

## INTRODUCTION

Welcome to Chaparral Prairie State Nature Preserve. When most people think of a prairie, they envision vast grasslands stretching beyond the horizon. While this is certainly true in some areas of the country, it is not always the case. Prairies are not defined by their size but rather by their floristic composition. In Adams County many small "prairie openings" can be found in the forest. These are dominated by plants typically found much farther west.

Chaparral Prairie, consisting of 66 acres of prairie, forest and old field habitat, was purchased by the Division of Natural Areas & Preserves in 1985 solely with monies donated through the State Tax Refund Checkoff program. One of the first areas protected by this program in Ohio, Chaparral Prairie is home to over fourteen rare or endangered species. We hope you enjoy your visit to Chaparral Prairie State Nature Preserve.

## THE LANDSCAPE

Near the Hawk Hill Loop trailhead, one is able to view the various topographic features that influence the distribution of prairie as well as other plant communities in the preserve. To the north and northwest, old fields cover the gently rolling terrain typical of glaciated regions. Covered by glacial ice some 200,000 years ago during the Illinoian Glaciation, Chaparral Prairie was buried in a thin blanket of debris known as "till." This glacial till is made up of materials which were picked up

and moved slowly southward by the ice. Containing gravel and clay, the till itself was eventually covered by a type of soil known as loess. Unstratified and usually a yellowish brown loam, loess is believed to have been deposited by the wind and was commonly formed in regions that had been stripped bare by glacial ice in the past. This glacial loess and till, combined with the gently rolling terrain, provided much better farming conditions than the rugged hills to the east.

Clearing away the forest, early settlers plowed and planted, subsequently causing massive soil erosion in some areas. Where the terrain was relatively flat, much of the loess soil stayed in place and productive farming continued until the early 1980's. Where the slope was greater (as in the southern third of the preserve) the loess soils quickly washed away and exposed the underlying substrate. Known as Crab Orchard Shale to geologists, this parent material is brick-hard when dry but erodes very quickly when exposed to rainfall. In less than a century, much of what would become Chaparral Prairie had become severely broken and gullied. Grazing took the place of row crops in one last effort to make a living from the land.

It was in these gullies, cow paths and abandoned wagon roads underlain with Crab Orchard Shale that harsh, dry living conditions were maintained where prairie vegetation could survive but less drought resistant species could not. Quickly these areas were colonized by such species as Prairie dock, Blazing-star and Rattlesnake-master, western plants that had migrated eastward into Ohio approximately 5000 years ago during a period of hot, dry

weather known as the Xerothermic Period.

The question of whether this recent colonization came about from seeds that had laid dormant in the soil for many years, or from seeds dispersed from other nearby patches of prairie vegetation remains to be answered by future ecologists.



Prairie dock

## MANAGEMENT

Pushing westward, European settlers displaced the native peoples. In many areas this change was followed by an accelerated growth of woody vegetation. Undoubtedly aboriginal fires (accidental as well as intentional) combined with fires of natural origin helped control the growth of woody vegetation and thus played a part in keeping the prairie open and thriving. With these forces no longer at work, many prairie openings were lost to encroaching forest.

Although the exact origin of many Adams County prairies is not completely understood, it is universally accepted that without management their future is bleak. It is thought that the disturbances brought on by early settlement activity in some way approximated those limiting factors (forces that slowed or halted plant succession) that had been at work in pre-settlement times to keep the