

since the founding of our organization. These include Mr. Lewis Stevens, the historian of Cape May County; Mr. Charles Voelker, one of the founders of the Delaware Valley Ornithological Club, who had done unique work in clay modelling of birds; Mr. Herbert Brown, who had furnished some of the sketches in Stone's *Bird Studies at Old Cape May*. Some of the active leadership in the Cape May Geographic Society is from established naturalists highly regarded by Stone. Others are men and women who have brought new zest to the study of natural history of this point of land so extraordinarily full of curious and wonderful things.

BENNETT BOG

Robert C. Alexander*

The turnpike between Cape May Court House and Cape Island, the old name for Cape May City, was completed in 1858. It was constructed at a time when traffic had greatly increased and there was a need for better roads. But some of the inhabitants of the lower part of the county resented having to pay toll on the pike so they cut another road west of the pike and parallel to it. For the most part the road was probably only wagon tracks going through deep woods. However, it became a popular highway for farmers and landowners traveling from the lower end of the county through Cold Spring as far as Cape May Court House who used it to avoid paying toll on the pike. The road still keeps the name reminiscent of its humble origin—Shunpike!

A short distance south of Tabernacle Road, Shunpike goes through a district where there are some bogs that used to be filled with water but are often dry now. Two or three small houses stand on each side of the road, and, on the west side, the woodland north of Fishing Creek Road is replaced by cultivated fields. The horseshoe-shaped bog west of Shunpike with its ends reaching almost to the roadside looks like a part of the fields on its outer border; and the bogs east of Shunpike appear to be merely clearings in the woods. There is nothing distinctive about the appearance of these bogs, but the plant life living in some of

*Bayard Long, of the Academy of Natural Sciences of Philadelphia, supplied invaluable data regarding botanical discoveries, plant distribution, and nomenclature. Special acknowledgment is made also to: Stirling W. Cole, Karl A. Dickinson, Dr. Henry Fox, Joseph Halbruner, James Hawn, Mrs. Erma Bennett Ludlam, Jesse D. Ludlam, Mrs. Helen W. Marcy, William J. Moore, and J. d'Arcy Northwood. Publications and lists consulted: Otway H. Brown, *Plants of Cape May County*, N. J. (MS); David Fables, *List of Bennett Bog Plants*, 1950 (MS); Henry Fox, *Bennett Bog Plants*, *Second Annual Bull. Cape May Geog. Soc.*, 4-6, 1948; Lewis T. Stevens, *History of Cape May County*, N. J., 1897; Witmer Stone, *The Plants of Southern New Jersey*, Rept. N. J. State Museum for 1910, pt. II, 1911; *Bull. Cape May Co. Hist. and Geneal. Soc.*, Feb., 1950. Owners of bogs: Mrs. Helen W. Marcy and Mrs. Sarah Hand; Warren Nichols; N. J. Audubon Soc. All plants cited are native except the Fringed Gentian.

them is remarkable. Distinguished botanists have traveled far to observe the plants that grow here.

The first Negro settlement in the southern part of Cape May County was located in this vicinity. Alexander Winlock, one of the Negro settlers who was brought to Cape May from Kentucky by a white family, owned a farm here including the bog west of Shunpike and his house stood inside the horseshoe formed by the bog. Alec Winlock was a familiar figure in this part of the county. He was caretaker of Union Bethel Church in the settlement, a gravedigger and handy man; but his chief trade was charcoal burning. He made the charcoal near his house in the same way it has been made for centuries—cutting pine logs in the nearby woods, stacking them, setting them on fire, covering them with turf and sand to make them burn slowly, and tending them until the wood turned to charcoal. The hotels in Cape May bought his charcoal to use for broiling fish and steaks. Alec also picked the cranberries that grew in his bog and sold them in Cape May where, sixty years ago, they brought fifty cents a bushel.

The larger of the two bogs a few yards from the roadside on the other side of Shunpike used to be called Teal Pond, presumably because Aaron Teal owned it many years ago, and it may also be the "flax pond" mentioned in old deeds. It is the largest bog here, covering three and a half acres. Farmers used to come here in the wintertime to cut ice which they stored away in little ice houses on their farms. It was a favorite spot for ice skating, sometimes over a hundred skaters from all around the countryside coming here at once. A bonfire made of dead wood gathered in the woods surrounding the bog supplied light and heat for the skaters at night. Later on, the wood bonfire was replaced sometimes by a bonfire made of a worn-out rubber automobile tire soaked with kerosene and set on fire. Although not as pleasant to smell, the old tires made a hot fire and burned for a long time. There was duck shooting as well as ice skating both at Teal Pond and the smaller bog covering an acre and a half about sixty yards south of it.

