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NEWILD

Version 1.0

User's Manual

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Abstract

The user's manual describes the use of the NEWILD computer program. NEWILD is software developed by the U.S. Department of Agriculture, Northeastern Forest Experiment Station as part of the NED project, an ongoing effort to develop software tools to support Ecosystem Management decision making. NEWILD can be used to determine which of the 338 species of vertebrates in New England may be found in particular habitats, or which habitats are preferred or utilized by a particular species of wildlife. The object of this program is to assist in the access and evaluation of the information presented in the Species/Habitat matrices developed by Richard DeGraaf, Deborah Rudis, Mariko Yamasaki, William Leak, and John Lanier (GTR-NE-108, GTR-NE-144). Some of the text from these publications have been incorporated into the hypertext portion of this program. NEWILD was designed for use in conjunction with these publications. A diskette containing the NEWILD program is included with this manual. The program requires Windows 3.1 or later to operate.

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Disclaimer

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SECTION 1 OVERVIEW

1.1 What You Need to Read

Regardless of your computer experience, you should at least browse the following sections in the User's Manual.

- Section 1 OVERVIEW
- Section 2 INSTALLATION
- Section 3 RUNNING NEWILD

1.2 Purpose of NEWILD

NEWILD is designed to assist in the access and evaluation of Species/Habitat matrices developed by Richard DeGraaf, Deborah Rudis, Mariko Yamasaki, William Leak, and John Lanier. The matrices are presented in two publications:

DeGraaf, R. M.; Rudis, D. D. 1986. **New England wildlife: habitat, natural history, and distribution.** Gen. Tech. Rep. NE-108. Broomall, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 491 p.

Gives natural history profiles of New England wildlife species and their associations with forested and nonforested habitats. Provides a data base that will enable forest managers or wildlife biologists to describe the species or groups to be found in a given habitat.

DeGraaf, R. M.; Yamasaki, M.; Leak, W. B.; Lanier, J. W. 1992. **New England wildlife: management of forested habitats.** Gen. Tech. Rep. NE-144. Radnor, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station. 271 p.

Presents silvicultural treatments for six major cover-type groups in New England to produce stand conditions that provide habitat opportunities for a wide range of wildlife species. Includes matrices for species occurrence and utilization by forested and nonforested habitats, habitat breadth and size class, and structural habitat features for the 338 wildlife species in New England.

Throughout this manual they will be referred to as GTR-NE-108 and GTR-NE-144. While we have incorporated some of the text from GTR-NE-108 and GTR-NE-144 into the HELP portion of this program, it appears in an abbreviated form. We urge the user to refer to the publications for a fuller explanation.

1.3 The Relationship of NEWILD to NED

NEWILD is one of several computer programs designed to support good forest stewardship. The full set of tools is known collectively as NED, a computer-based, decision-support system being developed by the U.S. Department of Agriculture, Forest Service, northeastern Forest Experiment Station. NED provides site-specific analyses of management alternatives and expert recommendations to improve management for multiple values on forests in the Northeastern United States. These recommendations are based on a range of resource values including wildlife habitat, visual qualities, and watershed and ecological characteristics, as well as traditional timber and economic values. This is accomplished by incorporating knowledge from many resource experts into the decision-support system. That knowledge is used with inventory data describing the present state of a forest management unit to build prescriptions for managing the forest to meet user's goals. NEWILD is the result of an initial effort to codify expert knowledge about wildlife habitat requirements in the Northeast.

1.4 Who Should Use NEWILD

NEWILD is intended for use by a wide range of individuals and organizations, including wildlife biologists, consulting foresters, national and state forestry organizations, forest industries, private organizations and individuals, and educational groups. The program enables the user to assess the potential effects of proposed habitat management practices on wildlife species. It also aids in developing and evaluating resource management planning alternatives.

1.5 Application of Information

NEWILD can be used to explore the *potential* responses of amphibians, reptiles, birds, and mammals to habitat alterations introduced through forest management in New England. Nevertheless, there is no substitute for sound field work and judgment in assessing the impacts of a specific project or proposed management action. The habitat associations provided here are essentially a set of hypotheses that can and should be tested further. Thus, we hope that this program will also be used to help identify areas of study for validation of the information contained here. The information in this publication is most useful for land management and project planning. The larger the unit considered, the more accurately the species occurrence can be predicted. This is because large areas will likely contain more of the special habitat requirements, more edges due to the interspersed habitats, and more successional stages, hence more species. Conversely, the smaller (more site-specific) an area, the less accurate will be assumptions or predictions of species occurrence, and the greater the need for biological experience and detailed field work. Application of this process to areas outside New England is an important goal for our work, and considerable testing and modification of the content are likely before the program can provide reliable information for a wider geographic area.

1.6 Accuracy of Information

The information presented in the program is a first effort to assemble natural history and habitat associations to enable sound management of New England wildlife. The data base needs to be expanded to include other nonforested habitats, and field checking would improve the accuracy of entries. These limitations point to some cautions:

- The information presented in this program is *not* a substitute for professional field work, nor for thoroughly checking each site proposed for management. At the very least, managers need field information on the special habitat requirements present or lacking on each site proposed for management.
- The information presented in this program lists the species *potentially* occurring in a given habitat. More are listed than will likely occur - the smaller the site, the fewer the species that will actually occur. Factors other than habitat features affect a given species occurrence in an area. This effect diminishes with increasing area of consideration. Still, several site visits will be required to determine whether a given species actually occurs on a given site.
- No information is included on habitat size. The best clue to help determine whether a given species will occur, after checking whether its special habitat requirements are present, is to compare its territory or home-range size with that of the proposed project. No detailed information, therefore, is provided here on how many of a given species will occur in an area. Dividing the project area by the territory/home range area of a species is not recommended, because not all parts of a habitat patch will be occupied, and density will be overestimated. We have provided sample densities when such information was reported. Note localities when consulting these entries.

1.7 Technical Support (Getting Help)

To make NEWILD easier to use, several help options are available.

- Read through "RUNNING NEWILD" in Section 3. This will introduce you to many of the program features.
- Read this User's Manual and keep it handy as a reference as you begin to use the program.
- Try to find an example that fits your needs. A number of examples that demonstrate the use of the program are shown in **Section 4 EXAMPLES**.
- Read over **Section 5 FREQUENTLY ASKED QUESTIONS**.
- Look through the README.DOC file included on the distribution diskette. It will include any last minute updates to the program that may not be included in the User's Manual.
- Finally, if the sources above do not answer your questions, we will be glad to help you through any problem you may have with the program. Please contact:

USDA Forest Service
Northeastern Forest Experiment Station
705 Spear Street, PO Box 968
Burlington, VT 05402-0968
Telephone: 802-951-6774
Fax: 802-951-6368

1.8 Typographical Conventions

Throughout the User's Manual, special notation is used to represent certain keystrokes. In general, a key name within a square identifies a key that should be pressed. For example:

 = press the "ENTER" key

 = press the "F1" function key

 = press the "Alt" key

 = press the "F" key

Occasionally the program requires you to press a key combination or sequence of keys. The following examples explain the difference.

 +  hold down the  key while pressing the  key.

 ,  press and release each of these keys in order.

The following conventions are used throughout the User's Manual

- File names are typed in uppercase, using a special font. For example: README.DOC
- User-entered commands are shown in **bold** face text.
- Items from the pull-down menu bar are in **Bold** face with the hot-key underlined.
- Items within a pull-down menu are in "Regular" face, enclosed in quotes with the hot-key underlined.

SECTION 2 INSTALLATION

2.1 System Requirements

NEWILD runs under and follows the conventions of Microsoft Windows®. If you need to learn how to use Windows, refer to the Microsoft Windows User's Guide. In general, if you are running Windows, you probably have the necessary system requirements to run NEWILD.

2.1.1 Hardware

- 2.5 MB minimum free hard disk space;
- 386 SX or higher processor;
- 4 MB minimum RAM;
- A mouse, or similar pointing device; and
- A 3 1/2" 1.44 Mb floppy disk drive.

2.1.2 Software

- PC or MS DOS version 3.0 or higher;
- Microsoft Windows® Version 3.1 or higher.

2.2 Diskette Contents

2.2.1 Contents of Installation Diskette

The installation diskette contains several files necessary to install NEWILD correctly onto your hard drive. The following is a listing of the Installation diskette contents. If any of these files are missing, the installation process may fail.

NEW0001	22
INSTALL EXE	171,952
SYSARC LZH	684,485
3 file(s)	856,459 bytes

2.2.2 Contents of the NEWILD Directory

After successful installation of NEWILD, there will be a directory on your hard drive that contains the following files.

