

## **Carolina Bays and Their Mysteries ~**

Carolina Bays are elliptical depressions, found primarily in the Coastal Plain Region of South Carolina, that have intrigued residents since the arrival of the first settlers. Additional investigations have shown that all the Carolina Bays are smooth elliptical depressions only a few feet deep, with their long axis oriented in a remarkably consistent northwest to southeast direction. Most have a surrounding rim of sand that is especially obvious along the southeastern edge. Sand ridges usually have gentle slopes and rise only a few feet above the level of the Bay. From the air, Bays look like impressions made in the earth's surface by a giant egg, ovals of dark greenery surrounded by patchworks of tilled farmland.

Bay size ranges from an area of only a few square feet to monster Bays having dimensions up to four miles long and two miles wide. Bays average 2,210 feet in length and 1,430 feet in width. The depth of these basins lies anywhere from a couple of feet to as much as forty feet below the surface level of the surrounding Coastal Plain. Depth can be misleading, however, since most Bays contain thick accumulations of soil and peat deposits.

Because Bays are such subtle features, and because they are usually very swampy and hard to cross, most Carolina Bays generally have gone unnoticed by the local population. The exact number and geographic extent of Carolina Bays were not recognized until aerial photographs, made by USGS in the 1930's, revealed that hundreds of these unique Bays existed from southern New Jersey all the way to northern Florida. Estimates now range as high as 500,000. Estimates for ages for Bays range from 6,000 to 60,000 years, and even older. Data obtained from the bottom-most sediments in the Bays indicates that most existed as lakes many years ago and have since been filled in with mud and vegetation.

Several Carolina Bays are well enough known to have been given individual names, some even a Heritage Preserve site (and offering tours . . . maybe an idea, Rachel?).

A few of many theories of the origin of Carolina Bays are a basin scooped out by giant turtles; fish nests made by giant schools of fish waving their fins in unison over submarine artesian springs; large sinkholes formed in limestone solution areas; and natural circular depressions elongated by prevailing winds resulting in elongation and deposition of sand on the perimeter of the Bay. In the case of Carolina Bays, there is no conclusive data that substantiates any of the theories. The origin of the Carolina Bays is still a mystery today.

Soon after the Europeans settled here, they started to call these small swamps, dominated by small, aromatic bay trees, "bay swamps" or "pocosins." Later, to avoid confusion with coastal bays, they were called "Carolina Bays." John Lawson recorded the first written mention of Carolina Bays in the late 1700's. In 1765, Pennsylvania botanist John Bartram wrote of seeing "bay swamps" in South Carolina. He reported that local native American fishermen utilized the buckeye tree's branches and leaves to make a highly effective fish narcotic used to stun fish before catching them. They also used the seeds of the buckeye trees for making eyes for the deer masks they wore while stalking deer. The Native Americans made extensive use of these wetlands and their diversified biological productivity without changing them in any significant way.

The rich organic soils which underline most Carolina Bays have attracted farmers to ditch and drain the Bays to convert them to agriculture. Once a ditch is dug through a bay, water will seep out of the surrounding soil, under the influence of gravity. In early colonial years, a similar procedure was followed to provide access to valuable, particularly cypress, hardwood timber.