

# SOUTHEAST GAP ANALYSIS PROJECT



## Species Modeling Report

### Acadian Flycatcher

*Empidonax virescens*

Taxa: Avian

Order: Passeriformes

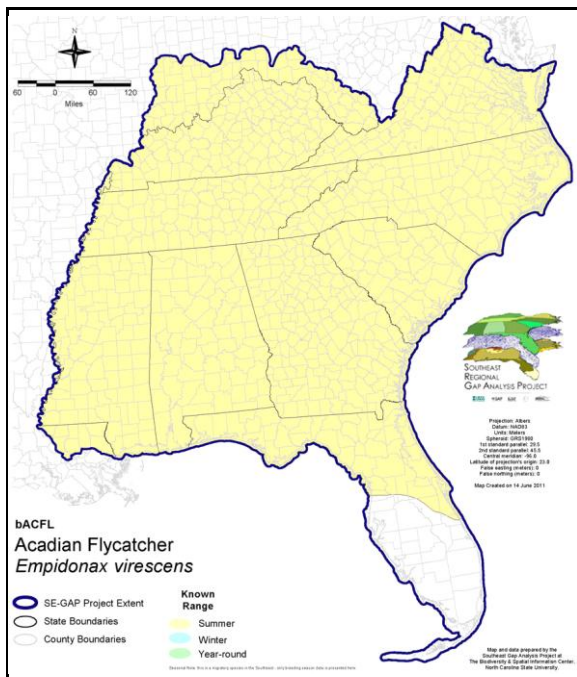
Family: Tyrannidae

SE-GAP Spp Code: **bACFL**

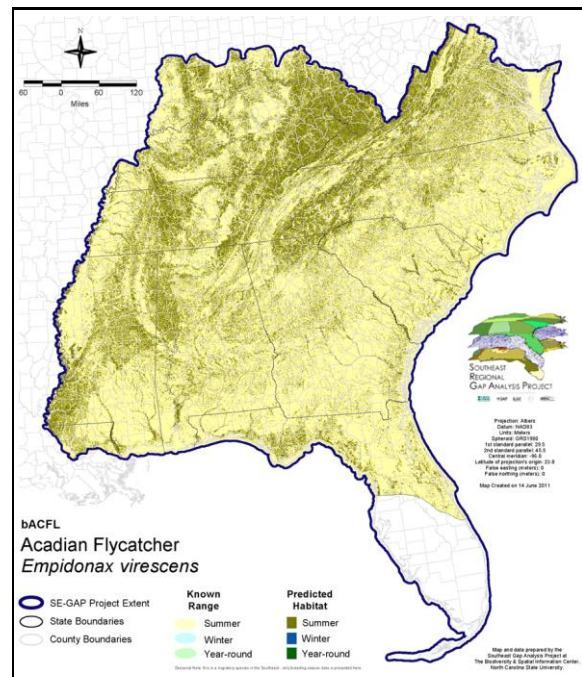
ITIS Species Code: 178339

NatureServe Element Code: ABPAE33020

#### KNOWN RANGE:



#### PREDICTED HABITAT:



Range Map Link: [http://www.basic.ncsu.edu/segap/datazip/maps/SE\\_Range\\_bACFL.pdf](http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_bACFL.pdf)

Predicted Habitat Map Link: [http://www.basic.ncsu.edu/segap/datazip/maps/SE\\_Dist\\_bACFL.pdf](http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_bACFL.pdf)

GAP Online Tool Link: <http://www.gapservice.ncsu.edu/segap/segap/index2.php?species=bACFL>

Data Download: [http://www.basic.ncsu.edu/segap/datazip/region/vert/bACFL\\_se00.zip](http://www.basic.ncsu.edu/segap/datazip/region/vert/bACFL_se00.zip)

#### PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: KY (N), MN (SPC), NJ (INC/S), NY (PB), RI (Concern), WI (THR), WI (THR), BC (8 (2005)), ON (END), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AL (S5B), AR (S4B), AZ (SNA), CT (S4B), CT (S4B), DE (S5B), FL (SNRB), GA (S5), IA (S3B,S3N), IL (S5), IN (S4B), KS (S3B), KY (S5B), LA (S5B), MA (S2B), MD (S5B), ME (SNA), MI (S3S4), MN (S3B), MO (SNRB), MS (S5B), MS (S5B), NC (S5B), NC (S5B), NE (S4), NH (SNA), NJ (S4B), NM (SNA), NY (S3), OH (S5), OK (S4B), PA (S5B), RI (S1B,S1N), SC (S4), SD (SH), TN (S5), TX (S4S5B), VA (S5), WI (S3B), WI (S3B), WV (S5B), BC (SNA), MB (SNA), NB (SNA), NS (SNA), ON (S2S3B), QC (SNA), SK (SNA)