NEWILD	BAT	120
NEWILD	EXE	494,080
NEWILD	HLP	1,187,587
NEWILD	VRF	326,983
MATRIXES	VRF	451,103
BATS	WLH	66
DUCKS	WLH	120
OWLS	WLH	78
SALAMAND	WLH	102
SQUIRREL	WLH	42
WOODPECK	WLH	66
EZI	HST	176
12 file(s)		2,460,593 bytes

2.3 Installation Procedures

1. Place the NEWILD Installation diskette into your floppy disk drive.
2. If you have Windows 95, push the "Start" button on the Windows task-bar.
If you have Windows 3.1, open the File menu.
3. Select "Run..."
4. Type "a:install", press .
5. Follow the instructions given on the screen.

SECTION 3 RUNNING NEWILD

3.1 Starting NEWILD



NEWILD runs under and follows the conventions of Microsoft Windows®. After complete installation, your Windows Program Manager will include the NEWILD program group that includes the NEWILD software icon. NEWILD is by double clicking on the icon.

3.2 NEWILD Hypertext

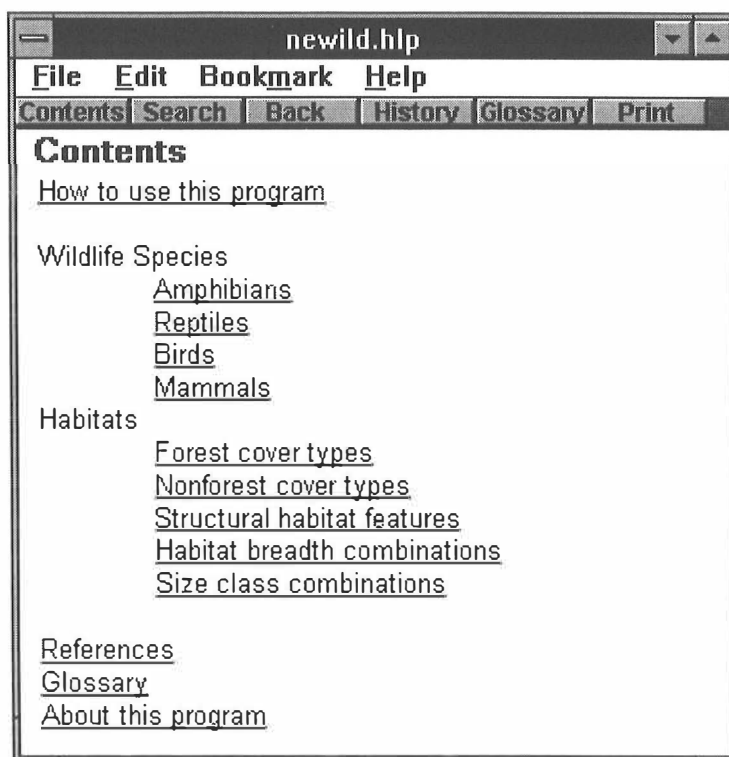
The hypertext is a reference section (Help) providing information about individual species, habitat components, use of the program, and a glossary. If you are not familiar with standard Windows Help screens, you should use the Help menu selection "How to use Help" in the Windows Program Manager.

3.2.1 Contents

This screen is the main help screen. It provides jumping off points to all portions of the hypertext. Once in the help system, this screen may be accessed from any hypertext page by pressing the "Contents" button at the top of the Help window. This screen may be accessed from the NEWILD program by selecting "Help contents" in the **Help** menu, or by pressing **F1**.

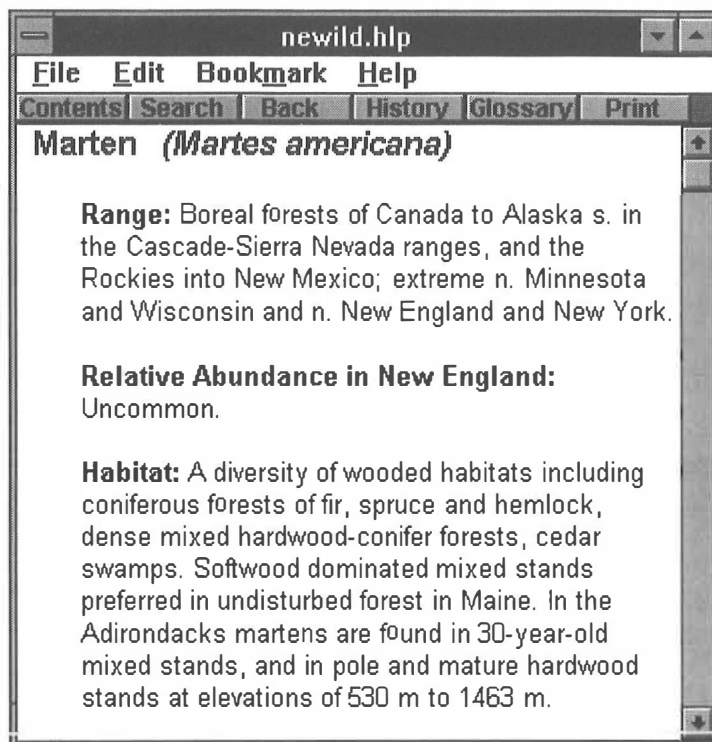
3.2.2 How to Use This Program

This part of the hypertext displays a picture of the main screen. You may click on any portion of the picture about which you have questions. The page may be displayed directly from the NEWILD program by using the **F4** key. Most of the instructions within this part of the hypertext are duplicated in this manual.



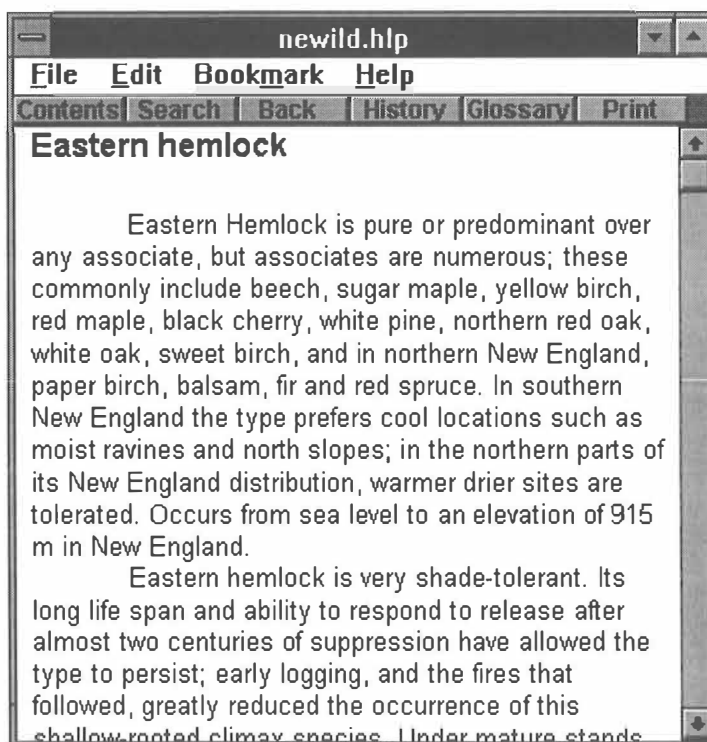
3.2.3 Wildlife Species

Each wildlife species in NEWILD has a corresponding page in the hypertext containing life history information. The information is an abbreviated form of the text found in GTR-NE-108. The hypertext for a selected species may be displayed directly from the NEWILD program by using the **F2** key. If you cannot find a particular species within the hypertext, try using the "Search" button along the top of the hypertext screen.



3.2.4 Habitats

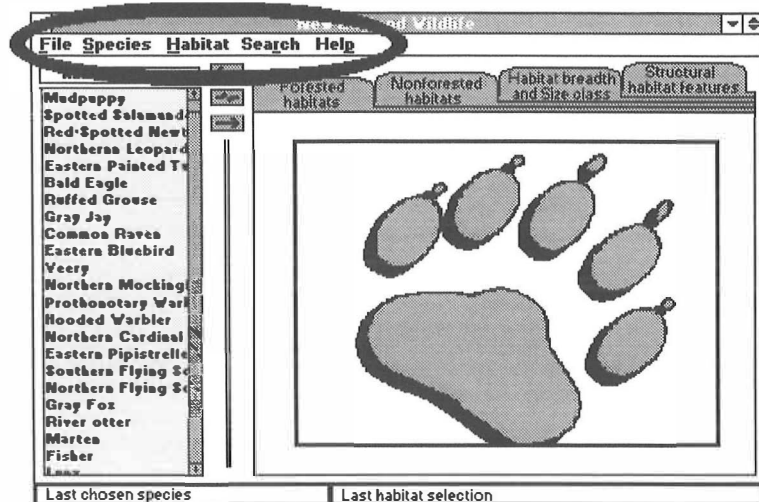
There is a hypertext page for all habitat components. The information is an abbreviated form of the text found in GTR-NE-108 and GTR-NE-144. The hypertext for a selected habitat component may be displayed directly from the NEWILD program by using the **F3** key.



with a dotted underline is clicked, a pop-up window with a brief definition is displayed. Terms with a solid underline will jump to another area in the hypertext. The glossary may be displayed directly from the NEWILD program by using the **[F5]** key.

