, 1,000 egg sets, 300 nests; U.S., Mexico, east and southwest Africa; 250 known age, 50 domestic birds, 150 specimens of extinct and endangered species; some field notes, notes of L. A. Fuertes in University Library Archives; systematic files; L. A. Fuertes, F. S. Wright, D. D. Stone collections, parts of C. G. Sibley, G. M. Sutton, A. A. Allen collections; nest records scheme, paintings, photos, tape recordings maintained and administered by Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca 14850; teaching, reference, research; Curator Birds; A. R. Weisbrod, Asst. Curator Birds.

HOBART AND WILLIAM SMITH COLLEGES, Mus., Geneva 14456. 1,200 skins, 350 mounts, 200 egg sets; central and western New York; Anseriformes, Passeriformes; systematic files; Elon H. Eaton collection; no loans; teaching; T. T. Odell, Curator Mus.

New York State Museum, State Educ. Bldg., Albany 12224. 4,000 skins, 600 skeletons, 600 mounts, 6,500 egg sets; northeastern North America; domestic fowl (mounted); Vassar College (skins) and other local New York collections, B. S. Bowdish egg collection; some paintings; reference; Curator Birds; R. S. Palmer, State Zool.

St. Bonaventure University, Biol. Dept., St. Bonaventure 14778. 1,000 skins, 500 skeletons, 50 fluid, 50 mounts, 170 egg sets; western New York; Parulidae, Meleagrididae; some field notes; teaching; S. W. Eaton, Prof. Biol.

STATE UNIVERSITY COLLEGE (ONEONTA), Biol. Dept., Oneonta 13820. 2,015 skins, 700 mounts; New York; no loans; teaching, exhibition; J. G. New, Chairman.

STATE UNIVERSITY COLLEGE OF FORESTRY AT SYRACUSE UNIVERSITY, Dept. Forest Zool., Syracuse 13210. 1,500 skins, 360 mounts; central and northern New York, Michigan; systematic, geographic files; Sudworth collection (Michigan); teaching, reference; M. M. Alexander, Prof. and Chairman.

II. COLGATE UNIVERSITY, Dept. Biol., Hamilton 13346. 200 skins, 1,180 mounts, 300 egg sets; North America, Europe, Jamaica, Indo-Australian region; teaching, exhibition; R. E. Goodwin, Assoc. Prof. Biol.

Gochfeld, Michael (Private Collection), c/o Dept. Ornithol., Amer. Mus. Nat. Hist., Central Park West at 79th St., New York 10024. 200 skeletons (mainly skulls); New York, California; 80 known age skulls or skeletons of Sterna hirundo, less than 6 weeks old; reference; M. Gochfeld.

ROCHESTER MUSEUM, *Rochester 14607*. 900 skins, 1,000 mounts, 500 egg sets, 50 nests; western New York; ducks, birds of prey; University of Rochester collection; banding program; teaching, reference, exhibition; J. H. Czech, Asst. Curator Nat. Sci.

SPOFFORD, WALTER R., AND SALLY HOYT SPOFFORD (Private Collection), Box 428, Etna 13062. 160 skins, 150 egg sets; skins from Virginia and New York, falconiform eggs from northeastern U.S.; skin collection of J. S. Y. Hoyt; teaching, reference; W. R. Spofford and S. H. Spofford.

STATE UNIVERSITY COLLEGE (FREDONIA), Dept. Biol., Fredonia 14063. 200 skins, 250 mounts; western New York; nest records scheme; teaching, exhibition; A. H. Benton, Chairman.

STATE UNIVERSITY COLLEGE (GENESEO), Dept. Biol., Geneseo 14454. 245 skins; eastern U.S.; no loans; teaching; W. P. Swarts, Asst. Prof. Biol.

STATE UNIVERSITY COLLEGE (New PALTZ), Dept. Biol., New Paltz 12561. 600 skins, 100 egg sets, 50 nests; New York; hawks; banding program; 2,000 photos, some paintings; teaching; H. Meng, Prof. Biol.

III. BAYARD CUTTING ARBORETUM, Oakdale 11769. HARTWICK COLLEGE, Oneonta 13820. HOUGHTON COLLEGE, Houghton 14744. Keuka College, Keuka Park 14478. Museum of Natural History, Pawling 12564. Niagara University Niagara University 14109. Rogers Conservation Education Center, Sherburne 13460; George H. Lesser collection. State University College (Buffalo), Buffalo 14222. State University College (Cortland), Cortland 13045. State University College (Oswego), Biol. Field Sta., Oswego 13126; banding program, nest records scheme. State University College (Potsdam), Potsdam 13676. Vassar College, Poughkeepsie 12601. Woodland Museum, Cooperstown 13326.

## NORTH CAROLINA

- I. NORTH CAROLINA STATE MUSEUM OF NATURAL HISTORY, Raleigh 27602. 3,000 skins, 350 mounts, 130 egg sets; North Carolina; some field notes; systematic files; North Carolina State University collection; reference; Curator Zool.; W. L. Hamnett, Director.
- H. DUKE UNIVERSITY, Dept. Zool., Durham 27706. 700 skins; North Carolina; John S. Cairns collection (part); teaching; J. R. Bailey.
- III. EAST CAROLINA UNIVERSITY, Greenville 27834. GUILFORD COLLEGE, Greensboro 27410; T. Gilbert Pearson collection. Mattamuskeet National Wildlife Refuge, New Holland 27885. Methodist College, Fayetteville 28301; 150 local specimens, mostly in fluid. Queens College, Charlotte 28207. Schiele Museum of Natural History, Gastonia 28052. University of North Carolina at Chapel Hill, Chapel Hill 27514. University of North Carolina at Greensboro, Greensboro 27412.

