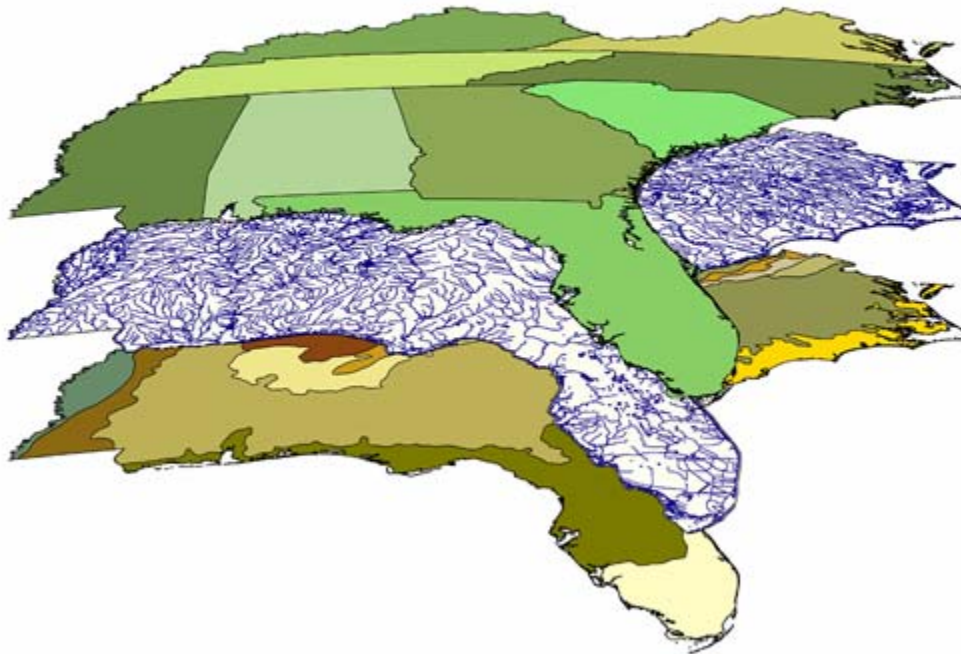


MANUAL FOR REVIEWING SE-GAP VERTEBRATE DATABASE/MODELS

SOUTHEAST GAP ANALYSIS PROJECT



www.basic.ncsu.edu/segap

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Computer Requirements:

Windows XP or Vista
MS Access 2003 or newer
DVD-ROM or internet connection

YOU MUST COPY THE DATABASE TO YOUR LOCAL COMPUTER.

If you received this database on a CD or DVD, you will need to copy it to your computer's hard drive. It will not be able to save changes, otherwise.

Accessing PDF maps: By default, the database will try to open the species' range and distribution PDF maps over the internet. If it cannot connect to the BaSIC webserver, it will try to open PDFs using the DVD if provided. If you received a DVD complete with map PDFs, **DO NOT** copy the PDFs to your computer. Just make sure the DVD is located in the appropriate drive. If you have an internet connection that is slow opening the PDFs and would like to access them through the DVD, simply disconnect your internet connection.

Before you begin working with Microsoft Access and the reviewer database, you should have basic computer skills necessary for navigating in the Windows environment including:

- opening and closing files
- saving files
- navigating directory structures
- an understanding of the basic interface terminology (menus, dialog boxes, radio buttons, pull down menus, window bars, active>inactive windows, checkboxes, etc...)
- double clicking, "click-and-dragging", right and left clicking
- minimizing>expanding windows

If you are using **Access 2007** or higher:

You will need to enable the database and path where you copied it in the "Trust Center" settings. Also, the forms take up a large amount of the screen. Uncheck the Ribbon at the top of the window to allow the forms to be viewed in full.

If at anytime you have a problem, close the database and re-open it. The user must step through the interface in a specific order and/or have specific forms open for the database to function properly. If you continue to have problems, contact Matt Rubino at NC State University. The contact info is in the database under "Contact and Citation Information" as well as at the end of this document.

The companion document SE-GAP Ancillary Data Metadata.pdf can be referenced for further details regarding much of the information presented in this database. It includes added descriptions of parameters and their development by SE-GAP and how they are applied in modeling. It is also available on the web at <http://www.basic.ncsu.edu/segap/Ancillary.html>

OPENING THE DATABASE AND “LOGGING-IN”

Steps:

1. Open the database from Microsoft Access. A form will open in which you will provide your name and the date of your review.

Review/Reviewer Information

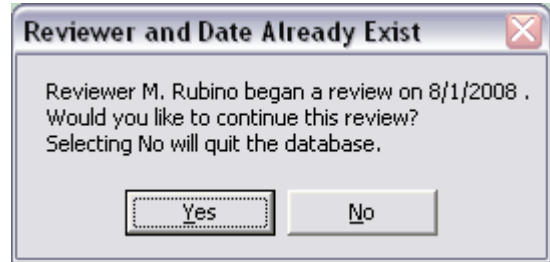
**Welcome to the SE-GAP
Species Modeling Review
Database. Thank you very much
for your input!**

Please provide the name of the reviewer:

Please enter the date of the review:

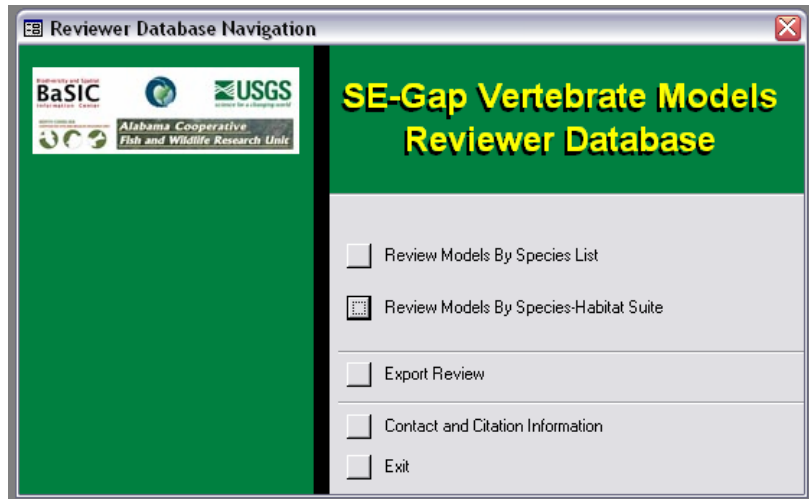
(MM/DD/YYYY)

2. Click the **Begin Model Review** button to start your review session. If you have logged-in before and are returning to a review session, clicking on this button will open a dialog box asking if you want to continue a review.