3.3 The Menu Bar

The menu bar is at the top of the NEWILD window. It contains five pull-down menus: **File**, **Species**, **Habitat**, **Search** and **Help**. Each of these menus are discussed below. The underlined letter may be used with the **[ALT]** key to access a menu. For example **[ALT]+[P]** may be used to display the **Help** menu.



3.3.1 The File Menu

The **File** menu can be displayed by pressing **[ALT]+[F]**.

“Retrieve species list” - Displays a dialog box that allows you to retrieve a species list from a file. See section **3.4.2 Species Subgroups**.

“Save species list” - Saves current list of species to a file. See section **3.4.3 Saving a Species List**.

“Exit” - Quits the program.

Retrieve species list
Save species list
Exit

3.3.2 The Species Menu

The **Species** menu can be displayed by pressing **[ALT]+[S]**.

“Modify displayed list” - Displays a dialog box that allows you to display a smaller list of species in the species list. See section **3.4.2 Species Subgroups**.

“Save species list to file” - Saves current list of species to a file. See section **3.4.3 Saving a Species List**.

“Clear selections” - Sets all wildlife species so they are not selected

“Search” - Performs a search of the habitat features using the selections in the species list. See section **3.6.2 Right Arrow Button**.

“Help on species selection” - The hypertext on a selected species may be displayed by pressing **[F2]**.

Modify displayed list
Save species list to file
Clear selections
Search
Help on species selection

3.3.3 The Habitat Menu

The **Habitat** menu can be displayed by pressing **[ALT] + [H]**. The first four selections display the different habitat matrix screens.

"**F**orested habitats" - Displays the Forested Habitat screen. See section **3.5.1 Forested Habitat Screen**.

"**N**onforested habitats" - Displays the Nonforested Habitat screen. See section **3.5.2 Nonforested Habitat screen**.

"Habitat **b**readth" - Displays the Habitat breadth and Size class screen. See section **3.5.3 Habitat Breadth and Size Class Screen**.

"**S**tructural Habitat Features" - Displays the Structural habitat features screen. See section **3.5.4 Structural habitat features screen**.

"**C**lear selections" - Clears all selected habitats for currently displayed habitat screen.

"**S**earch" - Performs a search of the species list using the habitat selections. See section **3.6.1 Left Arrow Button**.

"Help on **h**abitat selection" - The hypertext on a selected habitat selection may be displayed by pressing **[F3]**.

<u>F</u> orested habitats
<u>N</u> onforested habitats
Habitat <u>b</u> readth
<u>S</u> tructural Habitat Features
<u>C</u> lear selections
<u>S</u> earch
<u>H</u> elp on habitat selection

3.3.4 The Search Menu

The **Search** menu can be displayed by pressing **[ALT] + [R]**.

"**S**pecies driven" - Performs a search of the habitat features using the selections in the species list. See section **3.6.2 Right Arrow Button**.

"**B**reak connection" - Breaks the connection between the species list and habitat features. Allows new selections to be made after a search has been performed. See section **3.6.3 Break Arrow Button**.

"**H**abitat driven" - Performs a search of the species list using the habitat selections. See section **3.6.1 Left Arrow Button**.

"**S**earch **s**ummary" - displays a summary screen of search results.

"**P**rint report" - Prints report of search results. A search must be done before a report can be printed.

"**P**rinter **s**etup" - Sets printer options.

<u>S</u> pecies driven
<u>B</u> reak connection
<u>H</u> abitat driven
<u>S</u> earch summary
<u>P</u> rint report
<u>P</u> rinter <u>s</u> etup

3.3.5 The Help Menu

The **Help** menu can be displayed by pressing **[ALT] + [P]**.

"**H**elp **c**ontents" - The Hypertext contents screen may be displayed by pressing **[F1]**.

"**H**elp on **s**pecies selection" - The hypertext on a selected species may be displayed by pressing **[F2]**.

"**H**elp on **h**abitat selection" - The hypertext on a selected habitat selection may be displayed by pressing **[F3]**.

"**H**elp **u**sing this program" - The hypertext on how to use this program may be displayed by pressing **[F4]**.

"**G**lossary" - The Glossary portion of the hypertext contains definitions of many natural resource terms. The Glossary may be displayed by pressing **[F5]**.

"**A**mphibian list" - Displays the hypertext list of amphibians.

"**R**eptile list" - Displays the hypertext list of reptiles.

"**B**ird list" - Displays the hypertext list of birds.

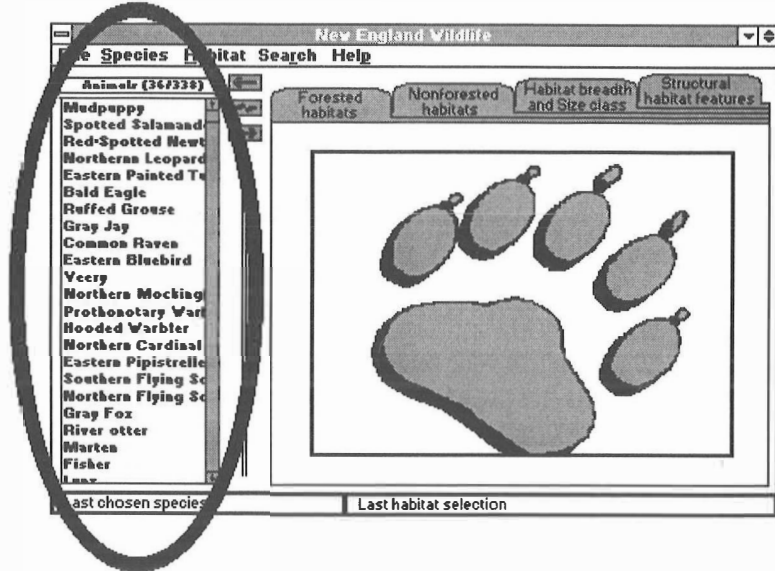
"**M**ammal list" - Displays the hypertext list of mammals.

F1 <u>H</u> elp <u>c</u> ontents
F2 <u>H</u> elp on <u>s</u> pecies selection
F3 <u>H</u> elp on <u>h</u> abitat selection
F4 <u>H</u> elp <u>u</u> sing this program
F5 <u>G</u> lossary
Amphibian list
Reptile list
Bird list
Mammal list
<u>A</u> bout this program

"About this program" - Displays source publications, citations, and authors.

3.4 Wildlife Species List

This part of the main screen contains a list of wildlife species. A selected species name will be highlighted. Species can be selected as a result of a search using habitat selections, or by manually selecting a species by clicking on an animal name. When an animal species is manually selected, a dialog box is displayed that is specific to habitat screen being used. These dialog boxes will be discussed in section 3.5 **Habitat Features**.



3.4.1 Animal Counts

Animals (16/338)

A box similar to this one is displayed over the wildlife species list. The numbers are the counts of selected species (either manually or by search) and the total number of species currently on display.

3.4.2 Species Subgroups

From the **Species** menu, select "Modify displayed list". This dialog box is shown to allow you to display a subset of the entire wildlife species list.

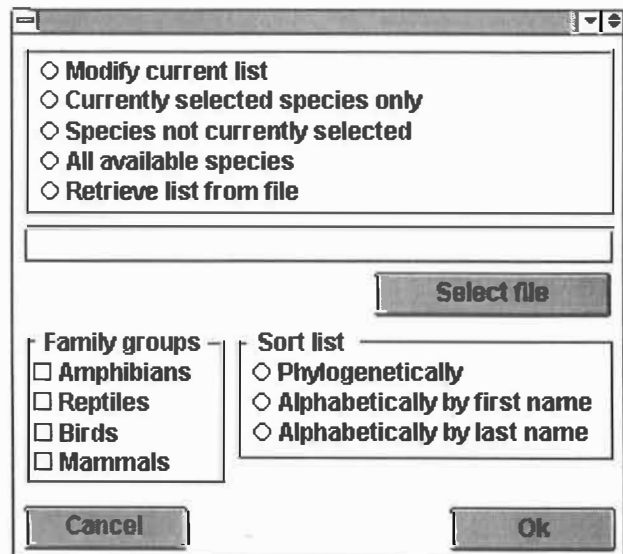
Modify current list - Use the current list of displayed species, but modify it according to the "Family groups" and "Sort list" selections.