## NORTH DAKOTA

I. NORTH DAKOTA STATE UNIVERSITY, Zool. Dept., Fargo 58102. 1,500 skins, 500 mounts, 50 egg sets, 50 nests; North Dakota; passerines; about 500 skins injected with formalin rather than skinned; systematic files; banding program; teaching, research, exhibition; J. F. Cassel.

UNIVERSITY OF NORTH DAKOTA, Biol. Dept., Grand Forks 58201. 1,000 skins, 25 skeletons, 200 mounts, 50 egg sets; North Dakota, Florida, Manitoba, Idaho, Oklahoma, Texas; Anatidae, Charadriidae; 90 known age specimens; systematic, geographic files; W. H. and H. V. Williams, L. W. Oring collections; all purpose; L. W. Oring, Asst. Prof. Biol.

III. DICKINSON STATE COLLEGE, Dickinson 58601. J. CLARK SALYER REFUGE, Upham 58789. MINOT STATE COLLEGE, Minot 58701.

#### Оню

I. CLEVELAND MUSEUM OF NATURAL HISTORY, 10600 E. Blvd., Cleveland 44106. 24,000 skins, 50 skeletons, 1,200 mounts, 1,800 egg sets, 280 nests with eggs, 100 nests; 73 holotypes, no catalog; Ohio, North America; Passeriformes; some field notes; F. W. Braund (part), F. S. Hersey collections; some photos, paintings; reference, research, teaching, exhibition; L. Isard, Staff Conserv.; P. Helwig, Registrar. Note: Originally a much larger collection; components now in Peabody Museum (Connecticut), Denver

Museum (Colorado), Field Museum (Illinois), University of Michigan Museum of Zoology, and Carnegie Museum (Pennsylvania).

CINCINNATI MUSEUM OF NATURAL HISTORY, 1720 Gilbert Ave., Cincinnati 45202. 1,500 skins, 200 mounts, 250 egg sets; southwestern Ohio, New Mexico; some field notes; Ralph Kellogg collection; banding program (the Geotz banding records); Robert V. Clem water colors; reference; C. Oehler, Senior Scientist. (See University of Cincinnati.)

DAYTON MUSEUM OF NATURAL HISTORY, 2629 Ridge Ave., Dayton 45414. 2,000 skins, 300 mounts, 200 egg sets, 100 nests; Ohio; field notes; most skins are TV tower casualties with weight data; banding program; reference; E. J. Koestner, Director.

OHIO STATE MUSEUM, 1813 N. High St., Columbus 43201. 15,200 skins, 500 skeletons, 3,000 egg sets; eastern U.S., North America, South America; Galliformes, Anseriformes, Parulidae, Fringillidae; some field notes; systematic files; J. M. Wheaton, Oberlin College collections; some photos, paintings, tape recordings; teaching, research; M. B. Trautman, Curator Vert.

UNIVERSITY OF CINCINNATI, Dept. Biol. Sci., Cincinnati 45221. 10,000 skins, 165 mounts; 6 holotypes; Central and South America; hawks and owls; field notes; systematic files; Herbert Brandt collection (skins); some paintings; research; E. Kemsies, Curator Ornithol. (Collection transferred to Cincinnati Museum of Natural History, 1971.)

II. MIAMI UNIVERSITY, Dept. Zool. Physiol., Oxford 45056. 700 skins, 200 mounts; Ohio; Charles McCullough, Butler County Historical Society collections; banding program; teaching, reference, exhibition; D. R. Osborne, Asst. Prof.

OHIO UNIVERSITY, Dept. Zool., Athens 45701. 630 skins; southeastern Ohio; reference; H. C. Seibert, Prof. Zool.

TOLEDO MUSEUM OF HEALTH AND NATURAL HISTORY, 2700 Broadway, Toledo 43609. 300 skins; basis of Campbell's "Birds of Lucas County"; research; J. Hipp, Mus. Director.

III. Anderson, Thomas H. (Private Collection), Maumee 43537. College of Wooster, Wooster 44691. Heidelberg College, Tiffin 44883. John Carroll University, Cleveland 44118. Marietta College, Marietta 45750. Muskingum College, New Concord 43762. Oberlin College, Oberlin 44074. Ohio Dominican College, Columbus 43219. University of Akron, Akron 44304. Western College for Women, Oxford 45056.

# OKLAHOMA

I. Sutton, George M. (Private Collection), Stovall Mus., University of Oklahoma, Norman 73069. 8,000 skins; 11 holotypes, no catalog; Mexico, also Canadian Arctic, Iceland, West Virginia, Michigan, other U.S., Central and South America; shorebirds, owls, hummingbirds; many downy and juvenal skins; G. M. Sutton notes in associated library; some specimens from Cornell University collection, also Hugh Land (Guatemala) and P. Slud (Costa Rica) specimens; photos, paintings; research; G. M. Sutton; J. S. Weske, (former) Research Asst.

UNIVERSITY OF OKLAHOMA, Stovall Mus., Norman 73069. 6,000 skins, 400 skeletons, 200 mounts, 300 egg sets; Oklahoma, Thailand, southern and eastern Africa; 20 mounted skeletons; G. M. Sutton field notes; research, reference, teaching, exhibition; G. M. Sutton, Research Prof. Emeritus and Curator; R. B. Payne, Asst. Prof. Dept. Zool.

II. EAST CENTRAL STATE COLLEGE, Biol. Dept., Ada 74820. 350 skins, 50 mounts, 80 nests; Oklahoma; nest records scheme, banding program; teaching; W. A. Carter Assoc. Prof. Biol.

NORTHWESTERN STATE COLLEGE, Mus., Alva 73717. 500 skins, 200 mounts; Oklahoma; teaching, exhibition; B. Pitts, Mus. Curator.

OKLAHOMA STATE UNIVERSITY, Mus., Stillwater 74074. 500 skins, 100 mounts; southwestern U.S.; teaching; B. P. Glass, Director.

