



# COAST RIDGE ECOLOGY

BIOLOGICAL SURVEYS • MONITORING • PERMITTING • RESEARCH

April 11, 2015

Dennis Thomas  
San Mateo Real Estate, Inc.  
1777 Borel Place, Suite 330  
San Mateo, CA 94402

***RE: Results of 2015 Rare Plant Surveys and Update on Mission Blue / Pardalis Blue Butterfly Habitat and Nesting Raptor Surveys on the Ascension Heights Subdivision Project Site in San Mateo County, California.***

Dear Mr. Thomas,

Per your request, we conducted rare plant surveys, nesting raptor surveys and assessed Mission blue /Pardalis blue butterfly habitat on the proposed Ascension Heights Subdivision Project in San Mateo County, California. The results are provided herein.

## **2015 RARE PLANT SURVEYS**

These surveys were timed to coincide with the periods when these plants would be the most visible and detectable by botanical surveyors. The approximately 13.3 acre project site is located within the unincorporated community of San Mateo Highlands at the northeast corner of Bel Aire Road and Ascension Drive. The project site is largely undeveloped except for a paved road that runs from the north corner at Bel Aire Drive to near the south eastern edge of the site. The paved road provides access to a water tank and a cellular transmitter tower that are surrounded by, but not a part of the project site. Single family residential neighborhoods are the primary land use bounding the project site. Elevations on the site range from approximately 450 feet at the southern corner of the project site to approximately 620 feet at the water tank.

The *Final Environmental Impact Report San Mateo County Ascension Heights Subdivision Project Volume II – Revised Draft EIR* (2014) identified a list of eleven special-status plant species with the potential to occur on the Ascension Heights Subdivision Project site. Four of the species identified - Indian Valley bush-mallow (*Malacothamnus aboriginum*), Arcuate bush mallow (*M. arcuatus*), Davidson's bush-mallow (*M. davidsonii*) and San Francisco campion (*Silene verecunda ssp. verecunda*) - were eliminated from the potential to occur list based on a botanical survey conducted on the site on July 25, 2013 by Analytical Environmental Services. Because the 2013 survey was conducted outside of the time period when the remaining seven species would be evident and identifiable, additional focused botanical surveys were recommended in order to determine potential project impacts to these species. The seven plant species recommended for additional surveys include bent-flowered fiddleneck (*Amsinckia lunaris*), San Francisco collinsia (*Collinsia multicolor*), western leatherwood (*Dirca occidentalis*), San Mateo woolly sunflower (*Eriophyllum latilobum*), fragrant frillary

(*Fritillaria liliacea*), Dudley's lousewort (*Pedicularis dudleyi*) and white-rayed pentachaeta (*Pentachaeta bellidiflora*).

### ***SURVEY METHODS***

Botanical surveys were conducted by botanist Neal Kramer of Kramer Botanical and Patrick Kobernus of Coast Ridge Ecology in spring 2015. Neal Kramer has over 20 years experience conducted botanical and rare plant surveys in the San Francisco Bay Area, and Patrick Kobernus has over 20 years experience conducting rare plant and wildlife surveys within the San Francisco Bay Area. Both Mr. Kramer and Mr. Kobernus have conducted extensive survey work within San Mateo County.

In early March 2015, reference site visits in the vicinity of the proposed project confirmed that western leatherwood, fragrant fritillary and white-rayed pentacheata were evident and identifiable. As a result, a focused survey for these target species was conducted on the project site on March 3, 2015.

In late March 2015, reference site visits within 2 miles of the project site confirmed that bent-flowered fiddleneck, San Francisco collinsia and San Mateo woolly sunflower were evident and identifiable. Although no reference site for Dudley's lousewort was readily accessible in the project vicinity, the closely related warrior's plume (*Pedicularis densiflora*) with similar phenology was observed in full bloom in late March within 3 miles of the project site. Therefore, a second focused survey was conducted on the project site for these four target species on March 27, 2015.