Currently selected species only - Display only those animals currently selected. If there are no currently selected species on display, this will result in no species being displayed.

Species not currently selected - Display only those animals not currently selected. If all displayed species are currently selected, this results in no species being displayed.

All available species - Display all wildlife species available in NEWILD. This may be an important choice if, by mistake, you select one of the other choices that results in no species being displayed.

Retrieve list from file - Read a previously saved species list from a disk file (see section 3.4.3 **Saving a Species List**). If this option is selected, use the "Select file" button to browse your computer for the desired file. When a file is chosen, its name will appear in the textbox above this button.



Family groups - Check the appropriate box to include Amphibians, Reptiles, Birds, Mammals, or any combination of these families. By default, all boxes are chosen.

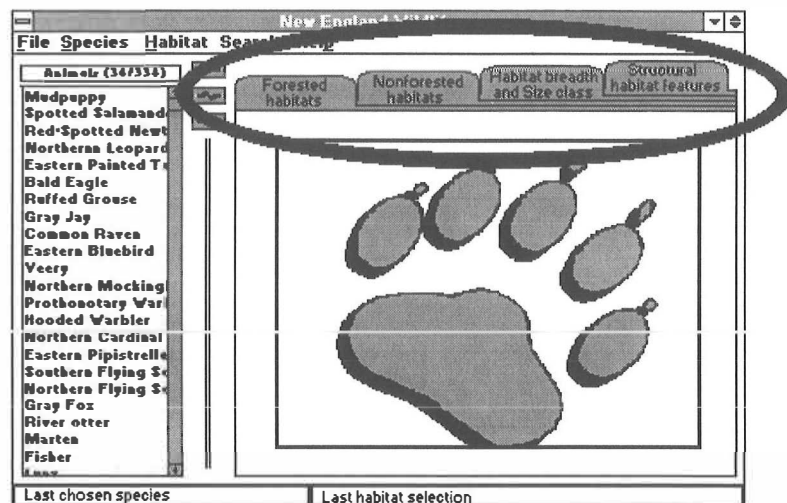
Sort list - Select how the final list should be sorted.

3.4.3 Saving a Species List

The current list of displayed species can be saved to a disk file by selecting "Save species list to file" in the **Species** menu. The file will contain only the species list, no seasonal or preference selections are saved. The list may later be retrieved by selecting the "Retrieve list from file" option on the "Modify displayed list" pull-down menu (see section 3.4.2 **Species Subgroups**). Also see "Saving a subgroup of species to a disk file" and "Retrieving a subgroup of species from a disk file" in **SECTION 4 EXAMPLES**.

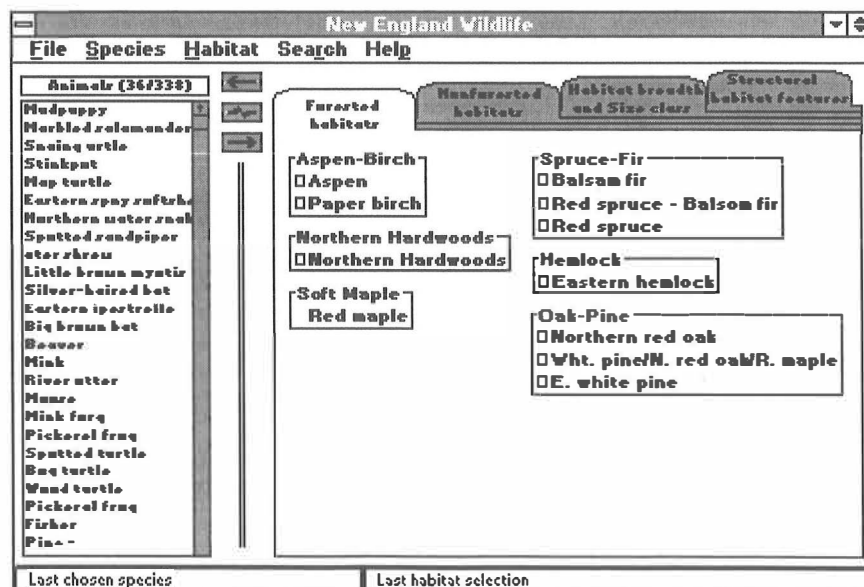
3.5 Habitat Features

This part of the main screen contains the habitat components. By clicking on one of the gray tabs, you can display habitat screens corresponding to the four matrices in the New England Wildlife publications (GTR-NE-109 and GTR-NE-144).



3.5.1 Forested Habitat Screen

Clicking this tab displays the forested habitat screen. This screen corresponds to Appendix A in GTR-NE-144. Select those forested habitats you are interested in.



Choosing forested habitat types:

When a forested habitat is chosen, this screen will be displayed. Choose the desired size classes (Uneven-aged is only available for northern hardwood forest type). The matrix assumes that stands are fully stocked, that is, they contain approximately 75 square feet of basal area per acre.

Regeneration through seedlings - Live trees and associated vegetation less than 1.0 inch (2.5 cm) d.b.h. and at least 1 foot (30 cm) in height.

Sapling through poletimber - Saplings are live trees 1.0 to 3.9 inches (2.5 to 9.9 cm) d.b.h.; poles are live trees 4.0 to 8.9 inches (10.0 to 22.0 cm) d.b.h. for softwoods and 4.0 to 11.9 inches (10.0 to 30.0 cm) d.b.h. for hardwoods.

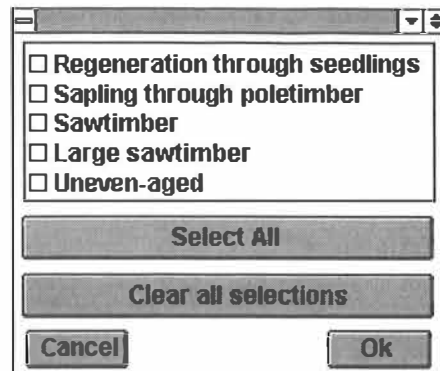
Sawtimber - A stand with at least half of the stocking in sawtimber-sized trees - at least 9.0 inches (23 cm) d.b.h. for softwoods or 12.0 inches (31 cm) d.b.h. for hardwoods.

Large sawtimber - A stand with a least half of the stocking in large-sawtimber trees - at least 20 inches (51.0 cm) d.b.h. for softwoods and 24 inches (61.0 cm) d.b.h. for hardwoods.

Uneven-aged - Stands of northern hardwood cover types that contain trees of all size classes.

Select all - Select all valid size classes.

Clear all selections - Clear all size-class selections. This will leave the forest type unselected when you press Ok.



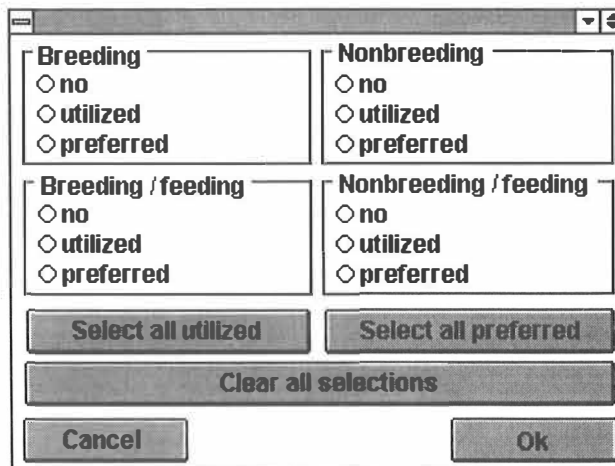
Choosing wildlife species:

When a wildlife species is selected, this screen will be displayed. Choose the season and the use/preferred options of interest. The amphibians and reptiles only have the breeding and nonbreeding options. Holding the [ALT] key when selecting wildlife species will repeat previously selected options without displaying this screen again.

Select all utilized - set all seasons to "utilized". This will include the preferred habitat as well as the utilized.

Select all preferred - set all seasons to "preferred". The suitability (quality) of each community type for a given species was based on ratings by wildlife experts, and on the field experience of the authors of the New England Wildlife publications (GTR-NE-108 and GTR-NE-144). Although they are subjective, they represent the best estimates currently available.

Clear all selections - set all seasons to "no". This will leave the animal unselected when you press Ok.