3. Click **Yes** if you want to continue your previous review. Clicking **No** will close the database.
4. If you would like to create a review session under a different name or date, replace the name and date at the initial start up.

5. Clicking **Yes** will open the database "Switchboard". From here you can review models, export your review to an Excel spreadsheet, check on contact and citation information, or close the database.

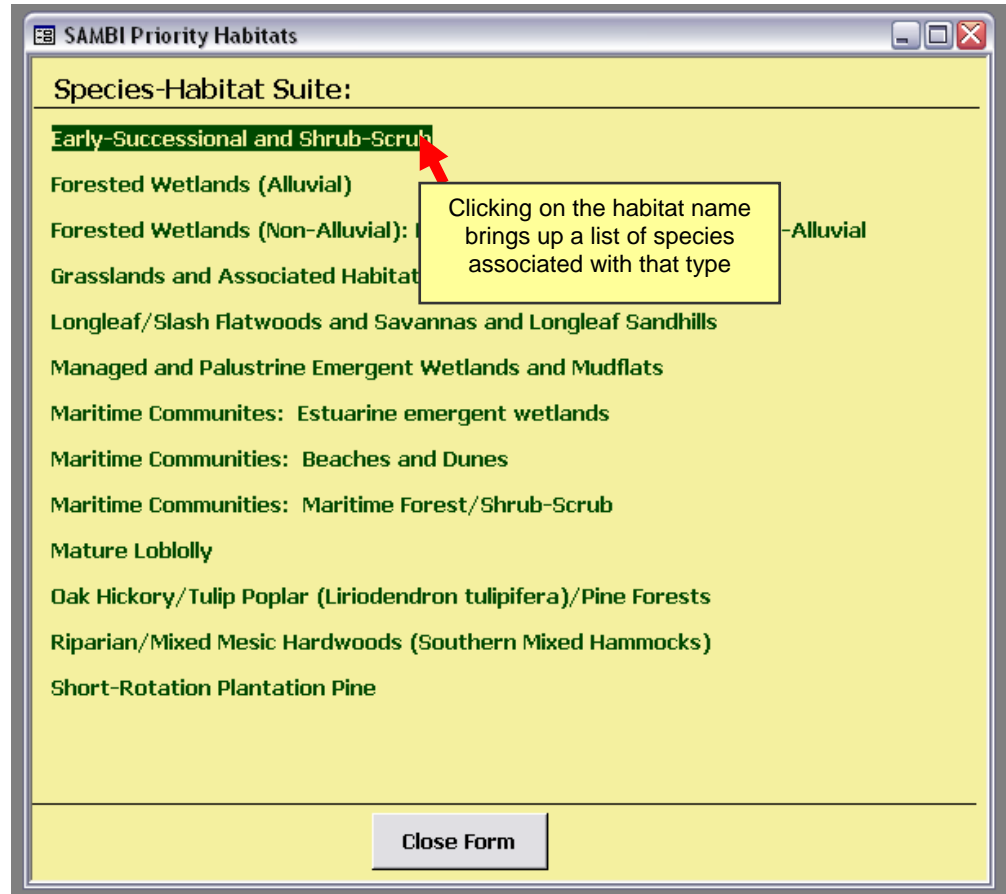


6. You can navigate your model review two ways: either by searching through a list of species (click the **Review Models By Species List** button) or by searching through a list of habitat suites with which species are associated (click the **Review Models By Species-Habitat Suite** button).

7. Click on **Review Models By Species-Habitat Suite**.

8. A window opens listing 13 priority species-habitat suites. These species-habitat suites were developed for the South Atlantic Migratory Bird Initiative (SAMBI) area of the Atlantic Coast Joint Venture (Watson and McWilliams 2005; see also Hunter et al. 2001). Species associated with these habitats are grouped together. Note that because species may utilize more than one habitat type, they will be grouped in one or more of these species-habitat suites.

9. Clicking on any of the habitat names will open a new window listing the species associated with that habitat.



10. Clicking on **Grasslands and Associated Habitats** opens the window listing species associated with that habitat type.

11. The species grouped with associated habitats are listed by seasonal use of the habitat, i.e. breeding, migratory, or non-breeding. Therefore, some species may be listed more than once in a particular habitat if their usage of that habitat occurs during more than one season.

SAMBI Species

Close Form

Habitat Type: [click for description]
Early-Successional and Shrub-Scrub

Season:	Common Name:	Scientific Name:	Existing GAP Model ?	Species Reviewed
Non-Breeding	Field Sparrow	<i>Spizella pusilla</i>	No	<input type="checkbox"/>
Breeding	Henslow's Sparrow	<i>Ammodramus henslowii</i>	Yes	<input type="checkbox"/>
Non-Breeding	Henslow's Sparrow	<i>Ammodramus henslowii</i>	No	<input type="checkbox"/>
Breeding	Loggerhead Shrike	<i>Lanius ludovicianus</i>	Yes	<input type="checkbox"/>
Non-Breeding	Loggerhead Shrike	<i>Lanius ludovicianus</i>	No	<input type="checkbox"/>
Breeding	Northern Bobwhite	<i>Colinus virginianus</i>	Yes	<input type="checkbox"/>
Breeding	Prairie Warbler	<i>Dendroica discolor</i>	Yes	<input type="checkbox"/>
Breeding	American Woodcock	<i>Scolopax minor</i>	Yes	<input type="checkbox"/>
Non-Breeding	American Woodcock	<i>Scolopax minor</i>	No	<input type="checkbox"/>
Breeding	Bachman's Sparrow	<i>Aimophila aestivalis</i>	Yes	<input type="checkbox"/>
Non-Breeding	Bachman's Sparrow	<i>Aimophila aestivalis</i>	No	<input type="checkbox"/>

12. From the “Switchboard”, click on **Review Models By Species List**. A window similar to that shown in Step 11 opens. However, notice that the Habitat Type header is missing. This window lists all priority species in the SAMBI plan along with seasonality in alphabetic order by common name. Note there are 85 combinations of species and season. There are 65 unique species in the list. **Note:** You can sort the list by clicking on “**Common Name**”, “**Scientific Name**”, or “**Existing GAP Model?**”. Close the form.

