

Caspar Creek Experimental Watersheds Metadata Report (CAS)

Arcata, California

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Research Area Information

Caspar Creek Experimental Watersheds CAS

Caspar Creek Experimental Watersheds

Research Area Information

Harvest URL - Option 1

http://www.fs.fed.us/psw/topics/water/caspar/hydrodb/CAS_hydrodb.txt

Harvest URL -Option 2

http://www.fs.fed.us/psw/topics/water/caspar/hydrodb/CAS_hydrodb.txt

Site URL

<http://www.fs.fed.us/psw/topics/water/caspar>

Site north bounding coordinate (decimal degree)39.37936

Site west bounding coordinate (decimal degree)-123.75925

Site south bounding coordinate (decimal degree)39.32693

Site east bounding coordinate (decimal degree)-123.70192

Site Climate URL

<http://www.fs.fed.us/psw/topics/water/caspar/CasparGagedWtshds.pdf>

Site Watershed URL

<http://www.fs.fed.us/psw/topics/water/caspar/>

Site Map URL

http://www.fs.fed.us/psw/topics/water/caspar/images/all_caspar_topo.jpg

Experimental Design

<http://www.fs.fed.us/psw/publications/documents/gtr-168/01henry.pdf>

Publications

<http://www.fs.fed.us/psw/topics/water/caspar/caspubs.html>

USGS Harvest URL

http://gce-lter.marsci.uga.edu/harvest/usgs/cas_lter.txt

Meteorological Stations

ARF Temperature Station	ARF
North Fork Caspar Creek 408 Precipitation Station	NFC408
North Fork Caspar Creek 620 Precipitation Station	NFC620
QUE Temperature Station.....	QUE
South Fork Caspar Creek 620 Precipitation Station	SFC620
Solar Radiation	SOLAR

ARF Temperature Station

Meteorological Station

Latitude (decimal degrees)39.36233
Longitude (decimal degrees)-123.73409
Elevation (meters; a.m.s.l.)88
Exposure (degrees) under forest cover (90 degrees)
Wind Exposure (degrees azimuth) under forest cover (90 degrees)
Begin Date..... 12/05/88

Topography

valley streamside

Surface

soil/forest litter

Area Description

100-year-old forest of *Sequoia sempervirens*, *Pseudotsuga menziesii*, *Tsuga heterophylla*, *Abies grandis*, and *Lithocarpus densiflorus* (in decreasing abundance) with understory of *Vaccinium ovatum* and *Polystichum munitum*. Air temperature sensor located outside north of plywood shed; water temperature sensor located in stream.

History

Temperature sensors shaded from direct solar input by 50 m tall forest.

Air Temperature

Begin Date..... 12/05/88
Data Logger Sampling Interval..... 10 minute
Summary Interval 30 minute

Water Temperature

North Fork Caspar Creek 408 Precipitation Station

Meteorological Station

Latitude (decimal degrees)39.37103
Longitude (decimal degrees)-123.70193
Elevation (meters; a.m.s.l.)274
Exposure (degrees)55 degrees
Wind Exposure (degrees azimuth)45 degrees
Begin Date..... 11/13/85

Topography

Ridge/ broad peak

Area Description

100-year-old forest of *Sequoia sempervirens*, *Pseudotsuga menziesii*, *Tsuga heterophylla*, *Abies grandis*, and *Lithocarpus densiflorus* (in decreasing abundance) with understory of *Vaccinium ovatum* and *Polystichum munitum*.

History

Overstory removal in Jan/99 to remove encroachment. March/01 gage raised 2 m.

Precipitation

Begin Date..... 11/13/85
Data Logger Sampling Interval..... every 0.254-mm tip
Summary Interval every 0.254-mm tip
Data Accuracy (millimeters)0.254 mm
Maximum QC Threshold (millimeters)2500

North Fork Caspar Creek 620 Precipitation Station

Meteorological Station

Latitude (decimal degrees)39.36200
Longitude (decimal degrees)-123.73500
Elevation (meters; a.m.s.l.)91
Exposure (degrees)70 degrees
Wind Exposure (degrees azimuth)40 degrees
Begin Date..... 11/24/85

Topography

valley bottom near weir pond

Area Description

100-year-old forest of *Sequoia sempervirens*, *Pseudotsuga menziesii*, *Tsuga heterophylla*, *Abies grandis*, and *Lithocarpus densiflorus* (in decreasing abundance) with understory of *Vaccinium ovatum* and *Polystichum munitum*.

History

Jan/95 installed Novalinx gauge 303. Jan/1/96 moved gauge 7.6 m upslope

Precipitation

Begin Date 11/24/85
Data Logger Sampling Interval every 0.254-mm tip
Summary Interval every 0.254-mm tip
Data Accuracy (millimeters) 0.254-mm
Maximum QC Threshold (millimeters) 2500

QUE Temperature Station

Meteorological Station

Latitude (decimal degrees) 39.33940
Longitude (decimal degrees) -123.75035
Elevation (meters; a.m.s.l.) 48
Exposure (degrees) Under forest trees (90 degrees)
Wind Exposure (degrees azimuth) Under forest trees (90 degrees)
Begin Date 09/16/88

Topography

valley streamside

Surface

soil/forest litter

Area Description

100-year-old forest of *Sequoia sempervirens*, *Pseudotsuga menziesii*, *Tsuga heterophylla*, *Abies grandis*, and *Lithocarpus densiflorus* (in decreasing abundance) with understory of *Vaccinium ovatum* and *Polystichum munitum*. Air temperature sensor located outside north of plywood shed; water temperature sensor located in stream.

