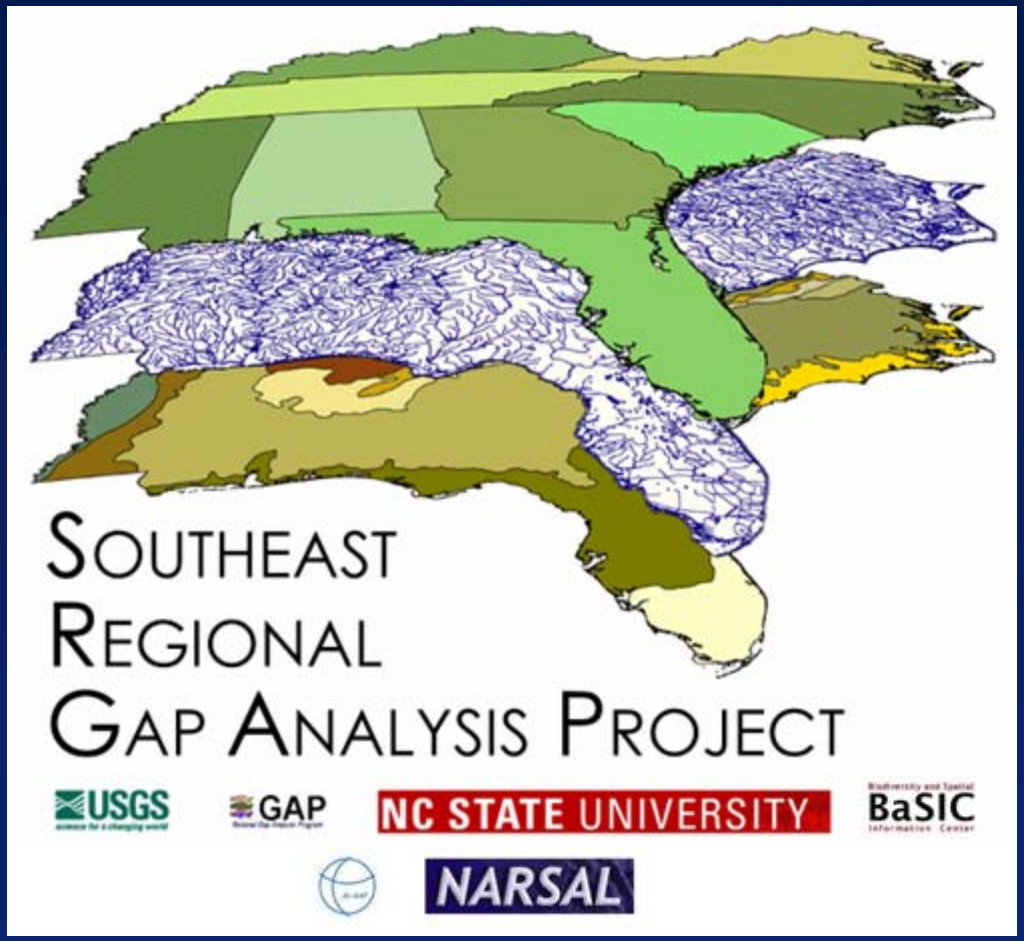


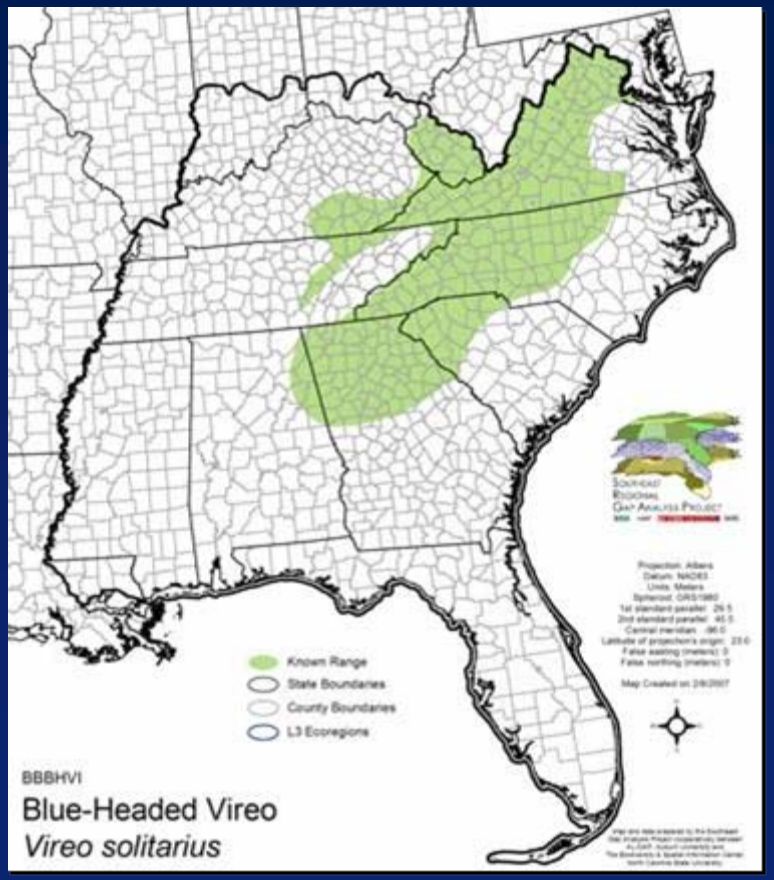
Process & Review:

SE-GAP Avian Distribution Models for the Southeast

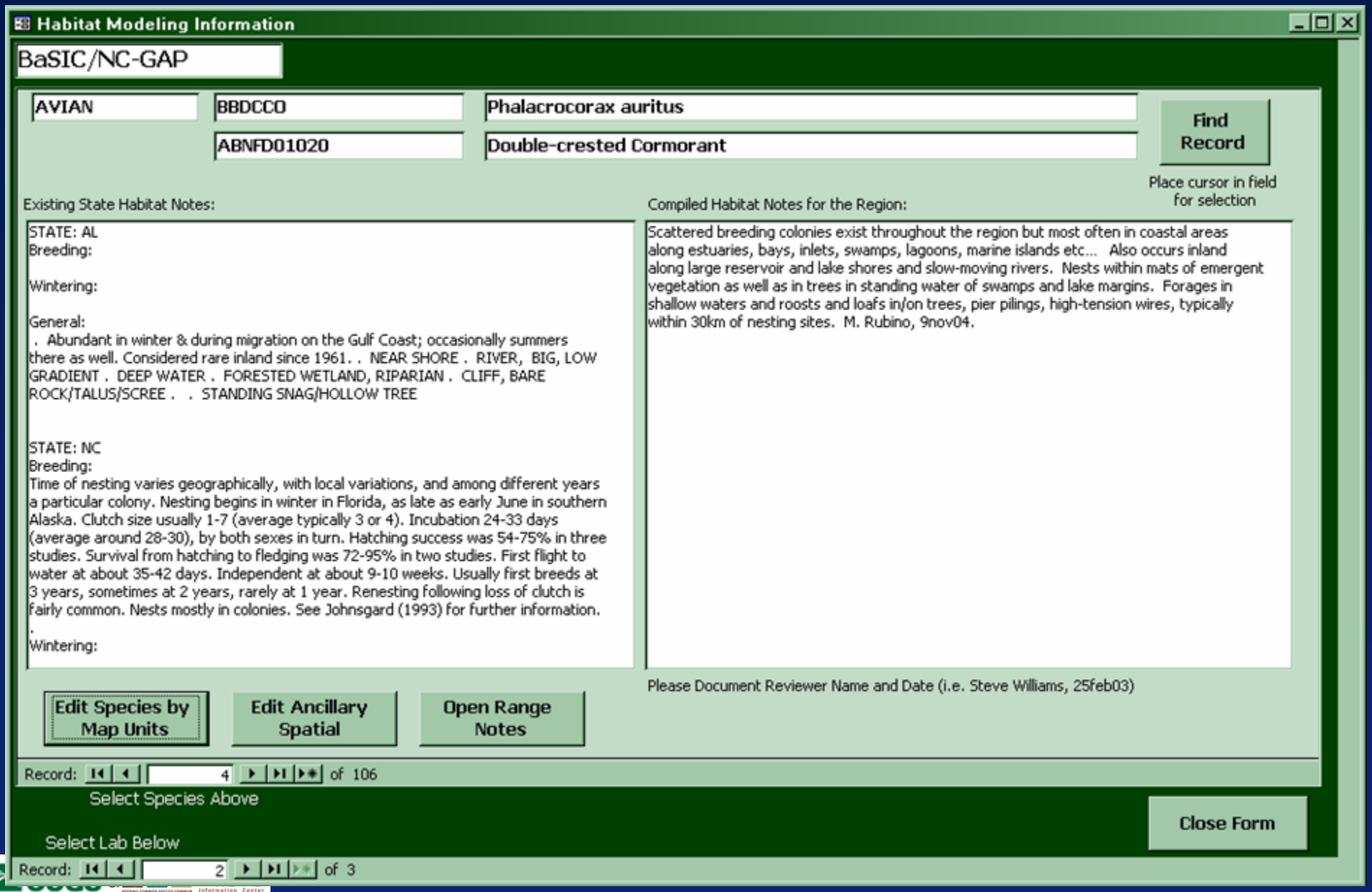
Vertebrate Data

- 608 Species (terrestrial)
  - 253 birds
- Known Range
- Predicted Habitat Models
- Presence/Absence Distribution Maps
- Knowledge Based Information