SAMBI Species

Close Form

Season:	Common Name:	Scientific Name:	Existing GAP Model ?	Species Reviewed
Breeding	Acadian Flycatcher	<i>Empidonax vireescens</i>	Yes	<input type="checkbox"/>
Non-Breeding	American Bittern	<i>Botaurus lentiginosus</i>	No	<input type="checkbox"/>
Non-Breeding	American Black Duck	<i>Anas rubripes</i>	No	<input type="checkbox"/>
Breeding	American Black Duck	<i>Anas rubripes</i>	Yes	<input type="checkbox"/>
Non-Breeding	American Oystercatcher	<i>Haematopus palliatus</i>	No	<input type="checkbox"/>
Breeding	American Oystercatcher	<i>Haematopus palliatus</i>	Yes	<input type="checkbox"/>
Non-Breeding	American Woodcock	<i>Scolopax minor</i>	No	<input type="checkbox"/>
Breeding	American Woodcock	<i>Scolopax minor</i>	Yes	<input type="checkbox"/>
Non-Breeding	Bachman's Sparrow	<i>Aimophila aestivalis</i>	No	<input type="checkbox"/>
Breeding	Bachman's Sparrow	<i>Aimophila aestivalis</i>	Yes	<input type="checkbox"/>
Migratory	Bicknell's Thrush	<i>Catharus bicknelli</i>	No	<input type="checkbox"/>

Record: 1 of 85

VIEWING SPECIES' SPECIFIC MODELING PARAMETERS – REFERENCES, HABITAT NOTES, AND MAP UNITS

Steps:

1. Open the **Grasslands and Associated Habitats** species list from the priority species-habitat suites window.

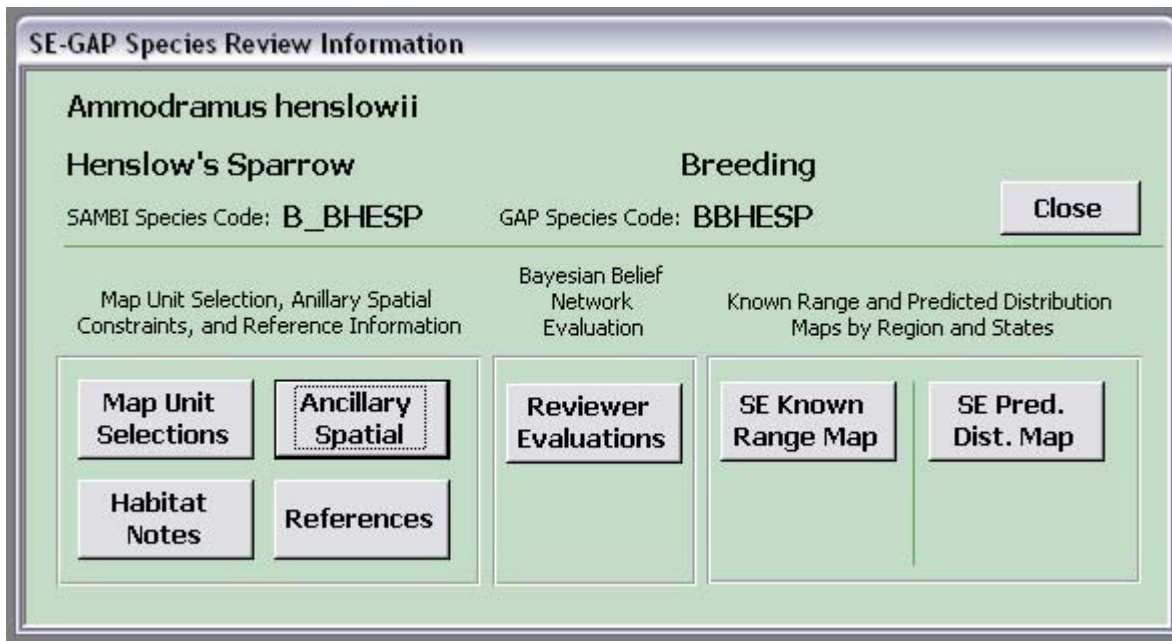
The screenshot shows a window titled "SAMBI Species". At the top left is a "Close Form" button. To its right is a "Habitat Type:" field with a "[click for description]" link and the text "Early-Successional and Shrub-Scrub". Below this is a table with the following columns: "Season:", "Common Name:", "Scientific Name:", "Existing GAP Model?", and "Species Reviewed". The table contains 11 rows of data.