Among the trees and bushes growing at the edge of these woodland bogs are Arrow-wood, *Viburnum dentatum* L.; Bayberry, *Myrica pensylvanica* Loisel.; Swamp Blueberry, *Vaccinium corymbosum* L.; Flowering Dogwood, *Cornus florida* L.; Sour Gum, *Nyssa sylvatica* Marsh.; Sweet Gum, *Liquidambar styraciflua* L.; Holly, *Ilex opaca* Ait.; White Swamp Honeysuckle, *Rhododendron viscosum* (L.) Torr.; Inkberry, *Ilex glabra* (L.) Gray; Swamp Magnolia, *Magnolia virginiana* L.; Red Maple, *Acer rubrum* L.; Willow Oak, *Quercus phellos* L.; Sweet Pepperbush, *Clethra alnifolia* L.; Pitch Pine, *Pinus rigida* Mill.; Swamp Rose, *Rosa palustris* Marsh.; Dwarf Sumac, *Rhus copallina* L.; and Winterberry, *Ilex verticillata* (L.) Gray.

The Clay Pits, so-called because the peculiar gray clay underlying this area was dug here in the past reputedly to make bricks, covers almost an acre in the woodland southeast of Teal Pond, and can be reached by path from Tabernacle Road. When it is nearly dry, hollows or pits are exposed from which clay has been taken. Bricks were made in this locality a century ago in two brick kilns that stood in a field on the Billy Buck farm on the north side of Crawford Road .6 mile west of Shunpike. A mound of earth and red brick rubble entirely overgrown with vines and bushes is said to be the remains of one of the kilns; and the other one is supposed to have stood only a few yards away at a spot covered by a dense thicket directly across a lane. Clay for these kilns might have been brought from the Clay Pits over a mile away, but the same kind of clay could have been dug from the low wet ground within fifty yards of the kilns. Depressions in the ground here suggest that it was. The bricks for White Hall, a small hotel erected at Cape Island in 1850 by Samuel Sumner Marcy, M. D., were made in these kilns. For many years, Dr. Marcy owned the tract of land on which the Clay Pits is located.

The first white settlers in this locality were Swains—Richard, Jr., Ebenezer, Silas, Isaac, and Daniel—and it was called Swaintown. James Hawn recalls attending the Swaintown school about seventy years ago. The one room schoolhouse was built of logs and stood on a slight rise of ground known as "the hill" on the north side of Tabernacle Road .3 mile east of Shunpike. There was one teacher for seventy-five or eighty pupils. While the teacher was busy with one group of pupils, the others would gaze through the cracks between the logs in the walls or do almost anything—except study. In autumn, the children often played hooky from Sunday School to clear the Clay Pits of tall grasses, rushes, and bushes so that when the bog froze over the ice would be smooth for skating. They had a path from the schoolhouse on "the hill" through the woods to the Clay Pits and, at recess time and after school was out, they grabbed their skates and went to the Clay Pits less than five minutes away to skate. There used to be duck hunting here too, the gunners hiding behind bushes and trees at the edge of the clearing and shooting the ducks as they flew in to feed. Another little bog is located in the woods a few yards south of Tabernacle Road but neither it nor the Clay Pits has the rich and unique plant life of the other three bogs.

The first important botanical discovery at the bogs did not occur until after the turn of the century. It came as a result of the systematic investigation undertaken by members of the Philadelphia Botanical Club of all the bogs in the southern part of New Jersey marked on maps. Until that time, the beautiful Snowy Orchis, a flower that grows in the South, was not known

to live this far north.

Bayard Long, who first identified this flower at the bogs, wrote, "While botanizing near Bennett, Cape May County, N. J., July 24, 1907, in company with Mr. S. S. Van Pelt, I found a number of orchids growing in a very wet bog. While these were as yet only in early bud, I took them to be *Gymnadeniopsis* (*Habenaria*) *nivea* on account of the slenderness of the leaves and the appearance of the old flower stalks, a few of which were still standing." A subsequent visit on August 13 by S. S. Van Pelt and Witmer Stone revealed the plants just beginning to bloom, while on September 4 of that year they were in full bloom and were found to be far more plentiful than at first supposed, their spikes of white flowers rising above the grass all over the bog where they were discovered and in adjoining bogs as well.

Witmer Stone said of the discovery, "It was hard to imagine that in a region so frequently scoured by botanists an undetected and conspicuous orchid had been blooming all these years, and yet such was the case. The explanation probably lies in the fact that the bogs in which the plant grows are off the usual line of travel and directly away from the sea and the salt marshes, which seem always to have attracted the botanists who visited the region. Then, again, the late blooming of this species was doubtless also a factor in concealing its presence, as the usual conspicuous bog flowers are, for the most part, over before it starts to blossom."

