

Arielle Simmons
ERS 185
Lab #7

2a)

Classes	Plant #	Common Name	Species Name	Location	General Characteristics
Herbaceous	#15	Grass	N/A	Central Park Lawn	Spiky, upright bright green leaves
	#4	English Ivy	<i>Hedera helix</i>	Roadside Planter	Dense, dull green broad leaves
	#19	Ice Plant	N/A	Central Park Flower Garden	Dusky white-green leaves
	#6	Clover	N/A	Plot in front of Davis Community Church	Dense, bright green flat leaves
	#8	Bunch Grasses	N/A	Parking lot adjacent to Davis Community Church	Long, bright green clumping leaves
Shrub	#7	N/A	N/A	South edge of 1st and B Street	Dusky Green Leaves
	#10	Hedge	N/A	Central Park, Eastern Planter	Circular, strong green leaves
	#11	Holly Bush(?)	N/A	Plot in front of Davis Community Church	Small red berries, loose rectangular structure
	#14	Unknown Shrub	N/A	Intersection of 1st and Richards	Dense canopy, yellow-green leaves
	#20	Hedge	N/A	E and Second	Pruned, rectangular structure
Broadleaf tree	#3	So. Magnolia	<i>Magnolia grandiflora</i>	E Street, Next to the River City Bank	Bright glossy green, dark trunk, Evergreen
	#12	English Elm	<i>Ulmus procera</i>	B Street, Across from Central Park	Dark rough trunk, deciduous
	#13	Pecan	<i>Carya illinoensis</i>	E Street, NorthEast corner of Central Park	Smooth stippled bark, deciduous
	#9	Eastern redbud	<i>Cercis canadensis</i>	Northeast corner of D & 2nd Street	Rough brown bark, some red foliage, deciduous
	#2	Elm	<i>Ulmus spp.</i>	E Street, Next to Baskin Robbins	Warty white-brown bark, some sharp oblong green leaves
Coniferous tree	#16	Deodar Cedar	<i>Cedrus deodara</i>	Southeast Corner of Central Park	Slender, clustered hunter green needles
	#1	Himalayan Spruce	(3rd and Spencer Alley	Short-needles, cylindrical draping branches
	#5	Unknown pine	<i>Pinus spp.</i>	E street and 1st	Clumped branches of bright short needles
	#17	Italian Cypress	<i>Cupressus sempervirens</i>	North end of Central Park	Pointy spear shaped structure
	#18	Coast Redwood	<i>Sequoia sempervirens</i>	East end of Central Park, across street	Layered/Tiered branches, wide canopy

2a-b) Continued: Decipher between the different life forms

Herbaceous:



Urban Imagery (0.5 ft)



Urban Imagery (0.5 ft)



Sample #8 (Bunch Grasses)

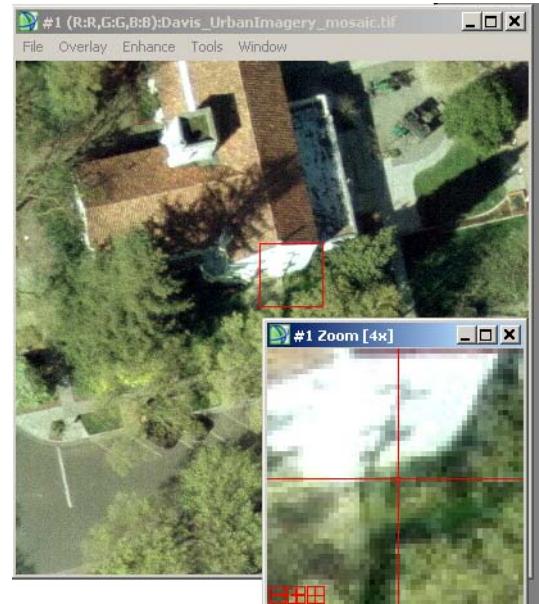


Sample #19 (Ice Plant)

Shrub:



Urban Imagery (0.5 ft)



Urban Imagery (0.5 ft)