Season:	Common Name:	Scientific Name:	Existing GAP Model ?	Species Reviewed
Non-Breeding	Field Sparrow	<i>Spizella pusilla</i>	No	<input type="checkbox"/>
Breeding	Henslow's Sparrow	<i>Ammodramus henslowii</i>	Yes	<input type="checkbox"/>
Non-Breeding	Henslow's Sparrow	<i>Ammodramus henslowii</i>	No	<input type="checkbox"/>
Breeding	Loggerhead Shrike	<i>Lanius ludovicianus</i>	Yes	<input type="checkbox"/>
Non-Breeding	Loggerhead Shrike	<i>Lanius ludovicianus</i>	No	<input type="checkbox"/>
Breeding	Northern Bobwhite	<i>Colinus virginianus</i>	Yes	<input type="checkbox"/>
Breeding	Prairie Warbler	<i>Dendroica discolor</i>	Yes	<input type="checkbox"/>
Breeding	American Woodcock	<i>Scolopax minor</i>	Yes	<input type="checkbox"/>
Non-Breeding	American Woodcock	<i>Scolopax minor</i>	No	<input type="checkbox"/>
Breeding	Bachman's Sparrow	<i>Aimophila aestivalis</i>	Yes	<input type="checkbox"/>
Non-Breeding	Bachman's Sparrow	<i>Aimophila aestivalis</i>	No	<input type="checkbox"/>

There are a few things to note about this form:

- First, notice that the window lists whether the species for a particular season has an existing SE-GAP model. The SE-GAP project modeled and mapped ranges and predicted distributions for species' breeding habitat almost exclusively (Biodiversity & Spatial Information Center 2008). The only exceptions to this were some waterfowl species in which breeding and non-breeding habitat were modeled. For species where there is no SE-GAP model, model parameters will simply be blank.
- Within the SAMBI area, some species utilize the same habitats for more than one seasonal period. They will be listed multiple times on this form (e.g. Henslow's Sparrow, Loggerhead Shrike). Habitat usage may be markedly different during different parts of the year, and therefore, models for those seasons may be very different.
- Each species has a checkbox for 'Species Reviewed'. It is currently grayed-out. As soon as you finish reviewing a species' model, the box will be checked letting you know that you finished the review for that species' model during that season.

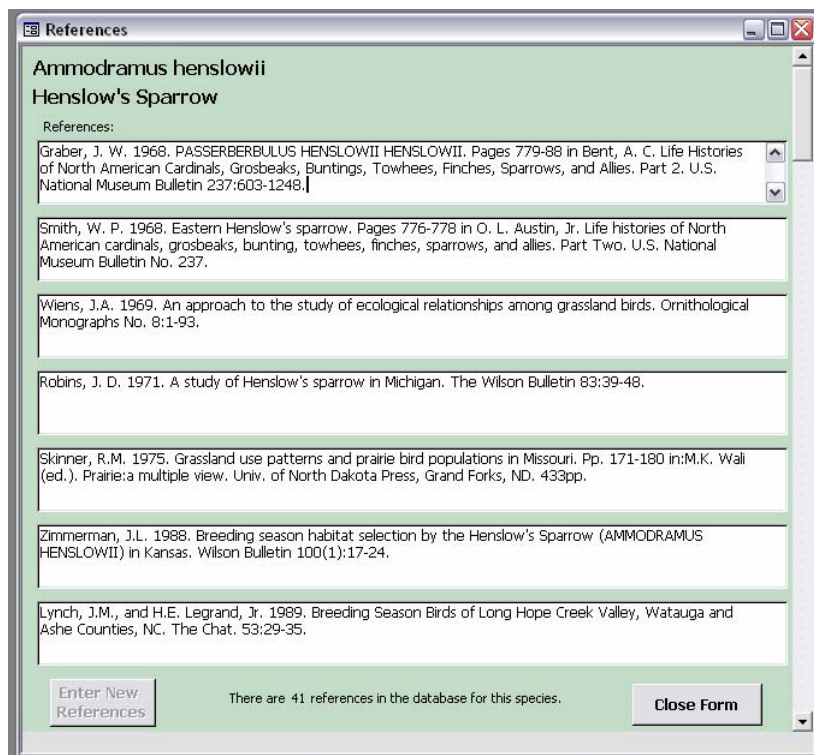
- Click on breeding season **Henslow's Sparrow** (a GAP model exists for this species in the breeding season). The window for navigating model parameters and maps of Henslow's Sparrow model will open.



- This form has three sections - one for navigating to model parameters and references, one for displaying range and predicted distribution maps and one for assessing the review using a Bayesian Belief Network. Leave this form open until you have finished a review. You will continue to come back to it during the process of reviewing a species' model.

- Click the **References** button.

- A window will open displaying a list of references in the database for



that species. Some or all of these references may have been used directly in model development.

6. Close the **References** form and click the **Habitat Notes** button.
7. The **Habitat Notes** form will open showing two text windows – one with text descriptions of habitat gathered from individual state GAP projects for states that modeled that species, and one for a compiled habitat description pertaining to species' habitat utilization throughout the Southeastern US.

Habitat Notes

Ammodramus henslowii
Henslow's Sparrow

SE-Gap Species Code: **BBHESP**
SAMBI Species Code: **B_BHESP**
Season: **Breeding**

Find Record!
Place cursor in field for selection

Existing State Habitat Notes:

STATE: AL
Breeding:
Wintering:
General:
In AL, pitcher plant bogs appear to provide the most nearly optimal habitats.(B86MOU01AL) . North of the Fall Line this species is rare in winter and on migration. On the Coastal Plain it is uncommon in winter. GRASSLAND)HERBACEOUS . . .

STATE: NC
Breeding:
Two broods of young per breeding season (Hyde 1939), perhaps three (Robins 1971), are raised. The female does most or all of the nest-building, taking five to six days to complete the process. Clutch size is from three to five eggs. First clutches are normally completed by 20-30 May in the central part of the range (Hyde 1939, Graber 1968). Second nests are initiated in July and August with some extending into September (Robins 1971). Only the female incubates the eggs and broods the young. The incubation period lasts about 11 days and the young stay in the nest nine to ten days. Females make most of the feeding trips during the first four or five days of the nestling period and about 50% of the trips during the latter half (Robins 1971). Young are tended by both parents, leave nest at 9-10 days. ^Of the 11 nests found in a southern Michigan home hayfield, six (54.5%) produced at least one young (Robins

Compiled Habitat Notes for the Region:
"Historically, populations along Atlantic Coast found to inhabit coastal marshes, swamps, dry fields, salt marshes, low wet meadows, upland weedy hayfields or pastures and in NC, clearcut pocosins... As native habitats declined, species moved into additional habitats, in particular cultivated hay fields.... In general, habitat can be characterized as relatively large fields consisting of tall, dense grass, a well-developed litter layer, standing dead vegetation and sparse or no woody vegetation." (quoted from Herkert et al. 2002) M. Rubino, 12Jan05.