**SUMMARY OF PREDICTED HABITAT BY MANAGMENT AND GAP PROTECTION STATUS:**

	US FWS		US Forest Service		Tenn. Valley Author.		US DOD/ACOE	
	ha	%	ha	%	ha	%	ha	%
Status 1	61,059.7	< 1	28,286.0	< 1	0.0	0	0.0	0
Status 2	119,390.9	< 1	313,331.8	1	0.0	0	3,380.0	< 1
Status 3	2,617.9	< 1	1,726,976.5	6	25,346.8	< 1	219,826.4	< 1
Status 4	32.9	< 1	0.0	0	0.0	0	0.0	0
Total	183,101.4	< 1	2,068,594.3	7	25,346.8	< 1	223,206.5	< 1
	US Dept. of Energy		US Nat. Park Service		NOAA		Other Federal Lands	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	203,561.0	< 1	0.0	0	2,971.5	< 1
Status 2	0.0	0	10,937.2	< 1	1,122.8	< 1	0.0	0
Status 3	22,324.0	< 1	80,125.5	< 1	0.0	0	2,473.7	< 1
Status 4	0.0	0	0.0	0	0.0	0	0.0	0
Total	22,324.0	< 1	294,623.6	< 1	1,122.8	< 1	5,445.2	< 1
	Native Am. Reserv.		State Park/Hist. Park		State WMA/Gameland		State Forest	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	1,020.0	< 1	70.1	< 1	0.0	0
Status 2	0.0	0	15,193.8	< 1	471,637.4	2	1,343.2	< 1
Status 3	18,629.8	< 1	240,278.1	< 1	141,710.2	< 1	96,789.1	< 1
Status 4	0.0	0	< 0.1	< 1	45,950.9	< 1	3.9	< 1
Total	18,629.8	< 1	256,492.0	< 1	659,368.7	2	98,136.1	< 1
	State Coastal Reserve		ST Nat.Area/Preserve		Other State Lands		Private Cons. Easemt.	
	ha	%	ha	%	ha	%	ha	%
Status 1	0.0	0	12,335.4	< 1	0.0	0	0.0	0
Status 2	5,623.5	< 1	66,159.5	< 1	< 0.1	< 1	1,135.8	< 1
Status 3	0.0	0	11,700.0	< 1	4,320.3	< 1	44,649.8	< 1
Status 4	0.0	0	2.1	< 1	1,451.8	< 1	0.0	0
Total	5,623.5	< 1	90,196.9	< 1	5,772.2	< 1	45,785.6	< 1
	Private Land - No Res.		Water		Overall Total			
	ha	%	ha	%	ha	%		
Status 1	0.0	0	0.0	0	309,303.7	1		
Status 2	0.0	0	0.0	0	1,009,256.0	3		
Status 3	453.2	< 1	0.0	0	2,638,221.2	14		
Status 4	24,557,668.9	81	4,743.2	< 1	24,655,771.8	81		
Total	24,558,122.1	81	4,743.2	< 1	28,612,552.7	100		

GAP Status 1: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, and intensity) are allowed to proceed without interference or are mimicked through management.

GAP Status 2: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive use or management practices that degrade the quality of existing natural communities.

GAP Status 3: An area having permanent protection from conversion of natural land cover for the majority of the area, but subject to extractive uses of either a broad, low-intensity type or localized intense type. It also confers protection to federally listed endangered and threatened species throughout the area.

GAP Status 4: Lack of irrevocable easement or mandate to prevent conversion of natural habitat types to anthropogenic habitat types. Allows for intensive use throughout the tract. Also includes those tracts for which the existence of such restrictions or sufficient information to establish a higher status is unknown.

