

# PLB 116 Winter 2009

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Created on: 11/13/2008  
Sections:  
Lab rooms:

## Lab 1 Review Of Anatomy And Life Cycle

Jan 6, 2009

Quantity	Plant Material	Date planted	Days	Directions
1	Equisetum	Jan 6, 2009		
1	Fern	Jan 6, 2009		
1	Fern	Jan 6, 2009		
	Fern gametophytes. Some with	Jan 6, 2009		
	Pine branch with old cones	Jan 6, 2009		

## Lab 2 Charophyta, Bryophytes, Rhyniophyta

Jan 8, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Anthoceros (hornwort)	Jan 8, 2009		
	Chara or Nitella	Jan 8, 2009		
	Coleochaete on slides, started 11/20	Jan 8, 2009		
	Japanese Psilotum with sporangia on tips.	Jan 8, 2009		
	Marchantia w/sporophytes	Nov 27, 2008	42	For student dissection
	Marchantia with Gemmae	Jan 8, 2009		
	Moss w/sporophytes	Jan 8, 2009		For student dissection
	Moss with tiny, upright sporophytes.	Jan 8, 2009		

## Lab 3 Lycopodium

Jan 13, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Lycopodium lucidulum	Jan 13, 2009		
	Lycopodium squarrosum	Jan 13, 2009		

## Lab 4 Selaginella, Angle Meristem Experiment

Jan 15, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Selaginella hardeiformes (red one)	Jan 15, 2009		
	Selaginella martensii (2 flats)and	Jan 15, 2009		

Selaginella pallescens	Jan 15, 2009
Selaginella sp.	Jan 15, 2009
Selaginella sporelings still attached to	Jan 15, 2009
Selaginella uncinata (blue one)	Jan 15, 2009
Selaginella viticulosa	Jan 15, 2009
Selaginella, many diverse species.	Jan 15, 2009

## **Lab 5 Lepidodendrales**

Jan 20, 2009

Quantity	Plant Material	Date planted	Days	Directions
	100 plastic petri dishes of washed agar, .5X	Jan 20, 2009		
	40 4" pots, labels, and sunshine mix, liter	Jan 20, 2009		
	5 species of fern spores to sow--COLLECT	Jan 20, 2009		
	Fern spores for students	Jan 20, 2009		
	Lycopodium, anything available	Jan 20, 2009		
	Sow fern spores	Jan 20, 2009		

## **Lab 6 Isoetes, Mold Cast Technique**

Jan 22, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Any small plant for molding	Jan 22, 2009		
	Isoetes	Jan 22, 2009		
	Small plant parts for molding demo: petals,	Jan 22, 2009		

## **Lab 7 Psilophyta**

Jan 27, 2009

Quantity	Plant Material	Date planted	Days	Directions
2 pots	Psilotum & gametophytes	Jan 27, 2009		
	Psilotum nudum'Bunryuzan'	Jan 27, 2009		

## **Lab 8 Spenophyta**

Jan 29, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Bring in lots of E. diffusum and one in	Jan 29, 2009		
	E. giganteum	Jan 29, 2009		
	E. giganteum B93.314	Jan 29, 2009		

	E. ramosissimum	Jan 29, 2009		
	E. ramossissimum B85.024 small, near	Jan 29, 2009		
2	Equisetum	Dec 15, 2008	45	Move to warm long days. Weier is good for this.
2	Equisetum diffusum strobili	Dec 20, 2008	40	Dig up and move into greenhouse.
	Equisetum--all available species and	Jan 29, 2009		

## Lab 9 Eusporangiate Ferns

Feb 3, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Angiopteris pinnae	Feb 3, 2009		
	Angiopteris--lg fern in main room	Feb 3, 2009		
	Botrychium	Feb 3, 2009		
	Botrychium--in 2nd fern room B98.084	Feb 3, 2009		
	Danaea	Feb 3, 2009		
	Macroglossum--1st fern room B89.353	Feb 3, 2009		
	Marattia	Feb 3, 2009		
	Marattia fraxinea--2nd fern room B88.074	Feb 3, 2009		
	Ophioglossum	Feb 3, 2009		
2	Ophioglossum	Feb 3, 2009		
	Ophioglossum B59.137	Feb 3, 2009		
	Polypodium chunks	Feb 3, 2009		
	Polypodium plant chunks--lg, hanging in	Feb 3, 2009		

## Lab 10 Filicales

Feb 5, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Adiantum	Feb 5, 2009		
	Asplenium	Feb 5, 2009		
	Asplenium, Cionidium	Feb 5, 2009		
	Cyrtomium	Feb 5, 2009		
	Davallia	Feb 5, 2009		
	Davallia--about 10 inches of rhizomes	Feb 5, 2009		
	Dennstaedtia	Feb 5, 2009		
	Dryopteris	Feb 5, 2009		

