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Natural Resource Program Center

An Evaluation of Biological Inventory Data Collected at Kings Mountain National Military Park

Vertebrate and Vascular Plant Inventories

Natural Resource Report NPS/CUPN/NRR—2009/165

ON THE COVER

Clockwise beginning top left: American beaver (*Castor Canadensis*) in Kings Creek area, eastern painted turtle (*Chrysemys picta*) from KIMO, researchers conducting fish inventory at KIMO, and an eastern red bat (*Lasiurus borealis*) captured on South Fire Road.

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Bill Moore
Ecologist/Data Manager
Cumberland Piedmont Network
National Park Service
P.O. Box 8
Mammoth Cave, KY 42259

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Abstract

An important function of the National Park Service (NPS) is protecting and maintaining the biological diversity found within parks. In an effort to assist parks in documenting vascular plants and vertebrates, the NPS Inventory and Monitoring Program (I&M) provided funding and technical assistance through its 32 I&M Networks. Kings Mountain National Military Park (KIMO) is within the Cumberland Piedmont Network (CUPN). In cooperation with KIMO, CUPN compiled existing information on vertebrates and vascular plants (i.e., species lists with related attribute and spatial data) and initiated additional field investigations in an effort to document 90% of the species of vertebrates (amphibians, birds, fish, mammals and reptiles) and vascular plants believed to occur on KIMO. All data were entered and certified in NPSpecies, the NPS master database for documenting the occurrence and status of species.

Based on the number of organisms categorized as Present in Park (i.e., documented) and Probably Present (high confidence of occurrence in park but undocumented), 85% of KIMO's vertebrates and vascular plants are documented. While this is slightly lower than the I&M goal, it is apparent that substantial gains have been made in documenting vertebrates and vascular plants on KIMO. At the same time, it is anticipated that additional survey efforts will result in an increase in the number of organisms documented on KIMO. Some opportunities are noted within this report. Inventory results are also briefly discussed within the context of long-term monitoring and management.

The Dwarf-flower heartleaf (*Hexastylis naniflora*) is the only organism on KIMO's local list that is currently federally listed. However, its status on the park is Unconfirmed, meaning there are no known records of it's occurrence within KIMO. The Georgia Aster (*Symphyotrichum georgianum)* is currently classified as a candidate for federal listing. KIMO has fewer non-native vascular plants (60) and high ranking invasives (8) than any other CUPN park. Still, aggressive non-natives are arguably the biggest single threat to the overall ecological health of the park.

Introduction

As part of the National Park Service's (NPS) effort to "improve park management through greater reliance on scientific knowledge," a primary role of the Inventory and Monitoring (I&M) Program is to collect, organize, and make available natural resource data and to contribute to the Service's institutional knowledge by facilitating the transformation of data into information through analysis, synthesis, and modeling. In pursuit of that endeavor, the I&M Program's Cumberland Piedmont Network (CUPN) recently completed multiple efforts to inventory the vertebrate species and vascular plants at Kings Mountain National Military Park (KIMO). These efforts included cataloging all existing data, followed up by additional field investigations. The primary goal of these efforts was to document 90% of the vertebrate and vascular plant species occurring in the park. This report provides a summary of results. Results are also briefly discussed within the context of future inventory efforts, long-term monitoring, and management.

A natural resource **inventory** is an extensive point-in-time effort to determine location or condition of a resource, including the presence, class, distribution, and status of plants, animals, and abiotic components such as water, soils, landforms, and climate. **Monitoring** differs from inventory in adding the dimension of time, and the general purpose of monitoring is to detect changes or trends in a resource.

Methods

Prior to the initiation of any field investigation, an effort was made to assemble extant data on species occurrence at KIMO. This included searches of reference databases and vouchers, as well as a site visit to the park (Nichols et al. 2000). Based on the limited findings, inventories for vertebrate and vascular plant groups at KIMO were determined to be incomplete or lacking. As such, inventories of birds (Rogers 2006), fish (Scott 2006), mammals (Fields 2005; Loeb 2007), amphibians and reptiles (Reed and Gibbons 2005), and vascular plants (White and Govus 2005) were conducted on the park.

Recent inventory reports for KIMO are available on the CUPN Intranet website http://www1.nrintra.nps.gov/im/units/CUPN/

NPSpecies is the National Park Service's master database for documenting the occurrence and status of species in more than 270 national park units containing significant natural resources. Data gathered from the initial reviews at KIMO and recent inventories were organized and entered in NPSpecies. Organism names were linked to the available evidence (reference, observation and/or voucher), quality checked, and made ready for a review by individuals with expertise in the various taxa groups. The purpose of these reviews was to assign a park status (e.g., Present in Park, Probably Present, False Report, etc.) and complete a series of checklist fields for each organism (i.e., abundance, residency, nativity and cultivation). Upon completion of this step, data were considered certified and uploaded to a master, online version of NPSpecies (https://science1.nature.nps.gov/npspecies/web/main/start), which is currently restricted to NPS users and contractors. In an effort to improve user functionality, the Natural Resource Program Center is working on an initiative to integrate and streamline information management tools for natural resources within the NPS. This initiative is referred to as IRMA (Integration of Resource Management Applications), and NPSpecies is the first large application to be converted. A

prototype portal for IRMA is now accessible at http://nrinfo.nps.gov/Home.mvc. From this portal NPS users can navigate to the I&M tab and search, view, or download park certified species lists. Although very bare-bones in scope and content, this prototype represents a framework for future steps. The portal is available to NPS only, and records flagged as "sensitive" are not posted. The full compliment of data will be accessible to parks in a streamlined and more user friendly environment in the near future, with protections in place for records flagged as sensitive.

Results

Searches for past data and completion of recent inventory efforts resulted in a total of 20 references, 678 vouchers, and 1,240 observations entered in NPSpecies for KIMO. These totals include 499 vouchers and 1,232 observations for vascular plants and vertebrate organisms. The remaining vouchers and observations are supporting evidence for 155 fungi, which have also been entered into NPSpecies for KIMO. However, ***fungi (i.e., lichens) were not included in the most recent certification process, and are not included in the results in this report.***

In some instances, taxa on KIMO's local list have only been identified to the species level, such as the white-tailed deer (*Odocoileus virginianus*). While in other instances, they have been identified to the subspecies or variety level, such as the annual ragweed (*Ambrosia artemisiifolia var. paniculata*). Therefore, the term organism (as opposed to species) is generically used throughout this report to refer to unique taxa at the species level or below.

Individuals involved in the certification of a park's data primarily placed organisms in one of three Park Status categories. In instances where reviewers had extremely high confidence that an organism existed in the park due to recent verifiable evidence (i.e., recent report, voucher, and/or observation) then that organism was classified as Present in Park. In instances where current verifiable evidence was lacking, but reviewers had extremely high confidence that an organism occurred in the park, then it was categorized as Probably Present. In instances where an organism name existed in NPSpecies, but current verifiable evidence was lacking, and a reviewer did not have a high level of confidence that it occurred on the park, then it was categorized as Unconfirmed. Detailed definitions of these and the remaining Park Status categories can be found in Appendix A.

Based on a review of the assembled evidence, 911 vertebrate and vascular plant organisms were categorized as Present in Park or Probably Present (Table 1). An additional 549 organisms were categorized as Unconfirmed. In addition to the categories of Present in Park, Probably Present, and Unconfirmed, one organism was classified as a False Report. Kennemore (1995) reported finding *Pleopeltis polypodioides ssp. Polypodioides.* However, he undoubtedly meant *Pleopeltis polypodioides ssp. michauxiana* (NatureServe, Erin Jones, pers.comm.)

Currently, 53% (776) of the 1,461 organisms on KIMO's Local List are documented. However this percentage is misleading in that the total count of 1,461 includes *ALL* organism names

Table 1. Count of vascular plants and vertebrate organisms on KIMO's Local List by Park Status categories (Total=1,461). (NPSpecies 10/28/2008).

Park Status[1]	Bird	Fish	Mammal	Amphibian	Reptile	Vascular Plant	Total
Present in Park	120	19	20	17	25	575	**776**
Probably Present	2		8	5	9	111	**135**
Unconfirmed	86	20	24	9	11	399	**549**
False Report						1	**1**

[1] Refer to Appendix A for definitions of Park Status categories.

including those categorized as Unconfirmed. Those in the Unconfirmed category are based on weak or no evidence, giving minimal indication of their occurrence on the park. Thus, when the list is pared down to those organisms with a Park Status of Present in Park or Probably Present (i.e., those organisms known or believed to be in the park), the percentage of documented organisms rises to 85%. This percentage is very near the I&M goal of documenting 90% of the organisms occurring on the park.

Of the 776 organisms documented, reviewers assigned a general abundance category (e.g., common, rare, etc.) to 632 (81%) (Table 2). Reviewers believed additional information was needed before an abundance category could be assigned to the remaining 144 (19%) organisms. As can be seen in Table 2, the primary groups where abundance information is lacking are amphibians and reptiles. Some relative information was available for amphibian and reptile abundance in Reed and Gibbons (2005). However, this information did not cross walk easily with the abundance categories in NPSpecies.

Residency values (e.g., breeder, migrant, resident, etc.) were assigned for all documented vertebrates with the exception of 69 birds, 19 fish and four bats. The failure to assign a residency value for the birds and bats was due to the fact that it was unclear if these organisms bred on the park or were migrants.

KIMO's local list includes 181 non-native organisms (12% of total). Sixty-four of these organisms are currently known to occur in the park (i.e., Present in Park) and an additional 16 are considered to be Probably Present (Table 3). As expected, the majority of these non-native organisms are vascular plants.

Table 2. Count of documented organisms by Abundance categories on KIMO (NPSpecies 10/28/2008).

Abundance Category[1]	Bird	Fish	Mammal	Amphibian	Reptile	Vascular Plant	Total
Abundant	4	3				13	**20**
Common	6	1	6			55	**68**
Uncommon	58		5			233	**296**
Rare	46	15	5			177	**243**
Occasional	4					1	**5**
Unknown	2		4	17	25	96	**144**

[1] Refer to Appendix A for definitions of Abundance categories.

Table 3. Count of Non-native organisms on KIMO's Local List (NPSpecies 10/28/2008).

Taxa Group	Present in Park	Probably Present	Unconfirmed
Bird	3	-	1
Fish	1	-	-
Mammal	-	-	4
Vascular Plant	60	16	96
Total	64	16	101

[1] Refer to Appendix A for definitions of Park Status categories.

Two additional organisms, the coyote (*Canis latrans*) and red fox (*Vulpes vulpes*), were assigned a nativity of Unknown. This is due to the fact that there is currently some uncertainty amongst the scientific community as to whether these species are native to the region.

NatureServe, in cooperation with The Nature Conservancy and NPS, developed a protocol to rank the impact of non-native invasive vascular plants (Morse et al. 2004). Through a series of standardized questions, non-native species are evaluated and assigned an Invasive Species Impact Rank (I-Rank) based on impact to native species and natural biodiversity. I-Ranks are categorized as high, medium, low, or insignificant. Eight of the non-native vascular plants on KIMO's local list received an overall I-Rank score that included "High" (Table 4). All are known to occur in the park (i.e., Present in Park)

A total of 39 organisms on KIMO's local list currently meet at least one of the following criteria:

- State Listed by the South Carolina Department of Natural Resources per the South Carolina Nongame and Endangered Species Conservation Act. This statute applies to animals only. There is no equivalent state statute for plants in South Carolina (SC Department of Natural Resources, Julie Holling, pers. comm.).
- Federally listed by the U.S. Fish and Wildlife Service per the U.S. Endangered Species Act of 1973, as amended.
- Ranked as Critically Imperiled (G1) or Imperiled (G2) at the global level by NatureServe and its network of member programs.
- Ranked as Critically Imperiled (S1) or Imperiled (S2) at the state level by NatureServe and its network of member programs.

These include two amphibians, one reptile, two fish, three birds, three mammals, and twenty-eight vascular plants (Table 5). Seventeen of these organisms have been documented in the park (i.e., Present in Park) and an additional five are considered Probably Present. The remaining organisms are categorized as Unconfirmed, meaning verifiable evidence is lacking and they may or may not occur within park boundaries.

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Table 4. Non-native plants, occurring on KIMO, with an Invasive Species Impact Rank (I-Rank) containing High (NPSpecies 10/28/2008).

Preferred Common Name	Species	Overall I-Rank	Ecological Impact[1]	Management Difficulty[2]	Comments
Chinese yam	*Dioscorea oppositifolia*	High/Low	Medium/ Low	Medium/ Insignificant	Alters community structure and composition by overtopping existing vegetation layers and shading species below.
English ivy	*Hedera helix*	High/ Medium	Medium	Medium/Low	English ivy is shown to negatively affect forest biodiversity. It is also a popular landscaping plant. There is no guaranteed method for keeping it out of natural areas or removing it once it has established.
common cat's-ear	*Hypochaeris radicata*	High/Low	High/Low	Unknown	Common cat's-ear is widespread across the U.S. It occurs mainly on disturbed sites.
Chinese privet	*Ligustrum sinense*	High/ Medium	Medium	Low	Chinese privet alters community structure and composition by creating a dense shrub layer that shades plant species in lower layers.
European privet	*Ligustrum vulgare*	High/ Medium	High/Low	High/Medium	Extremely aggressive and escapes from cultivation. It forms dense thickets that crowd native vegetation.
Chinese honeysuckle	*Lonicera japonica*	High/ Medium	Medium	High/Medium	Chinese honeysuckle can have extremely negative consequences for forest communities and forest structure. Few effective control methods known.
Japanese stiltgrass	*Microstegium vimineum*	High/ Medium	Medium	High/Medium	Established in most eastern states, Japanese stiltgrass is slow to invade undisturbed vegetation but spreads quickly and forms dense monocultures in disturbed areas.
buckhorn plantain	*Plantago lanceolata*	High/Low	High/Low	High/Low	Buckhorn plantain rapidly colonizes open areas and forms dense swards that crowd out native vegetation and prevent establishment of native species. Seeds may remain viable in the soil for 10 years.

[1] A subcategory of Overall I-Rank score that addresses organism's negative impacts on native plant and animal populations and communities.

[2] A subcategory of Overall I-Rank score that addresses difficulty of control.

Table 5. Organisms on KIMO's local list which are state listed, federally listed, and/or possess a state rank of S1 or S2.

Common Name	Scientific Name	Park Status[1]	State Protection Status[2]	Rounded State Rank[3]	Rounded Global Rank[4]	Federal Status[5]	Short-term Trend[6]
Amphibians							
Green Salamander	*Aneides aeneus*	Unconfirmed		S1	G3		D = Declining
Pine Barrens Treefrog	*Hyla andersonii*	Unconfirmed	ST - 1976	S2	G4		E = Stable
Reptiles							
Milksnake	*Lampropeltis triangulum*	Unconfirmed		S2	G5		E = Stable
Fishes							
Carolina Darter	*Etheostoma collis*	Present in Park	ST - 1976	SNR	G3		U = Unknown
Fantail Darter	*Etheostoma flabellare*	Present in Park		S1	G5		
Birds							
Blackburnian Warbler	*Dendroica fusca*	Present in Park		S2	G5		
Bald Eagle	*Haliaeetus leucocephalus*	Present in Park	SE - 1976	S2	G5		EF = Stable to increasing
Bewick's Wren	*Thryomanes bewickii*	Unconfirmed	ST - 1984	S1	G5		D = Declining
Mammals							
Rafinesque's Big-eared Bat	*Corynorhinus rafinesquii*	Unconfirmed	SE - 1976	S2	G3		DE = Declining to stable
Southeastern Myotis	*Myotis austroriparius*	Unconfirmed	SC - 2002-07-01	S1	G3		DE = Declining to stable
Swamp Rabbit	*Sylvilagus aquaticus*	Unconfirmed		S2	G5		
Vascular Plants							
Soft Groovebur	*Agrimonia pubescens*	Probably Present		S1	G5		
Nodding Onion	*Allium cernuum*	Unconfirmed		S2	G5		
Smooth Indigobush	*Amorpha glabra*	Unconfirmed		S2	G4		
Bradley's Spleenwort	*Asplenium bradleyi*	Unconfirmed		S1	G4		D = Declining
Wild Hyacinth	*Camassia scilloides*	Unconfirmed		S2	G4		
Meadow Sedge	*Carex granularis*	Present in Park		S2	G5		
Mullein Foxglove	*Dasistoma macrophylla*	Unconfirmed		S1	G4		

Table 5. Organisms on KIMO's local list which are state listed, federally listed, and/or possess a state rank of S1 or S2 (continued).