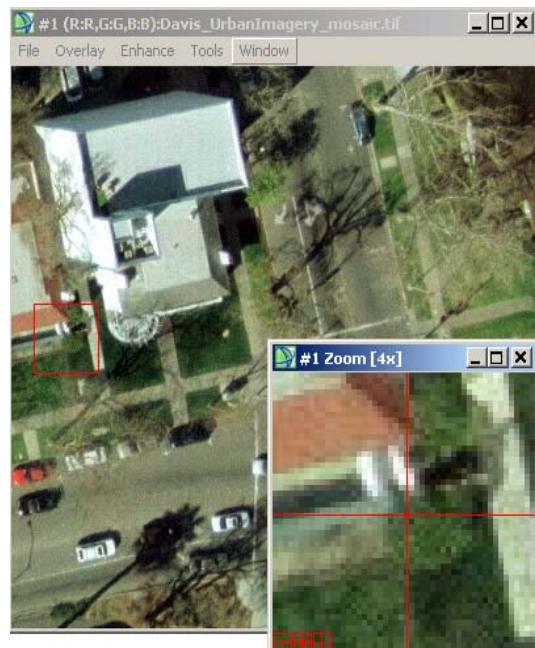
#10 (Hedge)



#11 (Holly Bush?)



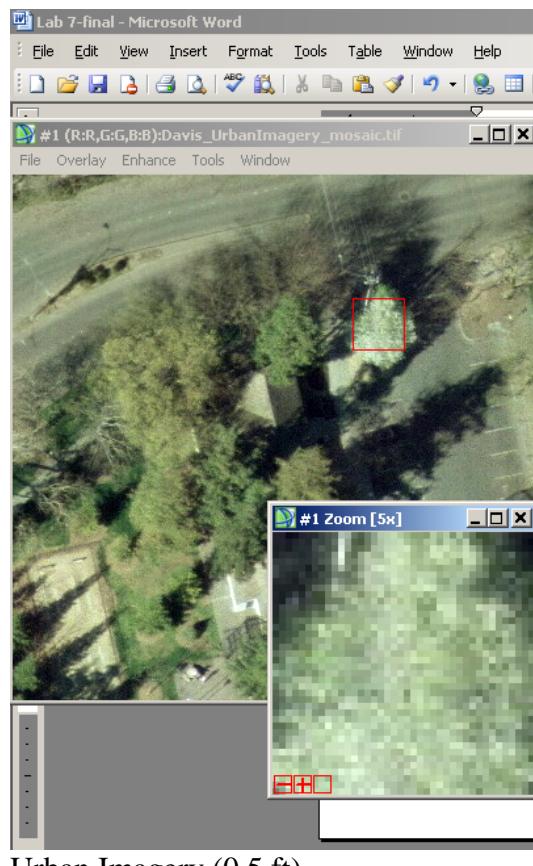
Urban Imagery (0.5 ft)



Urban Imagery (0.5 ft)



Broadleaf Tree



Urban Imagery (0.5 ft)



Urban Imagery (0.5 ft)



#13 (*Carya illinoensis*)



#3 (*Magnolia grandiflora*)

Coniferous Tree



Urban Imagery (0.5 ft)



Urban Imagery (0.5 ft)



#16 (Cedrus deodara)



#1 (Picea smithiana)

a.

Life Form Pair	DOQ	NAIP	Urban Imagery	NAPP
Herbaceous	#8 has a radial, coarser texture then #19.	#8 is very green, and #19 is a white shade. #8 has a coarser texture and outline.	#8 is very green, and #19 is a white shade.	#8 is a bright red and #19 is more brown.
Shrub	#10 has a coarser, sparser texture then #14.	#10 is a dark green, #14 is a bright green.	#10 is a dark green, #14 is a bright green.	#10 light orange, bright. #14 dark orange.
Broadleaf Tree	#3 has a smooth texture, #13 has a coarser texture.	#13 is a very strong green in the NAIP image (more of a dusky color in the Urban image). #3 is a bright, yellow-green. #13 has a coarser texture than #3.	#13 is a dusky deep green, #3 has a paler yellow-green contrast.	#3 green-brown, #13 is red-brown.
Coniferous tree	#16 has a coarser texture than #1.	#1 is a dark green, #16 is a lighter green.	#1 is a dark green, #16 is a lighter green.	#1 brown-red color, #16 light brown.

b. Relative to the panchromatic DOQ and to each other, what is gained with true-color and color-infrared (CIR) photography for life form identification.