3.5.2 Nonforested Habitat Screen

Nonforested habitat

Clicking this tab displays the nonforested habitat screen. This screen corresponds to Appendix B in GTR-NE-144. Select those habitats you are interested in. When choosing a wildlife species, the same dialog box used for the Forested habitat screen is displayed. See the paragraph entitled “Choosing wildlife species” in section 3.5.1 above, for a discussion on selecting wildlife species.

3.5.3 Habitat Breadth and Size Class Screen

Habitat breadth and Size class

Clicking this tab displays the habitat breadth and size class screen. This screen corresponds to Appendix C in GTR-NE-144. Select those combinations you are interested in. There is no seasonal use or preferred/ utilized information associated with this matrix, so clicking on an animal name simply selects or unselects a species.

Choosing habitat breadth combinations

When a habitat breadth combination is chosen, this screen is displayed. Choose the desired forest type or non-forest type (not all selections are available for some combinations).

Deciduous forest - This selection is available only for combinations including Forest.

Coniferous forest - This selection is available only for combinations including Forest.

Upland nonforest - This selection is available only for combinations including Nonforest.

Wetland nonforest - This selection is available only for combinations including Nonforest.

Select all - Select all valid options.

Clear selections - Clear all selections. This leaves the combination unselected when you press Ok.

A dialog box titled "New England Wildlife" with a dropdown arrow. It contains two columns of checkboxes: "Forested" with "Deciduous" and "Coniferous", and "NonForested" with "Upland" and "Wetland". Below these are three buttons: "Select All", "Clear all selections", and "Cancel". At the bottom right is an "Ok" button.

3.5.4 Structural Habitat Features Screen

Structural habitat features

Clicking this tab displays the structural habitat features screen. This screen corresponds to Appendix D in GTR-NE-144. Select those habitat features you are interested in.

A screenshot of the "New England Wildlife" application window. The "Habitat" tab is selected. On the left is a list of animals (36/338) including Mudpuppy, Marbled salamander, Snapping turtle, Stinkpot, Map turtle, Eastern spiny softshell, Northern water snake, Spotted sandpiper, Water shrew, Little brown myotis, Silver-haired bat, Eastern pipistrelle, Big brown bat, Beaver, Mink, River otter, Muskrat, Mink fisher, Pickering frog, Spotted turtle, Bog turtle, Wood turtle, Pickering frog, Fisher, and Pine. The main area has four tabs: "Forested habitat", "Nonforested habitat", "Habitat breadth and Size class", and "Structural habitat features". The "Structural habitat features" tab is active, showing checkboxes for Perches (High, Low), Canopy (<15%, 16-30%, 31-70%, >70%), Midstory (Deciduous, Coniferous, Mixed), Shrub (Deciduous, Coniferous, Mixed, Ericaceous, Wetland), Ground veg. (<30%, 30-75%, >75%, wetland), Duff-ground (Waterside logs, Rocky floor, Dead and down, Forest litter-moss), Tree boles: Waterside (Dead, >6" dbh; Live, >12" dbh; Live, >18" dbh), Tree boles: Non-waterside (Dead, soft, <6" dbh; Dead, hard, 6-12" dbh; Dead, hard, 12-18" dbh; Live, columnar decay, 8-12" dbh; Live, broken top, 12-18" dbh; Live, brkn top-lg. limb, >18" dbh; Live, hollow, >24" dbh), and Miscellaneous (Subterranean, Inclusion, Deciduous, Coniferous, Miscellaneous, Seeps, Gravel, Woods, Slash pile, Mast). At the bottom are fields for "Last chosen species" and "Last habitat selection".

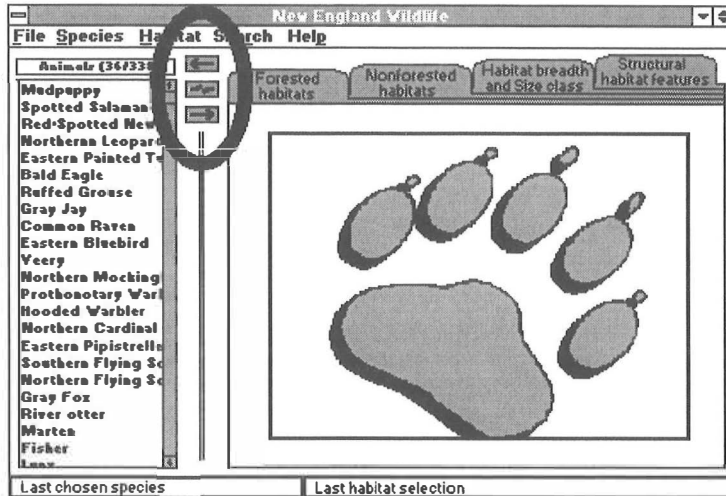
Choosing wildlife species

When a wildlife species is selected, this screen is displayed. Choose the season and the use/preferred options of interest. The amphibians and reptiles only have the breeding and nonbreeding (winter) options. Holding the [ALT] key when selecting wildlife species will repeat previously selected options without displaying this screen again.

A dialog box titled "New England Wildlife" with a dropdown arrow. It contains a "Season" section with checkboxes for "Breeding", "Breeding / feeding", "Nonbreeding", and "Nonbreeding / feeding". Below are "Cancel" and "Ok" buttons.

3.6 Performing Searches

Searches may be done using the selections on the habitat screen (use the Left Arrow button) or using the selected wildlife species (use the Right Arrow button). If both the Left Arrow button and Right Arrow button are green, no search has been performed and there is no connection between the screens. After a search is performed, one of the arrow buttons will no longer be green. New selections are not allowed until the Break Arrow button is pressed. Selection of another habitat screen is not allowed unless both arrow buttons are green. So long as the connection between screens is maintained (only one of the arrow keys is green), the "Search Summary" screen can be displayed by selecting "Search summary" in the **Search** menu.



3.6.1 Left Arrow Button



This button is used to select the species that correspond to the habitat selections. When a search is done from the habitat selections, this button stays green, but the Right Arrow button does not. You may review, but may not change, the season and preference screen for a species by clicking on the desired wildlife species. You may break this mode by using the Break Arrow button, or by making a new habitat selection.

Before the search is started, a dialog box may be displayed with search filter options. These search filter options are different depending upon the habitat screen currently on display. The filter selections can be used to restrict the search to desired seasons or preferred/utilized options.

If the Left Arrow button is not green, a search has been done from the wildlife species selections. You may not make new habitat selections until the Break Arrow button is pressed.

3.6.2 Right Arrow Button



This button is used to select the habitat components corresponding to the selected wildlife species. When a search is completed, this button stays green, but the Left Arrow button does not. You may review, but may not change, the habitats screen selections by clicking on habitat selection. You may break this mode by using the Break Arrow button. If new species selections are made, the Break Arrow button will be pressed automatically.

If this arrow is not green, a search has been done from the habitat selections. You may not select any wildlife species until the Break Arrow button is pressed.

3.6.3 Break Arrow Button



This button breaks the connection between the wildlife selections and the habitat selections. When a search is performed, one of the above arrow keys will no longer be green. This indicates that selections may be reviewed, but may not be changed. Pressing the Break Arrow button allows you to make new manual selections or to do other searches.

3.6.4 Search Summary

When a search has been successfully completed, a screen similar to this one is displayed. A separate count of amphibians, reptiles, birds and mammals, as well as the total number of species selected is displayed. These counts only include the species currently displayed in the species list, which may not necessarily be all the species available in NEWILD. Although not shown here, the screen also displays the number of habitat components that were selected. A hard-copy report can be produced by using the "Print report" button. See section 3.6.5 **Printing Reports**. Clicking the "Ok" button hides this screen. So long as the connection between screens is maintained (only one of the arrow keys is green), this screen can be displayed again by selecting "Search summary" in the **Search** menu.

Number of amphibians:
Number of reptiles:
Number of birds:
Number of mammals:
TOTAL:

Number of species included in search:
Total number of species in NEWILD:

3.6.5 Printing Reports

Once a search has been performed, a printed report may be obtained by selecting "Print report" in the **Search** menu, or by pressing the "Print report" button on the "Search Summary" screen. The first page of the report contains the same summary information displayed in the "Search Summary" screen. This page also lists the meaning of any symbols or abbreviations used in the detailed pages. The detailed pages list the selections made and the search results.

