Keith Gronendyke - Comment for 11/14/19 Zoning Administrator public hearing on Use Permit No. U_2018-0022

From: Jacob Patterson <jacob.patterson.esq@gmail.com>
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Date: 11/10/2019 4:06 PM
Subject: Comment for 11/14/19 Zoning Administrator public hearing on Use Permit No. U_2018-0022
Cc: <kiedrowskim@mendocinocounty.org>, <schultzb@mendocinocounty.org>
Attachments: 800px-Cupressus_pygmaea_range_map_4.png; Cupressus goveniana _ Threatened Conifers of the World.pdf; Hesperocyparis goveniana.pdf; Cupressus goveniana var. pigmaea (Mendocino cypress) description.pdf; Cupressus goveniana var. goveniana _ Threatened Conifers of the World.pdf; Gowen Cypress, Hesperocyparis goveniana.pdf; 20130817 Aerial.pdf; 20180702 Aerial.pdf

Keith Gronendyke,

Please include this email and the attached documents in the administrative record for the public hearing for Use Permit No. 2018-0022 scheduled for November 14, 2019 in front of the County's Zoning Administrator. The attached aerial photos from Google Earth show the project site in 2018 after the metal building was constructed and the same site in 2013 before the metal building was constructed. As you can see in the aerials, there was not a pre-existing pole barn that was demolished and replaced with the current metal building. Instead the location of the metal building consisted of Mendocino Cypress Woodlands. The additional attached files concern endangered Mendocino Cypress trees identified as being present on the site by CDFW. Their status as rare and protected plants needs to be addressed in the environmental analysis. Such analysis is currently omitted because the draft Negative Declaration and permit application materials erroneously claim that no trees were removed and there was an existing pole barn at the site of the metal building that was constructed to facilitate the use of the property as an auto mechanic shop. This false premise and artificially narrow project description undermines the environmental analysis, which must be corrected before consideration of the requested use permit can proceed. In short, the project definition is too narrow and the California Environmental Quality Act (CEQA) analysis of the full scope of the project (i.e., clearing the existing trees from the site, grading the site, constructing the current metal building, the existing unpermitted use as a auto mechanic shop, and the proposed use permit to operate the auto mechanic shop as a cottage industry) must be prepared. Failing to do so both rewards the applicant's past unpermitted development activities, which were never properly permitted or analyzed for environmental impacts, but also amounts to impermissible segmentation of the "project" for purposes of CEQA analysis. As a result, the Draft Negative Declaration cannot be adopted and consideration of the use permit cannot proceed until a compliant CEQA document has been prepared and adopted.

Rare native trees have already been impacted by the proposed project at 24190 Prairie Flower Way and will likely be impacted by future commercial operations at the site should the use permit or the after-the-fact building permit be approved. The draft Negative Declaration is deficient and must be revised and recirculated to seek input from the public and responsible agencies on the full scope of the project. (Enforcement action and remedial measures should also be pursued.) The potentially

significant impacts of the improper and unpermitted tree removals and grading in order to construct the building now being used as an auto repair shop must be analyzed in the CEQA document, which likely requires a Mitigated Negative Declaration, if not an Environmental Impact Report, to include appropriate mitigation measures to address the improper and unpermitted removal of the existing trees. By ignoring the unpermitted past work and narrowly defining the project under review as simply changing the use of an existing building, the requirements of CEQA have not been met.

It would constitute an abuse of discretion if the County's Zoning Administrator, or any subsequent review authority, adopt the draft Negative Declaration in its current form. In fact, the CEQA document must be revised to incorporate mitigation measures that either require full restoration of the site to pre-removal and pre-construction conditions or the replacement planting and restoration of an adequate area of Mendocino Cypress Woodlands in a different location. CDFW likely has standard remedies and mitigation measures for this unfortunately common situation but CDFW (or any other responsible agency) was not made aware of the actual scope of the project or the unpermitted tree clearing or grading activities that facilitated the request for a use permit. Similarly, other impacts of the unpermitted site grading should be analyzed and addressed in the CEQA document, including but not limited to alteration of drainage patterns and storm-water runoff/flooding of adjacent parcels.

Best regards,

--Jacob Patterson

The seeds of *Araucaria* are used as food

Threatened conifers of the world

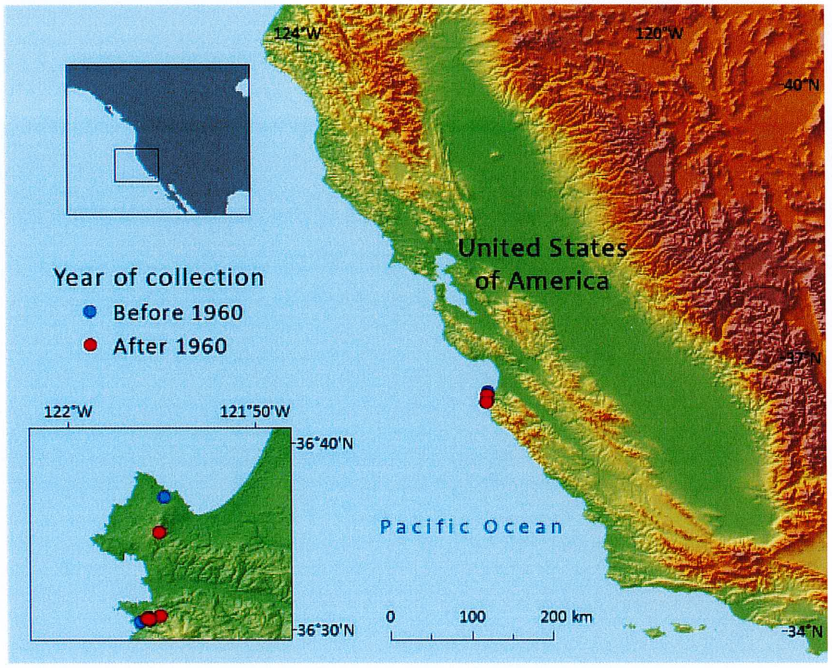
A resource compiled by the International Conifer Conservation Programme, Royal Botanic Garden Edinburgh (http://threatenedconifers.rbge.org.uk/)