Dryopteris, Cyrtomium, Woodwardia w/	Feb 5, 2009
Fern fronds showing soral and sporangial	Feb 5, 2009
Fronds of Polypodium and	Feb 5, 2009
Lygodium	Feb 5, 2009
Lygodium, Osmunda, Dennstaedtia,	Feb 5, 2009
Osmunda	Feb 5, 2009
Pityrogramma	Dec 7, 2008
Platycerium	Feb 5, 2009
Polypodium portions	Feb 5, 2009
Rhizomes of Hypolepis (or Polypodium)	Feb 5, 2009
Rumohra and Cystopteris	Feb 5, 2009
Woodwardia	Feb 5, 2009

60 Move to Weier greenhouse for long warm days.

Can use different genera.

## **Lab 11 Filicales, Marsileales, Salviniiales**

Feb 10, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Azolla	Feb 10, 2009		
	Azolla, Marsilea, Pilularia, Regnellidium	Feb 10, 2009		
	fern gametophytes w/ attached	Feb 10, 2009		
30	Fern Gametophytes with sporophytes	Nov 12, 2008	90	Check Oasis blocks for fern Gametophytes
30	Fern Gametophytes without sporophytes	Nov 12, 2008	90	Check Oasis blocks for fern Gametophytes
	Hypolepis rhizomes to section	Feb 10, 2009		
	Marsilea	Feb 10, 2009		
	Marsilea drummondii sporocarps	Feb 10, 2009		
	<u>Pilularia-check 2 weeks ahead to be sure</u>	Feb 10, 2009		
	Polypodium aureum gametophytes	Feb 10, 2009		
	Polypodium dispersum gametophytes	Feb 10, 2009		
	Regnellidium--west of 61. check with Tim 2	Feb 10, 2009		
	Salvinia--in fern/orchid room and heat	Feb 10, 2009		

## **Lab 12 Seed Ferns And Cycads, Cycad Tour**

Feb 12, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Bowenia (leaf like) B84.298	Feb 12, 2009		

	Cycad seed	Jul 7, 2008	220	Purchase seed if needed.
	Cycads, various plants/male and female	Feb 12, 2009		
3 - 5" pots	Cycas revoluta seedlings	Oct 15, 2008	120	6 seed/pot
2 - 7.5" pots	Dioon seedlings	Oct 15, 2008	120	6-8 seeds/pot, cover with sand.
	Dioon sp. B90.482	Feb 12, 2009		
	Encephalartos horridus (spikey one)	Feb 12, 2009		
	small Cycas revoluta B89.003	Feb 12, 2009		
	small Zamia	Feb 12, 2009		
	Stangeria B 89.006	Feb 12, 2009		
	Zamia pumila	Feb 12, 2009		

### **Lab 13 Cycadales And Ginkgo**

Feb 17, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Cycad seedlings again	Feb 17, 2009		
	Cycads, seedlings and female cones	Feb 17, 2009		
2	Ginkgo	Dec 29, 2008	50	Move to long days.
	Ginkgo--forced tree and 6or 7 18" branches	Feb 17, 2009		

### **Lab 14 Coniferales And Conifer Tour**

Feb 19, 2009

Quantity	Plant Material	Date planted	Days	Directions
	any potted conifers available, including	Feb 19, 2009		
	Araucaria	Feb 19, 2009		
	branches, with cones of: Abies	Feb 19, 2009		
	Calocedrus	Feb 19, 2009		
	Cedrus	Feb 19, 2009		
	Cupressus	Feb 19, 2009		
	Juniperus	Feb 19, 2009		
	lots of 1st and 2nd year cones	Feb 19, 2009		
	Metasequoia	Feb 19, 2009		
	Picea	Feb 19, 2009		
	Pinus coulteri	Feb 19, 2009		
	Pinus halepensis, 2-3 years of cones.	Feb 19, 2009		

Pinus sabiniana	Feb 19, 2009
Pinus torreyana	Feb 19, 2009
Podocarpus, C St bet 5th and 6th	Feb 19, 2009
Pseudotsuga	Feb 19, 2009
Sequoia	Feb 19, 2009
Sequoiadendron	Feb 19, 2009
Taxus	Feb 19, 2009
Thuja, by Mrak	Feb 19, 2009
Torreya, 25 yds west of desert bridge.	Feb 19, 2009

### **Lab 15 Coniferales**

Feb 24, 2009

Quantity	Plant Material	Date planted	Days	Directions
1/4 pound of	Pinyon pine seed	Feb 24, 2009		
3 - 4" pots	Pinyon pine seedlings	Jan 25, 2009	30	5 seed/pot