Common Name	Scientific Name	Park Status[1]	State Protection Status[2]	Rounded State Rank[3]	Rounded Global Rank[4]	Federal Status[5]	Short-term Trend[6]
Creeping Spikerush	*Eleocharis palustris*	Probably Present		S1	G5		
Black Huckleberry	*Gaylussacia baccata*	Present in Park		S1	G5		
Smooth Sunflower	*Helianthus laevigatus*	Present in Park		S2	G4		E = Stable
Dwarf-flower Heartleaf	*Hexastylis naniflora*	Unconfirmed		S3	G3	Listed threatened	
Ashy Hydrangea	*Hydrangea cinerea*	Present in Park		S1	G4		
Pale Jewel-weed	*Impatiens pallida*	Present in Park		S1	G5		
Small-head Gayfeather	*Liatris microcephala*	Unconfirmed		S1	G3		
Canada Moonseed	*Menispermum canadense*	Present in Park		S2	G5		
Slender Naiad	*Najas flexilis*	Unconfirmed		S1	G5		
Southern Adder's-tongue	*Ophioglossum vulgatum*	Present in Park		S2	G5		
One-flowered Broomrape	*Orobanche uniflora*	Present in Park		S2	G5		
Grove Meadow Grass	*Poa alsodes*	Probably Present		S1	G4		
Sun-facing Coneflower	*Rudbeckia heliopsidis*	Present in Park		S1	G2		D = Declining
Small Skullcap	*Scutellaria parvula*	Unconfirmed		S2	G4		
Biltmore's Greenbrier	*Smilax biltmoreana*	Present in Park		S2	G4		
Georgia Aster	*Symphyotrichum georgianum*	Present in Park		SNR	G2	Candidate	
Soft-haired Thermopsis	*Thermopsis mollis*	Present in Park		S1	G4		
Pale Manna Grass	*Torreyochloa pallida var. pallida*	Probably Present		S1†	G5		

Table 5. Organisms on KIMO's local list which are state listed, federally listed, and/or possess a state rank of S1 or S2 (continued).

Common Name	Scientific Name	Park Status[1]	State Protection Status[2]	Rounded State Rank[3]	Rounded Global Rank[4]	Federal Status[5]	Short-term Trend[6]
Florida Bladderwort	*Utricularia floridana*	Probably Present		S2	G4		
Narrowleaf Vervain	*Verbena simplex*	Unconfirmed		S1	G5		
Eastern Turkeybeard	*Xerophyllum asphodeloides*	Present in Park		S2	G4		E = Stable

† State rank for this variety refers to the species (i.e., *Torreyochloa pallida*). South Carolina does not rank the variety.

[1] Refer to the Appendix for definitions of Park Status categories.

[2] Data obtained from NatureServe (June 5, 2008). The official endangerment status or level of legal protection the state has assigned to this species. SC - 2002-07-01= Species of Concern: 2002 (no legal status); SE - 1976= State Endangered (animals): listed 1976; ST - 1976= State Threatened (animals): listed 1976; ST - 1984= State Threatened (animals): listed 1984.

[3] Data obtained from NatureServe (June 5, 2008). The rounded NatureServe conservation status, developed by NatureServe and its network of member (state) programs, of a species from a state/province perspective, characterizing the relative imperilment of the species. S1=Critically Imperiled, S2=Imperiled, S3=Vulnerable, S4=Apparently Secure, S5=Secure, B=Breeding population, N=Non-breeding population, SNR=State Conservation Status not yet assessed. Refer to <http://www.natureserve.org/explorer/nsranks.htm> for additional information on ranks.

[4] Data obtained from NatureServe (June 5, 2008). The rounded NatureServe conservation status, developed by NatureServe and its network of member programs, of a species from a global (i.e., rangewide) perspective, characterizing the relative imperilment of the species. G1=Critically Imperiled, G2=Imperiled, G3=Vulnerable, G4=Apparently Secure, G5=Secure. Refer to <http://www.natureserve.org/explorer/ranking.htm> for additional information on ranks.

[5] Data obtained from NatureServe (June 5, 2008). U.S. Endangered Species Act: Current status of the taxon as designated or proposed by the U.S. Fish and Wildlife Service (USFWS) or the U.S. National Marine Fisheries Service, and as reported in the U.S. Federal Register in accordance with the U.S. Endangered Species Act of 1973, as amended.

[6] Data obtained from NatureServe (June 5, 2008). Code that best describes the observed, estimated, inferred, or suspected short-term trend in population size, extent of occurrence, area of occupancy, number of occurrences, and/or viability/ecological integrity of occurrences (whichever most significantly affects the NatureServe global conservation status). A=Severely declining (decline of >70% in population size, range, area occupied, and/or number or condition of occurrences), B=Very rapidly declining (decline of 50-70%), C=Rapidly declining (decline of 30-50%), D=Declining (decline of 10-30%), E=Stable (unchanged or remaining within ±10% fluctuation), F=Increasing (increase of >10%), U=Unknown (short-term trend unknown), (null): Rank factor not assessed.

Discussion

At 3,945 acres, KIMO is one of the larger parks in CUPN. With 911 organisms currently categorized as Present in Park or Probably Present, it ranks in the middle (i.e., seven out of 14) amongst CUPN parks (Table 6). While a park's size is certainly a factor in the diversity of organisms occurring on a park (i.e., larger size increases potential for a greater number of habitat types which increases potential for a greater number of organisms), it is certainly not the only factor. For instance, topography, historic land use, and adjacent land use are among many other factors that influence a park's biological diversity. Another obvious factor or question is "How thorough or complete were recent field efforts at documenting organisms that exist on KIMO?"

Based on counts of the number of documented organisms (i.e. Present in Park) and those believed to be present (i.e., Probably Present), KIMO's percentage currently stands at 85%. While this is slightly lower than the I&M goal of documenting 90% of the organisms occurring in the park, it is apparent that substantial gains have been made to provide the park with accurate and up to date species lists. For example, the work of Rogers (2005) and Scott (2006) are the only focused systematic efforts to inventory birds and fish respectively, on KIMO. Building off the work of Thomas (2002), Reed and Gibbons (2005) were able to focus their efforts toward finding previously undetected amphibians and reptiles. As a result, seven new organisms were documented, including six potential county records (Reed and Gibbons 2005). White and Govus (2005), believed 95-100% of the vascular flora of the park was documented. They based this conclusion on the previous work of Kennemore (1995), as well as their own efforts and knowledge of the park.

While these and other points could be made to support the thoroughness of recent inventory efforts, an obvious question remains as to why there are so many Unconfirmed organisms on KIMO's Local List. Currently, more than one-third of KIMO's Local List is categorized as Unconfirmed.

Considering the sheer number of vascular plants on KIMO's Local List (74% of the total), it is not surprising vascular plants comprise the majority of Unconfirmed organisms. However, the only data source for nearly all of the Unconfirmed vascular plants, is county level distribution maps obtained from the Biota of North America Program (BONAP). This means that while verifiable evidence for the organism may be available for the county, there is no direct evidence for its occurrence on the park. While one cannot unequivocally assume these organisms do not occur on the park, the fact that two systematic inventories have been conducted by highly competent investigators, and these organisms were not detected during either effort certainly raises some doubt. In other words, considering the amount of effort already expended on the park, it is questionable whether additional inventory efforts would suddenly find many of these organisms. In all likelihood many could be removed from the KIMO's Local List if it were determined that habitat is unavailable on the park.

Other categories with a high percentage of Unconfirmed records are birds (41%) and mammals (46%). Rogers (2005) noted that he was only able to document 64% of the birds on a list assembled by the park. However, he also believed this list was a bit unrealistic and if it were reduced to "those with a historic record of occurrence in the region and for which the park has

appropriate habitat, our total amounts to 84.4% of species reasonably expected to occur" Although he did not explicitly note each bird that he would remove from the list, it was obvious that he was in favor of reducing the park's potential list. The same could be said for mammals. Fields (2005) cautioned that not all of the 33 organisms known to occur within a 25 mile radius of the park should be expected to occur, due to a lack of habitat. This includes several species that prefer open fields, which is a habitat type that "is rare and patchy, at best" on KIMO according to Fields (2005).

Table 6. Number of organisms designated as Present in Park or Probably Present in Cumberland Piedmont Network Parks (NPSpecies 2008).[1]

Park	Bird	Fish	Mammal	Amphib.	Reptile	Vascular Plants	TOTALS	Park Size (ac.)
ABLI	131	10	37	16	21	567	782	341
CARL	102	15	34	21	22	605	799	264
CHCH	175	19	46	23	22	966	1,251	8,178
COWP	96	7	19	23	32	554	731	842
CUGA	156	29	49	26	16	968	1,244	20,437
FODO	177	13	29	21	29	785	1,054	558
GUCO	76	14	19	19	27	413	568	220
KIMO	**122**	**19**	**28**	**22**	**34**	**686**	**911**	**3,945**
LIRI	147	40	33	28	28	994	1,270	13,691
MACA	167	79	48	28	33	1,269	1,624	52,809
NISI	149	22	22	21	39	440	693	988
RUCA	130	5	25	17	14	542	733	309
SHIL	186	51	43	26	28	809	1,143	3,969
STRI	152	46	27	13	21	633	892	709

[1] Refer to Appendix C for a graphical representation of these data.

In short, while the percentage of Unconfirmed organisms for KIMO is currently high, this is not reason to assume that KIMO's list of documented organisms is woefully incomplete. To the contrary, based on current evidence it is likely that many (most?) of these organisms do not occur on the park. I&M guidance states that if "reasonable efforts" to obtain current, verifiable evidence for those organisms in the Unconfirmed category are unsuccessful, then the Park Status should be changed to Historic, Encroaching or False Report as applicable.

Future Inventory Efforts

While acknowledging the accomplishments of recent inventory efforts, it is still anticipated that additional survey efforts will result in an increase in the number of organisms documented on KIMO. In addition to having a large number of Unconfirmed organisms on its Local List, KIMO also has several organisms currently classified as Probably Present, with the majority of these being vascular plants (111).

Most of the vascular plants categorized as Probably Present include Kennemore (1995) as the Park Status data source. Although they are linked to this reference, no observations or vouchers are included in NPSpecies resulting in their being categorized as Probably Present instead of Present in Park (certified by Erin Jones, NatureServe). If it is determined that vouchers for these

organisms were not collected or have been lost, then a priority for follow-up inventory efforts should be to obtain current, verifiable evidence of these organisms on the park, preferably a voucher. While this could be an expensive endeavor as a stand alone project, one way to economize this effort might be to coordinate it with CUPN or other vegetation monitoring efforts scheduled to commence on KIMO in the near future.

Another prospective opportunity where additional organisms could potentially be documented on the park without significant outlay of resources by the network or park is fish. Scott (2006) concluded that the observed species richness from his effort (19 species) was 92% of the computed expected species richness value and that the effort was adequate to inventory the aquatic habitats supporting fishes on the park. However, the report included an additional 20 organisms that are known to occur in the upper Broad River drainage. While many of these may not occur on the park, Scott (2006) noted the fisheries section of South Carolina Department of Natural Resources has an interest in monitoring "reference" stream conditions throughout the state, and several KIMO sites are certainly candidates. Thus, opportunities may exist to develop a partnership with this agency that would provide the park with valuable monitoring data on its aquatic resources, as well as secondarily providing the possibility of documenting additional organisms in the park.

KIMO is fortunate in that two systematic efforts aimed at inventorying amphibians and reptiles (i.e., herpetofauna) have been conducted on the park in recent years (Thomas 2002; Reed and Gibbons 2005), resulting in a large number categorized as either Present in Park or Probably Present (Table 6). However, these counts include 14 amphibians and reptiles, one in four, that are classified as Probably Present. These are organisms, which Reed and Gibbons concluded, ". . . would reasonably be expected to be in the park based on habitat availability and overall species' geographic range."

Overall, amphibians and reptiles can be extremely difficult to inventory and can take years, even decades, to document the occurrence and/or distribution of some species (Gibbons 1997). Some of the organisms on KIMO's Local List in the Probably Present (and Unconfirmed) category certainly fall in this difficult category such as southeastern crowned snake (*Tantilla coronata*) and northern scarlet snake (*Cemophora coccinea*). However, others typically are not that difficult to document, assuming environmental conditions are favorable. As such it is somewhat a mystery to this author as to why they were not confirmed assuming appropriate microhabitats are truly available. For example, KIMO staff have reported hearing spring peepers (*Pseudacris crucifer*) on numerous occasions (Kings Mountain National Military Park, Chris Revels, pers. comm). While an additional full-scale inventory effort would not seem prudent or cost-effective, additional efforts to increase the percentage of documented organisms (i.e., Present in Park) on the Local List either by documentation of additional organisms or removing those where it is determined that habitat is not available, by knowledgable experts, is encouraged. CUPN has staff knowledgeable in techniques available for specific taxa and some limited assistance may be made available to the park in the future. In addition, Reed and Gibbons (2005), surveyed over 30 museums across the U.S., requesting specimen data from Cherokee and York counties. Data were not received from Savannah Science Museum (now managed by Georgia Southern University) or the South Carolina State Museum. The South Carolina State Museum does not reposit wet specimens (Cumberland Piedmont Network, Shepherd McAninch, pers. comm.).

However, efforts should be made to contact the Savannah Science Museum to determine if additional specimens for these counties and KIMO specifically, are present.

Based on the park's size, KIMO's list of birds is relatively small when compared with other parks in CUPN. While there may be valid reasons for the low number, it certainly begs a closer look. Rogers (2005) includes a list of 35 species "reasonably expected to occur in KIMO", but were not recorded in the course of the study. Fourteen of these are classified as migrants, the remainder as uncommon to very rare permanent or seasonal residents by Rogers (2005). Rogers (2005) did not conduct surveys during the month of June, during either year of the survey effort. June is a key month for survey efforts throughout much of the South. Surveys were also not conducted at the randomized vegetation plots established by NatureServe (White and Govus 2005), which would have increased the probability that all habitat types were sampled. This is not to imply that species were definitively missed during recent inventory efforts. However, it is recommended that this list be evaluated further by knowledgeable experts, to determine if additional focused surveys should be considered, based on park priorities.

Monitoring

The CUPN Vital Signs monitoring effort currently focuses on vegetation communities, water quality, caves, landscape dynamics, ozone, invasive plants, forest pests, and climate/weather. However, with the exception of efforts on Mammoth Cave National Park, no vertebrate species or groups are included on CUPN's current list of highest priority vital signs. The stated reason for the initial low prioritization given to most vertebrates by individuals included in the vital sign ranking process was due largely to a lack of inventory data (Leibfreid et al. 2005). This limitation has been addressed in large measure by the completion of recent inventories. As a result, the question arises as to whether issues were raised during recent inventory efforts that point to a need for KIMO to consider monitoring vertebrates.

As already noted, Scott (2006) indicated the South Carolina Department of Natural Resources may have an interest in monitoring stream conditions at KIMO as part of its statewide efforts. Such an effort would certainly compliment CUPN's current on-going water quality monitoring efforts, providing additional parameters for assessing trends in aquatic systems on KIMO. In addition, since it would be part of a statewide effort, there may be opportunity to evaluate the overall condition of KIMO's streams in relation to other statewide systems (and thus effectiveness of KIMO's management strategies). Thus, opportunities to develop this partnership should obviously be explored.

As already noted, the number of birds documented and Probably Present is relatively low on KIMO in comparison to other CUPN parks. In addition, Rogers (2005) indicated several species occurred in lower numbers or were less abundant than expected. While many populations of eastern migratory songbirds have shown steady declines in recent decades (Robbins et al. 1989; Franzreb and Rosenberg 1997), at least some of the less abundant species on KIMO appeared to be relatively common within the region (Rogers 2005). Assuming these species truly are less abundant on KIMO, this would point to a potential issue on KIMO and should receive further attention to determine if some level of monitoring is in fact warranted. While still in development, a small component of CUPN's vegetation monitoring protocol could include birds.

Due to their ties with both aquatic and terrestrial environments, and sensitivity to environmental stresses, amphibians are considered good indicators of general ecosystem health. Recent declines and disappearances of amphibians from many areas have also increased attention on the need to monitor amphibian populations. In 1997 the National Park Service listed amphibian declines as among its highest priority research and information needs (Dodd 2003).

Reed and Gibbons (2005), who surveyed all five of CUPN's Piedmont parks, believed KIMO represented "the best bet among the five parks for persistence of herpetofaunal species that are most sensitive to habitat fragmentation." This is somewhat supported by the fact that KIMO's list of documented and Probably Present herpetofauna is large in comparison to other CUPN parks. Because amphibian declines are being reported in protected natural areas, some level of periodic qualitative monitoring (e.g., continued persistence, disease detection, etc), at minimum, should be considered as an early warning to potential declines. This effort could be coordinated with any follow-up efforts to increase the accuracy of KIMO's Local List.