3.7 Species and Habitat Selection Windows

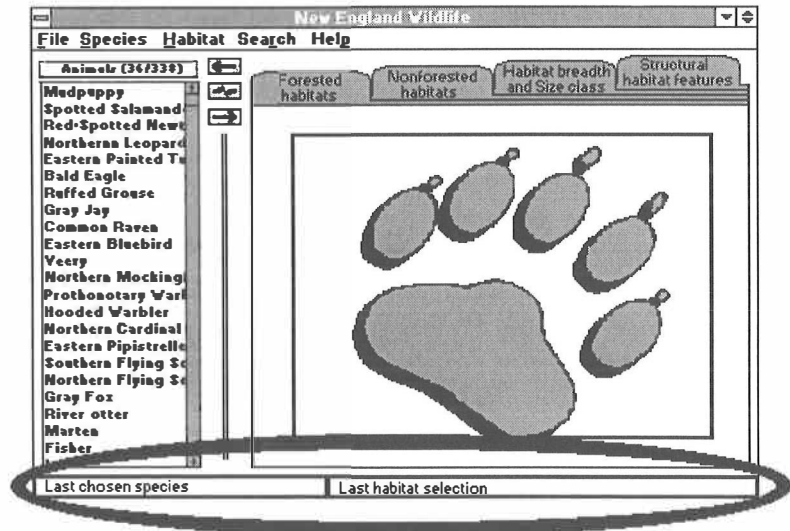
There are two text windows at the bottom of the screen. One displays the name of the last chosen wildlife species, the other shows the last habitat selection.

3.7.1 Last Chosen Species:

When a wildlife species is chosen, its name appears in the bottom left window. The hypertext entry for this species will be displayed if you select "Help on species selection" from the **Help** menu or press **F2**.

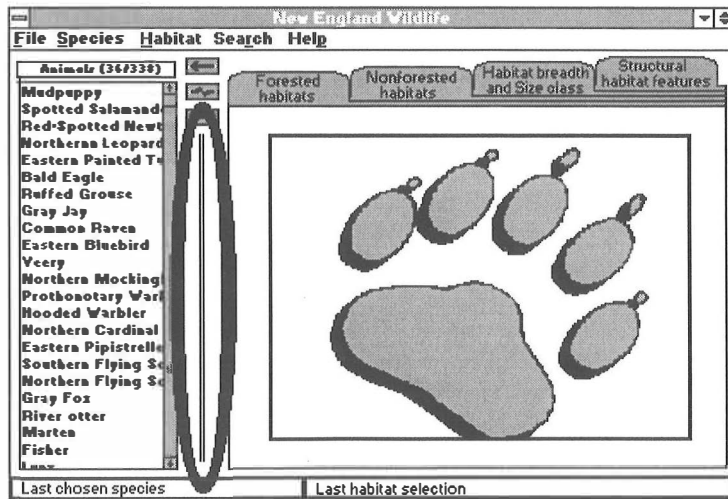
3.7.2 Last Habitat Selection:

When a habitat component is chosen, its name appears in the bottom right window. The hypertext entry for this habitat component will be displayed if you select "Help on habitat selection" from the **Help** menu or press **F3**.



3.8 Sash

A sash separates the Wildlife species part of the screen from the Habitat part of the screen. You may move this separation by dragging it with the mouse. Many of the species names are quite long, and by dragging the sash to the right, their full names can be displayed. However, this will leave less space for the habitat screens.



SECTION 4 EXAMPLES

4.1 Using a Wildlife Species to Find Habitat Components

Example: Find the preferred breeding forested habitat for the Marten.

1. Press the "Forested habitat" tab along the top of the habitats part of the screen. This displays the forested habitat screen.
2. To clear any previously selected animals, click on **Species** in the menu bar and select "Clear selections".
3. Click "Marten" in the animal list. If the Marten is not in the currently displayed list, click the **Species** menu and select "Modify displayed list". When the dialog comes up, select "All available species" and press "Ok" and then click "Marten" in the animal list.
4. When the dialog box appears, select "preferred" in the "Breeding" season box. Make sure all other season boxes have "no" selected. Press "Ok".
5. Notice that "Marten" is displayed on the bottom left status bar - to obtain a narrative description of life history information, press **F2**.
6. To initiate the search of the matrix, click the "Right Arrow" button. When the search is completed, the "Search Summary" screen is displayed showing the number of habitat components found. If desired, press "Print report" to send the results to a printer. Press "Ok" to close the summary screen.
7. The forested habitats for Marten are checked. To see the size classes utilized within a forest type, click on the forest type. For instance, click on "Eastern Hemlock " and the "Size class" screen will display the utilized size classes.

Notes:

- In this example, only one wildlife species was chosen. However, you may select multiple species for evaluation. See the example "Using Several Species to Find Habitats".
- If you are using another habitat screen, a different dialog box may appear in step 4. These dialog boxes are specific to the matrix being used.
- The summary screen displays the total number of habitat components found. In the "Forested" matrix, this includes a count of the size classes.
- Notice that the "Left Arrow" button is not green - this indicates that a search has been done using the wildlife species. To break the connection between the screens, press the "Break Arrow" button.
- New habitat selections on this screen are not allowed when the "Left Arrow" button is not green.
- Other habitat screens cannot be chosen when the "Left Arrow" button is not green.
- Changes in the selected wildlife species list will automatically press the "Break Arrow" button, breaking the connection between the screens.
- The "Search Summary" screen may be displayed again by choosing "Search summary" in the **Search** menu.
- To search the other matrices, select the appropriate tab in step 1 and continue with steps 2 to 7.

4.2 Using Several Species to Find Habitat Components

Example: Find all structural habitat features for all woodpeckers during the nonbreeding season.

1. Press the "Structural habitat features" tab along the top of the habitats part of the screen. This displays the structural habitat features screen.
2. To clear any previously selected animals, click on **Species** in the menu bar and select "Clear selections".
3. If you have followed the steps outlined in the example "Saving a Subgroup of Species to a Disk File", you may want to retrieve the list of woodpeckers following the steps outlined in "Retrieving a Subgroup of Species From a Disk File". This is not necessary, but it will give you a shorter list of species to work with.
4. Click on a woodpecker in the species list. If there are not woodpeckers in the currently displayed list, click the **Species** menu and select "Modify displayed list". When the dialog comes up, select "All available species" and press "Ok" and then click on a woodpecker in the species list.
5. When the dialog box appears, select "Nonbreeding" and "Nonbreeding/feeding". Press "Ok".
6. Hold the **[ALT]** key down and click on the other woodpeckers. Holding the **[ALT]** key when selecting a wildlife species will repeat the previously selected season selections.
7. To initiate the search of the matrix, click the "Right Arrow" button. When the search is completed, the "Search Summary" screen is displayed showing the number of habitat components found. The structural habitat features for the selected species are checked. Press "Print report" to send the results to a printer. Press "Ok" to close the summary screen.

Notes:

- If you are using another habitat screen, a different dialog box may appear in step 4. These dialog boxes are specific to the matrix being used.
- Notice that the "Left Arrow" button is not green - this indicates that a search has been done using the wildlife species. To break the connection between the screens, press the "Break Arrow" button.
- New habitat selections on this screen are not allowed when the "Left Arrow" button is not green.
- Other habitat screens cannot be chosen when the "Left Arrow" button is not green.
- Changes in the selected wildlife species list will automatically press the "Break Arrow" button, breaking the connection between the screens.
- The "Search Summary" screen may be displayed again by choosing "Search summary" in the **Search** menu.
- To search the other matrices, select the appropriate tab in step 1 and continue with steps 2 to 7.

4.3 Using Habitat Selections to Find Wildlife Species

Example: Find the species associated with large sawtimber eastern hemlock.

1. Press the "Forested habitat" tab along the top of the habitats part of the screen. This displays the forested habitat screen.
2. To clear any previously selected habitats, click on **Habitat** in the menu bar and select "Clear selections".
3. If you want all animal species on display, click on the **Species** menu and select "Modify displayed list". In the "Species subgroup" dialog box, select "All available species". Press "Ok".
4. Click the "Eastern hemlock" on the habitat screen.
5. Select "Large sawtimber" from the "Size class" dialog box. Press "Ok".
6. Notice that "Eastern hemlock" is displayed on the bottom right status bar - to obtain a narrative description of this forest type, press .
7. To initiate the search of the matrix, click the "Left Arrow" button.
8. When the "Season Use - Utilized/Preferred" dialog box is displayed, press the "Select all utilized" button. This sets all seasons to "utilized." Press "Ok."
9. When the search is completed, the "Search Summary" screen is displayed showing the number of wildlife species found. Press "Print report" to send the results to a printer. Press "Ok" to close the summary screen.
10. The wildlife species associated with this cover type are highlighted. To see the seasonal use for a species, click on the wildlife species of interest. For instance, click on "Marten" and the "Season Use - Utilized/Preferred" dialog box will be displayed. Notice that the numbers in the box above the species list show the number of species selected and the number of species on display.