SE-GAP Known Range Maps



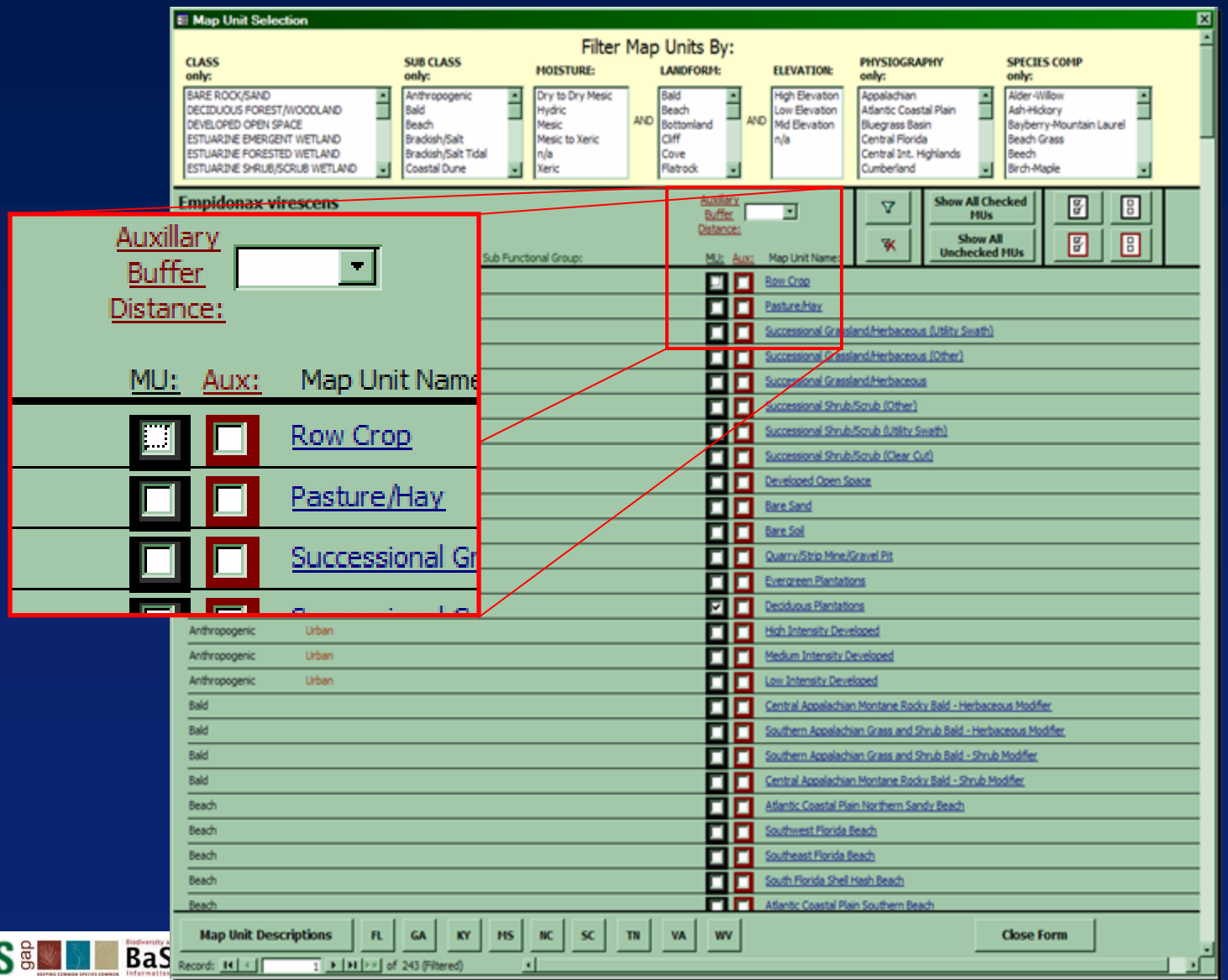
Habitat Text Review Form



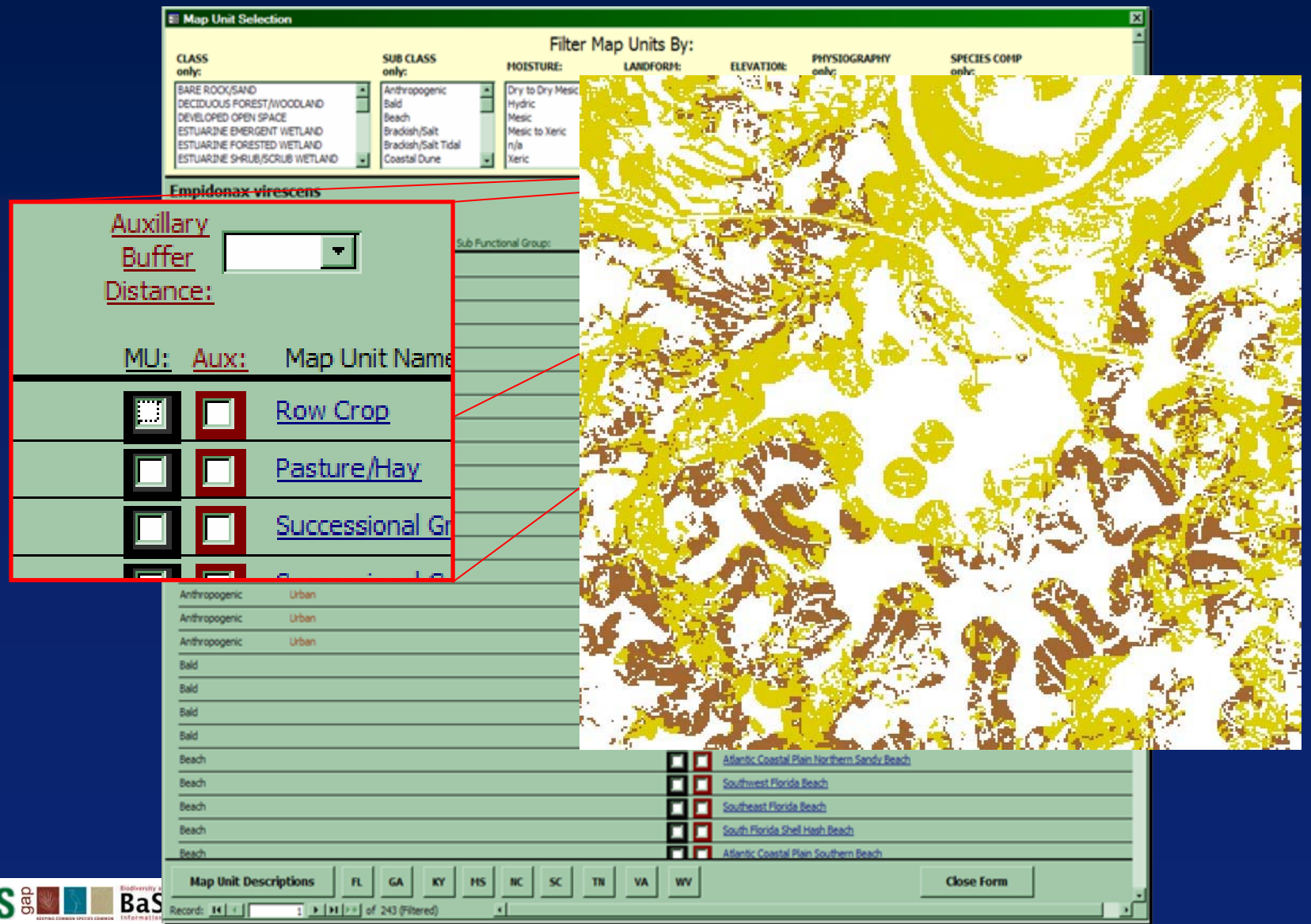
SE-GAP Land Cover Map Units

- Ecological Systems - NatureServe
  - Matrix, Large Patch, and Linear Types
  - Small patch on a case by case basis
  - Includes “modifiers” to systems
  - ~174 systems mapped
- Anthropogenic Classes
  - Plantations, Clearcuts, Mines/Quarries
  - Pasture/Hay, Row Crops
  - Development, Open Space, Utility Swaths