III. CAMERON STATE COLLEGE, Lawton 73501. CENTRAL STATE COLLEGE, Edmond 73034. OKLAHOMA BAPTIST UNIVERSITY, Shawnee 74801. PANHANDLE STATE COLLEGE, Goodwell 73939. SOUTHEASTERN STATE COLLEGE, Durant 74701. SOUTHWESTERN STATE COLLEGE, Weatherford 73096. UNIVERSITY OF TULSA, Tulsa 74104.

#### OREGON

I. OREGON STATE UNIVERSITY, Mus. Nat. Hist., Corvallis 97331. 11,000 skins, 350 mounts, 2,000 egg sets, 500 nests; Oregon and Pacific states, Florida, Georgia, Brazil; systematic, geographic files; Alex J. Walker (part), Edward Currier (egg), J. C. Braly (egg) collections; 100 photos; reference, research; Curator; J. M. Scott, Asst. Curator. UNIVERSITY OF OREGON, Mus. Nat. Hist., Eugene 97403. 3,000 skins, 150 mounts, 1,000 egg sets, 250 nests; Oregon; field notes; systematic files; nest records scheme; 50 photos; reference, research; J. A. Shotwell.

Walker, Alex (Private Collection), c/o Tillamook Pioneer Mus., Tillamook 97141. 3,000 skins, 700 egg sets, 100 nests; North America, Sweden, Congo, Central America (ca. 700 foreign); Galliformes, Falconiformes, Strigiformes; research; A. Walker, Curator.

II. PORTLAND STATE UNIVERSITY, Dept. Biol., Portland 97207. 400 skins; central and western Oregon; portions of Morton Peck, Alex Walker, and Stanley Jewett collections; teaching; R. B. Forbes, Assoc. Prof.

SOUTHERN OREGON COLLEGE, Dept. Biol., Ashland 97520. 720 skins; Oregon; C. Richardson collection; J. O. Sullivan; C. Milanovich, Mus. Curator.

WILLAMETTE UNIVERSITY, Dept. Biol., Salem 97301. 315 skins; Oregon; Morton Peck collection (part); D. Breakey, Chairman.

III. GEORGE FOX COLLEGE, Newberg 97132. LEWIS AND CLARK COLLEGE, Portland 97219. MALHEUR NATIONAL WILDLIFE REFUGE, Burns 97720. MARYLHURST COLLEGE, Marylhurst 97036. OREGON COLLEGE OF EDUCATION, Monmouth 97361. TILLAMOOK PIONEER MUSEUM, Tillamook 97141.

## PENNSYLVANIA

I. ACADEMY OF NATURAL SCIENCES, *Philadelphia 19103*. 160,000 skins, 3,000 mounts, numbers of skeletons, eggs, nests not available; 1,150 holotypes, two catalogs: Proc. Acad. Nat. Sci., 52: 5-62 (1899) and 109: 123-246 (1957); historic types include 327 Australian (Gould), 168 West African (Cassin), 11 Audubon; western South America, Kenya, Thailand, Tibet, West Indies; some field notes; Rivoli, Gould, Tristram, R. Boulton, Audubon-Harris collections, many others; research; R. Meyer de Schauensee, Chairman, Dept. Ornithol.

Carnegie Museum, *Pittsburgh* 15213. 150,000 skins, 2,000 skeletons, 2,500 fluid, 2,000 mounts, 9,000 egg sets, 200 nests; 488 holotypes, catalog: Ann. Carnegie Mus., 18: 335–364 (1928), 199 added; Central and South America, Canada, Africa, U.S., southeastern Europe, Philippines; 700 flat skins for pterylosis studies, some fossil material; field notes with maps; systematic files; Buller "third collection" (New Zealand), Cleveland Museum (part), Menage Philippine (part, formerly in University of Minnesota), H. Brandt (egg) collections; banding program; some photos (W. E. C. Todd), paintings (mostly G. M. Sutton); research; K. C. Parkes, Curator.

Delaware Valley Ornithological Club, Acad. Nat. Sci., Philadelphia 19103. 9,125

skins; Pennsylvania, New Jersey; passerines; no loans; reference, research; F. B. Gill; C. C. Ross, Research Assoc.

EVERHART MUSEUM OF NATURAL HISTORY, Sci. AND ART, Nay Aug Park, Scranton 18510. About 1,500 skins, 4,500 mounts, "hundreds" of egg sets, nests (exact numbers not available); eastern North America (skins), North, Central, South America, Europe, and Asia (mounts); some field notes; systematic files; I. Everhart collection; no loans; teaching, reference; W. Speare, Curator Sci.

PENNSYLVANIA STATE UNIVERSITY, Biol. Dept., University Park 16802. 3,000 skins, 200 mounts, 500 egg sets; Pennsylvania, some Ukraine, Mexico; some specimens with spread wings and tails; Frank L. Burns egg collection; banding program; teaching, reference; M. Wood, Assoc. Prof. Zool.

West Chester State College, Biol. Dept., West Chester 19380. 2,500 skins, 2,500 mounts, some nests and eggs; Pennsylvania, Virginia; B. H. Warren collection; H. G. Jones, Asst. Prof.

II. Albright College, Dept. Biol., Reading 19604. 250 skins; eastern Pennsylvania; no loans; teaching; E. L. Bell.

GETTYSBURG COLLEGE, Dept. Biol., Gettysburg 17325. 260 skins; eastern U.S.; Carlisle collection (part); teaching; J. R. Winkelmann, Asst. Prof. Biol.

MUHLENBERG COLLEGE, Dept. Biol., Allentown 18104. 250 skins, 2,400 mounts, 175 egg sets; teaching, exhibition; J. E. Trainer, Senior Prof. Biol.