**PREDICTED HABITAT MODEL(S):**

**Summer Model:**

Habitat Description: Vegetation types for the southeastern U.S. from Hamel et al. (1982), in order of suitability, are: oak-gum-cypress and elm-ash-cottonwood are listed as optimal habitat at both the sapling-poletimber, and sawtimber stages; cove hardwoods are listed as suitable at the sapling-poletimber stage and optimal at the sawtimber stage; southern mixed mesic hardwoods are listed as only marginal at the sapling-poletimber stage and optimal at the sawtimber stage; bay swamp-pocosin, oak-hickory, and white pine-hemlock are all listed as only marginal at the sapling-poletimber stage and suitable at the sawtimber stage; mixed pine-hardwood is listed as only marginal at both the sapling-poletimber and sawtimber stages. In all cases, midstory and overstory canopy are used for all activities (feeding/foraging, nesting, perching, roosting, and singing) and dead trees or limbs are used for feeding/foraging and singing. Requires a tall canopy and prefers deciduous trees, especially oak, beech, and hornbeam (Anderson et al 1981). Occurs throughout North Carolina except in the mountains above 4,000 ft. (Hamel 1992, Potter et al 1980). Most abundant in mature oak-gum-cypress and oak-pine stands throughout the southeast (Barry et al 1995). Will breed in dry habitats, although favors wet deciduous forests, such as swamps, riverside woods, floodplain forest, and streamside woods (Fussell 1994, Hamel 1992, Kaufman 1996, Potter et al 1980, Simpson 1992). Also prefers forests with a moderate understory (Hamel 1992).

This flycatcher forages from a perch in the middle level of the forest, mainly hawking insects, although will glean from foliage and twigs as well (Kaufman 1996).

Nest is usually in a deciduous tree or shrub and averages 13 ft. above ground (Kaufman 1996). If in a tree, the nest is generally in lower branches and far out on the limb from the trunk (Harrison 1975).

Regarding spatial habitat characteristics, Acadian flycatchers are a forest interior nesting species. Needs extensive woodlands, is absent or in reduced numbers in isolated woodlots of less than 40 Ha (Anderson-AL). Occurrence increases with tracts above 7500 acres (AL). Probability of occurrence is a maximum with tract greater than 3000 Ha (Robbins -AL). Requires a high dense canopy and an open understory (Bushman and Therres 1988). Tends to be scarce or absent in small forest tracts, unless the tract is near a larger forested area (see Bushman and Therres 1988). Floodplain forests must be more than 400-500 feet wide before they become suitable for nesting (Peterjohn and Rice 1991).

Quoted directly from existing state habitat notes - K. Cook, 17Feb05

Elevation Mask: < 1219m

Hydrography Mask:

Utilizes flowing water features with buffer of 500m from selected water features.

Contiguous with vegetation features (mesic with) buffer of unlimited into selected vegetation features.

**Selected Map Units:**

Functional Group	Map Unit Name
Anthropogenic	Deciduous Plantations
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland
Forest/Woodland	Allegheny-Cumberland Dry Oak Forest and Woodland - Hardwood Modifier
Forest/Woodland	Appalachian Hemlock-Hardwood Forest
Forest/Woodland	Atlantic Coastal Plain Dry and Dry-Mesic Oak Forest
Forest/Woodland	Atlantic Coastal Plain Fall-line Sandhills Longleaf Pine Woodland - Offsite Hardwood Modifier
Forest/Woodland	Atlantic Coastal Plain Mesic Hardwood and Mixed Forest
Forest/Woodland	Atlantic Coastal Plain Northern Mixed Oak-Heath Forest
Forest/Woodland	Central Appalachian Oak and Pine Forest
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Hardwood Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Shortleaf Pine-Oak Forest - Mixed Modifier
Forest/Woodland	East Gulf Coastal Plain Interior Upland Longleaf Pine Woodland - Offsite Hardwood Modifier
Forest/Woodland	East Gulf Coastal Plain Limestone Forest
Forest/Woodland	East Gulf Coastal Plain Northern Dry Upland Hardwood Forest
Forest/Woodland	East Gulf Coastal Plain Northern Loess Bluff Forest
Forest/Woodland	East Gulf Coastal Plain Northern Loess Plain Oak-Hickory Upland - Hardwood Modifier
Forest/Woodland	East Gulf Coastal Plain Northern Mesic Hardwood Forest