Please Document Reviewer Name and Date (i.e. Steve Williams, 25Feb03)

Close Form **References**

8. Close the **Habitat Notes** form.
9. Click the **Map Unit Selections** button. The **Species Habitat Type Associations** form will open. This form lists the habitats SE-GAP selected as being utilized by a species during that season (breeding, migratory, non-breeding). These associations are the base spatial data of species' predicted distribution models.

Filter Habitat Types by General Land Cover:
(NLCD 2001 Class) **Note: multiple selections allowed - use Ctrl or Shift keys**

Buttons: **Filter**, **Clear Filter**, **Reviewer Comments**

Species: **Ammodramus henslowii**
Common Name: **Henslow's Sparrow**
Life Stage: **Breeding**

Buttons: **Show Utilized**, **Show Unutilized**, **Show All**

Habitat Types: (click to see description)	MU Use:	Aux Use:	Select "Edit Map Units" to ...
Agricultural and cropland	none	none	<input type="button" value="Edit Map Units"/>
Airfields/golf courses/cemeteries	none	none	<input type="button" value="Edit Map Units"/>
Appalachian balds	none	none	<input type="button" value="Edit Map Units"/>
Atlantic white cedar	none	none	<input type="button" value="Edit Map Units"/>
Beaches and dunes	some	none	<input type="button" value="Edit Map Units"/>
Bogs/fens/ephemeral wetlands	none	none	<input type="button" value="Edit Map Units"/>
Bottomland hardwood	none	none	<input type="button" value="Edit Map Units"/>
Cliffs, domes, outcrops	none	none	<input type="button" value="Edit Map Units"/>
Coastal prairie	none	none	<input type="button" value="Edit Map Units"/>
Commercial Urban	none	none	<input type="button" value="Edit Map Units"/>

Record: 1 of 50 (Filtered)

Button: **Close Form**

Note that this form actually contains 50 habitat types. The 50 types are aggregations of land cover types mapped by the SE-GAP project. Land cover types (i.e. map units) are a combination of anthropogenic classes (row crops, urban development, etc) and NatureServe defined and developed Ecological Systems (Comer et al. 2003). See the BaSIC website for more information regarding the development of SE-GAP land cover mapping and the NatureServe website (NatureServe 2008) for specific information about NatureServe Ecological Systems.

- The form can be filtered using more broadly categorized habitats (i.e. National Land Cover Dataset classes) using the filter at the top of the form. Select “GRASSLAND/HERBACEOUS” in the list box and click the **Filter** button.

11. The form has been narrowed to only 3 habitat types: “Coastal prairie”, “Meadows/Florida and Georgia prairies”, and “Rank annuals”. Using the filter, you can narrow your assessment of species habitat utilization selections.
12. Click the **Clear Filter** button and the form returns to listing all 50 habitat types.
13. The form displays habitat utilization selections as either primary or auxiliary (i.e. used when in proximity to primary habitat), and whether that use includes All, Some, or None of the map units mapped by SE-GAP.
14. The list can also be filtered to display only those habitats utilized or not utilized by a species.

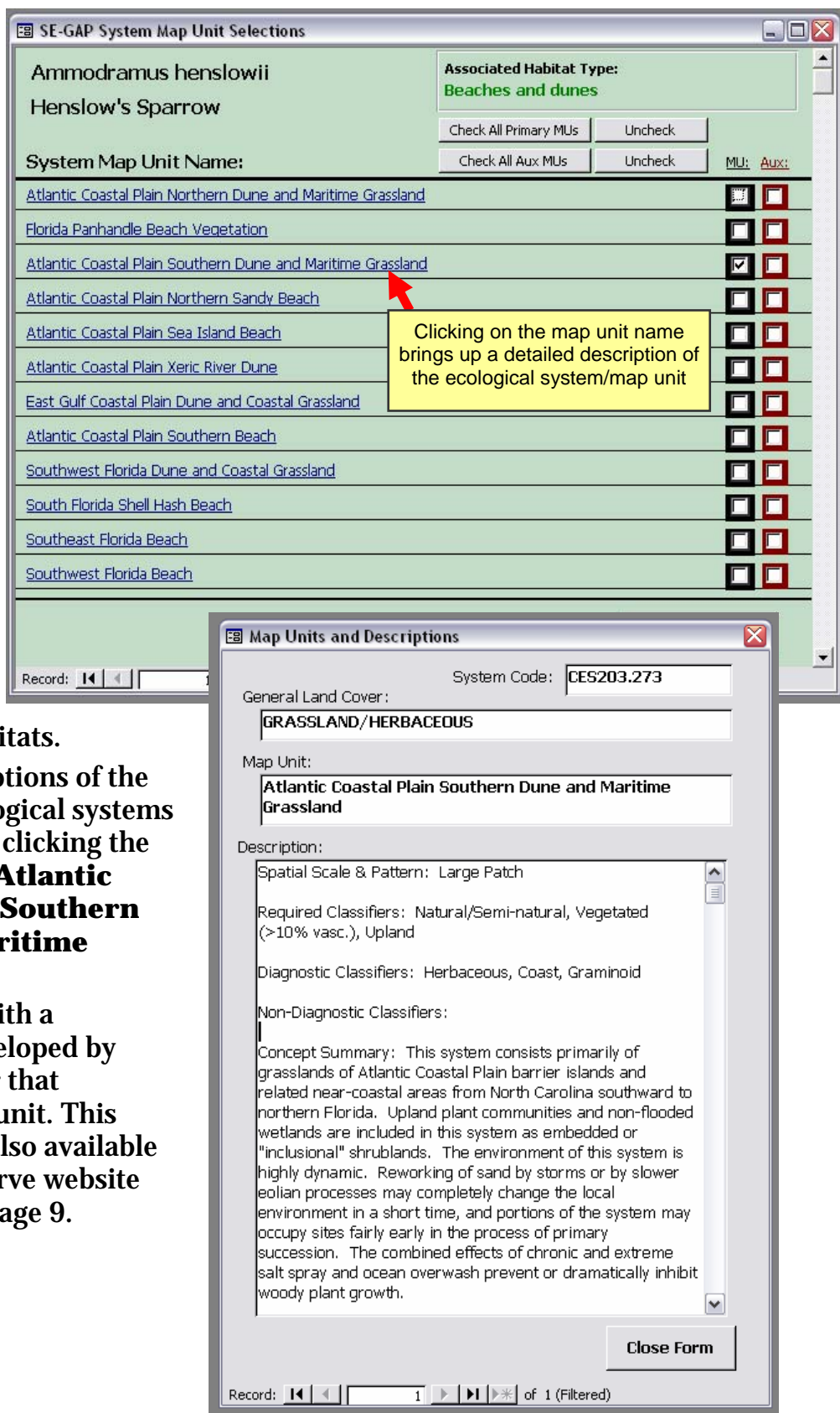
15. The form shows only the 12 habitats used by Henslow’s Sparrow.