During the March 3<sup>rd</sup> and March 27<sup>th</sup> surveys, Kramer Botanical botanist Neal Kramer and Coast Ridge Ecology biologist Patrick Kobernus walked the entire project site looking for the target special-status plant species. Walking transects were chosen to ensure 100% visual coverage of the entire project area. Although target species were a special focus, the surveys were floristic in nature and all plant species identifiable during the surveys were recorded in a field notebook. A complete list of plant species observed on the Ascension Heights Subdivision project site is included at the end of this report.

### ***RESULTS***

No rare plants, including western leatherwood, fragrant fritillary, white-rayed pentachaeta, bent-flowered fiddleneck, San Francisco collinsia, San Mateo woolly sunflower or Dudley's lousewort were found on the project site during the two March 2015 rare plant surveys. Based on these results, we conclude that the proposed development project will not adversely impact any of these special-status plant species.

### ***2015 UPDATE ON MISSION BLUE BUTTERFLY HABITAT***

Because the rare plant survey also included a floristic survey of the property to document all plant species encountered, locations of the Mission blue/ Pardalis blue butterfly host plant summer lupine (*Lupinus formosus*) were noted. The patches of this plant species were observed to be consistent with host plant locations observed during the mission blue surveys conducted on the property in 2005, 2008 and 2012 by Coast Ridge Ecology.

During the course of our 2015 rare plant surveys of the property we did not detect any summer lupine within the development envelope of the proposed Ascension Heights subdivision project.

It should be noted that the DEIR for the project misquoted the Mission blue/ Pardalis surveys that were conducted by Coast Ridge Ecology on the project site. The DEIR states (on page 4.3-14) that "**Three** biological surveys for the Mission blue butterfly have occurred on the project site in the spring and summer months of 2005, 2008, and 2012, during which 12 adult butterflies were observed". In actuality, **twenty-four** biological surveys were done over the course of three separate years (2005, 2008 and 2012), including host plant mapping. Within each of these years, multiple surveys were done for Mission blue/ Pardalis blue butterflies on the site, with a total of 24 Mission blue/ Pardalis blue surveys conducted overall. During the course of those surveys, no Mission blue/ Pardalis blue butterflies, or their host plants, were detected within the proposed development envelope of the Ascension Heights project site.

### **2015 NESTING RAPTOR SURVEYS**

The property was walked and surveyed for nesting raptors on March 5, 2015 and April 10, 2015 by biologist Patrick Kobernus. Tree groves on adjacent properties were also searched for any potential raptor nests or nesting activity. The surveys were conducted during the raptor breeding season which is typically from February 15 through August 31. The surveys were conducted from approximately 7:30 AM to 10:00 AM during appropriate weather (clear skies, no wind and air temperatures in the low 50's to upper 60's. The site was walked inspected for any raptor nesting activity (e.g. calling, pair bonding behaviors, nest material carries), as well as any raptor nests. No raptor nests or raptor nesting activity was observed on the property.

Most of the trees on site (mostly *Pinus sp.*) do not provide suitable raptor nesting habitat due to wind exposure and lack of large supportive branches that could support raptor nests. The only raptor activity observed on site was one red-tailed hawk that was observed roosting in the top of a pine tree for approximately 30 minutes during the April 10 survey. During botanical surveys of the site during March and April 2015, a few turkey vultures and red-tailed hawks were observed flying over the site.

The eucalyptus grove on the south side of the property (which is outside the proposed building envelope) provides some potential as nesting habitat for raptors such as red-tailed hawk, red-shouldered hawk and great-horned owl. Within this grove, a few crows were observed within a broken top Eucalyptus tree on the April 10 survey, and they may be building a nest in this location. No raptor activity was observed in this grove of trees.

No special status raptors such as burrowing owls, northern harriers or white tailed kites were observed and it is highly unlikely these species would nest on site due to a lack of suitable nesting habitat.

- Burrowing owls nest on the ground within ground squirrel burrows, or manmade holes/ culverts for nesting. No ground squirrel burrows or suitable habitat to support burrowing owls was observed on site.