Bayard Long discovered the Aster-like *Boltonia* here the same day he found the Snowy Orchis. He wrote, "Another plant that occurred with it (*Snowy Orchis*), unquestionably native, is *Boltonia asteroides* (var. *glastifolia*), heretofore known only as an introduced species in New Jersey." Other notable discoveries at the bogs followed. The Few-flowered Beaked-rush, *Rhynchospora rariflora* (Michx.) Ell., was found by Witmer Stone on August 4, 1907; the Wrinkled Gama Grass, *Manisuris rugosa* (Nutt.) Ktze., by Otway H. Brown in August, 1908; Small's Yellow-eyed Grass, *Xyris Smalliana* Nash, by C. S. Williamson on September 13, 1908; and Harper's Sedge, *Carex leptalea* var. *Harperi* (Fern.) Stone, by Bayard Long on June 29, 1909. On June 30, 1909, Witmer Stone and others found Wright's Panic Grass, *Panicum Wrightianum* Scribn., and the Spreading Pogonia, *Cleistis divaricata* (L.) Ames, a species that had been collected only at Batsto, 1860 (?), and Quaker Bridge, July 7, 1864, in New Jersey with no further record of its existence until this time. The Maiden-cane, *Panicum hemitomon* Schultes, was found by O. H. Brown on August 12, 1909; Grisebach's Panic Grass, *Panicum aciculare* Desv., by Stone on September 11, 1910; Britton's Spike-rush, *Eleocharis Brittonii*

svenson, by Long on September 21, 1910; the Thread-leaved Beaked-rush, *Rhynchospora filifolia* Gray, by Long on August 11, 1911; the Short-beaked Bald-rush, *Psilocarya nitens* (Vahl) Wood,

by Otway H. Brown and the Low Pine-barren Milkwort, *Polygala ramosa* Ell., by Mary A. Brown both on August 12, 1913.

All of these are typically southern plants. Only four of them—Wright's Panic Grass, the Short-beaked Bald-rush, Harper's Sedge, and the Spreading Pogonia—have been found north of Cape May County. The Wrinkled Gama Grass, Small's Yellow-eyed Grass, Snowy Orchis, Low Pine-barren Milkwort, and Britton's Spike-rush are known in New Jersey only from Bennett Bog which is, of course, the northern limit of their distribution. The nearest place to Bennett Bog that Britton's Spike-rush has been collected is in North Carolina. Most remarkable of all, however, was the discovery of the Black-based Quillwort, *Isoetes melanopoda* Gay & Dur., at the bogs by Otway H. Brown on August 22, 1915. This plant, growing in certain sections of the West, has not been found anywhere else east of the Mississippi River except in Illinois.

During the period when these botanical discoveries were being made, botanists coming from the city usually took the train from Camden and got off at Bennett Station which was the local starting point for most of the early trips to the bogs. Although they visited the other bogs, these botanists did most of their collecting in the large bog. They described the location of the bogs as "near Bennett," "in the vicinity of Bennett," and "about one mile west of Bennett Station." It was only a matter of time before it was called simply Bennett Bog.

Bennett Station, the botanists' way station and landmark, was named for Elijah Bennett, and the surrounding area was called Bennett; but the post office established on April 7, 1893, and located in the store in the station building was named Erma in honor of Miss Erma Bennett, the granddaughter of Elijah Bennett. When Bennett Station was abandoned by the railroad, the building continued to be used for a store until finally it was torn down. The entire district is called Erma now, although the post office for which it is named has been discontinued. Erma has taken the place of Bennett and of Swaintown too. But as long as the bogs remain, it is likely that this spot will be known to botanists as Bennett Bog.

Farmers have cut hay in the bogs, the three with the greatest variety of plant life in them, almost every year for at least twenty years; and as long ago as 1910, Witmer Stone noted that a farmer's scythe passed within a couple of feet of the Spreading Pogonias he had found growing among grasses and sedges at the edge of one of the bogs and they narrowly missed being trans-

formed into hay. Last summer, flowers bloomed more abundantly in the half of Teal Pond where hay was cut than in the half that has never been mowed. The annual mowing does not appear to have done any harm.

Curious holes in the bogs usually with a small tower built with lumps of clay surrounding the entrance, sometimes attributed to animals or reptiles, are made by crawfish, nocturnal crustaceans inhabiting the bogs, seldom seen in the daytime. In the 1930's, when Shunpike was widened and graded and the Cape May County Mosquito Commission received aid from the Public Works Administration to do away with potential breeding places of the notorious Jersey mosquito, ditches were dug to drain the bogs. On numerous occasions since then, the clay turrets of the crawfish that used to be covered with two or three feet of water have stood on dry land and lily pads in the lowest parts of the bogs have withered away on the ground. Apparently there has been enough water just below the surface to sustain the bog life up to now, but draining is a real danger because water is essential to the existence of the plants and the creatures living in the bogs.

