Dunedin's Hammock Park

A Brief History

Prepared by the Friends of the Hammock, Inc

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Dunedin's Hammock Park

Compiled by A. C. Cline, Vivian Skinner Grant and Steve Fasnacht

"The Hammock" is an ancient 90-acre mixed-hardwood forest filled with more than 300 native species of trees, shrubs, ferns, wildflowers and small animals. In addition, over 100 species of birds inhabit the preserve throughout the year.

Of the 91.8 acres, 75 acres are a "low" hardwood and palm hammock, with a dark, rich soil that supports a more varied and denser vegetation than the surrounding sandy uplands. One of the most conspicuous features of the hammock are large, 100-year-old hardwood trees, some upward to 3 feet in diameter. The tallest trees, reaching 80 to 90 feet, are Sweetbays. They are becoming rare as they succumb to age, drought and invasive vines.

1846 — When Florida joined the Union in 1845, the U.S. Government sent a geodetic team to survey the entire state. The Dunedin Historical Society has a copy of the original 1846 survey map of the Dunedin area, with the park identified as "Wet Swamp." The surveyors' field notes referred to it as "a hammock." Remarkably, the north-south boundaries of the park set by this 158-year old survey remain to this day.

1890 — The parcel was bought from the state in by Lee Brunsun Skinner around 1890 (most of these facts come from his granddaughter, Vivian Grant). It was probably the last land to go in the area because it was very swampy, and higher sandier soil was more desirable by ranchers and fruit growers at the time.

1925 — It was drained and staked out into lots by the real estate boom of the 1920s. This apparently changed the appearance greatly according to locals who remembered the drainage project. Mosquito ditches were dug in 1933.

1931 — Skinner's Hammock is the subject of a book, "*My Nature Nook*", written by Indiana's most famous naturalist[1] and entomologist Willis S. Blatchley.

19?? — After the real estate bubble burst, Skinner sold to Ken Kerr, local attorney, who was going to resume development of the property at some point in time.

1965 — Apparently, Kerr fell in love with the property (now known as "the Kerr Tract") and in order to preserve it, sold to the city in 1965 for $175,000. A City Commissioner pictured the area as "Florida as it is, but won't be for long — an area for... contemplation and picnics.

1972 — The Dunedin Historical Society initiated action to have the Hammock placed on the National Register of Historic Places.

1974 — The Hammock Advisory Committee was also appointed to "insure the maintenance of the Hammock in its present natural state and to assure the development of an acceptable management plan for the Hammock." Also that year, the Dunedin Garden Club helped create the first self-guided nature trail (Sugarberry Trail West). They also carried out extensive studies and identification of the flora and fauna that abound in preparation for the "State of Florida Natural Feature" designation.

1975 — A management plan was established.

1976 — Hammock Park was officially designated the first "State of Florida Natural Feature" under a project heralded by the Florida Department of Natural Resources.

1994 — The Friends of the Hammock, Inc. was established to help preserve the natural state of the park for future generations. Through the generous involvement from volunteers such as the Boy Scouts; Junior ROTC; Bay Bouquet and Dunedin Garden Clubs; Dunedin Nature Center; Dunedin Tree Bank; private businesses and the Dunedin Parks Department, the Friends of the Hammock continues to create community awareness of the natural treasure of this unique park.

In the late 1990s, it was becoming apparent that the Hammock was critically drying out. Trees were dying or visibly weakening with invasive species replacing them. Efforts to reverse the drying of Hammock Park began in earnest.

2002 — A *Baseline Ecological Inventory and Wetland Determination* was carried out by DRMP Engineers.

2004 — A devistating number of old growth trees were killed as a result of hurricanes Jeanne and Frances. It was geneally determined that these trees were already weakened by one of the worst droughts on record.

2006 — A major comprehensive hydrology study of the park was completed (*the Hammock Park Natural Systems Restoration Project*), with the help of Nan Bennett and Tom Burke from city engineering, Swiftmud, TBE Group consulting, and Art Finn, Parks Superintendent. The basic function: restore the length of time water has to soak back in to the soil — it ran off or drained into cedar creek too quickly. A series of dams diverting water from Lake Suemar into the hammock is the proposed solution.

2008 — The City purchased an adjacent 5.8 acres known as the Harris tract, increasing the size of the park to 90.8 acres.

2009 — The Lake Suemar hydration/drainage project officially begins functioning.

The Hammock's value can't be overemphasized as is evidenced by the continued and historic record of efforts to preserve the parcel as close to a natural state as possible. Historically, it's a remaining part of "old Florida" that perseveres in this quickly-changing community. Environmentally, it purifies and reoxygenates the air, drains and purifies runoff water from surrounding areas, and provides food and shelter for animals and birds. Socially, it provides a natural beauty for the soul and a peaceful respite for the body. Educationally, it provides a chance for adults and children to learn to live in harmony with nature in an urban environment.

With an updated management plan in place to remove invasive exotics; reforest with native trees; maintain trails and contain drainage erosion, the park will continue to be a source of pride and joy for the entire community.

1. http://www.isgs.illinois.edu/about-isgs/heritage/blatchley-w.shtml


Hammock Park
State of Florida Natural Feature
Main Entrance — 1900 San Mateo Drive, Dunedin, Florida
Michigan Blvd.
North Entrance
(foot trail only)
Pinehurst Rd .2 mile / Keene Rd 1 mile →
Bayshore Blvd. / Alternate 19 North
Pinellas Trail
Harvard Avenue
Ed Eckert Dr.
Private Property
Bays
Cedar Creek
Mangroves
Marsh
Pines
Osprey Trail
Dunedin Youth Guild Park & Frisbee Golf Course
Fisher Field
Greater Dunedin Little League
Dunedin Nature Center
Parking
Cedar Trail
¼ mile
Harvard Entrance
(foot trail only)
Cedars
Main Entrance
(and Parking)
Andrews Memorial Chapel
Rest Rooms
Butterfly Garden
Play-ground
Douglas Ave.
San Mateo Drive
Skinner Trail ⅓ mile
Bay Trail
Oak Circle
Hickory Circle
Oak Trail
Sugarberry Trail West
Sugarberry Trail East
Cline Trail ⅕ mile
Palm Trail ½ mile
Ferns
Fern Trail ¼ mile
Grant Trail ¼ mile
Lake Suemar
Lake Trail
Hardwoods
Baybead
Sugarberry Entrance
(foot trail only)
Mira Vista Dr.
Kettles Trail
Kettles Trail ⅕ mile
Harris Trail
Pines & Palmettos
Palmetto Trail
Sand Pines
Gopher Trail
Harris Woods Entrance
(limited parking)
Jackmar Rd.
Mary Jane Ln.
Robmar Rd.
Patricia Ave.
Suemar Rd.
McCarty St.
Legend
GPS survey by City Engineering Department 2007
Other mapping 2012 by the Friends of the Hammock in cooperation with Dunedin Parks and Recreation
Auto Road
Paved Foot Trail
Boardwalk
Foot Trail
Tidal Creeks
Shelters
Benches
Scale in Feet
0 100 200 300
Grassy Areas (activities)
Wooded Preserve / Park Boundary (90 acres)

Rec. Secy.

The Hammock Advisory Committee of the City of Dunedin, Florida

A BRIEF CHRONOLOGICAL HISTORY OF EVENTS AFFECTING THE HAMMOCK* IN DUNEDIN, FLORIDA

1846

The U. S. Government township survey reached the Dunedin area. Survey lines were run one mile apart in the four cardinal directions to establish and mark the Section boundaries. One Section line crossed The Hammock (which the surveyors noted as a "wet swamp"), and a half-mile post was set at about the north end of the present Harvard Avenue footbridge. The two "witness trees" were water oaks, long since gone.

1918-1925

Much damage was caused by the hurricanes of 1918 and 1921. Dr. W. S. Blatchley, noted naturalist who wintered in Dunedin, made the following comment in his book "My Nature Nook" (1931): "In recent years it (The Hammock) has suffered from two hurricanes and fire, and during the boom of 1925 was partially drained and staked out in lots, so that its appearance is now greatly changed."

Early 1930's

The Dunedin Times reported in December 1933 that forty men were digging ditches in The Hammock as part of a WPA mosquito control project. Thus it seems that during both the land boom of the 1920's and the depression of the 1930's efforts were made to reduce the swampiness of the area. These old interior drainage ditches are still in evidence today, but they have become more shallow over the years and probably do not have any great effect on runoff.

