

BENTLEY HISTORICAL LIBRARY
UNIVERSITY OF MICHIGAN
1150 Beal Ave. Ann Arbor, MI 48109-2113



Creator: Cowles, Henry Chandler
Title: Henry Chandler Cowles lantern slide collection
Inclusive dates: 1898-1936
Extent: 0.5 linear feet (104 slides)
Call number: 2009051 Aa 2

Language: Material is in English
Acquisition: Received from the Matthai Botanical Gardens.
Accruals: No further additions to the collection are expected.
Access: The collection is open without restriction.
Photographs: 9 ½ cm. x 8 cm. glass lantern slides and plastic transparencies.
Copyright: Copyright is held by the Regents of the University of Michigan.
Processed By: Emily Sanford, March 2009

Box No. Description

Abstract

The Henry Chandler Cowles photograph collection is comprised primarily of lantern slides. As a botany professor at the University of Chicago, Cowles led several field trips to observe ecological environments during the years from 1898 to 1934. The lantern slides in this collection cover the geographic areas of Michigan, Colorado, Indiana, Wisconsin, and Illinois and include photographic subjects such as dunes, plant life, forests, landscapes, and class group pictures. .

History

Henry Chandler Cowles came to the University of Chicago as a graduate student in 1895 to study under John M. Coulter a noted botanist at the newly formed university. Cowles's Ph.D. thesis entitled "The Ecological Relations of the Vegetation on the Sand Dunes of Lake Michigan" completed in 1898 detailed Cowles's theory on plant evolution in relation to geographic situation. That is, the closer one moves inland the more advanced along the evolutionary chain the plant species become.¹ Cowles based his thesis on observations made along Lake Michigan in Dune Park, Indiana. His thesis was published in *Botanical Gazette* in 1899 and its popularity led to Cowles becoming known as the first professional ecologist.² Cowles published *The Physiographic Ecology of Chicago and Vicinity; A Study of the Origin, Development, and Classification of Plant Societies* (1901) two years later that furthered his theory of plant succession and constant state of evolution.

Cowles began teaching at the University of Chicago in 1897 and initiated field trips with his classes in order to study ecological sites. The earliest trips were to Dune Park, Indiana the same location Cowles used in his thesis. Later excursions took place in Michigan, Indiana, Alaska, Colorado, and Maine, among others. The most common classes to include field excursions were Cowles's Elementary Ecology (Botany 3, Botany 203), Field Ecology (Botany 36, Botany 336) and Physiographic Ecology (Botany 34, Botany 234, Botany 334).³

Beginning in September 1898 with a trip to North Manitou Island, Cowles's field ecology classes made several trips to Michigan that continued sporadically through about 1923.⁴ Cowles and associates including George D. Fuller and W.J. Cribs photographed the plants, dunes, forests, plants, trees, and students on these trips. These photographs illustrate interesting ecological and environmental elements in their original settings and over time. Cowles became chair of the department in 1925 and retired from the university in 1934. He passed away in 1939.

The University of Chicago Special Collections (<http://www.lib.uchicago.edu/e/spcl/>) holds many of the originals photographs. An effort has been made by the Library of Congress's American Memory project to digitize many of Cowles's photographs. see:<http://lcweb2.loc.gov/ammem/collections/ecology/index.html>.

¹ "Ecology and the American Environment"

<http://lcweb2.loc.gov/ammem/collections/ecology/aepsp4.html>

² Ibid.

³ Ibid.

⁴ "Chronology of Field Trips 1898-1934"

<http://lcweb2.loc.gov/ammem/collections/ecology/aepchron5.html>

Box No. Description

Scope and Content Note

The Henry Chandler Cowles photograph collection is comprised primarily of glass lantern slides from Cowles's ecology trips covering the years 1898 to 1936 with the majority being unmarked or falling between the years 1900-1912. Captions affixed to the plates are noted when available along with any numbering. Some of the handwriting is difficult to make out as are the Latin names of the plants but every attempt at correct spelling has been made. The collection is divided into seven series: **Michigan Photographs, Colorado Photographs, Illinois Photographs, Indiana Photographs, Wisconsin Photographs, Miscellaneous Photographs, and Indiana Transparencies.** Each state has subseries of General – which indicates a many single location photographs – and subseries of cities for which a group of photographs exists.