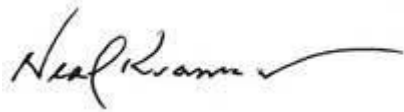
- Northern harriers nest on the ground, mostly within patches of dense, often tall, vegetation in undisturbed areas (MacWhirter and Bildstein 1996). The property is comprised of primarily open grassland and trees, and does not provide the type of dense cover that would support northern harriers.
- White-tailed kites nest within lowland grasslands, agriculture, wetlands, oak-woodland and savannah habitats, and riparian areas associated with open areas. They typically do not nest on steep hillsides, which is the primary topography on the property.

If you have questions regarding this survey report, please don't hesitate to contact us.

Sincerely,



Patrick Kobernus  
Principal and Senior Biologist  
Coast Ridge Ecology



Neal Kramer, M.S.  
Botanist/Ecologist, Certified arborist  
Kramer Botanical

## References

- Kobernus, Patrick, 2014. RE: 2012 Mission Blue Butterfly Surveys at Ascension Heights Project Area, San Mateo, California. Letter from Patrick Kobernus of Coast Ridge Ecology to Mr. Dennis Thomas on February 6, 2014.
- Kobernus, Patrick, 2008. Results of 2008 Mission Blue Butterfly Surveys at Ascension Property San Mateo County, California, Prepared for: San Mateo Real Estate and Construction, Inc., September 12, 2008.
- MacWhirter, R. B., and Bildstein, K. L. 1996. Northern Harrier (*Circus cyaneus*), in The Birds of North America (A. Poole and F. Gill, eds.), no. 210. Acad. Nat. Sci., Philadelphia.
- San Mateo County, 2014. Draft EIR for the Ascension Heights Subdivision Project, San Mateo, California. San Mateo County Planning and Building Department. Prepared by Analytical Environmental Services, April 2014.  
[https://planning.smcgov.org/sites/planning.smcgov.org/files/PLN2002-00517\\_FEIR-Vol2\\_DEIR\\_0.pdf](https://planning.smcgov.org/sites/planning.smcgov.org/files/PLN2002-00517_FEIR-Vol2_DEIR_0.pdf)

## Plant Species List for Ascension Heights Subdivision Project Site

The plant species listed below were observed on the project site during surveys conducted by Kramer Botanical botanist Neal Kramer and Coast Ridge Ecology biologist Patrick Kobernus on March 3 and March 27, 2015. Scientific nomenclature follows *The Jepson Manual* (Baldwin 2012).

\* Indicates introduced non-native species.

<u>Scientific Name</u>	<u>Common Name</u>
<b>AGAVACEAE - Agave Family</b>	
<i>Chlorogalum pomeridianum</i>	soap plant, amole
<b>AMARYLLIDACEAE - Amaryllis Family</b>	
<i>Amaryllis belladonna</i> *	naked lady
<i>Narcissus pseudonarcissus</i> *	daffodil
<b>ANACARDIACEAE - Sumac or Cashew Family</b>	
<i>Toxicodendron diversilobum</i>	poison oak
<b>APIACEAE - Carrot Family</b>	
<i>Foeniculum vulgare</i> *	sweet fennel
<i>Sanicula bipinnatifida</i>	purple sanicula, shoe buttons
<i>Sanicula crassicaulis</i>	Pacifica sanicula
<i>Scandix pecten-veneris</i> *	shepherd's needle
<b>ARALIACEAE - Ginseng Family</b>	
<i>Hedera helix</i> *	English ivy
<b>ASTERACEAE - Sunflower Family</b>	
<i>Achillea millefolium</i>	yarrow
<i>Baccharis pilularis</i>	coyote brush
<i>Carduus pycnocephalus</i> *	Italian thistle
<i>Cirsium vulgare</i> *	bull thistle
<i>Crepis vesicaria ssp. taraxacifolia</i> *	Weedy hawksbeard
<i>Erigeron canadensis</i>	horseweed
<i>Erigeron foliosus var. foliosus</i>	leafy fleabane
<i>Gnaphalium californicum</i>	California cudweed
<i>Helminthotheca echioides</i> *	bristly ox-tounge
<i>Heterotheca sessiliflora</i>	golden aster
<i>Hypochaeris glabra</i> *	smooth cat's ear
<i>Hypochaeris radicata</i> *	rough cat's-ear
<i>Logfia gallica</i> *	narrow leaved filago
<i>Pseudognaphalium luteoalbum</i> *	weedy cudweed
<i>Silybum marianum</i> *	milk thistle
<i>Solidago velutina ssp. californica</i>	California goldenrod
<i>Soliva sessilis</i> *	common soliva
<i>Sonchus asper ssp. asper</i> *	prickly sow thistle
<i>Sonchus oleraceus</i> *	common sow thistle
<i>Symphotrichum chilense</i>	Pacific aster
<i>Taraxacum officinale</i> *	dandelion
<i>Wyethia angustifolia</i>	narrow-leaved mules ears