WAGNER FREE INSTITUTE OF SCIENCE, Seventeenth St. and Montgomery Ave., Philadelphia 19121. 405 skins, 400 mounts, 200 egg sets; eastern Pennsylvania, southern New Jersey; teaching, exhibition; R. Chambers, Director.

WILLIAM PENN MEMORIAL MUSEUM, Harrisburg 17108. 900 skins, 30 skeletons, 900 mounts; Pennsylvania; field notes; geographic files; reference; A. G. Mehring, Chief, Nat. Sci. Sect.; D. S. Heintzelman (New Jersey State Mus., Trenton, New Jersey).

HI. Bucknell University, Lewisburg 17837. Juniata College, Huntington 16652. Messiah College, Grantham 17027. Pennsylvania Game Commission, Linesville 16424; 300 mounted waterfowl, birds related to water. St. Francis College, Loretto 15940. Shippensburg State College, Shippensburg 17257. Slippery Rock State College, Slippery Rock 16057. Snyder, Barton M. (Private Collection), Allentown 18103; 55 skins, 75 mounts, 1,205 egg sets, 65 nests. Westminster College, New Wilmington 16142.

#### PUERTO RICO

II. UNIVERSITY OF PUERTO RICO, MAYAGUEZ, Mayaguez 00708. 400 skins, 50 mounts; Puerto Rico; teaching; V. Biaggi, Director, C. A. A. M.

# SOUTH CAROLINA

- I. CHARLESTON MUSEUM, Charleston 29401. 6,000 skins, 100 skeletons, 500 mounts, 1,870 egg sets, 50 nests; 3 holotypes; South Carolina, southeastern U.S.; some field notes; systematic files; Arthur T. Wayne, Eugene E. Murphey, Cutts (egg) collections; reference, exhibition, research; (Curator of Ornithol.); E. M. Burton, Director.
- II. CLEMSON UNIVERSITY, *Dept. Zool.*, *Clemson 29631*. 500 skins, 250 mounts, about 15,000 egg sets; field notes; systematic files; H. L. Harllee collection (eggs); some photos; teaching, reference, research; S. A. Gauthreaux; R. E. Ware.

#### SOUTH DAKOTA

II. SOUTH DAKOTA STATE UNIVERSITY, Dept. Wildl. Fisheries Sci., Brookings 57006. 500 skins, 1 skeleton (Whooping Crane), 150 mounts, 400 egg sets; South Dakota; some

field notes; no loans; nest records scheme; teaching, reference; D. R. Progulske, Chairman.

III. BLACK HILLS STATE COLLEGE, Spearfish 57783. EARL'S MUSEUM, Meadow 57644. MINNILUSA PIONEER ASSOCIATION, Rapid City 57701; 325 mounts; Henry Behrens collection (part). Northern State College, Aberdeen 57401. WIND CAVE NATIONAL PARK, Hot Springs 57747; banding program.

#### TENNESSEE

- I. GANIER, ALBERT F. (Private Collection), 2112 Woodlawn Drive, Nashville 37212. 2,000 skins, 725 egg sets; Tennessee; Parulidae, Fringillidae, Picidae; field notes; nest records scheme, banding program (Tennessee Ornithol. Soc.); 50 photos, some paintings; reference, research; A. F. Ganier, Curator, Tennessee Ornithol. Soc.
- II. UNIVERSITY OF TENNESSEE, Dept. Zool., Knoxville 37916. 500 skins; central Tennessee; Great Smoky Mountains National Park collection; no loans; teaching; J. C. Howell, Assoc. Prof. Zool.
- III. AUSTIN REAY STATE UNIVERSITY, Clarksville 37040. Memphis State University, Memphis 38111.

## TEXAS

I. BAYLOR UNIVERSITY, Strecker Mus., Waco 76703. 1,440 skins, 25 fluid, 75 mounts, 1,490 nests and egg sets; Texas; some field notes; systematic files; teaching, research; B. C. Brown, Director.

DALLAS MUSEUM OF NATURAL HISTORY, Fair Park Sta., Box 26193, Dallas 75226. 5,000 skins, 25 fluid, 750 mounts, 50 nests; Texas; some field notes; systematic files; 200 photos; reference; C. E. Finsley, Curator.

ROB AND BESSIE WELDER WILDLIFE FOUNDATION, Box 1400, Sinton 78387. 1,600 skins, several hundred egg sets; coastal Texas; field notes; systematic files; Quillen egg collection; research; C. Cottam, Director.

STEPHEN F. AUSTIN STATE UNIVERSITY, Dept. Biol., Nacogdoches 75961. 1,230 skins, 280 egg sets; eastern Texas; systematic files; banding program; teaching; C. D. Fisher, Asst. Prof.; E. D. Michael, Assoc. Prof.

Texas A & M University, Dept. Wildl. Sci., College Station 77843. 9,000 skins, 360 skeletons, 200 fluid, 120 egg sets; 1 holotype: Cyanocitta stelleri atriceps; Texas, Colorado, Mexico (especially southern states); some field notes; systematic, geographic files; banding program; teaching, reference, research; K. A. Arnold, Assoc. Prof.

Texas Memorial Museum, University of Texas, Austin 78705. 1,095 skins, 60 mounts; Texas; Caprimulgiformes, Falconiformes, Parulidae, Piciformes; some field notes; systematic, geographic files; E. L. Marsh collection (Coahuila, Mexico), Geological Survey of Texas (Ragsdale collection); teaching, reference; C. L. Douglas, Curator Zool. and R. F. Martin, Curator Zool.

Texas Technological University, *Dept. Biol.*, *Lubbock 79409*. 400 skins, 50 skeletons, 800 fluid, 150 egg sets; Texas; Charadriiformes, Passeriformes; 400 injected anatomical preparations; systematic files; teaching; K. Rylander.

