

**FOR NPS USE ONLY**  
RECEIVED  
DATE ENTERED

# NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*  
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

## 1 NAME

HISTORIC C. Hart Merriam Base Camp

AND/OR COMMON

Same as above

## 2 LOCATION

STREET & NUMBER Southeast quadrant, Section 14, TWP. 23N, R6E, at Little Spring

---NOT FOR PUBLICATION

CITY, TOWN

Coconino National Forest

CONGRESSIONAL DISTRICT

VICINITY OF (20 mi. NW. of Flagstaff)

STATE

Arizona

CODE

04

COUNTY

Coconino

CODE

005

## 3 CLASSIFICATION

### CATEGORY

DISTRICT

BUILDING(S)

STRUCTURE

SITE

OBJECT

### OWNERSHIP

PUBLIC

PRIVATE

BOTH

### PUBLIC ACQUISITION

IN PROCESS

BEING CONSIDERED

### STATUS

OCCUPIED

UNOCCUPIED

WORK IN PROGRESS

### ACCESSIBLE

YES: RESTRICTED

YES: UNRESTRICTED

NO

### PRESENT USE

AGRICULTURE

COMMERCIAL

EDUCATIONAL

ENTERTAINMENT

GOVERNMENT

INDUSTRIAL

MILITARY

MUSEUM

PARK

PRIVATE RESIDENCE

RELIGIOUS

SCIENTIFIC

TRANSPORTATION

OTHER:

## 4 OWNER OF PROPERTY

subject to U.S. Forest Srv. uses

NAME U.S. Government, administered by U.S. Forest Service (Mr. Michael Kerrick, Superintendent)

STREET & NUMBER

Coconino National Forest, Federal Building, San Francisco Street

CITY, TOWN

Flagstaff

--- VICINITY OF

STATE

Arizona

## 5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, Coconino County Hall of Records  
REGISTRY OF DEEDS, ETC.

STREET & NUMBER

CITY, TOWN

Flagstaff

STATE

Arizona

## 6 REPRESENTATION IN EXISTING SURVEYS

TITLE National Survey of Historic Sites and Buildings

DATE

9/30/64

FEDERAL  STATE  COUNTY  LOCAL

DEPOSITORY FOR  
SURVEY RECORDS

Office of Archeology and Historic Preservation

CITY, TOWN

Washington

STATE

D.C.

## 7 DESCRIPTION

| CONDITION                                |                                       | CHECK ONE  | CHECK ONE   |
|--|---------------------------------------|--|---|
| <input type="checkbox"/> EXCELLENT       | <input type="checkbox"/> DETERIORATED | <input type="checkbox"/> UNALTERED                   | <input checked="" type="checkbox"/> ORIGINAL SITE |
| <input checked="" type="checkbox"/> GOOD | <input type="checkbox"/> RUINS        | <input checked="" type="checkbox"/> ALTERED slightly | <input type="checkbox"/> MOVED      DATE _____    |
| <input type="checkbox"/> FAIR            | <input type="checkbox"/> UNEXPOSED    |  |   |

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### DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

In the itinerary section of his report on the San Francisco Mountains, Merriam states:

After spending three days in outfitting [at Flagstaff], we proceeded to Little Spring, at the north base of San Francisco Mountain, and pitched our tents in a grove of aspens and pines, on a knoll just northwest of the spring, at an altitude of 2,500 meters (8,250 feet). This was our base camp for two months [August and September 1889], and from it numerous side-trips were made into the surrounding country.

Today Little Spring is within the Coconino National Forest. The spring cove is on a slope that opens upon a beautiful meadow. Wildlife and handsome trees, including very large aspens, give the scene a pristine quality that recalls its charm for a biological investigator.

The previous owner of the property, Mr. John Babbitt, used a bulldozer to "improve" the spring, the area around which his CO Bar Livestock Company used for grazing. The bulldozer made two big cuts which disturbed the soil and vegetation around the spring. They also put a pipe in the spring. The vegetation is recovering, but the scars are still visible.

