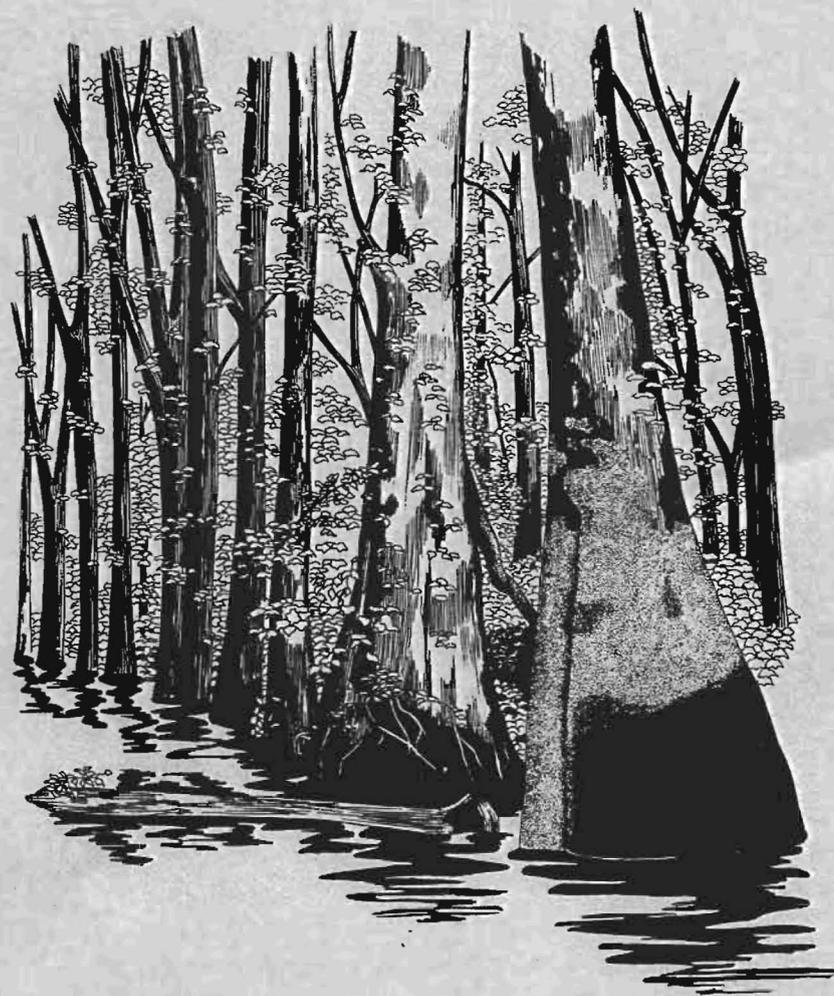

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USE OF THE BOTTOMLAND HARDWOODS SUBSET OF THE WETLAND VALUES DATA BASE



Fish and Wildlife Service

U.S. Department of the Interior

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OF THE WETLAND VALUES DATA BASE

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INTRODUCTION

This report documents a bibliographic data base concerning functions and values of bottomland hardwoods and similarly vegetated areas . This data base is being provided for a limited time (until September 30, 1988) as a supplement to the publication entitled "Synopsis of Wetland Functions and Values: Bottomland Hardwoods with Special Emphasis on Eastern Texas and Oklahoma" (Wilkinson et al. 1987). The bottomland hardwoods data base is a subset of a larger bibliographic data base, Wetland Values, developed by the National Wetlands Inventory of the U.S. Fish and Wildlife Service (Stuber 1986). The focus of these bibliographic data bases is on functions and values of wetlands; few articles on structure (e.g., phytosociology) are included.

The larger Wetland Values Data Base was developed under the MANAGE data base management software (Shumate et al. 1982) on various mainframe computers and is now being transferred to a minicomputer system. Questions concerning the Wetland Values Data Base should be directed to

National Wetlands Inventory
Wetland Values Data Base Administrator
U.S. Fish and Wildlife Service
Suite 217, Dade Building
9620 Executive Center Drive
St. Petersburg, FL 33702

The bottomland hardwoods subset is suitable for use on a microcomputer data base management system. QUICKTEXT (Osborn and Strong 1984) is one such software system that is highly similar to the mainframe MANAGE software. Procedures are also outlined for loading into a DBASE III PLUS system. Questions or technical problems concerning the bottomland hardwoods data base should be directed to

Jill Muhlenbruck
National Ecology Research Center
U.S. Fish and Wildlife Service
2627 Redwing Road
Fort Collins, CO 80526-2899
(303) 226-9438 or FTS 323-5438

The structure and contents of the bottomland hardwoods data base are described in the section of this report entitled DATA BASE CONTENTS. The section GENERAL INSTALLATION covers system requirements and basic procedures for transferring files from the distribution disks. The next section, DISTRIBUTION FORMAT, details the format of the distribution file, BDATA.TXT, which contains the basic bibliographic data. The next two sections contain instructions for loading the basic bibliographic data into QUICKTEXT and DBASE III PLUS data base management systems, respectively. Users preferring

some other data base management software may develop their own loading procedures for BDATA.TXT from the information in the DISTRIBUTION FORMAT section.

Finally, a MEMORANDUM OF UNDERSTANDING presents the conditions governing the transfer and subsequent use of the data base.