Management

Recent inventories have affirmed that KIMO supports a diverse array of vertebrates and vascular plants. Efforts have been made to consolidate and certify available data in NPSpecies for use by park planners, managers, and others. Completion of this effort is a significant step for most CUPN parks, as it is the first time verified and validated species lists can be generated. To increase the utility of these data, a remaining step is identification of management priority species, such as sensitive species, highly invasive exotics, or poached species. CUPN staff has conducted some initial reviews of KIMO's data and are available to assist the park in accomplishing this task. In addition, plans are currently underway by the I&M Program to make all non-sensitive data available to the public in the near future. As such, KIMO and CUPN staff should also plan to evaluate the data for sensitive information to ensure that such data are not inadvertently released.

Management aimed at maintaining or increasing biological diversity is often a series of trade-offs. For instance, managing areas to maintain openings will benefit some species, while negatively impacting others. Development of management prescriptions on "Battlefield Parks" in increasingly urbanized landscapes adds some additional challenges. As elaborated by Reed and Gibbons (2005):

> Active management of parks to return them to the historical conditions present at the time of the Revolutionary War . . . will have mixed conservation implications for herpetofaunal species. For example, we found comparatively few *Cnemidophorus sexlineatus* (Six-lined racerunners) at the parks, likely due to an abundance of secondary growth and thus a relatively small amount of the open habitat upon which these lizards depend. Continuing a vigorous program of prescribed burns will likely benefit these lizards, as well as other open-habitat or edge-specialists such as *Coluber constrictor* (racer) and *Sceloporus undulatus* (Eastern fence lizard). However, such burning will likely have detrimental effects on forest-dependent species such as ambystomatid salamanders . . . , small

> woodland snakes . . . , and *Terrapene carolina* (box turtle). When planning future management activities and their effects of herpetofauna, NPS managers should thus consider the matrix of habitat types outside the park boundaries to determine if a particular management activity is likely to eliminate the last bits of a particular habitat type, thus possibly eliminating the reptiles and amphibians dependent on that habitat from an area much larger than the park itself.

Loeb (2007) also noted the landscape surrounding CUPN's Piedmont parks has implications for bats, as development increases species richness may decline. The same could be said for other taxonomic groups. CUPN will be monitoring adjacent land use as part of its vital signs monitoring program to assist park managers in evaluating future management activities.

As noted by White and Govus (2005), KIMO's natural resources "are a great asset to the park system." This holds true in aquatic systems as well. Scott (2006) noted that about 8% of the park's fish fauna is comprised of priority conservation species for South Carolina, "which is an excellent indicator of the ecological integrity of aquatic systems on KIMO."

KIMO has fewer non-native vascular plants (60) and high ranking invasives (8) than any other CUPN park. Still, White and Govus (2005) considered aggressive non-natives as potentially the biggest single threat to the overall ecological health of the park. With many additional foreign invaders encroaching upon the region, early detection and control are the best defense. CUPN aims to assist KIMO in this endeavor by including early detection of invasive plants as a high priority vital sign scheduled for development and implementation. It is anticipated assistance in control efforts will continue to be provided by the Southeast Region's Exotic Plant Management Team (EPMT).

According to White and Govus (2005), the rarest natural community identified in the park is the Piedmont Chestnut Oak – Blackjack Oak Woodland. This xeric, fire dependent community has a global rank of G2G3. A G2 rank means imperiled, while G3 means vulnerable. This "double rank" for the Piedmont Chestnut Oak – Blackjack Oak Woodland indicates a degree of uncertainty in the status of this community (i.e., currently uncertain as to whether it should be ranked as G2 or G3). Other natural communities were noted in this report due to their relatively small size on the park, in terms of acreage, but significant in regard to their contributions to the park's overall diversity. These included the Piedmont Small Stream Sweetgum Forest, the Piedmont Seepage Wetland, and the Piedmont Mesic Basic Oak-Hickory Forest. Although not a natural community, the power line right of ways were also noted of deserving special management attention due to the presence of Georgia aster (*Symphyotrichum georgianum*), a federal candidate for listing, and other rare species. When complete, the vegetation map for KIMO should assist managers in identifying locations and extent of these communities. Utilizing the vegetation key in White and Govus (2005), the vegetation map (in progress), and upcoming vegetation monitoring data to be provided by CUPN, it is anticipated the park will have a substantial scientific base for formulating future planning and management actions for these and other vegetative communities.

The Dwarf-flower heartleaf (*Hexastylis naniflora*) is the only organism on KIMO's local list that is currently federally listed. However, its status is currently Unconfirmed, meaning there are no

known occurrences of this organism in the park. At the time of it's listing, this rare low growing herbaceous plant was known only from an eight county area in the upper Piedmont of South Carolina and adjacent North Carolina, which included Cherokee County, South Carolina (54 FR 14964-14967).

The Georgia Aster (*Symphyotrichum georgianum)* is currently classified as a candidate for federal listing. This is a relict species of post oak savanna/prairie communities that existed across much of the southeast prior to widespread fire suppression and extirpation of large native grazing animals. Most remaining populations survive adjacent to roads, utility right-of-ways, and other openings where current land management mimics natural disturbance regimes (73 FR 75176-75244). Threats include woody succession due to fire suppression, development, highway expansion/improvement, and herbicide application. This species presence on the park was confirmed in 2001 (NPSpecies 2008). Chris Revels, KIMO Chief Ranger, most recently confirmed it in Fall 2008 (Chris Revels, pers. comm.).

Another management consideration raised in the inventory reports and data involve the park's use of prescribed fire. While the benefits of prescribed fire are well documented, a conern has been raised at KIMO as to whether the timing of burns may somehow impact the abundance and diversity of birds nesting/feeding on the ground and/or in the understory (Rogers 2005). Fields (2005) hypothesized that burning late spring/early summer might have some marginal impact on small mammal populations and suggested some study may be warranted. A project to examine potential effects on avian species was initiated by Rogers, but never completed. As opportunities arise reinitiation of this or similar studies could assist park managers in addressing these questions.

Additional management issues and recommendations can be found in the various inventory reports for KIMO.

Summary

Following is a summary of the inventory, monitoring and management items discussed within this report (Table 7). As already noted, this list was developed by CUPN staff and is based on staff knowledge and reviews of recent inventory reports and other data contained in NPSpecies for KIMO. This list should not be viewed as all inclusive or in any way usurping park management's own evaluations. It is CUPN's hope that this review will facilitate greater use and understanding of data collected under the auspices of the I&M Program.

Table 7. Summary of findings/recommendations assembled by CUPN staff for KIMO, based on staff knowledge and a review of recent inventory reports and other NPSpecies data.

Category	Finding/Recommendation
Inventory	• Re-check KIMO's voucher collections (other museums and herbaria?) to ensure that vouchers do not exist for the 111 vascular plants currently classified as Probably Present. If verifiable evidence is not available, seek opportunities to coordinate collection of these vouchers with upcoming vascular plant work. • With the aid of taxa experts and targeted field efforts (where appropriate), review the park's list of Unconfirmed organisms with the goal of reducing the number of organisms in this Park Status category, where feasible. All groups should be addressed as opportunities arise. However, vascular plants, birds, fish, and mammals seem to have an inordinate number in this category. • With the aid of taxa experts and targeted field efforts (where appropriate), determine if appropriate microhabitats are available for herpetofauna currently in the Probably Present category. Where possible seek opportunities to partner with knowledgeable individuals to conduct short-term, targeted searches. • Contact the Savannah Science Museum (now managed by Georgia Southern University) to determine if relevant amphibian and reptile voucher information is available.
Monitoring	• Investigate possibility of partnering with South Carolina Department of Natural Resources' fisheries section to monitor stream conditions at KIMO sites. • Further evaluate potential causal factors contributing to low abundance of some birds. Based on outcome, evaluate need to conduct bird monitoring. This could be included as a component of CUPN's vegetation monitoring efforts. • Seek opportunities to conduct periodic qualitative sampling of amphibian populations as an early warning to amphibian declines.
Management	• Identify and flag organisms considered pest, management priority, and exploitation concern. • Identify and flag sensitive data records. • Prioritize early detection and control of invasive organisms. • With the aid of vegetation key, vegetation map (in progress), and other tools identify high priority vegetation communities. Utilize upcoming vegetation monitoring data in the development of management prescriptions. • Evaluate whether current prescribed burning schedule is impacting park's avian species richness and abundance.

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Appendix A. NPSpecies Data Dictionary

Park Status	The current status of each species in each park.	Applicable only to organisms with the *Local List* checkbox checked. The possible values reflect a combination of confidence, and availability and currency of verifiable evidence in NPSpecies.
Present in Park	Species' occurrence in park is documented and assumed to be extant.	Extremely high confidence that the species is currently in the park. A current, verifiable reference, voucher or observation is included in NPSpecies.
Probably Present	Park is within species' range and contains appropriate habitat. Documented occurrences of the species in the adjoining region of the park give reason to suspect that it probably occurs within the park. The degree of probability may vary within this category, including species that range from common to rare.	Very high confidence that the organism is currently in the park. Verifiable evidence may exist in NPSpecies, but is not considered current enough to elevate the status to Present in Park. Efforts should be made to obtain current, verifiable evidence in NPSpecies to elevate the Park Status to “Present in Park”. If reasonable efforts to obtain current, verifiable evidence are unsuccessful, then the Park Status should be changed to Unconfirmed, Historic, Encroaching or False Report as applicable.
Unconfirmed	Included for the park based on weak ("unconfirmed record") or no evidence, giving minimal indication of the species' occurrence in the park.	Any confidence from very low to high that the organism is currently in the park. Verifiable evidence may exist in NPSpecies, but it is not considered sufficient enough to elevate the status to Probably Present, nor current enough to elevate the status to Present. Efforts should be made to obtain current, verifiable evidence in NPSpecies to elevate the Park Status to “Present in Park”. If reasonable efforts to obtain current, verifiable evidence are unsuccessful, then the Park Status should be changed to Historic, Encroaching or False Report as applicable.
Encroaching	The species is not documented in the park, but is documented as being adjacent to the park and has potential to occur in the park.	Extremely low confidence that the organism is currently in the park, but extremely high confidence that the organism is currently adjacent to the park. Verifiable evidence may exist in NPSpecies documenting the occurrence in the park, but it is not current. Potential invasive organisms are good candidates for this Park Status designation, either before they enter a park or after they have been eliminated from a park.
Historic	Species' historical occurrence in the park is documented, but recent investigations indicate that the species is now probably absent.	Extremely low confidence that the organism is currently in the park. Verifiable evidence exists in NPSpecies, but is not current. Extinct, extirpated or eliminated species are candidates for a Historic *Park Status* designation.
False Report	Species previously reported to occur within the park, but current evidence indicates that the report was based on a misidentification, a taxonomic concept no longer accepted, or some other similar problem of interpretation.	Extremely low confidence that the organism is currently in the park. Evidence exists in NPSpecies, but it cannot be sufficiently verified.

NPSpecies Data Dictionary (continued).

NA	Not Applicable - Park-Status does not apply to the scientific name for the park.	The NA value prevents null values from appearing in NPSpecies and applies to 2 primary situations: 1) An outdated scientific name that is not used in the locale of the park for an organism, but is in NPSpecies for a park because of the inclusion of vouchers, observations or names linked to references. Note that outdated names are reconciled in NPSpecies with the LOCAL CLASSIFICATION system. 2) Vouchers, observations or names linked to references have not been identified at the species level or lower, but are included in NPSpecies with the name of a higher taxonomic rank than the species level. The names of these higher level taxonomic ranks will disappear from NPSpecies if the evidence of the respective name are identified to the species level or lower, and are changed appropriately in NPSpecies.
Abundance	The current abundance of each organism in each park.	Applicable only to organisms with the *Local List* checkbox checked and a *Park Status* of "Present". The values attempt to balance abundance with suitable habitat, and temporal/behavioral considerations. In practice, the entered value should apply (although there are numerous exceptions) to the abundance in the most suitable habitat of the organism, and at the time that the organism is engaged in it's principle behavior in (e.g. breeding, migrating, hibernating, etc.), or most important behavior to, the park. A future generation of NPSpecies will address the coding of *Abundance* (and associated *Residency*) to separate out the temporal and behavioral aspects. The Data Source field for Abundance is available to provide a citation that specifically addresses abundance in more detail.
Abundant	**Animals:** May be seen daily, in suitable habitat and season, and counted in relatively large numbers. **Plants:** Large number of individuals; wide ecological amplitude or occurring in habitats covering a large portion of the park.	
Common	**Animals:** May be seen daily, in suitable habitat and season, but not in large numbers. **Plants:** Large numbers of individuals predictably occurring in commonly encountered habitats but not those covering a large portion of the park.	

NPSpecies Data Dictionary (continued).

Uncommon	**Animals:** Likely to be seen monthly in appropriate season/habitat. May be locally common. **Plants:** Few to moderate numbers of individuals; occurring either sporadically in commonly encountered habitats or in uncommon habitats.	
Rare	**Animals:** Present, but usually seen only a few times each year**. Plants:** Few individuals, usually restricted to small areas of rare habitat.	
Occasional	**Animals:** Occurs in the park at least once every few years, but not necessarily every year. **Plants:** Not applicable.	
Unknown	Abundance unknown.	
NA	Not Applicable – Abundance does not apply to the scientific name in the park.	All names on a park's list that do not have a *Park Status* of Present should have a *Residency* of NA.
Residency	Current residency classification for each ANIMAL species in each park.	Applicable only to ANIMALS with the *Local List* checkbox checked and a *Park Status* of "Present". The values attempt to balance temporal and behavioral considerations. In practice, the entered value should apply (although there are numerous exceptions) to the residency of the organism at the time that the organism is engaged in its principle behavior (e.g. breeding, migrating, hibernating, etc.) in, or most important behavior to, the park. A future generation of NPSpecies will address the coding of Residency (and associated Abundance) to separate out the temporal and behavior aspects. The Data Source field for Residency is available to provide a citation that specifically addresses Residency in more detail.
Breeder	Population reproduces in the park.	
Resident	A significant population is maintained in the park for more than two months each year, but it is not known to breed there.	
Migratory	Migratory species that occurs in park approximately two months or less each year and does not breed there.	
Vagrant	Park is outside of the species' usual range.	
Unknown	Residency status in park is unknown.	
NA	Not Applicable – Residency does not apply to the scientific name in the park.	All names on a park's list that do not have a *Park Status* of Present should have a *Residency* of NA.
Nativity	Nativity classification for each organism for each park.	Applicable only to organisms with the *Local List* checkbox checked. If the park-status of an organism is not "Present in Park", then nativity represents the nativity if the organism were eventually confirmed in the park.

NPSpecies Data Dictionary (continued).

Native	The organism is native, or would be native, to the park (either endemic or indigenous).	
Non-Native	The organism is not native, or would not be native, to the park (neither endemic nor indigenous).	Cultivated organisms as defined under the *Cultivation* field are also considered non-native.
Unknown	Nativity is unknown relative to the park.	
NA	Not Applicable	Applies to names that do not represent organism names for the locale of the park.
Cultivation	Cultivation classification for each non-native organism in each park.	Applicable only to organisms with the *Local List* checkbox checked, a *Park Status* of "Present" or "Probably Present" and a *Nativity* of Non-Native. Cultivation is intended to distinguish between non-native organisms that were introduced as part of a park's mission, and non-native organisms that occur in the park naturally. Cultivation was not intended to apply to organisms that are cultivated for landscape purposes and have not persisted into the natural environment, for example plants in gardens or terrariums, or animals in enclosures. In general, NPSpecies was not intended to include controlled, "domestic" organisms.
Cultivated	A non-native species that is currently cultivated in the park.	
Persistent	A non-native species that persists in the park (either reproducing or non-reproducing) from a previous cultivation in the park.	
Not Cultivated	A non-native species that is not currently cultivated in the park.	
Unknown	A non-native species for which the cultivation in the park is currently unknown.	
NA	Not Applicable – Cultivation does not apply to the non-native scientific name in the park.	All names on a park's list that do not have a *Park Status* of Present or Probably Present and a *Nativity* of Non-native should have a Cultivation of NA.

Appendix B. Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008).

Organisms sorted alphabetically by group (i.e., amphibians, birds, fishes, mammals, reptiles, and vascular plants) and Latin name.