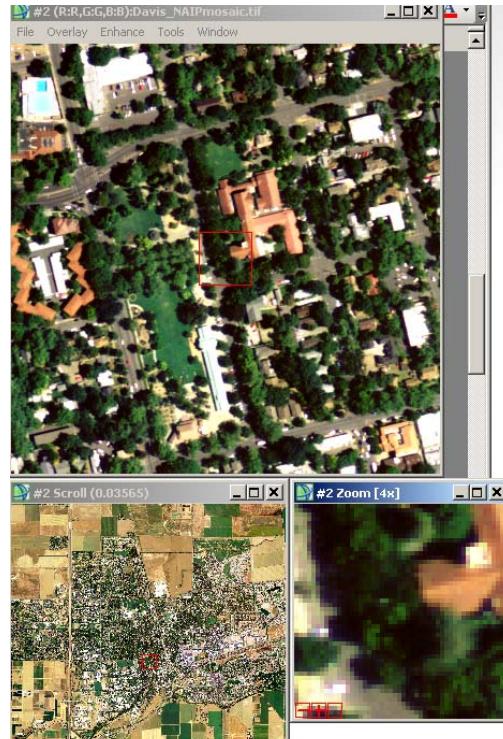
Mainly, spectral information. With the black-and-white DOQ I was mostly identifying things by texture, pattern, shape, and size (and location, by going off my field notes/map.) With the true-color and CIR image I was able to observe shadows more clearly, and interpret tone/color (which was very useful, especially when I was dealing with trees that looked very similar in the black-and-white, but completely different in true-color and CIR).

c. Compare the 1m and 0.5ft true-color images. What is gained with the extreme high-resolution imagery? Did you use different diagnostic features for these two photos, which have the same color bands but different spatial resolutions?

With the 0.5 ft image I could see shadow shapes much more clearly, and also visualize canopy/leave structures (i.e. a tiered pine vs a branching spruce) much more clearly. The color was also much more muted in the Urban Imagery (.5ft) and less intense than the true-color NAIP and the color infrared NAPP (1-1.75 m). The intense colors of the +1m images (even when I played with the contrast) didn't really help me much in identifying textures and plant features (See below).



DOQQ (1m) Panchromatic



NAIP (1m) True Color



NAPP (1.75m) CIR



NAIP

vs Urban Imagery

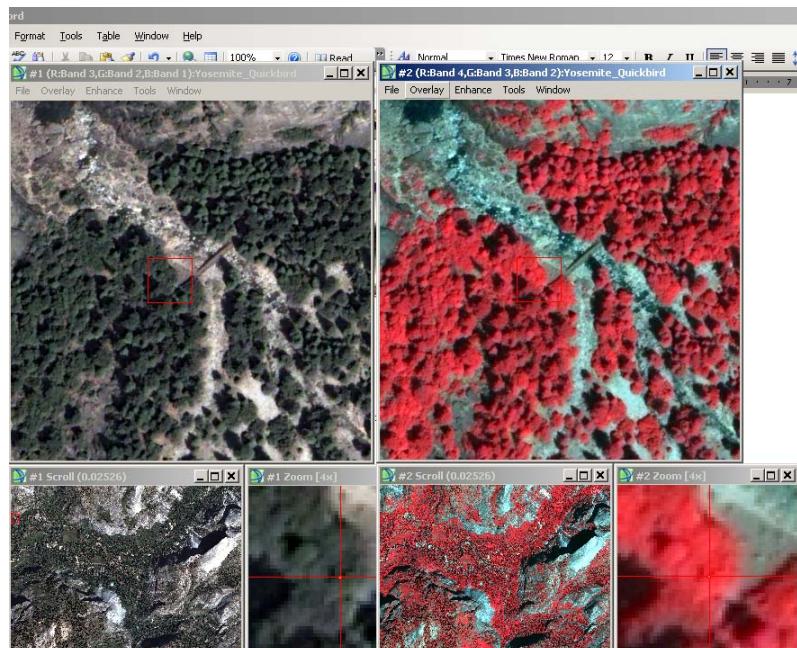
(NOTE: The branch structure is less apparent on the NAIP 1m image)