DATA BASE CONTENTS

This material is drawn largely from the description of the Wetland Values Data Base compiled by Stuber (1986). The Wetland Values Data Base is an annotated bibliography concerning the functions and values of wetlands. It is not intended as a substitute for the primary literature. However, the data base can eliminate the many hours traditionally spent in literature searches. The data base is searchable in several ways (e.g., by geographic location, by wetland type, by author, or by wetland value), allowing very specific searches. The bottomland hardwoods subset consists of 323 entries pertaining to functions or values of bottomland hardwoods or similarly vegetated areas.

Each bibliographic entry in the data base contains values for each of 12 fields listed in Table 1. Keyword fields may contain multiple values for a given bibliographic entry. These multiple values are delimited by a comma (","). Variable fields are of variable length and may contain a number of lines of information.

A summary description of the fields follows. More detailed information may be obtained from the user's guide to the Wetland Values Data Base (Stuber 1986), which is available from either of the sources listed in the INTRODUCTION. An example of values for the various fields is included in the DATA FORMAT section.

AUTHOR

Authors are entered as last name followed by initials with a blank separating last name from initials and no periods following initials. In this keyword field, a comma and leading blank separate multiple authors (e.g., "AUBLE GT, STUBER PJ").

YEAR

Publication date is entered as a 4-digit integer (e.g., "1987").

HYDROUNIT

This keyword field codes the geographic focus of the article in terms of hydrounit codes (numbers) from U.S. Geological Survey/Water Resource Council hydrologic unit maps.

Table 1. Fields in bottomland hardwoods data base.

Name	Field type	Keyword	Field length
Author	character	yes	70
Year	integer	no	4
Hydrounit	character	yes	70
Landform	character	yes	70
Location	character	yes	70
Ecoregion	variable	yes	variable
C.E.district	variable	yes	variable
Title	variable	no	variable
Source	variable	no	variable
Subject	variable	yes	variable
Wetland.type	variable	yes	variable
Abstract	variable	no	variable

LANDFORM

This keyword field codes the geographic focus of the article according to Hammond (1964) landforms.

LOCATION

This keyword field codes the geographic focus of the article by Nation, by State (using standard 2-letter codes), by "EASTERN" or "WESTERN" (Figure 1), as well as by other common geographic specifications (e.g., "DISMAL SWAMP-VA").

ECOREGION

This keyword field codes the geographic focus of the article by ecoregion as defined by Bailey (1980) and Bailey and Cushwa (1982).

C.E.DISTRICT

This keyword field codes the geographic focus of the article by U.S. Army Corps of Engineers District or Division using the symbols listed in Table 2.

TITLE

This field contains the title of the article.

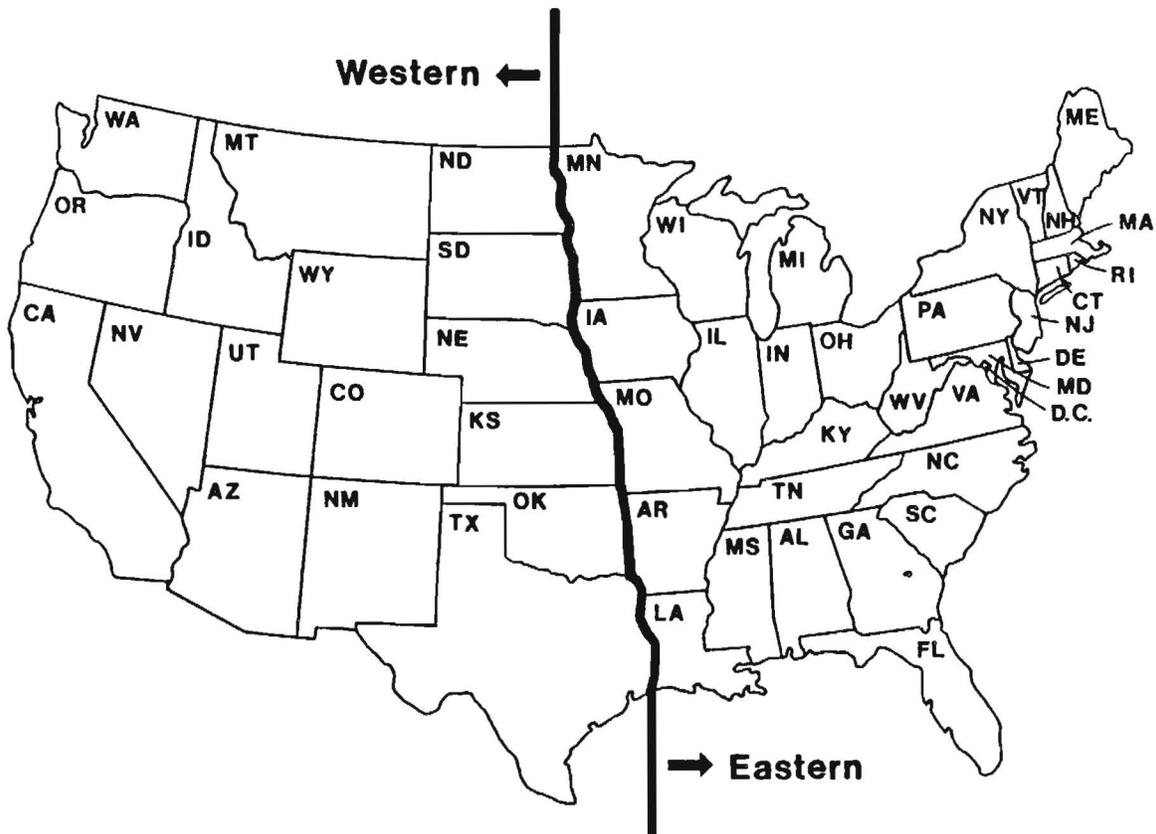


Figure 1. Map depicting eastern/western delineation for location field (from Stuber 1986).