Scientific Name	Common Name	Park Status[1]
Amphibians		
Acris crepitans	northern cricket frog	PIP
Acris gryllus	southern cricket frog	U
Ambystoma maculatum	spotted salamander	PIP
Ambystoma opacum	marbled salamander	PIP
Ambystoma talpoideum	mole salamander	U
Aneides aeneus	green salamander	U
Bufo americanus	American toad	PIP
Bufo fowleri	Fowler's toad	PIP
Bufo terrestris	southern toad	U
Desmognathus fuscus	northern dusky salamander	PIP
Eurycea cirrigera	southern two-lined salamander	PIP
Eurycea guttolineata	three-lined salamander	PIP
Gastrophryne carolinensis	eastern narrow-mouthed toad	PP
Gyrinophilus porphyriticus	Carolina spring salamander	PIP
Hemidactylium scutatum	four-toed salamander	PP
Hyla andersonii	pine barrens treefrog	U
Hyla chrysoscelis	Cope's gray treefrog	PIP
Hyla cinerea	green treefrog	U
Hyla squirella	squirrel treefrog	U
Hyla versicolor	gray treefrog	U
Notophthalmus viridescens	red-spotted newt	PP
Plethodon cylindraceus	slimy salamander	PIP
Pseudacris crucifer	spring peeper	PP
Pseudacris feriarum	upland chorus frog	PIP
Pseudotriton montanus	eastern mud salamander	PIP
Pseudotriton ruber	northern red salamander	PIP
Rana catesbeiana	bullfrog	PIP
Rana clamitans	green frog	PIP
Rana palustris	pickerel frog	U
Rana sphenocephala	southern leopard frog	PIP
Scaphiopus holbrookii	eastern spadefoot	PP
Birds		
Accipiter cooperii	Cooper's Hawk	PIP
Accipiter striatus	Sharp-shinned Hawk	PIP
Actitis macularius	Spotted Sandpiper	U
Agelaius phoeniceus	Red-winged Blackbird	U
Aimophila aestivalis	Bachman's Sparrow	U
Aix sponsa	Wood Duck	PIP
Ammodramus henslowii	Henslow's Sparrow	U
Ammodramus leconteii	Le Conte's Sparrow	U
Ammodramus nelsoni	Nelson's Sharp-tailed Sparrow	U
Ammodramus savannarum	Grasshopper Sparrow	U
Anas platyrhynchos	Mallard	PIP
Anthus rubescens	American Pipit	U
Aquila chrysaetos	Golden Eagle	U
Archilochus colubris	Ruby-throated Hummingbird	PIP
Ardea alba	Great Egret	U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Ardea herodias	Great Blue Heron	PIP
Arenaria interpres	Ruddy Turnstone	U
Asio flammeus	Short-eared Owl	U
Asio otus	Long-eared Owl	U
Baeolophus bicolor	Tufted Titmouse	PIP
Bombycilla cedrorum	Cedar Waxwing	PIP
Botaurus lentiginosus	American Bittern	U
Branta canadensis	Canada Goose	PIP
Bubo virginianus	Great Horned Owl	PIP
Bubulcus ibis	Cattle Egret	U
Buteo jamaicensis	Red-tailed Hawk	PIP
Buteo lineatus	Red-shouldered Hawk	PIP
Buteo platypterus	Broad-winged Hawk	PIP
Butorides virescens	Green Heron	PP
Calidris alpina	Dunlin	U
Calidris fuscicollis	White-rumped Sandpiper	U
Calidris himantopus	Stilt Sandpiper	U
Calidris mauri	Western Sandpiper	U
Calidris melanotos	Pectoral Sandpiper	U
Calidris minutilla	Least Sandpiper	U
Calidris pusilla	Semipalmated Sandpiper	U
Caprimulgus carolinensis	Chuck-will's-widow	PIP
Caprimulgus vociferus	Whip-poor-will	PIP
Cardinalis cardinalis	Northern Cardinal	PIP
Carduelis pinus	Pine Siskin	U
Carduelis tristis	American Goldfinch	PIP
Carpodacus mexicanus	House Finch	PIP
Carpodacus purpureus	Purple Finch	PIP
Cathartes aura	Turkey Vulture	PIP
Catharus fuscescens	Veery	U
Catharus guttatus	Hermit Thrush	PIP
Catharus minimus	Gray-cheeked Thrush	PIP
Catharus ustulatus	Swainson's Thrush	U
Certhia americana	Brown Creeper	PIP
Ceryle alcyon	Belted Kingfisher	PIP
Chaetura pelagica	Chimney Swift	PIP
Charadrius semipalmatus	Semipalmated Plover	U
Charadrius vociferus	Killdeer	PIP
Chlidonias niger	Black Tern	U
Chordeiles minor	Common Nighthawk	PIP
Circus cyaneus	Northern Harrier	PIP
Cistothorus palustris	Marsh Wren	U
Cistothorus platensis	Sedge Wren	U
Coccothraustes vespertinus	Evening Grosbeak	U
Coccyzus americanus	Yellow-billed Cuckoo	PIP
Coccyzus erythropthalmus	Black-billed Cuckoo	PIP
Colaptes auratus	Northern Flicker	PIP
Colinus virginianus	Northern Bobwhite	PIP
Columba livia	Rock Pigeon	PIP
Contopus virens	Eastern Wood-Pewee	PIP
Coragyps atratus	Black Vulture	PIP
Corvus brachyrhynchos	American Crow	PIP
Coturnicops noveboracensis	Yellow Rail	U
Cyanocitta cristata	Blue Jay	PIP
Dendroica caerulescens	Black-throated Blue Warbler	PIP
Dendroica castanea	Bay-breasted Warbler	PIP
Dendroica cerulea	Cerulean Warbler	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Dendroica coronata	Yellow-rumped Warbler	PIP
Dendroica discolor	Prairie Warbler	PIP
Dendroica dominica	Yellow-throated Warbler	PIP
Dendroica fusca	Blackburnian Warbler	PIP
Dendroica magnolia	Magnolia Warbler	PIP
Dendroica palmarum	Palm Warbler	PIP
Dendroica pensylvanica	Chestnut-sided Warbler	PIP
Dendroica petechia	Yellow Warbler	PIP
Dendroica pinus	Pine Warbler	PIP
Dendroica striata	Blackpoll Warbler	PIP
Dendroica tigrina	Cape May Warbler	PIP
Dendroica virens	Black-throated Green Warbler	PIP
Dolichonyx oryzivorus	Bobolink	U
Dryocopus pileatus	Pileated Woodpecker	PIP
Dumetella carolinensis	Gray Catbird	PIP
Empidonax flaviventris	Yellow-bellied Flycatcher	U
Empidonax minimus	Least Flycatcher	U
Empidonax traillii	Willow Flycatcher	U
Empidonax virescens	Acadian Flycatcher	PIP
Eremophila alpestris	Horned Lark	U
Euphagus carolinus	Rusty Blackbird	U
Falco columbarius	Merlin	U
Falco peregrinus	Peregrine Falcon	U
Falco sparverius	American Kestrel	U
Fulica americana	American Coot	U
Gallinago gallinago	Common Snipe	PIP
Geothlypis trichas	Common Yellowthroat	PIP
Haliaeetus leucocephalus	Bald Eagle	PIP
Helmitheros vermivorum	Worm-eating Warbler	PIP
Hirundo rustica	Barn Swallow	U
Hylocichla mustelina	Wood Thrush	PIP
Icteria virens	Yellow-breasted Chat	U
Icterus galbula	Baltimore Oriole	U
Icterus spurius	Orchard Oriole	U
Ixobrychus exilis	Least Bittern	U
Junco hyemalis	Dark-eyed Junco	PIP
Lanius ludovicianus	Loggerhead Shrike	U
Larus argentatus	Herring Gull	U
Larus delawarensis	Ring-billed Gull	PP
Larus philadelphia	Bonaparte's Gull	U
Laterallus jamaicensis	Black Rail	U
Limnodromus griseus	Short-billed Dowitcher	U
Limnothlypis swainsonii	Swainson's Warbler	U
Megascops asio	Eastern Screech-Owl	PIP
Melanerpes carolinus	Red-bellied Woodpecker	PIP
Melanerpes erythrocephalus	Red-headed Woodpecker	PIP
Meleagris gallopavo	Wild Turkey	PIP
Melospiza georgiana	Swamp Sparrow	U
Melospiza lincolnii	Lincoln's Sparrow	U
Melospiza melodia	Song Sparrow	PIP
Mimus polyglottos	Northern Mockingbird	PIP
Mniotilta varia	Black-and-white Warbler	PIP
Molothrus ater	Brown-headed Cowbird	PIP
Myiarchus crinitus	Great Crested Flycatcher	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Nyctanassa violacea	Yellow-crowned Night-Heron	U
Nycticorax nycticorax	Black-crowned Night-Heron	U
Oporornis agilis	Connecticut Warbler	U
Oporornis formosus	Kentucky Warbler	PIP
Oporornis philadelphia	Mourning Warbler	PIP
Pandion haliaetus	Osprey	PIP
Parula americana	Northern Parula	PIP
Passer domesticus	House Sparrow	U
Passerculus sandwichensis	Savannah Sparrow	U
Passerella iliaca	Fox Sparrow	U
Passerina caerulea	Blue Grosbeak	U
Passerina cyanea	Indigo Bunting	PIP
Petrochelidon fulva	Cave Swallow	U
Petrochelidon pyrrhonota	Cliff Swallow	U
Pheucticus ludovicianus	Rose-breasted Grosbeak	PIP
Picoides pubescens	Downy Woodpecker	PIP
Picoides villosus	Hairy Woodpecker	PIP
Pipilo erythrophthalmus	Eastern Towhee	PIP
Piranga olivacea	Scarlet Tanager	PIP
Piranga rubra	Summer Tanager	PIP
Pluvialis squatarola	Black-bellied Plover	U
Poecile carolinensis	Carolina Chickadee	PIP
Polioptila caerulea	Blue-gray Gnatcatcher	PIP
Pooecetes gramineus	Vesper Sparrow	U
Porphyrio martinica	Purple Gallinule	U
Porzana carolina	Sora	U
Progne subis	Purple Martin	U
Protonotaria citrea	Prothonotary Warbler	PIP
Quiscalus quiscula	Common Grackle	PIP
Rallus elegans	King Rail	U
Rallus limicola	Virginia Rail	U
Regulus calendula	Ruby-crowned Kinglet	PIP
Regulus satrapa	Golden-crowned Kinglet	PIP
Riparia riparia	Bank Swallow	U
Sayornis phoebe	Eastern Phoebe	PIP
Scolopax minor	American Woodcock	PIP
Seiurus aurocapilla	Ovenbird	PIP
Seiurus motacilla	Louisiana Waterthrush	PIP
Seiurus noveboracensis	Northern Waterthrush	PIP
Setophaga ruticilla	American Redstart	PIP
Sialia sialis	Eastern Bluebird	PIP
Sitta canadensis	Red-breasted Nuthatch	PIP
Sitta carolinensis	White-breasted Nuthatch	PIP
Sitta pusilla	Brown-headed Nuthatch	PIP
Sphyrapicus varius	Yellow-bellied Sapsucker	PIP
Spizella passerina	Chipping Sparrow	PIP
Spizella pusilla	Field Sparrow	PIP
Stelgidopteryx ruficollis	Southern Rough-winged Swallow	U
Stelgidopteryx serripennis	Northern Rough-winged Swallow	U
Sterna caspia	Caspian Tern	U
Sterna hirundo	Common Tern	U
Strix varia	Barred Owl	PIP
Sturnella magna	Eastern Meadowlark	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Sturnus vulgaris	European Starling	PIP
Tachycineta bicolor	Tree Swallow	U
Thryomanes bewickii	Bewick's Wren	U
Thryothorus ludovicianus	Carolina Wren	PIP
Toxostoma rufum	Brown Thrasher	PIP
Tringa flavipes	Lesser Yellowlegs	U
Tringa melanoleuca	Greater Yellowlegs	U
Tringa solitaria	Solitary Sandpiper	U
Troglodytes aedon	House Wren	PIP
Troglodytes troglodytes	Winter Wren	PIP
Turdus migratorius	American Robin	PIP
Tyrannus tyrannus	Eastern Kingbird	U
Tyto alba	Barn Owl	U
Vermivora celata	Orange-crowned Warbler	U
Vermivora peregrina	Tennessee Warbler	PIP
Vermivora pinus	Blue-winged Warbler	PIP
Vermivora ruficapilla	Nashville Warbler	PIP
Vireo flavifrons	Yellow-throated Vireo	PIP
Vireo gilvus	Warbling Vireo	PIP
Vireo griseus	White-eyed Vireo	PIP
Vireo olivaceus	Red-eyed Vireo	PIP
Vireo philadelphicus	Philadelphia Vireo	U
Vireo solitarius	Blue-headed Vireo	PIP
Wilsonia canadensis	Canada Warbler	U
Wilsonia citrina	Hooded Warbler	PIP
Wilsonia pusilla	Wilson's Warbler	U
Zenaida macroura	Mourning Dove	PIP
Zonotrichia albicollis	White-throated Sparrow	PIP
Zonotrichia leucophrys	White-crowned Sparrow	PIP