History

Temperature sensors shaded from direct solar input by 50 m tall forest.

Air Temperature

Begin Date..... 09/16/88
Data Logger Sampling Interval..... 10 minute
Summary Interval 30 minute

South Fork Caspar Creek 620 Precipitation Station

Meteorological Station

Latitude (decimal degrees)39.34700
Longitude (decimal degrees)-123.75300
Elevation (meters; a.m.s.l.)67
Exposure (degrees)60 degrees
Wind Exposure (degrees azimuth)45 degrees
Begin Date..... 08/01/62

Topography

25 degree SW facing slope

Area Description

100-year-old forest of *Sequoia sempervirens*, *Pseudotsuga menziesii*, *Tsuga heterophylla*, *Abies grandis*, and *Lithocarpus densiflorus* (in decreasing abundance) with understory of *Vaccinium ovatum* and *Polystichum munitum*.

History

Overstory removal in Jan/99 to reduce encroachment by surrounding forest.

Precipitation

Begin Date..... 08/01/62
Data Logger Sampling Interval..... every 0.254-mm tip
Summary Interval every 0.254-mm tip
Data Accuracy (millimeters)0.254-mm
Maximum QC Threshold (millimeters)2500

Solar Radiation

Meteorological Station

Latitude (decimal degrees)39.35985
Longitude (decimal degrees)-123.71732
Elevation (meters; a.m.s.l.)258
Exposure (degrees)20 degrees (southeast)
Wind Exposure (degrees azimuth)6 degrees
Begin Date..... 04/25/88

Topography

35 degree south facing slope near ridge

Surface

small conifers

Area Description

14-year-old forest of *Sequoia sempervirens*, *Pseudotsuga menziesii*, *Tsuga heterophylla*, *Abies grandis*, and *Lithocarpus densiflorus* (in decreasing abundance) with understory of *Vaccinium ovatum* and *Polystichum munitum*.

History

Solar radiation site. Area was clearcut in 1987. Forest regeneration is continuing to grow and will eventually overtop the sensor. On 7/29/99, the sensor was raised 3 m.

Watershed

North Fork Caspar Creek Watershed..... NFC
South Fork Caspar Creek Watershed.....SFC

North Fork Caspar Creek Watershed

Watershed Spatial Characteristics

North bounding coordinate (decimal degrees)	39.37936
West bounding coordinate (decimal degrees)	-123.74620
South bounding coordinate (decimal degrees)	39.35927
East bounding coordinate (decimal degrees)	-123.70192
Area (hectares)	473
Minimum watershed elevation (meters; a.m.s.l)	85
Maximum watershed elevation (meters; a.m.s.l)	317

Watershed Ecological Characteristics

Mean annual precipitation (millimeters)	1175
Mean annual radiation (Megajoules per square meter per day)	1473
Mean snowpack description	
0mm; 0%	

South Fork Caspar Creek Watershed

Watershed Spatial Characteristics

North bounding coordinate (decimal degrees)	39.35191
West bounding coordinate (decimal degrees)	-123.75925
South bounding coordinate (decimal degrees)	39.32693
East bounding coordinate (decimal degrees)	-123.71279
Area (hectares)	424
Minimum watershed elevation (meters; a.m.s.l)	46
Maximum watershed elevation (meters; a.m.s.l)	329

Watershed Ecological Characteristics

Mean annual precipitation (millimeters)	1175
Mean annual radiation (Megajoules per square meter per day)	1473

Mean snowpack description

0mm; 0%

Gauging Stations

North Fork Caspar Creek..... NFC
South Fork Caspar CreekSFC

North Fork Caspar Creek

Hydrologic Gauging Station

Latitude (decimal degrees)39.36142
Longitude (decimal degrees)-123.73443
Elevation (meters; a.m.s.l.)85
Begin Date..... 08/01/63
Watershed Area (hectares)473

Associated meteorological station

Precip NFC620 and NFC408; air temp ARF

Photo URL

http://www.fs.fed.us/psw/topics/water/caspar/caspar_photo.html

History

No streamflow data from August 1, 1976 to July 31, 1977

Weir Description

Compound weir. 120-degree V-notch is 2-feet deep, cut into a rectangular section.
See http://www.fs.fed.us/psw/topics/water/caspar/photos/nfc_boom_weir.jpg

Weir Calibration and Modification History

Rating curve is theoretical, has not been tested as of June 2004.

Stream Discharge

Data Logger Sampling Interval..... 10 minute
Summary Interval 10 minute

South Fork Caspar Creek

Hydrologic Gauging Station

Latitude (decimal degrees)39.34139
Longitude (decimal degrees)-123.75250
Elevation (meters; a.m.s.l.)46
Begin Date..... 08/01/63
Watershed Area (hectares)424

Associated meteorological station

precip SFC620 and NFC408; air temp QUE

History

No streamflow data from August 1, 1976 through July 31, 1977

Weir Description

Compound weir. 120-degree V-notch is 2 feet deep and is cut into a rectangular section.

Weir Calibration and Modification History

Rating curve is theoretical. Has not been tested as of June 2004.

Stream Discharge

Data Logger Sampling Interval..... 10 minute

Summary Interval 10 minute