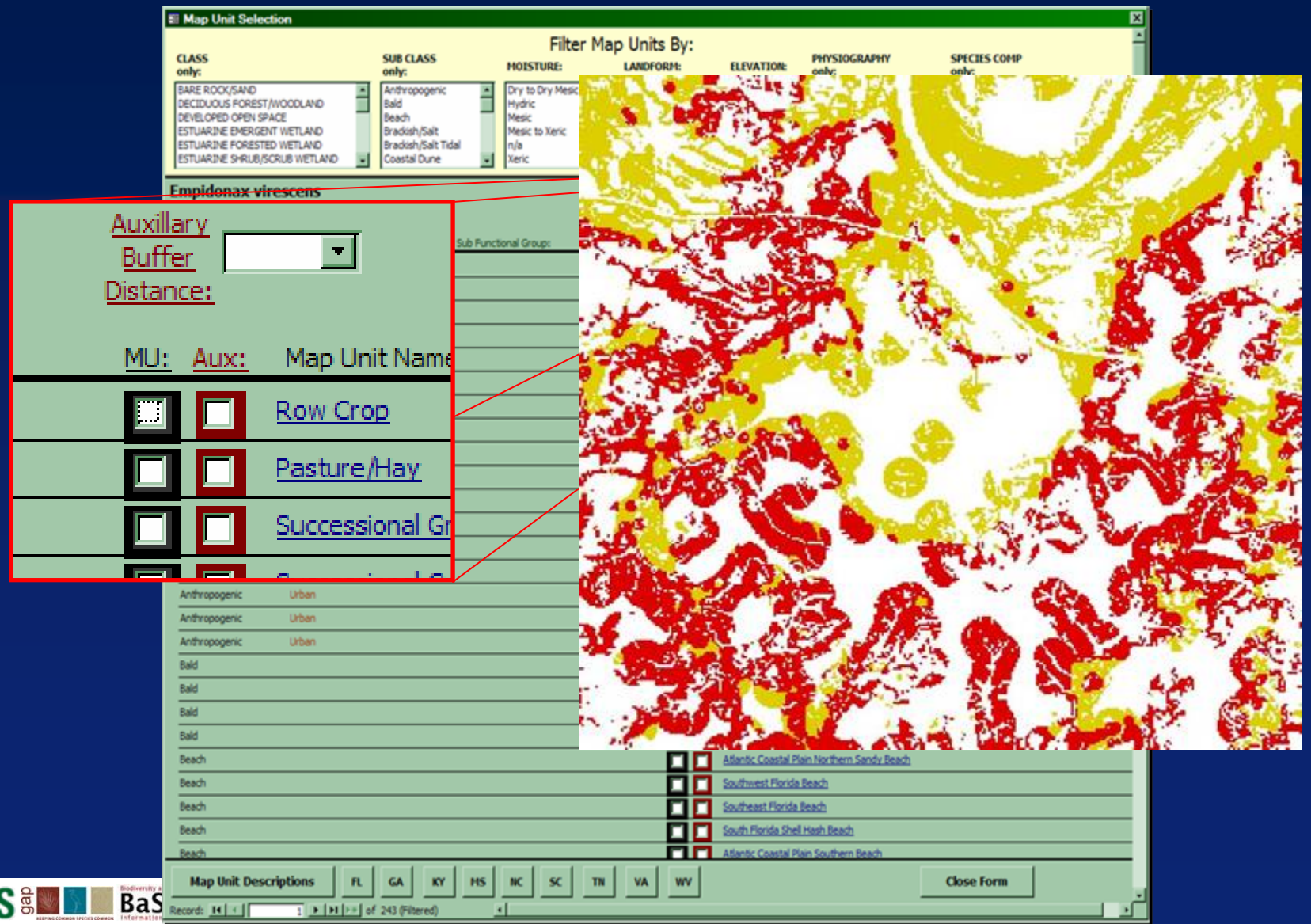
Map Unit Selection (245 types)



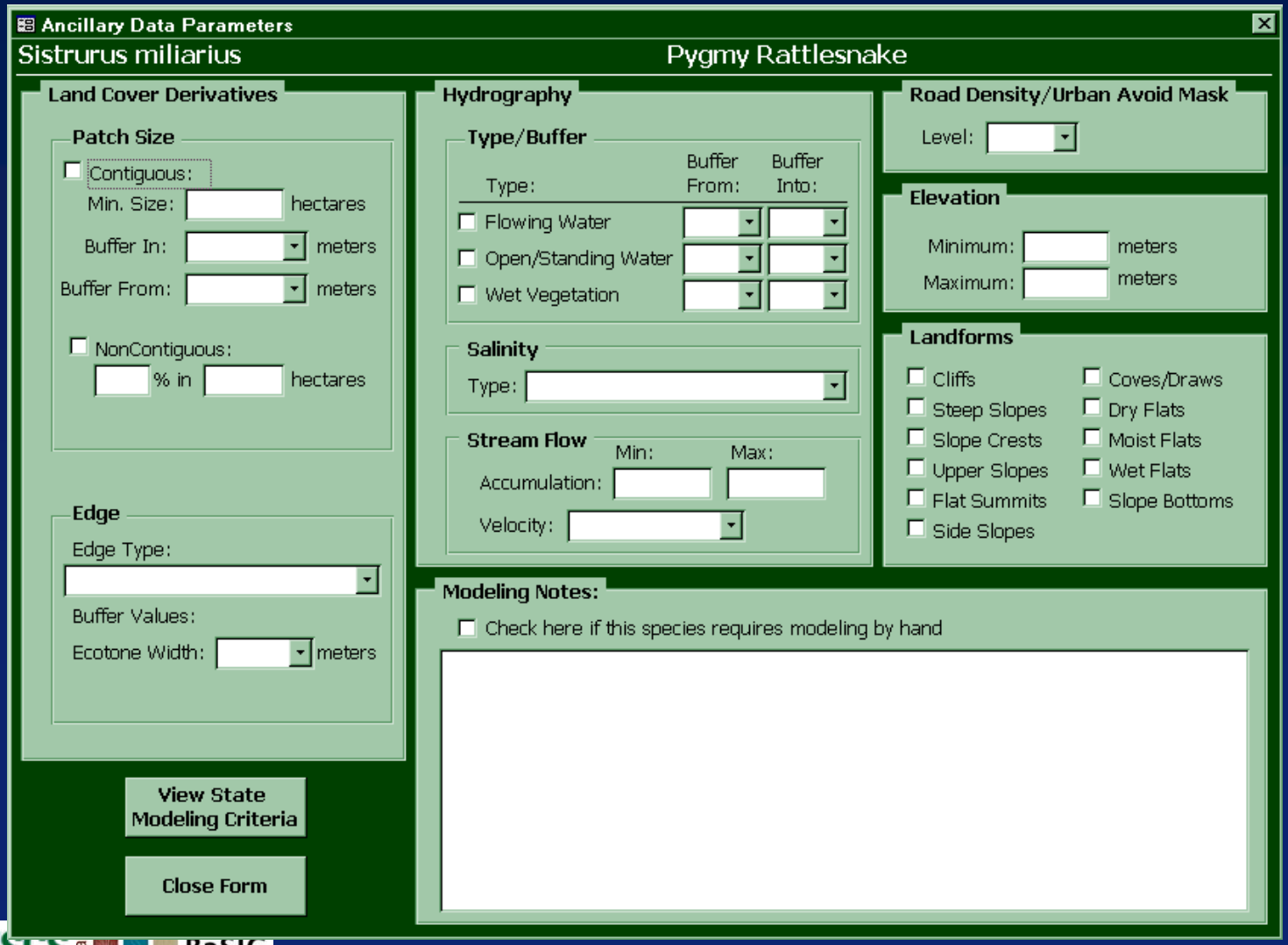
Map Unit Selection (245 types)



Map Unit Selection (245 types)