*Rare Plant Surveys, Butterfly Habitat Update and Raptor Surveys for the Ascension Heights Subdivision Project – April 11, 2015*

**BRASSICACEAE - Mustard Family**

*Cardamine oligosperma* bitter cress  
*Hirschfeldia incana\** summer mustard

**CAPRIFOLIACEAE - Honeysuckle Family**

*Symphoricarpos mollis* creeping snowberry

**CARYOPHYLLACEAE - Pink Family**

*Cerastium glomeratum\** mouse-eared chickweed  
*Silene gallica\** common catchfly, windmill pink

**CELASTRACEAE - Staff-Tree Family**

*Maytenus boaria\** mayten

**CISTACEAE - Rock-Rose Family**

*Cistus incanus\** rock-rose

**CONVOLVULACEAE - Morning-Glory or Bindweed Family**

*Calystegia subacaulis* stemless/hill morning-glory

**CUCURBITACEAE - Gourd Family**

*Marah fabaceus* California man-root

**CUPRESSACEAE - Cypress Family**

*Hesperocyparis macrocraipa\** Monterey cypress  
*Sequoia sempervirens* coast redwood

**CYPERACEAE - Sedge Family**

*Carex spp.* sedge

**DIPSACACEAE - Teasel Family**

*Dipsacus sp.\** teasel

**DRYOPTERIDACEAE - Wood Fern Family**

*Dryopteris arguta* coastal wood fern

**EUPHORBIACEAE - Spurge Family**

*Euphorbia peplus\** petty spurge

**FABACEAE - Legume Family**

*Acacia longifolia\** Sydney golden wattle  
*Acacia dealbata\** silver wattle  
*Acmispon wrangelianus* calf lotus  
*Genista monspessulana\** French broom  
*Lotus corniculatus\** bird's foot trefoil  
*Lupinus bicolor* miniature lupine, Lindley's annual lupine  
*Lupinus formosus var. formosus* summer lupine  
*Lupinus succulentus* arroyo lupine  
*Medicago polymorpha\** burclover  
*Trifolium campestre\** hop clover  
*Trifolium subterraneum\** subterraneum clover  
*Vicia americana var. americana* American vetch  
*Vicia sativa\** common vetch  
*Vicia villosa\** hairy/winter vetch

**FAGACEAE - Oak Family**

*Quercus agrifolia* coast live oak

**GERANIACEAE - Geranium Family**

*Erodium cicutarium\** red-stemmed filaree  
*Erodium botrys\** broad-leaved filaree  
*Geranium dissectum\** cut-leaved geranium

**IRIDACEAE - Iris Family**

*Freesia refracta\** freesia  
*Sisyrinchium bellum* blue-eyed-grass

Rare Plant Surveys, Butterfly Habitat Update and Raptor Surveys for the Ascension Heights Subdivision Project – April 11, 2015

**JUNCACEAE - Rush Family**

<i>Juncus occidentalis</i>	Western rush
<i>Juncus patens</i>	common/spreading rush
<i>Luzula comosa</i>	wood rush

**LAMIACEAE - Mint Family**

<i>Clinopodium douglasii</i>	yerba buena
<i>Lavendula sp.*</i>	lavender
<i>Rosmarinus officinalis*</i>	rosemary
<i>Stachys sp.</i>	hedge nettle

**LAURACEAE - Laurel Family**

<i>Umbellularia californica</i>	California bay
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**LINACEAE - Flax Family**

<i>Linum bienne*</i>	Narrowleaf flax
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**MALVACEAE - Mallow Family**