Scientific Name	Common Name	Park Status[1]
Fishes		
Ameiurus brunneus	snail bullhead	U
Ameiurus catus	white catfish	U
Ameiurus natalis	yellow bullhead	U
Ameiurus nebulosus	brown bullhead	U
Ameiurus platycephalus	flat bullhead	PIP
Catostomus commersonii	white sucker	PIP
Clinostomus funduloides	rosyside dace	PIP
Cyprinella chloristia	greenfin shiner	PIP
Cyprinella labrosa	thicklip chub	U
Cyprinella nivea	whitefin shiner	U
Cyprinella pyrrhomelas	fieryblack shiner	U
Cyprinella zanema	santee chub	U
Esox niger	chain pickerel	U
Etheostoma collis	Carolina darter	PIP
Etheostoma flabellare	fantail darter	PIP
Etheostoma olmstedi	tessellated darter	PIP
Etheostoma thalassinum	seagreen darter	PIP
Gambusia holbrooki	Eastern mosquitofish	U
Hybognathus regius	eastern silvery minnow	U
Hybopsis hypsinotus	highback chub	PIP
Hypentelium nigricans	Northern hogsucker	PIP
Lepomis auritus	redbreast sunfish	PIP
Lepomis gibbosus	pumpkinseed	U
Lepomis gulosus	warmouth	U
Lepomis macrochirus	bluegill	PIP
Micropterus dolomieu	smallmouth bass	PIP
Micropterus salmoides	largemouth bass	U
Moxostoma collapsum	v-lip redhorse	U
Moxostoma pappillosum	slender redhorse	U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Nocomis leptocephalus	bluehead chub	PIP
Notemigonus crysoleucas	golden shiner	U
Notropis hudsonius	spottail shiner	U
Notropis lutipinnis	yellowfin shiner	PIP
Notropis scepticus	sandbar shiner	PIP
Noturus insignis	margined madtom	PIP
Percina crassa	piedmont darter	U
Pomoxis nigromaculatus	black crappie	U
Scartomyzon rupiscartes	striped jumprock	PIP
Semotilus atromaculatus	creek chub	PIP
Mammals		
Blarina carolinensis	southern short-tailed shrew	PIP
Canis latrans	coyote	PP
Castor canadensis	American beaver	PIP
Corynorhinus rafinesquii	Rafinesque's big-eared bat	U
Cryptotis parva	least shrew	PIP
Didelphis virginiana	Virginia opossum	PIP
Eptesicus fuscus	big brown bat	PIP
Felis catus	feral cat	U
Glaucomys volans	southern flying squirrel	PIP
Lasionycteris noctivagans	silver-haired bat	PP
Lasiurus borealis	eastern red bat	PIP
Lasiurus cinereus	hoary bat	PIP
Lasiurus seminolus	Seminole bat	U
Lontra canadensis	river otter	U
Lynx rufus	bobcat	PIP
Marmota monax	woodchuck	PP
Mephitis mephitis	striped skunk	PIP
Microtus pennsylvanicus	meadow vole	U
Microtus pinetorum	woodland vole	PP
Mus musculus	house mouse	U
Mustela frenata	long-tailed weasel	PP
Mustela vison	mink	PP
Myotis austroriparius	southeastern bat	U
Myotis lucifugus	little brown bat	U
Myotis septentrionalis	northern bat	U
Neotoma floridana	eastern woodrat	U
Nycticeius humeralis	evening bat	PP
Ochrotomys nuttalli	golden mouse	PIP
Odocoileus virginianus	white-tailed deer	PIP
Ondatra zibethicus	muskrat	PP
Oryzomys palustris	marsh rice rat	U
Peromyscus leucopus	white-footed mouse	PIP
Peromyscus maniculatus	deer mouse	U
Peromyscus polionotus	oldfield mouse	U
Pipistrellus subflavus	eastern pipistrelle	PIP
Procyon lotor	raccoon	PIP
Rattus norvegicus	Norway rat	U
Rattus rattus	black rat	U
Reithrodontomys humulis	eastern harvest mouse	U
Scalopus aquaticus	eastern mole	PIP
Sciurus carolinensis	eastern gray squirrel	PIP
Sciurus niger	eastern fox squirrel	U
Sigmodon hispidus	hispid cotton rat	U
Sorex longirostris	southeastern shrew	U
Spilogale putorius	eastern spotted skunk	U
Sylvilagus aquaticus	swamp rabbit	U
Sylvilagus floridanus	eastern cottontail	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Tamias striatus	eastern chipmunk	PIP
Urocyon cinereoargenteus	gray fox	PIP
Ursus americanus	American black bear	U
Vulpes vulpes	red fox	U
Zapus hudsonius	meadow jumping mouse	U
Reptiles		
Agkistrodon contortrix	copperhead	PIP
Anolis carolinensis	green anole	PIP
Apalone spinifera	spiny softshell turtle	U
Carphophis amoenus	worm snake	PIP
Cemophora coccinea	northern scarlet snake	PP
Chelydra serpentina	common snapping turtle	PIP
Chrysemys picta	eastern painted turtle	PIP
Cnemidophorus sexlineatus	six-lined racerunner	PIP
Coluber constrictor	black racer	PIP
Crotalus horridus	timber rattlesnake	PIP
Diadophis punctatus	ringneck snake	PIP
Elaphe alleghaniensis	rat snake	PIP
Elaphe guttata	corn snake	PIP
Eumeces fasciatus	five-lined skink	PIP
Eumeces inexpectatus	southeastern five-lined skink	PIP
Eumeces laticeps	broadhead skink	PP
Heterodon platirhinos	eastern hognose snake	PIP
Kinosternon subrubrum	eastern mud turtle	PP
Lampropeltis calligaster	mole kingsnake	PIP
Lampropeltis getula	eastern kingsnake	PIP
Lampropeltis triangulum	milk snake/ scarlet kingsnake	U
Masticophis flagellum	eastern coachwhip	U
Nerodia erythrogaster	redbelly water snake	U
Nerodia fasciata	banded water snake	U
Nerodia sipedon	northern water snake	PIP
Nerodia taxispilota	brown water snake	U
Opheodrys aestivus	rough green snake	PIP
Ophisaurus attenuatus	eastern slender glass lizard	PP
Pituophis melanoleucus	northern pine snake	U
Pseudemys concinna	eastern river cooter	U
Pseudemys floridana	Florida cooter	U
Regina septemvittata	queen snake	PIP
Sceloporus undulatus	eastern fence lizard	PIP
Scincella lateralis	ground skink	PIP
Sistrurus miliarius	pigmy rattlesnake	U
Sternotherus odoratus	common musk turtle	PP
Storeria dekayi	brown snake	PP
Storeria occipitomaculata	redbelly snake	PIP
Tantilla coronata	Southeastern crowned snake	PP
Terrapene carolina	eastern box turtle	PIP
Thamnophis sauritus	eastern ribbon snake	PP
Thamnophis sirtalis	eastern garter snake	PIP
Trachemys scripta	yellowbelly slider	U
Virginia striatula	rough earth snake	PP
Virginia valeriae	smooth earth snake	PIP
Vascular Plants		
Acalypha gracilens	slender threeseed mercury	U
Acalypha rhomboidea	Virginia threeseed mercury	PIP
Acalypha virginica	Virginia threeseed mercury	U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Acer barbatum	southern sugar maple	PIP
Acer leucoderme	chalk maple	U
Acer negundo var. negundo		PIP
Acer rubrum	red maple	PIP
Achillea millefolium	common yarrow	U
Actaea racemosa var. racemosa		PIP
Adiantum pedatum	northern maidenhair	PIP
Aesculus sylvatica	painted buckeye	U
Agalinis fasciculata	beach false foxglove	U
Agalinis obtusifolia	tenlobe false foxglove	U
Agalinis setacea	threadleaf false foxglove	PP
Agalinis tenuifolia var. tenuifolia		U
Ageratina altissima	white snakeroot	PIP
Ageratina altissima var. altissima	white snakeroot	PIP
Ageratina aromatica var. aromatica	lesser snakeroot	PP
Agrimonia microcarpa	Small-fruited agrimony	PIP
Agrimonia pubescens	soft agrimony	PP
Agrostemma githago	common corncockle	U
Agrostis perennans	Perennial bentgrass	PIP
Agrostis stolonifera	creeping bentgrass	PIP
Ailanthus altissima	Tree-of-heaven	PIP
Aira elegans	annual silver hairgrass	PIP
Albizia julibrissin	silk tree	PIP
Aletris farinosa	white colicroot	PIP
Allium canadense	meadow onion	PIP
Allium cernuum	nodding onion	U
Allium vineale ssp. vineale		PIP
Alnus serrulata	alder	PIP
Alopecurus carolinianus	Carolina foxtail	U
Alopecurus myosuroides	slender meadow foxtail	U
Amaranthus spinosus	thorny pigweed	PIP
Amaranthus viridis	slender amaranth	U
Ambrosia artemisiifolia var. paniculata		PIP
Ambrosia trifida var. trifida		PIP
Amelanchier arborea	downy serviceberry	PIP
Amelanchier obovalis	coastal serviceberry	U
Amianthium muscitoxicum	flypoison	PIP
Amorpha glabra	mountain indigobush	U
Amphicarpaea bracteata	American hogpeanut	PIP
Amsonia tabernaemontana	eastern bluestar	PIP
Amsonia tabernaemontana var. salicifolia	eastern bluestar	U
Andropogon gerardii	big bluestem	U
Andropogon gyrans var. gyrans	Elliott's bluestem	U
Andropogon ternarius	splitbeard bluestem	PIP
Andropogon virginicus	broom-sedge	PIP
Anemone lancifolia	mountain thimble-weed	PIP
Anemone virginiana var. virginiana		PIP
Angelica venenosa	hairy angelica	PP
Antennaria parlinii ssp. fallax	Parlin's pussytoes	U
Antennaria plantaginifolia	plantain-leaf pussytoes	PIP
Antennaria solitaria	singlehead pussytoes	U
Anthemis cotula	stinking chamomile	U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Anthoxanthum odoratum	sweet vernalgrass	PP
Aphanes microcarpa	slender parsely piert	PIP
Apios americana	groundnut	PP
Aplectrum hyemale	puttyroot	PIP
Apocynum cannabinum	Indianhemp	PIP
Aquilegia canadensis	red columbine	U
Arabidopsis thaliana	mouseear cress	U
Arabis canadensis	sicklepod	U
Aralia spinosa	devil's walkingstick	U
Arisaema dracontium	green dragon	PIP
Arisaema triphyllum	Jack-in-the-pulpit	PIP
Aristida dichotoma	churchmouse threeawn	U
Aristida oligantha	prairie threeawn	U
Aristida purpurascens	arrowfeather threeawn	U
Aristolochia serpentaria	Virginia snakeroot	PIP
Arnica acaulis	common leopardbane	U
Arnoglossum atriplicifolium	pale Indian plaintain	U
Arthraxon hispidus	small carpgrass	PIP
Aruncus dioicus var. dioicus		PIP
Arundinaria gigantea	giant cane	PIP
Asarum canadense	Canadian wild ginger	PIP
Asclepias amplexicaulis	clasping milkweed	PP
Asclepias incarnata ssp. pulchra	swamp milkweed	PP
Asclepias tuberosa	butterflyweed	PIP
Asclepias variegata	white milkweed	PIP
Asclepias verticillata	whorled milkweed	U
Asclepias viridiflora	green comet milkweed	U
Asimina parviflora	smallflower pawpaw	PIP
Asimina triloba	pawpaw	PIP
Asplenium bradleyi	Bradley's spleewort	U
Asplenium platyneuron	ebony spleenwort	PIP
Aster X sagittifolius	HYBRID	PIP
Athyrium filix-femina ssp. asplenioides	lowland ladyfern	PIP
Aureolaria laevigata	entireleaf yellow false foxglove	PP
Aureolaria pectinata	combleaf yellow false foxglove	U
Aureolaria virginica	downy false-foxglove	PIP
Avena sativa	common oat	U
Baccharis halimifolia	eastern baccharis	U
Baptisia alba var. alba		PIP
Baptisia albescens	spiked wild indigo	PIP
Baptisia cinerea	hairy wild-indigo	PIP
Baptisia tinctoria	yellow wild-indigo	PIP
Barbarea verna	early yellowrocket	U
Betula nigra	river birch	PIP
Bidens aristosa	bearded beggarticks	U
Bidens bipinnata	Spanish needles	PIP
Bidens frondosa	devil's beggarticks	PIP
Bignonia capreolata	crossvine	PIP
Boehmeria cylindrica	false nettle	PIP
Botrychium biternatum	southern grapefern	PIP
Botrychium dissectum	cutleaf grapefern	PIP
Botrychium virginianum	rattlesnake fern	PIP
Brachyelytrum erectum	bearded short-husk	PIP
Brickellia eupatorioides var. eupatorioides	false boneset	U
Bromus catharticus	rescuegrass	U
Bromus commutatus	meadow brome	PP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Bromus japonicus	Japanese brome	PIP
Bromus latiglumis	earlyleaf brome	U
Bromus pubescens	hairy wood brome grass	PIP
Bromus secalinus	rye brome	PIP
Bromus tectorum	cheatgrass	U
Broussonetia papyrifera	paper mulberry	U
Buglossoides arvensis	corn gromwell	U
Bulbostylis capillaris ssp. capillaris		U
Bulbostylis ciliatifolia	capillary hairsedge	U
Callicarpa americana	American beautyberry	U
Callisia rosea	Piedmont roseling	U
Callitriche terrestris	terrestrial waterstarwort	U
Calycanthus floridus	eastern sweetshrub	PIP
Calycanthus floridus var. glaucus	sweet shrub	PIP
Calystegia sepium	hedge false bindweed	U
Camassia scilloides	Atlantic camas	U
Campsis radicans	trumpet creeper	PIP
Capsella bursa-pastoris	shepherd's purse	PP
Cardamine bulbosa	bulbous bittercress	U
Cardamine diphylla	crinkleroot	PP
Cardamine hirsuta	hairy bittercress	PIP
Cardamine parviflora var. arenicola	sand bittercress	U
Carex amphibola	eastern narrowleaf sedge	PIP
Carex annectens	yellow-fruited sedge	PIP
Carex atlantica ssp. capillacea	howe sedge	PIP
Carex caroliniana	Carolina sedge	PIP
Carex communis	fibrousroot sedge	PIP
Carex complanata	hirsute sedge	PIP
Carex crinita	fringed sedge	PIP
Carex debilis var. pubera	white edge sedge	PIP
Carex digitalis	slender woodland sedge	PIP
Carex frankii	Frank's sedge	PP
Carex granularis	limestone meadow sedge	PIP
Carex intumescens	bladder sedge	PIP
Carex laevivaginata	smooth-sheath sedge	PP
Carex laxiculmis var. laxiculmis	spreading sedge	PIP
Carex leptalea ssp. harperi		PIP
Carex lucorum var. austrolucorum	Blue Ridge sedge	U
Carex lurida	shallow sedge	PIP
Carex muehlenbergii	Muhlenberg's sedge	U
Carex nigromarginata	black edge sedge	PIP
Carex platyphylla	broadleaf sedge	U
Carex retroflexa	reflexed sedge	PIP
Carex rosea	rosy sedge	PIP
Carex scoparia var. scoparia		PP
Carex seorsa	weak stellate sedge	PIP
Carex styloflexa	bent sedge	PIP
Carex tenera	slender sedge	PIP
Carex texensis	Texas sedge	U
Carex torta	twisted sedge	PIP
Carex tribuloides	blunt broom sedge	PIP
Carex venusta	dark green sedge	PIP
Carex vulpinoidea	fox sedge	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Carpinus caroliniana	American hornbeam	PIP
Carya alba	mockernut hickory	PIP
Carya cordiformis	bitternut hickory	U
Carya glabra	pignut hickory	PIP
Carya illinoinensis	pecan	U
Carya ovalis	red hickory	PIP
Carya ovata	shagbark hickory	PIP
Carya pallida	sand hickory	PIP
Castanea dentata	American chestnut	PIP
Castanea mollissima	Chinese chestnut	PIP
Catalpa speciosa	Northern catalpa	PIP
Ceanothus americanus	New Jersey tea	PIP
Celtis laevigata	sugarberry	PIP
Celtis tenuifolia	dwarf hackberry	U
Cenchrus longispinus	innocent-weed	U
Centaurea cyanus	garden cornflower	U
Centrosema virginianum	coastal butterfly-pea	PIP
Cephalanthus occidentalis	common buttonbush	PP
Cerastium brachypetalum	gray chickweed	U
Cerastium fontanum ssp. vulgare	big chickweed	U
Cerastium glomeratum	sticky mouse-ear chickweed	PIP
Cercis canadensis var. canadensis		PIP
Chaerophyllum tainturieri	hairyfruit chervil	PIP
Chamaecrista fasciculata var. fasciculata		PIP
Chamaecrista nictitans	partridge pea	PIP
Chamaecrista nictitans ssp. nictitans var. nictitans	partridge pea	U
Chamaelirium luteum	devil's-bit	PIP
Chamaesyce maculata	spotted sandmat	U
Chamaesyce nutans	eyebane	PIP
Chasmanthium latifolium	fish-on-a-string	PIP
Chasmanthium laxum	slender woodoats	PIP
Chasmanthium sessiliflorum	longleaf woodoats	U
Chelone glabra	white turtlehead	PIP
Chenopodium album	lambsquarters	U
Chenopodium ambrosioides var. ambrosioides		U
Chimaphila maculata	striped prince's pine	PIP
Chionanthus virginicus	fringetree	PIP
Chrysogonum virginianum var. australe	green and gold	PIP
Chrysogonum virginianum var. virginianum		PIP
Chrysopsis mariana	Maryland goldenaster	PIP
Cichorium intybus	chicory	U
Cicuta maculata var. maculata	water hemlock	PIP
Cinna arundinacea	sweet woodreed	PP
Circaea lutetiana ssp. canadensis	broadleaf enchanter's nightshade	PIP
Cirsium altissimum	tall thistle	PIP
Cirsium carolinianum	Carolina thistle	PIP
Cirsium horridulum	yellow thistle	PIP
Cirsium horridulum var. horridulum		U
Cirsium virginianum	Virginia thistle	PIP
Claytonia virginica	Virginia springbeauty	U
Clematis ochroleuca	curlyheads	U
Clematis viorna	vasevine	U
Clinopodium georgianum		U
Clitoria mariana	Maryland butterfly-pea	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Cnicus benedictus	blessed thistle	U
Cnidoscolus stimulosus	finger rot	U
Cocculus carolinus	Carolina coralbead	U
Collinsonia canadensis	Canada horsebalm	PIP
Commelina communis	Asiatic dayflower	PIP
Commelina erecta	whitemouth dayflower	U
Commelina virginica	Virginia dayflower	U
Conoclinium coelestinum	blue mistflower	U
Consolida ajacis	doubtful knight's-spur	U
Conyza canadensis	Canada horseweed	PIP
Conyza canadensis var. canadensis	Canadian horseweed	PIP
Conyza canadensis var. pusilla	fleabane	PIP
Coreopsis major	wood tickseed	PIP
Coreopsis pubescens var. robusta	star tickseed	PIP
Coreopsis tinctoria var. tinctoria		U
Coreopsis tripteris	tall tickseed	U
Cornus amomum	silky dogwood	PIP
Cornus florida	flowering dogwood	PIP
Coronopus didymus	lesser swinecress	U
Corylus americana	American hazelnut	PP
Corylus cornuta	beaked hazelnut	PP
Crataegus crus-galli	cockspur hawthorn	U
Crataegus flabellata	fanleaf hawthorn	U
Crataegus flava	yellowleaf hawthorn	PP
Crataegus pruinosa	frosted hawthorne	PIP
Crataegus spathulata	littlehip hawthorn	U
Crataegus uniflora	dwarf hawthorn	U
Crepis pulchra	smallflower hawksbeard	U