UNIVERSITY OF DALLAS, *Dept. Biol.*, *Irving 75060.* 1,000 skins; north-central Texas; passerines; some injected anatomical preparations; some field notes; systematic files; reference, research; W. M. Pulich, Asst. Prof. Biol.

UNIVERSITY OF TEXAS AT EL PASO, Mus. of Arid Land Biol., El Paso 79999. 120 skeletons, 950 Pleistocene fossil elements, 3,000 archaeological specimens; southwestern U.S.; Passeriformes; field notes; systematic, geographic files; reference, research; A. H. Harris, Curator Birds and Mammals.

II. Austin College, Biol. Dept., Sherman 75090. 225 skins; Texas; field notes; teaching; K. W. Haller, Instructor.

BIG BEND NATIONAL PARK, Big Bend Natl. Park 79834. 250 skins; southern Texas; Tyrannidae; research; R. H. Wauer, Chief Park Naturalist.

CORPUS CHRISTI MUSEUM, 1919 N. Water St., Corpus Christi 78401. 280 skins, 60 mounts; Texas Gulf coast; reference; C. L. Williams, Curator Exhibits.

FORT WORTH MUSEUM OF SCIENCE AND HISTORY, 1501 Montgomery St., Fort Worth 76107. 960 skins, 110 mounts, 295 egg sets, 50 nests; Texas, Africa; Passeriformes; some field notes; reference; W. J. Voss, Curator Nat. Sci.

LAMAR STATE COLLEGE OF TECHNOLOGY, Dept. Biol., Beaumont 77704. 320 skins; eastern Texas; ducks; banding program; 300 photos; teaching; J. J. Ramsey, Assoc. Prof. Biol.

MIDWESTERN UNIVERSITY, Dept. Biol., Wichita Falls 76308. 700 skins, 100 skeletons; Texas, Mozambique (Save River); some field notes; teaching, research; W. W. Dalquest, Prof. Biol.

III. ABILENE CHRISTIAN COLLEGE, Abilene 79601. EL PASO CENTENNIAL MUSEUM, Univ. Texas at El Paso, El Paso 79999; 2,500 eggs (G. R. Meyer collection). Fort Concho Museum, San Angelo 76901. Houston Museum of Natural Science, Houston 77004. Howard Payne College, Brownwood 76801. Mary Hardin-Baylor College, Belton 76513. McMurry College, Abilene 79605. Muleshoe National Wildlife Refuge, Muleshoe 79347. Our Lady of the Lake College, San Antonio 78207. Sam Houston State University, Huntsville 77341. Southern Methodist University, Dallas 75222. Spring Branch School System, Houston 77024. Sul Ross University, Alpine 79830. Tarleton State College, Stephenville 76401. University of Texas at Arlington, Arlington 76010. Wayland College, Plainview 79072.

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1. Brigham Young University, *Life Sci. Mus.*, *Provo 84601*. 5,000 skins, 300 mounts, 1,700 egg sets, 50 nests; Utah, Central America, Colombia; passerines; field notes; systematic files; Robert G. Bee and Boyle egg collections; nest records scheme; some photos; reference, exhibition, research; L. Hayward, Curator.

UNIVERSITY OF UTAH, Dept. Biol., Salt Lake City 84112. 25,000 skins, 100 mounts; holotypes formerly in collection (catalog: Proc. Utah Acad. Sci. Arts and Letters, 38: 21–30, 1961) have been deposited in Museum of Vertebrate Zoology, California; former egg collection (ca. 10,000 sets) deposited in the Western Foundation of Vertebrate Zoology, California; Utah, Pacific Northwest, Alaska, Pacific islands; some field notes; teaching, reference, research; W. H. Behle, Prof. Zool.

UTAH STATE UNIVERSITY, *Dept. Zool.*, *Logan 84321*. 2,000 skins; northern Utah; passerines; teaching, reference; K. L. Dixon, Prof. Zool.

II. Weber State College, Dept. Zool., Ogden 84403. 330 skins, 105 egg sets; Utah; teaching; E. A. Jenne, Asst. Prof. Zool.

ZION NATIONAL PARK, Springdale 84767. 350 skins; Washington County, Utah; Tyrannidae, Fringillidae; teaching, reference; Superintendent; B. A. Lund, Park Naturalist.

III. BUHANAN, H. MORRIS (North Elementary School and Cedar Breaks Natl. Monument), Cedar City 84720. HILLCREST HIGH SCHOOL, West Jordan 84084. SOUTHERN UTAH STATE COLLEGE, Cedar City 84720. UTAH FISH AND GAME DEPARTMENT, Salt Lake City 84116. West School, St. George 84770.

# VERMONT

III. FAIRBANKS MUSEUM, St. Johnsbury 05819; 50 skins, 25 skeletons, 3,000 mounts, 1,000 egg sets, 200 nests; hummingbirds, birds of paradise. Middlebury College, Middlebury 05753. University of Vermont, Burlington 05401.

#### VIRGINIA

I. VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, Dept. Biol., Blacksburg 24061 (formerly Rockbridge Alum Springs Biol. Lab.). 20,060 skins, 4,450 egg sets, 1,425 nests; holotypes formerly in collection now in National Museum of Natural History, Washington, D. C.; Labrador, New York (Long Island), Virginia, Florida, Arizona (Chiricahua Mts.), southern California, southeastern Georgia; field notes of J. E. Law, E. Doane; systematic files, part; J. E. Law, H. H. Bailey, A. W. Helms, G. G. Rossignol collections; nest records scheme, banding program; some photos, paintings; reference, research; C. S. Adkisson, Curator; J. B. Hubbard.

Weber, Walter A. (Private Collection), 3303 Fox Mill Road, Oakton 22124. 1,200 skins; eastern U.S.; waterfowl, birds of prey; skins prepared as models for painting, with color notes; W. A. Weber, Staff Artist and Naturalist, Natl. Geog. Soc.