Forest/Woodland	East Gulf Coastal Plain Southern Loess Bluff Forest
Forest/Woodland	East Gulf Coastal Plain Southern Mesic Slope Forest
Forest/Woodland	Northeastern Interior Dry Oak Forest - Mixed Modifier
Forest/Woodland	Northeastern Interior Dry Oak Forest-Hardwood Modifier
Forest/Woodland	Northern Atlantic Coastal Plain Dry Hardwood Forest
Forest/Woodland	South-Central Interior Mesophytic Forest
Forest/Woodland	Southern and Central Appalachian Cove Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest
Forest/Woodland	Southern and Central Appalachian Oak Forest - Xeric
Forest/Woodland	Southern Coastal Plain Dry Upland Hardwood Forest
Forest/Woodland	Southern Coastal Plain Oak Dome and Hammock
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest
Forest/Woodland	Southern Interior Low Plateau Dry-Mesic Oak Forest - Evergreen Modifier
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-(Pine) Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Hardwood Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Mixed Modifier
Forest/Woodland	Southern Piedmont Dry Oak-Heath Forest - Virginia/Pitch Pine Modifier
Forest/Woodland	Southern Piedmont Mafic Hardpan Woodland
Forest/Woodland	Southern Piedmont Mesic Forest
Forest/Woodland	Southern Piedmont Northern Triassic Basin Dry Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest
Forest/Woodland	Southern Ridge and Valley Dry Calcareous Forest - Hardwood Modifier
Wetlands	Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Forest Modifier
Wetlands	Atlantic Coastal Plain Brownwater Stream Floodplain Forest
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Forested Wetland
Wetlands	Atlantic Coastal Plain Clay-Based Carolina Bay Herbaceous Wetland
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Taxodium/Nyssa Modifier
Wetlands	Atlantic Coastal Plain Nonriverine Swamp and Wet Hardwood Forest - Oak Dominated Modifier
Wetlands	Atlantic Coastal Plain Northern Basin Peat Swamp
Wetlands	Atlantic Coastal Plain Northern Basin Swamp and Wet Hardwood Forest
Wetlands	Atlantic Coastal Plain Small Blackwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Small Brownwater River Floodplain Forest
Wetlands	Atlantic Coastal Plain Streamhead Seepage Swamp, Pocosin, and Baygall
Wetlands	Central Appalachian Floodplain - Forest Modifier
Wetlands	Central Appalachian Riparian - Forest Modifier
Wetlands	East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Open Understory Modifier
Wetlands	East Gulf Coastal Plain Jackson Plain Dry Flatwoods - Scrub/Shrub Understory Modifier
Wetlands	East Gulf Coastal Plain Large River Floodplain Forest - Forest Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Offsite Hardwood Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Open Understory Modifier
Wetlands	East Gulf Coastal Plain Near-Coast Pine Flatwoods - Scrub/Shrub Understory Modifier
Wetlands	East Gulf Coastal Plain Northern Seepage Swamp
Wetlands	East Gulf Coastal Plain Small Stream and River Floodplain Forest
Wetlands	East Gulf Coastal Plain Southern Loblolly-Hardwood Flatwoods
Wetlands	Lower Mississippi River Bottomland and Floodplain Forest
Wetlands	Lower Mississippi River Bottomland Depressions - Forest Modifier
Wetlands	Mississippi River Low Floodplain (Bottomland) Forest
Wetlands	Mississippi River Riparian Forest
Wetlands	North-Central Appalachian Acidic Swamp
Wetlands	North-Central Interior and Appalachian Rich Swamp
Wetlands	South-Central Interior Large Floodplain - Forest Modifier
Wetlands	South-Central Interior Small Stream and Riparian
Wetlands	South-Central Interior/Upper Coastal Plain Wet Flatwoods
Wetlands	Southern Appalachian Seepage Wetland
Wetlands	Southern Coastal Plain Blackwater River Floodplain Forest

Wetlands	Southern Coastal Plain Hydric Hammock
Wetlands	Southern Coastal Plain Nonriverine Basin Swamp
Wetlands	Southern Coastal Plain Nonriverine Cypress Dome
Wetlands	Southern Coastal Plain Seepage Swamp and Baygall
Wetlands	Southern Piedmont Large Floodplain Forest - Forest Modifier
Wetlands	Southern Piedmont Seepage Wetland
Wetlands	Southern Piedmont Small Floodplain and Riparian Forest
Wetlands	Southern Piedmont/Ridge and Valley Upland Depression Swamp

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