SOURCE

This field contains the source of the article (e.g., pages, journal, publisher). Formats vary somewhat, with the objective of providing sufficient information to obtain the original item from a library or the publisher.

SUBJECT

This keyword field identifies the topic of the article in terms of wetland value or values. Possible entries covering both general and specific levels are indicated in Table 3.

WETLAND TYPE

This keyword field identifies the type of wetland the article pertains to according to the classification system of Cowardin et al. (1979). Keywords include a combination of text at the higher levels of the classification and National Wetland Inventory mapping codes (see Table 4 for examples).

Table 2. Symbols used for C.E.DISTRICT field (from Stuber 1986).

U.S. Army Corps of Engineers Districts and Divisions	Symbol
Europe Division	EUD
Huntsville Division	HND
Lower Mississippi Valley Division	LMV
Memphis District	LMM
New Orleans District	LMN
St. Louis District	LMS
Vicksburg District	LMK
Middle East Division	MED
Middle East (Rear) Division	MER
Riyadh District	MEC
Al Batin District	MEE
Missouri River Division	MRD
Kansas City District	MRK
Omaha District	MRO
New England Division	NED
North Atlantic Division	NAD
Baltimore District	NAB
New York District	NAN
Norfolk District	NAO
Philadelphia District	NAP
North Central Division	NCD
Buffalo District	NCB
Chicago District	NCC
Detroit District	NCE
Rock Island District	NCR
St. Paul District	NCS
North Pacific Division	NPD
Alaska District	NPA
Portland District	NPP
Seattle District	NPS
Walla Walla District	NPW
Ohio River Division	ORD
Huntington District	ORH
Louisville District	ORL
Nashville District	ORN
Pittsburg District	ORP
Pacific Ocean Division	POD
Far East District	POF
Japan District	POJ

(Continued)

Table 2. (Concluded)

U.S. Army Corps of Engineers Districts and Divisions	Symbol
South Atlantic Division	SAD
Charleston District	SAC
Jacksonville District	SAJ
Mobile District	SAM
Savannah District	SAS
Wilmington District	SAW
South Pacific Division	SPD
Los Angeles District	SPL
Sacramento District	SPK
San Francisco District	SPN
Southwestern Division	SWD
Albuquerque District	SWA
Fort Worth District	SWF
Galveston District	SWG
Little Rock District	SWL
Tulsa District	SWT

ABSTRACT

This text field contains an abstract or summary of the article. In many cases, permission was obtained to reproduce an original abstract in the Wetland Values Data Base. In other cases, the initials of the abstractor are given in parentheses at the end of this field.

DATA FORMAT

The file BDATA.TXT contains the basic bibliographic data, which can be read directly or loaded into a data base management system. The bibliographic entries are organized sequentially in BDATA.TXT, with the fields in each entry ordered in the following sequence:

1. Author, a single line
2. Year, a single line
3. Hydrounit, a single line
4. Landform, a single line
5. Location, a single line
6. Ecoregion, possibly multiple lines terminated with a line containing "\$"

Table 3. Possible values for SUBJECT field (from Stuber 1986).

Major values	Specific values
Assessment Techniques	
Bibliography (other wetland bibliographies)	
Biogeochemical Processes	Carbon Sulphur
Climate	
Economic Models	
Food Chain	Detritus pathway Detritus production Energy flow Grazing pathway Nutrient content Nutrient cycling Nutrient export Primary production Secondary consumption Secondary production
General value	
Habitat value	Amphibians Fish Furbearers Insects (and other invertebrates) Mammals Non-game birds Reptiles Shellfish Shore birds (and seabirds) Waterfowl (and other gamebirds)
Hydrologic value	Erosion control Flood control Flow stabilization Groundwater discharge Groundwater recharge Saltwater intrusion Storm dampening

(Continued)

Table 3. (Concluded)

Major values	Specific values
Use value	<p>Consumptive</p> <ul style="list-style-type: none"> Agricultural crop Aquaculture Commercial harvest Energy (heat) Food (human) Forage Hunting (or fishing) Irrigation Medicinal Other industry (pulp, paper, etc.) Timber Wastewater treatment Water supply <p>Experiential (non-consumptive, contact dependent use of a wetland)</p> <ul style="list-style-type: none"> Education Recreation Research <p>Societal</p> <ul style="list-style-type: none"> Aesthetic Archaeological Cultural Endangered species Heritage Indicator species Monetary assessment Open space Scarcity (or uniqueness) Special set aside areas
Water Quality	<ul style="list-style-type: none"> Contaminants Heavy metals Nutrient sink Organic acids/redox (naturally produced) Oxygen production Sediment trapping Thermal effluent

Table 4. Example values for WETLAND.TYPE field (from Stuber 1986).