Cupressus goveniana *Gordon*

CUPRESSACEAE

Endemic to California, USA where it is facing a range of threats including changes to fire regimes, urbanisation, invasive non-native plants and agriculture.

Associated Names:



Distribution

Dsitributed in the USA in the Counties of California, Mendocino, Sonoma, Santa Cruz, San Mateo and Monterey. The total population of this species probably consists of fewer than 2300 mature individuals,unless the dwarfed individuals with seed cones on the Mendocino "white plains" are also counted as such.

Region

- Northern Mexico / SW USA (http://threatenedconifers.rbge.org.uk/taxa/category/northe mexico-sw-usa)

Habitat and Ecology

Occurs in chaparral, 'pine barrens', and open pine woodland with *Pinus attenuata, P. contorta, P. muricata, P. ponderosa, P. radiata, Pseudotsuga menziesii, Arctostaphylos, Quercus,* and *Rhododendron*, often in groves of up to 1000 trees or

more; on sandstone outcrops, white or yellow sandy slopes, and leached, virtually sterile sandy 'hardpan', where it becomes dwarfed. The altitudinal range is from near sea level to 1200m The climate is of the Mediterranean type with dry, hot summers, but in a narrow coastal strip cooled by frequent fog, and winter rain.

Human Uses

Although introduced by C. T. Hartweg to England in 1848, this species soon turned out to be tender in NW Europe and its cultivation outside collections ceased. In southern Europe it is grown more widely in gardens and parks and a few cultivars are known, some with doubtful affinity to this species.

Conservation Status

Global status

Endangered

Global rationale

The assessment of the species as a whole is driven by that of the nominate variety (var. *goveniana*) as it has the greatest extent of occurrence (EOO) and area of occupancy (AOO) as well as numbers of mature individuals. This variety was assessed as Endangered under the B criterion.

Global threats

Urbanization, agriculture (conversion of wild land to pasture), changes in fire regimes.

Conservation Actions

Some subpopulations are either completely or partly within protected areas.

References and further reading

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External links

Entry information

Entry authors

- A.Farjon

Entry first added:
26 Oct 2012

Entry last edited:
27 Aug 2015

Recommended Citation

A.Farjon, 2015. *Cupressus goveniana*, from the website, Threatened Conifers of The World (http://threatenedconifers.rbge.org.uk/taxa/details/897).
Downloaded on 9 September 2019.

Fire Effects Information System (FEIS)

FEIS Home Page

Index of Species Information

SPECIES: Hesperocyparis goveniana

Introductory

SPECIES: Hesperocyparis goveniana

AUTHORSHIP AND CITATION :
Esser, Lora L. 1994. Hesperocyparis goveniana. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: https://www.fs.fed.us/database/feis/plants/tree/hesgov/all.html [2019, September 9].

Revisions:
17 October 2013: Scientific name changed from Cupressus goveniana to Hesperocyparis goveniana; references 33-36 added.

ABBREVIATION :
HESGOV

SYNONYMS :
Callitropsis goveniana (Gordon) D.P. Little [36]
Cupressus goveniana Gord. [1,5,12,13,35]
Cupressus goveniana ssp. goveniana Gord., Gowen cypress
Cupressus goveniana ssp. pygmaea (Lemm.) Bartel, Mendocino or pygmy cypress [5,30]
Cupressus pygmaea (Lemmon) Sarg. [18]
Neocupressus goveniana (Gordon) de Laub. [34]

NRCS PLANT CODE :
HEGO3

COMMON NAMES :
Gowen cypress

TAXONOMY :
The currently accepted scientific name of Gowen cypress is Hesperocyparis goveniana (Gordon) Bartel [25,33].

Mendocino cypress was previously considered a variety of Gowen cypress, but was been given subspecies status by J. Bartel [30] (see Synonyms).**LIFE FORM :**
Tree

FEDERAL LEGAL STATUS :
Cupressus goveniana subsp. goveniana is Threatened [31].

OTHER STATUS :
The California Native Plant Society [22] lists Gowen cypress as a 1B plant: rare in California.