Ancillary Data Form



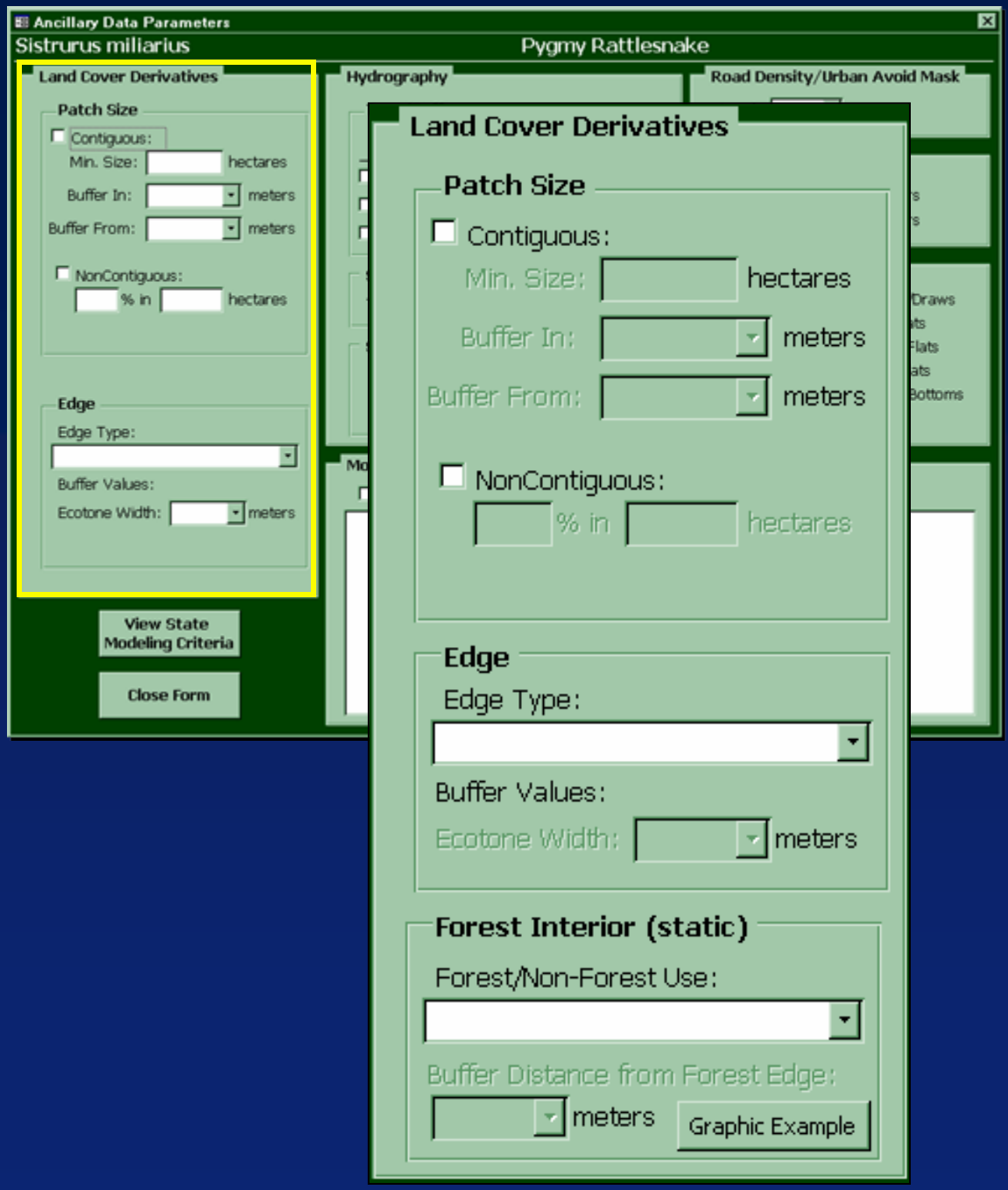
Ancillary Data Form

LAND COVER DERIVATIVES

Patch Size

Contiguous:
- Size, Buffers

NonContiguous:
- % in X area



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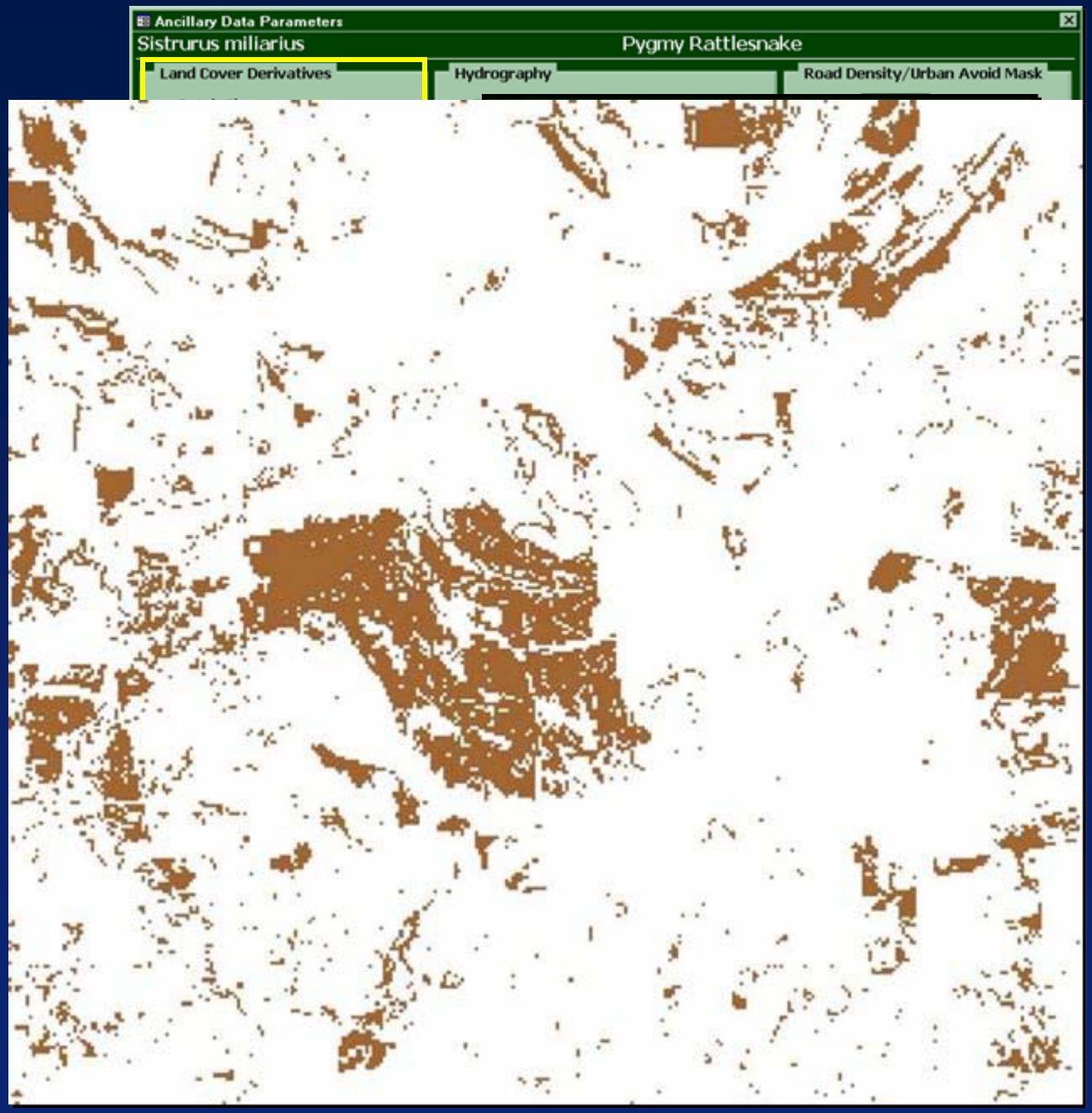