Scientific Name	Common Name	Park Status[1]
Croptilon divaricatum	slender scratchdaisy	U
Crotalaria sagittalis	arrowhead rattlebox	U
Croton glandulosus var. septentrionalis	vente conmigo	PIP
Croton willdenowii	Willdenow's croton	U
Cruciata pedemontana	piedmont bedstraw	PIP
Cryptotaenia canadensis	Canadian honewort	PIP
Cunila origanoides	common dittany	PIP
Cuscuta compacta	compact dodder	U
Cuscuta gronovii	scaldweed	U
Cuscuta pentagona var. pentagona	fiveangled dodder	U
Cyclospermum leptophyllum	marsh parsley	U
Cynodon dactylon	Bermudagrass	U
Cynoglossum virginianum var. virginianum		PIP
Cyperus croceus	Baldwin's flatsedge	U
Cyperus echinatus	globe flatsedge	PIP
Cyperus esculentus	chufa flatsedge	PP
Cyperus flavescens	yellow flatsedge	PP
Cyperus flavicomus	whiteedge flatsedge	U
Cyperus iria	ricefield flatsedge	U
Cyperus lancastriensis	manyflower flatsedge	U
Cyperus lupulinus ssp. lupulinus	Great Plains flatsedge	U
Cyperus odoratus	rusty flatsedge	PIP
Cyperus polystachyos var. texensis	Texan flatsedge	U
Cyperus pseudovegetus	marsh flatsedge	U
Cyperus refractus	reflexed flatsedge	PIP
Cyperus retrofractus	rough flatsedge	U
Cyperus retrorsus	pine barren flatsedge	U
Cyperus rotundus	nutgrass	U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Cyperus squarrosus	bearded flatsedge	U
Cyperus strigosus	straw-colored flatsedge	PIP
Cypripedium acaule	moccasin flower	PIP
Cypripedium parviflorum		PIP
Dactylis glomerata ssp. glomerata		PIP
Dactyloctenium aegyptium	Durban crowsfoot grass	U
Danthonia sericea	downy danthonia	PIP
Danthonia spicata	poverty oatgrass	PIP
Dasistoma macrophylla	mullein foxglove	U
Daucus carota	Queen Anne's lace	PIP
Daucus pusillus	American wild carrot	U
Decumaria barbara	woodvamp	PP
Deparia acrostichoides	silver false spleenwort	PIP
Desmodium canescens	hoary ticktrefoil	PIP
Desmodium ciliare	hairy small-leaf ticktrefoil	PIP
Desmodium glabellum	Dillenius' ticktrefoil	PIP
Desmodium laevigatum	smooth ticktrefoil	PIP
Desmodium marilandicum	smooth small-leaf ticktrefoil	PP
Desmodium nudiflorum	nakedflower ticktrefoil	PIP
Desmodium nuttallii	Nuttall's ticktrefoil	PIP
Desmodium paniculatum	panicledleaf ticktrefoil	PIP
Desmodium perplexum	perplexed ticktrefoil	U
Desmodium rotundifolium	prostrate ticktrefoil	PP
Desmodium sessilifolium	sessileleaf ticktrefoil	U
Desmodium strictum	pinebarren ticktrefoil	PP
Desmodium viridiflorum	velvetleaf ticktrefoil	PIP
Diamorpha smallii	elf orpine	U

Scientific Name	Common Name	Park Status[1]
Dianthus armeria	Deptford pink	U
Dichanthelium acuminatum	tapered rosette grass	PIP
Dichanthelium acuminatum var. acuminatum	tapered rosette grass	PIP
Dichanthelium boscii	Bosc's panicgrass	PIP
Dichanthelium clandestinum	deertongue	PP
Dichanthelium commutatum	variable panicgrass	PIP
Dichanthelium depauperatum	starved panicgrass	U
Dichanthelium dichotomum	cypress panicgrass	PIP
Dichanthelium dichotomum var. dichotomum	cypress panicgrass	PIP
Dichanthelium dichotomum var. tenue	cypress panicgrass	PIP
Dichanthelium laxiflorum	openflower rosette grass	PIP
Dichanthelium scabriusculum	woolly rosette grass	U
Dichanthelium scoparium	velvet panicum	PIP
Dichanthelium sphaerocarpon	roundseed panicgrass	PIP
Dichanthelium sphaerocarpon var. isophyllum	roundseed panicgrass	PIP
Dichanthelium sphaerocarpon var. sphaerocarpon	roundseed panicgrass	PP
Digitaria cognata var. cognata	fall witchgrass	U
Digitaria filiformis	slender crabgrass	PIP
Digitaria ischaemum	smooth crabgrass	PIP
Digitaria sanguinalis	hairy crabgrass	PP
Digitaria villosa	shaggy crabgrass	U
Diodia teres	poorjoe	PIP
Diodia virginiana	Virginia buttonweed	PP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Dioscorea oppositifolia	Chinese yam	PIP
Dioscorea quaternata	fourleaf yam	PIP
Dioscorea villosa	wild yam	PIP
Diospyros virginiana	common persimmon	PIP
Doellingeria infirma	cornel-leaf whitetop	U
Draba verna	spring draba	U
Duchesnea indica	Indian strawberry	PIP
Echinochloa colona	jungle rice	U
Echinochloa crus-galli	barnyardgrass	U
Echinochloa muricata var. microstachya	rough barnyard grass	PP
Eclipta prostrata	false daisy	PIP
Elaeagnus umbellata var. parvifolia	autumn olive	PP
Eleocharis obtusa	blunt spikerush	PP
Eleocharis palustris	creeping spike-rush	PP
Eleocharis quadrangulata	squarestem spikerush	PP
Elephantopus carolinianus	Carolina elephantsfoot	PIP
Elephantopus tomentosus	devil's grandmother	PIP
Eleusine indica	Indian goosegrass	U
Elymus hystrix var. hystrix	eastern bottlebrush grass	PIP
Elymus riparius	river wild-rye	PP
Elymus virginicus var. virginicus		PIP
Epifagus virginiana	beechdrops	PIP
Epigaea repens	trailing arbutus	PIP
Equisetum arvense	field horsetail	PIP
Equisetum hyemale var. affine	scouringrush horsetail	U
Eragrostis hirsuta	bigtop lovegrass	PIP
Eragrostis lugens	mourning lovegrass	PP
Eragrostis pilosa	Indian lovegrass	U
Eragrostis spectabilis	purple lovegrass	PIP
Erechtites hieraciifolia var. hieraciifolia	American burnweed	PIP
Eremochloa ophiuroides	centipede grass	PIP
Erigeron annuus	daisy fleabane	PIP
Erigeron philadelphicus	Philadelphia fleabane	PIP
Erigeron pulchellus var. pulchellus		PIP
Erigeron strigosus	prairie fleabane	PIP
Erodium cicutarium	redstem stork's bill	U
Eryngium yuccifolium	button eryngo	PP
Erythronium americanum ssp. americanum		PIP
Erythronium umbilicatum ssp. umbilicatum	dimpled troutlily	PIP
Euonymus americana	strawberry bush	PIP
Eupatorium album var. album	white thoroughwort	PIP
Eupatorium capillifolium	dogfennel	PIP
Eupatorium dubium	coastalplain joepyeweed	U
Eupatorium fistulosum	trumpetweed	PIP
Eupatorium glaucescens	waxy thoroughwort	U
Eupatorium hyssopifolium	hyssopleaf thoroughwort	PIP
Eupatorium purpureum var. purpureum		PP
Eupatorium rotundifolium	roundleaf thoroughwort	PIP
Eupatorium rotundifolium var. rotundifolium	roundleaf thoroughwort	PIP
Eupatorium serotinum	lateflowering thoroughwort	U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Eupatorium sessilifolium var. vaseyi	upland boneset	PIP
Euphorbia corollata	flowering spurge	PIP
Euphorbia cyathophora	fire on the mountain	U
Euphorbia pubentissima	flowering spurge	PIP
Eurybia divaricata	white wood aster	PIP
Eurybia spectabilis	western showy aster	PIP
Facelis retusa	annual trampweed	U
Fagus grandifolia	American beech	PIP
Festuca paradoxa	clustered fescue	PIP
Festuca subverticillata	nodding fescue	PIP
Fimbristylis autumnalis	slender fimbry	PP
Fimbristylis dichotoma	forked fimbry	U
Fleischmannia incarnata	pink thoroughwort	U
Foeniculum vulgare	sweet fennel	U
Forsythia X intermedia		PP
Fragaria virginiana ssp. virginiana		PIP
Frangula caroliniana	Carolina buckthorn	U
Fraxinus americana	white ash	PIP
Fraxinus pennsylvanica	green ash	PIP
Galactia regularis	eastern milkpea	PIP
Galactia volubilis	downy milkpea	PIP
Galax urceolata	beetleweed	PIP
Galium aparine	stickywilly	PIP
Galium circaezans	licorice bedstraw	PIP
Galium latifolium	purple bedstraw	PIP
Galium obtusum ssp. obtusum	bluntleaf bedstraw	PP
Galium pilosum	hairy bedstraw	PIP
Galium tinctorium	stiff marsh bedstraw	PIP
Galium triflorum	fragrant bedstraw	PIP
Gamochaeta falcata	narrowleaf purple everlasting	U
Gamochaeta purpurea	spoonleaf purple everlasting	PIP
Gaylussacia baccata	black huckleberry	PIP
Gelsemium sempervirens	evening trumpetflower	U
Gentiana saponaria var. saponaria		PIP
Gentiana villosa	striped gentian	U
Geranium carolinianum var. carolinianum		U
Geranium maculatum	spotted geranium	PIP
Geum canadense var. canadense		PIP
Geum virginianum	cream avens	PIP
Gleditsia triacanthos	honeylocust	PIP
Glyceria striata	fowl mannagrass	PIP
Goodyera pubescens	downy rattlesnake plantain	PIP
Gratiola pilosa	shaggy hedge hyssop	PP
Gratiola virginiana var. virginiana		PIP
Gymnopogon ambiguus	bearded skeletongrass	U
Gymnopogon brevifolius	broad-leaved beardgrass	PP
Halesia carolina	Carolina silverbell	PIP
Hamamelis virginiana	American witchhazel	U
Hedera helix	English ivy	PIP
Helenium amarum	bitterweed	PIP
Helianthus atrorubens	purpledisk sunflower	PIP
Helianthus decapetalus	forest sunflower	PIP
Helianthus divaricatus	woodland sunflower	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Helianthus giganteus	giant sunflower	PP
Helianthus hirsutus	hairy sunflower	U
Helianthus laevigatus	smooth sunflower	PIP
Helianthus microcephalus	small woodland sunflower	PIP
Helianthus tuberosus	Jerusalem artichoke	U
Hemerocallis fulva	orange daylily	U
Hepatica nobilis var. obtusa	roundlobe hepatica	PIP
Heterotheca subaxillaris	camphorweed	U
Heuchera americana var. americana		PIP
Hexastylis arifolia	littlebrownjug	PIP
Hexastylis heterophylla	variableleaf heartleaf	PIP
Hexastylis minor	little heartleaf	PIP
Hexastylis naniflora	dwarfflower heartleaf	U
Hibiscus moscheutos	crimsoneyed rosemallow	U
Hieracium gronovii	beaked hawkweed	PIP
Hieracium marianum		U
Hieracium venosum	rattlesnake hawksweed	PIP
Holcus lanatus	common velvetgrass	U
Holosteum umbellatum	jagged chickweed	U
Hordeum pusillum	little barley	U
Houstonia caerulea	bluet	PIP
Houstonia longifolia	longleaf summer bluet	PIP
Houstonia purpurea var. purpurea	Venus' pride	PIP
Houstonia pusilla	tiny bluet	U
Humulus japonicus	Japanese hop	U
Humulus lupulus var. lupuloides		U