Notes:

- If you are using another habitat screen, a different dialog box may appear in step 8. These dialog boxes are specific to the matrix being used.
- Notice that the "Right Arrow" button is not green - this indicates that a search has been done using the habitat selections. To break the connection between the screens, press the "Break Arrow" button.
- New wildlife species selections are not allowed when the "Right Arrow" button is not green.
- Other habitat screens cannot be chosen when the "Right Arrow" button is not green.
- If new habitat selections are made, the "Break Arrow" button will be pressed automatically, breaking the connection between the screens.
- The "Search Summary" screen may be displayed again by choosing "Search summary" in the **Search** menu.
- To search the other matrices, select the appropriate tab in step 1 and continue with steps 2 to 10.

4.4 Combining Searches Within a Screen (OR Results)

Example: Find the species associated with any of the riverine nonforested habitats.

1. Press the "Nonforested habitats" tab along the top of the habitats part of the screen. This displays the nonforested habitat screen.
2. To clear any previously selected habitats, click on **Habitat** in the menu bar and select "Clear selections".
3. If you want all animal species on display, click on the **Species** menu and select "Modify displayed list". In the "Species subgroup" dialog box, select "All available species". Press "Ok".
4. Click the selections under Riverine.
5. Notice that as you select each habitat its name is displayed on the bottom right status bar - to obtain a narrative description of this habitat type, press .
6. To initiate the search of the matrix, click the "Left Arrow" button.
7. When the "Season Use - Utilized/Preferred" dialog box is displayed, press the "Select all utilized" button. This sets all seasons to "utilized." Press "Ok."
8. When the search is completed, the "Search Summary" screen is displayed showing the number of wildlife species found. Press "Print report" to send the results to a printer. Press "Ok" to close the summary screen.
9. The wildlife species associated with this cover type are highlighted. To see the seasonal use for a species, click on the wildlife species of interest. For instance, click on a species name and the "Season Use - Utilized/Preferred" screen will be displayed. Notice that the numbers in the box above the species list show the number of species selected and the number of species on display.

Notes:

- If you are using another habitat screen, a different dialog box may appear in step 7. These dialog boxes are specific to the matrix being used.
- Notice that the "Right Arrow" button is not green - this indicates that a search has been done using the habitat selections. To break the connection between the screens, press the "Break Arrow" button.
- New wildlife species selections are not allowed when the "Right Arrow" button is not green.
- Other habitat screens cannot be chosen when the "Right Arrow" button is not green.
- If new habitat selections are made, the "Break Arrow" button will be pressed automatically, breaking the connection between the screens.
- The "Search Summary" screen may be displayed again by choosing "Search summary" in the **Search** menu.
- To search the other matrices, select the appropriate tab in step 1 and continue with steps 2 to 9.

4.5 Combining Searches Within a Screen (AND Results)

Example: Find the species associated with high canopy closure (>70%), and dead and down material, during the breeding season.

1. Press the "Structural habitat features" tab along the top of the habitats part of the screen. This displays the structural habitat features screen.
2. To clear any previously selected habitats, click on **Habitat** in the menu bar and select "Clear selections".
3. If you want all animal species on display, click on the **S**pecies menu and select "Modify displayed list". In the "Species subgroup" dialog box, select "All available species". Press "Ok".
4. Click the selection ">70%" in the "Canopy" box.
5. Notice that the name is displayed on the bottom right status bar - to obtain a narrative description of this habitat component, press **F3**.
6. To initiate the search of the matrix, click the "Left Arrow" button.
7. When the "Season Use" dialog box is displayed, make sure the "Breeding" and "Breeding/feeding" boxes are checked, and the "Nonbreeding" and "Nonbreeding/feeding" boxes are not checked. Press "Ok".
8. When the search is completed, the "Search Summary" screen is displayed showing the number of wildlife species found. Press "Print report" to send the results of this search to a printer. Press "Ok" to close the summary screen.
9. Click on the **S**pecies menu, and select "Modify displayed list".
10. Select "Currently selected species only". Press "Ok". The species list now contains only those species that are associated with a high (>70%) canopy closure.
11. To clear the previously selected habitat component, click on **Habitat** in the menu bar and select "Clear selections". When the "Breaking connection" box appears, click on "Yes".
12. Click the selection "Dead and down" in the "Duff-ground" box.
13. Notice that "Dead and down material" is displayed on the bottom right status bar - to obtain a narrative description of this habitat component, press **F3**.
14. To initiate the search of the matrix, click the "Left Arrow" button.
15. When the "Season Use" dialog box is displayed, make sure the "Breeding" and "Breeding/feeding" boxes are checked, and the "Nonbreeding" and "Nonbreeding/feeding" boxes are not checked. Press "Ok".
16. When the search is completed, the "Search Summary" screen is displayed showing the number of wildlife species found. Press "Print report" to send the results to a printer. Press "Ok" to close the summary screen.

17. The wildlife species associated with this cover type are highlighted. To see the seasonal use for a species, click on the wildlife species of interest. For instance, click on a species name and the "Season Use - Utilized/Preferred" dialog box will be displayed. Notice that the numbers in the box above the species list show the number of species selected (those associated with dead/down) and the number of species currently on display (those associated with high (>70%) canopy closure.)

Notes:

- If you are using another habitat screen, a different dialog box may appear in step 7 and 15. These dialog boxes are specific to the matrix being used.
- Notice that the "Right Arrow" button is not green - this indicates that a search has been done using the habitat selections. To break the connection between the screens, press the "Break Arrow" button.
- New wildlife species selections are not allowed when the "Right Arrow" button is not green.
- Other habitat screens cannot be chosen when the "Right Arrow" button is not green.
- If new habitat selections are made, the "Break Arrow" button will be pressed automatically, breaking the connection between the screens.
- The "Search Summary" screen may be displayed again by choosing "Search summary" in the **Search** menu.
- The printed report will include "Dead and down" in the habitat component list, but not the ">70% canopy". Step 11 automatically breaks the connection between screens and the program no longer knows how the wildlife species were selected. The printed report does state that there was a limited number of species included in the search, indicating that not all species available in NEWILD were used.
- The steps in this example may be summarized as follows:
 - a) Start with a complete list of wildlife species (steps 1 to 3).
 - b) Search using the first habitat selection (steps 4 to 8).
 - c) Modify the species list to display only those selected by the search (steps 9 to 10).
 - d) Search using the second habitat selection (steps 11-17).

4.6 Using Multiple Habitat Screens to Find Wildlife Species

Example: Find the species associated with large sawtimber eastern hemlock and dead and down material, during any part of the year.

1. Press the "Forested habitat" tab along the top of the habitats part of the screen. This displays the forested habitat screen.
2. To clear any previously selected habitats, click on **Habitat** in the menu bar and select "Clear selections".
3. If you want all animal species on display, click on the **Species** menu and select "Modify displayed list". In the "Species subgroup" dialog box, select "All available species". Press "Ok".
4. Click the "Eastern hemlock" on the habitat screen.
5. Select "Large sawtimber" from the "Size class" screen. Press "Ok".
6. Notice that "Eastern hemlock" is displayed on the bottom right status bar - to obtain a narrative description of this forest type, press .
7. To initiate the search of the matrix, click the "Left Arrow" button. When the "Season Use - Utilized/Preferred" dialog box is displayed, press the "Select all utilized" button. This will set all seasons to "utilized." Press "Ok."
8. When the search is completed, the "Search Summary" screen is displayed showing the number of wildlife species found. Press "Print report" to send the results of this search to a printer. Press "Ok" to close the summary screen.
9. Click on the **Species** menu, and select "Modify displayed list".
10. Select "Currently selected species only". Press "Ok". The species list now contains only those species that are associated with large sawtimber eastern hemlock.
11. Break the connection between the two halves of the screen by pressing the "Break Arrow" button. This will allow you to select another habitat screen.
12. Press the "Structural habitat features" tab along the top of the habitats part of the screen. This will display the Structural habitat features screen.
13. Select "Dead and down" in the "Duff-ground" box.
14. Notice that "Dead and down material" is displayed on the bottom right status bar - to obtain a narrative description of wildlife uses of this feature, press .
15. To initiate the search of the matrix, click the "Left Arrow" button.
16. When the "Season Use" dialog box is displayed, make sure all seasons are checked. Press "Ok".
17. The wildlife species associated with this cover type are highlighted. To see the seasonal use for a species, click on the wildlife species of interest. For instance, click on a species name and the "Season Use" screen will be displayed. Notice that the numbers in the box above the

species list show the number of species selected (those associated with dead and down) and the number of species currently on display (those associated with large sawtimber Eastern hemlock.)