1965

The Kenneth Kerr tract (the entire Hammock park) of some 85 acres was purchased by the City of Dunedin for $175,000. A City Commissioner pictured the area as "Florida as it is but won't be for long, an area for camping, contemplation and picnics."

1966

In April, Highlander Park and its three divisions were named in a public contest sponsored by the City. The easternmost tract was named Stirling Acres, the middle tract Sportsman's Field (Fisher Field), and the westernmost tract The Hammock. The name "Hammock" is well chosen, since in this part of Florida low, poorly-drained areas with black mucky soils that favor hardwood trees are called hammocks.

1970

The Hammock Institute was established as a non-profit organization devoted to instructing young people in the rudiments of the natural sciences. Headquarters were at the Fisher Building.

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* Within The Hammock park (85 acres) is a hammock forest of some 75 acres.

1972

The Science Center of Pinellas County took over and expanded the limited program of the Hammock Institute. It was stated at the time that "because of the nearness to a large wooded area (The Hammock), there will be emphasis on botanical and nature studies." (Biology Instructor Robert Orlopp conducted this program and later became a member of the Hammock Advisory Committee.)

The Dunedin Historical Society (under the leadership of Mr. and Mrs. Clair L. Miller) expressed interest in preserving The Hammock, an interest culminating in a decision to seek placing the area on the National Register of Historic Places. The required application forms were filled out, and letters supporting preservation were obtained from a number of local botanists and biologists.

1973

In February, with approval of the City Commission, all pertinent forms and information were filed with the Florida Secretary of State for action.

In March, Dr. William Thurston of the Division of Archives, History and Records Management, Florida Department of State, advised the Dunedin Historical Society that it appeared desirable to delay further action on the application for the National Register and, instead, to seek registration of The Hammock under the new Natural Feature program of the Florida Department of Natural Resources -- a program designed to preserve remaining examples of Florida's natural heritage. The Society, with City approval, agreed to the change, and The Hammock became the first area to be considered under the new program. (Registration as a Natural Feature would not preclude application for the National Register at a later date.)

In April, Interpretive Naturalist Lt. K. C. Alvarez, Florida Department of Natural Resources, was sent to Dunedin to inspect The Hammock and determine its acceptability as a State Natural Feature. Alvarez reported favorably and made a number of suggestions for preserving the native character of the hammock forest. He also recommended preparation of a management plan for the area.

In May, the Dunedin Garden Club (under the leadership of Mrs. Barbara Cline, Conservation Chairman and amateur botanist), with the concurrence of the Dunedin Historical Society, proposed to the City's Recreation and Parks Department (Director Patrick W. Kerr) the establishment of one or more botanical nature trails in The Hammock -- a proposal which met with approval. As a first step, members of the Garden Club assisted a retired professional forester (Albert C. Cline) in surveying and mapping the existing service roads and primary trails and the structures around the picnic area. This work started in October and was completed early in 1974.

1974

In April, the City of Dunedin officially requested the Florida Department of Natural Resources to register The Hammock as a State Natural Feature.

In June, Interpretive Naturalist Lt. K. C. Alvarez again visited The Hammock (accompanied by members of the Recreation and Parks Department, the Garden Club, and the Historical Society) and amplified his earlier views on preservation of the area.

In September, the Dunedin Historical Society recommended to the City Commission the creation of a special advisory committee on The Hammock. The Committee was

appointed in October and held its first meeting in December, electing officers for the coming year (forester Albert C. Cline elected Chairman) and voting to make preparation of a management plan its first objective.

In the latter part of the year, the Dunedin Garden Club in cooperation with the Recreation and Parks Department established the first nature trail, named SUGARBERRY -- official opening November 19. A descriptive pamphlet was published, containing general information on the history of The Hammock and its plant and animal life, a map of the trails, and a self-guide to plant life along Sugarberry Trail (14 numbered paragraphs to be matched up with 14 trail markers).

In December, the Dunedin Garden Club and the Recreation and Parks Department established a covered, two-sided display case (kiosk) in the picnic area of The Hammock. The original exhibit contained an enlarged map of the trails, all pages of the Hammock pamphlet, and a number of colored photographs of scenic spots along the trails. Since that time the Club has maintained nature-study exhibits in the kiosk, changing them approximately monthly.

Near the end of the year, notice was received that The Hammock had been approved for registration as a State Natural Feature, pending final negotiations between City and State officials.

1975

Early in the year, students of Dr. Harold W. Sims, Jr. of the St. Petersburg Junior College, Clearwater Campus (Dr. Sims, ecologist, a member of the Hammock Advisory Committee) undertook a systematic survey of forest cover types in the large south block of The Hammock. This information was used in preparing the Management Plan.

In April, a forest fire in the western part of the south block was extinguished by the Dunedin Fire Department after repeated attempts over a three-day period. It was a typical ground fire slowly eating its way in the dry duff and humus.

In November, the Hammock Advisory Committee submitted to the City Commission for approval "A Management Plan for The Hammock" (the forested portion). This was forwarded to the Department of Natural Resources for its consideration.

1976

In January, after favorable review by its Technical Advisory Committee (specialists throughout the State), the Florida Department of Natural Resources approved the Management Plan. The City of Dunedin approved the Plan in February.

An agreement designating The Hammock a State Natural Feature was signed by the Florida Department of Natural Resources in January. The City of Dunedin signed the agreement in March, pledging to preserve and maintain The Hammock in its natural condition (under guidelines set up in the Management Plan) for the benefit of present and future generations. The Hammock thus became the first area to be registered as a State Natural Feature.

A second botanical nature trail, named PALM, was developed by the Dunedin Garden Club in cooperation with the Recreation and Parks Department -- officially opened in February. A self-guide was added to the Hammock pamphlet (10 paragraphs to be matched up with 10 trail markers).

1976 (Continued)

Early in the year, the City's Parks crew made good progress in controlling (by cutting) massive climbing vines that were threatening to greatly weaken or kill many older trees of typical hammock species.

In March, the City of Dunedin, the Pinellas County School Board, and the Science Center of Pinellas County jointly established an educational program in environmental science for young students, using the Fisher Memorial Building as a Nature Center and The Hammock as its principal nature-study area. A full-time naturalist was employed.

In May, the Hammock Advisory Committee recommended to the City Commission stopping the systematic poison spraying of ditch banks and adjacent roadsides to keep down vegetation. This practice had eliminated thousands of ground plants and killed small saplings of native trees, including mangroves.

In June, the Dunedin Recreation and Parks Department initiated a Hammock Day Camp program for local youth, conducted in the wooded area north of the picnic shelters. The program was designed to increase appreciation of the natural environment and was expected to become an annual summer event.

In December, the Hammock Advisory Committee submitted to the City Commission a preliminary report on an improved trail layout for The Hammock, a study recommended in the Hammock Management Plan.

1977

In January, the City Parks crew began cutting out the Brazilian pepper-tree, an aggressive exotic species taking over growing space from native species. In June and continuing throughout the year, a small CETA (Comprehensive Employment and Training Act) crew was assigned to continue cutting out pepper-trees and climbing vines.

In April, the Hammock Advisory Committee expressed concern to the City Commission over a new large earth fill on property adjoining The Hammock on the south, a fill some 400 feet long and 8 to 10 feet above the forest floor. This permanently altered runoff from the south. Also there was the threat of erosion of the steep fill bank. The Committee recommended that vegetation be established on the bank.

In July, the Committee, the Dunedin Historical Society, and the Dunedin Garden Club expressed to the City Commission their opposition to a connector road along the south boundary of The Hammock and to construction of a separate bikeway through The Hammock, both matters under consideration by the Planning Department.

In September, the Committee and the Dunedin Garden Club expressed great concern to the City Commission over erosion damage to Palm Nature Trail caused by a new drainage system on adjoining private property that included a ditch leading to near the southern entrance of the trail. Erosion had, in places, exposed numerous tree roots and, in between, dumped large quantities of sand. Subsequently, the property owner had the ditch filled in and a small earthen berm built across it aimed to spread out the runoff. These measures were of limited effectiveness, and at the end of the year erosion continued.