DISTRIBUTION AND OCCURRENCE

SPECIES: Hesperocyparis goveniana

GENERAL DISTRIBUTION :
Gowen cypress is restricted to the Coast Ranges of central and northwestern California [14,22,26]. Gowen cypress (Cupressus goveniana ssp. goveniana) occurs in only two areas of Monterey County, California: Huckleberry Hill, and between San Jose Creek and Gibson Creek [26]. Mendocino cypress occurs in a narrow, discontinuous strip along the Mendocino County coast known as the "Mendocino White Plains" or "pine barrens" [26,27]. A grove also occurs in Sonoma County [26]. Gowen cypress is cultivated in Hawaii [32].

ECOSYSTEMS :
FRES20 Douglas-fir
FRES21 Ponderosa pine
FRES27 Redwood
FRES28 Western hardwoods
FRES34 Chaparral - mountain shrub

STATES :
CA HI

BLM PHYSIOGRAPHIC REGIONS :
3 Southern Pacific Border

KUCHLER PLANT ASSOCIATIONS :
K006 Redwood forest
K009 Pine - cypress forest
K012 Douglas-fir forest
K030 California oakwoods
K033 Chaparral

SAF COVER TYPES :
229 Pacific Douglas-fir
232 Redwood
234 Douglas-fir - tanoak - Pacific madrone
248 Knobcone pine
255 California coast live oak

SRM (RANGELAND) COVER TYPES :
NO-ENTRY

HABITAT TYPES AND PLANT COMMUNITIES :
Gowen cypress can occur in dense thickets as well as in open groves. Dense thickets are common in regenerating burns [26]. In Monterey County, Gowen cypress (Cupressus goveniana ssp. goveniana) and bishop pine (P. muricata) form almost impenetrable thickets [16]. In some areas Gowen cypress is associated with closed-cone coniferous woodlands and closed-cone pine-cypress forests [5,24,26].

Mendocino cypress is associated with redwood (Sequoia sempervirens)-Douglas-fir (Pseudotsuga menziesii) and other north coast coniferous forests in Mendocino County [26]. This subspecies is also a

component of the Mendocino pygmy cypress forest, which intergrades with upland redwood and Sitka spruce (Picea sitchensis)-grand fir (Abies grandis) forests [6].

Gowen cypress (C. g. ssp. goveniana) is a component of the Monterey pygmy cypress forest, which intergrades with Monterey pine (Pinus radiata) forest on deep soils [6].

Publications naming Gowen cypress as a community dominant are listed below.

Preliminary descriptions of the terrestrial natural communities of California [6]
The vascular plant communities of California [24]
The closed-cone pines and cypress [26]

Species not previously mentioned but commonly associated with Gowen cypress include Monterey cypress (Hesperocyparis macrocarpa), Mendocino White Plains lodgepole pine (Pinus contorta ssp. bolanderi), shore pine (P. c. ssp. contorta), valley oak (Quercus lobata), Coulter willow (Salix coulteri), Monterey ceanothus (Ceanothus rigidus), glory brush (C. gloriosus var. exaltatus), waveyleaf ceanothus (C. foliosus), sandmat manzanita (Arctostaphylos pumila), Hooker manzanita (A. hookeri), hairy manzanita (A. columbiana), glossyleaf manzanita (A. nummularia), Eastwood manzanita (A. glandulosa), Pacific bayberry (Myrica californica), giant chinquapin (Chrysolepis chrysophylla), salal (Gaultheria shallon), Eastwood's goldenbush (Enceliopsis fasciculata), chamise (Adenostoma fasciculatum), evergreen huckleberry (Vaccinium ovatum), Pacific rhododendron (Rhododendron macrophyllum), coast Labrador tea (Ledum glandulosum var. columbianum), navarretia (Navarretia atractyloides), skunkweed (N. squarrosa), bush monkeyflower (Mimulus aurantiacus), evergreen violet (Viola sempervirens), pink sand verbena (Abronia umbellata), Monterey sedge (Carex montereyensis), California canarygrass (Phalaris californica), and beargrass (Xerophyllum tenax) [6,7,16,24,26].

MANAGEMENT CONSIDERATIONS

SPECIES: Hesperocyparis goveniana

WOOD PRODUCTS VALUE :
Cypress (Hesperocyparis spp.) wood is generally durable and stable. It is suitable for a wide range of exterior uses including joinery, shingles, and boats. Possible interior uses include moulding and panelling [29]. Cypress shelterbelts provide good firewood. Most cypress species develop a large proportion of heartwood, which splits well, dries quickly, and is clean burning. Cypress wood is moderately fast burning because of its medium density. As cypress woods are prone to sparking, they are recommended only for enclosed fires [29].

IMPORTANCE TO LIVESTOCK AND WILDLIFE :
Rodents and deer consume cypress seedlings [27]. Cypress are considered undesirable forage for livestock, although young plants are occasionally browsed [27].

PALATABILITY :
NO-ENTRY

NUTRITIONAL VALUE :
NO-ENTRY

COVER VALUE :
NO-ENTRY

VALUE FOR REHABILITATION OF DISTURBED SITES :
NO-ENTRY

OTHER USES AND VALUES :
NO-ENTRY

OTHER MANAGEMENT CONSIDERATIONS :
Grazing and trampling by livestock are detrimental to cypress seedlings. Fire followed by intensive grazing could eliminate a cypress grove [1].

Gowen cypress grows best on the coast. Although waterlogged soils may result in dwarfed trees, Gowen cypress could be safely used for low hedges and windbreaks because of its dense growth habit [26,27].