System ^a	Examples of specific wetland types ^b
ESTUARINE	E-AQUATIC BED E-BEACH/BAR E-EMERGENT E-FLAT E-FORESTED E-SCRUB/SHRUB E-STREAMBED E-UNCONSOLIDATED BOTTOM E-UNCONSOLIDATED SHORE
LACUSTRINE	L-AQUATIC BED L-EMERGENT L-UNCONSOLIDATED BOTTOM
MARINE	M-AQUATIC BED M-FLAT M-REEF M-UNCONSOLIDATED BOTTOM M-UNCONSOLIDATED SHORE
PALUSTRINE	P-AQUATIC BED P-EMERGENT P-FLAT P-FORESTED P-MOSS/LICHEN P-SCRUB/SHRUB P-UNCONSOLIDATED BOTTOM P-UNCONSOLIDATED SHORE
RIVERINE	R-AQUATIC BED R-EMERGENT R-FLAT

^aThe wetland system is always entered. Further breakdown is done to as specific a wetland type as possible.

^bClassification beyond the class level is coded by the wetland type codes outlined in Cowardin et al. (1979).

^cRefers to any of the wetland systems.

7. C.E.District, possibly multiple lines terminated with a line containing "\$"
8. Title, possibly multiple lines terminated with a line containing "\$"
9. Source, possibly multiple lines terminated with a line containing "\$"
10. Subject, possibly multiple lines terminated with a line containing "\$"
11. Wetland.type, possibly multiple lines terminated with a line containing "\$"
12. Abstract, possibly multiple lines terminated with a line containing "\$\$" to designate end of field and end of entry.

Thus, a line containing only a "\$" in the first column designates the end of a variable length field, whereas a line containing only "\$\$" in the first two columns designates the end of an entry as well as the end of the last variable length field. The contents of BDATA.TXT corresponding to the first complete entry and the first three fields of the second entry are depicted in Figure 2.

GENERAL INSTALLATION

This data base distribution is for an IBM PC/XT/AT compatible machine running the equivalent of MS-DOS 2.0 or higher; a 360 Kbyte, 5¼" floppy disk drive to read the source distribution disks; and a target mass storage device (e.g., floppy drive, external cartridge drive, or internal hard disk) to receive the files from the distribution disks. Mass storage requirements will vary slightly based on the ultimate use of the data. Transfer of the files on the distribution disks (i.e., the procedure covered in this section) will require slightly less than 1.0 Megabytes temporarily with a final requirement of slightly less than 0.5 Megabytes. Loading into a QUICKTEXT data base will require an additional 0.9 Megabytes (beyond the QUICKTEXT programs themselves) for a total processing requirement of approximately 1.4 Megabytes. After loading into QUICKTEXT, disk storage can be reduced to approximately 0.9 Megabytes. Loading into DBASE III PLUS will require an additional 2.1 Megabytes (beyond the DBASE III PLUS main programs) for a total processing requirement of approximately 2.6 Megabytes. After loading into DBASE III PLUS, disk storage can be reduced to approximately 1.3 Megabytes.

Several conventions are followed here to describe computer procedures. The sequence <return> indicates the ENTER or RETURN key. Specific values, command sequences, and prompts are enclosed in quotes where there is any ambiguity about their separation from surrounding text. Spacing within a command or value is generally meaningful and should be preserved to duplicate the command or value.

The procedures outlined here and in subsequent sections further assume that installation will be done by reading the distribution disks in the "A:" drive (a 5¼" floppy drive capable of reading 360 Kbyte disks) and installing the data base into a "BLH" subdirectory of the "C:" drive (presumably a hard

