



Vicksburg National Military Park, Mississippi

Project Descriptions

The Gulf Coast Network (GULN) conducts long-term ecological monitoring on three indicators of ecosystem health –called vital signs– in Vicksburg National Military Park.

Water quality is measured at three permanent sites at the park. From north to south, these are Upper Mint Springs Bayou, Glass Bayou and Durden Creek. Field data are collected once in the spring, summer, fall and winter, and measurements include water temperature, specific conductance (SpC), pH, dissolved oxygen (DO) and turbidity.

Breeding landbirds are sampled from fixed point locations using an established point-count method, which documents every individual seen or heard during a ten minute period. Thirty-two points are sampled twice during the summer breeding season, close in time as repeat visits.

Terrestrial vegetation is sampled within ten fixed 20 meter x 20 meter plots to determine the composition and condition of vascular plant communities over time. All plant species are identified, and in nested subplots, the relative frequency and percent cover of each species are recorded. Data are also collected on tree growth, recruitment and mortality. All plots are sampled once every three years, and all are located within 10 meters of a bird monitoring point.

All of network’s 45 permanent sampling locations occur within the main property in Vicksburg, MS, as shown on the map on the next page. The park has recently added new lands that also contain significant natural resources (see inset map), which are currently under evaluation for future inclusion in the monitoring program.



Entry to park’s main drive, which winds through rolling loess hills for striking views of monuments, forests and fields.

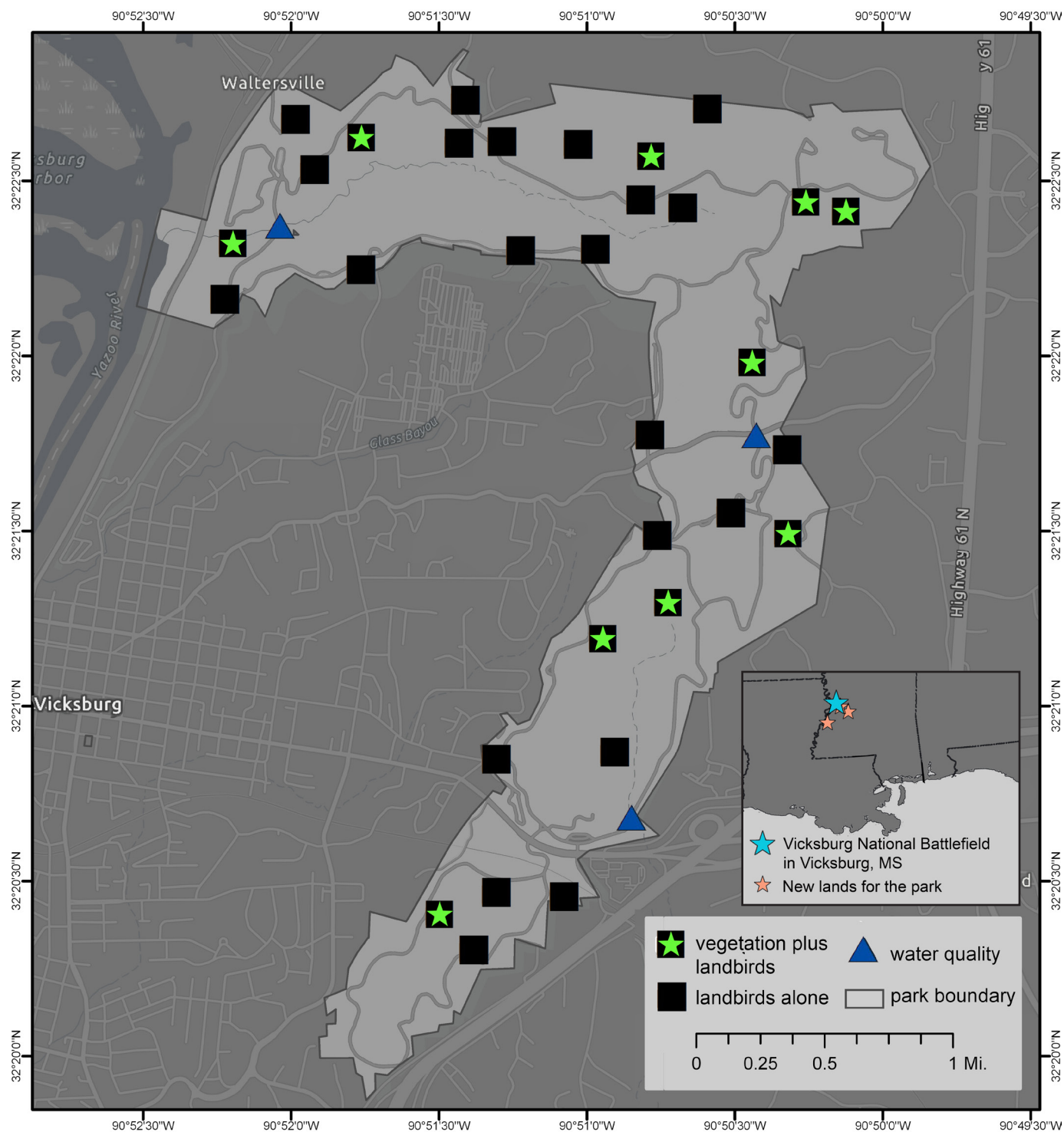


Bursting-heart (*Euonymus americanus*) is a native shrub on the park, to be monitored as part of the terrestrial vegetation program.

GULN Vital Sign	Number of Sampling Points	Sampling Frequency	Monitoring Start Year
Water Quality	3	Quarterly	2007
Breeding Landbirds	32	Annually	2009
Terrestrial Vegetation	10	Every 4 Years	2024



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For more information, visit <https://www.nps.gov/im/guln/index.htm>