Gowen cypress seedlings are susceptible to damping-off fungi [26]. Both subspecies are highly susceptible to coryneum canker (Coryneum cardinale), which can kill trees [27]. Fungicides are effective in preventing the spread of the disease but cannot eradicate it once infection has begun [27].

BOTANICAL AND ECOLOGICAL CHARACTERISTICS

SPECIES: Hesperocyparis goveniana

GENERAL BOTANICAL CHARACTERISTICS :
Gowen cypress is a native, evergreen tree. It has a bushy growth form and grows from 16.5 to 23 feet (5-7 m) tall [5,18,27]. Mendocino cypress has a single, slender trunk and sparse crown [18,27]. It grows from 3.3 to 6.6 feet (1-2 m) tall on sterile soils and from 33 to 165 feet (10-50 m) tall on richer soils [5,18,27]. Mature leaves of both subspecies are 0.04 to 0.08 inches (1-2 mm) long, although they can be up to 0.4 inch (10 mm) long on vigorous shoots [27]. Ovulate cones are solitary, up to 0.8 inch (20 mm) long. Staminate cones are 0.12 to 0.16 inch (3-4 mm) long [18,27]. The bark is smooth and fibrous, becoming rougher with age. It can be several centimeters thick [5,27]. The bark of Mendocino cypress occurs in strips, peeling easily after death of the tree, but otherwise intact [27]. Gowen cypress forms a well-defined taproot and numerous laterals the first year [8,27]. The root systems of Gowen cypress are extensive and shallow, less than 1 foot (30 cm) deep [26].

RAUNKIAER LIFE FORM :
Phanerophyte

REGENERATION PROCESSES :
Gowen cypress reproduces exclusively from seed. Mendocino cypress cone production is abundant on dwarfed and mature trees, but is rare or absent on young vigorous trees [27]. Staminate cones are usually first produced when trees are 6 to 7 years old, but have developed on 1- and 2-year-old seedlings of Mendocino cypress and Gowen cypress, respectively [8,27]. Ovulate cones are produced on trees that are 4 years of age or older. The cones require 2 years to mature [1,27], and contain from 90 to 130 seeds [8,27]. The cones of California cypress are closed; they persist on the tree until opened by the heat of a fire or from desiccation due to age [8,26]. Seeds are shed gradually over several months after the cones open [26].

Detached cones will open, but they rarely result in seedling establishment, usually due to lack of a suitable seedbed [1]. Seed dispersal is primarily by wind and rain [26].

Gowen cypress germination rates range from 23 to 53 percent [16]. Seeds require bare mineral soil for germination and establishment. Seedling mortality is high on shaded sites with abundant litter because of damping-off fungi [1,26]. Seedlings are sensitive to excessive moisture [27].

SITE CHARACTERISTICS :
Gowen cypress is confined to poorly drained, acidic, podzolic soils, usually on exposed sites [16,26]. In Mendocino County, these areas are flooded during the winter, forming shallow bogs or ponds [26,27].

Gowen cypress occurs at elevations from 100 to 990 feet (30-300 m). Mendocino cypress occurs at elevations below 1,650 feet (500 m) [26].

SUCCESSIONAL STATUS :
Facultative Seral Species

Site requirements for cypress seedlings are typical of those for pioneer conifers. Seedlings are shade intolerant and survive best in full sunlight on bare mineral soil [1,26]. According to Armstrong [1], cypress trees of southern California are very sensitive to lack of light, losing their foliage when growing in shade.

SEASONAL DEVELOPMENT :
Cypress species pollination occurs in late fall and spring [27]. Seeds mature 15 to 18 months after pollination. Ovulate cones remain closed until opened by heat or age [8,27].

FIRE ECOLOGY

SPECIES: Hesperocyparis goveniana

FIRE ECOLOGY OR ADAPTATIONS :
Gowen cypress is a fire-adapted, fire-dependent species [13,26]. It has slightly fire-resistant bark and serotinous cones. Its low branching habit makes it susceptible to crown fires [1,26]. The serotinous cones of the California cypress species persist on trees for years [13,28]. Cone opening is erratic and almost negligible except when cones are exposed to extreme heat; then it is rapid and uniform [16,28]. When opened by the heat of a fire, the seeds fall on exposed mineral soil [13,27]. Most seed falls in the first few months following fire [28]. Fires that occur in late summer and fall and are followed by winter rains ensure seed dissemination on bare mineral substrates and moist conditions for germination [26]. Successful cypress reproduction is generally restricted to burned sites [26]. No information was available on fire-free intervals for communities dominated by Gowen cypress. Tecate cypress (Hesperocyparis forbesii), however, a cypress found in southern California, has an average interval between fires of 25 years, ranging from 15 to 63 years [1,26]. Cypress trees of southern California generally reach cone-bearing age before another fire occurs [26].

FIRE REGIMES :
Find fire regime information for the plant communities in which this species may occur by entering the species name in the FEIS home page under "Find Fire Regimes".