II. SWEET BRIAR COLLEGE, Dept. Biol., Sweet Briar 24595. 220 skins; Virginia; banding program; teaching; E. P. Edwards, Prof. Biol.

UNIVERSITY OF VIRGINIA, Mountain Lake Biol. Sta., Charlottesville 22903. 400 skins; Virginia; W. Palmer collection; teaching; J. J. Murray, Jr., Director.

VIRGINIA COMMONWEALTH UNIVERSITY, Dept. Biol., Richmond 23220. 400 skins, 100 skeletons; Virginia; teaching, research; C. R. Blem, Asst. Prof. Biol.

III. BACK BAY NATIONAL WILDLIFE REFUGE, Virginia Beach 23456. BRIDGEWATER COLLEGE, Bridgewater 22812. EASTERN MENNONITE COLLEGE, Harrisonburg 22801; 45 Ethiopian mounts. Hollins College, Hollins College 24020. Norfolk Museum of Arts and Sciences, Norfolk 23510. Shenandoah National Park, Luray 22835. University of Richmond, Richmond 23173.

# WASHINGTON

I. PACIFIC LUTHERAN UNIVERSITY, Dept. Biol., Tacoma 98447. 1,000 skins; Puget Sound area; systematic, age and sex files; teaching, reference; D. L. Pattie, Curator Birds and Mammals.

UNIVERSITY OF PUGET SOUND, Mus. Nat. Hist., Tacoma 98406. 11,000 skins, 5,000 egg sets and nests; western U.S.; field notes; systematic, geographic files; some photos, paintings; teaching, research; G. D. Alcorn, Chairman, Dept. Biol., Director Mus.

UNIVERSITY OF WASHINGTON, Burke Memorial Washington State Mus., Seattle 98105. 7,500 skins, 1,540 skeletons, 60 fluid, 450 mounts, 800 egg sets, 850 nests; Pacific Northwest; Passeriformes, Charadriiformes, Falconiformes; systematic, geographic files; S. F. Rathbun, John Milton Edson, L. M. Turner collections, several others; some photos; research; F. Richardson, Curator.

Walla Walla College, *Dept. Biol.*, *College Place 99324*. 1,700 skins, 80 mounts, 350 egg sets; western U.S., Mexico; systematic files; reference; A. E. Perry, Assoc. Prof. Biol.

Washington State University, *Dept. Zool.*, *Pullman 99163*. 5,000 skins, 300 skeletons, 1,500 fluid, 590 mounts, 200 egg sets; northwestern and eastern U.S., Central America; some field notes; systematic files; paintings by Walter A. Weber, Allan Brooks; research; R. Johnson, Curator; G. E. Hudson.

II. BOOTH, ERNEST S. (Private Collection), Box 277, Anacortes 98221. 500 skins; Brazil, Peru, Mexico, Taiwan; reference; E. S. Booth.

CENTRAL WASHINGTON STATE COLLEGE, Biol. Dept., Ellensburg 98926. 500 skins; central Washington; teaching; J. Verner.

VAN OOSTEN, J. R. (Private Collection), 1221 22nd East, Seattle 98102. 275 skins; Neotropical; field notes; bulk of collection now at University of Puget Sound, Museum of Natural History; 500 slides, 4 paintings; reference, research; J. R. van Oosten.

WHITMAN COLLEGE, Mus. Nat. Hist., Walla Walla 99362. 710 skins, 225 mounts, 155 egg sets; Pacific Northwest, some Alaska; D. E. Brown, Storrs H. Lyman, James Henderson collections; no loans; teaching, exhibition; A. G. Rempel, Curator and Prof. Biol.

III. WHITWORTH COLLEGE, Spokane 99218.

## West Virginia

- I. WEST VIRGINIA UNIVERSITY, Dept. Biol., Morgantown 26506. 1,225 skins, 310 mounts; West Virginia, Maryland; passerines; systematic files; teaching; R. L. Birch, Asst. Prof.
- II. MARSHALL UNIVERSITY, Dept. Biol. Sci., Huntington 25701. 500 skins, 60 mounts, 50 nests; West Virginia; teaching; Chairman, Dept. Biol. Sci.; R. M. Edeburn.
- III. BETHANY COLLEGE, Bethany 26032. CONCORD COLLEGE, Athens 24712. MORGAN, ALBERT S. (Private Collection), Winfield 25213. OGLEBAY INSTITUTE, Wheeling 26003.

## Wisconsin

I. MILWAUKEE PUBLIC MUSEUM, Milwaukee 53233. 12,065 skins, 45 skeletons, 650 fluid, 2,600 mounts, 2,345 egg sets, 565 nests; North America, Africa, South America, Central America; some field notes; systematic, geographic files; L. Kumlien, N. Hollister, B. F. Goss collections; photos; reference, exhibition; J. L. Diedrich, Div. Birds and Mammals.

University of Wisconsin, Dept. Zool. and Dept. Wildl. Ecol., Madison 53706 (data for two collections combined). 5,160 skins, 600 skeletons, 200 mounts, 800 egg sets; Korea, Canadian Arctic, western Alaska, central Africa, southern Brazil, Wisconsin; Anseriformes, Falconiformes, Galliformes, Psittacidae, Picidae, suboscines, Icteridae; systematic, geographic files; teaching; W. G. Reeder, Dept. Zool.; J. E. Dallman, Specialist-Curator, Dept. Zool. and A. W. Schorger. Note: Dept. Wildl. Ecol. has small collection, 160 skins from Wisconsin.

II. NEW LONDON PUBLIC MUSEUM, 412 S. Pearl St., New London 54961. 250 skins, 90 mounts, 75 egg sets, 60 nests; no loans; exhibition; Mrs. H. Macklin, Curator.

