



## **Birds and Vegetation of Lower Kingman Island, Anacostia River**

**Project Number:** 23139IM  
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**Principle Investigator(s):**

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**Collaborators:** Chesapeake Bay Program (over 25 Federal Agencies, 6 States, the District of Columbia, and numerous local customers and partners)

**Statement of Problem:** USGS PWRC has been a lead player documenting the pre- and post-reconstruction status of urban freshwater tidal wetlands and associated uplands in the Anacostia River, Washington, D.C. Since the District of Columbia Department of Environmental Health (D.C.) in conjunction with the Baltimore District of the Corps of Engineers (COE) are planning to modify portions of Lower Kingman Island (LKI) which lies along the Anacostia River in Washington, D.C., they have requested this project and have made funding available to document the predevelopment birdlife and vegetation there. The task is to provide a pre-construction inventory of birds and plants for habitat assessment as well as help decide what existing vegetation should be removed or, on the other hand, minimally disturbed as part of development plans for the island. Considerable portions of the approximately 15-acre island will be redesigned and landscaped for wildlife habitat and compatible public use.

**Objectives:** Conduct avifauna and vegetation surveys to provide a set of baseline data set and a general habitat evaluation of LKI for the COE and D.C. The vegetation survey would be conducted summer 2002 and spring 2003 while the avifauna survey would be conducted for at least one year as conditions permit with emphasis on seasonal occurrence and use. Project data would be used to help guide restoration alternatives by providing a description of the vegetation structure and how the Island is being used now for habitat as opposed to how it might be used in the planning schemes. It may be advisable to retain certain of the existing vegetation community structure or bring about change in phases so as to least disturb existing habitat users.

**Approach:** Project tasks will include:

- a. Avifaunal survey—The avian surveys will be conducted weekly for the duration of the study by establishing six locations for 5 minute point counts located along a trail running down the center of the island. The points will be spaced far enough

apart (at least 300 ft.) to minimize overlap (redundant counts) and will be placed to capture the differing vegetation zones of the island as much as possible. Species of birds noted while walking from point to point will be included in the list but will not be used to estimate frequency. Habitat use, nesting, adult or immature, activity, resident or migrant, native or non-native, feeding preferences, and general notes will be recorded. Data will be organized on a seasonal basis to determine the variations due to seasonal influence on the avifauna using the site. The data will be analyzed to determine whether there is an association of bird use relative to shifts in vegetation cover age and structure represented at the six separate locations.

- b. **Vegetation Survey**--Different survey methods will be used to measure areas of primarily herbaceous vegetation and those of woody plants greater than one inch dbh. A summer survey for herbaceous vegetation and associated woody species less than one meter in height (or less than one inch dbh) will be conducted for field areas using 1-meter wide belt transects running perpendicular to the center-line trail where such vegetation type exists. The transects will be of varying length across the top of the island until reaching the position where the island slopes down abruptly to the river. The perimeter slopes of the island down to the water edge will not be used as part of the development of the island. The transects will be read as two meter length sector increments to identify species present and to estimate cover by species. Total cover will include any unvegetated areas such that all sector totals will be at least 100 percent. Determinations will be made as to native or non-native, annual or perennial, woody or herbaceous, and habitat indicator status. The common, as well as any synonym and technical name will be used along with the family for each species (consistent with USDA PLANTS).

#### **Selected Reports and Other Products:**

A DRAFT Final Report documenting the vegetation, avifauna and herptiles has been produced for findings in 2002-2003. The avifaunal component will be continued in 2004.

#### **Relevance and Benefits:**

This task addresses goal 4 of Status and Trends of Biological Resources: Monitor and assess environmental status and trends.