By late summer, Committee members Pierre Genelle and Glenn Fleming (professional botanists) had completed a checklist and collection of Hammock flora (336 species), in cooperation with the Recreation and Parks Department and the Dunedin Garden Club

(which had prepared a preliminary list in September 1975). The plant collection was to be housed at the Herbarium, University of South Florida, Tampa. The checklist was subsequently published under the title "The Vascular Flora of 'The Hammock,' Dunedin, Florida" in Castanea, a journal of the Southern Appalachian Botanical Society; reprints were made available to the public.

During the year, Committee members A. C. Cline and C. R. Lockard (professional foresters) surveyed and mapped the secondary trails in The Hammock. (Primary trails were surveyed and mapped in 1973-74.) Lockard also surveyed and mapped the internal (now abandoned) drainage ditches dug in the 1920's and 1930's.

Two new vegetation type maps were developed, one by forester Lockard and the other by botanists Genelle and Fleming. These supplemented type maps prepared in 1975 by students of the St. Petersburg Junior College, Clearwater Campus.

1978

In January, the City's Planning Department, in connection with the DUNEDIN 2000 PLAN, completed a vegetative inventory of Dunedin which included a map of The Hammock showing tree cover by broad composition types.

The CETA crew's work cutting Brazilian pepper-trees and climbing vines was extended to June, then terminated.

The Hammock Advisory Committee finalized and sent to the City Commission for policy approval "A Study of the Present Road and Trail Layout in The Hammock with Recommendations for Improvement." This study was recommended in the Management Plan.

In September, the City of Dunedin applied for a $50,000 grant under the Florida Recreation Development Assistance Program for a trail for the handicapped in the north block of The Hammock.

In November, Committee members Genelle and Fleming prepared a report on "Plants of The Hammock in Danger of Destruction or Depletion," with recommendations for methods of preserving them -- a report to be used jointly by the Committee and the Recreation and Parks Department in a continuing effort to identify and preserve rare (in The Hammock) plant species.

Erosion of Palm Nature Trail continued to be a problem. At year's end, the Hammock Advisory Committee and the City's Departments of Public Works and Recreation and Parks were considering further corrective measures.

1979

Because of a shortage of labor in the Recreation and Parks Department, little work was done in The Hammock in the way of trail maintenance and improvement. And such projects as vine control and exotics control were sharply curtailed.

Heavy rainstorms in May and September caused unusually large washouts of service roads along the main drainage ditches. A washout near Hickory Circle prevented access by vehicle to the large eastern section of The Hammock.

The serious erosion problem along Palm Nature Trail, caused by outflow from the drainage system on adjoining property, was partially alleviated by diversionary devices directing more of the flow towards areas west of the trail.

In September, the State approved Dunedin's application for a $50,000 grant for construction of a trail for the handicapped in the north block.

1980

A continued labor shortage in the Recreation and Parks Department resulted in some further deterioration in trail conditions in general and caused the temporary abandonment of Fern Trail for public use. Nor was labor available to resume the control of vines and exotic species.

The Dunedin Garden Club continued its cooperative efforts, including updating and reprinting the Hammock self-guiding pamphlet, repair of direction signs and numbered trail markers on Sugarberry and Palm Trails, and maintenance of nature-study exhibits in the kiosk near the picnic shelters.

Palm Trail erosion (referred to under notes for the three previous years) was brought under partial control by the diversionary devices mentioned under 1979, but sand inflow to the southern end of this trail continued to make walking difficult for the general public.

Land at the westernmost end of the McCarty Street extension, donated to the City a number of years ago on condition that a paved road be put through along the south Hammock boundary, reverted to the original owners. The owners agreed, however, to donate a 10-foot easement for a possible future footpath.

In the summer, a small forest fire of unknown origin near Station No. 9 on Palm Nature Trail was extinguished before becoming widespread.

Plans were completed in December for the first phase of the trail for the handicapped in the north block of The Hammock.

1981

In August the caretaker's cottage at the entrance to The Hammock was considered beyond repair and torn down, and the position of resident caretaker was eliminated temporarily.

The trail in the north block, accessible to the handicapped, was named CEDAR and officially opened on August 31. It was developed by the Recreation and Parks Department with the aid of a $50,000 grant under the Florida Recreation Development Assistance Program. The Dunedin Garden Club updated its Hammock pamphlet to include information about the new trail, including a self-guide to plant life prepared by Hammock Committee members Glenn Fleming and Barbara Cline (10 numbered paragraphs to be matched up with 10 trail markers).

Maintenance problems continued throughout the year. Due primarily to a continuing shortage of manpower in the Recreation and Parks Department, there was minimal trail maintenance, little vine control, and no exotics control. Other problems were minor vandalism of trail signs and at the new observation tower on Cedar Trail, one minor fire along Cedar Trail, and the dumping of trash and some deterioration of the berm on private property at the south end of Palm Nature Trail.

The notes covering 1846 through 1974 were compiled by Albert C. Cline as Research Historian of the Dunedin Historical Society, and for 1975 through 1981 by Albert and Barbara Cline as members of the Hammock Advisory Committee.

This statement was especially prepared for enclosure in the TIME CAPSULE of the Dunedin Historical Society, to be opened in the year 2076 and housed meantime in safe in depot museum.

THE CITY OF DUNEDIN'S HAMMOCK FOREST

A Rare Remnant of Original Hammock Vegetation

The First Area Recognized as a "State Natural Feature"

"The Hammock" is the official name of the western section of the City of Dunedin's Highlander Park situated in Sections 22 and 23 of Township 28 South, Range 15 East. It was acquired in 1965 for $175,000. Within The Hammock area of some 85 acres is a true hammock forest of about 70 acres -- one of a very few remaining natural "low" hardwood and palm hammocks in this part of Florida essentially untouched by man.

Despite its rarity, the hammock forest remained little known for several years after purchase. Rumors arose that the City might be tempted to sell the area for a housing development. Back in the boom years of the 1920's, the area had been laid out in streets and building lots, but collapse of the boom ended that enterprise.

Because of the great historical value of the hammock forest, the Dunedin Historical Society early in 1972 initiated action to have the area placed on the National Register of Historic Places. As a more promising alternative at the time, State authorities suggested seeking its registration as a "State Natural Feature" under a new program administered by the State's Department of Natural Resources, designed to preserve unique outdoor sites as living records of the natural history of Florida. After four years of persistent efforts through contacts with State officials concerned and submission of much pertinent information about the nature and use of the area, "The Hammock" (Forest) was finally accorded the distinction of being the first area in the State to receive a Certificate of Registration as a State Natural Feature, the document dated September 9, 1976.

Such recognition by the State has added a substantial measure of protection to the area, hopefully preserving it for another hundred years. Though the City of Dunedin retains ownership, it has pledged to preserve and maintain the hammock forest in its natural condition for the benefit of present and future generations.

To assist City officials in carrying out this pledge, the City Commission in 1974 appointed a Hammock Advisory Committee, which proceeded to make a careful study of the area and prepare a Management Plan, approved by both State and City officials.

From a scientific standpoint, perhaps greatest interest regarding the hammock forest in 2076 will be the biological, especially botanical, changes that have occurred since this writing. Thus, we should attempt to describe past and present conditions and indicate what effect certain provisions of the Management Plan with respect to both plant life and area use may have on future conditions.

As to the past, there are no botanical records dating from the 19th century, but during the more recent decades a definite trend towards drier soil conditions appears evident. When the township was laid

out in 1846, the surveyors mapped this hammock as a distinct area, with the notation "wet swamp." The two witness trees to the only corner post set in the area in 1846 were water oaks.

Today, calling the area a "low" hardwood and palm hammock is as suitable as any name, though some botanists have applied the term "fern hammock" in recognition of the great abundance of ferns. Present soils are moderately moist (mesophytic), which condition, in contrast to "wet swamp," may be attributed to both reduced precipitation in recent years and to man-made drainage ditches running along portions of the forest boundary and designed to reduce flooding in adjoining housing developments.

The present hammock forest does not present a uniform, full stocking of veteran trees of fine form and quality. Rather, such terms as patchy, uneven and irregular best apply to the tree element. But predominant throughout most of the area are scattered old hardwoods of large size, probable survivors of hurricanes. Indeed, the general condition of the forest plainly shows the destructive force of hurricane winds.