50ha minimum contiguous patch

USGS gap BaSIC Biodiversity and Spatial Information Center

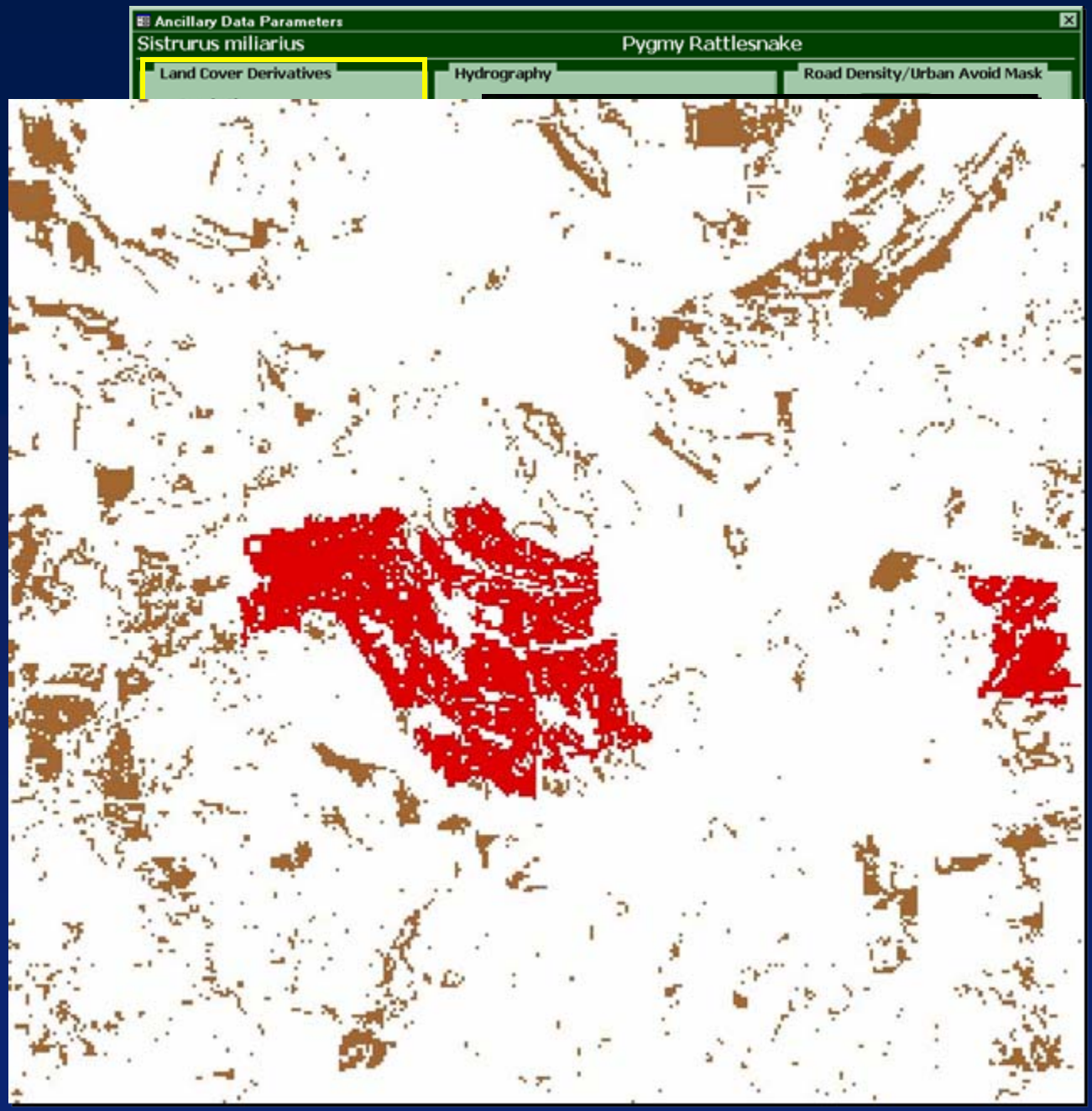
Ancillary Data Form

LAND COVER DERIVATIVES

Patch Size

Contiguous:
Size, Buffers

NonContiguous:
% in X area



50ha minimum contiguous patch

USGS gap BaSIC Biodiversity and Spatial Information Center

Ancillary Data Form

LAND COVER DERIVATIVES

Patch Size

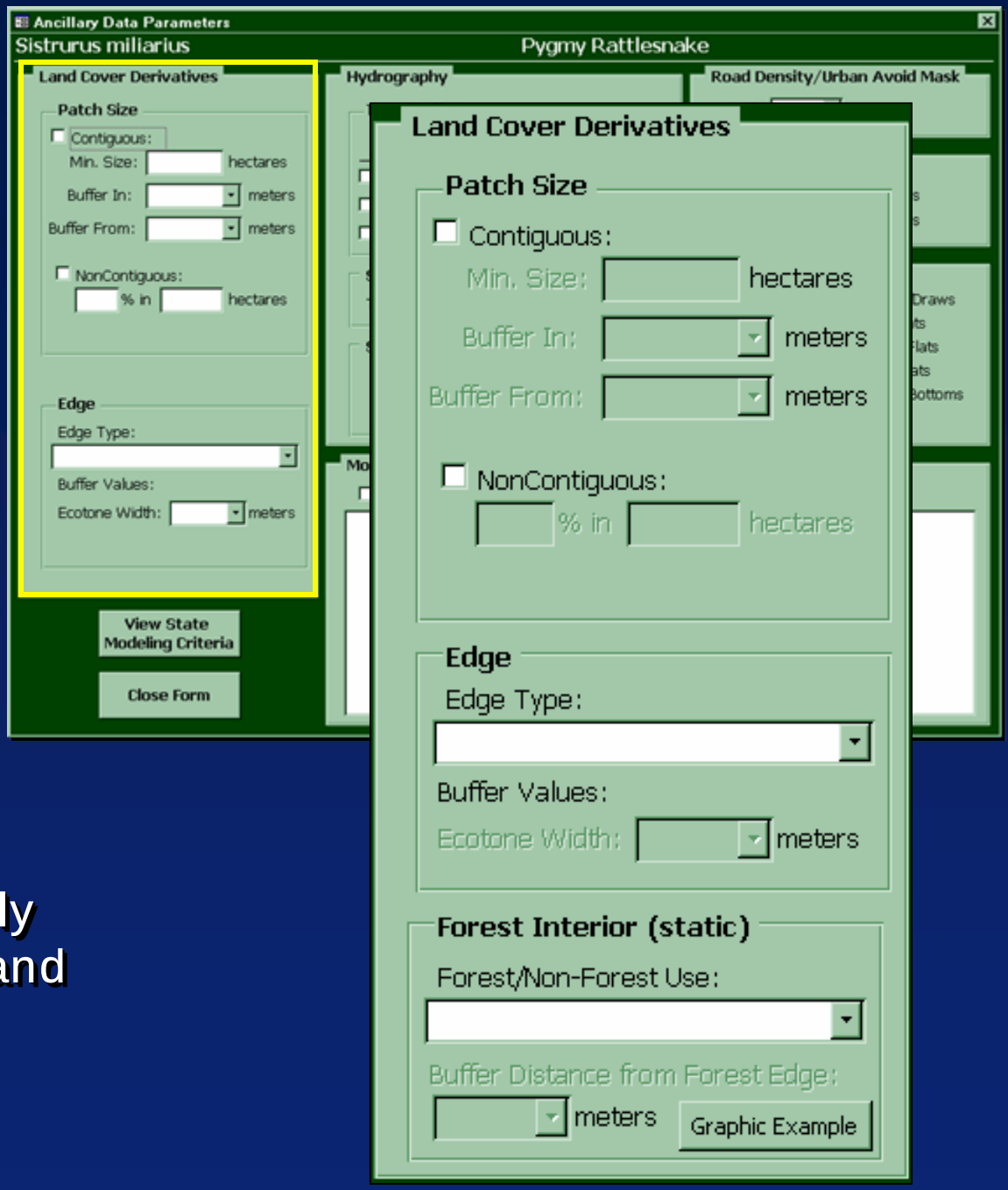
Contiguous:
- Size, Buffers

NonContiguous:
- % in X area

Edge

Edge Type:
- Forest/Open Ecotone Only
- F/O + Shrubland/Woodland

Forest Interior



Ancillary Data Form

HYDROGRAPHY

Type/Buffer

Buffer distances:

30, 60, 120, 250, 500, 1000, 2000, 4000, >4k

Salinity

Type:

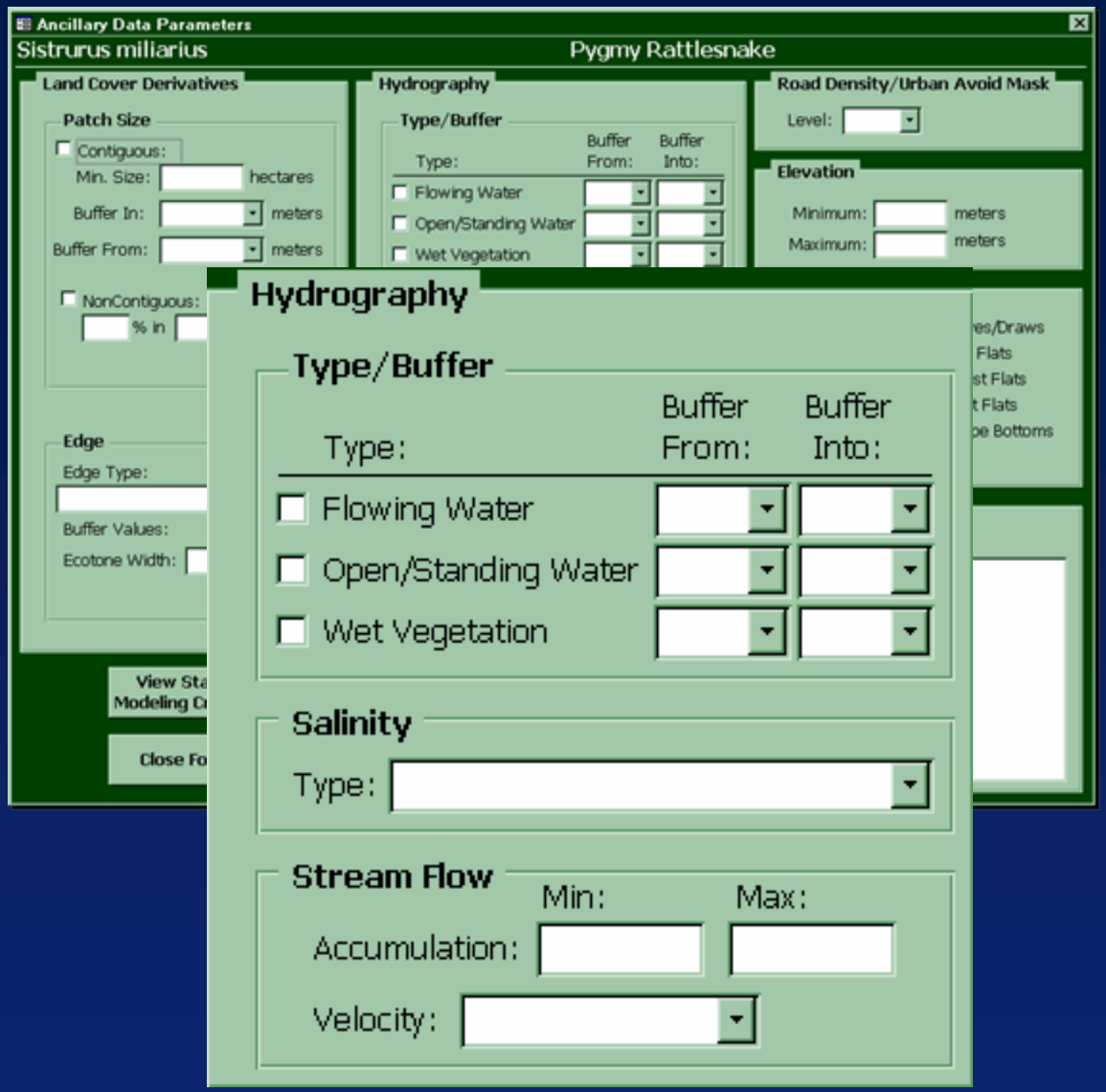
Freshwater Only

Brackish/Saltwater Only

Stream Flow

Velocity:

Fast Only, Slow Only



Ancillary Data Form

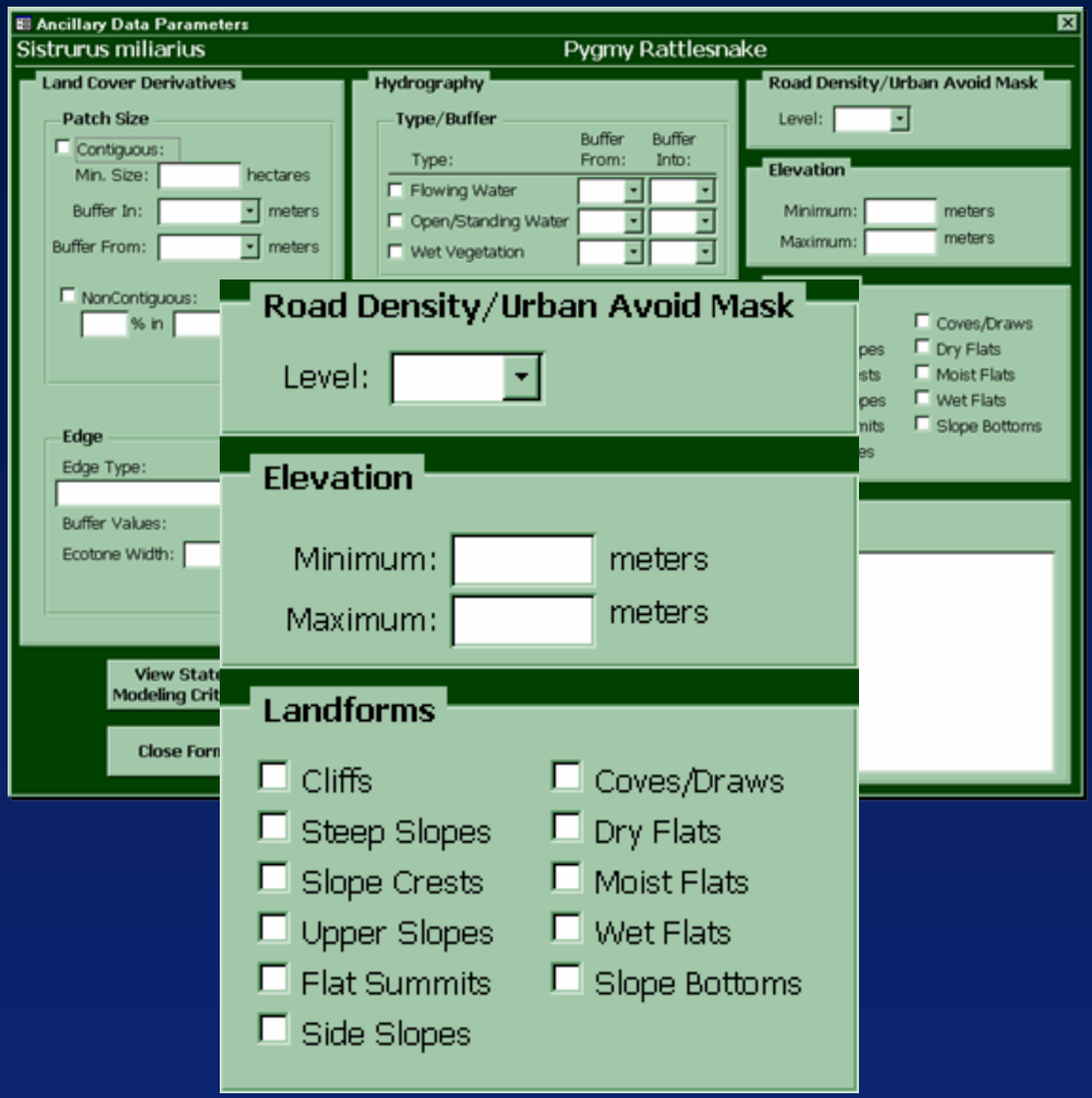
ROAD DENSITY / URBAN AVOID MASK

Level:

Low, Medium, High

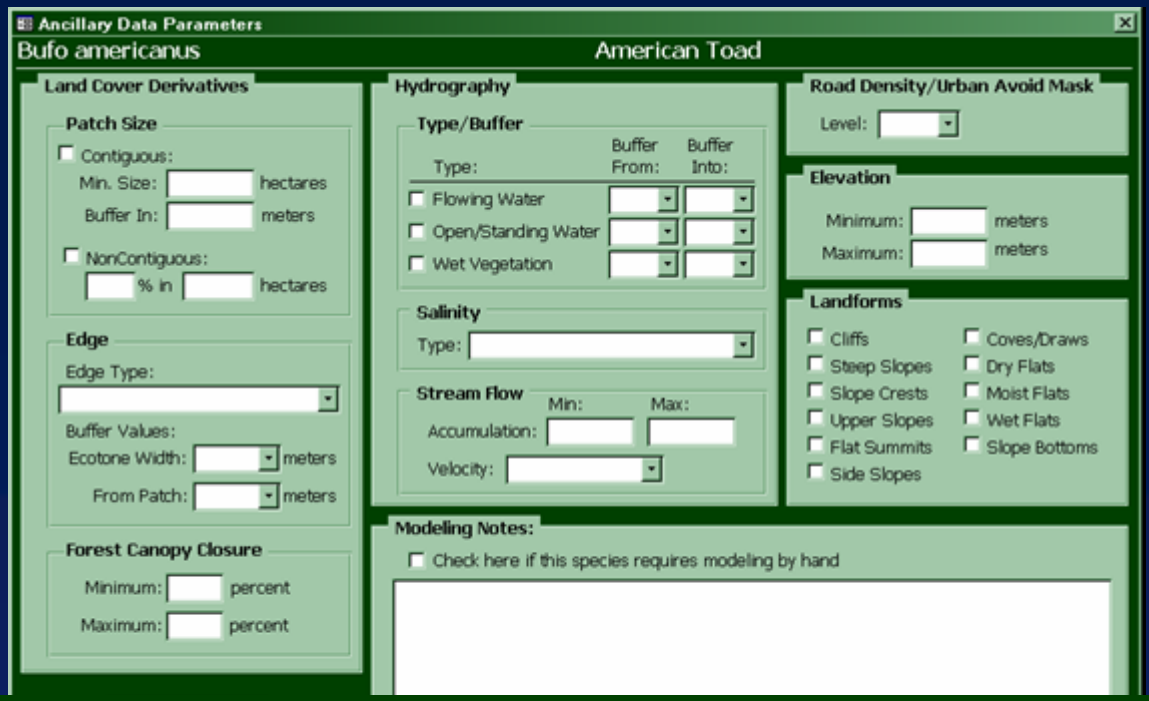
ELEVATION

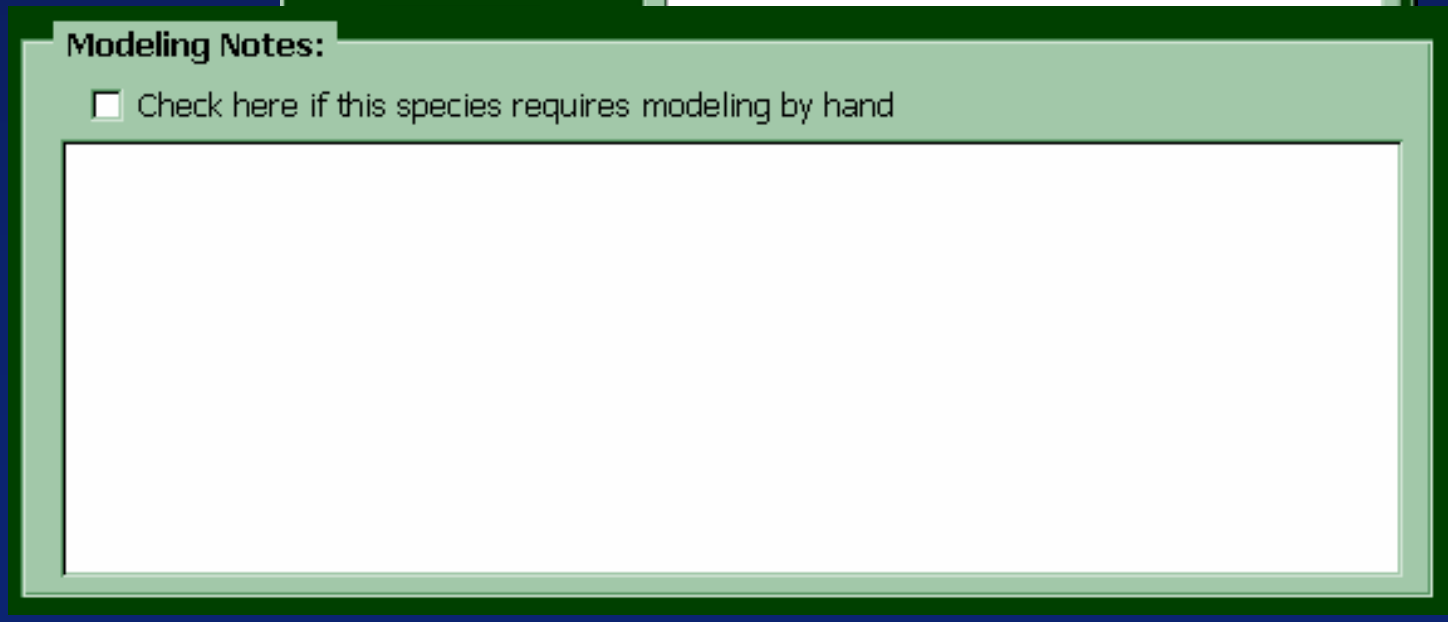
LANDFORMS



Ancillary Data Form

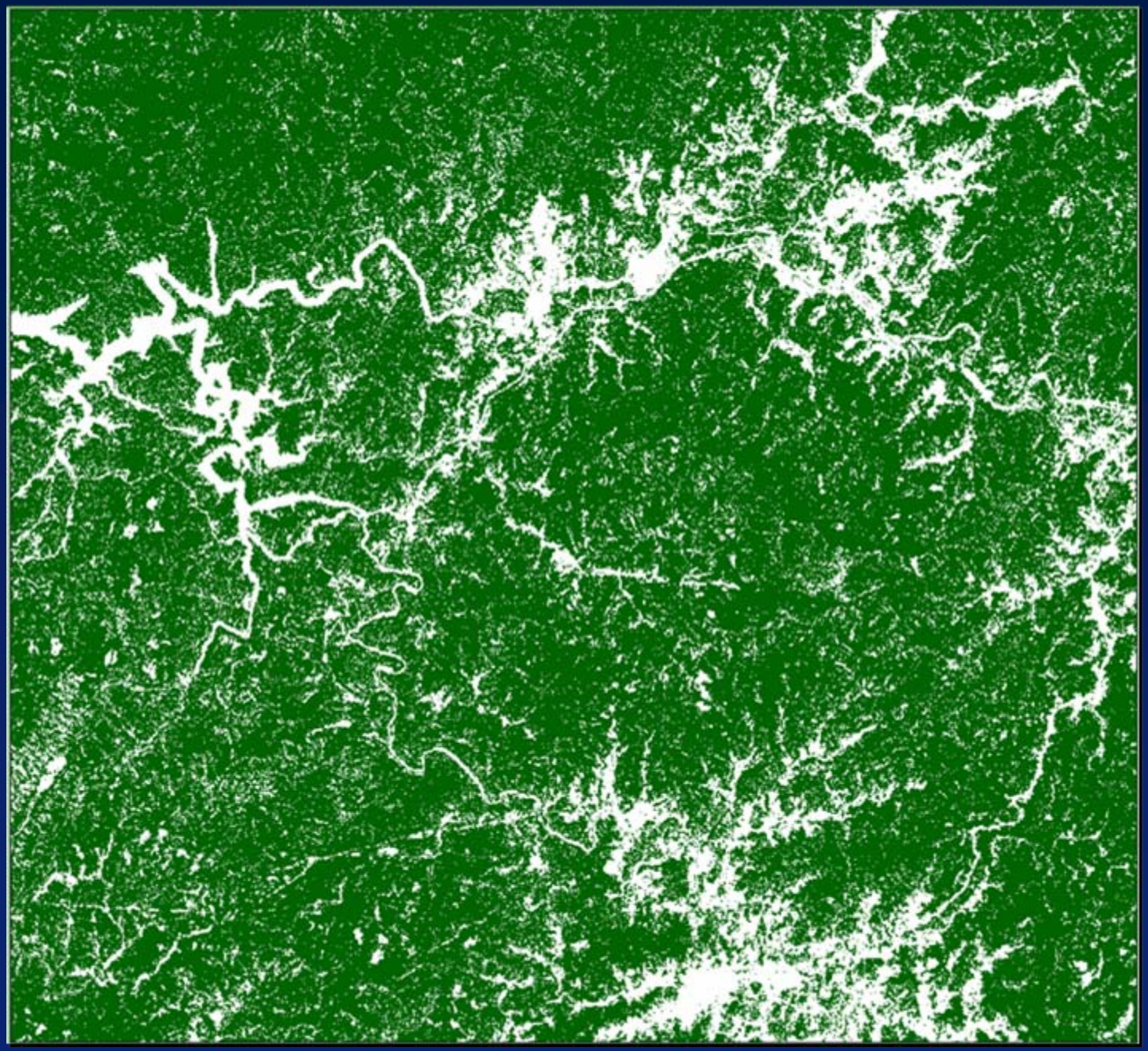
MODELING NOTES





Acadian Flycatcher
Epidonax virescens

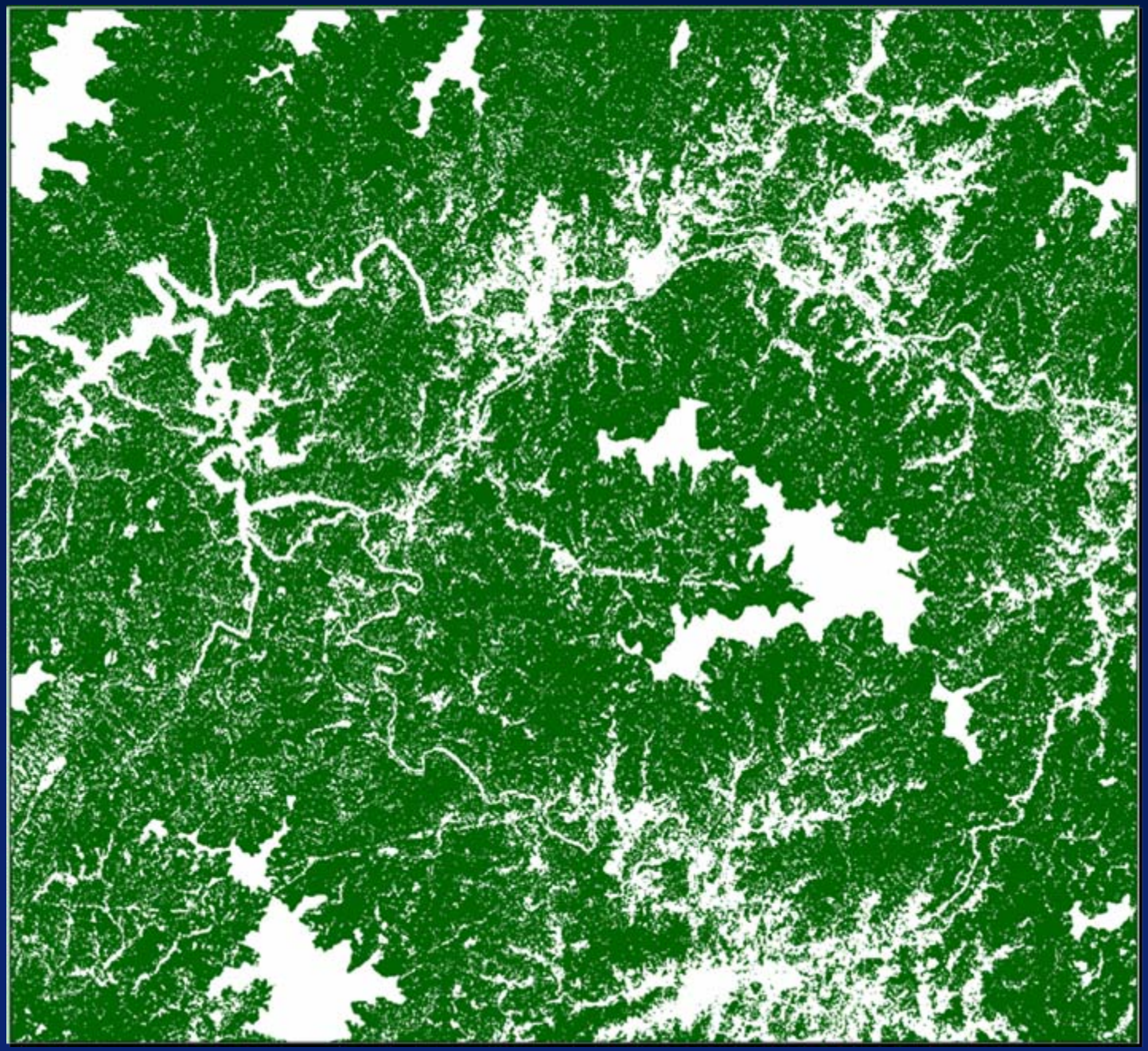
Appropriate Vegetation (forested map units)