Habitat Types: (click to see description)	Map Unit Use:	Aux Map Unit Use:	Select "Edit Map Units" to ...
Beaches and dunes	some	none	Edit Map Units
Early-successional hardwood and pine	some	none	Edit Map Units
Estuarine emergent marsh	some	none	Edit Map Units
Freshwater emergent marsh	some	none	Edit Map Units
Interior cedar/pine/oak barrens & glades	some	none	Edit Map Units
Manmade/disturbed	all	none	Edit Map Units
Meadows/Florida and Georgia prairies	some	none	Edit Map Units
Oak savanna	some	none	Edit Map Units
Pasture	all	none	Edit Map Units
Pine flatwoods	some	none	Edit Map Units

16. Notice that SOME or ALL map units are selected by Henslow’s Sparrow in each of the 12 habitat types, and NONE are used in an auxiliary or proximity based manner.
17. Click the **Edit Map Units** button adjacent to “Beaches and dunes”. A new form opens listing the map units aggregated into the general habitat type of beaches and dunes. These are the land cover classes/map units/ecological systems mapped by SE-GAP.
18. Notice that there is only a single map unit checked as a primary habitat: “Atlantic Coastal Plain Southern Dune and Maritime Grassland.” The SE-GAP model includes this map unit (within the broader category of beaches

and dunes) as part of the predicted distribution model for Henslow’s Sparrow. As a reviewer, you can either agree or disagree with SE-GAP’s selection of this map unit as an appropriate habitat for this species. You can either check or uncheck any of the map units listed on the form as a part of your review. Note also the buttons at the top of the form. These allow you to check or uncheck all map units as either primary or auxiliary habitats.

19. Detailed descriptions of the map units/ecological systems are available by clicking the name. Click on **Atlantic Coastal Plain Southern Dune and Maritime Grassland**.
20. A form opens with a description developed by NatureServe for that particular map unit. This information is also available at the NatureServe website mentioned on page 9.



VIEWING SPECIES' SPECIFIC MODELING PARAMETERS – ANCILLARY SPATIAL DATA

Steps:

1. Close the **Map Unit Description** and **Map Units Selections** forms.
2. Close the **Species Habitat Type Associations** form.
3. From the **Species Review Information** form, click the **Ancillary Spatial** button.
4. This form contains all the modeling parameters for data inputs other than map units. The data includes land cover derivatives such as patch size,

Ancillary Data Parameters

Ammodramus henslowii **Henslow's Sparrow** **Breeding**

Land Cover Derivatives

Patch Size

Contiguous:

Min. Size: hectares

Buffer In: meters

Buffer From: meters

NonContiguous:

% in hectares

Edge

Edge Type:

Buffer Values:

Ecotone Width: meters

Forest Interior (static)

Forest/Non-Forest Use:

Buffer Distance from Forest Edge:

meters

Hydrography

Type/Buffer

Type:	Buffer From:	Buffer Into:
<input type="checkbox"/> Flowing Water	<input type="text" value=""/>	<input type="text" value=""/>
<input type="checkbox"/> Open/Standing Water	<input type="text" value=""/>	<input type="text" value=""/>
<input type="checkbox"/> Wet Vegetation	<input type="text" value=""/>	<input type="text" value=""/>

Salinity

Type:

Stream Flow

Accumulation: Min: Max:

Velocity:

Road Density/Urban Avoid Mask

Level:

High - Intolerant
Med. - Mod. tolerant
Low - More tolerant

Elevation

Minimum: meters

Maximum: meters

Landforms

Cliffs Coves/Draws

Steep Slopes Dry Flats

Slope Crests Moist Flats

Upper Slopes Wet Flats

Flat Summits Slope Bottoms

Side Slopes

Modeling Notes:

Check here if this species requires modeling by hand

forest/open edge ecotones, and forest interior; hydrography including water type, buffer distances, salinity, and velocity; road density/urban avoidance; elevation thresholds; and landforms. There is also a text box listing any notes modelers may have made during model development.

5. **Land Cover Derivatives – Patch Size.** For certain species, a minimum amount of habitat is necessary for certain aspect of their biology. If these area thresholds are mentioned in the literature, they can be applied to refine species' models. Checking the **Contiguous** check box allows you to adjust the minimum size. You can also select a buffer distance to include or exclude additional habitat within that contiguous patch. A non-contiguous patch is evaluated in spatial modeling using a moving window analysis. In some cases, it's less important that habitat be contiguous and more important that a certain amount of habitat is available within a given area (essentially a density measure). For species where information regarding a percent habitat usage within a given area is available, this can be applied spatially. The text boxes to enter percentage and area in hectares will not be enabled until you check the **NonContiguous** box.

The screenshot shows a dialog box titled "Land Cover Derivatives". Under the "Patch Size" heading, there are two main options: "Contiguous" and "NonContiguous". The "Contiguous" option is selected with a checked checkbox. Below it, there are three input fields: "Min. Size" with a value of "30" and the unit "hectares", "Buffer In" with a dropdown arrow and the unit "meters", and "Buffer From" with a dropdown arrow and the unit "meters". The "NonContiguous" option is not selected, and its associated fields (a percentage input and an area input in "hectares") are disabled.