While it is impossible to determine what losses may have occurred over the years in such "swamp species" as the bays, tupeloes and red gum, there is evidence of declining numbers. No red gums have been found at present, though noted by botanists not many years ago. A few old swamp tupeloes are present, but no young trees. Old sweet bays, towering above all other trees, show clear evidence of decline; and there are but few younger bays to replace them. The sugarberry, or hackberry, is fairly common in the middle and older ages, but the young of this species are hard to find. Red maple, a prominent hammock species, is apparently holding its own, though most old trees are in poor condition. The hickories are fairly common and the best-formed of all the hardwoods; and young hickories are frequently noted. Of rare occurrence is the Hercules club, a subordinate tree species that may well become extinct before many years.

Oaks are predominant in the hammock forest today, especially live oak. It appears that the drier soil, compared with a half-century ago, has favored the live oak; the very open-grown form of many of the oldest specimens is evidence of much growing space, most likely provided by hurricanes that felled less wind-firm species.

The palms are fairly numerous in some areas, but few succeed in maintaining a dominant position; generally, even the tallest palms are overtopped by hardwoods; and many stand dead as poles, the result of suppression. However, younger palms are fairly common, and the species is in no danger of early elimination.

Two conifers, slash pine and red cedar, occur sparingly, and the latter is nearing extinction caused by the suppression of taller hardwoods. Pines occur in a few drier places, notably in Pine Circle, but only as old trees.

Certainly the most conspicuous elements in many parts of the forest are climbing vines, numbering many thousands and in places completely

smothering even the tallest trees, including sweet bays 80 feet in height. As many as a dozen vines up to 3 inches in diameter at the base may be hanging from the crown of an old tree. A great many trees are eventually killed, their dead trunks standing as supports for their destroyers. Since the live oaks, with their wide-spreading branches, are least vulnerable to strangling by vines, this species possesses a further claim to dominance in the future forest.

Although young trees of some of the more typical hammock species are few in the present understory, conditions could change for the better. In places the overstory is too dense to encourage the establishment of reproduction, a condition which a hurricane could quickly alter. Hurricanes have done great damage to the forest in times past, but without causing, it appears, any permanent change in the general forest composition. Perhaps most unfavorable for the regeneration of "swamp species" at present is the continuing drought, which during the past dozen years has left a rainfall deficit of over 100 inches. But there is no reason to believe this reduced precipitation is other than temporary (cyclic), or that another hundred years would witness climatic changes of critical magnitude.

Turning to other factors that may affect the future of plant life and public use of the hammock forest, perhaps most important is the policy set forth in the Management Plan of exercising reasonable control over such highly destructive elements as climbing, strangling vines and aggressive exotic species, notably the Brazilian pepper-tree. "Letting nature take her course" under existing conditions would greatly diminish the future value of the hammock forest as a natural stand of native trees and associated shrubs and ground plants.

A carefully executed vine control program is currently centered on prolonging the life of old trees of rare species that are being taken over by climbing vines. Also, a start has been made in removing Brazilian pepper-trees, which have invaded parts of the area in great numbers. While not an immediate prospect, the replacement of the present open drainage ditches by pipes, as recommended in the Management Plan, should reduce loss of soil moisture, as would the return of a wetter climatic cycle.

As to public use of the hammock forest and development of its great potential scientific and educational values, a good start has been made. In 1973 the Dunedin Garden Club undertook a nature trail project in cooperation with the City's Recreation and Parks Department. The Club mapped existing trails (never done before) and prepared, with the aid of specialists in various biological fields, a pamphlet introducing the first nature trail, named SUGARBERRY. The pamphlet contained park rules, a trail map, notes on the ecological history of the area and on present animal, bird and plant life, and "A Self-Guide to Plant Life along Sugarberry Trail." Also, the Club shared with the City Department the construction of a display case near the Hammock Picnic Area, with the Club providing the informational materials displayed and periodically changed to present varied nature-study subject matter.

In 1976 the Dunedin Garden Club, again in cooperation with the City's Recreation and Parks Department, organized a second nature trail, named PALM, and prepared a Self-Guide to Plant Life along it. These two trails have already proved of great value, especially to the thousands of school children who annually are taken through the hammock forest by their instructors in nature-study classes.

Currently, the Hammock Advisory Committee is making a study of the present and prospective additional trails, and the Dunedin Garden Club will continue its program of converting some of them to nature trails for educational purposes. As time goes on, increasingly intensive use will be made of the area, and it is the present aim of those most concerned that future use will continue to emphasize the scientific and educational values inherent in this rare remnant of original "low" hardwood and palm hammock.

Finally, as the best available means of comparing plant life in 1976 with that in 2076, a preliminary checklist of plants is attached. This list, although incomplete, does contain the names of the more common plant species. The Dunedin Garden Club is presently sponsoring a full checklist, to be prepared by professional botanists Pierre Genelle and Glenn Fleming, research associates at the University of South Florida Herbarium in Tampa. At the special request of the Director of the Herbarium, the Dunedin Recreation and Parks Department has given the botanists permission to take a collection of Hammock plants for the Herbarium.

Attachment:
Preliminary Checklist of Hammock Plants

October 1976

Prepared by:

Albert C. Cline, retired forester
Member of:
Dunedin Historical Society
The Hammock Advisory Committee

and

Barbara H. Cline (Mrs. A. C.),
amateur botanist
Member of:
Dunedin Garden Club
Dunedin Historical Society
The Hammock Advisory Committee

This report mentioned in HAC minutes of 12/15/76

Secy. Copy

State of Florida

DEPARTMENT OF NATURAL RESOURCES

HARMON W. SHIELDS
Executive Director

CROWN BUILDING / 202 BLOUNT STREET / TALLAHASSEE 32304

January 16, 1976

Honorable Elbert L. Linville
Mayor of Dunedin
Courthouse
750 Milwaukee Avenue
Dunedin, Florida 33528

Dear Mayor Linville:

Subsequent to my letter of November 3, 1975 proposing the registration of the Hammock as a Natural Feature, the Hammock Advisory Committee of the City of Dunedin sent a copy of the management plan for the Hammock to Mr. Paul Darst of this Division. Mr. Darst provided copies of the plan to our technical advisors for the Natural Features Program. They indicated that the proposed management would be in accordance with the intent of the Program.

Dr. Robert W. Long of the University of South Florida, one of the technical advisors, did make the following two suggestions: (1) a comprehensive, well-written handbook identifying the flora and fauna should be written as soon as possible and made available to visitors and student groups; (2) a professional botanist should be added to the Hammock Advisory Committee.

The Division of Recreation and Parks concurs in the approval of the plan and the suggestions of its technical advisors.

On a related topic, Mr. Patrick W. Kerr of the Dunedin Recreation and Parks Department informed Mr. Darst that the City would like to have the legal description of the Hammock made part of the natural feature agreement. We have re-written the agreement to accommodate this request (two copies enclosed).

As there now appears to be no impediment to registration of the Hammock, the Division of Recreation and Parks cordially invites you to register the Hammock as a Natural Feature. If you wish to accept this invitation, please sign both copies of the agreement and return them to me. A registration certificate will then be issued to the City, and the Hammock will be entered in the State Register of Natural Features. As stated in my previous letter, the agreement is not legally binding, but does pledge your commitment that the site will not be degraded other than by natural causes.

We hope that you will accept this invitation to join with the State in recognizing and helping to preserve an outstanding example of the original domain of Florida.

Sincerely,

Ney C. Landrum
Director
Division of Recreation and Parks

NCL/pdc
Enclosures

cc: Mr. Clair L. Miller
Mr. Patrick W. Kerr
Mr. Robert W. Long

Florida Department of Natural Resources
Division of Recreation and Parks

Certification of Registration
State Natural Feature

This is to certify that

The Hammock

located in **Pinellas** County Florida,

under the ownership of

City Of Dunedin

has been found to possess exceptional value in illustrating the natural history of Florida, and in recognition thereof has been duly designated by the Florida Department of Natural Resources as an official Registered State Natural Feature under the System of State Natural Features adopted by the Governor and the Cabinet of the State of Florida on October 31, 1972, as a program of the Florida Division of Recreation and Parks.