Acadian Flycatcher
Epidonax virescens

Appropriate Vegetation (forested map units)

Elevation Mask (< 4000')



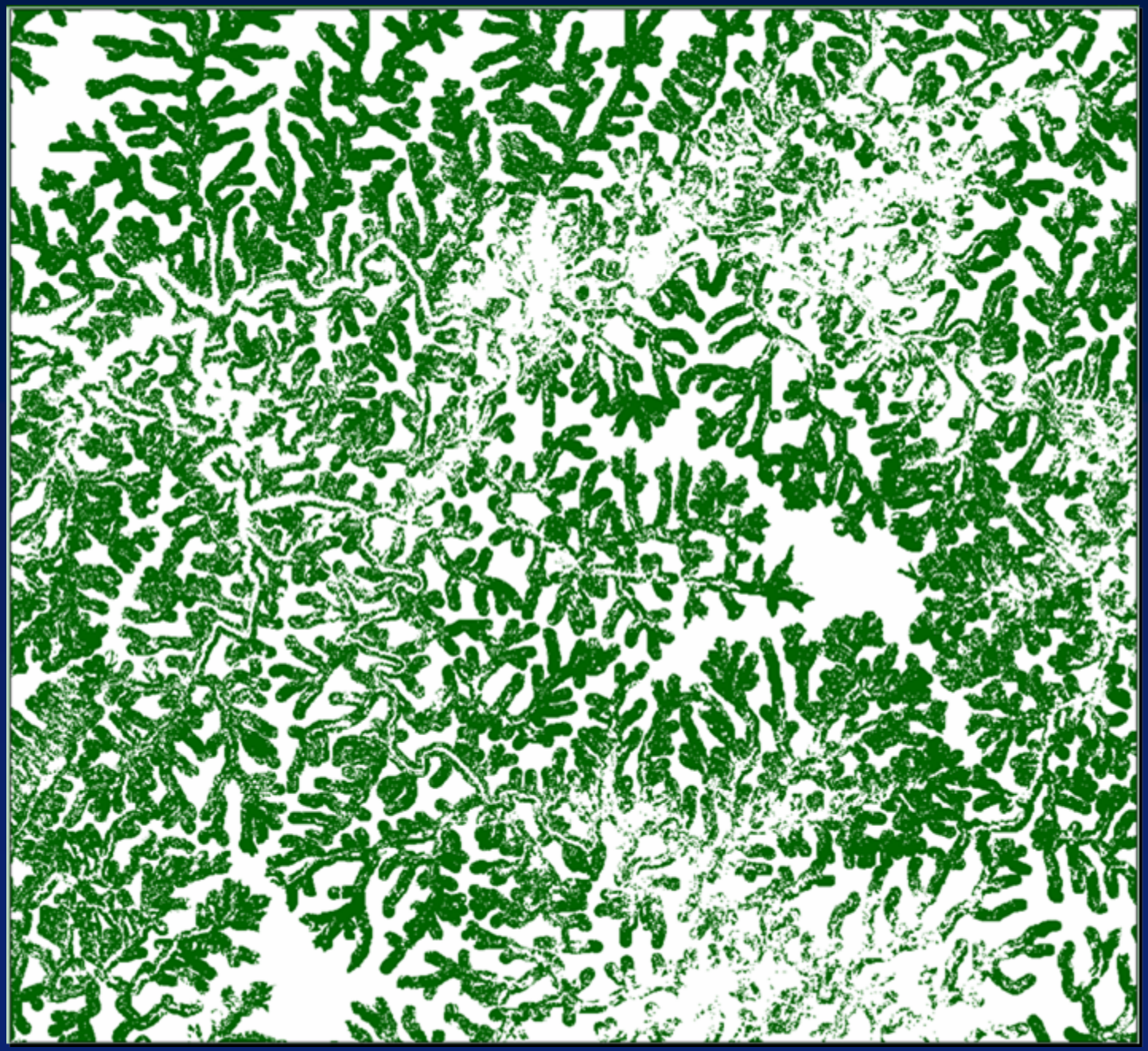
USGS gap Biodiversity and Spatial BaSIC Information Center

Acadian Flycatcher
Epidonax virescens

Appropriate Vegetation (forested map units)