<i>Sidalcea malviflora ssp. laciniata</i>	checker bloom
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**MONTIACEAE - Miner's Lettuce Family**

<i>Claytonia perfoliata ssp. perfoliata</i>	miner's lettuce
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**MYRTACEAE - Myrtle Family**

<i>Eucalyptus globulus*</i>	blue gum
<i>Eucalyptus polyanthemos*</i>	silver dollar gum
<i>Eucalyptus sideroxylon*</i>	red ironbark

**ONAGRACEAE - Evening primrose Family**

<i>Taraxia ovata</i>	sun cup
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**OROBANCHACEAE - Broom-Rape Family**

<i>Bellardia trixago*</i>	bellardia
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**OXALIDACEAE - Oxalis Family**

<i>Oxalis pes-caprae*</i>	Bermuda buttercup
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**PAPAVERACEAE - Poppy Family**

<i>Eschscholzia californica</i>	California poppy
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**PINACEAE - Pine Family**

<i>Pinus halepensis*</i>	Aleppo pine
<i>Pinus pinea*</i>	Italian stone pine
<i>Pinus radiata*</i>	Monterey pine

**PLANTAGINACEAE - Plantain Family**

<i>Plantago lanceolata*</i>	English plantain
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**POACEAE - Grass Family**

<i>Aira caryophyllea*</i>	silver hair grass
<i>Avena barbata*</i>	slender wild oat
<i>Brachypodium distachyon*</i>	Annual false brome
<i>Briza minor*</i>	little quaking grass
<i>Bromus carinatus var. carinatus</i>	California brome
<i>Bromus diandrus*</i>	ripgut brome
<i>Bromus hordeaceus*</i>	soft chess
<i>Bromus laevipes</i>	woodland brome
<i>Cenchrus echinatus*</i>	southern sandbur
<i>Cortaderia jubata*</i>	pampas grass
<i>Danthonia californica var. californica</i>	California oatgrass
<i>Ehrharta erecta*</i>	upright veldtgrass
<i>Elymus glaucus</i>	blue wildrye
<i>Festuca bromoides*</i>	six-week fescue
<i>Festuca perennis*</i>	rye grass
<i>Hordeum marinum ssp. gussoneanum*</i>	Mediterranean barley

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<i>Hordeum murinum</i> ssp. <i>leporinum</i> *	barnyard foxtail, foxtail barley
<i>Phalaris aquatica</i> *	Harding grass
<i>Poa annua</i> *	annual bluegrass
<i>Stipa pulchra</i>	purple needlegrass
<b>POLYGONACEAE - Buckwheat Family</b>	
<i>Eriogonum nudum</i>	naked buckwheat
<i>Rumex acetosella</i> *	sheep sorrel
<i>Rumex crispus</i> *	curly dock
<i>Rumex pulcher</i> *	fiddle dock
<b>PROTEACEAE - Protea Family</b>	
<i>Grevillea rosmarinifolia</i> *	rosemary grevillea
<b>PTERIDACEAE - Brake Family</b>	
<i>Pentagramma triangularis</i> ssp. <i>triangularis</i>	goldback fern
<b>RANUNCULACEAE - Buttercup Family</b>	
<i>Ranunculus californicus</i>	California buttercup
<b>ROSACEAE - Rose Family</b>	
<i>Chaenomeles</i> sp.*	quince
<i>Cotoneaster lacteus</i> *	Parney's cotoneaster
<i>Cotoneaster pannosus</i> *	silverleaf cotoneaster
<i>Heteromeles arbutifolia</i>	toyon, Christmas berry
<i>Horkelia californica</i>	horkelia
<i>Pyracantha angustifolia</i> *	pyracantha
<i>Prunus cerasifera</i> *	cherry plum
<i>Rosa multiflora</i> *	multiflora rose
<i>Rubus ursinus</i>	California blackberry
<b>RUBIACEAE - Madder Family</b>	
<i>Galium aparine</i>	goose grass, bedstraw
<i>Sherardia arvensis</i> *	field madder
<b>THEMIDACEAE - Brodiaea Family</b>	
<i>Dichelostemma capitatum</i> ssp. <i>capitatum</i>	blue dicks