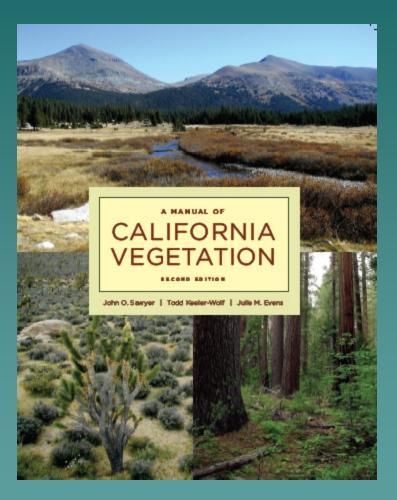
Integrating the FGDC National Vegetation Classification (NVC) Standard with the CNPS/CDFG Manual of California Vegetation, second edition

> California Native Plant Society California Department of Fish and Game NatureServe–Ecology Program FGDC Vegetation Subcommittee USGS

# Manual of California Vegetation 2<sup>nd</sup> Ed. – Alliance Level as the Base



#### Sequoia sempervirens Forest Alliance Redwood forest

Sequiti semperirers is dominant or co-dominant in the tree canopy with Abies grandis, Acore macrophyllum, Almus rahm, Arbatus menziesti, Chrysolphylla, Lithocarpus densiflorus, Piccoa sitchensis, Pseudotaugus menziesti, Tauga heterophyla, and Umbelluaria californica. Trees < 120 m tall; canopy is intermittent or continuous; It muy be two iterd. Shrubs are infrequent or common. Herbaceous layer is absent or abundant.

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Habitats: Raised stream terraces, benches, all slopes and aspects, ridges. Elevation: 10-975 m.

Rartly ranking: G3 S3.2. MCV: Redwood series: NVCS: Sequoia sempervirent forest alliance. Sequoia sempervirent-Pseudostaga menticatil forest alliance. Calveg Redwood-Douglas-ff forest, Redwood forest. Holland: Alluvial redwood forest, North Coast allivial redwood forest, Upland redwood forest. Munz: Redwood forest, WHR: Redwood.

#### Membership Rules

Sequoia sempervirens > 50% relative cover in the tree canopy, or > 30% relative cover with other confers such as *Pseudotasya menicisi* to with a lower tier of hardwood trees such as *Lithocarpus densiflorus* (Keeler-Wolf et al. 2003a, Evens and Kentner 2006).

Life History Traits of Principal Species	
Life forms	Tree: evergreen
Seed storage	Transient
Seed longevity	Short
Mode of dispersal	Gravity; wind
Germination agents	None
Mode of sprouting	Buds on large branches o trunk; underground structures
Survivability after fire/disturbance	Fire-hardy; high sprouter
Disturbance-stimulated flowering	No
Reproductive range	5-2200+ years
Recruitment	Low
Regional variation	Low



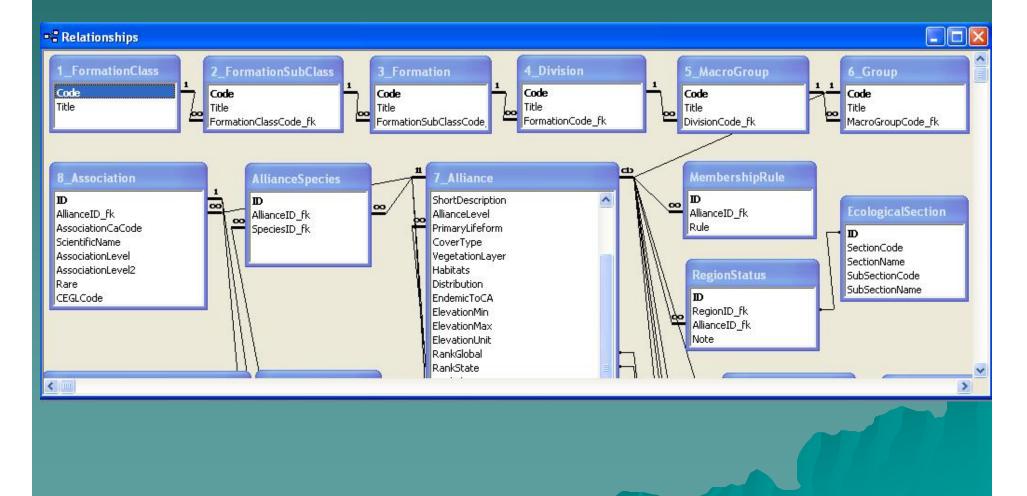
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Remarks Sequoia semperviews attains a height of 120 m, and an age of at least 2200 years (Fritz 1957). Roots are shallow without a taproot. Trees begin hearing comes by 5 to 15 years of age. Seed production is generally high, and seed viability is low. Wind and gravity disperse the seeds, with most falling within 120 m of the parent tree. Seedling establishment is best on moist soil lacking litter but can occur on duff or logs. Plants are moderately shade tolerant, but they grow faster in higher light levels if soil moisture is present (Griffith 1992d, Olson et al. 1990, Sawyer et al. 2000b, c).