WISCONSIN STATE UNIVERSITY-EAU CLAIRE, Dept. Biol., Eau Claire 54701. 300 skins, 650 mounts; northwestern Wisconsin; J. N. Clark, L. Kumlien (part) collections; no loans; teaching, exhibition; D. B. Crowe, Prof. Biol.

WISCONSIN STATE UNIVERSITY-RIVER FALLS, Dept. Biol., River Falls 54022. 305 skins; Wisconsin; teaching, reference; S. Goddard.

WISCONSIN STATE UNIVERSITY-STEVENS POINT, Mus. Nat. Hist., Stevens Point 54481. 600 skins, 30 skeletons, 600 mounts, 530 egg sets; central Wisconsin; L. Kumlien (part), August J. Schoenebeck (eggs, mounts) collections; nest records scheme; teaching, exhibition; V. A. Heig, Curator Birds.

III. BELOIT COLLEGE, Beloit 53511. NEVILLE PUBLIC MUSEUM, Green Bay 54301. NORTHLAND COLLEGE, Ashland 54806. RACINE COUNTY MUSEUM, Racine 53403. RIPON COLLEGE, Ripon 54971. UNIVERSITY OF WISCONSIN-MILWAUKEE, Milwaukee 53211. WISCONSIN STATE UNIVERSITY-LA CROSSE, La Crosse 54601.

## WYOMING

- I. University of Wyoming, Dept. Zool., Laramie 82070. 1,260 skins, 165 mounts, 50 egg sets; Wyoming; systematic, geographic files; E. P. Walker, W. C. Knight, R. L. Patterson collections; research; K. L. Diem, Prof. Zool.
- III. GRAND TETON NATIONAL PARK, Moose 83012. LARAMIE SENIOR HIGH SCHOOL, Laramie 82070. YELLOWSTONE NATIONAL PARK, Yellowstone National Park 82190.

## CANADIAN COLLECTIONS

#### ALBERTA

- I. UNIVERSITY OF ALBERTA, Mus. Zool., Edmonton. 3,500 skins, 200 skeletons; Alberta; Galliformes, Passeriformes; field notes (J. D. Soper); systematic, geographic files, distribution maps; research; V. Lewin, Assoc. Prof., Dept. Zool.
- II. PROVINCIAL MUSEUM AND ARCHIVES OF ALBERTA, 12845 102 Ave., Edmonton. 700 skins, 950 mounts; Alberta; reference, exhibition; Director; D. A. E. Spalding, Head Curator Nat. Hist.
- III. BANFF NATIONAL PARK, Banff. ELK ISLAND NATIONAL PARK, Lamont. RIVER-EDGE FOUNDATION, Calgary; size of collection not reported.

## BRITISH COLUMBIA

- I. British Columbia Provincial Museum, Victoria. 13,400 skins, 250 skeletons, 300 egg sets, 1,000 nests; 1 holotype: Lagopus leucurus saxatilis; British Columbia; some field notes; systematic files; Walter B. Johnstone, H. M. Laing, R. M. Stewart, A. L. Meugens (eggs), A. C. Mackie, E. Tait collections; reference, research; Curator Ornithol, and Mammal.; W. J. Schick, Asst. Curator.
- III. CAMPBELL, R. WAYNE (Private Collection), Burnaby; nest records scheme. Selkirk College, Castlegar; nest records scheme, banding program.

# MANITOBA

I. LITTLE NORTHERN MUSEUM (Private Museum), 1359 Gordon Ave., The Pas. 1,020 skins, 165 mounts, 50 egg sets, 50 nests; Manitoba; some field notes; all purpose; Sam Waller, Owner.

Manitoba Museum of Man and Nature, 190 Rupert Ave., Winnipeg 2. 2,400 skins, 300 egg sets; central Canada, Alaska (Nunivak Island); systematic, geographic files; nest records scheme; 100 photos; reference; R. E. Wrigley, Curator Mammalogy; R. W. Nero.

III. Brandon University, B. J. Hales Mus. Nat. Hist., Brandon; 525 mounts; G. A. Atkinson collection previously at Portage La Prairie.

## NEW BRUNSWICK

III. GRAND MANAN MUSEUM, Grand Harbour; A. L. Moses collection.

# Newfoundland

III. MEMORIAL UNIVERSITY OF NEWFOUNDLAND, St. John's; banding program.

# Nova Scotia

II. ACADIA UNIVERSITY, Wildl. Dept., Wolfville. 650 skins, 35 skeletons, 240 mounts, 75 egg sets; Nova Scotia; Anseriformes; Andrew Downs (mounts), Debrisay Museum collections; teaching, exhibition; Curator; J. F. Kearney, Jr., Asst. Curator.

Nova Scotia Museum, Spring Garden Road, Halifax. 550 skins, 115 mounts, 355 egg

sets; Nova Scotia; Austin Rand (Nova Scotia), Robie Tufts (egg) collections; teaching, reference, exhibition; F. Scott, Mus. Asst.

III. DALHOUSIE UNIVERSITY, Halifax.

#### ONTARIO

I. LLOYD, HOYES (Private Collection), 582 Mariposa Ave., Rockcliffe Park, Ottawa 2. 5,000 skins; southern Ontario, British Columbia, California, Surinam; field notes (H. Lloyd); reference, research; H. Lloyd.

LUMSDEN, H. G. (Private Collection), Research Branch, Ontario Dept. Lands and Forests, Maple. 600 skins, 600 skeletons; worldwide; Tetraonidae only; field notes; 500 photos, some tape recordings; research; H. G. Lumsden.

MacKay, Barry Kent (Private Collection), Apt. 1208, 35 Thorncliffe Park Drive, Toronto. 2,000 skins; Ontario, also British Columbia, Nova Scotia, West Germany, Thailand, Ecuador; some domestic birds; some field notes; paintings; reference; B. K. MacKay.