Executive Director

Director, Division of Recreation and Parks

September 9, 1976
Date

001
Registration Number

Secy

THE HAMMOCK ADVISORY COMMITTEE
of the CITY OF DUNEDIN, FLORIDA

November 18, 1975

Mayor Elbert L. Linville,
City Hall,
Dunedin, Florida

Dear Mayor Linville:

Transmitted herewith for consideration of the City Commission is a proposed Management Plan for the Hammock as prepared by the Hammock Advisory Committee. The Committee hopes it will meet with the approval of the Commission and the City Administration officials concerned.

It should be noted that the Committee's advice is limited to the hammock proper, that is, only the forested area. This limitation also corresponds with the interest of the State's Department of Natural Resources in its consideration of designating the hammock as a State Natural Feature. It is the old forest that is being increasingly recognized as one of a very few examples of original hardwood and palm hammock remaining in this part of Florida.

Because of the great educational and scientific values inherent in acquiring and conveying knowledge of the complex of plant and animal life in the hammock, the members of the Advisory Committee were especially chosen with this in mind. You may be reminded by looking at the list of Committee members at the end of the Management Plan that all have some special competency in such pertinent fields as biology, botany, zoology and forestry. The High School students were chosen by their biology teacher.

And, as chairman of the Committee, may I add that the group has taken great interest in their assignment and cooperated fully in the Committee's work during the year.

Sincerely yours,

Albert C. Cline

Albert C. Cline,
Chairman

Plan accepted by State in Jan. 1976 and by City in Feb. 1976

Draft #3

A MANAGEMENT PLAN FOR THE HAMMOCK

Prepared by
The Hammock Advisory Committee
of the City of Dunedin

Contents

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I. THE OVER-ALL SITUATION

Description of the Area. "The Hammock" is the official name of the 85-acre former Kerr Tract, which forms the western section of Highlander Park (Fig. 1). This tract was purchased by the City of Dunedin in 1965 for $175,000. Within The Hammock is "a hammock," of some 60 to 70 acres, which is a "low" hardwood and palm hammock. In this part of Florida, hammocks are usually "low," that is, lower than the surrounding higher and drier "pine land"; and their black, mucky soils support a much more varied and more dense forest vegetation than the sandy uplands. The Committee's advice is limited to the hammock proper, that is, only the forested area.

The hammock area was first shown on an 1846 map of Township 28 S. 15 E. The surveyors called it "a hammock" in their field notes, and showed it on their map as such, with the further notation "wet swamp." Fortunately, the survey line between Sections 22 and 23 ran through the middle of the hammock, so that its southern and northern limits were well fixed 129 years ago.

The 1846 map shows the hammock connected with St. Joseph Sound by a large marsh, later filled in and now a residential area. This suggests that long ago the hammock area was covered by a shallow

body of brackish water, its salinity varying with tidal inflows from the Sound and fresh-water runoff from higher elevations to the east. The open water was probably first invaded by aquatic plants, then by emergents, and finally by the higher plants. The present black, mucky soil was gradually formed by decomposition of the remains of numerous generations of plants.

The hammock lies in the lowest part of the Cedar Creek drainage area. In times past, before there were any drainage ditches, run-off from heavy rains found its way across the floor of the hammock, some absorbed by the soil and the rest flowing on into the Sound.

The most conspicuous feature of the hammock today is the large size of overstory trees. Some veterans are upwards of 3 feet in diameter and at least 100 years old. Taller than all others are the sweet bays, some of them 80 to 90 feet in height. These now occur scatteringly, and many show signs of weakening, due perhaps to a combination of old age, diminished soil moisture, and competition with massive climbing vines that prevent normal foliage development.

There is no evidence of past logging, probably because most of the merchantable-size hardwoods were of poor quality for lumber. Many old trees show evidence of past hurricanes--some partially uprooted but still living, some with broken tops, and some leaning at wide angles to upright. The very wide-spreading old oaks evidently were the sturdy survivors of hurricanes that blew down surrounding trees, thus permitting the oaks to spread in all directions.

The hammock displays wide variations in its vegetation. In places, the understory is an almost impenetrable jungle; in others, one can walk around under the tree canopy with little hindrance. Elsewhere, climbing vines are choking out, or already have killed, groups of trees, leaving only branchless stubs. Dense patches of ferns occur here and there throughout much of the area, and at least one botanist has called it the "Fern Hammock."

A few exotic species, mostly Brazilian pepper-tree, have invaded the hammock. There are some china berries, papayas, castor beans, and probably others, but, all told, exotics occupy only a very small percentage of total growing space. In places, citrus trees are quite common in the understory, and some of them may possibly have been planted following the hurricanes of 1918 and 1921.

In the southeastern corner of the area, outside the hammock proper, there is higher ground with sandy soil and the scattered occurrence of such dry-site species as turkey oak and sand pine.

Present Knowledge of Hammock Life. Only a superficial description of the wealth of species and ecology of the hammock can now be written. Thousands of plant and animal species are involved. The intricate interrelationships of the various organisms and their environments can scarcely ever be fully understood. However, a start has been made in acquiring more knowledge. Contained in the appendixes of this Plan are a preliminary checklist of plants, a list of birds, and a summary of animal life (other than birds).

Through the help of a group of biology students from the Clearwater Campus, St. Petersburg Junior College, a systematic survey was made in 1975 of the major plant associations in the large southern block of the hammock (Figs. 2 and 3). These vegetative type maps show the predominance of a few tree species.

In the overstory (Fig. 2), there is much similarity in composition throughout the entire southern block of the hammock. The main exceptions are the predominance of slash pine in Pine Circle (1); vines in (9); oak and pine in the dry, sandy southeast corner (11); and maple in the wettest areas, such as (5) and (7). In general, the leading overstory species are oaks (live, water and laurel), sugarberry (hackberry), red maple, sweet bay, hickory, cabbage palmetto, and slash pine.

The understory (Fig. 3) also shows much similarity in species present in the central and northern parts of the area type-mapped. Most common are cherry laurel, red maple, citrus, sweet bay, cabbage and saw (scrub) palmetto. Elsewhere, there are areas of dense undergrowth where vines or vines and saw palmetto predominate (areas 6, 9 and 10). No type map is presented for ground cover, but predominant are several species of ferns, wild coffee, and saw palmetto.

Factors Causing Change. The hammock has been subjected to continuous change from its very beginning. Besides gradual, long-term changes related to climate and natural succession, there have been violent upsets caused by hurricanes, and possibly by tidal waves. In recent times, the long drought has reduced soil-moisture levels and weakened the more moisture-demanding species.

In addition to natural factors, man has interfered to some degree with hammock life. In the real-estate boom of the 1920's, the hammock was staked out in building lots and a network of shallow drainage ditches constructed. These ditches have now mostly filled in and have little effectiveness. It is possible that some citrus trees were planted during the boom years, following blowdowns by the hurricanes of 1918 and 1921.

At present, there are two major ditches maintained as part of the Cedar Creek drainage system: one is a S/N ditch along the eastern boundary of the hammock, and the other an E/W ditch leading direct to the Cedar Creek estuary. Flood waters are channeled in these ditches, resulting in less soil moisture for hammock vegetation.

Because the ground level of the area is so little above sea level, high tide reaches far up the drainage ditches--over 1/4 mile in the main E/W ditch and somewhat shorter distances in secondary ditches. It is uncertain what effect this salt-water intrusion has had; there are no conspicuous losses of trees along the ditches. Perhaps the fact that the tides are only about 2 feet, the ditches fairly deep, and some fresh water is present at all times accounts for lack of serious damage.

Present Use of the Hammock. The Hammock Park serves as a medium of education and recreation for thousands of visitors each year. Individuals, families and groups take advantage of the picnic facilities and trails.

In 1974, the Dunedin Garden Club in cooperation with the City Recreation and Parks Department established a so-called self-guiding nature trail (named Sugarberry Trail) with numbered stations or stopping places. Available to visitors is a descriptive pamphlet containing a map of the hammock, general information on plant and animal life, and specific information on plants to be observed at each trail station (Appendix B).

A permanent display case at the western entrance to the hammock, near the picnic areas, exposes visitors to a variety of pictorial and graphic information of biological and historical nature.