POSTFIRE REGENERATION STRATEGY :
Tree without adventitious-bud root crown
Crown residual colonizer (on-site, initial community)
Initial-offsite colonizer (off-site, initial community)

FIRE EFFECTS

SPECIES: Hesperocyparis goveniana

IMMEDIATE FIRE EFFECT ON PLANT :
Most fires probably kill Gowen cypress. Cypress thickets are conducive to crown fires, which kill most trees. Some trees survive when fires are patchy [26]. Large trees could probably survive surface fires.

Cones of the California cypress species open as the resin melts and boils. Rapid charring of the thick cone scales extinguishes the flames, leaving seeds unburned [1].

DISCUSSION AND QUALIFICATION OF FIRE EFFECT :
NO-ENTRY

PLANT RESPONSE TO FIRE :
Gowen cypress trees release large quantities of seed after fire [27]. Both subspecies produce dense thickets after fire [26]. The Huckleberry Hill grove of Gowen cypress in Monterey County was reduced from over 100 acres (40 ha) to only a few hectares by a 1901 fire. By 1948, the grove had almost returned to its prefire size [26].

DISCUSSION AND QUALIFICATION OF PLANT RESPONSE :
NO-ENTRY

FIRE MANAGEMENT CONSIDERATIONS :
Fires occurring too frequently in Gowen cypress groves may destroy them, as reproduction could be eliminated before it has a chance to produce cones. Conversely, fire suppression could threaten the species [1].

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SPECIES: Hesperocyparis goveniana

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FEIS Home Page

Cupressus goveniana var. pigmaea

Lemmon 1895

CONSERVATION
Vulnerable
STATUS

Distribution of *Cupressus goveniana* var. *pigmaea* (Griffin and Critchfield 1972).

Common names

Mendocino or pigmy cypress (Peattie 1950).

Taxonomic notes

Synonymy:

- *Cupressus pigmaea* (Lemmon) Sargent 1901;
- *Cupressus goveniana* subsp. *pigmaea* (Lemmon) A. Camus 1914;
- *Callitropsis pigmaea* (Lemmon) D.P. Little 2006;
- *Hesperocyparis pygmaea* (Lemmon) Bartel 2009;
- *Neocupressus goveniana* var. *pygmaea* (Lemmon) de Laubenfels 2009.

The spelling variants "pigmaea" and "pygmaea" appear in all names.

One molecular analysis has indicated that this taxon may be more closely related to *Cupressus macrocarpa* than to *C. goveniana* (Terry *et al.* 2012), but the results thus far are inconclusive.

Description

Distinguished from the type variety only by its large size and slender, whip-like leader (Wolf 1948), and by its unique growth form on the White Plains, described below.

Distribution and Ecology

USA: California: Mendocino County: two coastal area near Fort Bragg and Mendocino City. Habitat is the Mendocino White Plains, a highly acidic, nutrient-deprived white sandy soil over a hard clay. Some plants are dwarf, flowering when less than 1 m tall, and they occur with two pines (*P. contorta* and *P. muricata*) that flower at similarly diminutive sizes (Lanner 1999).

Big tree

Height 43 m, dbh 213 cm, crown spread 12 m, in Mendocino County, CA (American Forests 2000). A specimen 48 meters (157 feet) tall was reported in 1929 (Lanner 1999).

Oldest

Dendrochronology

Ethnobotany

Observations

Based on historical collections and land preservation patterns, a good place to see the small trees would appear to be the Jackson State Forest, about two miles east of the city of Mendocino. HERE is a Google Maps image of a likely area.

Remarks

"The pygmy forests of this species and *Pinus contorta* on the shallow hardpan soils of coastal terraces of the Mendocino white plains are a remarkable example of phenotypic plasticity" (Eckenwalder 1993).

Citations

American Forests 2000. The National Register of Big Trees 2000. Washington, DC: American Forests.

Bartel 2009: described in Adams, R. P., J. A. Bartel and R. A. Price. 2009. A new genus, *Hesperocyparis*, for the cypresses of the western hemisphere. *Phytologia* 91(1):160-185.

Lemmon, J. G. 1895. *West-American Cone-Bearers, 3rd ed.* Pp. 76-77.
http://www.cupressus.net/CUpygmaeaLemmon.html, courtesy of the Cupressus Conservation Project website.

Terry, R. G., J. A. Bartel, and R. P. Adams. 2012. Phylogenetic relationships among the New World cypresses (*Hesperocyparis*; Cupressaceae): evidence from noncoding chloroplast DNA sequences. *Plant Systematics and Evolution* DOI: 10.1007/s00606-012-0696-3.

See also

The species account at Threatened Conifers of the World.

Adams, R. P. and J. A. Bartel. Infraspecific variation in *Hesperocyparis goveniana* and *H. pygmaea*: ISSRs and terpenoid data. *Phytologia* 91(2):277-286.

Bisbee, Jeff. 2006. Photos at the Cupressus Conservation Project website.

Little (1970).

Sargent. 1901. North American trees. *Botanical Gazette* 31: 239-240. http://www.cupressus.net/CUpygmaeaSargent.html, courtesy of the Cupressus Conservation Project website.