NATIONAL MUSEUM OF CANADA, Ottawa. 58,000 skins, 500 skeletons, 50 fluid, 800 mounts, 2,500 egg sets, 135 nests; 12 holotypes, no catalog; Canada, Alaska, Brazil; field notes; paintings; research; W. E. Godfrey, Head Vert. Zool. and Curator Ornithol.

ROYAL ONTARIO MUSEUM, 100 Queens Park, Toronto 181. 105,000 skins, 7,000 skeletons, 3,000 fluid, 400 mounts, 12,000 egg sets, 3,000 nests; 32 holotypes, no catalog; Ontario, Canada, southwestern U.S., British Honduras, Colombia, Africa (especially Malawi), New Zealand, Galápagos, Hawaii, West Indies; Charadriiformes, Vireonidae, Drepanididae; 1,000 known age specimens, 50 mounted skeletons; field notes; systematic, geographic files; J. H. Fleming, J. A. Munro collections; nest records scheme; 500 photos, some paintings, tape recordings; research; J. C. Barlow, Curator.

University of Western Ontario, *Dept. Zool.*, *London.* 5,000 skins, 50 mounts; southern Ontario, Hudson Bay; *Cardinalis cardinalis* (Ontario); systematic files; teaching, reference; D. M. Scott.

II. ALGONQUIN PARK MUSEUM, Algonquin Park Post Office. 400 skins; Algonquin Park; special arrangements necessary in winter; reference; R. J. Rutter, Mus. Asst. I. CARLETON UNIVERSITY, Mus. Zool., Dept. Biol., Ottawa 1. 750 skins; Canada, some East Africa; Sheldon L. Davis collection; teaching; D. A. Smith, Assoc. Prof. Biol.

CHATHAM-KENT MUSEUM, 59 William St. N., Chatham. 220 skins, 230 mounts, 70 egg sets; southwestern Ontario; no loans; exhibition; Mrs. H. B. Wressell, Curator.

ONTARIO FOREST TECHNICAL SCHOOL, *Dorset*. 310 skins, 100 mounts; Ontario; teaching; V. B. Collins, Instructor.

QUEENS UNIVERSITY, Dept. Biol., Kingston. 350 skins, 50 skeletons, 200 mounts; Ontario; teaching; J. A. Keast, Prof.

STEELE, WILLIAM S. (Private Collection), 151 Glasgow St. N., Guelph. 300 skins; worldwide; shore birds only; no loans; research; W. S. Steele.

University of Guelph, Dept. Zool., Guelph. 400 skins, 30 skeletons, 50 mounts, 100 egg sets; eastern North America; Anatidae; no loans; teaching; A. L. A. Middleton, Assoc. Prof.

III. BROCK UNIVERSITY, St. Catharines. LAURENTIAN UNIVERSITY, Sudbury. POINT PELEE NATIONAL PARK, Leamington; nest records scheme. University of Ottawa, Ottawa 2. University of Toronto, Toronto 5. University of Waterloo, Waterloo, Waterloo Lutheran University, Waterloo. Westman, Mrs. F. (Private Collection), Barrie.

## **QUEBEC**

I. College of Ste. Anne de la Pocatière, La Pocatière, Kamouraska County. 1,600 skins, 400 mounts, 75 egg sets; lower St. Lawrence; field notes; systematic files; some photos; teaching, exhibition, research; Fr. René Tanguay, Director Mus.

LAVAL UNIVERSITY, Dept. Biol., Quebec 10. 3,600 skins, 150 egg sets, 150 nests; Quebec; Anatidae, Charadriidae, Scolopacidae, Fringillidae; field notes; systematic files; some photos; reference; Rene Béique, Curator Entomol. Note: This collection, in the Quebec Museum until 1962, belongs to the Quebec Government, Ministry of Cultural Affairs; now on loan to Laval University.

REDPATH MUSEUM, McGill University, Montreal 110. 1,000 skins, 50 skeletons, 800 mounts, 75 nests; Quebec, Congo, Tanganyika; Passeriformes; systematic, geographic files; banding program; reference, research, teaching; J. B. Lewis, Director.

University of Montreal, *Dept. Biol. Sci.*, *Montreal.* 2,000 skins, 200 mounts; Quebec, Venezuela; shorebirds; field notes; systematic, geographic files; teaching, research; R. McNeil, Prof. Ornithol.

II. DEPARTMENT OF TOURISM, FISH AND GAME, Wildl. Serv., Quebec City. 500 skins; Quebec; field notes; nest records scheme, water fowl banding program; reference; R. Ouellet and A. Reed.

SEMINAIRE DE SHERBROOKE, 195 Rue Marquette, Sherbrook. 515 skins; Quebec; teaching, exhibition; Roger Métras, Rector.

III. COLLÈGE BOURGET, Rigaud. COLLÈGE DE LÉVIS, Lévis.

## SASKATCHEWAN

I. SASKATCHEWAN MUSEUM OF NATURAL HISTORY, Regina. 3,000 skins, 1,000 mounts, some egg sets and nests; Saskatchewan; field notes; systematic files; tape recordings; exhibition, research; F. W. Lahrman, Mus. Artist.

University of Saskatchewan, Biol. Mus., Saskatoon. 2,155 skins; teaching; W. J. Maher, Assoc. Prof. Biol.

III. University of Saskatchewan, Regina.

Bird and Mammal Laboratories, Bureau of Sport Fisheries and Wildlife, National Museum of Natural History, Washington, D. C. 20560; Section of Birds, Carnegie Museum, Pittsburgh, Pennsylvania 15213; and Department of Ornithology, Royal Ontario Museum, Toronto 181, Ontario, Canada. Accepted 1 March 1972.