The **Michigan Photographs** series (1906-1933 and undated) is arranged by geographic location. The series has 11 subseries. The General series encompasses those slides with single instances of geographic location; the remaining subseries are cities themselves from which a group of photographs exist.

The **Colorado Photograph** series (1914-1928 and undated) is arranged by geographic location. The series has two subseries. The General series encompasses those slides with single instances of geographic location; the remaining subseries is a city from which a group of photographs exist.

The **Illinois Photographs** series (undated) is arranged alphabetically as this series holds only two lantern slides.

The **Indiana Photograph** series (1901-1936 and undated) is arranged by geographic location. The series has 7 subseries. The General series encompasses those slides with single instances of geographic location; the remaining subseries are cities themselves from which a group of photographs exist.

The **Wisconsin Photograph** series (1919) is arranged alphabetically as this series holds only four lantern slides.

The **Miscellaneous Photograph** series (1910-1922 and undated) is arranged alphabetically and encompasses those photographs of a general nature for which little or no information about location or context exists.

The **Indiana Transparencies** series (1897-1934) contains transparencies copies of photographs from Cowles's excursions to Indiana and mostly comprised of those taken in Dune Park, Indiana.

Box No. Description

Michigan Photographs**General****Box 1**

- Acer Saccharum, Struck by lightning in midst of forest. Splinters thrown 100 ft. or more. Michigan.
- Ammophilio breviligulato on foredune (new) old gravel beach -- erosional dune slope with Pinus., Onkama, Michigan.,
- Dune complex advancing over mesic forest. Ammophilo Calomovilfo in foreground on lee slope., Ludington, Michigan., . September 13, 1916
- Equisetum hyemale North of Palisade Park, Mich. ([Xsh 49.2] J.G. Brown.)
- Former outlet of White Lake now closed by dune. Michilinda, Michigan ([SW 3])
- Pinus Strobus projecting above Tsuga, Acer, Fagus, etc. Primeval. Huron Mts., Michigan.
- Populus deltoides with roots from trunk, Muskegon, Mich. ([Xsh Z51])
- Secondary Pop. Trem., Betula alba -- Aqate Harbor Trail, Keweenaw. Peninsiula., Mich. ([U 25.41] W.S. Dudgeen, G.D. Fuller) .
- Stumps of former (Acer) maple forest L Hancock, Mich. ([U 37])
- Succession of Mosses on Isle Royale ([SW 51.0] Geo. D. Fuller) .
- Sunset. Lake Michigan. 1910 ([G.F. 2])
- Thuja with roots from buried trunk Charlevoix, Mich. ([Xsh 85.02] Geo. D. Fuller)
- Wind sweeps thru perched dunes. So. Fox Is. Mich. Showing gravel in floor of sweep ([Esn 5.25])
- W.J Cribbs camp at Point Betsie, Mich. ([B 123.8] A156, W.J. Cribbs.)
- Wreck at Robinson's Folly. Mackinac, Mich. ([Mich. No. 2])

Bay View

- Ecological Field class 1915 Bay View, Michigan ([B 115] Geo D. Fuller. [U82.65])
- Fagus, acer, Tsuga forest Bay View, Mich. ([Dte 5.01] Geo. D. Fuller)

Douglas Lake, Michigan

- Cladonia spp. on sandy soil -- burned areas in aspens Douglas Lake, Michigan ([89])
- Douglas Lake, Michigan 1911-paper birch and aspen 1933 -- with understanding of Abies balsaoned, Acer sacchous, Betub luteo, etc.
- Drossero rotundifolio, Douglas Lake, Michigan [85?]
- Thuja Swamp. Douglas Lake, Mich. ([SW 40.32] AA Nichols)

Box No. Description

Michigan Photographs (cont.)**Frankfort, Michigan****Box 1 (cont.)**

- Conifer heath on dune "The crater" 1915. Frankfort, Michigan
 Monotropa uniflora. Frankfort, Mich. ([Fl 105])
 Tsuga canadensis, Fagus grandifolio and Betula lutes on dunes,
 Frankfort, Michigan, August 11, 1915
 Tsuga, Fagus, etc. on fixed dune. Frankfort, Mich. ([Xsh 84.01] no.
 2 Geo. D. Fuller)
 Tsuga forest on dunes, Frankfort, Mich. ([Xsh Z5!])