Scientific Name	Common Name	Park Status[1]
Hybanthus concolor	eastern greenviolet	PIP
Hydrangea arborescens	wild hydrangea	PIP
Hydrangea cinerea	ashy hydrangea	PIP
Hydrangea radiata	silverleaf hydrangea	U
Hypericum drummondii	Drummond St. John's wort	PIP
Hypericum gentianoides	orangegrass	PP
Hypericum hypericoides	St. Andrew's cross	PIP
Hypericum hypericoides ssp. hypericoides	St. Andrew's cross	PIP
Hypericum hypericoides ssp. multicaule	St. Andrew's cross	PIP
Hypericum mutilum	dwarf St. Johnswort	PIP
Hypericum nudiflorum	early St. Johnswort	PIP
Hypericum punctatum	spotted St. Johnswort	PIP
Hypericum virgatum		U
Hypochaeris brasiliensis var. tweedyi		U
Hypochaeris radicata	spotted catsear	PIP
Hypoxis hirsuta	common star-grass	PIP
Ilex decidua	possumhaw	PP
Ilex longipes	Georgia holly	PP
Ilex montana	mountain holly	U
Ilex opaca var. opaca	American holly	PIP
Ilex verticillata	common winterberry	U
Impatiens capensis	jewelweed	PIP
Impatiens pallida	pale touch-me-not	PIP
Ionactis linariifolius	stiff-leaved aster	PIP
Ipomoea coccinea	redstar	U
Ipomoea hederacea	ivyleaf morning-glory	U
Ipomoea lacunosa	whitestar	PIP
Ipomoea pandurata	man of the earth	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Ipomoea purpurea	tall morning-glory	U
Iris cristata	dwarf crested iris	PIP
Iris germanica	German iris	U
Iris verna	dwarf violet iris	PIP
Iris virginica	Virginia iris	U
Isoetes engelmannii	Appalachian quillwort	U
Isoetes melanopoda	blackfoot quillwort	U
Isolepis carinata		U
Itea virginica	Virginia sweetspire	PP
Juglans nigra	black walnut	PIP
Juncus acuminatus	tapertip rush	PP
Juncus biflorus	bog rush	U
Juncus bufonius	toad rush	U
Juncus coriaceus	leathery rush	PP
Juncus dichotomus	forked rush	U
Juncus effusus	common rush	PIP
Juncus nodatus	stout rush	U
Juncus tenuis	poverty rush	PIP
Juniperus virginiana var. virginiana	eastern redcedar	PIP
Kalmia latifolia	mountain laurel	PIP
Krigia caespitosa	weedy dwarfdandelion	U
Krigia dandelion	potato dwarfdandelion	PIP
Krigia virginica	Virginia dwarfdandelion	PP
Kummerowia stipulacea	Korean clover	U
Kummerowia striata	Japanese clover	PIP
Kyllinga pumila	low spikesedge	U
Lactuca canadensis	wild lettuce	PIP
Lactuca floridana	woodland lettuce	PIP
Lactuca hirsuta	hairy lettuce	U
Lactuca saligna	willowleaf lettuce	U
Lactuca serriola	prickly lettuce	U
Lamium amplexicaule	henbit deadnettle	PIP
Lamium purpureum var. purpureum		PP
Laportea canadensis	Canadian woodnettle	PP
Lechea racemulosa	Illinois pinweed	PP
Lechea tenuifolia	narrowleaf pinweed	U
Leersia oryzoides	rice cutgrass	PP
Leersia virginica	whitegrass	PIP
Lepidium virginicum var. virginicum		U
Lespedeza bicolor	shrubby lespedeza	U
Lespedeza cuneata	Chinese lespedeza	PIP
Lespedeza hirta	hairy lespedeza	PIP
Lespedeza procumbens	trailing lespedeza	PIP
Lespedeza repens	creeping lespedeza	PIP
Lespedeza stuevei	tall lespedeza	U
Lespedeza violacea	violet lespedeza	PIP
Lespedeza virginica	slender lespedeza	PP
Lespedeza X manniana	Mann's lespedeza	PIP
Lespedeza X nuttallii	Nuttall's lespedeza	PIP
Leucanthemum vulgare	ox-eye daisy	PIP
Leucothoe axillaris	coastal doghobble	PIP
Leucothoe fontanesiana	highland doghobble	PIP
Liatris microcephala	smallhead blazing star	U
Liatris pilosa var. pilosa	shaggy blazing star	PIP
Liatris scariosa	devil's bite	U
Liatris squarrosa	scaly blazing star	U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Liatris squarrulosa	Appalachian blazing star	U
Liatris virgata		PP
Ligusticum canadense	Canadian licorice-root	PIP
Ligustrum sinense	Chinese privet	PIP
Ligustrum vulgare	European privet	PIP
Lilium michauxii	Carolina lily	PIP
Lilium superbum	Turk's cap lily	U
Lindera benzoin	northern spicebush	PIP
Lindernia dubia	moistbank pimpernel	U
Lindernia monticola	piedmont false pimpernel	U
Linum floridanum var. floridanum	Florida yellow flax	U
Linum medium var. texanum	stiff yellow flax	U
Linum striatum	ridged yellow flax	PIP
Linum usitatissimum	common flax	U
Linum virginianum	woodland flax	PIP
Liquidambar styraciflua	sweetgum	PIP
Liriodendron tulipifera	tuliptree	PIP
Lobelia cardinalis	cardinalflower	PIP
Lobelia elongata	longleaf lobelia	PIP
Lobelia inflata	Indian-tobacco	PIP
Lobelia puberula	downy lobelia	PIP
Lolium perenne ssp. multiflorum	Italian ryegrass	PIP
Lolium pratense	meadow ryegrass	PP
Lonicera japonica	Japanese honeysuckle	PIP
Lonicera sempervirens	trumpet honeysuckle	PIP
Lotus unifoliolatus var. helleri	Heller's birdsfoot trefoil	U
Ludwigia alternifolia	seedbox	PP
Ludwigia decurrens	wingleaf primrose-willow	U
Ludwigia glandulosa	cylindricfruit primrosewillow	U
Ludwigia palustris	marsh seedbox	PP
Luzula acuminata	hairy woodrush	PIP
Luzula acuminata var. carolinae	Carolina woodrush	U
Luzula bulbosa	bulbous woodrush	U
Luzula echinata	hedgehog woodrush	PIP
Luzula multiflora	common woodrush	PIP
Lycopodium digitatum	fan clubmoss	PIP
Lycopus virginicus	Virginia water horehound	PIP
Lycoris radiata	magic lily	U
Lyonia ligustrina	maleberry	PIP
Lysimachia ciliata	fringed loosestrife	U
Lysimachia lanceolata	lanceleaf loosestrife	U
Lysimachia nummularia	creeping jenny	PP
Lysimachia quadrifolia	whorled yellow loosestrife	PIP
Maclura pomifera	osage orange	U
Magnolia acuminata	cucumber-tree	U
Magnolia tripetala	umbrella-tree	PIP
Maianthemum racemosum ssp. racemosum	false solomon's-seal	PIP
Malus angustifolia var. angustifolia		PIP
Malva sylvestris	high mallow	U
Manfreda virginica	false aloe	PIP
Marshallia obovata	spoonshape Barbara's buttons	PP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Matelea carolinensis	maroon Carolina milkvine	U
Matelea decipiens	oldfield milkvine	U
Matelea gonocarpos	angularfruit milkvine	PIP
Medeola virginiana	Indian cucumber	PIP
Medicago arabica	spotted medick	U
Medicago lupulina	black medick	U
Medicago sativa ssp. sativa		U
Melia azedarach	Chinaberrytree	U
Melica mutica	twoflower melicgrass	PP
Melilotus albus	white sweet clover	PIP
Melilotus officinalis	yellow sweet-clover	U
Melothria pendula	Guadeloupe cucumber	U
Menispermum canadense	common moonseed	PIP
Microstegium vimineum	Nepalese browntop	PIP
Mikania scandens	climbing hempvine	U
Mimosa microphylla	littleleaf sensitive-briar	PIP
Mimulus alatus	sharpwing monkeyflower	U
Mimulus ringens var. ringens		PP
Minuartia glabra	Appalachian stitchwort	U
Mirabilis jalapa	marvel of Peru	U
Mitchella repens	partridgeberry	PIP
Mollugo verticillata	green carpetweed	U
Monarda clinopodia	white bergamot	PIP
Monotropa hypopithys	pinesap	PIP
Monotropa uniflora	Indianpipe	PP
Morus alba	white mulberry	U
Morus rubra var. rubra		PIP
Muhlenbergia capillaris	hairawn muhly	U
Muhlenbergia schreberi	nimblewill	PIP
Murdannia keisak	marsh dewflower	PP
Muscari neglectum	starch grape hyacinth	PIP
Myosotis macrosperma	largeseed forget-me-not	PIP
Myosotis verna	spring forget-me-not	U
Myosurus minimus		U
Najas flexilis	slender naiad	U
Najas minor	brittle naiad	PP
Narcissus pseudonarcissus	daffodil	PIP
Nothoscordum bivalve	crowpoison	U
Nuttallanthus canadensis	Canada toadflax	U
Nyssa sylvatica	blackgum	PIP
Obolaria virginica	Virginia pennywort	PIP
Oenothera biennis	common evening-primrose	PIP
Oenothera fruticosa	narrowleaf evening-primrose	PIP
Oenothera fruticosa ssp. glauca	narrowleaf evening-primrose	PIP
Oenothera laciniata	cutleaf evening-primrose	U
Oenothera speciosa	pinkladies	U
Onosmodium virginianum	wild Job's tears	U
Ophioglossum vulgatum	Southern adder's-tongue	PIP
Opuntia humifusa var. humifusa	pricklypear	U
Orobanche uniflora	oneflowered broomrape	PIP
Osmunda cinnamomea var. cinnamomea		PIP
Osmunda regalis var. spectabilis	royal fern	PIP
Ostrya virginiana	hophornbeam	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Oxalis priceae ssp. colorea	tufted yellow woodsorrel	U
Oxalis stricta	yellow woodsorrel	PIP
Oxalis violacea	violet woodsorrel	PIP
Oxydendrum arboreum	sourwood	PIP
Oxypolis rigidior	stiff cowbane	U
Packera anonyma	Small's ragwort	PIP
Packera tomentosa		U
Panicum anceps	beaked panicgrass	PIP
Panicum capillare	witchgrass	U
Panicum dichotomiflorum var. dichotomiflorum		U
Panicum philadelphicum	Philadelphia panicgrass	U
Panicum rigidulum var. elongatum	redtop panicgrass	U
Panicum rigidulum var. pubescens	redtop panicgrass	PIP
Panicum rigidulum var. rigidulum	redtop panicum	U
Parthenium integrifolium	wild quinine	U
Parthenocissus quinquefolia	Virginia creeper	PIP
Paspalum boscianum	bull crowngrass	U
Paspalum dilatatum	dallasgrass	PIP
Paspalum floridanum	Florida paspalum	PIP
Paspalum laeve	field paspalum	U
Paspalum notatum	bahiagrass	PP
Paspalum setaceum	thin paspalum	U
Passiflora incarnata	purple passionflower	U
Passiflora lutea	yellow passionflower	U
Pastinaca sativa	wild parsnip	U
Paulownia tomentosa	princesstree	PIP
Pedicularis canadensis ssp. canadensis		PIP
Peltandra virginica	green arrow arum	U
Pennisetum glaucum	pearl millet	U
Penstemon australis	Eustis Lake beardtongue	PIP
Penstemon laevigatus	eastern smooth beardtongue	PIP
Penthorum sedoides	ditch stonecrop	U
Perilla frutescens	beefsteakplant	PIP
Phaseolus polystachios	thicket bean	U
Phegopteris hexagonoptera	broad beechfern	PIP
Phleum pratense	timothy	U
Phlox amoena	hairy phlox	PIP
Phlox carolina	thickleaf phlox	PP
Phlox latifolia	mountain phlox	PP
Phlox nivalis	trailing phlox	U
Phlox nivalis ssp. hentzii	Hentz's phlox	U
Photinia pyrifolia	red chokeberry	PIP
Phryma leptostachya	American lopseed	PIP
Phyllanthus caroliniensis ssp. caroliniensis		U
Physalis angulata	cutleaf groundcherry	U
Physalis grisea		U
Physalis heterophylla var. heterophylla		U
Physalis virginiana var. virginiana	Virginia groundcherry	U
Physocarpus opulifolius var. opulifolius	common ninebark	U
Physostegia virginiana ssp. virginiana	obedient plant	U
Phytolacca americana	American pokeweed	PIP
Pilea pumila var. pumila		PP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Pinus echinata	shortleaf pine	PIP
Pinus taeda	loblolly pine	U
Pinus virginiana	Virginia pine	PIP
Piptochaetium avenaceum	blackseed speargrass	PIP
Pityopsis adenolepis	Carolina silkgrass	PIP
Pityopsis aspera	pineland silkgrass	PIP
Pityopsis graminifolia	narrowleaf silkgrass	PIP
Pityopsis graminifolia var. graminifolia	narrowleaf silkgrass	U
Plantago aristata	largebracted plantain	PIP
Plantago heterophylla	slender plantain	U
Plantago lanceolata	narrowleaf plantain	PIP
Plantago rugelii var. rugelii		PIP
Plantago virginica	Virginia plantain	PIP
Platanthera blephariglottis	white fringed orchid	PIP
Platanthera clavellata	fringed orchid	PIP
Platanus occidentalis	sycamore	PIP
Pleopeltis polypodioides ssp. michauxiana	resurrection fern	PP
Pleopeltis polypodioides ssp. polypodioides	resurrection fern	F
Pluchea camphorata	camphor pluchea	U
Poa alsodes	grove meadow grass	PP
Poa annua	annual bluegrass	PIP
Poa autumnalis	autumn bluegrass	PIP
Poa chapmaniana	Chapman's bluegrass	U
Poa compressa	Canada bluegrass	U
Poa pratensis	Kentucky bluegrass	U
Podophyllum peltatum	mayapple	PIP
Podostemum ceratophyllum	hornleaf riverweed	U
Polygala curtissii	Curtiss' milkwort	PIP
Polygala senega	Seneca snakeroot	U
Polygonatum biflorum var. commutatum	smooth Solomon's seal	PIP
Polygonum aviculare	prostrate knotweed	U
Polygonum caespitosum var. longisetum	oriental ladysthumb	PIP
Polygonum hydropiper	marshpepper knotweed	U
Polygonum hydropiperoides	swamp smartweed	PP
Polygonum pensylvanicum	Pennsylvania smartweed	U
Polygonum persicaria	spotted ladysthumb	PIP
Polygonum punctatum var. punctatum		U
Polygonum sagittatum	arrowleaf tearthumb	PIP
Polygonum scandens	climbing false buckwheat	U
Polygonum setaceum	bog smartweed	PIP
Polygonum virginianum	jumpseed	PIP
Polystichum acrostichoides var. acrostichoides		PIP
Populus alba	white poplar	PP
Populus deltoides ssp. deltoides		U
Porteranthus trifoliatus	Bowman's root	U
Portulaca grandiflora	rose moss	U
Portulaca oleracea	little hogweed	U
Potamogeton diversifolius	water-thread pondweed	PP
Potentilla canadensis	dwarf cinquefoil	PIP
Potentilla norvegica ssp. monspeliensis		U
Potentilla recta	sulphur cinquefoil	U
Potentilla simplex	common cinquefoil	U
Prenanthes altissima	tall rattlesnakeroot	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Prenanthes serpentaria	lion's foot	PIP
Prenanthes trifoliolata	gall of the earth	PIP
Prunella vulgaris	common selfheal	PIP
Prunus americana	American plum	U
Prunus angustifolia var. angustifolia		PIP
Prunus persica	peach	U
Prunus serotina var. serotina	black cherry	PIP
Prunus umbellata	hog plum	U
Pseudognaphalium helleri ssp. helleri		U
Pseudognaphalium obtusifolium	rabbit tobacco	PIP
Pseudognaphalium obtusifolium ssp. obtusifolium	rabbit tobacco	PIP
Pseudognaphalium stramineum		U
Ptelea trifoliata	common hoptree	U
Pteridium aquilinum	bracken fern	PIP
Ptilimnium capillaceum	herbwilliam	U
Pueraria montana var. lobata	kudzu	PIP
Pycnanthemum incanum var. puberulum		U
Pycnanthemum montanum	thinleaf mountainmint	PIP
Pycnanthemum tenuifolium	narrowleaf mountainmint	PP
Pyrrhopappus carolinianus	Carolina desert-chicory	PIP
Pyrus communis	common pear	U
Quercus alba	white oak	PIP
Quercus coccinea var. coccinea		PIP
Quercus falcata	southern red oak	PIP
Quercus marilandica	blackjack oak	PIP
Quercus michauxii	swamp chestnut oak	PP
Quercus muehlenbergii	chinkapin oak	U
Quercus nigra	water oak	PIP
Quercus phellos	willow oak	PIP
Quercus prinus	chestnut oak	PIP
Quercus rubra	northern red oak	PIP
Quercus shumardii var. shumardii		U
Quercus stellata	post oak	PIP
Quercus velutina	black oak	PIP
Ranunculus abortivus	littleleaf buttercup	PIP
Ranunculus bulbosus	St. Anthony's turnip	U
Ranunculus hispidus	bristly buttercup	PIP
Ranunculus hispidus var. nitidus	bristly buttercup	PIP
Ranunculus muricatus	spinyfruit buttercup	U
Ranunculus parviflorus	smallflower buttercup	U
Ranunculus pusillus var. pusillus		U
Ranunculus recurvatus	blisterwort	PIP
Ranunculus sardous	hairy buttercup	PIP
Raphanus raphanistrum	wild radish	PP
Rhexia mariana	Maryland meadowbeauty	U
Rhexia mariana var. mariana	Maryland meadowbeauty	PIP
Rhododendron arborescens	smooth azalea	PP
Rhododendron periclymenoides	pink azalea	PIP
Rhus copallinum	flameleaf sumac	PIP
Rhus glabra	smooth sumac	PIP
Rhynchosia tomentosa	twining snoutbean	U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Rhynchospora capitellata	brownish beaksedge	PP
Rhynchospora glomerata	clustered beaksedge	U
Rhynchospora microcarpa	southern beakrush	PP
Robinia hispida	bristly locust	PIP
Robinia pseudoacacia	black locust	PIP
Robinia viscosa	clammy locust	PIP
Rosa carolina var. carolina		PP
Rosa micrantha	smallflower sweetbrier	U
Rosa multiflora	multiflora rose	PIP
Rosa wichuraiana	memorial rose	PIP
Rotala ramosior	lowland rotala	U
Rubus argutus	sawtooth blackberry	PIP
Rubus bifrons		PP
Rubus cuneifolius	sand blackberry	U
Rubus flagellaris	northern dewberry	PIP
Rubus trivialis	southern dewberry	PIP
Rudbeckia fulgida	orange coneflower	U
Rudbeckia fulgida var. fulgida	Common Eastern Coneflower	PP
Rudbeckia heliopsidis	sunfacing coneflower	PIP
Rudbeckia hirta	blackeyed Susan	PIP
Rudbeckia laciniata	cutleaf coneflower	PIP
Rudbeckia laciniata var. digitata	cutleaf coneflower	PIP
Ruellia caroliniensis	Carolina wild petunia	PIP
Ruellia caroliniensis ssp. ciliosa var. cinerascens	Carolina wild petunia	U
Rumex acetosella	common sheep sorrel	U
Rumex crispus	curly dock	PIP
Rumex hastatulus	heartwing sorrel	U
Rumex obtusifolius	bitter dock	PIP

Scientific Name	Common Name	Park Status[1]
Sabatia angularis	rosepink	PIP
Saccharum alopecuroidum	silver plumegrass	PIP
Saccharum brevibarbe var. contortum	bent-awn plumegrass	PIP
Sagina decumbens	beach pearlwort	U
Sagittaria latifolia	broadleaf arrowhead	U
Salix nigra	black willow	PP
Salix sericea	silky willow	PIP
Salvia lyrata	lyreleaf sage	PIP
Salvia urticifolia	nettleleaf sage	U
Sambucus nigra ssp. canadensis	common elderberry	PIP
Samolus valerandi ssp. parviflorus	water pimpernel	PIP
Sanguinaria canadensis	bloodroot	PIP
Sanicula canadensis var. canadensis	Canadian blacksnakeroot	PIP
Sanicula odorata	clustered blacksnakeroot	PIP
Sanicula smallii	Small's blacksnakeroot	PP
Saponaria officinalis	bouncingbet	U
Sassafras albidum	sassafras	PIP
Saururus cernuus	lizard's tail	U
Saxifraga virginiensis	early saxifrage	U
Schizachyrium scoparium	little bluestem	PIP
Schizachyrium scoparium var. scoparium	little bluestem	PIP
Schoenoplectus tabernaemontani	great bulrush	PIP
Scirpus atrovirens	green bulrush	U
Scirpus cyperinus	woolgrass	PIP
Scirpus expansus	woodland bulrush	U
Scirpus georgianus	Georgia bulrush	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Scirpus polyphyllus	leafy bulrush	PIP
Scleranthus annuus	German knotgrass	U
Scleria oligantha	littlehead nutrush	PIP
Scleria pauciflora	fewflower nutrush	PP
Scleria triglomerata	whip nutrush	PIP
Scutellaria elliptica var. elliptica		PIP
Scutellaria elliptica var. hirsuta	hairy skullcap	PIP
Scutellaria incana	hoary skullcap	PIP
Scutellaria integrifolia	helmet flower	PIP
Scutellaria parvula	small skullcap	U
Sedum ternatum	woodland stonecrop	U
Selaginella apoda	meadow spikemoss	PIP
Senecio vulgaris	common groundsel	U
Senna marilandica	Maryland senna	U
Senna obtusifolia	Java-bean	U
Senna occidentalis	septicweed	PIP
Sericocarpus asteroides	white-topped aster	PIP
Sericocarpus linifolius	narrowleaf aster	PIP
Sericocarpus tortifolius		PIP
Setaria parviflora	marsh bristlegrass	PIP
Setaria viridis var. viridis		PIP
Sibara virginica	Virginia winged rockcress	U
Sida rhombifolia	cuban jute	U
Sida spinosa	prickly fanpetals	U
Sideroxylon lycioides	buckthorn bully	U
Silene antirrhina	sleepy silene	U
Silene caroliniana ssp. caroliniana		U
Silene stellata	widowsfrill	U
Silene virginica	fire pink	PIP
Silphium asteriscus var. laevicaule	starry rosinweed	PIP
Silphium compositum	kidneyleaf rosinweed	PIP
Silphium trifoliatum	whorled rosinweed	U
Sisymbrium officinale	hedgemustard	U
Sisyrinchium albidum	white blue-eyed grass	PIP
Sisyrinchium angustifolium	narrowleaf blue-eyed grass	PIP
Sisyrinchium atlanticum	eastern blueeyed grass	U
Smallanthus uvedalius	hairy leafcup	PIP
Smilax biltmoreana	Biltmore's carrionflower	PIP
Smilax bona-nox	saw greenbrier	PIP
Smilax glauca	cat greenbrier	PIP
Smilax herbacea	smooth carrionflower	PIP
Smilax pulverulenta	downy carrionflower	U
Smilax rotundifolia	roundleaf greenbrier	PIP
Smilax smallii	lanceleaf greenbrier	PIP
Smilax tamnoides	bristly greenbrier	U
Solanum carolinense var. carolinense		PIP
Solanum ptychanthum	West Indian nightshade	PIP
Solidago arguta	Atlantic goldenrod	PIP
Solidago arguta var. caroliniana	Atlantic goldenrod	PIP
Solidago caesia	wreath goldenrod	U
Solidago caesia var. caesia	wreath goldenrod	PP
Solidago caesia var. curtisii	mountain decumbent goldenrod	PP
Solidago canadensis	Canada goldenrod	PIP