The Forest Service has established regulations controlling logging, grazing and other development which are designed to protect the natural beauty of the site.

# 8 SIGNIFICANCE

| PERIOD  | AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW |   |   |  |
|---|--|---|---|--|
| <input type="checkbox"/> PREHISTORIC          | <input type="checkbox"/> ARCHEOLOGY-PREHISTORIC  | <input type="checkbox"/> COMMUNITY PLANNING     | <input type="checkbox"/> LANDSCAPE ARCHITECTURE | <input type="checkbox"/> RELIGION            |
| <input type="checkbox"/> 1400-1499            | <input type="checkbox"/> ARCHEOLOGY-HISTORIC     | <input type="checkbox"/> CONSERVATION           | <input type="checkbox"/> LAW                    | <input checked="" type="checkbox"/> SCIENCE  |
| <input type="checkbox"/> 1500-1599            | <input type="checkbox"/> AGRICULTURE             | <input type="checkbox"/> ECONOMICS              | <input type="checkbox"/> LITERATURE             | <input type="checkbox"/> SCULPTURE           |
| <input type="checkbox"/> 1600-1699            | <input type="checkbox"/> ARCHITECTURE            | <input type="checkbox"/> EDUCATION              | <input type="checkbox"/> MILITARY               | <input type="checkbox"/> SOCIAL/HUMANITARIAN |
| <input type="checkbox"/> 1700-1799            | <input type="checkbox"/> ART                     | <input type="checkbox"/> ENGINEERING            | <input type="checkbox"/> MUSIC                  | <input type="checkbox"/> THEATER             |
| <input checked="" type="checkbox"/> 1800-1899 | <input type="checkbox"/> COMMERCE                | <input type="checkbox"/> EXPLORATION/SETTLEMENT | <input type="checkbox"/> PHILOSOPHY             | <input type="checkbox"/> TRANSPORTATION      |
| <input type="checkbox"/> 1900-                | <input type="checkbox"/> COMMUNICATIONS          | <input type="checkbox"/> INDUSTRY               | <input type="checkbox"/> POLITICS/GOVERNMENT    | <input type="checkbox"/> OTHER (SPECIFY)     |
|   |  | <input type="checkbox"/> INVENTION              |   |  |

SPECIFIC DATES August & September 1889 BUILDER/ARCHITECT

## STATEMENT OF SIGNIFICANCE

Dr. C. Hart Merriam, America's first bio-ecologist, established the Life Zone concept in 1889 in the San Francisco Mountains of Arizona. Merriam had accompanied the Hayden Survey in 1872, and was the founder and first chief of the U.S. Bureau of Biological Survey, predecessor of the present Fish and Wildlife Service.

Though hints of zonal distribution of plant and animal life had been dropped as early as the time of Humboldt, Merriam was the first to advance and define the Life Zone concept in scientific terms. In his report on the San Francisco Mountain region (1890) he graphically recorded his conclusions: that forms of life are peculiar to given altitudinal areas or zones, hence the designation of a region or zone by the presence of flora and fauna not found in others. Since temperatures on north slopes differ from those on south exposures, life zones do not run on arbitrary contours. Latitude is also important in determining climate. This combination of altitude, exposure, and latitude (climate) is basic in the ecology that governs the existing distribution of flora and fauna indigenous to the various regions. Merriam's concept was fundamental in the development of the science of ecology--the most important modern generalization in the biological field.