Notes:

- If you are using other habitat screens, a different dialog box may appear in step 7 and 15. These dialog boxes are specific to the matrix being used.
- Notice that the "Right Arrow" button is not green - this indicates that a search has been done using the habitat selections. To break the connection between the screens, press the "Break Arrow" button.
- New wildlife species selections are not allowed when the "Right Arrow" button is not green.
- Other habitat screens cannot be chosen when the "Right Arrow" button is not green.
- If new habitat selections are made, the "Break Arrow" button will be pressed automatically, breaking the connection between the screens.
- The "Search Summary" screen may be displayed again by choosing "Search summary" in the **Search** menu.
- The final printed report will include "Dead and down" in the habitat component list, but not the "Eastern hemlock". Step 11 automatically breaks the connection between screens and the program no longer knows how the wildlife species were selected. The printed report does state that there was a limited number of species included in the search, indicating that not all species available in NEWILD were used.
- The steps in this example may be summarized as follows:
 - a) Start with a complete list of wildlife species (steps 1 to 3).
 - b) Search using the first habitat selection (steps 4 to 8).
 - c) Modify the species list to display only those selected by the search (steps 9 to 10).
 - d) Search using the second habitat selection (steps 11-17).

4.7 Saving a Subgroup of Species to a Disk File

Example: Create a file containing only woodpeckers.

1. Make sure that all animal species are currently on display. Click on the **S**pecies menu, and select "Modify displayed list".
2. In the "Species subgroup" dialog box, select "All available species". In the "Family groups" box, click on Amphibians, Reptiles, and Mammals to remove checks. We are looking for woodpeckers, it's easier to just display the birds. Press "Ok".
3. To clear any previously selected animals, click on **S**pecies in the menu bar and select "Clear selections".
4. Select a woodpecker species by clicking on its name in the species list. If a dialog box appears, select any season. You must select something here so that the species will be selected. Press "Ok".
5. Hold the **[ALT]** key down and click on the other woodpeckers. Holding the **[ALT]** key when selecting a wildlife species will repeat the previously selected season selections.
6. Click on the **S**pecies menu and select "Modify displayed list".
7. Select "Currently selected species only" from the "Species subgroup" dialog box. Press "Ok". Only the woodpeckers remain in the species list.
8. Click on the **S**pecies menu bar and select "Save species list to file".
9. Enter a file name (if you do not add an extension, "wlh" will be added automatically). Press "Ok".
10. To retrieve the file, see the example "Retrieving a Subgroup of Species From a Disk File".

Notes:

- The season/preferred selections made in step 4 and 5 are not saved in the file.
- Habitat selections cannot be saved.

4.8 Retrieving a Subgroup of Species From a Disk File

Example: Retrieve the list containing only woodpeckers saved in the example "Saving a Subgroup of Species to a Disk File".

1. Click on the **Species** menu and select "Modify displayed list".
2. In the "Species subgroup" dialog box, select "Retrieve list from file". Notice that the "Select file" button is now available for use.
3. Press the "Select file" button.
4. Choose the file you wish to retrieve. Press "Ok".
5. Notice that the file name is displayed in the "Species subgroup" dialog box. Press "Ok".
6. The species list contains only those species that were stored in the file.

Notes:

- Reading a file does not change the season use and utilized/preferred selections for a species. It only changes the list of displayed species.
- If a search has been run from the habitat components, and the connection between screens is still valid (the "Right Arrow" is not green), the search remains valid, but the search summary, and the printed report will include only those species on display.
- If a search has been run from the species list, modifying the displayed list will automatically press the "Break Arrow" button, breaking the connection between the screens. This eliminates the possibility of printing erroneous reports.

SECTION 5 FREQUENTLY ASKED QUESTIONS

How can the selections on the seasonal/preference screen be repeated for a list of species?

Select the first animal and set the desired seasonal use and preference selections. After that, hold the **[ALT]** key down when you select the other animal species. Holding the **[ALT]** key when selecting an animal species will repeat the previous seasonal/preference selections.

Is there an easy way to unselect species from the list?

Click on the animal species, when the "Season Use - Utilized/Preferred" dialog box appears, press the "Clear all selections". When you press "Ok" the species will be unselected from the list. If you want to clear other animals, hold the **[ALT]** key down and click the other animal species. If you wish to clear the entire species list, use the "Clear selections" option in the **Species** menu.

Is there an easy way to clear my habitat selections?

Use the "Clear selections" option in the **Habitat** menu.

Why can't I select another habitat screen after making a search?

When either the "Right Arrow Button" or the "Left Arrow Button" is not green, a search has been performed. You have the opportunity to review the results of the search. To break the connection between screens, press the "Break Arrow Button".

How can I combine results of searches from separate matrices?

See the examples showing how results from searches can be combined. Follow the example that most closely matches your needs.

How can I adjust the screen so that the entire species name is showing.

Use the Sash - the line that separates the species from the habitat screens, located just below the arrow buttons. Just click and drag it to the right.

How can the animal species list be sorted?

Use the "Modify displayed list" selection on the **Species** menu. When the dialog box appears, use one of the selections in the "Sort list" box.

How can I display only a list of species in my region?

Create a file containing the species for your area. Follow the same steps outlined in the example "Saving a Subgroup of Species to a Disk File". Once this file is created, the list can be retrieved at any time by following the steps in the example "Retrieving a Subgroup of Species From a Disk File".

What happens if no wildlife species are displayed?

An empty species list can occur for a number of reasons. For example, if you retrieved a list from a file that contains only bird species, but clicked on "Birds" to clear the selection in the Family groups box, no species would be listed. The first three options in the "Species subgroup" dialog box ("Modify current list", "Currently selected species only", and "Species not currently selected") modify the current list of species. Under the right conditions this could result in no species left to display. For example, if you choose "Currently selected species only" and there are no currently selected species, the resulting list will be empty. To display the entire list of species again, click on the **Species** menu, select "Modify displayed list" and select "All available species" in the "Species subgroup" dialog box.

Who can I contact if I have questions about matrix search results?

The results of searches are based on matrices found in two publications: New England Wildlife: habitat, natural history, and distribution and New England Wildlife: management of forested habitats. These matrices were developed from research conducted in New England. They are not intended to be used in other regions of North America. The authors of these publication should be contacted regarding questions about the matrix contents. They may be reached at:

USDA Forest Service
Northeastern Forest Experiment Station
Holdsworth Hall
University of Massachusetts
Amherst, MA 01003
Telephone: 413-545-0357

Who can I contact if I have questions or comments about running the program?

Questions, problems, or comments about the installation, running, or use of the NEWILD program should be directed to Scott A. Thomasma. He can be reached at:

USDA Forest Service
Northeastern Forest Experiment Station
705 Spear Street, PO Box 968
Burlington, VT 05402-0968
Telephone: 802-951-6774
Fax: 802-951-6368

Thomasma, Scott A.; Thomasma, Linda Ebel; Twery, Mark J. 1998. **NEWILD (version 1.0) user's manual [Computer program]**. Gen. Tech. Rep. NE-242. Radnor, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station. 28 p. [1 computer disk (3-1/2 in.); user's manual.]

The user's manual describes the use of the NEWILD computer program. NEWILD is software developed by the U.S. Department of Agriculture, Northeastern Research Station as part of the NED project, and ongoing effort to develop software tools to support Ecosystem Management decision making. NEWILD can be used to determine which of the 338 species of vertebrates in New England may be found in particular habitats, or which habitats are preferred or utilized by a particular species of wildlife. The object of this program is to assist in the access and evaluation of the information presented in the Species/Habitat matrices developed by Richard DeGraaf, Deborah Rudis, Mariko Yamasaki, William Leak, and John Lanier (GTR-NE-108, GTR-NE-144). Some of the text from these publications have been incorporated into the hypertext portion of this program. NEWILD was designed for use in conjunction with these publications. A diskette containing the NEWILD program is included with this manual. The program requires Windows 3.1 or later to operate.

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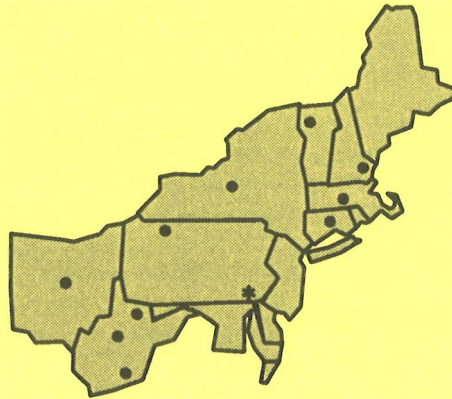
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