Sequela semperiterus occurs in moist costal areas with heavy summer fog. Stands generally occur below 600 m from southern Oregon to the Santa Lucia Mountains in central California. Scattered stands also occur along streams, springs, seeps, and sheltered moist locations up to about 975 m, where they usually occur as mixed hardwood forests (Sawyer 2006, 2007). S. semperviens is probably

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# MCV2 Database Project -- Integrating the Revised NVC Hierarchy



# Intersecting the Revised NVC Hierarchy with the CA Draft Hierarchy

### **Appendix 3**

The National Vegetation Classification Hierarchy as Applied to California Vegetation

The following table displays the complete National Vegetation Classification hierarchy as it is understood by the Federal Geographic Data Committee and its advisory panel of vegetation ecologists (FGDC 2008) as of November 2008. The hierarchy, as discussed in "The CNPS Approach to Classification" (pages 18–21), has been applied to all alliances, provisional alliances, special stands, and semi-natural stands treated in this book. Because the classification system is inductive and flexible by definition, the relationships and rankings, particularly those of the mid-level "Macrogroups" and "Groups," are likely to change over the coming years as more national and interest and energy is devoted to refinement of this system. Recent publications offering more explanation of the classification system include Faber-Langendoen et al. (2009), FGDC (2008), and Peet (2008).

Level 7 - Alliance

#### HIERARCH Y FORMAT: Level 1 - FORMATION CLASS Level 2 - FORMATION SUBCLASS Level 3 - FORMATION Level 4 - Division Level 5 - Macrogroup Level 6 - Group

Class 1. Mesomorphic Tree Vegetation (Forest and Woodland) Subclass 1.C. Temperate Forest Formation 1.C.1. Warm Temperate Forest Division 1.C.1.e. Madrean Forest and Woodland Macrogroup MG009. California Forest and Woodland Group - Californian Foredleaf forest and woodland

rest and woodland Aesculus californica Alliance Juglans californica Alliance Lyonothamnus floribundus Special Stands Quercus agrifolia Alliance Quercus douglasii Alliance Quercus sengelmannii Alliance Quercus kelloggii Alliance Quercus kolaggii Alliance Quercus lobata Alliance Quercus lobata Alliance Quercus sobata Alliance Quercus somentella Special Stands Quercus sopp. alliance Umbellularia californica Alliance

Bringing CA Alliances into the Hierarchy

### 1 Forest & Woodland

- 1.A Tropical Moist Forest
- I.B Tropical Dry Forest
- I.C Temperate Forest
- E 1.C.1 Warm Temperate Forest

Search

- E D007 Southwestern North American Warm Temperate Forest
- E M009 California Forest & Woodland

E G195 California Broadleaf Forest & Woodland Group CEGL005302 Aesculus californica / Toxicodendron diversilobum / Moss Woodland 🗆 CEGL008694 Pinus ponderosa - Quercus kelloggii / Arctostaphylos viscida Woodland 🖄 CEGL008636 Pinus sabiniana - Quercus wislizeni / Arctostaphylos viscida Woodland CEGL008635 Pinus sabiniana - Quercus wislizeni / Ceanothus cuneatus Woodland CEGL002867 Quercus agrifolia - Juglans californica Woodland 🔲 CEGL002870 Quercus agrifolia - Umbellularia californica / Ceanothus oliganthus Woodland 🛄 CEGL002869 Quercus agrifolia - Umbellularia californica Woodland CEGL002860 Quercus agrifolia / Adenostoma fasciculatum Woodland [Provisional] CEGL002861 Quercus agrifolia / Annual Grass - Herb Woodland CEGL002862 Quercus agrifolia / Ceanothus spinosus Woodland CEGL002863 Quercus agrifolia / Heteromeles arbutifolia Woodland CEGL002864 Quercus agrifolia / Quercus berberidifolia Woodland CEGL002865 Quercus agrifolia / Salvia leucophylla - Artemisia californica Woodland CEGL003169 Quercus agrifolia / Toxicodendron diversilobum - (Corylus cornuta) Woodland CEGL002866 Quercus agrifolia / Toxicodendron diversilobum Woodland CEGL002905 Quercus agrifolia South Coast Woodland CEGL008600 Quercus chrysolepis - Calocedrus decurrens Forest

with description with link to NatureServe

CEGL008606 Quercus chrysolepis - Pinus ponderosa Forest

# **Project Overview**

### Statement of the Problem

Development and application of the USNVC depends on partners at both state and federal levels being able to apply the federal standard, either directly or through meaningful crosswalks. California USNVC partners have not had the opportunity to assess the relationship between the two so that users can apply the MCV and the USNVC for both in-state and cross-border vegetation projects.

## Purpose of the Project

The California NVC partners (CNPS & CDFG) will evaluate the relationship between the MCV and the revised USNVC, and then integrate them, at minimum using the MCV Alliance level and the USNVC Macrogroup level, and where possible, down to USNVC Alliance level.

# Methodology and Schedule

-Project kick-off meetings & data-sharing between partners (July – Sept 2012)

-Evaluation of USNVC hierarchy with the California Alliances and Associations, and management of data (Sept 2012 – May 2013)

-Outreach via the web, workshops, and meetings (May – Sept 2012)

-Reporting (Jan 2013 and Dec 2013)

# Project Overview (Cont'd)

### Outcomes

We will upload vegetation information into the USNVC, NatureServe BIOTICS, and CNPS/CDFG Manual of California Vegetation (MCV) databases. When the database uploads and the evaluations of the USNVC and MCV are complete, the California Alliances will be integrated and linked with the USNVC upper levels of the hierarchy. These linkages provide critical information and representation of the CA Alliances and Associations within the greater national context of the USNVC. They also facilitate the use of the USNVC Standards in combination with California Alliances for local, state, and federal partners in California.

### • Deliverables

-CNPS/CDFG MCV and NatureServe BIOTICS databases updated -Linkages of the USNVC hierarchy with the MCV California Alliances -Web-based materials developed showing relationships between the USNVC and the CA Alliances and tools for querying and displaying the vegetation information

-Outreach/presentation of web-based materials at various venues (CNPS/CDFG workshops, FGDC Vegetation Subcommittee meeting, ESA conference)