6. **Land Cover Derivatives – Edge.** Ecotones are transition areas between open and forested habitats. SE-GAP grouped forested map units and open map units (pasture/hay, row crops, prairies etc...) and buffered away from and into each. Shrublands and Woodlands were also included to account for additional complexity along edges. Use the drop-down box to select an edge type, then select an ecotone edge width.

The screenshot shows a dialog box titled "Edge". It has two main sections: "Edge" and "Forest Interior (static)". In the "Edge" section, there is a dropdown menu for "Edge Type" which is currently set to "Forest/Open Ecotone Only" and "F/D + Shrubland/Woodland". Below this is a text input field for "Ecotone Width" with a dropdown arrow and the unit "meters". In the "Forest Interior (static)" section, there is a dropdown menu for "Forest/Non-Forest Use" and a text input field for "Buffer Distance from Forest Edge" with a dropdown arrow and the unit "meters". There is also a "Graphic Example" button. At the bottom of the dialog is a "Close Form" button.

7. **Land Cover Derivatives – Forest Interior.** Certain species either avoid or favor interior forest. This is easily implemented in modeling by selecting one of the two and specifying a distance at which the species could either be included or excluded from forest. Clicking on the **Graphic Example** button will open a graphic illustrating the interior and exterior buffering selections.

8. **Hydrography.** Water type and proximity are important aspects of species' habitats. These parameters can be implemented easily in spatial modeling. Selecting the check box for one of the three types (flowing – rivers, streams, etc...; open – lakes, reservoir, sounds, etc...; wet vegetation – a compilation of wetland, marsh, and swamp map units) allows you to set the type used and a buffer distance away from or into the water feature preferred by the species. Salinity can be set as either “Freshwater Only”, “Brackish/Saltwater Only”, or the species tolerates “All Types”. Stream flow can be used to distinguish fast or slow moving waters. Accumulation is a spatial measure of contributing drainage area. Because this measure is useful mostly to spatial modelers, information regarding the parameter usually does not exist in the literature, and therefore rarely used.

The image shows two overlapping screenshots of a software interface for hydrography parameters. The top screenshot is titled 'Hydrography' and has a 'Type/Buffer' section with three options: 'Flowing Water' (checked), 'Open/Standing Water', and 'Wet Vegetation'. To the right, there are 'Buffer From:' and 'Buffer Into:' dropdowns. Below this is a list of buffer distance values: 0, 30, 60, 120, 250, 500, 1000, and 2000. The 'Salinity' section has a 'Type:' dropdown menu that is open, showing three options: 'Freshwater Only', 'Brackish/Saltwater Only', and 'All Types'. The 'Stream Flow' section includes 'Min:' and 'Max:' labels, and 'Accumulation:' and 'Velocity:' input fields. The bottom screenshot is a zoomed-in view of the 'Salinity' dropdown menu, showing the three options clearly.

9. **Road Density/Urban Avoid Mask.** Many species avoid human environments. This data layer is a combination of road density and developed map units at three levels – “High” (very intolerant of human disturbance), “Medium”, and “Low” (more tolerant).
10. **Elevation.** A number of species occur only between, above, or below certain elevations. For species where the literature is explicit about elevation constraints, these values are easily implemented in spatial modeling.
11. **Landforms.** These categories were developed using combination of elevation derived information (slope, aspect), soils, hydrography, and

The image shows a screenshot of a software interface for 'Road Density/Urban Avoid Mask' parameters. It features a 'Level:' dropdown menu with three options: 'Low', 'Med', and 'High'. To the right of the dropdown, there is a legend: 'High - Intolerant', 'Med. - Mod. tolerant', and 'Low - More tolerant'. Below the legend, there is an 'Elevation' section with a 'Minimum:' input field followed by the unit 'meters'.

ecoregional data to describe the landscape. Check any of the boxes to limit the species' model to specific landforms.

12. **Modeling Notes.** In some instances, modelers added specific notes regarding the model approach. The “hand model” check indicates that a model is either more complex or utilizes data in a specific way not readily apparent in the other parts of the form.

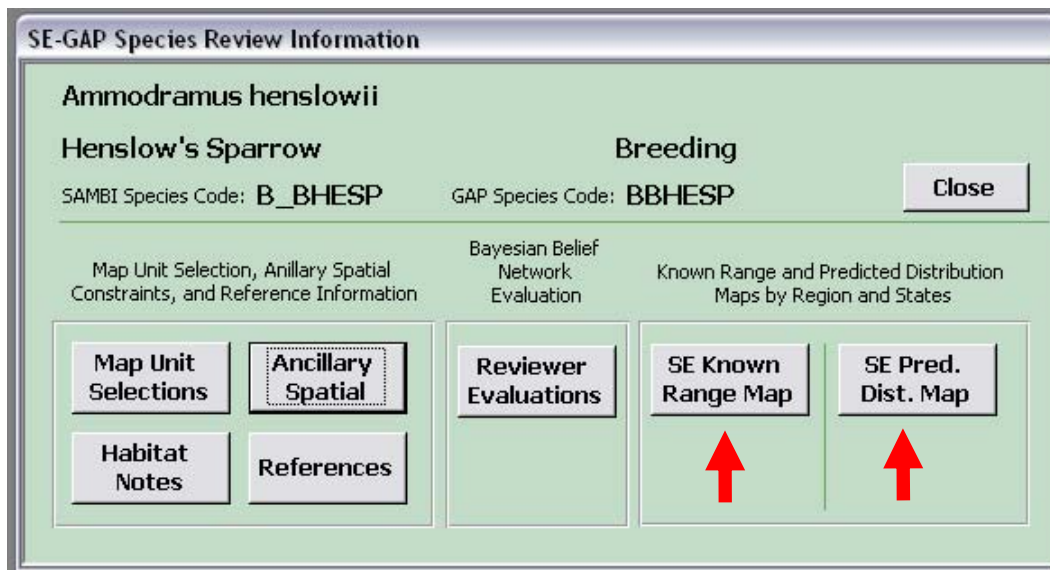
Landforms

<input type="checkbox"/> Cliffs	<input type="checkbox"/> Coves/Draws
<input type="checkbox"/> Steep Slopes	<input type="checkbox"/> Dry Flats
<input type="checkbox"/> Slope Crests	<input type="checkbox"/> Moist Flats
<input type="checkbox"/> Upper Slopes	<input type="checkbox"/> Wet Flats
<input type="checkbox"/> Flat Summits	<input type="checkbox"/> Slope Bottoms
<input type="checkbox"/> Side Slopes	