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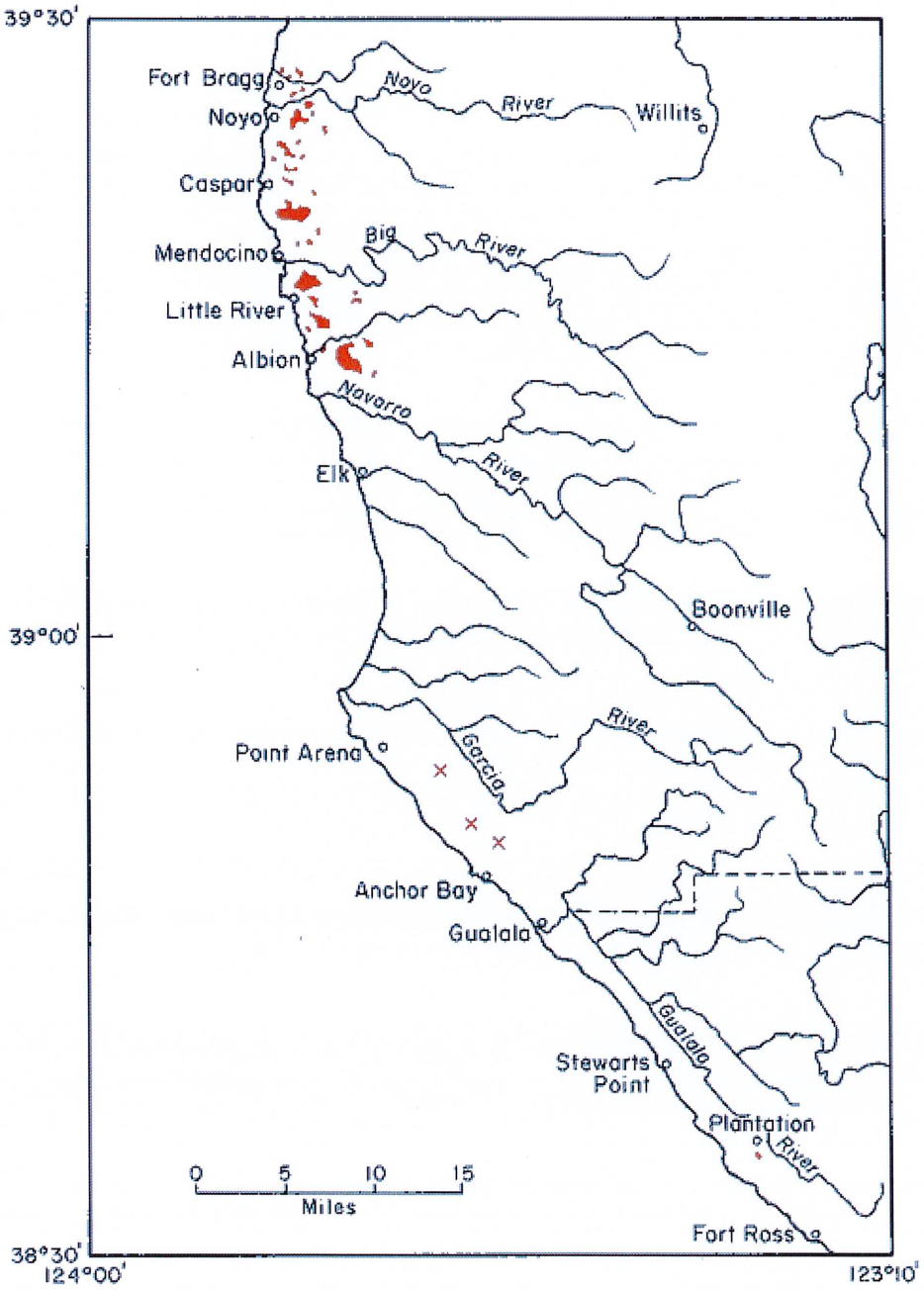
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Anchor Bay
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Stewarts Point
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Fire in Chilean *Araucaria* forests is a major threat

Threatened conifers of the world

A resource compiled by the International Conifer Conservation Programme, Royal Botanic Garden Edinburgh (http://threatenedconifers.rbge.org.uk/)

Cupressus goveniana var. goveniana

CUPRESSACEAE

Endemic to California, USA where altered fire regimes and ubanisation are the main threats

Distribution

USA distributed in the Coast Ranges of central and northwestern California: Mendocino, Sonoma and Monterey Counties. Found in the following localities: 1) SW slope of Huckleberry Hill, Monterey Peninsula; 2) Cypress Point Pine Barrens, near a large water reservoir close to Seventeen Mile Drive; 3) A seaward hill slope near Gibson Creek, well above Point Lobos State Park road; 4) Canyon of Gibson Creek ca. 2 miles east of Point Lobos; and 5) Pacific Grove, Monterey peninsula; 6) the "white plains" or "pine barrens" of Mendocino County (sometimes referred to as subsp. *pigmaea*).

This nominate variety is known from less than 2000 mature individuals scattered between about 10 subpopulations in 5 localities. It is unlikely that any of these subpopulations contains more than 250 mature individuals. The dwarf form can produce seed cones when only a few decimeters tall, but in very low quantities. Strictly speaking these are also mature individuals and if counted as such could increase these numbers.

Habitat and Ecology

This variety grows in chaparral, in "pine barrens" [large stands of pines (*Pinus* spp.)], on sandstone outcrops, on white or yellow sandy slopes and on leached, sometimes sterile sandy "hardpan" which causes the dwarfed individuals ("*pigmaea*"). In some areas it is a component of closed-cone pine-cypress woodlands.