CAMPO JJ
 1983
 120200,120302,120100
 B2B,B2C,B3B
 U.S.,WESTERN,TX
 2320,2311
 \$
 LMN,SWF,SWG
 \$
 BROOD HABITAT USE, REPRODUCTION AND MOVEMENT OF RECENTLY RESTOCKED
 EASTERN WILD TURKEYS IN EAST TEXAS
 \$
 PH.D. DISS., TEXAS A&M UNIV., COLLEGE STATION, 144PP.
 \$
 HABITAT VALUE,WATERFOWL
 \$
 PALUSTRINE,PFO1,PFO4
 \$
 WILD TURKEYS WERE STUDIED ON TWO UNITS IN EAST TEXAS:(1)
 BEEF CREEK IN JASPER COUNTY, AND (2) BRUSHY CREEK WILDLIFE
 MANAGEMENT AND RESEARCH AREA IN POLK AND TRINITY COUNTIES. BEEF CREEK
 IS CHARACTERIZED BY PINE PLANTATIONS, PINE TIMBER AREAS, AND
 BOTTOMLAND HARDWOOD/PINE-HARDWOOD. DOMINANT TREES INCLUDED
 LOBLOLLY PINE, LONGLEAF PINE, SHORTLEAF PINE, SLASH PINE, RED OAK,
 POST OAK, WATER OAK, WILLOW OAK, CHERRYBARK OAK, BLACKGUM
 TUPELO, AND BALDCYPRESS. BRUSHY CREEK CONTAINS PINE PLANTATIONS
 AND STANDS, PINE-HARDWOOD, SOME OPEN AREAS, AND A SMALL AREA
 OF BOTTOMLAND HARDWOODS. TURKEYS PREFERRED PINE-HARDWOOD AND
 BOTTOMLAND HARDWOOD FOREST TYPES DURING FALL AND WINTER.
 ENHANCEMENT OF THESE AREAS IS RECOMMENDED AS PART OF FOREST
 MANAGEMENT THAT ACCOMPANIES TURKEY RESTOCKING OR OTHER
 MANAGEMENT. ALTHOUGH TURKEYS HAVE BEEN ESTABLISHED IN BOTH STUDY
 AREAS, MANAGEMENT PRACTICES DIFFER. AT BEEF CREEK, MAINTENANCE
 OF EXISTING PREFERRED HABITAT IS RECOMMENDED. AT BRUSHY CREEK,
 PINE MONOCULTURES SHOULD BE PERIODICALLY BURNED, SELECTIVELY
 THINNED, AND SUPPLEMENTED ANNUALLY WITH FOOD PLANTING TO
 MAINTAIN THE TURKEY POPULATIONS. THE IMPORTANCE OF MAINTAINING A
 DIVERSITY OF HABITAT TYPES WAS EMPHASIZED, TURKEYS PREFER A
 VARIETY OF HABITATS FOR NESTING, BROODING, AND FEEDING. OF THE
 HENS THAT WERE RESTOCKED IN 1978-80, 64% AND 42% SURVIVED AT BEEF
 CREEK AND BRUSHY CREEK, RESPECTIVELY. AVERAGE CLUTCH SIZE AT
 BOTH SITES WAS 8 EGGS. A HIGH REPRODUCTIVE POTENTIAL WAS
 INDICATED FOR POPULATIONS OF BIRDS AT BOTH SITES, DUE TO HIGH
 INITIAL NESTING AND RENEESTING RATES. (KSM)
 \$\$
 LIVINGSTON RJ, IVERSON RL, WHITE DC
 1976
 031300

Figure 2. Contents of BDATA.TXT corresponding to first full entry and beginning of second entry.

drive). Modify these drive designations as appropriate for a system with a different configuration.

The remainder of this section outlines the transfer of files from the distribution disks to a newly created subdirectory "C:\BLH." A screen image corresponding to the procedure below is depicted in Figure 3.

1. Make "C:\\" the current drive and directory.
2. Create a BLH subdirectory by typing

MD BLH <return>

```

A:\>C:

C:\>MD BLH

C:\>CD BLH

C:\BLH>COPY A:*. * C:\BLH
A:DPRINT.PRG
A:BCONVERT.PRG
A:DBLH.DBF
A:BZERO.PRG
A:BNEXTOUT.PRG
A:BREAD.PRG
A:BNEXTIN.PRG
A:BIN.DBF
A:BQT.MAN
A:BDATA1.TXT
      10 File(s) copied

C:\BLH>COPY A:*. * C:\BLH
A:BDATA2.TXT
      1 File(s) copied

C:\BLH>COPY BDATA1.TXT + BDATA2.TXT BDATA.TXT
BDATA1.TXT
BDATA2.TXT
      1 File(s) copied

C:\BLH>ERASE BDATA1.TXT

C:\BLH>ERASE BDATA2.TXT

C:\BLH>

```

Figure 3. Screen image of procedure for restoring files from distribution disks.

3. Make "C:\BLH" the current drive and directory by typing


```
CD BLH <return>
```
4. Transfer files from distribution diskette 1 by inserting this diskette into drive A and typing


```
COPY A:*. * C:\BLH <return>
```
5. Transfer the file from distribution diskette 2 by inserting this diskette into drive A and typing


```
COPY A:*. * C:\BLH <return>
```
6. Combine the two parts of the large data file by typing


```
COPY BDATA1.TXT + BDATA2.TXT BDATA.TXT
```
7. Erase the two partial files by typing


```
ERASE BDATA1.TXT <return>
```

and

ERASE BDATA2.TXT <return>

This procedure should result in the following files on "C:\BLH" (not necessarily in this order)

- (a) BDATA.TXT
- (b) BQT.MAN
- (c) BCONVERT.PRG
- (d) BZERO.PRG
- (e) BNEXTOUT.PRG
- (f) BREAD.PRG
- (g) BNEXTIN.PRG
- (h) BIN.DBF
- (i) DBLH.DBF
- (j) DPRINT.PRG

The next two sections provide details on loading "BDATA.TXT" into two specific data base management systems.

LOADING INTO QUICKTEXT

This section provides guidance for loading the file BDATA.TXT into a data base in the QUICKTEXT data base management software. QUICKTEXT was developed by the U.S. Fish and Wildlife Service for use on IBM PC/XT/AT compatible microcomputers and may be obtained as a self-tutorial package (course QT100-Data Base Management Techniques, under a cooperative training agreement) from Colorado State University by contacting:

NEC Courses
Office of Conference Services
Colorado State University
Fort Collins, CO 80523
(303) 491-7767

The procedures outlined here assume the following.