The plants that attract the most attention here are generally those with conspicuous flowers, not the grasses, rushes, and sedges. The following plants, most of them with conspicuous flowers, are representative of the bog flora, of course, not all blooming at the same time: Aster-like Boltonia, *Boltonia asteroides* var. *glastifolia* (Hill) Fern.; White-bracted Boneset, *Eupatorium leucolepis* (DC.) T. & G.; Lance-leaved Centaury, *Sabatia difformis* (L.) Druce; Cranberry, *Vaccinium macrocarpon* Ait.; Grass-leaved Ladies' Tresses, *Spiranthes praecox* (Walt.) S. Wats.; Nodding Ladies' Tresses, *Spiranthes cernua* (L.) Richard; Downy Lobelia, *Lobelia puberula* Michx.; Nuttall's Lobelia, *Lobelia Nuttallii* R. & S.; Meadow Beauty or Deergrass, *Rhexia virginica* L.; Maryland Meadow Beauty, *Rhexia mariana* L.; Cross-leaved Milkwort, *Polygala cruciata* L.; Orange Milkwort, *Polygala lutea* L.; Snowy Orchis, *Habenaria nivea* (Nutt.) Spreng; White Fringed Orchis, *Habenaria blephariglottis* (Willd.) Hook.; Umbellate Marsh Pennywort, *Hydrocotyle umbellata* L.; Rattlesnake Master, *Eryngium aquaticum* L.; Coppery St. John's-wort, *Hypericum denticulatum* Walt.; Marsh St. John's-wort, *Hypericum virginicum* L.; Sclerolepis, *Sclerolepis uniflora* (Walt.) BSP.; Spatulate-leaved Sundew, *Drosera intermedia* Hayne; Lance-leaved Violet, *Viola lanceolata* L.

Other members of the Orchis family recorded from Bennett Bog besides those already mentioned are the Yellow Fringed Or-

chis, *Habenaria ciliaris* (L.) R. Br.; Ragged or Green Fringed Orchis, *Habenaria lacera* (Michx.) Lodd.; and Rose Pogonia, *Pogonia ophioglossoides* (L.) Ker., including the form with white flowers.

On October 24, 1949, a summery autumn day when Lance-leaved Violets were blooming in the bogs for the second time that year, J. d'Arcy Northwood scattered seeds of the Fringed Gentian, *Gentiana crinita* Froel., at the south edge of the bog west of Shun-



pike—seeds he had collected from plants growing in a boggy meadow beside a brook in Little Falls, N. J., where the species seemed to be threatened with extermination. If they should grow, a third species with North Jersey ancestry will be added to two of the most treasured flowers native to Bennett Bog—the Pine-barren Gentian, *Gentiana autumnalis* L., and the Scapwort Gentian, *Gentiana Saponaria* L.

All of the bogs are privately owned; and last year, the New Jersey Audubon Society established a sanctuary in half of Teal Pond and all of the smaller bog near it. Every person who visits the bogs should help to protect and preserve them because here in this small spot in the southern part of Cape May County grow some of the most unique plants in this whole region.

ANNUAL BUSINESS MEETING

The annual business meeting took place immediately following the concluding lecture of the season, on Friday, September 1. Reports on the activities of the year were presented and the biennial election of officers was held. President, Vice-president, Treasurer, and Secretary for 1950-1952 were elected as listed below. Resolutions were adopted in appreciation of the retiring President, Mr. Robert C. Alexander, and the retiring Secretary, Mrs. Glen Sefton Hiers.

FINANCIAL REPORT

September 1, 1949 — August 31, 1950

RECEIPTS

Cash on hand, Sept. 1, 1949:	
Balance from preceding year	\$ 24.26
Otway Brown Memorial Fund	23.26
Dues	309.00
Sale of books	124.68
Door receipts	89.75

Total Receipts \$570.95

August 31, 1950, Balance ... \$ 50.84

DISBURSEMENTS

Printing: CMGS Bulletin	\$ 69.60
*Bird Book	233.16
Map for Tree Book	12.00
Lecturers	68.60*
Hall Expenses	42.00*
Supplies, postage, etc.	94.75

Total disbursements \$520.11

*Includes some expenses carried over from previous year.

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Membership in the Cape May Geographic Society includes subscription to the Bulletin. Annual dues one dollar.