The Science Center of Pinellas County's Upper Pinellas Branch has made extensive use of the uniqueness of this hammock area. Organized classes in nature study, animal behavior, botany, zoology, taxonomy, herpetology, mammalogy, nature photography, ornithology, ecology, entomology, stream life, and wilderness and survival skills are offered to students in grades 3 through 12 in a 5 or 10-week "mini-course" format. State-certified instructional personnel supply the equipment and guidance to direct the young people toward a healthy appreciation and understanding of nature, conservation, and preservation. Approximately 150 students take advantage of the regular Saturday sessions through the school year, and an additional 250 students enroll in the 6-week summer session.

In addition to its regular enrollment, the Science Center accommodates approximately 1000 additional students each summer session through a cooperative arrangement with the City Recreation and Parks Department. These students are given short exposures to various aspects of nature study for a 2-hour session. Groups are rotated on a daily basis so that a maximum number of students are exposed to the science curriculum.

Less frequently, local Girl Scout and Boy Scout troops, church and civic groups, and organizations such as Audubon and garden clubs visit and make use of the picnic and natural facilities. The Dunedin Garden Club guides small groups through the area upon request. Both San Jose Elementary School and Dunedin Comprehensive High School involve students in research and study within the hammock via individual or group project.

Though not part of the hammock proper, the Hammock Park as a whole provides other forms of recreation. The City Recreation and Parks Department has canoes for use in the Cedar Creek estuary and St. Joseph Sound; and the northwest corner of the park, an open area, is being used for a bicycle "motocross." Motocross contests are sponsored by the Optimist Club in cooperation with the City Recreation and Parks Department.

At the western entrance of the Hammock Park are two picnic shelters with electricity and running water and charcoal grills. Nearby are public restrooms.

The City of Dunedin, the Pinellas County School Board, and the Science Center of Pinellas County are currently trying to arrange for the employment of a full-time naturalist to work out of the Fisher Building in Highlander Park. His time would be available to school groups and other organizations.

II. GENERAL POLICY OF MANAGEMENT

The overriding consideration in a general policy statement is the need to preserve the hammock as one of the very few examples of a natural hardwood and palm hammock-forest complex remaining in this part of Florida. But preservation in this case is not taken to mean "letting nature take her course, regardless." As pointed out elsewhere in this Plan, a strict "hands off" policy would result in losing more and more indigenous trees and other plants to strangling vines and invading exotics. And, pursuing such a policy in the case, for example, of a lightning-caused forest fire could result in extreme damage in an area like the hammock. Though started by man rather than nature, a dry-muck ground fire in the hammock early in 1975 was extinguished only after repeated attempts; if left uncontrolled, very extensive damage would probably have resulted.

The scientific and educational values involved in preserving the hammock forest, as a forest, are too great to permit destructive controllable forces to run their full course, thereby introducing the possibility of a decision to devote the area to some entirely different use.

Thus the Committee recommends very carefully applied measures to retain the hammock forest as a distinct ecosystem, recognizing especially the apparent long-term trend from a wet to a moderately-moist (mesic) soil condition, with resulting gradual losses of trees of the more moisture-demanding species. Fortunately, the recorded observations of tree species present in earlier years by the noted naturalist Dr. Willis S. Blatchley and by botanist Dr. Bernard Raymund provide guidance in any efforts to preserve rare indigenous species.

Increasing public pressure for more intensive recreational use of the hammock may be expected. Though some improvements in the present trail layout are desirable, pressure to create a close network of trails, with numerous picnic areas and other public "conveniences" should be resisted. As a general policy, the educational and scientific uses of the hammock proper should be given more weight than the purely recreational.

Protection of the hammock against improper use will doubtless require more intensive control measures as times goes on. In addition to

general supervision and caretaking provided by the City's Recreation and Parks Department, the increased participation of other City Departments, such as Public Works, Fire and Police, should be encouraged.

Public service agencies, such as Mosquito Control, and public utilities, such as the electric power and telephone companies, should be advised by City authorities of the importance of maintaining the hammock in its natural state and of the official policy of minimizing any further encroachments.

III. SPECIFIC MANAGEMENT RECOMMENDATIONS

Treatment of Exotic Species. The most abundant and aggressive exotic species is Brazilian pepper, especially noticeable along roadsides and drainage ditches where it receives direct sunlight. This species should be eliminated, or at least kept under tight control. Complete elimination will require time and persistence, but a start should be made soon. Other exotics occur scatteringly and should be removed, except as single specimens might possibly be retained for educational purposes.

Treatment of Rare Native Species. A special effort should be made to save species typical of the hammock that have become scarce. Undoubtedly, there are fewer tree species present today than in times past. This loss may have been caused by a gradual drying out of the soil. Only three specimens of Hercules club and one swamp tupelo have been found to date. Species noted in the past by botanists and not observed recently include sweet gum, boxelder, and Florida elm.

The entire area should be carefully scouted to locate any remaining specimens of disappearing species. Any such rare specimens should be freed from strangling vines. The day will come when seeing these rare hammock species will be much appreciated.

Treatment of Tree-strangling Vines. A vine control project is urgently needed in places. First attention should be given freeing desirable trees along the nature trails that can still be saved by severing vines at their base. If vine control is not undertaken, it is certain that the value of the area as a rare remnant of hardwood and palm hammock will be greatly reduced. The reason for the present vigorous growth of vines is unknown, but the ability of vines to kill even large trees has been amply demonstrated.

The Drainage Ditches. There seems to be no practical way of putting more runoff across the floor of the hammock without at the same time flooding adjoining residential areas. Pipes or aqueducts would avoid the present erosion in open earthen ditches but would still channel runoff direct to the Cedar Creek estuary. And, without channeling, excessive runoff, such as from the 13 inches of rain in four days in June of 1974, would probably cause flood damage along San Mateo Drive and Douglas Avenue--and possibly other areas.

The only means of putting more runoff across the hammock without the risk of flooding adjoining areas would be costly engineering works with a mechanism for diverting a portion of the runoff into the hammock, under close monitoring and control.

The present open ditches are subject to considerable erosion, and the forested sides of woods roads along the ditches have in places been cut into to facilitate ditch-maintenance operations. It would seem that the unsightliness so caused could be reduced by informing machine and truck operators of the importance of leaving the edges of the forest undisturbed insofar as possible.

A few mosquito-control ditches have been dug to drain wet places in the hammock, but it seems questionable how effective these are in such a large low-lying area. This matter should be taken up with the control authorities, who should be informed of the official policy of maintaining the area in its natural state.

Nature Trail Development. The present trail lay-out is something that evolved piecemeal. It was not until 1974 that the Dunedin Garden Club in cooperation with the City's Recreation and Parks Department began conversion of some existing trails to planned nature trails. In the winter of 1973-74, the old trails were mapped for the first time, given appropriate names, and one trail developed as the first planned nature trail (named Sugarberry, after one of the species commonly seen along it).

It is evident from a glance at the hammock map (Fig. 1) that the present trails are not well spaced over the area. There are no trails whatever in the northern section--that portion east of Cedar Creek and north of the large E/W drainage ditch; and there is a large area in the southern section without any convenient means of access. An early study should be made of the present trail lay-out with a view to recommending improvements.

Meanwhile, the continuing work of the Dunedin Garden Club in cooperation with the City's Recreation and Parks Department is taking two major forms: first, the collection of further information on nature trail development and maintenance according to the latest approved standards; and, second, proceeding with the development of Palm Trail as the second planned nature trail. These continuing efforts to increase the educational and scientific uses of the hammock are considered very commendable.

Woods-road and Trail Improvement and Maintenance. As the most presently needed work under this heading, the Committee recommends the following:

(1) Installing a footbridge, in place of the present plank, at the western end of Live Oak Trail where it crosses the drainage ditch.

(2) Widening certain places in present trails where overgrown with ferns or other ground cover, and surfacing, possibly with wood

chips, wet places where masses of exposed tree roots make walking very difficult. This treatment is especially needed in the western end of Live Oak Trail, which trail makes a convenient connecting link between Sugarberry Nature Trail and Palm Nature Trail.

(3) Constructing a woods road along the southern boundary of the hammock, tying it in at the western end of the present woods road at a point near the concrete posts blocking entrance from San Mateo Drive.

The advantages of this road from a fire protection standpoint will be referred to later under Protection. Such a road would provide access to a large area along the southern side of the hammock now practically inaccessible. At present, persons walking south on Palm Trail finally run into deep sand and, short of turning back and retracing their steps, have to leave City property and make their way east to the woods road running along the big S/N drainage ditch. (Return by the present rough and rooty Fern Trail calls for very nimble footwork.)