As America's first bio-ecologist, Merriam ranks in the top bracket of American scientists. His study of the San Francisco Mountains biota was the first correlation of both plants and animals. His "laws of temperature" delimiting life zones and life distribution were fundamental to the Life Zone concept. It is true that Merriam over-generalized and made mistakes. But his work was seminal in the development of the modern science of ecology. He was a catalyst who opened the gates on what has proved to be the most fruitful line of approach in modern biological science. Not only were his correct deductions and generalizations useful, but in the very process of disproving his errors, other scientists were stimulated to make fundamentally important contributions. All ecologists and zoologists know and refer to Merriam's work, and his report on the San Francisco Mountains continues to be cited as the pioneer model for bio-ecological studies. One noted commentator on the life sciences, S. Charles Kendeigh, after discounting Merriam's errors, stressed the fundamental provocative nature of his work and the continuing basic use of the life zone tool, locally and regionally, wherever ecological studies are in progress.

# 9 MAJOR BIBLIOGRAPHICAL REFERENCES

C. Hart Merriam, Results of a Biological Survey of the San Francisco Mountain Region... U.S.D.A., Division of Ornithology and Mammalogy. North American Fauna Series #3 (Washington, 1890); Rexford F. Daubenmire, "Merriam's Life Zone of North America," Quarterly Review of Biology, XIII (Sept. 1938); S. Charles Kendeigh, "History and Evolution of Various Concepts of Plant and Animal Communities in North America," Ecology, XXXV (April 1954).

# 10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY c. 2.5 acres

UTM REFERENCES

A 

|      |   |         |   |   |   |          |   |   |   |   |   |   |   |   |
|------|---|---------|---|---|---|----------|---|---|---|---|---|---|---|---|
| 1    | 2 | 4       | 3 | 4 | 2 | 1        | 0 | 3 | 9 | 1 | 4 | 6 | 0 | 0 |
| ZONE |   | EASTING |   |   |   | NORTHING |   |   |   |   |   |   |   |   |

B 

|      |   |         |   |   |   |          |   |   |   |   |   |   |   |   |
|------|---|---------|---|---|---|----------|---|---|---|---|---|---|---|---|
| 1    | 2 | 4       | 3 | 4 | 2 | 1        | 0 | 3 | 9 | 1 | 4 | 7 | 2 | 0 |
| ZONE |   | EASTING |   |   |   | NORTHING |   |   |   |   |   |   |   |   |

C 

|      |   |         |   |   |   |          |   |   |   |   |   |   |   |   |
|------|---|---------|---|---|---|----------|---|---|---|---|---|---|---|---|
| 1    | 2 | 4       | 3 | 4 | 0 | 9        | 0 | 3 | 9 | 1 | 4 | 7 | 2 | 0 |
| ZONE |   | EASTING |   |   |   | NORTHING |   |   |   |   |   |   |   |   |

D 

|      |   |         |   |   |   |          |   |   |   |   |   |   |   |   |
|------|---|---------|---|---|---|----------|---|---|---|---|---|---|---|---|
| 1    | 2 | 4       | 3 | 4 | 0 | 9        | 0 | 3 | 9 | 1 | 4 | 6 | 0 | 0 |
| ZONE |   | EASTING |   |   |   | NORTHING |   |   |   |   |   |   |   |   |

VERBAL BOUNDARY DESCRIPTION

SW 1/4, NE 1/4, NW 1/4, SE 1/4 of Section 14, T23N, R6E

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

| STATE | CODE | COUNTY | CODE |
|-------|------|--------|------|
| STATE | CODE | COUNTY | CODE |

# 11 FORM PREPARED BY

NAME / TITLE

Marilynn Larew, Historian; original form prepared by William Brown

ORGANIZATION

Historic Sites Survey Division, National Park Service

DATE

6/20/77

STREET & NUMBER

1100 L Street NW.

TELEPHONE

202-523-5464

CITY OR TOWN

Washington

STATE

D.C. 20240

# 12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

10/12/83

ATTEST:

DATE

KEEPER OF THE NATIONAL REGISTER

(NATIONAL HISTORIC LANDMARKS)

(NATIONAL HISTORIC LANDMARKS)

(NATIONAL HISTORIC LANDMARKS)