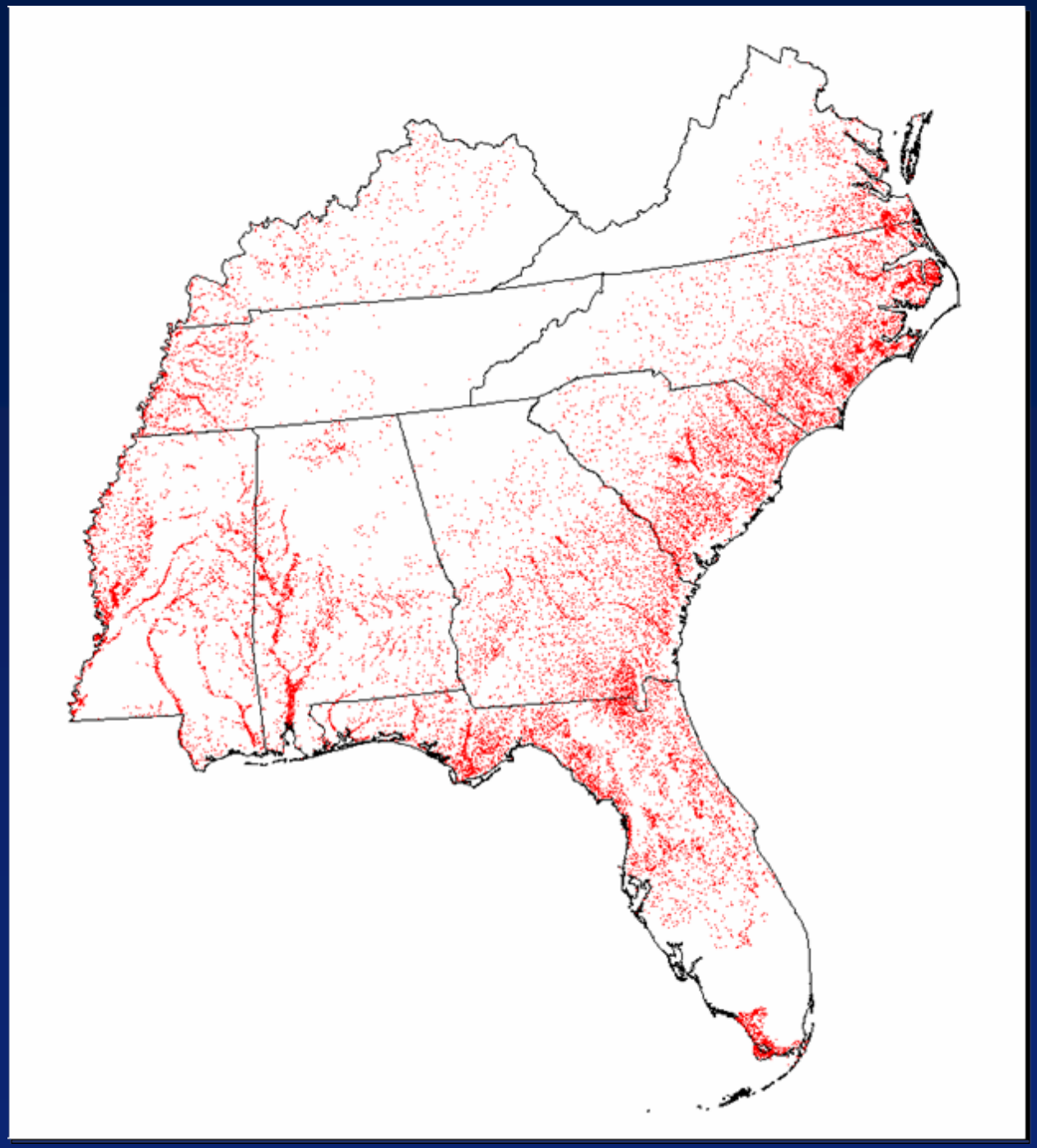
Elevation Mask (< 4000')

Proximity to Water Mask (< 200m)



USGS gap BaSIC Biodiversity and Spatial Information Center

SE-GAP Pres./Abs. Distribution Model



Prothonotary Warbler
Protonotaria citrea

USGS gap BaSIC Biodiversity and Spatial Information Center

Model Assessment

- Reviewer Agreement with model
  - Need to keep it relatively simple and concise
  - Assess major model components and overall model performance
  - Bayesian Belief Network Framework

A Priori Rankings generated by Modelers

Bayesian Belief Network Prior Confidence Level Question Form

Scientific Name: Ambystoma cingulatum

Species Code: BAFLSA

Common Name: Flatwoods Salamander

Bayesian Belief Network Prior Confidence Level Questions by SE-GAP

Confidence levels are rated 1 - 5 (Lowest - Highest)

	SE-GAP EVALUATIONS		
	MJR	ALS	SE-GAP
1) Rate your level of agreement with the identified geographic range	4	4	4
2) Rate your level of agreement that there is ample literature available describing the appropriate habitat for the species within the region	5	5	5
3) Rate your level of agreement in the identified habitat relationship (model) parameters	4	4	4
4) Rate your level of agreement in the available spatial data representing appropriate habitat parameters for the species within the region	4	4	4
5) Rate your level of agreement in the predicted distribution performance	4	4	4
Date of Evaluation:	6/19/2007	6/7/2007	6/7/2007

MJR Comments:

1) known range is gerneralized
3) missing detailed soils
4) detailed soils not in data sets

ALS Comments:

Agree, with Matt. May be some over prediction because of land cover and not being able to limit to wiregrass or vernal pools.

SE-GAP Overall Comments:

Record: 1 of 1 (Filtered)

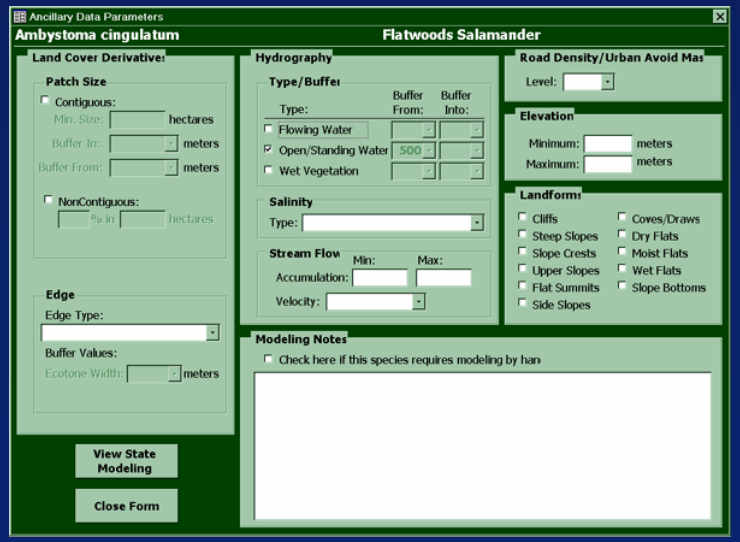
USGS gap BaSIC

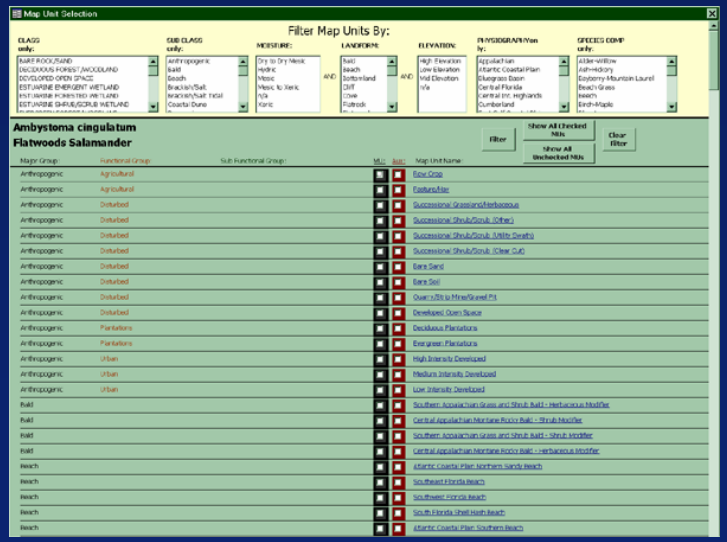
Reviewer Agreement with Model

1. The light green shaded area is an accurate representation of the known range extent of this species.

Reviewer Agreement with Model

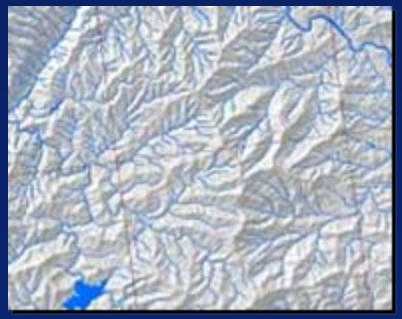
1. The light green shaded area is an accurate representation of the known range extent of this species.
2. The parameters used to model the predicted distribution of this species accurately represent its habitat requirements in the southeastern United States.





Reviewer Agreement with Model

1. The light green shaded area is an accurate representation of the known range extent of this species.
2. The parameters used to model the predicted distribution of this species accurately represent its habitat requirements in the southeastern United States.
3. The spatial data adequately represent the species' habitat requirements.

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3. The spatial data adequately represent the species' habitat requirements.
4. The red pixels on the map adequately represent the distribution of this species' habitat within the identified range extent.

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3. The spatial data adequately represent the species' habitat requirements.
4. The red pixels on the map adequately represent the distribution of this species' habitat within the identified range extent.
5. The published literature adequately documents the breeding habitat requirements for this species in the southeastern United States.

Reviewer Agreement with Model

1. The light green shaded area is an accurate representation of the known range extent of this species.
2. The parameters used to model the predicted distribution of this species accurately represent its habitat requirements in the southeastern United States.
3. The spatial data adequately represent the species' habitat requirements.
4. The red pixels on the map adequately represent the distribution of this species' habitat within the identified range extent.
5. The published literature adequately documents the breeding habitat requirements for this species in the southeastern United States.
6. I am an expert in the natural history of this species.

Bayesian Belief Network