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Solidago canadensis var. scabra	tall goldenrod	PP
Solidago gigantea	giant goldenrod	PP
Solidago latissimifolia	Elliott's goldenrod	PIP
Solidago nemoralis var. nemoralis		PIP
Solidago odora var. odora		PIP
Solidago petiolaris	downy goldenrod	PP
Solidago pinetorum	Small's goldenrod	PP
Solidago puberula	downy goldenrod	PIP
Solidago puberula var. pulverulenta	downy goldenrod	PIP
Solidago rugosa	rough-leaf goldenrod	PIP
Solidago speciosa var. erecta	showy goldenrod	PIP
Solidago speciosa var. speciosa		U
Solidago tortifolia	twistleaf goldenrod	PIP
Sonchus asper	spiny sowthistle	PP
Sonchus oleraceus	sow-thistle	U
Sorbus americana	American mountainash	U
Sorghastrum elliottii	slender Indiangrass	U
Sorghastrum nutans	Indiangrass	PIP
Sorghum halepense	Johnsongrass	U
Sparganium americanum	American bur-reed	PP
Sphenopholis intermedia	slender wedgescale	PIP
Sphenopholis nitida	shiny wedgescale	PIP
Sphenopholis obtusata	prairie wedgescale	PP
Sphenopholis pensylvanica	swamp wedgescale	PIP
Spigelia marilandica	woodland pinkroot	U
Spiranthes lacera var. gracilis	northern slender ladies'-tresses	PIP
Spiranthes praecox	greenvein ladies'-tresses	PIP
Spiranthes tuberosa	little ladies'-tresses	U
Sporobolus clandestinus	rough dropseed	U
Sporobolus indicus var. indicus		U
Sporobolus junceus	pineywoods dropseed	U
Sporobolus vaginiflorus var. vaginiflorus		U
Staphylea trifolia	American bladdernut	PIP
Steinchisma hians	gaping grass	U
Stellaria graminea	grasslike starwort	U
Stellaria media	common chickweed	PIP
Stellaria pubera	star chickweed	PIP
Strophostyles helvula	trailing fuzzybean	U
Strophostyles umbellata	pink fuzzybean	U
Stylisma humistrata	southern dawnflower	U
Stylosanthes biflora	sidebeak pencilflower	PIP
Styrax americanus	American snowbell	U
Styrax grandifolius	bigleaf snowbell	PP
Symphoricarpos orbiculatus	coralberry	U
Symphyotrichum concolor	eastern silver aster	PIP
Symphyotrichum cordifolium	common blue wood aster	PIP
Symphyotrichum dumosum	rice button aster	PIP
Symphyotrichum dumosum var. dumosum	rice button aster	PIP
Symphyotrichum georgianum	Georgia aster	PIP
Symphyotrichum grandiflorum		PP
Symphyotrichum laeve var. concinnum		U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

Scientific Name	Common Name	Park Status[1]
Symphyotrichum lanceolatum	white panicle aster	PIP
Symphyotrichum lateriflorum var. lateriflorum	starved aster	PIP
Symphyotrichum patens	late purple aster	U
Symphyotrichum patens var. patens	late purple aster	PIP
Symphyotrichum pilosum	hairy white oldfield aster	U
Symphyotrichum pilosum var. pilosum	frost aster	PIP
Symphyotrichum puniceum var. puniceum	purplestem aster	PIP
Symphyotrichum undulatum	waxyleaf aster	U
Symplocos tinctoria	horse-sugar	PIP
Talinum teretifolium	quill fameflower	U
Taraxacum officinale ssp. officinale		PIP
Tephrosia spicata	spiked hoarypea	PIP
Tephrosia virginiana	goat's rue	PIP
Tetragonotheca helianthoides	pineland nerveray	U
Teucrium canadense	Canada germander	U
Thalictrum revolutum	waxyleaf meadow-rue	PIP
Thalictrum thalictroides	rue anemone	PIP
Thaspium barbinode	hairyjoint meadowparsnip	PIP
Thaspium trifoliatum	purple meadowparsnip	PIP
Thaspium trifoliatum var. aureum	purple meadowparsnip	U
Thelypteris noveboracensis	New York fern	PIP
Thermopsis fraxinifolia	ashleaf goldenbanner	PIP
Thermopsis mollis	Allegheny Mountain goldenbanner	PIP
Tiarella cordifolia	heartleaf foamflower	PIP
Tiarella cordifolia var. collina	heartleaf foamflower	PIP
Tilia americana var. caroliniana	Carolina basswood	PP
Tilia americana var. heterophylla	white basswood	PIP
Tipularia discolor	crippled cranefly	PIP
Torilis arvensis	spreading hedgeparsley	U
Torreyochloa pallida var. pallida		PP
Toxicodendron pubescens	poison oak	PIP
Toxicodendron radicans ssp. radicans	eastern poison ivy	PIP
Toxicodendron vernix	poison sumac	U
Trachelospermum difforme	climbing dogbane	U
Tragia urens	wavyleaf noseburn	PIP
Tragia urticifolia	nettleleaf noseburn	PIP
Trichostema dichotomum	forked bluecurls	U
Trichostema setaceum	narrowleaf bluecurls	U
Tridens flavus	purpletop tridens	PIP
Trifolium arvense	rabbitfoot clover	U
Trifolium campestre	field clover	U
Trifolium dubium	suckling clover	PIP
Trifolium hybridum	alsike clover	U
Trifolium incarnatum	crimson clover	U
Trifolium pratense	red clover	PIP
Trifolium reflexum	buffalo clover	U
Trifolium repens	white clover	PIP
Trillium catesbaei	bashful wakerobin	PP
Trillium cernuum	nodding trillium	PP
Trillium cuneatum	little sweet Betsy	U

Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

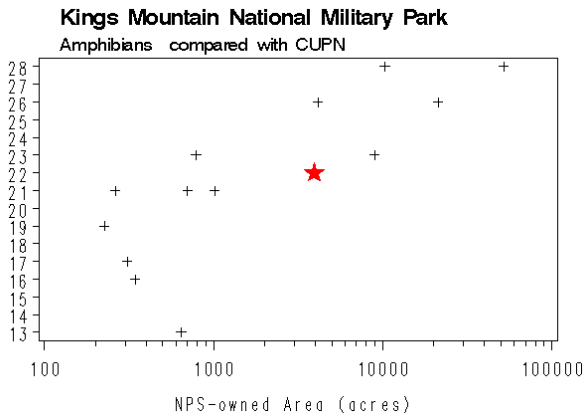
Scientific Name	Common Name	Park Status[1]
Triodanis perfoliata	clasping Venus' looking-glass	U
Triodanis perfoliata var. biflora	clasping Venus' looking-glass	U
Triosteum perfoliatum	feverwort	U
Tripsacum dactyloides	eastern gamagrass	PIP
Triticum aestivum	common wheat	PIP
Tsuga canadensis	eastern hemlock	PIP
Typha latifolia	broadleaf cattail	PP
Ulmus alata	winged elm	PIP
Ulmus americana	American elm	U
Ulmus rubra	slippery elm	PIP
Utricularia floridana	Florida bladderwort	PP
Uvularia perfoliata	perfoliate bellwort	PP
Uvularia puberula	mountain bellwort	PIP
Uvularia sessilifolia	sessileleaf bellwort	PIP
Vaccinium arboreum	farkleberry	PIP
Vaccinium corymbosum	highbush blueberry	PIP
Vaccinium elliottii	Elliott's blueberry	PIP
Vaccinium fuscatum	black highbush blueberry	U
Vaccinium pallidum	Blue Ridge blueberry	PIP
Vaccinium stamineum	deerberry	PIP
Vaccinium tenellum	small black blueberry	PIP
Valerianella locusta	European cornsalad	PIP
Valerianella radiata	beaked cornsalad	PIP
Verbascum blattaria	moth mullein	U
Verbena brasiliensis	Brazilian vervain	U
Verbena simplex	narrowleaf vervain	U
Verbena urticifolia	white vervain	PP
Verbesina alternifolia	wingstem	PIP
Verbesina occidentalis	yellow crownbeard	PP
Verbesina virginica	white crownbeard	U
Vernonia acaulis	stemless ironweed	U
Vernonia glauca	broadleaf ironweed	PIP
Vernonia noveboracensis	New York ironweed	PP
Veronica arvensis	corn speedwell	U
Veronica hederifolia	ivyleaf speedwell	PIP
Veronica officinalis var. officinalis		PIP
Veronica peregrina	neckweed	U
Veronica persica	birdeye speedwell	PIP
Veronica triphyllos	finger speedwell	U
Viburnum acerifolium	mapleleaf viburnum	PP
Viburnum dentatum var. lucidum		U
Viburnum prunifolium	blackhaw	PIP
Viburnum rafinesquianum	downy arrowwood	PIP
Viburnum rufidulum	rusty blackhaw	U
Vicia caroliniana	Carolina vetch	PIP
Vicia grandiflora	large yellow vetch	U
Vicia sativa ssp. nigra	garden vetch	PIP
Vicia villosa ssp. varia	winter vetch	U
Vinca major	bigleaf periwinkle	U
Vinca minor	common periwinkle	PIP
Viola affinis	sand violet	U
Viola arvensis	field pansy	U
Viola bicolor	field pansy	U
Viola hastata	halberdleaf yellow violet	PIP
Viola palmata var. palmata		U
Viola pedata	birdfoot violet	PIP
Viola sagittata var. sagittata		U
Viola sororia	woolly blue violet	PIP

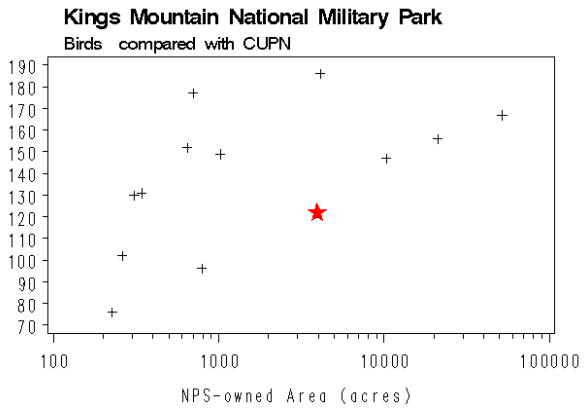
Kings Mountain National Military Park (KIMO) Local List (NPSpecies 10/28/2008) (continued).

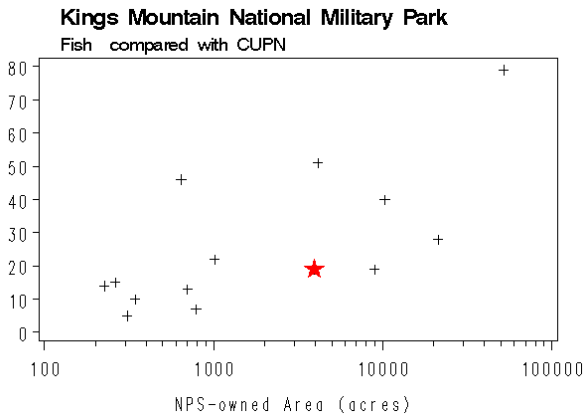
Scientific Name	Common Name	Park Status[1]
Viola tripartita	threepart violet	U
Viola walteri	prostrate blue violet	U
Viola X primulifolia	primrose violet	PIP
Vitis cinerea	graybark grape	PIP
Vitis cinerea var. baileyana	graybark grape	U
Vitis labrusca	fox grape	PIP
Vitis rotundifolia	muscadine	PIP
Vitis vulpina	frost grape	PIP
Vulpia myuros	rattail fescue	U
Vulpia octoflora var. octoflora	sixweeks fescue	U
Waldsteinia fragarioides ssp. doniana		PIP
Wisteria floribunda	Japanese wisteria	PIP
Wisteria sinensis	Chinese wisteria	PIP
Woodsia obtusa	bluntlobe cliff fern	U
Woodwardia areolata	netted chain fern	PIP
Woodwardia virginica	Virginia chainfern	U
Xanthium strumarium var. glabratum	rough cockleburr	U
Xanthorhiza simplicissima	yellowroot	PIP
Xerophyllum asphodeloides	eastern turkeybeard	PIP
Yucca filamentosa	Adam's needle	PIP
Zephyranthes atamasca	Atamasco lily	PIP
Zizia aptera	meadow zizia	U
Zizia trifoliata	meadow alexanders	PIP

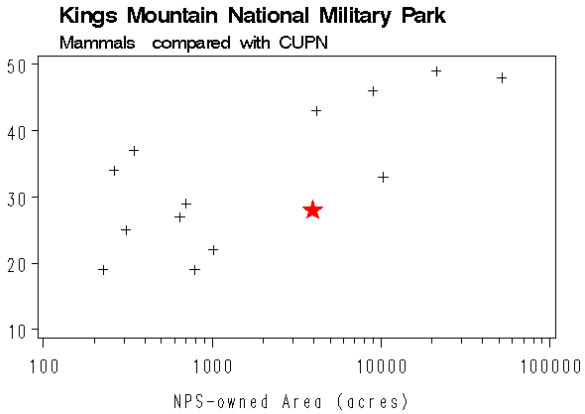
[1]Park Status refers to the current status of the organism in the park, where F=False Report, PIP=Present in Park, PP=Probably Present, and U=Unconfirmed.

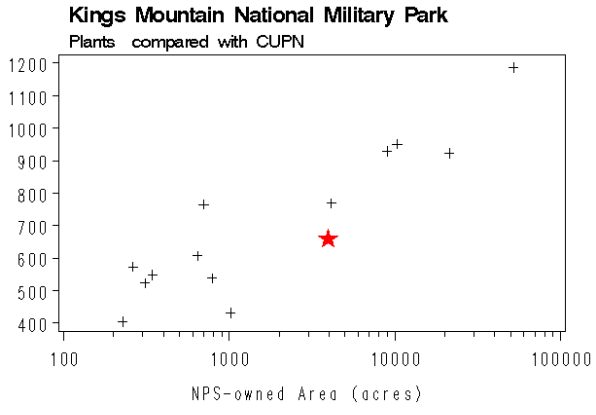
Appendix C. Kings Mountain National Military Park species-area comparisons with other Cumberland Piedmont Network parks.

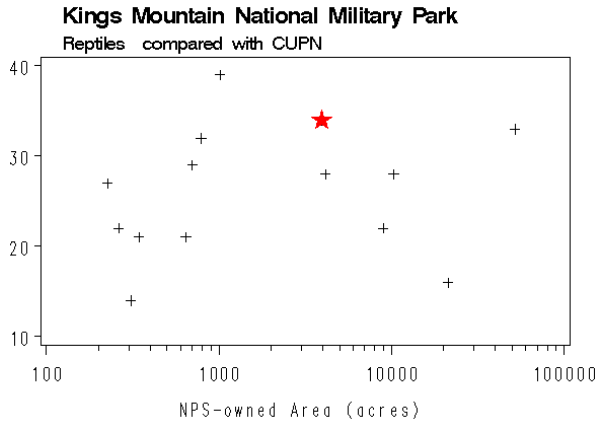












Organism counts are grouped at the species level and include both present in park and probably present. Analyses courtesy of Dr. Tom Philippi, NPS Inventory and Monitoring Program (Source: NPSpecies 28 September 2008).

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National Park Service
U.S. Department of the Interior

Natural Resource Program Center
1201 Oak Ridge Drive, Suite 150
Fort Collins, Colorado 80525

www.nature.nps.gov