Incidentally, putting in this south woods road would require prior location and marking of the hammock's southern boundary line, something now lacking and much needed. Without a marked line, trespassing and other signs cannot be posted on this longest of all the hammock boundaries.

(4) As a general trail maintenance project, trash in the form of cuttings and trimmings and other material along the woods roads and trails should be collected and disposed of.

Area Protection, Public Conveniences and Miscellaneous

Restricted Use of Roads and Trails. With the exception of official vehicles, all woods roads and trails should be closed to motor traffic, including motorcycles. Bicycles (non-motorized) should be permitted on woods roads but forbidden on trails. It is annoying to groups of students or other pedestrians to be forced off a trail to make way for bicyclists intent only on going places. The same rule should apply to horseback riding as to bicycling, that is, limited to woods roads.

Fire Protection. The following recommendations are based on consultation with Fire Chief P. N. Harrison:

(1) Construct a vehicular-type bridge across the big E/W drainage ditch at the south end of Harvard Avenue, replacing the present footbridge. Such a bridge would greatly facilitate getting at fires in a large acreage of the hammock. It should be closed to any but City vehicles.

(2) Improve the present rough trail leading from Palm Trail to the only hydrant in the hammock, with provision for a turn-around.

(3) When a southern boundary woods road is constructed, widen Palm Trail as necessary at its southern end to permit driving a minipumper through to the south boundary road.

Vandalism. Prevention of all vandalism in a large unfenced area like the hammock is practically impossible. However, general surveillance by the City's Police Department and the park caretaker has doubtless helped prevent any serious damage to the property. There has been vandalism of directional signs installed along the Sugarberry Nature Trail, and in the future only the most durable materials will be used for trail signs. Destruction or removal of signs is the work mostly of teen-age and younger boys who have little appreciation of the values of a nature trail. This, it is hopefully anticipated, will be gradually corrected as more and more students are exposed to environmental studies in coming years.

Public Conveniences. It is always possible to improve the design and usefulness of public conveniences. For the present, the Committee recommends only the following:

(1) Install a few more benches--one in Hickory Circle, one on Live Oak Trail where it meets the connecting trail to Palm Trail, and one approximately midway on Palm Trail.

(2) Provide some means for persons in trouble to communicate with public services--police, ambulance, etc. Any exposed device installed within the hammock would probably be vandalized. Perhaps something could be worked out using the present caretaker's telephone, at least at certain hours. This could be made known by posting a public notice at the picnic shelters, which are generally considered the focal point of hammock activities.

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Hammock Advisory Committee

Chairman: A. C. Cline, Research Historian, Dunedin Historical Society (retired forester)
Vice-Chm.: Robert Orlopp, Instructor of Biology, Boca Ciega High School, St. Petersburg, and Instructor at Science Center of Pinellas County, Inc., Up-County Branch, Dunedin
Secretary: Miss Lorraine Walker, senior student, Dunedin Comprehensive High School
Members: Mrs. Patti Boylan, Instructor of Biology, Dunedin Comprehensive High School
Mrs. Barbara H. Cline, Conservation Committee, Dunedin Garden Club (Botany)
Harold W. Sims, Jr., Instructor of Ecology, Clearwater Campus, St. Petersburg Junior College
Fredric B. Becton, Urban Forester for Pinellas County
Richard Scott, senior student, Dunedin Comprehensive High School (graduated June 1975)
Dwight Dougherty, junior student, Dunedin Comprehensive High School (to be recommended as a new member)

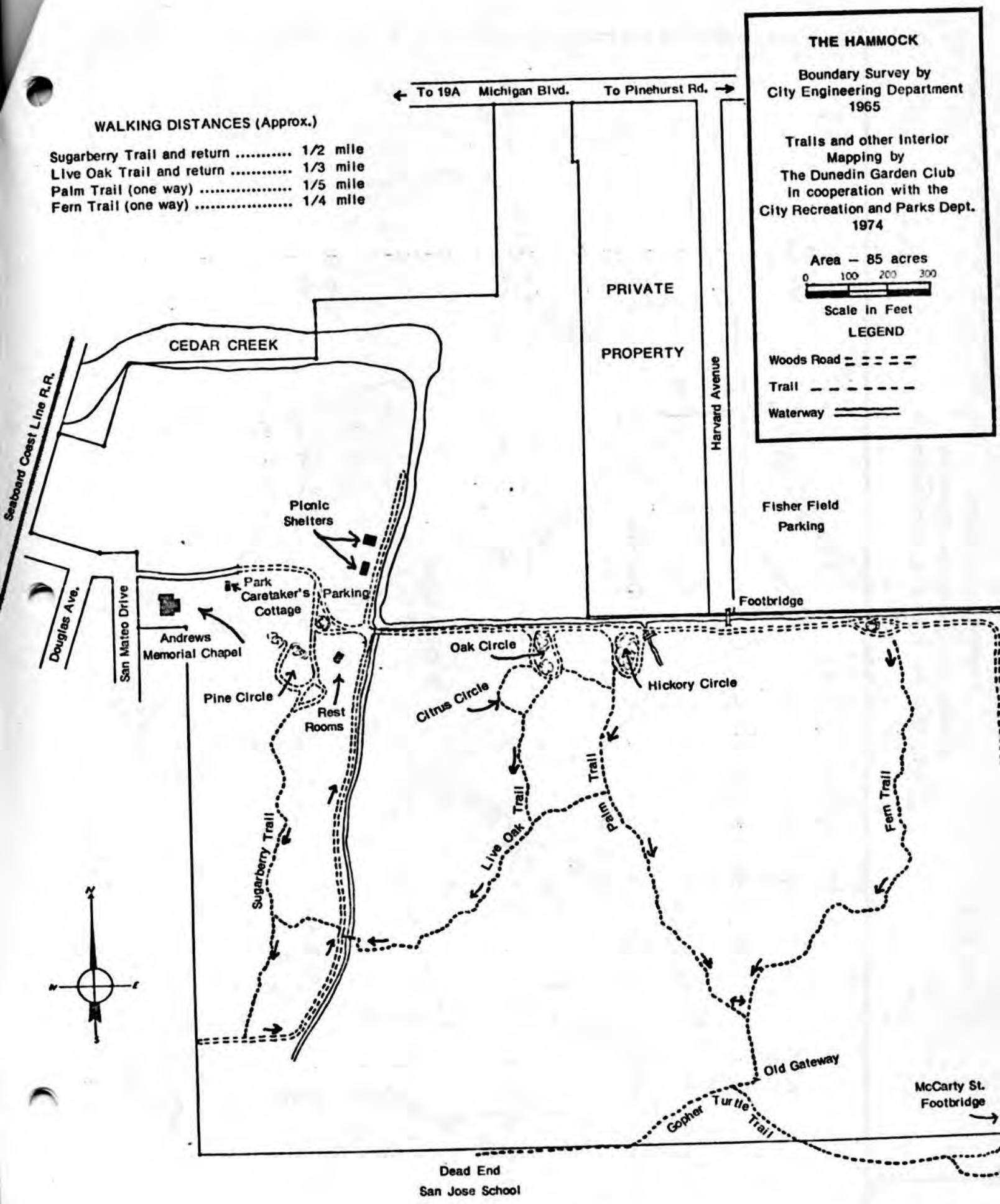
THE HAMMOCK
Boundary Survey by
City Engineering Department
1965
Trails and other Interior
Mapping by
The Dunedin Garden Club
In cooperation with the
City Recreation and Parks Dept.
1974
Area – 85 acres
0 100 200 300
Scale in Feet
LEGEND
Woods Road
Trail
Waterway
WALKING DISTANCES (Approx.)
Sugarberry Trail and return ..... 1/2 mile
Live Oak Trail and return ..... 1/3 mile
Palm Trail (one way) ..... 1/5 mile
Fern Trail (one way) ..... 1/4 mile
← To 19A Michigan Blvd. To Pinehurst Rd. →
PRIVATE
PROPERTY
Harvard Avenue
CEDAR CREEK
Seaboard Coast Line R.R.
Fisher Field
Parking
Picnic
Shelters
Park
Caretaker's
Cottage
Parking
Footbridge
Douglas Ave.
San Mateo Drive
Andrews
Memorial Chapel
Oak Circle
Hickory Circle
Citrus Circle
Pine Circle
Rest
Rooms
Sugarberry Trail
Live Oak Trail
Palm Trail
Fern Trail
N
W
E
S
Old Gateway
McCarty St.
Footbridge
Gopher Turtle Trail
Dead End
San Jose School