Human Uses

Used in southern Europe as an ornamental tree in gardens and parks.

Conservation Status

Region

- Northern Mexico / SW USA (http://threatenedconifers.rbge.org.uk/taxa/category/northe mexico-sw-usa)

References and further reading

1. Adams, R.P., Bartel, J.A. & Price, R.A.. (2009). A new genus, *Hesperocyparis*, for the cypresses of the western hemisphere. *Phytologia* 91(1):160-185.
2. Farjon, A. (2005). *A Monograph of Cupressaceae and Sciadopitys*. The Royal Botanic Gardens, Kew.
3. Farjon, A. (2013). *Cupressus goveniana* ssp. *goveniana*. In: IUCN 2013. IUCN Red List of Threatened Species. Version 2013.1. <www.iucnredlist.org>. Downloaded on 06 July 2013.
4. de Laubenfels, D.J. (2009). Nomenclatural actions for the New World cypresses (Cupressaceae). *Novon* 19(3):300-306.
5. Little, D.P. (2006). Evolution and circumscription of the true cypresses (Cupressaceae: *Cupressus*). *Systematic Botany* 31(3): 461-480.

Global status

Endangered B2ab(ii,iii,v)

Global rationale

This variety meets the B criterion for Endangered due to its limited area of occupancy (AOO) even when calculated with an enlarged grid width of 4km due to missing map points in the northernmost subpopulation (formerly recognized as subsp. *pigmaea*). A continuing decline is suspected due to fire exclusion and indirect threats associated with urban developments.

Global threats

There are threats from development (urbanization, making and maintenance of golf courses, road building), erosion, invasive non-native species and agriculture. Altered fire regimes through fire suppression can favour Pinus spp. and could reduce the fecundity of mature cypress trees, which rely on fire for opening the cones and subsequent release of seeds.

Conservation Actions

This variety occurs in S.F.B. Morse Botanical Reserve and Point Lobos Reserve (Monterey Co.) and outside reserves along the coast in Mendocino and NW Sonoma Counties. The S.F.B. Morse Botanical Reserve is located within the Gowen Cypress Planning Area in two parcels to the south and east of Congress Road. The S.F.B. Morse Botanical Reserve was established in 1972 to protect the endangered Gowen Cypress (sensu stricto), as well as other species or associations of species found only on the acidic clay-pan soils found in this area. This reserve is adjoined by the 372 acres of the Huckleberry Hill Natural Habitat Area.

This variety is listed under the U.S. Endangered Species Act: and has also been listed as Critically Imperilled on NatureServe database (NatureServe 2012).

6. Natureserve. (2012). NatureServe Explorer:An online encyclopedia of life [web application]. Version 7.1. Arlington, Virginia Available at: http://www.natureserve.org/explorer.

Entry information

Entry authors

- A.Farjon

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6 Jul 2013

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Gowen Cypress

Hesperocyparis goveniana

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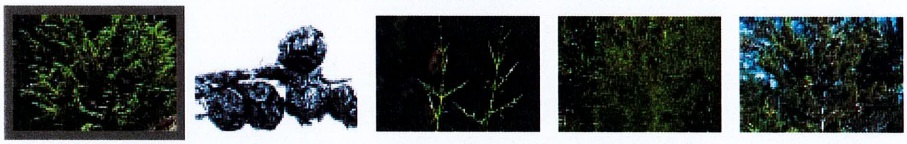

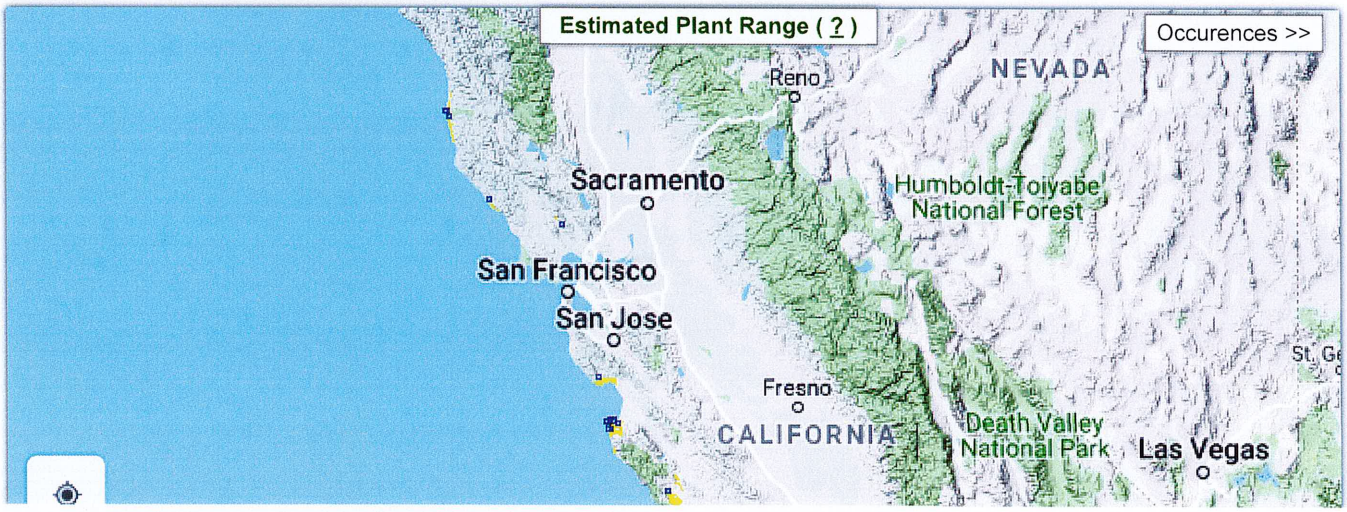

Nurseries >>

About Gowen Cypress (Hesperocyparis goveniana)