- (a) You are familiar with QUICKTEXT and MS-DOS (or equivalent) and have access to the respective documentation.
- (b) QUICKTEXT is installed in "C:\QT" and the bottomland hardwoods QUICKTEXT data base will reside in "C:\BLH."
- (c) Files from the distribution disks have been restored to "C:\BLH" (see GENERAL INSTALLATION section). Files "BDATA.TXT" and "BQT.MAN" will be used.

- (d) Your system is at the operating system level (showing DOS prompt) and your current drive:directory is "C:\QT."

The following steps will create a QUICKTEXT data base using the restored distribution files. The screen image associated with steps 4-7 is depicted in Figure 4.

1. At the DOS prompt, concatenate the header and data files by typing

```
COPY C:\BLH\BQT.MAN + C:\BLH\BDATA.TXT C:\BLH\BQTIN <return>
```

2. Invoke QUICKTEXT by typing

```
QT <return>
```

3. Load an existing data base (e.g., the HELP data base that comes with QUICKTEXT) by responding to QUICKTEXT prompts concerning data base name and directory location

4. You should now have the main QUICKTEXT menu displayed and have a screen prompt asking you for a menu selection. Select the "Create" option by typing

```
1 <return>
```

5. You should now be prompted for a choice among three creation modes. Choose "An ASCII disk file containing output from the MANAGE commands FORMAT and EXPORT or REPORT" by typing

```
2 <return>
```

6. You should now be prompted for "the disk file that has MANAGE data to be converted." Respond by typing

```
BQTIN <return>
```

7. You should now be prompted for the "disk unit:directory pathname that this file is on." Respond by typing

```
C:\BLH <return>
```

8. You should now be prompted for "the disk unit:directory pathname to place QBLH on." Respond by typing

```
C:\BLH <return>
```

After execution you have a QUICKTEXT data base QBLH containing the bibliographic information. The structure of this data base (e.g., the output resulting from the QUICKTEXT command "FIELDNAMES") is illustrated in Figure 5. Note differences from the structure of the distribution data file BDATA.TXT (i.e., Figure 2). A sequential record identifier field, "ITEM#," has been added. You may, of course, use QUICKTEXT to modify this structure (e.g., add

```

                                QUICKTEXT MENU
=====
TASK      | DATABASE | SETS | RECORDS | PROGRAM
-----|-----|-----|-----|-----
DATA ENTRY | 1. Create | 5. Modify | 10. Store |
and       | 2. Rebuild | 6. Define | 11. Update |
CLEAN UP  | 3. Destroy | 7. Forget | 12. Delete |
          | 4. Merge  |          |          |
-----|-----|-----|-----|-----
PROBE     |          | 16. Select |          |
          |          | 17. Combine |          |
          |          | 18. Values |          |
-----|-----|-----|-----|-----
REPORT    | 21. Directory | 25. Setnames | 29. Dump | 35. Help
          | 22. Status   | 26. Order   | 32. Print |
          | 23. Fieldnames | 27. Report  |          |
          |          | 28. List   |          |
-----|-----|-----|-----|-----
CONTROL   | 37. Subdivide |          | 43. Brief |
          | 38. Open     |          | 44. Bye  |
          | 39. Backup   |          | 45. Misc |
          | 40. Upload   |          |          |
-----|-----|-----|-----|-----
Enter main menu selection? 1

A database may be created any one of the following ways:
  1) Interactively from the keyboard.
  2) An ASCII disk file containing output from the MANAGE
      commands FORMAT and EXPORT or REPORT.
  3) Direct transfer from a TEKTRONIX 4050 database.

Enter creation mode desired? 2
Enter the disk file that has MANAGE data to be converted? BQTIN
Enter disk unit:directory pathname that this file is on? C:\BLH
Enter disk unit:directory pathname to place QBLH on? C:\BLH

```

Figure 4. Screen image of final steps in loading to a QUICKTEXT data base.

your own fields) and to add, edit, or delete records in order to meet your individual needs. Output from the QUICKTEXT "REPORT" command for the first record in the data base is illustrated in Figure 6.

The QUICKTEXT data base is composed of the three files QBLH.QTF, QBLH.QTV, and QBLH.QTS containing fixed length, variable, and set information, respectively. You may delete all other files on "C:\BLH" without impact to the QUICKTEXT data base. Of course, you should provide some sort of backup for the data base.

LOADING INTO DBASE III PLUS

This section provides guidance for loading the file DATA.TXT into a data base in the DBASE III PLUS data base management software. The procedures outlined here assume the following:

	Type	Width	Title
1.	NUMERIC	5	ITEM#
2.	CHARACTER	70	AUTHOR
3.	NUMERIC	4	YEAR
4.	CHARACTER	70	HYDROUNIT
5.	CHARACTER	70	LANDFORM
6.	CHARACTER	70	LOCATION
7.	VARIABLE		ECOREGION
8.	VARIABLE		C.E.DISTRICT
9.	VARIABLE		TITLE
10.	VARIABLE		SOURCE
11.	VARIABLE		SUBJECT
12.	VARIABLE		WETLAND.TYPE
13.	VARIABLE		ABSTRACT

Figure 5. Structure of QUICKTEXT data base QBLH.