3. Photo Interpretation of Yosemite Vegetation

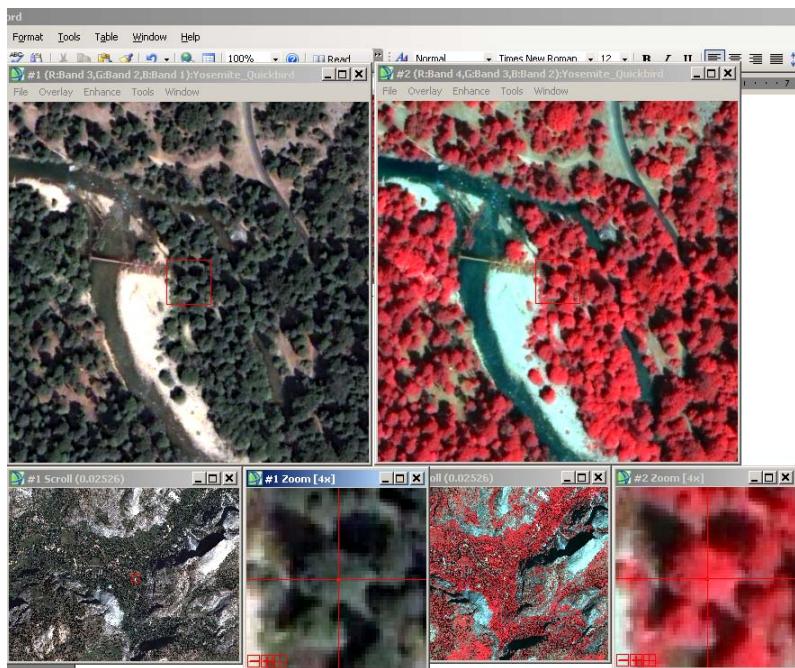
Herbaceous: 2, 3, 11, 13, 15

Coniferous Trees: 9, 8, 12, 4, 5

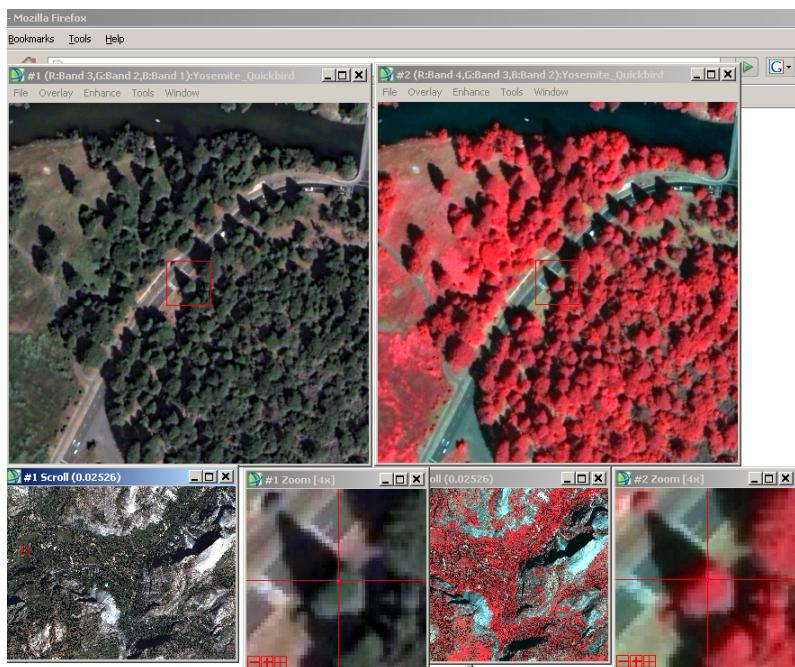
Broadleaf: 1, 6, 7, 10, 14,



Point #4 on the Yosemite Vegetation



Point #5 on the Yosemite Vegetation (**Broadleaf was a brighter red than Coniferous trees**).



Point #9 (**I could tell that this tree was coniferous by the conical shadow it cast**)