Cupressus goveniana, now reclassified as Hesperocyparis goveniana, with the common names Californian cypress and Gowen cypress, is a species of cypress, that is endemic to California. The tree is endemic to the Monterey Peninsula in coastal Monterey County, located on the Central Coast of California, in the Western United States. The tree is found in small, scattered populations, and not in large forests of its species. Hesperocyparis goveniana occurs with Hesperocyparis macrocarpa (Monterey cypress), in the two groves where the Monterey cypress is known to occur naturally, in Monterey County. It is on the IUCN Red List of endangered species. Hesperocyparis goveniana is an evergreen tree with a conic to ovoid-conic crown, very variable in size, with mature trees of under 1 m (3 ft 3 in) on some sites, to 50 m (160 ft) tall in ideal conditions. The foliage grows in dense sprays, dark green to somewhat yellow-green in color. The leaves are scale-like, 2-5 mm (0. 08-0. 20 in) long, and produced on rounded (not flattened) shoots. The seed cones are globose to oblong, 11-22 mm (0. 43-0. 87 in) long, with 6 to 10 scales, green at first, maturing brown or gray-brown about 20-24 months after pollination. The cones remain closed for many years, only opening after the parent tree is killed in a wildfire, thereby allowing the seeds to colonize the bare ground exposed by the fire. The male cones are 3-5 mm (0. 12-0. 20 in) long, and release pollen in February/March. Typically, cones of H. goveniana are smaller than those of H. macrocarpa. Taxonomy. The varieties or subspecies, formerly included under Cupressus goveniana by some botanists, include:Cupressus goveniana var. goveniana - reclassified as Hesperocyparis goveniana. Monterey County, strictly coastal, within 3 km (1. 9 mi) of the coast and below 200 m (660 ft) altitude. Foliage dark green, not rough, with leaf tips not spreading; cones globose. Cupressus goveniana var. pigmaea, reclassified as Hesperocyparis pygmaea - Mendocino cypress (vulnerable species). Mendocino and Sonoma counties, coastal, within 10 km (6. 2 mi) of the coast and below 500 m (1,600 ft) altitude. Cupressus goveniana var. abramsiana, reclassified as Hesperocyparis abramsiana - Santa Cruz cypress (endangered species). Santa Cruz and San Mateo counties, in the Santa Cruz Mountains 10-20 km (6. 2-12. 4 mi) inland and at 300-760 m (980-2,490 ft) altitude. With yellow-green foliage slightly rough-textured from the acute and slightly spreading leaf tips; cones often oval.

Plant Description

Plant Type	Tree
Max. Height	82 - 164 ft (25 - 50 m)
Dormancy	Evergreen
Native Status	Native - Rare

Natural Setting

Site Type	Cliffs and steep slopes
Sun	Sun, Part Shade
Elevation ?	14' - 2330'
Annual Precip. ?	15.8" - 49.5"
Summer Precip. ?	0.24" - 0.83"
Coldest Month ?	41.1° F - 51.7° F
Hottest Month ?	58.4° F - 76.7° F
Humidity ?	0.01 vpd - 24.89 vpd
Butterflies ?	

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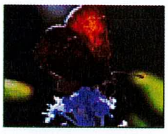

Muir's Hairstreak

Callophrys muiri

Olive Hairstreak

Callophrys gryneus

Landscaping Information

Ease of Care	Moderately Easy
Common uses	Deer Resistant
Nursery Availability	Rarely Available
Nurseries SEE MAP >>	East Bay Wilds

Other Names

Botanical Names	Cupressus goveniana ssp. goveniana,Callitropsis goveniana
Common Names	Californian Cypress

Sources include: Wikipedia. All text shown in the "About" section of these pages is available under the Creative Commons Attribution-ShareAlike License. Plant observation data provided by the participants of the California Consortia of Herbaria, Sunset information provided by Jepson Flora Project. Propogation from seed information provided by the Santa Barbara Botanical Garden from "Seed Propagation of Native California Plants" by Dara E. Emery. Sources of plant photos include CalPhotos, Wikimedia Commons, and independent plant photographers who have agreed to share their images with Calscape. Other general sources of information include Calflora, CNPS Manual of Vegetation Online, Jepson Flora Project, Las Pilitas, Theodore Payne, Tree of Life, The Xerces Society, and information provided by CNPS volunteer editors, with special thanks to Don Rideout. Climate data used in creation of plant range maps is from PRISM Climate Group, Oregon State University, using 30 year (1981-2010) annual "normals" at an 800 meter spatial resolution.

Links: Jepson eFlora Taxon Page CalPhotos Wikipedia Calflora


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