- (a) You are familiar with DBASE III PLUS and MS-DOS (or equivalent) and have access to the respective documentation.
- (b) DBASE III PLUS is installed in "C:\DBASE," a DOS PATH has been set (using PATH command) that includes "C:\DBASE," and that the DBASE data base will reside in "C:\BLH."
- (c) Files from the distribution disks have been restored to "C:\BLH" (see GENERAL INSTALLATION section). Files BDATA.TXT, BIN.DBF, DBLH.DBF, BCONVERT.PRG, BREAD.PRG, BZERO.PRG, BNEXTOUT.PRG, BNEXTIN.PRG, and DPRINT.PRG will be used.
- (d) Your system is at the operating system level (showing DOS prompt) and your current drive:directory is "C:\BLH" (with PATH including DBASE program files as described above).

The following steps will create a DBASE data base using the restored distribution files.

1. At the DOS prompt, invoke DBASE III PLUS by typing
DBASE <return>
2. You may now be in the DBASE ASSIST mode. Exit this mode by pressing the "ESCAPE" key.
3. At the DBASE dot prompt execute the loading program by typing

DO BCONVERT

This program will execute quietly (i.e., screen output is suppressed temporarily by setting the "TALK" option off) and will take a considerable length of time.

```

<ITEM#> 1 <AUTHOR> CAMPO JJ <YEAR> 1983
<HYDROUNIT> 120200,120302,120100 <LANDFORM> B2B,B2C,B3B
<LOCATION> U.S.,WESTERN,TX
<ECOREGION>
    2320,2311
<C.E.DISTRICT>
    LMN,SWF,SWG
<TITLE>
    BROOD HABITAT USE, REPRODUCTION AND MOVEMENT OF RECENTLY RESTOCKED
    EASTERN WILD TURKEYS IN EAST TEXAS
<SOURCE>
    PH.D. DISS., TEXAS A&M UNIV., COLLEGE STATION, 144PP.
<SUBJECT>
    HABITAT VALUE,WATERFOWL
<WETLAND.TYPE>
    PALUSTRINE,PFO1,PFO4
<ABSTRACT>
    WILD TURKEYS WERE STUDIED ON TWO UNITS IN EAST TEXAS:(1)
    BEEF CREEK IN JASPER COUNTY, AND (2) BRUSHY CREEK WILDLIFE
    MANAGEMENT AND RESEARCH AREA IN POLK AND TRINITY COUNTIES. BEEF CREEK
    IS CHARACTERIZED BY PINE PLANTATIONS, PINE TIMBER AREAS, AND
    BOTTOMLAND HARDWOOD/PINE-HARDWOOD. DOMINANT TREES INCLUDED
    LOBLOLLY PINE, LONGLEAF PINE, SHORTLEAF PINE, SLASH PINE, RED OAK;
    POST OAK, WATER OAK, WILLOW OAK, CHERRYBARK OAK, BLACKGUM
    TUPELO, AND BALDCYPRESS. BRUSHY CREEK CONTAINS PINE PLANTATIONS
    AND STANDS, PINE-HARDWOOD, SOME OPEN AREAS, AND A SMALL AREA
    OF BOTTOMLAND HARDWOODS. TURKEYS PREFERRED PINE-HARDWOOD AND
    BOTTOMLAND HARDWOOD FOREST TYPES DURING FALL AND WINTER.
    ENHANCEMENT OF THESE AREAS IS RECOMMENDED AS PART OF FOREST
    MANAGEMENT THAT ACCOMPANIES TURKEY RESTOCKING OR OTHER
    MANAGEMENT. ALTHOUGH TURKEYS HAVE BEEN ESTABLISHED IN BOTH STUDY
    AREAS, MANAGEMENT PRACTICES DIFFER. AT BEEF CREEK, MAINTENANCE
    OF EXISTING PREFERRED HABITAT IS RECOMMENDED. AT BRUSHY CREEK,
    PINE MONOCULTURES SHOULD BE PERIODICALLY BURNED, SELECTIVELY
    THINNED, AND SUPPLEMENTED ANNUALLY WITH FOOD PLANTING TO
    MAINTAIN THE TURKEY POPULATIONS. THE IMPORTANCE OF MAINTAINING A
    DIVERSITY OF HABITAT TYPES WAS EMPHASIZED, TURKEYS PREFER A
    VARIETY OF HABITATS FOR NESTING, BROODING, AND FEEDING. OF THE
    HENS THAT WERE RESTOCKED IN 1978-80, 64% AND 42% SURVIVED AT BEEF
    CREEK AND BRUSHY CREEK, RESPECTIVELY. AVERAGE CLUTCH SIZE AT
    BOTH SITES WAS 8 EGGS. A HIGH REPRODUCTIVE POTENTIAL WAS
    INDICATED FOR POPULATIONS OF BIRDS AT BOTH SITES, DUE TO HIGH
    INITIAL NESTING AND RENEESTING RATES. (KSM)

```

Figure 6. Report of first record in QUICKTEXT data base QBLH.

The time required will depend on the speed of your machine. It requires about 1½ hours on an early version IBM-AT. You will return to the DBASE dot prompt when the program is completed. At that point, all data bases will be closed and the bibliographic information will be in the single DBASE III PLUS data base DBLH (file "C:\BLH\DBLH.DBF").