Glen Haven, Michigan

- 1906 Ecological field party. Glen Haven, Mich. ([B106])
 Around the fire Glen Haven, Mich. [G.F. 16]
 Kame(?) Cliffs. Sleeping Bear dune sin b.g(?) Glen Haven, Mich.
 ([Est 20])
 Landslide Face of Sleeping Bear Point, Glen Haven, Michigan.,
 August 16, 1915
 Thuja graveyard. Old soil lines Sleeping Bear Point, Glen Haven,
 Mich. ([Xsh Z52])

Little Point Sable, Michigan

- Dune advancing into Silver Lake Little Point Sable, Mich. ([Xsh
 56.4])
 Dune advancing into Silver Lake. Little Point Sable, Mich. ([Xsh
 56.5])
 Forest graveyard, (Pinus strobus) Little Point Sable, Mich. ([Xsh
 52.8])

Munising, Michigan (Grand Island)

- Climax Forest almost pure Acer saccharum. Lawson, Munising Ry,
 Mich. ([Dte 1.3] W.S. Dudgeon. Geo D. Fuller)
 P. Strobus -- detail of trunk. Grand, Isd. Munising, Mich. ([F 5.2]
 W.S. Dudgeon. Geo. D. Fuller.)
 Tsuga Can. detail of trunk Grand Isd., Munising, Mich. ([F51.2]
 W.S. Dudgeon. Geo. D. Fuller.)
 Tsuga can. seedlings growing on log Climax Forest Grand Isd.,
 Mich. ([Dte 20.1] W.S. Dudgeon. Geo. D. Fuller)

Saugatuck, Michigan

- Dr. Fuller and class. 1918. Saugatuck, Michigan. ([B118] Fuller)
 Fagus on eroding dune Sagautuck, Mich. ([Esh 23.20] Fuller)
 Foredune and Populus deltooides near dredged outlet of Kalamazoo
 River, Saugatuck, Michigan, 1916

Sawyer, Michigan

- Established hemlock (Tsuge Canadensis) and moving dune. Sawyer,
 Michigan ([XSh 53.3])
 Moving dune Mesic forest in foreground, Sawyer, Michigan, May
 20, 1911

Box No. Description

Michigan Photographs (cont.)

Soo Locks-Michigan

Box 1 (cont.)

American Lock, Closed. Soo, A. [Mich No. 7]
American Lock with raft & tug, Soo Am. [Mich. No. 8]
Map showing St. Marie's River and the Soo, Mich. ([Mich. No. 6])

Three Oaks, Michigan

Elm -- buttressed. 1911 Three Oaks, Mich. Geo D. fuller ([Dte 6.6])
Plantus occidentalis trunk. Three Oaks, Michigan, November 5,
1910

Colorado Photographs

General

Box 2

Ready for Long's Peak, Colo, August 1925 ([B125.1])
Grassland following burned forest 10,000 ft. Mammoth Gulch,
Colo., 1928
Class in Field Ecology,. Esli's Park, Colo., Summer 1914 ([B114.0])
Succession in grasslands of South Boulder Park, Colo. ([P0.78])
Dry grass and meadow. Tolland Colo. ([P0.75])
Narrows, Long Peak Colo. ([Colo 16.2])

Akron, Colorado

Weighing apparatus for water requirements Akron, Colo. ([P0.43])
Meleorological instruments Supt. Grace at right. Akron, Ohio. ([P
0.415])
Akron, Col. Water requirements station ([P0.42] Geo. D. Fuller [13-
60])
Frames for shading Akron, Colo. ([P0.44])
I.P.E. short grass plain Akron, Colo. ([P0.20] Geo. D. Fuller [13-
46])
James Peak[Long is crossed out] summit 14255 1914. Colo. ([Colo
15])
Pinus aristata P. flegilis 11,500 ft. James Peak, Colo. ([Mt25.330]
Worthley. Fuller)