### **Lab 16 Gnetophyta And Greenhouse Tour**

Feb 26, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Ephedra	Feb 26, 2009		
	Ephedra	Feb 26, 2009		
1	Gnetum	Feb 26, 2009		
1	Gnetum, cones if available	Feb 26, 2009		
1/4 pound of	Pinyon pine seed	Feb 26, 2009		
2 seedlings	Welwitschia seedlings with cotyledons	Dec 13, 2008	75	8 - rose pots pumice w/soil at bottom
	Welwitschia, mature plants, seedlings,	Feb 26, 2009		

### **Lab 17 Angiosperm Wood Anatomy and Floral Development - Stamens And Pollen**

Mar 3, 2009

Quantity	Plant Material	Date planted	Days	Directions
2 plants	Asclepias curassavica flowers	Mar 3, 2009		Enter directions here
	Clematis flowers	Mar 3, 2009		
2	Impatiens w/pollen--yellow and red tubular	Mar 3, 2009		
2	Impatiens, simple pink flower.	Dec 3, 2008	90	4 cuttings
	Tradescantia	Mar 3, 2009		

**Lab 18 Angiosperm Reproduction - Embryo Sac And Embryogeny**

Mar 5, 2009

Quantity	Plant Material	Date planted	Days	Directions
2 - 6"pots	Capsella bursa-pastoris	Jan 22, 2009	42	2 - 6" pots, cover w/sand
2 - 6"pots	Capsella bursa-pastoris	Jan 8, 2009	56	2 - 6" pots, cover w/sand
2 - 6"pots	Capsella bursa-pastoris	Feb 5, 2009	28	2 - 6" pots, cover w/sand

**Lab 19 Angiosperm Reproduction - Fruit And Seeds**

Mar 10, 2009

Quantity	Plant Material	Date planted	Days	Directions
	1 cantaloupe	Mar 10, 2009		
	1 eggplant	Mar 10, 2009		
	1 mango	Mar 10, 2009		
	1 papaya	Mar 10, 2009		
	1 pepper	Mar 10, 2009		
	1 pineapple--but a week early	Mar 10, 2009		
	10 oranges	Mar 10, 2009		
	2 avocados	Mar 10, 2009		
	2 cucumbers	Mar 10, 2009		
	2 nectarine or peach	Mar 10, 2009		
	2 pears	Mar 10, 2009		
	2 plums	Mar 10, 2009		
	4 bananas	Mar 10, 2009		
	4 kiwi	Mar 10, 2009		
20-30 seed	A $\sigma$ clepias sp. seed with dispersal fibers still	Mar 10, 2009		
	bag of apples	Mar 10, 2009		
?	Broad bean seed, Soak for 24 hours.	Mar 10, 2009		Enter directions here
	cherry tomatoes--bsk	Mar 10, 2009		
	coconut	Mar 10, 2009		
1	Corn ear	Mar 10, 2009		Purchase at store
?	Cotton seed, Soak for 24 hours.	Mar 10, 2009		Enter directions here
2 plants	Cucumber flowers	Mar 10, 2009		Enter directions here

?	Cucumber or melon seed, Soak for 24	Mar 10, 2009	Enter directions here
	dried figs--pkg. Aisle 7	Mar 10, 2009	
	get purchase order not to exceed \$75:	Mar 10, 2009	
	grapes, seeded if possible	Mar 10, 2009	
	green beans--handful	Mar 10, 2009	
	Interesting fruits from Tim & Doug	Mar 10, 2009	FRUITS AND SEEDS
	interesting fruits from Tim:Asclepias, Pop	Mar 10, 2009	
?	Lupine seed, Soak for 24 hours.	Mar 10, 2009	Enter directions here
	mixed nuts (purchased around Christmas)	Mar 10, 2009	
	okra, pickled (mild). Aisle 8	Mar 10, 2009	
?	Pea seed, SOAK FOR 24 HOURS.	Mar 10, 2009	
	peanuts--salted in bag. Aisle 7, Farmtown	Mar 10, 2009	
	pomegranate	Mar 10, 2009	
	raspberries or blackberries--bsk	Mar 10, 2009	
	Seeds: peas, kidney beans, corn radish	Mar 10, 2009	
	Seeds: Barley, Fava, Castor bean,	Mar 10, 2009	FRUITS AND SEEDS
	smoked almonds--can	Mar 10, 2009	
	snow peas--handful	Mar 10, 2009	
	strawberries--bsk	Mar 10, 2009	
	sunflower seeds, salted--bag. Aisle 7	Mar 10, 2009	

## Lab 20 Lab Final

Mar 12, 2009

Quantity	Plant Material	Date planted	Days	Directions
	Lab final, no plants requested	Mar 12, 2009		