VIEWING SPECIES RANGE AND DISTRIBUTION MAPS

Steps:

1. Species' range and distribution maps can be accessed either over the internet or via the DVD if provided. The database will first try to open the maps using an internet connection, and then using the DVD. If you have a copy of the DVD containing PDF maps, make sure that DVD is located in the appropriate drive. If you don't have the DVD, you must have an active web connection. Message boxes will alert you to any map access problems.
2. From the **Species Review Information** form, click the **SE Known Range Map** button.

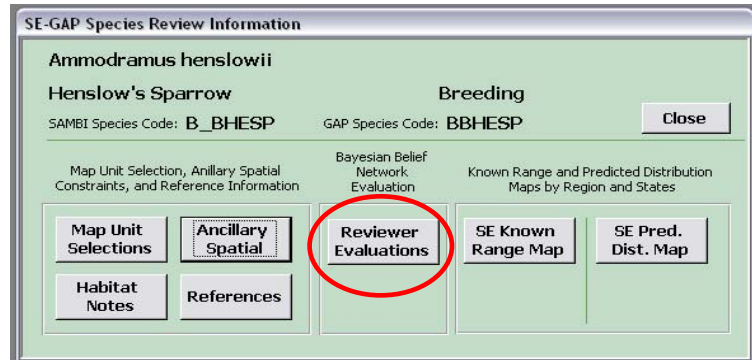


3. A PDF will open with Adobe Reader (you must have Adobe Reader installed on your computer) depicting the species' range in blue. Although this is a fairly high resolution image, and you may zoom in and out, it is not editable. To edit this map, either print it out and draw on it, or if you have Adobe Acrobat, you could copy the image to your hard drive and edit it with Acrobat.
4. Opening the maps through an internet connection will cause your default web browser to open the maps by connecting to the BaSIC web server. You may first receive a Microsoft message warning of potential viruses from the source (the source will show the URL to the BaSIC server). Click **OK** to allow your browser to open the map.
5. Clicking on the **SE Pred. Dist Map** button will open another PDF showing the range in blue and the species' predicted distribution in red.

REVIEWER QUESTIONS – BAYESIAN BELIEF NETWORK

Steps:

1. From the **Species Review Information** form, click the **Reviewer Evaluations** button.



2. This form contains several questions we would like you to answer in order to assess the 'performance' of the model. That is, have the model parameters been selected in such a way that the species' range and predicted distribution maps accurately reflect reality on the landscape?

Bayesian Belief Network Reviewer Question Form

SAMBI Species Code: **B_BHESP** Season: **Breeding**

Scientific Name:
Ammodramus henslowii

Common Name:
Henslow's Sparrow

Date of Evaluation:

Reviewer Questions of Base Model

Rank your response to the following questions:
(Strongly Disagree (1) - Strongly Agree (5))

1) I am an expert in the natural history of this species

2) The range map is an accurate representation of the known range of this species in the southeastern U.S.

3) The parameters used to model the predicted distribution of this species accurately represent its habitat requirements in the southeastern U.S.

4) The spatial data adequately represent the species' habitat requirements during the breeding season.

5) Rate your level of agreement in the predicted distribution performance

6) The published literature adequately documents the habitat requirements for this species in the southeastern U.S.

Habitat Importance Ranking

For the following questions, please write comments in the comment box below:

A1) What habitat components used in the distribution model affect the biological importance of a given area?

A2) Are there any biologically important habitat components not listed in the model?

A3) Please explain the relationship and provide references if available.

B) Could you help us identify occurrence data sets you may be aware of that would help us build stronger predictive models for this species?

Comments:

Include me in model development for this species.

3. Your response to these questions will allow us to not only assess the models but also guide potential re-development of models using a Bayesian framework. In addition, we can provide data from the reviews with models to further inform users about the expert confidence, or shortcomings that could potentially affect model usability.
4. Additionally, we would like input on any model aspect affecting biological importance within a given area; biologically important components not listed in model parameters; and any relationships, with references, that may be lacking. If you are familiar with spatial data and its use in distribution modeling, we would certainly want to be alerted to such information.

Please check your geographic area of expertise :

Florida North Carolina Virginia

Georgia South Carolina

Comments:

5. Finally, please check the states that correspond to your geographic area of expertise.
6. Once you have selected rankings for all 6 questions and made model comments, click the **Close** button. If you responded to all questions and given ranks greater than 0, the form will close and a check will appear next to that species on the species list form (see page 5). If you have not completed the review, a message box will open asking if you would like to continue reviewing the model for this species. Clicking **Yes** will bring you back to the evaluation form, clicking **No** will simply close the form.

Please Finish Your Evaluation!

You have not completed the evaluation for this species.
Do you want to continue the evaluation?

Yes No

7. Once you have completed reviews for all species you wish to evaluate, you can export the review to an Excel spreadsheet. Go back to the main switchboard and click **Export Review**. A window

Reviewer Database Navigation

BaSIC USGS Alabama Cooperative Fish and Wildlife Research Unit

SE-Gap Vertebrate Models Reviewer Database

Review Models By Species List

Review Models By Species-Habitat Suite

Export Review

Contact and Citation Information

Exit

will open asking if you are ready to export. Click **Export** and message box will open letting you know the name and location of the exported Excel file. Simply e-mail the file to the BaSIC lab.

8. Any questions, comments, problems, suggestions, etc... can be directed to
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REFERENCES

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