The structure of DBLH (output from DBASE III PLUS command "DISPLAY STRUCTURE") is illustrated in Figure 7. Note differences between the DBASE data base and the distribution data file BDATA.TXT. The DBASE data base, DBLH, contains only fixed length fields. Except for the ABSTRACT field, each of the variable length fields (e.g., Ecoregion) has been converted to a relatively long fixed length field. The variable length ABSTRACT field has

```

Structure for database: C:DBLH.dbf
Number of data records: 323
Date of last update : 10/30/87
Field  Field Name  Type      Width  Dec
  1  AUTHOR      Character  70
  2  YEAR        Numeric    4
  3  HYDROUNIT   Character  70
  4  LANDFORM    Character  70
  5  LOCATION    Character  70
  6  ECOREGION   Character  212
  7  CEDISTRICT  Character  212
  8  TITLE       Character  212
  9  SOURCE      Character  212
 10  SUBJECT     Character  212
 11  WETTYPE     Character  212
 12  ABSTRACT1   Character  70
 13  ABSTRACT2   Character  70
 14  ABSTRACT3   Character  70
 15  ABSTRACT4   Character  70
 16  ABSTRACT5   Character  70
Press any key to continue...
 17  ABSTRACT6   Character  70
 18  ABSTRACT7   Character  70
 19  ABSTRACT8   Character  70
 20  ABSTRACT9   Character  70
 21  ABSTRACT10  Character  70
 22  ABSTRACT11  Character  70
 23  ABSTRACT12  Character  70
 24  ABSTRACT13  Character  70
 25  ABSTRACT14  Character  70
 26  ABSTRACT15  Character  70
 27  ABSTRACT16  Character  70
 28  ABSTRACT17  Character  70
 29  ABSTRACT18  Character  70
 30  ABSTRACT19  Character  70
 31  ABSTRACT20  Character  70
 32  ABSTRACT21  Character  70
Press any key to continue...
 33  ABSTRACT22  Character  70
 34  ABSTRACT23  Character  70
 35  ABSTRACT24  Character  70
 36  ABSTRACT25  Character  70
 37  ABSTRACT26  Character  70
 38  ABSTRACT27  Character  70
 39  ABSTRACT28  Character  70
 40  ABSTRACT29  Character  70
 41  ABSTRACT30  Character  70
** Total **                3657

```

Figure 7. Structure of DBASE III PLUS data base DBLH.

been converted to a series of 30 fixed length fields (ABSTRACT1, ABSTRACT2, etc.) each 70 characters long. Also note small changes in the spelling of the field names from those of Table 1.

This DBASE data base has a relatively cumbersome structure. Modify it as you see fit, either directly or by developing your own programs to read the information from the distribution file. Figure 8 illustrates wide carriage printer output for the first record in DBLH generated using the command file DPRINT.PRG (executed by typing "DO DPRINT" at DBASE dot prompt).

After completing the loading procedure, the file "C:\BLH\DBLH.DBF" contains the DBASE data base. Thus, it is the only file on "C:\BLH" that you

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CAMPO JJ
YEAR:
1983
HYDROUNIT:
120200,120302,120100
LANDFORM:
B2B,B2C,B3B
ECOREGION:
2320,2311
CEDISTRICT:
LMN,SWF,SWG
TITLE:
BROOD HABITAT USE, REPRODUCTION AND MOVEMENT OF RECENTLY RESTOCKED EASTERN WILD TURKEYS IN EAST TEXAS
SOURCE:
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SUBJECT:
HABITAT VALUE,WATERFOWL
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AREAS, MANAGEMENT PRACTICES DIFFER. AT BEEF CREEK, MAINTENANCE
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PINE MONOCULTURES SHOULD BE PERIODICALLY BURNED, SELECTIVELY
THINNED, AND SUPPLEMENTED ANNUALLY WITH FOOD PLANTING TO
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DIVERSITY OF HABITAT TYPES WAS EMPHASIZED, TURKEYS PREFER A
VARIETY OF HABITATS FOR NESTING, BROODING, AND FEEDING. OF THE
HENS THAT WERE RESTOCKED IN 1978-80, 64% AND 42% SURVIVED AT BEEF
CREEK AND BRUSHY CREEK, RESPECTIVELY. AVERAGE CLUTCH SIZE AT
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Figure 8. Report of first record in DBASE III PLUS data base DBLH.

need. You may want to examine the file "C:\BLH\DPRINT.PRG" that was used to generate Figure 8. All other files (most all of which can be referenced by B*.*) on "C:\BLH" may be deleted. You should provide adequate backup of the data base.

MEMORANDUM OF UNDERSTANDING
NATIONAL ECOLOGY RESEARCH CENTER

Received from the
National Ecology Research Center
U.S. Fish and Wildlife Service
Department of the Interior

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7. All documents and reports conveying information obtained as a result of the use of original NERC programs, by either recipient or third party users, shall acknowledge their origin as being the National Ecology Research Center, Fish and Wildlife Service, United States Department of the Interior. If the programs have been modified and/or are no longer supported or maintained by the NERC, this status shall be stated in the acknowledgement.

8. The recipient understands that the acknowledgement of the National Ecology Research Center, U.S. Fish and Wildlife Service, shall not explicitly or implicitly be used to support specific analysis, interpretations, or other findings of an application or study utilizing these computer programs.

NERC Representative Date

Recipient Date

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