Fig. 1

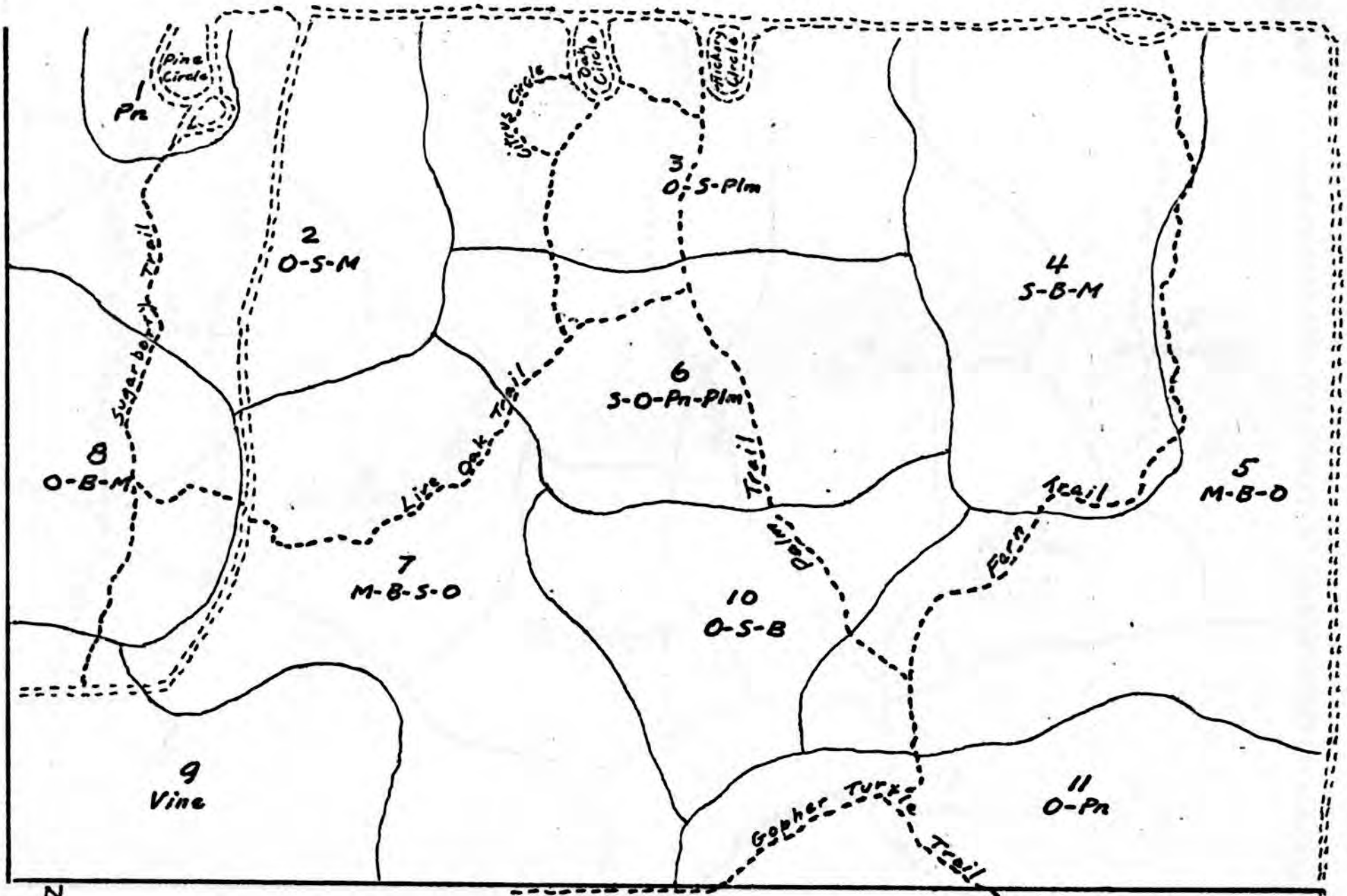

Fig. 2
Type Map of Forest Overstory
Hammock Southern Section
Scale — 1" = 200'

Hammock Advisory Comittee

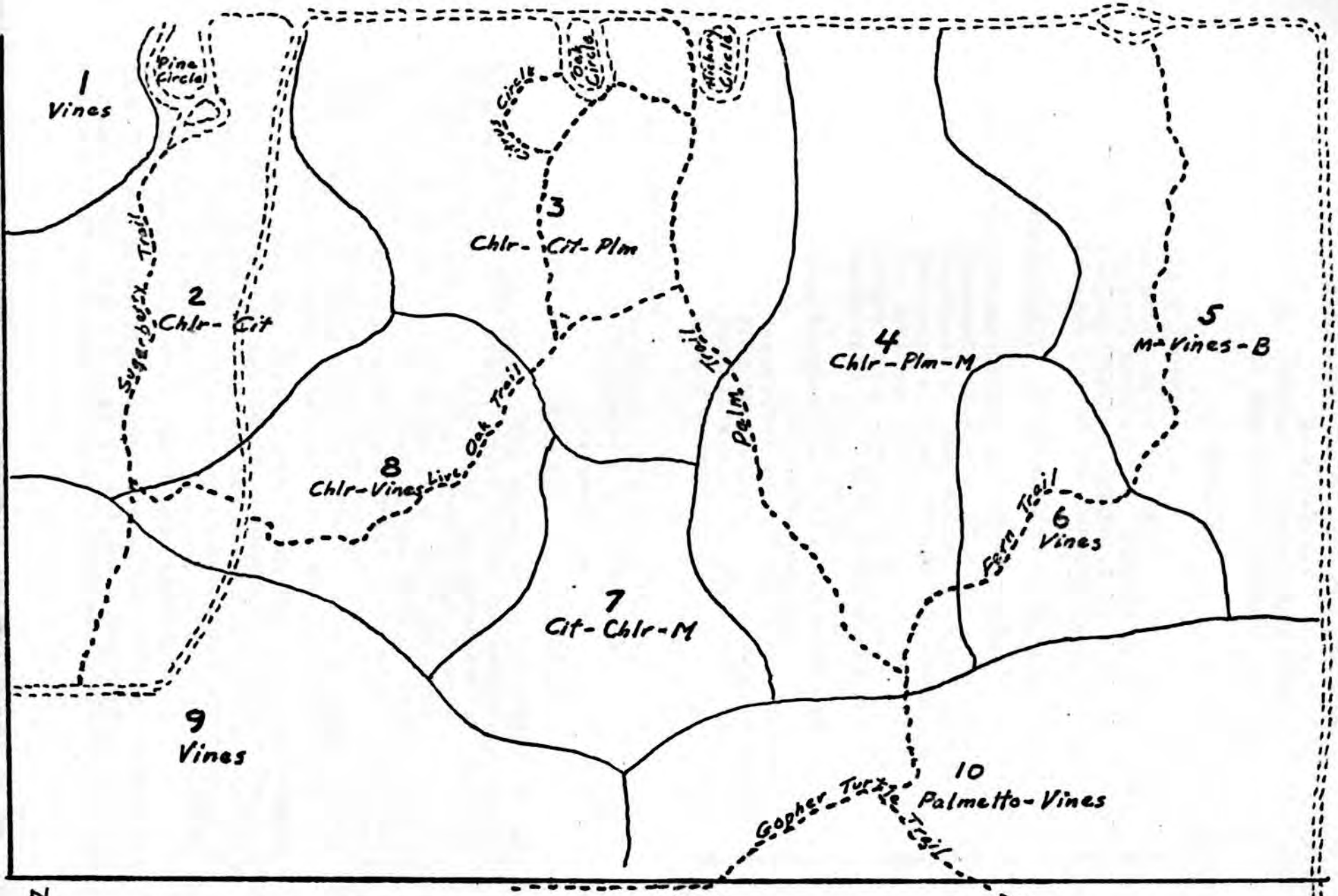

Fig. 3
Type Map of Forest Understory
Hammock Southern Section
Scale- 1"=200'

Hammock Advisory Committee