Illinois Photographs

General

Evaporation averages. Chicago, Ill. ([P0.15] Fuller)
Wading sloughs of the Mississippi. Rock Island, Ill. ([B123.7] [A47]
W.J. Cribbs)

Box No. Description

Indiana Photographs**General****Box 2 (cont.)**

Slough #58 Summer. Buffington, Indiana
 Beach Dune. Cheltenham, Indiana
 Old swamp soil exposed by erosion of superjacent dune. Michigan
 City, Indiana. ([Esh 57.5])

Chesterton, Indiana

Dune advance on *Pinus strobes* *Quercus*, etc. Chesterton, Indiana.
 190?
 General View of established dune. Chesterton, Indiana ([Xsn82])

Dune Park, Indiana

Loading dunes on cars. Dune Park, Ind. ([Xsh 243])
 Embryo dunes -- recent line of *Populus del toides* -- older beach
 edges with *Populus del toides* background, Dune Park,
 Indiana., 1904
 Rhizome of *Juncus balticus*. Dune Park, Ind. ([Xsh64])
 Advancing dune complex winter. Dune Park, Ind. ([Xsh 58.2])
 Blowout crater. Dune Park, Indiana. September 18, 1910
 "The Crater" Dune Park, Indiana ([Xsh241])
 Dunes advancing 1901. Dune Park, Ind. ([Xsh 93.0] Fuller. Meyers)
Ammophila. Foredune Grand Beach, Ind. ([Xsh 10.34])

Millers, Indiana

Treceasi, Mc Dougall, Cowles. Millers, Indiana. ([B20.5])
Populus deltoides seedlings-280-#2. 11 inches to water. Miller,
 Indiana. August 22, 1936.

Mineral Springs, Indiana

Depositing shores. Mineral Springs, Ind. October 19, 1919 ([Xsh3.2]
 P.J. Sedgwick.)
Cornus Canadensis. Mineral Springs, Ind. ([Fi 103.1])
Cypripedium acaule Mineral Springs, Ind. ([Sw47.5] Huntington)
Maianthe mum canadense. Mineral Springs, Ind. ([Dte 13.5]
 Huntington.)

Port Chester, Indiana

Pinus strobes graveyard. Port Chester Indiana August 1910
 Roots from trunk of *Tilia*. Portchester, Ind. ([Xsh92.0])

Otis, Indiana

Trillium grandiflorum. Otis, Ind. Huntington ([Dte 13.4])
 Beech -- Maple forest, Otis, Indiana. ([Dte4.2])
 Beech -- Maple forest on clay -- valparaino moraine, Otis, Indiana.,
 May 30, 1910
 Gully erosion in Valparaiso maraine formerly beech-maple forest,
 Otis, Indiana., May 30, 1910

Box No. Description

Wisconsin Photographs

General

Box 2 (cont.)

Bot. 36 1919 Door Co. Wis. ([B119.6] Sedgwick)

Bot. 36 1919. Europe Lake. Door Co. Wis. 1919 ([B119.1]
Sedgwick) .

Class at noon day rest. Door Co. Wisc. 191 ([B119.93] Sedgwick)

Door Co. Wis. 1919 ([B119.5] Sedgwick)

Miscellaneous Photographs

Diagram of dune movement ([Xsh 62.0]. Diagram illustrating how a
sand dune migrates. A.A. Hansen) .

Eroding Mesophytic Forest dune north of Palisade Park (. J.G. Brown
[Xsh 98.2])

Evaporation averages 1910-1911 (. [11] Ind. 11)

Forest Distribution ([Dte 0] Nichols) .

Habenaria orbiculata in B.M.H Forest. Palisades Park ([Xsh 83.7] J.G.
Brown)

H.C. Cowles. J.P. Lotey, 1922

Physiographic Ecology class summer quarter 1910 ([B110.0])

Physiographic Ecology Class (1912 [B112.2])

Tsuga log showing effect of suppression. ([F51.1])

Ulmus Americana -- sections of leaves 18 -- Mesophyticform: 19, dune
form. ({L5.4} Geo. D. Fuller)

Indiana Transparencies

Box 3

Transparencies